



ISA WORK PROGRAMME

FOURTH REVISION 2014

ANNEX TO SECTION I

PART 1

Detailed description of actions

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0. INTRODUCTION

This part of the Annex contains, for each of the actions mentioned in the ISA work programme, a more detailed description, giving all elements requested in Article 9, paragraph 4 of the ISA decision (Decision N°922/2009/EC).

1. TRUSTED INFORMATION EXCHANGE

1.1 PROMOTING SEMANTIC INTEROPERABILITY AMONGST THE EUROPEAN UNION MEMBER STATES

Formerly named "Methodologies for the development of semantic assets"

1.1.1 CONTEXT

1.1.1.1 Identification of the action

Type of Action	Project
Type of Activity	Common services
Service in charge	DG DIGIT
Associated Services	EU Publications Office, DG MARE, DG COMP, EUROSTAT.B1, B5

1.1.2 OBJECTIVES

The objective of this action is to promote semantic interoperability amongst the EU Member States (MSs) and the EU Institutions.

This is achieved by:

- Supporting alignments and agreements on common definitions and specifications at the semantic layer.
- Increasing the visibility of existing semantic standards
- Promoting the use of the ISA Core Vocabularies and ADMS at the European, national and local level. Other relevant metadata normalisation activities carried out by the EU Publications Office in cooperation with the other EU institutions and bodies of the EU could be promoted at the member states based on their relevance and endorsement by the ISA Committee or other working group where member states participate..
- Promoting open and linked data approaches and technologies for improving the interoperability of public administration systems.
- Promoting best practices, experiences and lessons-learnt in the area of semantic interoperability and raising awareness on the importance of semantic interoperability and appropriate metadata management policies.

1.1.3 SCOPE

This action covers activities within the ISA programme in relation to semantic interoperability, which has been highlighted as one of the priority areas in the European Interoperability Strategy (EIS). These semantic interoperability activities cover both cross border and cross sector domains.

Relevant services are provided by the Joinup platform which makes available the necessary support infrastructure for the sharing and re-use of semantic assets and brings administrations together to collaborate.

The following activities are not considered within the scope of this Action, as they are covered by other ISA Actions:

- All technical development related to the Joinup platform including the implementation of the federation of interoperability solutions
- Generic community animation and communication activities
- The federation of semantics solutions in the Joinup platform

Consequently, there are links between this Action and the Action for the European Federated Interoperability Repository (EFIR) as EFIR develops and maintains the federation of semantic solutions available via the Joinup platform. Links also exist with Actions on communities building and communication activities.

1.1.4 PROBLEM/OPPORTUNITY STATEMENT

The environment in which data exchange and service execution takes place amongst MSs is very complex contributing many barriers and challenges to the exchange of data during the execution of European Public Services. These barriers include divergent interpretations of the data, lack of commonly agreed and widely used data models, absence of universal reference data (e.g. code lists, taxonomies), the multilingual challenge, etc. Due to these pressures, semantic interoperability becomes an important element in many eGovernment and interoperability national agendas and interesting experience and lessons-learnt can already be shared at a European level.

The Action tries to overcome semantic interoperability problems by:

- documenting what is available in each MS with regards to metadata policies and the management of semantic interoperability assets;
- identifying opportunities for alignment;
- promoting share and reuse of semantic assets, experiences and tools and facilitating agreements in key areas;
- raising awareness on the importance of metadata management;
- identifying and promoting successful practices and tools for linking governmental data;
- developing and promoting common specifications.

In line with the above, the Action has already developed four Core Vocabularies, namely Core Business, Core Person, Core Location, Core Public Service and the DCAT Application Profile (DCAT-AP) with close collaboration with other EU bodies including DG MARKT, Eurojust, JRC and the EU Publications Office. These specifications have been endorsed by the ISA Coordination Group and some have already entered into the standardization process. This work will continue to identify and develop more Core Vocabularies. At the same time real world implementations of the existing vocabularies are supported with several examples with data coming from MSs and different EC/DGs.

Additionally, the Action has developed the Asset Description Metadata Schema as a common vocabulary to describe semantic assets. Based on this schema, a federation of semantic assets repositories has been developed and is available via the Joinup platform. Through the federation users are able to find and reuse semantic assets regardless of the location these assets are stored. The Action will continue providing support to MSs to participate in the federation and use ADMS for describing their own assets. Nevertheless, the EFIR Action becomes the focal place for the federation support to Joinup.

Through this action, the ISA programme sets to achieve a better collaboration between European public administrations towards creating new and promoting existing agreements on the meaning of the exchanged information and on the common use of metadata. Joinup provides the necessary infrastructure for this collaboration while a broad network of stakeholders including several EU bodies like JRC, DG SANCO, DG MARKT, PO, DG TAXUD, DG MARE, DG CONNECT, DG COMP, DG CONNECT and DG JUST actively participate and/or follow the work.

1.1.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States' Public Administrations	<ul style="list-style-type: none"> ○ Access to a European repository of reusable semantic interoperability assets (via the Joinup platform, which will result in improving reuse and enhancing interoperability amongst MSs and EU institutions and bodies ○ Possibility to promote their own semantic interoperability assets ○ Forum to identify opportunities for harmonization at European level ○ A virtual place to share best practices and experiences ○ Core Vocabularies, authority tables, XML schemas and thesauri (such as EuroVoc) ready to be used in public administration information systems development. All these specifications should be endorsed by the member states at the ISA Committee or at the relevant working group level. ○ Pilots to be further expanded to cover operational services ○ Linked data best practices ○ Reduced development costs, <ul style="list-style-type: none"> • due to reuse during the initial development phase • due to less interoperability conflicts while integrating systems or providing cross-agency/domain/country services
IT Services Industry	<ul style="list-style-type: none"> ○ Access to a European repository of reusable interoperability assets ○ Reduced development costs, as explained above.

Beneficiaries	Anticipated benefits
European Commission Services	<ul style="list-style-type: none"> ○ A reference catalogue for semantic interoperability solutions to be used by DG Informatics while developing applications and information systems for the European Commission ○ A platform and central point of reference for collecting, organizing, storing and making available semantic interoperability assets which have been created by various EU entities ○ An infrastructure that allows the MSs and the Commission services to identify conflicts, overlaps, duplication of work and possibilities for alignment amongst and European Commission and the MSs ○ A set of specifications in the form of Core Vocabularies and other relevant tools, such as authority tables, XML schemas and thesauri that can be reused by the EC services to facilitate interoperability among different applications and systems ○ Reduced development costs, as explained above.

1.1.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
Digital Agenda	<ul style="list-style-type: none"> ○ MSs are suggested in part 2.7.4 to “Make eGovernment services fully interoperable, overcoming organisational, technical, or semantic barriers ...”. The Action tries to address the semantic barriers mentioned here. ○ The Action can contribute towards Key Action 14: Propose a recommendation defining a minimum common set of patient data for interoperability of patient records to be accessed or exchanged electronically across MSs by 2012. This effort could be based on the work in the Core Person specification.
eGovernment Action plan	<ul style="list-style-type: none"> ○ 2.2.3 of the Action Plan: “<i>The Commission will conduct a study with the MSs, of the demand for cross-border services and assess the organisational, legal, technical and semantic barriers.</i>” The latest barriers lie at the core of the Action's goal. ○ 2.4.1 of the Action Plan semantic interoperability is mentioned “<i>...as an essential precondition for open, flexible delivery of eGovernment services</i>”. The Action contributes to this end.

Action / Policy	Description of relation
Standardisation activities and organisations	<p>The work foreseen in this Action, especially the part relevant to the identification of alignment opportunities relates to standardization activities. Although the main goal and scope of the Action is to influence the National Interoperability Frameworks and to recommend common specifications in the form of Core Vocabularies to the MSs, standardization organizations has already shown an interest of advancing the agreed specifications towards a formal standardization process.</p> <p>More generally, close links with standardization organizations guarantee that duplication of work is avoided, while existing standards are taken into account and promoted for reuse.</p> <p>As an indication of the relevance and importance of the conducted work, W3C has already taken ISA Core Vocabularies and ADMS into its standardization process. This will result in promoting the above-mentioned specification as international standards in EU and beyond.</p>
Large Scale CIP Pilots, and EU-funded initiatives to create semantic assets	<p>There are several ongoing and concluded EU-funded initiatives that have created and are creating important semantic assets.</p> <p>The ISA Action 1.1 intends to identify and promote these assets. Examples include the INSPIRE Directive, Eurovoc, the European Training Thesaurus, and Large Scale CIP Pilots (e.g. SPOCS, STORK, PEPPOL, ePSOS and eSENS).</p>

Action / Policy	Description of relation
PSI and Open Data	<p>In December 2011, the Commission presented an Open Data Package consisting of a Communication on Open Data, a proposal for a revision of the PSI Directive and new Commission rules on re-use of the documents it holds.</p> <p>In line with the above EC objectives, the Action promotes policies towards Open Metadata by the MSs and the EU services as a support measure for the more general Open Data policy.</p> <p>One of the concrete measures developed to implement this policy entails the setting up of the EU Open data Portal which is operated by the Publications Office of the EU. Among other datasets, the Portal provides access to common authority tables and the EuroVoc thesaurus which can be used to promote semantic interoperability. In addition, this portal is an infrastructure where the Core Vocabularies could be used for making available EU data as linked data, e.g. by using the rdf versions of the Core Vocabularies to annotate and publish the existing relevant datasets as rdf linked data. Moreover, important metadata published via the portal are described with ADMS to improve visibility and reuse. Close collaboration and common activities with the Publications Office of the EU have already started in 2013 and will continue to secure alignment of efforts and concrete results which will become available via the EU Open Data Portal.</p>
ISA Action 1.2 – Access to base registries	The core vocabularies developed by ISA Action 1.1 (Core Vocabularies, ADMS) can be used by registries in order to facilitate the exchange of data.
ISA Action 1.3 – Catalogue of Services	<p>Semantic interoperability is one of the basic prerequisites for building public services and linking up service catalogues.</p> <p>The Core Public Service Vocabulary developed in the course of the ISA Action 1.1, on 11 February 2013, can therefore be used as an input by ISA Action 1.3 in order to develop a Catalogue of Services.</p>
ISA Action 1.11 – Interoperable and Generic Notification Services	GENIS Reference Data building block is likely to be chosen to implement the pilot Reference Data that will be run by ISA Action 1.1.
ISA Action 1.13 – Legislation Editing software - LEOS	Reusable semantic interoperability assets in the area of legislation could be shared with other Public Administrations, at both EU and Member States level.

Action / Policy	Description of relation
ISA Action 1.15 – Open Government Data	The ADMS (Asset Description Metadata Schema) developed by the ISA Action 1.1 has been reused by the Open Government Data portal.
ISA Action 1.16 – Common Information Sharing Environment (CISE)	<p>The methodology defined by the ISA Action 1.1 for defining semantic assets will be reused in the CISE project to define use cases, information services and the associated data formats and semantics. The approach of the CISE project will be based as appropriate on the governance, process and methodology proposed by ISA Action 1.1.</p> <p>Furthermore, under ISA Action 1.1, a pilot has been carried out to demonstrate the potential interest of Linked Data technologies. In this context, it is envisaged to collaborate further with ISA Action 1.1 on the definition of useful core vocabularies for the maritime domain, and on the set up of a platform to disseminate the CISE common data model ("Data Dictionary").</p>
ISA Action 1.17 – Reusable INSPIRE Reference Platform	<p>As part of the CESAR community, ISA Action 1.17 provided contributions to the work of ADMS through the description of semantic assets from INSPIRE Data Themes.</p> <p>In addition, JRC have also been heavily involved in the development and review of the Core Location Vocabulary, that is partly built on elements of INSPIRE.</p>
ISA Action 1.21 – European Legislation Identifier	ISA Action 1.1 will provide support in the course of the ISA Action 1.21, in particular regarding the specification of the semantic attributes.
ISA Action 2.13 – Development of a European Union Location Framework	EULF aims to review semantic interoperability case studies from a spatial perspective, help define cross-border examples and re-use case studies.
ISA Action 2.15 – Interoperability agreements on electronic document and electronic file	ISA Action 1.1 promotes semantic interoperability. The standardized document formats will therefore contribute to this direction.

Action / Policy	Description of relation
ISA Action 4.1.1 – Communication activity	ISA Action 4.1.1 will promote the benefits of semantic interoperability amongst the European Union Member States, using appropriate non-technical language, and different channels (e.g. Communication of the results of the action through support of the annual SEMIC conference, promotion of the ADMS federation and the core vocabularies and provision of communication advice).
ISA Action 4.2.1 – ISA Integrated Collaboration Platform	Joinup acts as a platform to support the objectives of the ISA Action 1.1 (e.g. the catalogue of semantic assets, ADMS and ADMS.SW open specifications, which are used to federated solution from national and international repositories, are available on Joinup.eu).
ISA Action 4.2.2 – Community building and effective use of the collaborative platforms	ISA Action 4.2.2 hosts and manages the SEMIC and CESAR communities of the ISA Action 1.1.
ISA Action 4.2.3 – National Interoperability Framework Observatory (NIFO)	As semantic interoperability is one of the components of the National Interoperability Frameworks (NIFs), the two actions will collaborate closely together to provide feedback to each other accordingly.
ISA Action 4.2.4 – European Federated Interoperability Repository (EFIR)	EFIR builds on the work conducted in the course of the ISA Action 1.1, as the definition of the ADMS will be reused and extended to cover other types of interoperability assets from other EIF layers, e.g. legal, technical and organisational assets.
ISA Action 4.2.6 – Interoperable testbed	One artefact that is typically tested by ISA Action 4.2.6 is eDocuments, linking to the eDocument/eFiles work package of the ISA Action 1.1.
ISA Action 5.2 – EIS Governance support	ISA Action 1.1 represents one of the building blocks of the EIF and has a link with EIS.

1.1.7 ORGANISATIONAL APPROACH

1.1.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
Member States	<ul style="list-style-type: none"> ○ ISA Committee ○ ISA Coordination Group ○ Trusted Information Exchange ISA Working Group ○ Persons/units in charge of National Interoperability Frameworks and/or metadata standards catalogues/repositories, etc. ○ Persons/units in charge of governmental portals
Standardization bodies	<ul style="list-style-type: none"> ○ W3C ○ OASIS ○ GS1 ○ CEN ○ UN/CEFACT ○ ETSI ○ Dublin Core Metadata Initiative ○ EU Interinstitutional Metadata Maintenance Committee (IMMC)
DIGIT	Unit(s) responsible for metadata management
EU Publications Office	<p>The unit responsible for metadata management</p> <p>The unit responsible for the EU Open Data portal</p>
Other EC DGs	Representatives from DGs: a) to identify important semantic assets for reuse, b) to identify opportunities for reusing the ISA Core Vocabularies specifications. Close work has started since 2012/13 with DG MARE and DG COMP in the area of metadata and reference data management and will continue.

1.1.7.2 Communication plan

The Action will create the necessary links with the Communication Action 4.1.1 to coordinate the promotion and dissemination of results to several types of recipients. The Action includes within its plan communication activities which are of technical nature, while Action 4.1.1 will

promote the results to a broader audience, using appropriate non-technical language, and different channels.

Event	Representatives	Frequency of meetings / absolute dates of meetings?
The Action tries to disseminate its work with presentations, posters and panels in the major eGovernment and semantic technologies conferences and events		
The Action will try to raise awareness for the importance of metadata management and alignment in MSs and internally in the EC		
The Action will try to disseminate and promote the use of the Core Vocabularies and linked data best practices in the EU MSs		

1.1.7.3 Governance approach

The Action is run by the European Commission, DG DIGT, B.2 (ISA Unit).

For the work expected in this Action, collaboration with MSs and other stakeholders (e.g. the EU Publications Office, other DGs, other EU institutions, agencies and bodies, standardisation bodies) is considered of critical importance. For this reason, communication with the MSs and third parties will be frequent and their active involvement will be encouraged via invitations for participation in ad hoc groups discussing specialised issues related to the content of the Action. The ISA Trusted Information Exchange Working Group will be the main point of contact and reference for the work foreseen in the Action.

1.1.8 TECHNICAL APPROACH

In 2011, an assessment of the Action results for the period 2008-2010 took place. Based on this evaluation, recommendations were provided. Following these recommendations, the Action provided a clearinghouse and federated access point to a rich collection of reusable semantic assets for public administrations. This federation went live in January 2013. As until September 2013, 22 repositories are participating in the federation making available over 2.000

specifications. Efforts for identifying and registering assets will continue, with clear emphasis on mature and tested assets that are ready for reuse and have cross-border relevance.

Furthermore, the Action will focus on providing results in the following areas:

a) Strategic/policy dimension

i) Raising MSs awareness on the importance of establishing metadata management policies. Relevant good practices amongst MSs will be identified and shared. A metadata management maturity model will be used to help MSs become aware of what needs to be done to further advance their metadata management policies and systems.

ii) Establishing a forum where national semantic interoperability policies and strategies could be identified, and discussed to discover commonalities, conflicts and opportunities for alignment.

iii) Drafting a metadata management policy for the EU institutions with close collaboration with the EU Publications Office, piloting the approach and testing relevant supporting tools/services to DGs which have already expressed an interest in the field, namely DG COMP and DG MARE.

b) Vertical dimension (*alignment*): The Action will use the experience gained in the previous period and continue on drafting, hosting, and maintaining a small set of commonly agreed, generic metadata schemata (Core Vocabularies) to be promoted for direct adoption in NIFs and/or national metadata frameworks/architectures/policies. In the meanwhile, the existing Core Vocabularies together with the pilot implementations which became available in 2012/2013 will be actively promoted in the EU MSs, the EU Institutions and beyond.

c) Horizontal dimension (*coverage*): The Action will continue contributing to the improvement of the infrastructure for the ADMS-based federated portal, which becomes the main goal of the EFIR Action.

1.1.9 COSTS AND MILESTONES

1.1.9.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date	End date
Operational	Provision of the online services via the SEMIC.eu platform including the clearing process, coaching and support activities, collaboration activities as well as all relevant news.	800	ISA	Q3/2010	Q3/2011
Inception	Project Charter, Revision of the SEMIC.eu Roadmap document, to reflect the period 2010 - 2015, highlighting concrete activities for the achievement of this action.	150	ISA	Q3/2010	Q4/2010
Execution	Revision of the Licensing Framework, Quality Framework, Clearing Process Definition to reflect the changes in the SEMIC.eu roadmap and the scope and objectives of this action.	250	ISA	Q4/2010	Q2/2011
Operational	Development, promotion, use of Core Vocabularies	550	ISA	Q3/2011	Q4/2012
Operational	Specifications for the Federation of Semantic Assets Repositories	150	ISA	Q3/2011	Q4/2012
Operational	Specifications for the Federation of OSS Repositories	150	ISA	Q3/2011	Q4/2012

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date	End date
Operational	<p>Identification and registration of new semantic assets, collaboration activities for cross border asset development and sharing, and showcasing real semantic interoperability examples.</p> <p>Maintenance of the online services via the Joinup platform including the clearing process, support activities, collaboration activities, publishing relevant news and community animation.</p>	500	ISA	Q3/2011	Q4/2012
Operational	Continuation of the Core Vocabularies work, emphasizing on promotion and practical implementation activities, enhancement of the federation of the semantic interoperability solutions, identification of conflicts, overlaps and alignment opportunities, collaboration activities for cross border asset development and sharing, showcasing real semantic interoperability examples.	1000	ISA	Q1/2013	Q4/2013

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date	End date
Operational	Continuation of the Core Vocabularies work, emphasizing on promotion and practical implementation activities, enhancement of the federation of the semantic interoperability solutions, identification of conflicts, overlaps and alignment opportunities, collaboration activities for cross border asset development and sharing, showcasing real semantic interoperability examples.	1700	ISA	Q1/2014	Q4/2015
	Total	5.250			

1.1.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010	Operational	300	300
2010	Inception	150	150
2010	Execution	100	100
2011	Execution	150	150
2011	Operational	850	850
2012	Operational	1.000	1.063
2013	Operational	1.000	
2014	Operational	900	
2015	Operational	850	

1.1.10 ANNEX AND REFERENCES

Description	Reference link	Attached document
Federation of Semantic Assets Repositories	https://joinup.ec.europa.eu/catalogue/all?filters=bs_current_version:true	
Core Vocabularies (Core Person, Core Business, Core Location, Core Public Service)	https://joinup.ec.europa.eu/community/core_vocabularies/description	
The DCAT Application Profile	https://joinup.ec.europa.eu/asset/dcat_application_profile/description	
Towards Open Government Metadata	http://www.semic.eu/semic/view/documents/towards_open_government_metadata.pdf	

1.2 ACCESS TO BASE REGISTRIES

1.2.1 CONTEXT

1.2.1.1 Identification of the action

Type of Action	Project
Type of Activity	Common frameworks and reusable generic tools
Service in charge	DG DIGIT, DG MARKT, DG JUST – Directorate B – Unit 2 Criminal Law
Associated Services	DG JUST; DG HOME, DG MARKT, EUROSTAT.G1

1.2.2 OBJECTIVES

Base registries are one of the most important components of basic services, as reliable sources of basic information on different items. In order to create European public services information from base registries from different domains need to be combined. Hence cross-border and cross-sector base registry interoperability is needed. The objective of this action is thus to enable the opening up of base registries across the EU and across different sectors, taking into account specific conditions and restrictions. The action will look at the provision of some generic guidelines and frameworks that can potentially be reutilised for base registry interconnection across-domains and across-borders.

In parallel, the action will support the implementation of generic reusable tools and solutions for effective electronic cross-border communication between public administrations, as related piloting sub actions. Those tools will be developed, tested and adjusted in the context of piloting sub actions in different domains. The design principles for those tools will follow strict principles like interoperability, openness; reusability and flexibility so that domain-specific requirements can be accommodated alter on. This way, those tools will be at disposal of other base registry domains so that they can benefit from those developments and the practical experience gained.

BRIS sub action:

Specifically, one of the sub actions will support the establishment of a search engine for the Business Registers Interconnection System (BRIS) as required by Directive 2012/17/EU¹. According to the Directive, BRIS will be composed of:

- The Member State Business Registers,
- A European Central Platform, which the Commission is responsible to establish and operate, and
- The e-Justice Portal, serving as European Electronic Access Point.

Developing this system for the interconnection of business registers meets the objectives of the ISA program by:

- BRIS will support the exchange of information between business registers, establishing this system is in line with the “trusted information exchange” priority area of the European Interoperability Strategy (EIS).
- Facilitating multilingual access at EU level to information on companies, thus catering for the needs of cross-sector stakeholders, including tax authorities, banks and other financial institutions, investors and other users of business information.
- Providing a tool for the implementation of existing EU legislation.

ECRIS sub action:

The objective of the second sub action (ECRIM) is a feasibility study to assess whether generic IT tools could be (re)used to put criminal record information at the disposal of other registers. The European Union has set itself the objective of providing citizens with a high level of safety within the area of area of freedom, security and justice. This objective includes the exchange of information extracted from criminal records between Member States for criminal proceedings and to prevent criminal offences.

The European Criminal Records Information System (ECRIS) enables an electronic exchange of information extracted from criminal records in an efficient and standardised way between the competent authorities of all EU Member States. The legal basis for ECRIS is Council Framework Decision 2009/315/JHA and Council Decision 2009/316/JHA. ECRIS became operational on 27 April 2012. To date 25 Member States use ECRIS to exchange criminal record information.

The information exchanges relate to two different procedures. The first procedure is that whenever a person is convicted in another Member State than the one of his/her nationality, the information on that conviction needs to be transmitted to the Member State of his/her nationality. This is done through the ECRIS system. The second procedure is where national

¹ See http://eur-lex.europa.eu/smartapi/cgi/sga_doc?smartapi!celexplus!prod!CELEXnumdoc&lq=EN&numdoc=32012L0017

authorities request information from one or more other Member States on previous convictions, independent of nationality. As set out in the ECRIS Framework Decision, ECRIS is used for the exchange of criminal record information for criminal proceedings as well as for other purposes than criminal proceedings.

Since April 2012, the volume of exchanges using ECRIS has been steadily increasing, currently reaching 68.000 messages per month. However, ECRIS has not yet reached its full potential in providing information speedily and comprehensively. Today, the number of interconnections represents 30% of the maximum number of 756 (28 MS x 27 MS) connections achievable. Work remains to be done to achieve full interconnectivity across the EU.

Interaction of ECRIS with national Criminal Record Register and with other registers

The functioning of ECRIS is based on the interaction with national Criminal Records Registers (CRR), in which information on convictions handed down by the national courts is stored. The interaction with the national CRR is complex with regard to:

- The storage of information received from ECRIS into the CRR,
- The transmission of information from the CRR to ECRIS,
- The requests/queries to the CRR.

The storage of information

When information on convictions coming from other EU Member States is received through the ECRIS system, it must be stored in the national CRR. Before storage, access to population- or identity-registers is generally required in order to verify the identity of the convicted person. That means that access to another register is needed before the information coming through the ECRIS system is finally stored in the national CRR. Some MS have automated this process, but a majority are still doing some or most of the work manually.

The transmission of information

When an EU citizen is convicted in another Member State than its Member State of nationality, the information on the conviction must be extracted from the national CRR, before it can be sent through the ECRIS system. That information needs to be formatted before it is transmitted through ECRIS in a notification message to the Member State of nationality of the convicted person. The extraction and formatting process is done manually in a majority of Member States. Only a few Member States have automated this process.

The requests and queries from ECRIS

The interaction of ECRIS with the CRR is even more complex concerning requests for information and responses thereto.

On the side of the responding Member State, when the authorities of one Member State request information about possible convictions from another ECRIS partner, the response can contain information on convictions extracted from the national CRR. In those cases, the information from the national CRR needs to be extracted and formatted before the response to the ECRIS request can be delivered through ECRIS. Some MS have automated this process, but a majority are still doing some or most of the work manually.

The requests and queries from courts

When requests about nationals are made from courts and prosecutor offices, the responses to the requests contains convicting information on convictions from the national CRR but also information received through ECRIS. The information on convictions received through ECRIS needs to be formatted and adapted so that it fits the needs of the requestors. Again only some MS have automated this process.

All these manual data entry activities and manipulation processes are time consuming and require substantial human resources. This limits the volume of ECRIS messages that can be processed and thus hampers the fulfilment of the objectives of ECRIS. To reach a full implementation and a full coverage of ECRIS requires helping MS in the interaction of ECRIS with their CRR.

Even if it is not possible to completely avoid human intervention in the process, it is possible to automate the processes to a maximum. The objective of the ECRIM initiative is to investigate whether a set of generic IT tools could allow MS to create an automated interaction between the ECRIS system and their national CRR.

1.2.3 SCOPE

The action focuses on the existing solutions for cross-sector interoperability of base registries in the individual Member States and on cross-border registry interoperability. Building upon these, the first phase of the study has drawn some good practices for the establishment of cross-border and cross-sector interoperability at the European level.

It has analysed the different governance methods their impact, taking into account all the four interoperability levels defined in the EIF.

In addition, the action is looking at generic frameworks and governance models, guidelines and recommendations that could facilitate base registry interconnection across-domains and across-borders. The analysis is linked to the 4 dimensions of interoperability of the European Interoperability Framework:

- Legal side. Need of having some reference interoperability agreements in place that would set up the rules and obligations for all the entities involved in base registries interconnection and accessing.
- Different organizational structures might have different effects on the cross-sector interoperability of base registries. The studies are examining reference organizational and governance models, related to interconnecting architectures (direct connection to base registries or through brokers or intermediaries) as well as processes in the individual Member States and at the EU level in order to identify best practices and disseminate them among the base registry communities at MS and European level.
- Semantic: Structuring data in common formats and then interpreting it in the same way is one of the major challenges that comes with the interoperability of base registries cross-sector, as each sector usually has done things differently. The study is looking at

what is being done at this level and also come up with strategies. Significant work has been done at this level (for example the Core Vocabularies developed through ISA and now taken on-board by the W3C) and can be leveraged across the different base registries.

- **Technical:** Technical solutions are needed to enable the cross-sector access to base registries through interconnecting infrastructures. Different solutions have been used at national and EU level with various degrees of integration. The study is looking at these different architectural models for base registry access. Particular consideration is being given to solutions based on interconnecting infrastructures like the broker and the bus model.

BRIS sub action:

In parallel, the Business Registers Interconnection System (BRIS) will work on the establishment of a search facility that is one of the main objectives of the BRIS project. As required by the Directive, the e-Justice portal will offer a web interface to a search facility that must allow the end-user (e.g. citizen or representative of public administrations) to gather basic information on companies and branches. This information is held by the Member State business registers.

The **scope of this sub action** covers the modelling, development and technical documentation of a search engine. The intention is to develop a reference implementation of a generic and reusable search engine that allows searching core registry data and retrieving business information that is maintained in the Member States registers systems. The goal is to provide a versatile solution for a search engine that could be used by other base registries interconnection systems with little customisation to reflect those sectoral needs..

ECRIS sub action:

DG JUST developed in 2012 a Reference Implementation software – the so-called *ECRIS RI* – that is to date in use in 20 Member States (soon 24 Member States). The ECRIS RI is a piece of interconnection software which allows Member states to exchange criminal record information with their partners. The ECRIS RI offers an integration interface which by means of web services allows external access to the RI functionalities. This enables the connection of the RI with Member States legacy systems such as the criminal record registers for example.

The scope of this action is to assess the feasibility of developing a European Criminal Records Integration Module (ECRIM) in order to integrate national registers such as criminal record and/or population registers with the ECRIS RI and other national or international systems

interested in criminal records information. The ECRIM would be the next logical step in the interoperability scheme of criminal record registers in the European Union.

1.2.4 PROBLEM/OPPORTUNITY STATEMENT

European public services are meant to ease the daily work of administrations, business and citizens and are usually based on the concept of life events. Life events in many cases cannot be fit into just one specific sector, but often are a combination of different sectors. That is why the cross-sector perspective is very important. In the conceptual model for public services, as it is described in the European Interoperability Framework (EIF), base registries are described as one of the most important components of basic services, as they serve as reliable sources of basic information on different items. In order to create European public services that are based on life events, information from different types of base registries from different domains will need to be combined and hence a cross-sector perspective on base registry interoperability is needed.

The current state of affairs is varied across different countries and sectors and numerous problems and challenges still persist. Often, the same data is structured differently in different base registries leading to significant problems in the interpretation and linking up of this data. One of the benefits of cross-sector interoperability of base registries is that it ensures the consistency of data across the different domains.

At the moment, significant work is being done in interoperability and information sharing among base registries in specific sectors, both at Member State level, and European level. However at European level, work on cross-sector interoperability and information sharing between base registries is very limited. The reasons for this situation need to be identified. Why do some cross-border interoperability solutions for a specific domain manage to break the barriers of heterogeneity and EU interoperable cross-border solutions do not? Likewise, why do some national cross-sector interoperability solutions manage to break the barriers of heterogeneity and EU interoperable cross-border solutions do not?

Some of these questions can be addressed in a generic way by looking at frameworks and governance models, guidelines and recommendations that could facilitate base registry interconnection across-domains and across-borders. Also the implementation of generic reference implementation of generic and reusable search engines and base registry integration platforms and toolkits will contribute to facilitate baser registries interconnection. Those tools will be implemented and tested in real life in the context of the BRIS and ECRIS sub actions.

BRIS sub action:

The sub action on Business Registers Interconnection System takes into account that around 20 million companies exist in the EU, each company being registered in one or multiple countries. There is an increasing demand for access to information on companies in a cross-border context, either for commercial purposes or to facilitate access to justice. However, while official

information on companies is easily available in the country where they are registered, access to the same information from another Member State may be hindered by technical or language barriers.

In these circumstances, facilitating cross-border access to official and reliable company information for creditors, business partners and consumers is necessary to ensure an appropriate degree of transparency and legal certainty in the markets all over the EU. To achieve this, the cross-border cooperation of business registers is indispensable.

- The Directive 2012/17/EU has been adopted to address three main problems:
 1. Lack of up-to-date information in the business registers regarding branches of foreign companies. When establishing the branch the companies are required to disclose data and documents. However they often fail to update this information. This results in obsolete information regarding the company behind the branch, even to the extent that branches will be on the registers, after the company itself has been dissolved.
 2. Difficulties of cooperation on procedures for cross-border mergers. Many communications between the competent authorities are still done via ordinary mail, and predominantly in the language of the issuing authority. This leads to a rather extended process of communication and uncertainty for the involved companies regarding the final registration of the merger.
 3. Difficult cross-border access to business information for the public. Access to the information may be hindered by technical and language barriers, and the information available varies according to the choices made by the relevant Member States.

ECRIS sub action:

As set out in Article 7(2) of the ECRIS Framework Decision, ECRIS may also be used to exchange criminal record information for other purposes than criminal proceedings in accordance with national law.

For example, in the context of Directive 2011/93/EU regarding the sexual exploitation of children, ECRIS may be used for the processing of information on criminal convictions to enable informed decisions to be taken by employers in particular professions such as childcare and early childhood education. The information received through ECRIS needs to be transferred to the employers. Some MS have automated this process, but a majority are still doing some or most of the work manually. There is almost no automation in this sector.

Exchanges of information on criminal convictions can also be necessary in other situations where it needs to be checked whether a person is reliable and has not committed any crimes.

This process may require that criminal records information would need to be included in other specific registers such as business registers or licensing registers managed by licensing authorities. In those cases, it could be necessary for ECRIS to interact with these registers. At the moment, the provision of such information is done partly or completely manually. There is a need to assess whether a generic IT tool could address the issue of automated interconnection between ECRIS and various registers, taking applicable legal restrictions into consideration.

There might also be other areas or other situations where the provision of criminal record information is legally possible and valuable and an interaction between ECRIS and relevant registers is expected. This question needs to be explored further.

As described above, there is a need to investigate what are the needs of the MS for generic IT tools in the interaction of ECRIS with national CRRs, what the architecture of these tools should be, and which set of IT tools can be re-used from existing commercial IT products or which tools need to be developed. In addition, it must be studied whether there is a need for automating access to criminal records information for other purposes, as described under point 2. This is the purpose of the ECRIM (European Criminal Record Integration Module) initiative.

1.2.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States' public administrations	<p>More efficient and effective access to information across borders when establishing European Public Services.</p> <ul style="list-style-type: none"> - Improved cooperation and communication between business registers - Automation of the identification process with a view to reduce the need for human intervention; increased effectiveness of operations in terms of exchanges of criminal records information - Judicial authorities of the in MSs (ECRIM sub-action): better cooperation in the criminal justice and security policy areas - licencing authorities in MSs – easier access to cross-border criminal record information
European Commission Services	<p>Development of software toolset and accompanying blueprint on integration knowledge management will facilitate future automation and integration projects by providing lose blocks of reusable components.</p>
Citizens and enterprises	<p>Reduction of administrative burden</p> <ul style="list-style-type: none"> - Easier cross-border access to Base Registries information (e.g. through the generic search engine, through open data services) - Increased transparency at EU level regarding companies <p>Automation of the handling of requests from EU citizens for their own criminal record information with a view to reduce the need for human intervention.</p>

For the ECRIM sub action, the purpose of the feasibility study to confirm and complete the beneficiaries and the anticipated benefits.

1.2.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
Directive 2012/17/EU	Covers interconnection of business registers and single European access to information on companies
Directive 2003/98/EC + June 2013 revision	Covers the re-use of public sector information and Open Data
Regulation 1346/2000	Commission proposal for revision of the regulation covers the interconnection of insolvency registers
Revised Directive 2004/109/EC	Covers transparency requirements for listed companies and the establishment of European access point for the interconnection of officially appointed storage mechanisms
Directive 95/46/EC	Covers the protection of individuals with regard to the processing of personal data and on the free movement of such data
Directive 2007/2/EC establishing an Infrastructure for Spatial Information in the European Community (INSPIRE)	The study on "interconnection of business registers" took into account the different data from land registries, made available in the framework of INSPIRE.
ISA Action 1.1 – Promoting semantic interoperability amongst the European Union Member States	The re-usable semantic solutions developed by ISA Action 1.1 (Core Vocabularies, ADMS) will be assessed by ISA action 1.2 in order to facilitate the exchange of data.
ISA Action 2.1 – Elaboration of a common vision for an European Interoperability Architecture (EIA)	The European Interoperability Architecture developed by ISA Action 2.1 will be taken into consideration when developing the tools in the pilot domains. On the other hand, ISA Action 1.2 has explored interconnecting architectures for base registries which could be an input for the EIA.
ISA Action 2.13 – Development of a European Union Location Framework (EULF)	ISA Action 2.13 provided an input to the EIA in terms of mapping INSPIRE to the EIA.

Action / Policy	Description of relation
DG JUSTICE Cooperation in judicial and criminal matters policy	<p>This action contributes to the improvement of the exchange on convictions between EU Member States, with the aim of increasing their efficiency and quality.</p> <p>It contributes to the service afforded to EU citizens as individual access to a person's own criminal record is also catered for in Article 6.2 of Council Framework Decision 2009/315/JHA.</p>
DG JUSTICE eJustice Portal	<p>The study on "interconnection of business registers" took into account the work realised in this area by DG JUST, with the e-Justice Portal which is a one stop shop providing access to several systems interconnecting national registers such as IRI (interconnection of the Member States Insolvency Registers) and ECRIS (European Criminal Records Information System).</p>
DG MARKT Working of the internal market policy - IMI	<p>The development of IMI was funded under the IDABC Programme (Interoperable Delivery of European e-Government Services to public administrations, businesses and citizens). It implements the proper working of the internal market by ensuring that all criminal record information is available when relevant for future activities of the offender such as the pre-employment screening. Citizens of the European Union require protection from undesirable individuals who seek employment without a comprehensive criminal record check containing details from all relevant Member States. It is vital, with cross border checks easing, that criminal records checks can be conducted on EU nationals who wish to obtain particular employments. Also, in the case of licensing, this will prevent firearms being obtained by individuals who have certain convictions.</p>
DG HOME Sexual abuse and exploitation of children and vulnerable persons	<p>It contributes to the implementation of an area of security for all citizens in the European Union by ensuring that all criminal record information is available when relevant for future activities of the offender, such as pre-employment screening in relation with children and vulnerable groups.</p> <p>ECRIS is mentioned in the Directive 2011/92/EU combatting the Sexual Exploitation of Children. This Directive will enter into force on 13 December 2013.</p>

For the ECRIM sub action, the purpose of the feasibility study to confirm and identify any impact on any other EU actions/policies.

1.2.7 ORGANISATIONAL APPROACH

The Action is run and coordinated by DG DIGIT B2. The Action belongs under the Trusted Information Exchange Working Group. DG MARKT will be responsible for the sub action related to Interconnection of Business Registers and DG Justice for the one related to ECRIS.

1.2.7.1 Expected stakeholders and their representatives

The Action engages various stakeholders in the European Commission (DGs), the Member States, as well as existing cross-border networks of base registries (such as EBR, EULIS, EUCARIS and others) and particularly the BRIS project.

Stakeholders	Representatives
Member States	<p>Representatives of the departments coordinating BR interconnection at MS level and eGovernment matters. ISA representatives from the various working groups and committees.</p> <p>For the two sub actions, also those involved in Business registers interconnection, BRIS project and ECRIS system (EU Operational Police Officers, judiciary staff and other EU national public administration department)</p>
End users	<p>Citizens</p> <p>Representatives of companies</p> <p>Public administration/competent authorities and other institutions or organisations that use information provided by the business registers or by the criminal record systems (ECRIS)</p>
European Commission	DG MARKT, DG JUST, DG DIGIT

1.2.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
ISA Trust Information Exchange Group	<p>MS representatives in that group</p> <p>DIGIT B2</p> <p>DG MARKET F.2</p> <p>DG JUSTICE – Directorate B – Unit 2 Criminal Law</p>	Twice a year
Company Law Experts Group (CLEG) meetings	<p>Member States representatives</p> <p>DG MARKET F.2</p>	3-4 times a year
Comitology meetings	Member States representatives	As necessary for adoption of implementing acts
Project status meetings	<p>DG MARKET F.2</p> <p>DIGIT B.4</p>	Bi-weekly
ECRIS Expert Group Meeting	<p>MS ECRIS Authorities,</p> <p>European Commission DG JUSTICE</p>	<p>One meeting</p> <p>Date: Q3/Q4 2014</p>

Event	Representatives	Frequency of meetings / absolute dates of meetings?
ECRIS Sectorial Group conference / meeting – to discuss the cross sector aspects	MS ECRIS Authorities, Member States Representatives from the respective sectorial policy area (e.g. Licensing Authorities, etc), European Commission services	A couple of meetings or one conference with several stakeholders Date: Q3/Q4 2014

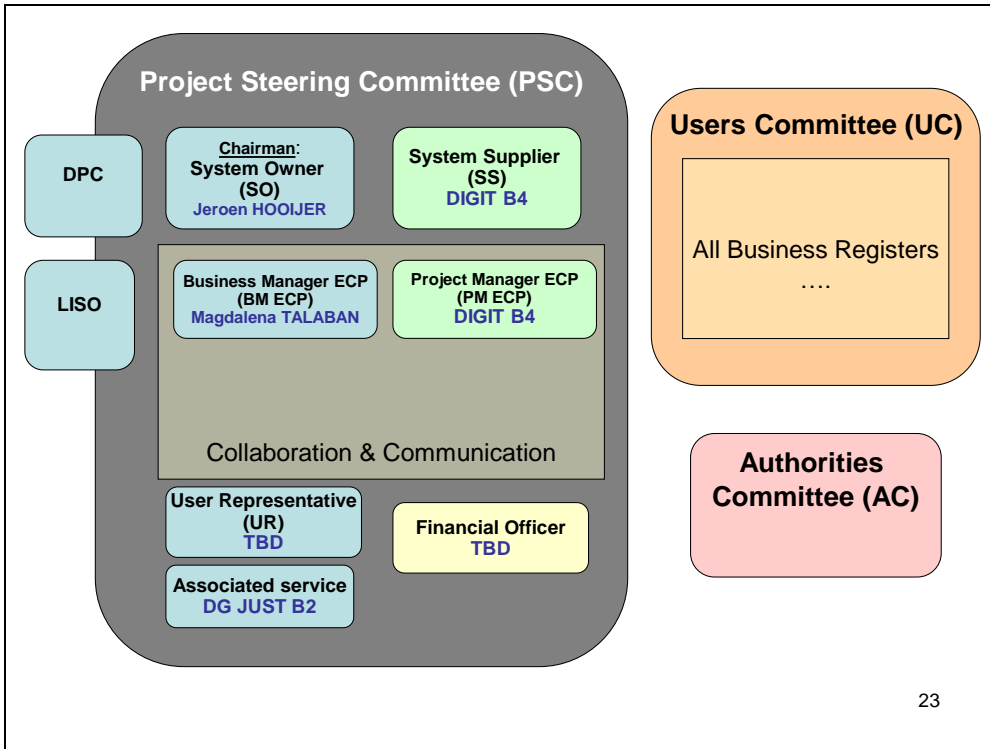
1.2.7.3 Governance approach

The entire action will be coordinated under the ISA TIE WG.

For the BRIS sub action, the Governance approach is based on a Steering Committee composed of DG MARKT (system owner) and DIGIT (system supplier) with the participation of other stakeholders when required - see diagram below. As the search interface will be delivered by DG JUST, they will also be part of the steering committee.

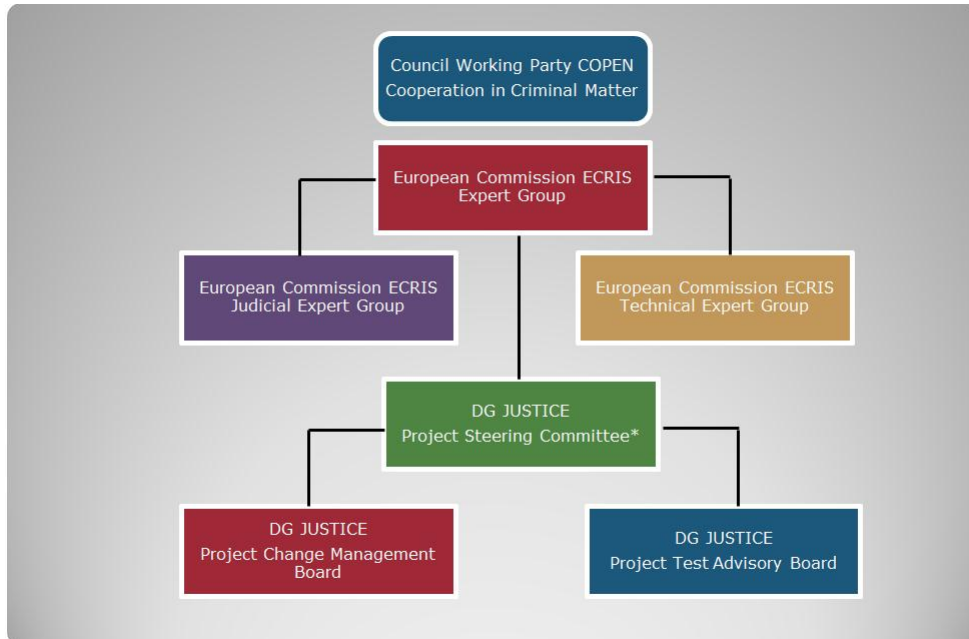
The Steering Committee will:

- Champion the project, raising awareness at senior level
- Guide and promote the successful execution of the project at a strategic level
- Provide high level monitoring and control of the project
- Adopt the project charter
- Follow timely delivery and quality of new developments delivered by the system supplier
- Set priorities, authorise plan deviations, scope changes with high project impact and decide on recommendations
- Arbitrate on conflicts and negotiate solutions to important problems
- Drive and manage change in the organisation
- Ensure adherence to organisation policies and directions
- Approve and sign-off all key management milestone artefacts (vision document, project plan, business case, etc.)



For the ECRIS sub action, the governance process to manage this action is the one established by the Commission communication SEC (2010)1182.

Hereunder follows the Action Governance Diagram.



1.2.8 TECHNICAL APPROACH

The Action has so far resulted in a study producing an assessment model for base registry interoperability and defining a Framework on Access to Authentic Data Sources.

In 2012, the action launched a study on base registry interoperability has focused on the cross-sector requirements for base registries. It has examined the state of play on cross-sector base registry interoperability in the Member States and on cross-border registry interoperability with a specific focus on cross-sector interoperability and integration. It has also identified the interoperability barriers faced by some relevant cross-border initiatives and how they were solved. Special attention has also be given to the legal and governance aspects of the analysed examples. As a result of that, a detailed catalogue of good practices summarises relevant aspects to foster cross-domain and cross-border base registry interoperability. The study consists of three phases:

- The initial phase has looked at the current situation interoperability of base registries and result in a basic overview of the situation of cross-sector interoperability of base registries in the individual Member States and cross-border interoperability.
- Phase 1 has built upon the results of the initial phase and provides in a more detailed description of the cross-sector interoperability of base registries in the Member States and cross-border interoperability. It has examined the situation in each of the four interoperability levels: legal, organisational, semantic, technical. Governance aspects has also be addressed.

Special attention has been paid to broker services that allow the connection and data exchange between base registries and service providers in public domains in a more rational way from an organisational and technical point of view. The study has also looked at the potential of deploying these types of intermediary services at European level in cross border scenarios as well as across domains (especially examining the legal and organisational levels) and the benefits of doing so. Other types of interconnection infrastructures for base registries and the exchange of data like the bus model have also be examined.

- Phase two has produced a list of requirements and good practices like frameworks and solutions that could facilitate the interoperable interconnection of base registries across sectors and across borders. It has also proposed further future actions in this sphere.
- Based on the recommendations and good practices from the previous phase, phase three elaborates some generic frameworks and governance models, guidelines and recommendations that can be used for base registries interconnection across-domains and across-borders. Particular attention is played to those practices focused on fostering interoperability at organisational, semantic and technical level like: feasible governance models and interconnecting infrastructures and architectures; guidelines and examples for implementing interoperability agreements; guidelines for developing

common core vocabulary and semantic metadata models that can accommodate cross-domain and cross-border requirements; and finally design of reusable specifications and solutions for base registries interconnection like search engines and integration toolkits that are implemented in the context of BRIS and ERCIS sub actions.

BRIS sub action

As aforementioned the scope of the BRIS sub action is the development of a generic search engine for the discovery and delivery of data stored in the registries. This development does not include the final web front-end interface that will be used in BRIS but only the search engine and the related concepts and specifications necessary to interoperate with the engine.

In the generic scenario of our proposal, we define “efficient search” as the swift and seamless extraction of data and documents from different sources based on a common set of criteria provided by a user (most probably a human user). In the case of BRIS, these different data sources are the business registers in the Member States. The technical solution will have to account for the fact that certain registries are willing to hand over part of their master data e.g. for indexation purposes, while others are not legally allowed or willing to.

The idea of “generic” also implies the generalisation of the use of the search engine. In other words, base registries other than BRIS could add this search engine onto their systems to allow their end-users to look for information held in those registries. This objective of generalisation will be systematically taken into account from the inception phase through the design and implementation phase.

In order to ensure a high level of reusability of both the service and the exchanged information, the action will assess the feasibility of re-using mechanisms based on existing ISA development such as DCAT-AP and ADMS specifications and the Business Core Vocabularies.

ECRIS sub action:

The requirements and the high level design of the IT tools should be as generic as possible so that the ECRIM tools could, in the future, be re-used for interconnecting other base registers and registers in other sectors. As a first step, a feasibility study will assess in which sector(s) access to criminal records is legally possible and necessary, which benefits automating such access will bring and identify which generic IT tools are needed. This requires a detailed analysis of existing national and EU systems, applicable legislation, and business and administrative practices.

The study will identify the business case for the possible ECRIM tools, as well as business requirements, possible high level architecture(s), applicable risks and restraints, and contain a draft Vision document if possible.

The study constitutes the first step of this initiative. It aims at determining if a generalisation of the requirements and architecture can make the ECRIM tools reusable for the interconnection and integration of other base registers in other sectors. It also aims at assessing if criminal record information is needed in other sectors than Justice and Home Affairs, and can be legally made accessible to such sectors. The study will confirm and complete the assessment of needs, the list of beneficiaries and the anticipated benefits.

1.2.9 COSTS AND MILESTONES

1.2.9.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Study	Framework on access to authentic data sources	300	ISA	Q3/2010	Q2/2011
Study	Cross-Sector and Cross-Border Interoperability Between Base Registries	200	ISA	Q4/2012	Q3/2013
Study	Next steps based on recommendations from previous study: elaboration of some generic frameworks and governance models, guidelines and recommendations for base registry interconnection	390	ISA	Q3/2013	Q3/2015
Study (BRIS sub action)	Study on the interconnection of business registers	250	ISA	Q3/2013	Q1/2014
Execution (BRIS sub action)	Functional specification and implementation of a generic search engine	450	MARKT	Q2/2014	Q1/2015

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Execution (ECRIS sub action)	Feasibility study on the use of generic IT tools to improve cross-border exchanges of criminal records information, as well as assessing the use of such information across multiple sectors (Education, etc.) in consultation with other Commission services	150	ISA	Q2/2014	Q4/2014
	Total	1.740			

1.2.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010	Study	300	300
2011	Study	250 ²	0
2012	Study	200	199
2013	Study	450	
2014	Study, inception, execution	790	

1.2.10 ANNEX AND REFERENCES

Description	Reference link	Attached document
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² tasks originally planned for 2011 have not started due to a 1-year delay in the execution, therefore there is a difference between the anticipated allocations (1740 KEUR) and the annual ISA allocations (1190 KEUR)

Description	Reference link	Attached document
CFD 2009/315/JHA of 26 February 2009 on the organisation and content of the exchange of information extracted from the criminal record between Member States	CFD - 2009/315/JHA	
COUNCIL DECISION 2009/316/JHA of 6 April 2009 on the establishment of the European Criminal Records Information System (ECRIS) in application of Article 11 of Framework Decision 2009/315/JHA	CFD - 2009/316/JHA	
DIRECTIVE 2011/92/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 13 December 2011 on combating the sexual abuse and sexual exploitation of children and child pornography, and replacing Council Framework Decision 2004/68/JHA	Directive 2011/92/EU CFD - 2004/68/JHA	
ECRIS Support Programme 'Report on the Exchange of Criminal Records for Purposes other than Criminal Proceedings', April 2013.	Purposes Other than Criminal Proceedings Report	

1.3 CATALOGUE OF SERVICES

1.3.1 CONTEXT

1.3.1.1 Identification of the action

Type of Action	Study
Type of Activity	Common Frameworks
Service in charge	DG DIGIT
Associated Services	DG MARKT

1.3.2 OBJECTIVES

The main objective of the action is to achieve a certain level of harmonisation around national and European service catalogues that would help European public administrations build cross-border services³.

The specific objective of the present action is to implement a pilot solution to link the Catalogues of public services existing throughout the EU.

1.3.3 SCOPE

A large number of catalogues, portals, etc. have been implemented or are being implemented throughout Europe with no harmonisation among them like for example, in terms of description of public services and the associated information. This lack of harmonisation makes it difficult if not to say impossible to envisage any kind of link between them.

This action does not intend to build yet another catalogue of public services but to achieve a certain level of harmonisation around public service catalogues that would help European public administrations to understand what is available in other PAs and have access to this information (technical, semantic, ...), to interconnect their catalogues, to build cross-border services, ...

1.3.4 PROBLEM/OPPORTUNITY STATEMENT

Member State public administrations provide various types of public services for their citizens and businesses. The provision of cross-border public services would involve the linking up of public services in the various Member States on a European level.

³ This action addresses the ISA programme, Decision No 922/2009/EC of the European Parliament and of the Council [2], in general and in specific article 3 (c) "... the establishment, industrialisation, operation and improvement of new common services, ..." and article 4 (b) "openness", (c) "reusability" and (e) "security".

A European Catalogue of public services is often mentioned as one of the tools that could greatly enhance the building up of cross-border European public services. It would give an overview of what public services are available on the European level and in the Member States and greatly assist in building up of aggregate public services. The European Catalogue of Public Services would not duplicate information already available in existing Catalogues. It would provide a basic list of European public services and federate the various public service catalogues in the Member States.

Lessons can be learned from already existing initiatives. Many organizations already have service catalogues, which are lists of the type of services that that organization provides. There are various best practices set up for service catalogues, for example ITIL Service Catalogues. Some of the Member States have also created their own catalogues of public services. An interesting initiative is the EU financed Smart Cities project, which resulted in the ESD Toolkit and a catalogue of services listing public services in several northern European countries. Many things can be learned from these initiatives.

However, there is, as of today, no standard way of describing and documenting these services. The understanding of services and service implementations are different and even the basic definition of what constitutes a public service differs. On top of this, there is a lack of an overview of what types of services already exist,

1.3.5 1.3.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States' Public Administrations and public service owners	For relevant European national authorities or agencies: the ability to efficiently re-use information available in other Member States. Easier provision of cross-border public services

1.3.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
Services Directive	Aims at establishing a single market for services within the EU
ISA Action 1.1 – Promoting semantic interoperability amongst the European Union Member States	Semantic interoperability is one of the basic prerequisites for building public services and linking up service catalogues. The Core Public Service Vocabulary and the ADMS developed in the course of the ISA Action 1.1, on 11 February 2013, will therefore be used as an input by ISA Action 1.3 in order to develop a Catalogue of Services.

Action / Policy	Description of relation
ISA Action 2.7 – Your Europe - Facilitating the re- use of content from National portals	Your Europe is one of the potential candidates for a European catalogue of services and the life events description will provide input to any future work on the definition of a semantic classification for public services.
ISA Action 4.2.5 – Sharing and re-use strategy	Catalogue of services will provide input to the definition of the sharing and reuse criteria.
SPOCS	SPOCS was one of the Large-Scale Pilots, which was to set up Single Points of Contact and help implement the Services Directive. Deliverables from the SPOCS large-scale pilot were consulted to identify what can be reused in the study on "Catalogue of public services".
Your Europe portal	This portal describes the processes needed to perform the existing cross-border public services that are offered within the European Union using a complete list of life events. The study on "catalogue of public services" will therefore take into account what was done in the Your Europe portal.

1.3.7 ORGANISATIONAL APPROACH

1.3.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
Member States	ISA Trusted Information Exchange Working Group

1.3.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
Presentation to ISA Trusted Information	Member State Representatives	1 presentation at Trusted Information Exchange Group at the end of phase 3

Exchange WG		
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1.3.7.3 Governance approach

The Action is run by DG DIGIT B2. The Action belongs under the Trusted Information Exchange Working Group.

1.3.8 TECHNICAL APPROACH

The action is implemented in 3 phases:

Phase 1 - STUDY 1: Catalogue of Services

The first study assessed the feasibility of setting up a registry for web services (Catalogue of Services) on the European level. The results of this study showed that the situation in the Member States was not sufficiently mature to envisage the implementation of a web services registry at the EU level. Hence, work will be oriented towards a more pragmatic approach, more adequate to the real situation in terms of Catalogues of service in the European Union.

Phase 2 - STUDY 2: Catalogue of Public Services

The new study (on the Catalogue of Public Services) has been done in two iterations:

Iteration 1: Analysis of existing Catalogue of services

The first iteration has included an assessment of current status of catalogues of services in Member States and other outstanding projects at European level. National eGovernment portals were also reviewed to document the different approaches MSs have used for describing and federating public services. This work was partly based on the results of the initial previous study in addition to external papers.

The study has assessed legal, organizational, semantic, and technical issues as well as the challenges and some best practices for overcoming them. A set of common characteristics across the different catalogues have been identified. The results of this analysis will be used as input for action 1.1 to develop a core vocabulary for public service definition and also to define the business needs related to a European Catalogue of Public Services.

Iteration 2: Requirements and Scenarios for a European Catalogue of Public Services

The second iteration has determined the feasibility of building a European Catalogue of Public Services and potentially federating national catalogues to it. It has been identified some possible scenarios for the creation of such federation and what would be the requirements and implications at interoperability level for each of the foreseen scenarios. In addition to this, the studies have analysed several solutions and steps ahead that could support the creation of a European catalogue.

Phase 3 – development of solutions

The action will develop supporting solutions to assist Member States to federate catalogue of public services at national level and at EU level.

Phase 4 – pilot operation

The final part of the action will be a pilot with a limited number of catalogues. In this phase, one of the previously analysed scenarios for building a European catalogue will be tested in real life as a proof of concepts, to verify its viability and also to get valuable information from the practical experience.

1.3.9 COSTS AND MILESTONES

1.3.9.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Study	feasibility study for Catalogue of Services (registry of web services)	200	ISA	Q3/2010	Q4/2011
Study	Study on Catalogue of Public Services	250	ISA	Q4/2012	Q3/2013
Implementation	Further steps and development of solutions	300	ISA	Q4/2013	Q3/2014
Operation	Pilot operation- proof of concept	400	ISA	Q4/2014	Q4/2015
	Total	1150			

1.3.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010	Study	200	200

2011	Study	250	0 ⁴
2012	Study	250	200
2013	Execution	300	
2014	Execution	200	
2015	Operation	200	

⁴ tasks originally planned for 2011 have not started due to a 1-year delay in the execution, therefore there is a difference between the anticipated allocations (1150 kEUR) and the annual ISA funding (1350 kEUR)

1.4 ECAS-STORK INTEGRATION

1.4.1 CONTEXT

1.4.1.1 Identification of the action

Type of Action	Project
Type of Activity	Reusable generic tools
Service in charge	DIGIT.A.3
Associated Services	DG CONNECT, DG MARKT, DG JUST, DG CLIMA

1.4.2 OBJECTIVES

The objective of this action is to enable access to European Union information systems using the user's national e-ID solution with a minimum impact on the information systems themselves.

This would improve user-friendliness, by reducing the number of credentials a user has to rely on, and security, since the national e-ID solution normally relies on artefacts that are stronger than a login name and password.

1.4.3 SCOPE

1. Continuation of the service

The EU PEPS must keep up with the evolution of specifications and requirements. It must connect to additional Member States or participant countries.

Within the context of ISA Action 1.5 (STORK Sustainability), the STORK network will be migrated from pilot mode to production mode both on the governance side and on the technical side. As part of the STORK network, the EU PEPS must take part to this migration.

2. Support for mission critical applications

In a first phase, authentication by means of an eID will only be offered to a limited number of information systems at the European Commission. Some of them are mission critical and require a high degree of security and availability.

3. Generalisation

In a second phase, authentication by means of an eID will be enabled by default for all information systems relying on ECAS for authenticating users.

4. Liaison with STORK 2

Future compatibility with STORK 2 must be foreseen and the EU PEPS must be adapted in order to be able to evolve towards STORK 2 specifications.

1.4.4 PROBLEM/OPPORTUNITY STATEMENT

In a first phase, DIGIT received IDABC funding for the realisation of a pilot interconnection between ECAS (European Commission Authentication Service) and STORK (Secure idenTity acrOss boRders linKed). The purpose was to demonstrate that ECAS is able to consume identities provided by STORK.

In a second phase, DIGIT received ISA funding for consolidating the implementation and transforming the proof-of-concept into an official STORK pilot. Users of CIRCABC have been offered the option to authenticate by means of their eID for demonstration purposes. An alternate authentication mechanism was implemented for users who are not eligible to use STORK so that the population covered matches the one accessing European Commission information systems. The PEPS implemented at the European Commission was established as the official EU PEPS usable by all European institutions and bodies.

On January 1st 2012, a limited set of production applications at the European Commission were planned to be accessible to users who authenticate by means of their national eID. However, the risk implied from using the STORK pilot infrastructure augmented by the difficulty to obtain liability commitments from the participating countries slowed down the process. The following applications intend to authenticate users by means of their eID thanks to ECAS:

- IMI (Internal Market Information System – DG MARKT);
- eFP7 Participant Portal (DG RTD);
- ECI (European Citizen Initiative – DIGIT);
- European e-Justice Portal (DG JUST).

Improving the EU PEPS in terms of stability and user experience is expected to encourage applications that do not have high security requirements to adopt eID authentication.

1.4.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
European Institutions	<ul style="list-style-type: none"> ○ The European Commission demonstrates that it promotes the usage of European initiatives. ○ All ECAS-enabled information benefit from the integration with national eID solutions with a minimal impact (ideally no impact at all). ○ Confidence in the user identity is increased. ○ Development is simplified thanks to the use of a common mechanism for all information systems. ○ Authenticating using an eID is "cooler" than doing so with a login name and password. It improves the image and gives a touch of modernity.
Member States' public administrations	<ul style="list-style-type: none"> ○ Consistency is increased since the same credentials are used to access both national information systems and European Commission information systems. ○ The level of security is automatically aligned with the one provided by the member state itself.

1.4.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
Digital Agenda	<p>Allowing users to authenticate by means of their national eID in order to gain access to European Commission applications helps improve trust and security.</p>
ISA Action 1.5 – STORK sustainability	<p>One of the main goals of this action is to enable the access of public officials and civil servants all over Europe to European Union information systems by using the user's national e-ID solution with a minimum impact on the information systems themselves.</p> <p>Another goal is to deploy production quality code that integrates with the ECAS production instance so that ECAS authentication system can benefit from the ECAS-STORK integration and can be offered to other EC DGs and institutions.</p> <p>To achieve these goals, ISA Action 1.4 relies on the common specifications for eID maintained up-to-date by the ISA Action 1.5.</p>

Action / Policy	Description of relation
ISA Action 1.12 – OSS platform for online collection of statements of support for European citizens' initiatives	ECAS aims to be used by ISA Action 1.12 in order to authenticate and sign statements of support using an electronic identity card.
ISA Action 1.18 – Federated Managed Authentication Services for ECAS	ISA Action 1.18 aims at building on and extending the existing ECAS-STORK integration from natural person authentication to federated role-based access and authorisation.
ISA Action 2.5 – CIRCABC	Both CIRCABC and ECAS-STORK systems are integrated to enable CIRCABC users to authenticate on CIRCABC by means of their national eID.
ISA Action 2.6 – EU Survey	Both EU Survey and ECAS-STORK systems will to be integrated to enable EUSurvey users to authenticate on EUSurvey by means of their national eID.
DG JUST eJustice Portal	The ECAS/STORK integration system will be used to authenticate users of the European e-Justice Portal, by means of their national eID.

1.4.7 ORGANISATIONAL APPROACH

The effort will be carried by DIGIT.A.3 and will require close collaboration with ISA Action 1.5 that will manage the interoperability specifications under the responsibility of DG CONNECT. The ISA Trusted Information Exchange WG will be the interface for managing connections between the EU PEPS and the PEPS running in participating countries.

1.4.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
DIGIT	Adrian Dusa
DG CONNECT	Hubert Schier
Member States	ISA Trusted Information Exchange WG

1.4.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
Workshop	DIGIT, DG CONNECT, Member States	Every 3 months
Conference	ISA Trusted Information Exchange WG, DIGIT	Every 6 months

1.4.7.3 Governance approach

ISA Action 1.4 is responsible for writing specifications, defining Quality of Authentication Assurance levels and in managing the addition of new participating countries. The ISA Trusted Information Exchange WG liaises with DIGIT to provide the list of features the EU PEPS must support and the list of countries it must connect to.

1.4.8 TECHNICAL APPROACH

Identity and Access Management falls under the responsibility of DIGIT.A.3 and DIGIT.C.3.

DIGIT.C.3 is responsible for the service aspects including support and operation of the solutions.

DIGIT.A.3 is responsible for the engineering aspects including development and deployment of the solutions. Its scope covers the EU PEPS, the ECAS server, ECAS client agents that are integrated in all information systems relying on ECAS and provisioning processes that collect and consolidate identities.

Engineering tasks required in order to update the EU PEPS or to improve its integration with the ECAS server will be carried by DIGIT.A.3 using the governance and procedures in place to manage the lifecycle of ECAS. The team in charge of these activities will be integrated in the ECAS team to guarantee convergence, good communication and aligned quality standards.

1.4.9 COSTS AND MILESTONES

1.4.9.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Execution	Proof of concept (Execution report)	420	IDABC	Q3/2009	Q2/2010
Inception	Participation to the STORK pilot (project charter)	60	ISA	Q3/2010	Q4/2010
Execution	Participation to the STORK pilot (execution report)	250	ISA	Q1/2011	Q2/2011
Operational	Participation to the STORK pilot	220	ISA	Q3/2010	Q3/2011
Inception	Consolidation (project charter)	60	ISA	Q4/2010	Q1/2011
Execution	Consolidation (execution report)	450	ISA	Q2/2011	Q3/2011
Inception	Expansion	120	ISA	Q3/2010	Q3/2011
Execution	Continuation of the service	600	ISA	Q1/2012	Q4/2015
Execution	Support for mission critical applications	150	ISA	Q1/2012	Q4/2012
Execution	Generalisation	150	ISA	Q1/2013	Q4/2013
	Total ISA budget	2060			

1.4.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010	Inception	460	479
2011	Execution	700	700
2012	Execution	300	297
2013	Execution	300	
2014	Execution	150	
2015	Execution	150	

1.4.10 ANNEX AND REFERENCES

Description	Reference link	Attached document
ECAS-STORK Integration (pilot 6)	https://www.eid-stork.eu/pilots/pilot6.htm	

1.5 STORK SUSTAINABILITY

1.5.1 CONTEXT

1.5.1.1 Identification of the action

Type of Action	Project
Type of Activity	Reusable generic tools
Service in charge	CONNECT
Associated Services	DIGIT

1.5.2 OBJECTIVES

The STORK Large Scale Pilot started in June 2008 under CIP ICT PSP and finished in December 2011, and has been followed by STORK 2 since April 2012. The project has developed an eID management system that allows European citizens to use their national electronic identification as authentication means when logging in to public services in other European countries. The technical feasibility of the system has been established during an operation test phase in 2010 and 2011. There was considerable interest among the participating countries to keep STORK's infrastructure operational beyond 2011.

An initial study was carried out to raise recommendations and steps necessary for further, wider and sustainable interoperability on eID across borders what would facilitate the efficient and effective electronic cross border and cross sectorial interaction between such administrations.

The cross-border interoperability on eID is achieved by implementing common elements that can be reused by all European Countries⁵ to establish a federated eID infrastructure, such as communication protocols, technical specifications, security profiles, a common quality authentication assurance model, and common software components. All the elements were developed, agreed and nationally deployed among the project partners. Continuity of cross-border eID operability beyond the official project end date requires the maintenance and governance of these "soft components" and technical specifications. This action will take care of the maintenance, update and technical support for all these common elements, so that European Countries can keep running and up-to-date the national gateways that are part of the federated STORK's infrastructure and which rely on the abovementioned common elements.

As part of this action, technical assistance will be provided for those European Countries, bodies or agencies performing public functions on behalf of the public administrations wishing to connect or already connected to STORK's eID services, thus enabling the delivery of electronic public services supporting the implementation of Community policies and activities.

⁵ According to ISA legal act (Decision No 922/2009/EC), the term European countries refers to Member States, EEA countries and candidate countries

In the area of pan European public services, the deployment of infrastructures at European country level is becoming a real necessity to ensure the provision of core services needed by the public authorities in Europe, which will guarantee interoperability of key cross-border services in areas such as eProcurement, eJustice, eBusinesses, eHealth, social security etc. The large scale pilots launched under the CIP-PSP have proved that it is possible to achieve interoperability without the need to change national solutions. The pilots also demonstrated that elements developed by some were reusable by others.

The objective of this action is to keep the STORK findings for cross-border interoperability of eIDs up-to-date, and make suitable SW modules available for free, for applications wishing to implement these solutions (including a hotline during office hours).

This action will update and maintain the Common Specifications (CS) and the QAA (Quality Authentication Assurance) model developed in STORK 1 and bridge the gap during the development of STORK 2. It will upgrade and maintain software modules supporting common functionalities of the cross-border infrastructure as well as architectural issues.

1.5.3 SCOPE

This action will significantly contribute to facilitating the European interoperability strategy, for trusted and secure information exchanges and transactions for cross-border and cross-sectorial public services. It builds on the results and lessons learned from the STORK 1 project. This action aims to guarantee the technical sustainability of the functional and technical specification for a mutually agreed solution among the project partners, allowing the participating eGovernment services and pilot applications to continue their operation, and allowing potential extension to additional countries and services. The network characteristics of the STORK infrastructure implies that the benefits for each member increases more that linear with the adoption of new participants.

The project encompasses already 19 European countries as project partners of STORK 2, but potentially all European States. This action aims to guarantee the technical sustainability of the STORK platform. This will allow the participating eGovernment services and pilot applications to continue their operation. It will assure the continued operation and potential extension to additional countries and services. The network characteristics of the STORK 1 infrastructure implies that the benefits for each member increases more that linear with the adoption of new participants.

In the long run, the Connecting Europe Facility, for which the regulation should be adopted by the end of 2013, will seek to deploy a common infrastructure to ensure the provision of core services needed by the public authorities in Europe, which will guarantee interoperability of key cross-border services. These services could be decomposed in building blocks reusable for the provision of other services, for instance eID.

A proposal for a Regulation "on electronic identification and trusted services for electronic transactions in the internal market" was adopted by the Commission in June 2012, to ensure mutual recognition and acceptance of electronic identification across borders. It is still under discussion in the Council.

1.5.4 PROBLEM/OPPORTUNITY STATEMENT

STORK has a robust decentralised architecture based on local technology nodes (PEPS) in the participating countries, which communicate among themselves in a federated-like infrastructure. There is no central technological hub. This is made possible based on an agreement on the use of certain protocols and standards and the implementation in some cases of national gateways that interact with each other in a federated way.

A major issue will be the continuation of the governance so far done within the project consortium in relation to reference software, technical specifications and agreed "standards". An example is the QAA reference model for authentication assurance quality, which includes the many different national eID technologies. If the STORK solution is to be extended to additional Member States and upcoming eID technologies (e.g. new regulation on eID/Trust services), the QAA model and other critical elements of the architecture will need maintenance and adoptions. This action will allow the use of Commission instruments, e.g. Member State Experts Groups, to be used by the Commission to coordinate with European countries for the governance of STORK, and this way to replace the role so far filled by the project itself. It will allow for a smooth transition from pilot governance to a sustainable situation where essential elements of the STORK architecture could be taken over by relevant standardisation bodies, and where technology components could be adopted by the industry in the long run.

1.5.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
European countries	<p>European Countries will have access to a set of tested and interoperable Common Specifications for eID agreed to by a majority of them. Specifications and support will be available to all European countries – also those who did not participate in STORK.</p> <p>An operational cross-European eID infrastructure based on open technology will be available to the European countries for exploitation and allowing to hook up new applications. It will be a strategic contribution to the fulfilment of the ambitions of the Digital Agenda for Europe, especially in the eGovernment area.</p>
Private Sector	<p>The private sector will get access to an open set of eID specifications which are interoperable and adopted by a large number of European countries, are open-source based and theologically neutral. This will be particularly important for European SMEs.</p> <p>It is further expected that STORK Common Specifications and evolving standards will raise considerable interest by key industry players in the eID sector, due to the widespread participation by national administrations in the STORK Large Scale Pilot.</p>

1.5.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
CIP ICT-PSP	<p>With small and medium-sized enterprises (SMEs) as its main target, the Competitiveness and Innovation Framework Programme (CIP) supports innovation activities and delivers business support services in the regions. It encourages a better take-up and use of information and communication technologies and helps to develop the information society.</p> <p>The Information and Communication Technologies Policy Support Programme (ICT-PSP) aims at stimulating a wider uptake of innovative ICT based services and the exploitation of digital content across Europe by citizens, governments and businesses, in particular SMEs. Funding goes mainly to pilot actions, involving both public and private organisations, for validating in real settings, innovative and interoperable ICT based services.</p>
ISA Action 1.4 – ECAS STORK integration	<p>One of the main goals of this action is to enable the access of public officials and civil servants all over Europe to European Union information systems by using the user's national e-ID solution with a minimum impact on the information systems themselves.</p> <p>Another goal is to deploy production quality code that integrates with the ECAS production instance so that ECAS authentication system can benefit from the ECAS-STORK integration and can be offered to other EC DGs and institutions.</p> <p>To achieve these goals, ISA Action 1.4 relies on the common specifications for eID maintained up-to-date by the ISA Action 1.5.</p>
ISA Action 1.18 – Federated Managed Authentication Services for ECAS	<p>The purpose of the ISA Action 1.18 is to extend the ECAS multi-factor authentication mechanism with a federated solution, for instance, a user identified by a trusted third party and credentials transmitted to the Commission to login to authorized applications in case the user is a public official and the application aims to be used by an administration.</p> <p>In this context, the ISA Action 1.18 will build on and extend the existing ECAS-STORK integration from natural person authentication to federated role-based access and authorisation, such as asserting a public administration's authorised representative, by relying on the common specifications for eID maintained up-to-date by the ISA Action 1.5.</p>

Action / Policy	Description of relation
ISA Action 4.2.6 – Interoperable testbed	ISA Action 4.2.6 should be capable to test software solutions built to support crossborder exchange of information between Public administrations.. Since ePrior, eTrustEx, STORK Sustainability and CIPA aims to sustain the solutions of these LSPs and have therefore created or will create testbeds for them, these actions are also linked to the ISA Action 4.2.6.
DG CONNECT STORK 2	STORK 2 reuses the deliverables of STORK 1 maintained and evolved by the ISA Action1.5.

1.5.7 ORGANISATIONAL APPROACH

1.5.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
Public administrations of European countries	Various official EU working groups in the areas of interoperability, eID and pan-European eGOV services like ISA Committee Group, Digital Agenda, Large Scale Pilots (STORK, eHealth, eJustice, eProcurement...), new regulation on eID/Trust services
Industry	TBD
Standardisation organisations	TBD
User associations	TBD

1.5.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
Discussion on updates for Common Specifications and QAA levels	STORK stakeholders (STORK 's representatives), rest of European countries representatives, internal working groups, industry players, user associations, standardisation bodies...	once or twice a year

Event	Representatives	Frequency of meetings / absolute dates of meetings?
Coordination of implementation of new specifications	European countries representatives	once or twice a year

1.5.7.3 Governance approach

Under this action, the European Commission will assist the European countries in the:

Update of Common Specifications (CS):

- Initiate and coordinate discussions on new data or data to be changed, as well as new functionalities or actual ones to be changed
- Reflect agreed changes in documentation
- Investigate data standards and promote their implementation
- Promote the acceptance of the CS in appropriate forums
- Quality control on the implementation of changed specs
- Standardisation works of the CS with relevant standardisation organisations
- Quality assessment for implementation with new/changed Service Providers and new Member States
- Coordinate implementation in European countries
- Coordinate support groups
- Support (encyclopaedia) to European countries
- Active collaboration with EU sponsored projects and other sectorial eGOV solutions across Europe

Update of the QAA levels:

- Twice a year collect by e-mail change requests
- Twice a year the dissemination of an assessment of requested changes
- Once a year to discuss and formally agree on changes
- Once a year a publication of an updated "QAA" document

Since this action requires close collaboration with all European countries and very specific technical discussions, besides the reporting to ISA Trusted Information Working Group on the action's progress, it is foreseen to set up a specific-purpose working group consisting of representatives from all European countries. A proposal for the structure of this group will be discussed with the MS in Q4/2013, the tasks suggested above should then start to become operational.

1.5.8 TECHNICAL APPROACH

Maintenance, update and upgrade of the Common SW modules:

- Implement agreed changes in the common software, as well for PEPS as for V-IDP
- Test changes in all relevant environments (Tomcat, JBoss, Glassfish; all on Windows/Linux) and others according to European countries needs
- Test compatibility with actual production versions
- Maintenance of test-laboratory
- Publication of the new software, together with release notes
- Active bug-tracking and error solution
- Technical support for the Member States 8x5x52

1.5.9 COSTS AND MILESTONES⁶

1.5.9.1 Breakdown of anticipated costs and related milestones

Phase:	Description of milestones reached or to be reached	Anticipated allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Inception	Project Charter	100	ISA	Q4/2010	Q2/2011
Execution	Update of the QAA model	50	ISA	Q4/2012	Q4/2014
Execution	Update of the Common Specifications	400	ISA	Q4/2012	Q4/2014
Execution	Upgrade and maintenance of the Software modules	800	ISA	Q4/2012	Q4/2014
	Total (ISA)	1350			

⁶All tasks from the execution phase have not started according to the original plan due to a 1-year delay in the execution, and this is the reason - in table "Breakdown of ISA funding per budget year" for the extra allocations in years 2013 and 2014

1.5.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010	Inception	100	99
2011	Execution	390	0
2012	Execution	500	489
2013	Execution	500	
2014	Execution	250	
2015			

1.5.10 ANNEX AND REFERENCES

Description	Reference link	Attached document
STORK deliverables and software	https://www.eid-stork.eu/index.php?option=com_processes&act=list_documents&s=1&Itemid=60&id=312	
STORK SW	https://joinup.ec.europa.eu/software/stork/home	

1.6 COMMON INFRASTRUCTURE FOR PUBLIC ADMINISTRATIONS SUSTAINABILITY (INCLUDING PEPPOL)—FORMERLY NAMED "PEPPOL SUSTAINABILITY"

1.6.1 CONTEXT

Type of Action	Project
Type of Activity	Reusable generic tools
Service in charge	DIGIT.B4
Associated Services	DG MARKT – DG CONNECT

Between 2007 and 2011, the European Commission has funded several Large Scale Pilots (LSPs) on cross-border services within the strategic priorities of the CIP (Competitiveness and Innovation Framework Programme). Their duration is typically 36 months with a pilot service operating for 12 months. As a number of these LSPs ended in 2012 and others will end in 2015, the European Commission is analysing how to ensure their sustainability. As stated in the Digital Agenda for Europe the ISA programme is an instrument that can be used for this purpose.

In 2011, two sustainability actions were part of the ISA Work Programme, one related to PEPPOL and another one to STORK. This action sustains PEPPOL's e-Delivery building block in anticipation of an agreement among the LSPs to converge their e-Delivery building blocks. This is in line with the key action (6) of the Communication of DG MARKT on a "Strategy for e-Procurement": "European Commission to support the sustainability of PEPPOL components as of mid-2012". The concentration of the LSPs sustainability in a few actions will avoid the proliferation of non-coordinated approaches and costs.

This action aims to embrace commonality, compatibility, interoperability and rationalisation of the e-Delivery Building Blocks of the LSPs. The common e-Delivery solution (hereafter referred to as CIPA e-delivery) is one of CIPA components. CIPA (Common Infrastructure for Public Administration) aims at increasing reusability of building blocks and awareness about reuse in the European Commission and in the Member States. The CIPA action underpins the Commission's efforts to improve the level of reuse and convergence of ICT solutions in the external dimension of the e-Commission initiative 2012-2015.

CIPA e-delivery belongs to a set of Commission systems that ensure secure across border document exchange. In order to be clear what are the activities undertaken under each system of this set is important to clarify what CIPA e-delivery is providing in addition to e-TrustEx (ISA action 1.08). CIPA e-delivery provides a generic and standard way to transmit electronic documents across Europe. However e-Delivery infrastructures do not provide a solution for the integration of the existing IT systems in the Member States and their generic building blocks. This last missing mile is where e-TrustEx comes into play being the mediator between the

business specificity of the Public Administrations and e-Delivery building blocks. The e-TrustEx platform is able to provide simple interfaces to the Public Administration back-offices to transform the specific business documents into the generic e-Delivery form and apply domain specific validation to them. Therefore e-Trust Ex reduces the barriers for Public Administrations to join the e-Delivery network.

CIPA e-Delivery would be maintained by DIGIT until 2014 within the ISA work-programme. It should be noted that CIPA e-delivery has been identified as one of the potential candidate Core Service Platforms of the CEF (Connecting Europe Facility)⁷ and can be funded by this instrument.

1.6.2 OBJECTIVES

Europe is fragmented not only by multiple technical specifications at national level but also by the lack of common technical specifications at Pan-European level. It has become apparent that the creation of purpose-built e-Delivery technical specifications by each LSP could magnify this issue. If the Commission does not take action the public online services can be expected to:

- Not be interoperable across sectors;
- Be fragmented and lacking critical mass to be widely used by Public Administrations and also by Business and Citizens;
- Be costly to implement because of the duplication of efforts (each LSP will continue to set up its own e-Delivery building block).

Consequently, the European Commission has requested e-Codex, PEPPOL and SPOCS to converge their purpose-built e-Delivery building blocks to a single one which can be re-used in any sector. Additionally, this converged e-Delivery solution should be piloted in several domains as part of the e-SENS LSP of DG CONNECT. This has led DG CONNECT and DIGIT to rethink this action; DIGIT should primarily maintain the common e-Delivery building block of the LSPs because of its high reusability across borders and sectors. This building block will potentially become the backbone of CIPA. The non-territoriality nature of cross-border eGovernment services argues in favour of EU level action to ensure the availability of key building blocks such as e-Delivery.

As PEPPOL ended on 31 August 2012, the proposed objectives of this action are:

- 1st: Keep PEPPOL's e-Delivery building block alive (as it is) until its migration to the common e-Delivery technical specifications which will be agreed among the domains of the former and on-going LSPs and piloted in the e-SENS project.
- 2nd: Ensure that PEPPOL's e-Delivery building block runs efficiently and effectively and evolves in maturity in line with the market.

⁷ <http://ec.europa.eu/digital-agenda/en/connecting-europe-facility>

- 3rd: Ensure that PEPPOL's e-Delivery building block is migrated to the common e-Delivery technical specifications when they will be agreed among all LSPs.

This action will also contribute and synchronise with related actions, such as the implementation of the "common vision for a European Interoperability Architecture", ISA action 2.1, the "assessment of trans-European networks supporting EU policies", ISA action 2.14, and the "European Federated Interoperability Repository", ISA action 4.2.4. Aside from the development work, DIGIT will also involve DG ENTR to ensure alignment with the standardisation policy of the European Commission.

1.6.3 SCOPE

This action is a multidimensional project where strategy, business and technical viewpoints will be linked-up to define a transition roadmap for PEPPOL and the creation of CIPA e-Delivery.

- Scope of the 1st Objective: It has become apparent that the LSPs should adopt the same e-Delivery technical specifications. DIGIT has identified that the e-Delivery building block of PEPPOL is compliant with ISA's legal basis and can be taken over from a technical standpoint.
- Scope of the 2nd Objective: In the context of the second objective, DIGIT has already taken-over the maintenance of PEPPOL's e-Delivery building block. DIGIT has also identified and corrected shortcomings so that it can run in operations efficiently and effectively. Some further enhancement will be needed and DIGIT will also take over the operations of PEPPOL's e-Delivery building block. This includes hosting of the central components and service management.
- Scope of the 3rd Objective: DIGIT will work with the user communities of those LSPs which have either already ended or are still on-going on the e-Delivery convergence i.e. PEPPOL (BusDoX), SPOCS (SOAP REM), epSOS (epSOS messaging protocol) and e-Codex (ebMS). The convergence activities are currently taking place within the e-SENS project, where all of these user communities are represented. PEPPOL's e-Delivery building block will need to be adapted to support the common technical specification. As this did not happen before the end of the PEPPOL pilot, DIGIT will undertake the migration of PEPPOL's building block to the common technical specifications.

The OpenPEPPOL organization has opted for an alternative to the PKI contract which was amended in the context of the current action. Hence, management of the PKI is seen as out of scope of this action.

1.6.4 PROBLEM/OPPORTUNITY STATEMENT

1.6.4.1 Problem Statement:

This action aims at breaking the current chicken or the egg dilemma around the sustainability of the LSPs, by promoting the re-use of the same e-Delivery building block in different sectors. So far the LSPs have invested independently in infrastructural building blocks to make their key cross border public services available on-line. As shown by research, and confirmed by the LSPs, the creation of a building block such as e-Delivery requires considerable expertise and financial resources. As an LSP is only active for a few years, it is usually not enough time for public administrations to change their e-Delivery building block and market players to embrace new technical specifications. More time is required for these changes to happen. Hence, the Commission must intervene to ensure that a common e-Delivery building block is maintained once the LSPs end. Otherwise key on-line public services may stop in embryo.

At the same time, it is also becoming apparent that Pan-European projects can be delayed by the lack of infrastructural building blocks but also by the existence of several of them with the same purpose. For example, each LSP has created its own e-Delivery technical specification on top of ubiquitous standards like http and SOAP (also referred to web-services standards) to meet sector specific requirements. In this context, PEPPOL created BusDoX, SPOCS created SOAP REM, eCodex adopted ebXML's ebMS and epSOS based its document exchange infrastructure on ebXMLRegRep. Duplication at this level is neither helpful nor cost-efficient. This means that fragmentation is a roadblock that gets in the way of re-use and that generates even further fragmentation.

The European Commission has requested the LSPs to converge their purpose-built e-Delivery building blocks to a single one which can be re-used in any sector. This converged e-Delivery solution should be piloted in several domains as part of the e-SENS LSP of DG CONNECT. However, there is a gap between now and when the LSPs will provide a converged solution. This confirms that the Commission should intervene by creating CIPA e-Delivery. CIPA e-Delivery will stand ready to take on-board those pan-European projects that cannot wait until the common e-Delivery technical specifications are ready. This way, the risk of building additional e-Delivery solutions will be avoided.

The adoption of a common protocol by several large projects should, at some point, lead to the creation of a User base which makes it interesting for software vendors to offer similar off-the-shelf commercial and Open Source software.

1.6.4.2 Opportunity Statement:

DIGIT has identified that the e-Delivery building block of PEPPOL could be taken over from a technical standpoint and was compliant with ISA's legal basis. From this starting point, DIGIT

has undertaken this action to create CIPA e-Delivery. CIPA e-delivery is consistent with the strategic intent of the Digital Agenda for Europe and The eGovernment Action Plan 2011–2015. In anticipation of the common converged e-delivery solution between all the LSPs, DIGIT will enable Member States and the Commission to reap economies of scale and synergies from the sharing of infrastructural building blocks and technical specifications across sectors. This will benefit the delivery of cross-border services, corner stone to the digital internal market, and indirectly create incentives for their adoption by software vendors and future Pan-European projects. To reap the benefits of Single Market “Acquis Communautaire”, wide implementation of such cross-border services is essential.

At the same time, DIGIT will work closely and provide input to the e-SENS project. This action will ensure that the CIPA e-delivery specifications evolve together with the e-SENS work-programme and finally converge to the common e-delivery technical specifications which will be agreed among all LSPs and e-SENS. CIPA e-Delivery will eventually adopt the specifications coming from e-SENS as described further in this proposal.

It should also be noted that CIPA e-delivery has been identified as one of the candidate Core Service Platforms of the CEF (Connecting Europe Facility).

1.6.4.3 Link between objectives and the problem/opportunity statement

The first objective is linked to the problem/opportunity statement as follows:

The PEPPOL pilot ended on August 31st 2012. If PEPPOL was not sustained beyond this date, this could have a negative effect on some objectives put forward in the Digital Agenda for Europe such as to make available a number of key cross-border services by 2015.

The second objective is linked to the problem/opportunity statement as follows:

- The central components must be hosted by a central body. It must be made clear how this can be achieved, what are the obstacles and difficulties and what are the solutions to this. Additionally, in order to achieve the goals of Single Market “Acquis Communautaire”, the components need to evolve in maturity with the market.

The third objective is linked to the problem/opportunity statement as follows:

- According to ISA’s legal basis, the building blocks developed by PEPPOL as well as other LSPs must demonstrate to be “part of a consistent ecosystem of services facilitating interaction between European public administrations and ensuring, facilitating or enabling cross-border and cross-sectoral interoperability”, in order to be sustained. Hence, this project aims at sustaining an e-Delivery framework which

can be used in multiple sectors of interest for public administrations and not specific to a sector.

- As explained in the 9th eGovernment Benchmark Measurement, standardization of enablers is “vitaly important to cut down IT development costs, benefit from greater economies of scale and break down barriers cross border communication.”

1.6.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States' public administrations	<p>The concept of a common infrastructure for public administrations is very powerful and will make possible for Public Administrations to quickly deploy key cross-border services on-line in the context of different sectoral policies. Furthermore, significant cost savings can be achieved by ensuring infrastructural convergence of the former, current and future LSPs.</p> <p>Member States will be able to implement cross-border public services over a common Pan-European infrastructure and benefit from the services put on-line by the LSPs such as interoperable cross-border e-Procurement through PEPPOL.</p> <p>Finally, the financial resources and work performed by the LSPs will not be lost and their sustainability will be consistent with the strategic intent of the <i>Digital Agenda for Europe</i> and <i>The eGovernment Action Plan 2011-2015</i>.</p>
European Commission services	<p>Having CIPA in place will significantly reduce the time and cost to deploy cross-border services on-line by future LSPs and other Pan-European projects.</p>
Software industry and IT service markets	<p>For the sustainability of the LSPs to be ensured, the technical specifications adopted by the LSPs should also be taken on board by a significant number of software vendors in their commercial and open source software. This is of course not easy because many concurrent initiatives try to do this and only a limited number of interfaces can be supported. However, if most of the infrastructural building blocks are truly cross-border then their dissemination across Europe will be easier as well as the adoption of the same technical specifications by the software industry. This virtuous cycle would also very much contribute for interoperability at technical level in Europe.</p>

1.6.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
Digital Agenda for Europe	<p>According to Action 84 (Support seamless cross-border eGovernment services in the single market) the Interoperability Solutions for European Public Administrations (ISA) programme is an important instrument that could analyse and suggest ways to ensure the sustainability of common services and generic tools developed and demonstrated in the Large Scale Pilots. (...)</p> <p>In 2011: The Commission continued to support the experience sharing and good practice exchange between running and new Large Scale Pilots. The Commission launched studies to assess critical sustainability issues of the STORK and PEPPOL Large Scale Pilots. The Commission launched a study to analyse the existing and future needs and cost benefit of cross-border eGovernment services and to assess the organisational, legal, technical and semantic barriers together with the Member States.</p> <p>In 2012: The Commission facilitated the exchange of views with the Member States to identify which new cross-border services could be piloted under the CIP ICT PSP programme and which services could possibly be rolled out in 27 Member States.</p>
The European eGovernment Action Plan 2011–2015	<p>According to Action 23 (Roll out Large Scale Pilot projects and start new ones, coordination and re-use of results & solutions) the Commission will support and coordinate the efforts of Member States to roll out Large Scale Pilot projects and to start new ones, while encouraging coordination and re-use of results and solutions between them.</p>
Decision No 922/2009/EC on interoperability solutions for European public administrations (ISA)	<p>Article 3 - Activities</p> <p>The ISA programme shall support and promote:</p> <ul style="list-style-type: none"> (a) the establishment and improvement of common frameworks in support of cross-border and cross-sectoral interoperability (...) (c) the operation and improvement of existing common services and the establishment, industrialisation, operation and improvement of new common services, including the interoperability of public key infrastructures (PKI); (d) the improvement of existing reusable generic tools and the establishment, provision and improvement of new reusable generic tools.

Action / Policy	Description of relation
Communication "A strategy for e-Procurement" (DG MARKT)	DG MARKT's Communication "A strategy for e-Procurement" foresees a full transition to e-Procurement for the European administrations. In this context, it invites the European Commission to support the sustainability of PEPPOL components as of mid-2012.
ISA Action 1.7 – e-PRIOR	ISA Action 1.7 has an Access Point to the PEPPOL network. In this context, ISA Action 1.6 aims to maintain the sample implementation of this Access Point component and provide support to Public Administrations which are implementing it.
ISA Action 1.8 – Trusted Information Exchange Platform	The eTrustEx platform will integrate the e-Delivery, e-Document and eID components provided by ISA Action 1.6.
ISA Action 1.16 – Common Information Sharing Environment (CISE)	The CISE architecture definition shall be carried out taking into consideration the possibility to reuse the CIPA solution, in particular the eTrustEx platform and CIPA gateway.
ISA Action 2.11 – Promoting consistent eu e-procurement monitoring and performance	ISA Action 1.6 promotes the reuse of infrastructure tools developed by the PEPPOL project to meet the requirements of European Public Administrations. The two actions combined will result in a coherent set of requirements to be met by the Commission when implementing its pre-awarding e-Procurement operation.
ISA Action 4.2.1 – ISA Integrated Collaboration Platform	Joinup acts as a platform to support the building of a user community around CIPA e-Delivery building block.
ISA Action 4.2.6 – Interoperable testbed	ISA Action 4.2.6 should be capable to test software solutions built to support crossborder exchange of information between Public administrations.. Since ePrior, eTrustEx, STORK Sustainability and CIPA aims to sustain the solutions of these LSPs and have therefore created or will create testbeds for them, these actions are also linked to the ISA Action 4.2.6.
DG CONNECT LSP - eSENS	The building blocks of ISA Action 1.6 will be aligned with the upcoming common e-Delivery specifications defined by e-SENS.
Communication on eInvoicing and eProcurement policy (COM 2013 453)	The Communication identifies the state of implementation of "end-to-end e-procurement" (from the electronic publication of notices to electronic payment) in the EU, and sets out actions which should be taken by the EU and by Member States to achieve the transition towards end-to-end eprocurement.

1.6.7 ORGANISATIONAL APPROACH

1.6.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
ISA	The ISA Committee will oversee the project, with the assistance of the ISA Coordination Group. The project will regularly report to the ISA Trusted Information Exchange Workgroup.
DG CONNECT Unit CONNECT.H.3 Public Services	This unit of DG CONNECT is one of the associated services of this project. The cooperation with CONNECT is key to the success of this project. DG CONNECT is the primary link between the LSPs and the Commission.
DIGIT Unit DIGIT.B.4 Information Systems for Policy Support, Grant Management, e-Procurement	This unit is the service in charge of this action. It will coordinate, together with DG CONNECT, the interaction between the different stakeholders within the European Commission and the LSPs. This unit is also responsible for the Open e-PRIOR project, a main accelerator for connecting Public Administrations to PEPPOL.
DG MARKT Unit MARKT.C.4 Economic Analysis and e-Procurement	This unit of DG MARKT is an associated service of this project and responsible for the activities around EU's e-Procurement policy. DG MARKT has already worked with DIGIT in several e-Procurement projects. This fruitful partnership will continue to provide support and guidance to this project.
DG ENTR Unit ENTR.D.3 ICT for Competitiveness and Industrial Innovation	This unit of DG ENTR is also an associated service of this project and responsible for the activities around EU's standardisation policy. Its participation is essential given the importance of open specifications in the context of e-Procurement and infrastructural building blocks in general.
Other European Institutions	All European Public Institutions may provide input and be informed about CIPA e-Delivery. The intention is that they re-use it in their projects.

Stakeholders	Representatives
Standardisation Bodies	<p>OASIS – BDXR: The OASIS Business Document Exchange (BDXR) Technical Committee approved a revised charter in 2012 and took over the development and maintenance of the PEPPOL BusDoX specifications.</p> <p>OASIS – ebXML: In 2003, a study of IDA, “Business to business frameworks for IDA networks”, recommended the adoption of ebXML’s ebMS as the e-Delivery framework of Pan European projects in the case of regulated exchange. Despite it not being used by PEPPOL, SPOCS or epSOS, eCodex has made it the chosen protocol for the transport layer and the e-Delivery convergence initiative has recommended for the other LSPs to converge to it. In the e-SENS LSP a similar recommendation is currently under discussion (Q4 2013).</p> <p>ETSI – REM: ETSI has worked with SPOCS in the creation of a web-services version of REM, known as SOAP REM. e-CODEX is using a profiling of REM on ebMS as transport layer.</p> <p>CEN/ISSS WS/BII 3: As both e-PRIOR and PEPPOL were amongst the first projects to implement the CEN BII profiles, it is therefore very important to understand the sustainability of them.</p>
European Public Administrations	Any public administration in Europe is a target user for implementing the technical specifications of the LSPs. This project will analyse whether the value proposition offered by PEPPOL and the converged e-Delivery solution is aligned with their needs.

Stakeholders	Representatives
LSPs	<p>PEPPOL Consortium: We have coordinated our action with the pilot closing activities of the PEPPOL project.</p> <p>SPOCS: This LSP participated in the meetings to converge the e-Delivery technical specifications in use by the several LSPs.</p> <p>eCodex: This LSP participated in the meetings to converge the e-Delivery technical specifications in use by the several LSPs.</p> <p>STORK 2: We will coordinate our action with any follow up actions to the STORK sustainability initiative.</p> <p>epSOS: This LSP has also joined the discussions to converge the e-Delivery technical specifications in use by the several LSPs, which currently take place inside the e-SENS project.</p> <p>e-SENS: This LSP is working on consolidating and solidifying the work done by the other LSPs and extending the potential of the developed solutions to more and different domains. Participants from all former and on-going LSPs are in e-SENS discussing the future e-Delivery infrastructure to be used in all domains and across domains. The results of the selection process in e-SENS, which should be finalized by the end of 2013, should be closely aligned with this action.</p>
Market Players	<p>OpenPEPPOL: We will coordinate our action with OpenPEPPOL, the governing body of PEPPOL's components.</p> <p>Economical Operators: Economical operators are Users of public services and the actors from where public administrations procure products and services. They will therefore benefit from the CIPA since improved electronic collaboration will enable Public administrations to provide required information, documentation and certification quickly and reliably.</p> <p>ICT Industry (ERP Software Vendors and System Integrators): Economical operators might take on board the technical specifications of the several LSPs in their software. Once a software vendor has implemented such a connector, they can play an important role in promoting the LSPs and interconnecting other economical operators and public administrations without the need for developing new interfaces. Where public services are based on industry standards that are used outside LSPs as well, there is additional benefit for vendors to support these protocols.</p>

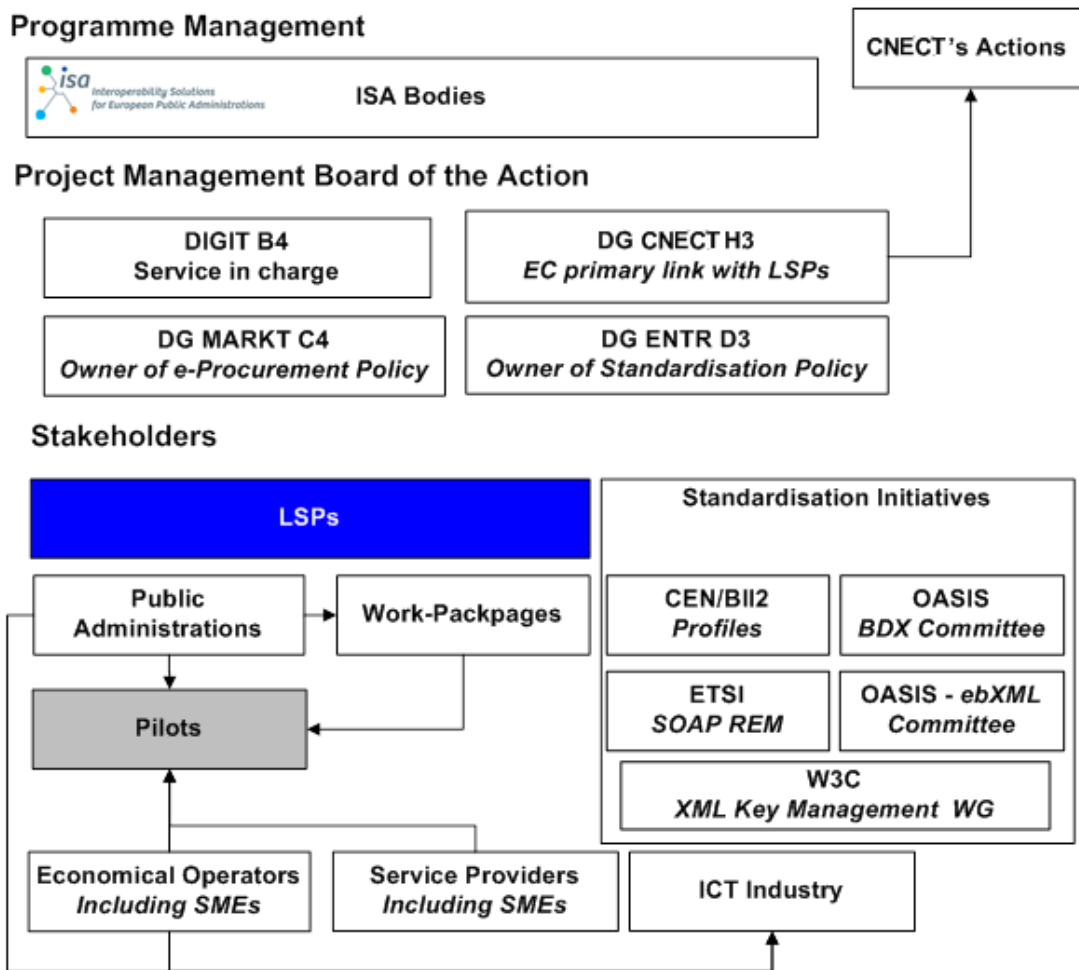
1.6.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
LSPs Convergence Meetings	e-SENS, e-Codex, and DIGIT	These meetings are arranged by DG CONNECT on ad hoc basis
e-SENS WP5 and WP6 meetings	e-SENS (WP1, WP5, WP6) and DIGIT	These meetings are arranged by DIGIT on ad hoc basis
Bilateral meetings with DG CONNECT	DG CONNECT and DIGIT	These meetings are arranged by DIGIT on ad hoc basis
Bilateral meetings with DG MARKT	DG MARKT and DIGIT	These meetings are arranged by DIGIT on ad hoc basis
Bilateral meetings with DG ENTR	DG ENTR and DIGIT	These meetings are arranged by DIGIT on ad hoc basis
Meetings with other ISA projects	All ISA projects may be contacted	These meetings are arranged by DIGIT on ad hoc basis
Meetings with Policy DGs	All Policy DGs may be contacted	These meetings are arranged by DIGIT on ad hoc basis
Meetings with Standardisation Bodies	OASIS, ETSI, CEN, and DIGIT	These meetings are arranged by DIGIT on ad hoc basis
ISA Trusted Information Exchange Cluster	DIGIT team members, Member States representatives, ISA unit	These meetings are arranged by the ISA unit at least on a quarterly basis
Relevant e-Government meetings and events	DIGIT with any other project stakeholder	DIGIT is invited to participate in meetings organised by Member States, the LSPs, e-Practice, etc.

1.6.7.3 Governance approach

First and foremost, this action is part of the ISA programme and it therefore follows ISA's governance structure. This action will actively involve the Member-State representatives in ISA's Trusted Information Exchange cluster (under the "key enablers for interoperability" theme) and ISA's Coordination Group. To achieve its objectives this project will work closely together with DG CONNECT, other DGs of the European Commission, Standardisation Bodies and the LSPs (or any actions related to their closing). Particular attention will be given to the coordination between this action and any future actions of DG CONNECT in the e-Government area.

Together, DIGIT and DG CONNECT will steer this action. This 3-layer model is shown in the picture below.



1.6.8 TECHNICAL APPROACH

As PEPPOL was the first LSP to benefit from CIPA e-Delivery, the first deliverable of this project was a Business Gap Analysis, which included Lessons Learnt of PEPPOL's production pilots and a Take-Over Feasibility Study. Any possible take-over issue was therefore identified before the PEPPOL project ended so that it could be jointly analysed. Afterwards, and based on the collected input, improvement alternatives and a Transition Roadmap was outlined to potentiate the realisation of quick wins, mitigate the migration risks and contribute to the sustainability of the relevant PEPPOL key public services so that European public administrations could continue to use them.

A number of DGs (DG MARKT, DG CONNECT and DG ENTR) will continue to be involved in the transition process to ensure that the LSP's sustainability is all embracing, aligned with the vision for e-Procurement and coherent with the European e-Government strategy.

Service management methodologies such as ITIL have been used for the production of the Take-Over Feasibility Study and Operations. Benefits management (VAST), Project and Change management (PM²) and Enterprise Architecture (CEAF) methodologies and frameworks was used in the production of the Business Gap Analysis. The Rational Unified Process (RUP) is used for software development and enhancement.

Phase 1: The activities were grouped into 3 phases (Inception, Execution and Operation) and 6 Work Packages (WPs)

		Scope
Inception	WP1: <u>"Take-over Feasibility Study"</u> :	<p>Established a realistic understanding of:</p> <ul style="list-style-type: none"> ▪ The Commission's capability to operate and/ or host the building blocks coming from PEPPOL. Identify these building blocks and understand the requirements for migrating them to operation in a scenario where the PEPPOL community (translated by the number of PEPPOL Access Points and consequently end-users) would most likely grow. ▪ The Commission's capability to provide the services related to the daily operation of PEPPOL's central components (such as the SML), support to PEPPOL's local /de-central components (such as Access Points and SMPs), and support new Public Administrations. Identify these services, their requirements and their extent in the context of a federated architecture where the boundaries between central and local responsibilities would not always be clear. Additionally, given the on-going convergence process, the technical specifications of PEPPOL's e-Delivery building block will most likely evolve and the linkages between this domain and the operational service model (e.g. change management) required detailed analysis to ensure the smooth evolution of the overall PEPPOL ecosystem.
Execution	WP2: <u>"Business Gap Analysis"</u> :	<p>In addition to the take-over feasibility study described above, analyse the value of the several building blocks and tools which were to be migrated to operation. Look beyond the technical elements and focus on the alignment of PEPPOL to the objectives of ISA. If not considered any of these elements may, at some point, stand in the way of their widespread use by public administrations.</p> <p>This work-package was divided into two separate tracks:</p> <ul style="list-style-type: none"> ▪ Track 1—Analysis of Business Sustainability ▪ Track 2—Analysis of Pilots Lessons Learned
	WP3: <u>"Transition Roadmap"</u>	<ul style="list-style-type: none"> • Consolidate the findings of the previous step and use them to decide which PEPPOL building blocks to sustain. • Following the decision step, create a transition roadmap. • Align the building blocks to be sustained to the European policy initiatives related to the internal market. Building blocks created by PEPPOL with low level of re-usability in other sectors, i.e. specific to Procurement, may need to be sustained through other activities carried on within the unit B4 of DIGIT. • At technical level, analyse and add to the Transition Roadmap the convergence of e-Delivery technical specifications.

	WP4: “ <i>Detailed Design of Target Operating Model</i> ”	Detail the operational IT services (including support to the implementation of CIPA’s Access Points and support to their deployment throughout Europe) and the daily infrastructure management processes in accordance with the transition roadmap.
	WP5: “Migration Plan”	Outline the migration to the envisaged Target Operating Model.
	WP6: “ <i>Monitoring the implementation of Transition Roadmap</i> ”	Establish a monitoring process to ensure that the implementation risks of the transition roadmap are properly managed and that the schedule is respected.
Operation	Transfer and set up the infrastructural building blocks as selected in WP3: “Transition Roadmap”. Document the procedures necessary to run the central components of e-Delivery (the PKI and the SML).	

Phase 2: The activities are grouped into 3 phases (Inception, Execution and Operation) and 2 Work Packages (WPs)

		Scope
Inception	Update the Project Charter to reflect the new scope of the action. The project charter will enable DIGIT to agree at the outset of Phase 2 on the desired outcome, so that its different teams can then focus on the critical work-streams. This also supports stakeholder communication by providing a roadmap of the full definition of CIPA’s e-Delivery building block.	

Execution	WP1: <u>"e-Delivery enhancements"</u> .	<ul style="list-style-type: none"> • Step 1: Implement first priority requirements regarding the monitoring of the operations and the respect of the SLAs for Quality of Service (QoS) purpose. This included: <ul style="list-style-type: none"> ○ Consolidate the existing Oxalis, Silicone and PEPPOL parallel versions of the sample implementations ○ Identify discrepancies and improve compliance to BusDox exchange specifications ○ Create test framework • Step 2: Implement second priority requirements regarding the monitoring of the operations and the respect of the SLAs for Quality of Service (QoS) purpose. This will include: <ul style="list-style-type: none"> ○ Support of the AS/2 protocol next to the existing START protocol to improve interoperability between platforms ○ Facilitate integration of the components with existing vendor solutions for AS/2 encouraging market adoption ○ Implement support for PKI migration providing tools that support certificate management ○ Reduce submission time between Access Points ○ Develop an admin console for the SML
	WP2: <u>"e-Delivery Migration"</u>	<ul style="list-style-type: none"> • Step 1: Interact with the LSPs (in particular e-SENS) on the convergence of e-Delivery technical specifications. ▪ Step 2: Extend the Service Metadata Publisher and Service Metadata Locator so that it supports technical parameters to be used during the migration process i.e. dynamic discovery of messaging protocol. This includes extending the metadata stored in the SMP to other document types and protocols in support of the anticipated migration to the converged e-Delivery specifications. On-going work in BDXR will be taken into consideration. ▪ Step 3: Implement a gateway to support the converged technical specification as well as the technical specifications of existing production LSPs, to facilitate the migration to the new common solution. A decision will be taken on the exact migration steps taking into account the number of active gateways so that it happens without affecting their operation. ▪ Step 4: Develop a conformance test environment and framework for the anticipated common e-Delivery solution in close cooperation with e-SENS CC6.4.

Operation	<ul style="list-style-type: none"> • Maintain the sample implementations of Access Points (e-Delivery gateways), SMPs, SML and possibly other related software. • Perform bug fixing and change management activities as a result of the maintenance of the source code. • Perform any development work that might be required to enhance SLA monitoring capabilities. • Run operations of the PEPPOL's SML and a conformance test environment. • Perform Service management related activities, offering support to Public Administrations implementing or using the components. This will involve support to technical questions related to setting up the components and testing their conformance. • Provide higher level of support to European institutions around integration of their systems with the e-Delivery components.
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1.6.9 COSTS AND MILESTONES

1.6.9.1 Breakdown of anticipated costs and related milestones

Phase: Inception / Execution / Operational	Description of milestones reached or to be reached	Cost (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Phase 1 Inception Technical Track	Project Charter + Technical Track	200	ISA	Q3/2010	Q2/2011
Phase 1 Execution	Business Track (including Pilots Lesson Learned)	100	ISA	Q1/2011	Q3/2011
Phase 1 Execution	Transition Roadmap	100	ISA	Q2/2011	Q3/2011
Phase 1 Execution	Target Sustainability Model and Migration Plan, Monitoring and Implementation, Operational phase	200	ISA	Q3/2011	Q1/2012
Execution Report of Phase 1	Execution Report of Phase 1	0	DIGIT B4	Q1/2012	Q1/2012

Phase: Inception / Execution / Operational	Description of milestones reached or to be reached	Cost (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Phase 1 Operational	Set-up and Transfer	500	ISA	Q1/2012	Q2/2012
Phase 2 Inception	Update of Project Charter	0	ISA	Q2/2012	Q2/2012
Phase 2 Execution	Work Package "e- Delivery Migration" Step 1	100	ISA	Q2/2012	Q4/2012
Phase 2 Operational	Operations in 2012	170	ISA	Q2/2012	Q4/2012
Phase 2 Execution	Work Package "e- Delivery Migration" Step 2 Work Package "e- Delivery enhancement" Step 1	200	ISA	Q1/2013	Q4/2013
Phase 2 Operational	Operations in 2013	300	ISA	Q1/2013	Q4/2013
Phase 2 Execution	Work Package "e- Delivery Migration" Steps 3 and 4 Work Package "e- Delivery enhancement" Step 2	225	ISA	Q1/2014	Q4/2015
Phase 2 Operational	Operation 2014	425	ISA	Q1/2014	Q4/2014
Execution Report of Phase 2	Update of Execution Report Phase 2	0	DIGIT B4	Q1/2015	Q1/2015
Phase 2 Operational	Operation 2015	0 ⁸	ISA	Q1/2015	Q4/2015
	Total ISA budget	2520			

⁸ This action can be funded by the European Commission's Connecting Europe Facility (CEF).

1.6.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010	Inception Phase 1	200	200
2011	Execution Phase 1	400	400
	Operational Phase 1	0	250 ⁹
2012	Operational Phase 1	250	250
	Execution Phase 2	100	76
	Operational Phase 2	420 ¹⁰	170
2013	Execution Phase 2	200	
	Operational Phase 2	300	
2014	Execution Phase 2	225	
	Operational Phase 2	425	
2015 ¹¹	Execution Phase 2	0	
	Operational Phase 2	0	

1.6.10 ANNEX AND REFERENCES

Description	Reference link	Attached document
Digital Agenda for Europe	http://ec.europa.eu/digital-agenda/	
eGovernment Action Plan	http://ec.europa.eu/digital-agenda/en/european-egovernment-action-plan-2011-2015	
ISA legal basis and reference documents on interoperability	http://ec.europa.eu/isa/	
9 th eGovernment Benchmark Measurement (DG CONNECT)	http://ec.europa.eu/digital-agenda/en/ict-enabledbenefits-eu-society-analysis-and-data	

⁹ Due to the unforeseen complexity of Phase 1, an additional 250 kEUR was committed as permitted by the ISA Legislation art. 10(4)

¹⁰ As a result of transferring some of the tasks to the new PEPPOL sustainability action only 170k will be spent of the originally anticipated allocation.

¹¹ This action will be funded by the European Commission's Connecting Europe Facility (CEF).

1.7 E-PRIOR

1.7.1 CONTEXT

1.7.1.1 Identification of the action

Type of Action	Project
Type of Activity	Reusable generic tools
Service in charge	DG DIGIT
Associated Services	DG MARKT.C4

1.7.2 OBJECTIVES

I. The PEPPOL project¹², a Large-Scale Pilot of e-Procurement supported by the CIP programme, has developed a pan-European network for Public Administrations to use, mainly, in cross-border e-Procurement. Alongside this initiative, the e-PRIOR project, supported by the IDABC programme, has developed an electronic services platform which helps Public Administrations connecting their back-office systems to the PEPPOL infrastructure. When used jointly, these systems become key enablers of end-to-end trusted information exchange and semantic interoperability. Despite the many opportunities emerging from the combined use of these technologies, it is known that their adoption by Public Administrations usually does not happen quickly. Nonetheless, the growth of cross-border e-Procurement is affected by the number of Public Administrations connected to PEPPOL. If this process takes too long, the current momentum could be lost.

This project will harness the use of the e-PRIOR system to accelerate the connection to PEPPOL by European Public Administrations.

II. Next to the PEPPOL project, the Directorate General for the Internal Market and Services proposed a new Directive on public procurement and in April 2012 they have published a Communication setting out the strategy for making the use of e-Procurement mandatory in the EU by mid-2016.

These legislative proposals to modernise European public procurement adopted by the European Commission in December 2011 (IP/11/1580) set forth a gradual yet ambitious transition towards e-Procurement in the EU through the following goals:

- Enforcing electronic means of communication for certain phases of the procurement process (electronic notification of tender opportunities and electronic availability of tender documents) by mid-2014 (at expected transposition of the revised Directive).

¹² The PEPPOL project is now continued under the name OpenPEPPOL, and its e-Delivery component is now maintained by the CIPA action of ISA.

Central purchasing bodies will also be required to move to full electronic means of communication, including electronic submission of bids, by mid-2014.

- Enforcing electronic means of communication for all contracting authorities and all procurement procedures by mid-2016 (two years after the expected transposition of the revised Directive).
- Adopting more detailed provisions to encourage interoperability and standardisation of e-Procurement processes.

III. The components developed by the e-PRIOR action have the potential to be used in other sectors than e-Procurement. These opportunities should be elaborated as part of this action.

This action will build further on the e-PRIOR project to fulfil the following objectives:

1. Contribute to the success of the PEPPOL pilot and generalise cross-border trusted information exchange by promoting the use of the open source version of e-PRIOR throughout European Public Administrations.
2. Help the transition of PEPPOL into production by promoting the industrialisation of e-PRIOR's infrastructure service components and consequently the reuse of these building blocks in other sectors.
3. Support the strategy of DG MARKT, by providing re-usable pre-Award open source components and an interoperability model¹³, helping European Public Administrations meeting these deadlines.
4. Elaborate on the possibility of reuse of the developed components in sectors other than e-Procurement.

By fulfilling these objectives, the project will not only stimulate trusted information exchange and semantic interoperability, but also a cohesive interoperability architecture founded on re-use of work and reduction of redundancy, in line with the priorities of the European Interoperability Strategy.

1.7.3 SCOPE

Following the defined objectives, the scope of this project is divided in activities supporting the PEPPOL pilot and activities which support the transition of PEPPOL into production.

Activities linked to the first objective:

1. Set an example and contribute to the creation of critical mass

As stated above, PEPPOL will benefit if many European Public Administrations participate in its piloting. Thanks to e-PRIOR and its successful deployment in production at DIGIT, the European Commission is already today equipped with one of the most mature electronic services platform in the e-Procurement domain. Since the core elements were already in place, the participation in the pilot could be achieved within a relatively short time provided the

¹³ The interoperability model will interconnect the different pre-award platforms of the Member States via CIPA e-Delivery so that an Economic Operator will be able to reply from its usual platform to a call for tender issued by another platform.

availability of resources. Participation as from day one has shown additional commitment and involvement at European level. This initiative will also help to pave the way for Public Administrations willing to join PEPPOL. The creation of critical mass will accelerate wide adoption of PEPPOL and thus promote cross-border e-Procurement in Europe.

2. Support Member States in the implementation of e-PRIOR throughout the PEPPOL project

A helpdesk has been set up to support Public Administrations in the deployment of e-PRIOR's open sourced version. The release of e-PRIOR's open sourced version on the OSOR website has triggered more than 1500 downloads. According to the feedback received, additional support would help Public Administrations to test and learn more about this platform, thus accelerating its use in operations and possibly in other sectors. Now that the Belgian Federal State has decided to adopt e-PRIOR for their own e-invoicing process, this helpdesk has been instrumental already in supporting them in the deployment of their e-PRIOR instance.

3. Support the sustainability and evolution of the core interoperability enablers of PEPPOL

Already today, e-PRIOR implements several profiles specified by the CEN/ISSS WS/BII covering e-Catalogue, e-Ordering and e-Invoicing. This project will continue to participate in the follow-up of this initiative, the third CEN/ISSS WS/BII, to ensure the sustainability and proper evolution of these profiles. Additionally, e-PRIOR has been enhanced to cover the full post-awarding procurement process, from Sourcing to Payment, as well as the pre-awarding procurement process, from Publication to Awarding which will widen the contribution of this project to this standardisation initiative. All implemented profiles will afterwards be made available over the PEPPOL network.

4. Facilitate adoption by adding a GUI

Currently, e-PRIOR offers a web services interface which can be accessed by any machine. However, by enhancing e-PRIOR with a Graphical User Interface, Public Administrations could enable Small and Medium Enterprises to interact with e-PRIOR using the ubiquitous web-browser. This, together with the out-of-the-box connection to the PEPPOL network, is making e-PRIOR very attractive to the MS administrations and thus accelerates the adoption of cross-border e-Procurement in Europe.

5. Proactive assistance to Public Administrations

Alongside the above activities, the project team will engage in proactive assistance to Public Administrations. Public Administrations may not know how to benefit from the products of this project. This will also mean that they will not contact the project team. To mitigate this risk, and in coordination with ISA's communication initiative, the project team will proactively disseminate information on e-PRIOR in collaborative platforms such as ePractice.eu or SEMIC.eu, participate in selected expert groups, conferences, contributions to news articles and production of various communication artefacts. Additionally, this project will also encourage e-Procurement within the European Institutions to promote the involvement and direct engagement of these stakeholders.

Activities linked to the second objective:

1. Follows the trends of the standardisation

Today, e-PRIOR supports the UBL2.0 XML specification as specified in the CEN/ISSS WS/BII profiles. In the near future, PEPPOL is expected to also support the UN/CEFACT XML standard. After investigating its feasibility, the required developments will be made in e-Prior to support this standard. In any case, UBL will continue to be supported given the community of Users. In the meantime, we made sure that e-PRIOR was able to support multiple formats,

thanks to a collaboration with Difi (Sweden), owner of the EHF format. And we have made sure that, when the first connected system wishing to use CII will arrive, the work needed will be configuration and not development.

2. Support of Advanced Electronic Signatures

Today, e-PRIOR is working in an EDI concept¹⁴ for the VAT compliance of the e-Invoicing module. The decision for using EDI was driven by the business requirements of the original User community. EDI will continue to be supported, but for certain modules or in certain cases, Advanced Electronic Signatures is now also an option. This implies that signing and verification mechanisms are supported by e-PRIOR. This enables experimenting, for example, the use of e-catalogues in the pre-awarding phase, where no contractual relationship exists, and covering a wider range of legislations, hence paving the way to a cross-sector use.

Activities linked to the third objective:

1. e-Procurement in a pre-awarding context

An e-Catalogue gap analysis performed under the IDABC e-PRIOR project revealed significant gaps but also some matches between the pre- and post-award use of electronic catalogues. One of the conclusions of this study however is that e-PRIOR can play an important role in the integration of e-Tendering systems with the procurement back-office systems of public administrations. In a first stage, a feasibility study has focused on the requirements of the e-Submission / e-Awarding process, and investigated what can be re-used from the PEPPOL Virtual Company Dossier (VCD), but also the OP e-Tendering project, and the standardization work for pre-award done in the CEN/BII 2 workshop. This activity will also look into the Dynamic Purchasing System (DPS) and e-Auctioning.

2. In a second stage, the envisaged solutions will be further analysed (new version of the feasibility study will be produced) and implemented. Activities 1 and 2 yield a progressive incremental coverage, implying that by the end of 2012 a first e-Submission module was made available, and that by the end of 2015 we should have a complete e-PRIOR e-Procurement suite, covering all the phases from pre- and post-Award.

3. In order to contribute to the Key Action (14) of the DG MARKT Communication on e-Procurement "*European Commission to make its e-Procurement solutions available to Member States that are building their infrastructure, to reduce investment costs*", the developed software components will be made available on Joinup in open source.

Activities linked to the fourth objective:

1. The re-use of e-Submission components in other sectors than procurement where similar processes must be supported will be analysed.

2. A reusable Admin Console will be developed so that the parties can be configured in the system in a user-friendly way. This console would be cross-sector because it will have no specificity for e-Procurement, and can therefore serve as basis for the administration needs identified for e-TrustEx.

¹⁴ EDI (Electronic Data Interchange) is a standard which acts as common interface between computer applications in terms of understanding the transmitted documents. When implemented in the context of a business process, it is a viable alternative to e-signature according to the relevant European Commission directives.

1.7.4 PROBLEM/OPPORTUNITY STATEMENT

This action will exploit the opportunities presented by the joint use of the PEPPOL network and the e-PRIOR system. Historically, Member States have implemented non-interoperable solutions for e-Procurement at one or several levels of the administrations (Central, Regional or Local level). Today, this heterogeneity greatly hinders the growth of cross-border e-Procurement. Even at national level e-Procurement suffers from these same issues: diversity and complexity. Given this panorama, some Member-States remain reluctant to expand / or jump start the use of e-Procurement.

Together the PEPPOL and e-PRIOR projects generate a significant opportunity for Europe to boost the use of e-Procurement. This project will enable Public Administrations to easily get connected to PEPPOL via the reuse of, the proven and tested, e-PRIOR platform (which embeds a CIPA gateway among other added-value services).

The reuse of e-PRIOR will help increase the number of CIPA gateways deployed in European countries. By not reinventing the wheel each time, European Public Administrations will be able to spend less, focus on what is important and take advantage of what already works well (at the European Commission). As the private sector gets on board, e-PRIOR will also serve as a learning tool for private companies to develop their own e-Procurement commercial solutions based on European standards. System integrators will also benefit because they will have several packages, commercial and open source, to propose to Public Administrations for implementation.

As a result, the generalisation of trusted information exchange¹⁵ will contribute to the take up of interoperable e-Procurement, the sustainability of PEPPOL and the reuse of these building blocks in other sectors.

Advanced contacts with Public Administrations of several Member States and a survey amongst the beneficiaries of PEPPOL showed that the availability of open-source e-Procurement tools is perceived as very valuable for Member States. It also revealed that Public Administrations not having already implemented e-Procurement tools are interested in open-source solutions, such as the e-PRIOR system, under the condition that they are well-documented and support is guaranteed. Discussions with online service providers and ERP software vendors clearly identified an interest from the private sector to support the public sector in implementing interoperable e-Procurement solutions and standards.

DG MARKT's Communication "A strategy for e-Procurement" foresees a full transition to e-Procurement for the European administrations. The European Commission itself will have to implement full e-Procurement by mid-2015 (one year before the deadline for Member States), and to make its e-Procurement solutions available to Member States that are building their infrastructure, to reduce investment costs. This will be achieved by means of this action.

Additionally, a number of flanking measures are put in place to support the Directive proposal:

- An e-Tendering Expert Group (e-TEG), who's main task was to create a blue-print for an e-Tendering solution; and

¹⁵ See action 1.8 Trusted Exchange Platform

- The e-Procurement Golden Book of Good Practice: this study has collected good practices for (mainly pre-Award) e-Procurement, and practices to be avoided.

Both initiatives have provided deliverables by the end of 2012, and this action aims at aligning to them as much as possible.

1.7.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States' Public Administrations - implementers of Public Services	<ul style="list-style-type: none"> • Free-to-use open source tool, e-PRIOR, for implementing electronic public services for both pre- and post-award e-Procurement, for which a maintenance and further development is guaranteed. This system includes out-of-the-box functionality – the PEPPOL Connector – to connect to the PEPPOL infrastructure; • Free-to-use open standards for data and processes (CEN/ISSS WS/BII 2) that have been tested in a real-life environment ; • Shared experience in and support for setting up pre- and post-award e-Procurement; • Large cost savings and efficiency improvements, with reduced investment; • Provide example of a real-life implementation of the European Interoperability Framework (EIF); • The dissemination of e-PRIOR to Member States in the context of e-Procurement is a first step in making this platform available for cross-sector re-use. Once the Member States' Administrations use e-PRIOR, they can use it for any electronic business document exchange. e-PRIOR could be used to facilitate e.g. the legislative process between the European Commission and the national parliaments, through integrating e-Grefe with e-PRIOR. • Re-use of e-Submission components in other sectors different than procurement
Stakeholders of the PEPPOL project	This action will alleviate the effort required by Public Administrations to connect to PEPPOL during and after its pilot thus accelerating the adoption of this enabler of interoperability.

1.7.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
Digital Agenda	Interoperable e-Procurement and leading by example are explicitly mentioned in the Digital Agenda (see Key Action 16 and related "other actions")
Communication on e-Procurement (DG MARKET)	e-PRIOR is seen as an important action to support e-Procurement in Europe
Communication on e-Invoicing (DG MARKET / DG ENTR)	The European Commission is leading by example by implementing e-Invoicing for own public procurement purposes, through e-PRIOR.
ISA Action 1.6 – PEPPOL Sustainability (CIPA)	ISA Action 1.7 has an Access Point to the PEPPOL network. In this context, ISA Action 1.6 aims to maintain the sample implementation of this Access Point component and provide support to Public Administrations which are implementing it.
ISA Action 1.8 – Trusted Information Exchange Platform	The e-PRIOR document exchange functionality is based on the eTrustEx platform from ISA Action 1.8.
ISA Action 1.9 – Supporting tools for TSL and e-signature creation/verification	ePrior will use the tool developed by ISA Action 1.9 for the signing of the economic operator in the pre-award phase and for the signature receipt of the competent authority.
ISA Action 2.11 – Promoting consistent eu e-procurement monitoring and performance	The two combined actions will result in a coherent set of requirements to be met by the Commission when implementing its pre-awarding e-Procurement operation.
ISA Action 4.1.1 – Communication activity	Information on e-PRIOR aims to be disseminated, in coordination with ISA Action 4.1.1, in collaborative platforms such as ePractice.eu or SEMIC.eu, via the participation in selected expert groups, conferences, contributions to news articles and production of various communication artefacts.
ISA Action 4.2.1 – ISA Integrated Collaboration Platform	Joinup acts as a platform to support the building of a user community around the e-Prior tool.

Action / Policy	Description of relation
ISA Action 4.2.6 – Interoperable testbed	ISA Action 4.2.6 should be capable to test software solutions built to support crossborder exchange of information between Public administrations. Since ePrior, eTrustEx, STORK Sustainability and CIPA aims to sustain the solutions of these LSPs and have therefore created or will create testbeds for them, these actions are also linked to the ISA Action 4.2.6.
DG CONNECT PEPPOL project (CIP Large Scale Pilot)	ISA Action 1.7 aims to enable Public Administrations to easily get connected to PEPPOL via the reuse of the proven and tested, e-PRIOR platform (electronic services platform which helps Public Administrations connecting their back-office systems to the PEPPOL infrastructure). Therefore, as a complementary solution, e-PRIOR contributes to the success of PEPPOL.

1.7.7 ORGANISATIONAL APPROACH

1.7.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
ISA	ISA Coordination Group
DIGIT.B4	Angelo Tosetti, Didier Thunus, Tanya Chetcuti, Yuliya Krumova, Guilaine Binet, Marco Martini, Luiza Cosminca
DIGIT.R	Bernard Magenhann
DG MARKT.C4	Kamil Kiljanski, Ivo Locatelli, Tudor-Trestieni Ion
DG ENTR.D4	Antonio Conte, Nathalie Pasquier
DG CONNECT.H3	Jean-François Junger, Hannele Lahti
OpenPEPPOL Organization	Sven Rasmussen, Carmen Ciciriello
European Public Administrations	
Economical Operators	
Service Providers	
ERP Software Vendors	
CEN/ISSS WS/BII 2	

1.7.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
ISA TIE Working Group	e-PRIOR team member	Quarterly
EXPP Summit	e-PRIOR team member	Yearly
CEN/ISSS WS/BII 3	e-PRIOR team member	Quarterly
DG MARKT e-Procurement Working Group	e-PRIOR team member	Quarterly
DG MARKT e-Tendering Expert Group	e-PRIOR team member	Monthly
EC Multi-Stakeholder Forum on e-Invoicing	e-PRIOR team member	Quarterly
Conferences on e-Procurement, e-Invoicing or e-Government	e-PRIOR team member	+/- Monthly
e-Practice	(online)	
Joinup	(online)	
LinkedIn e-PRIOR Group	(online)	

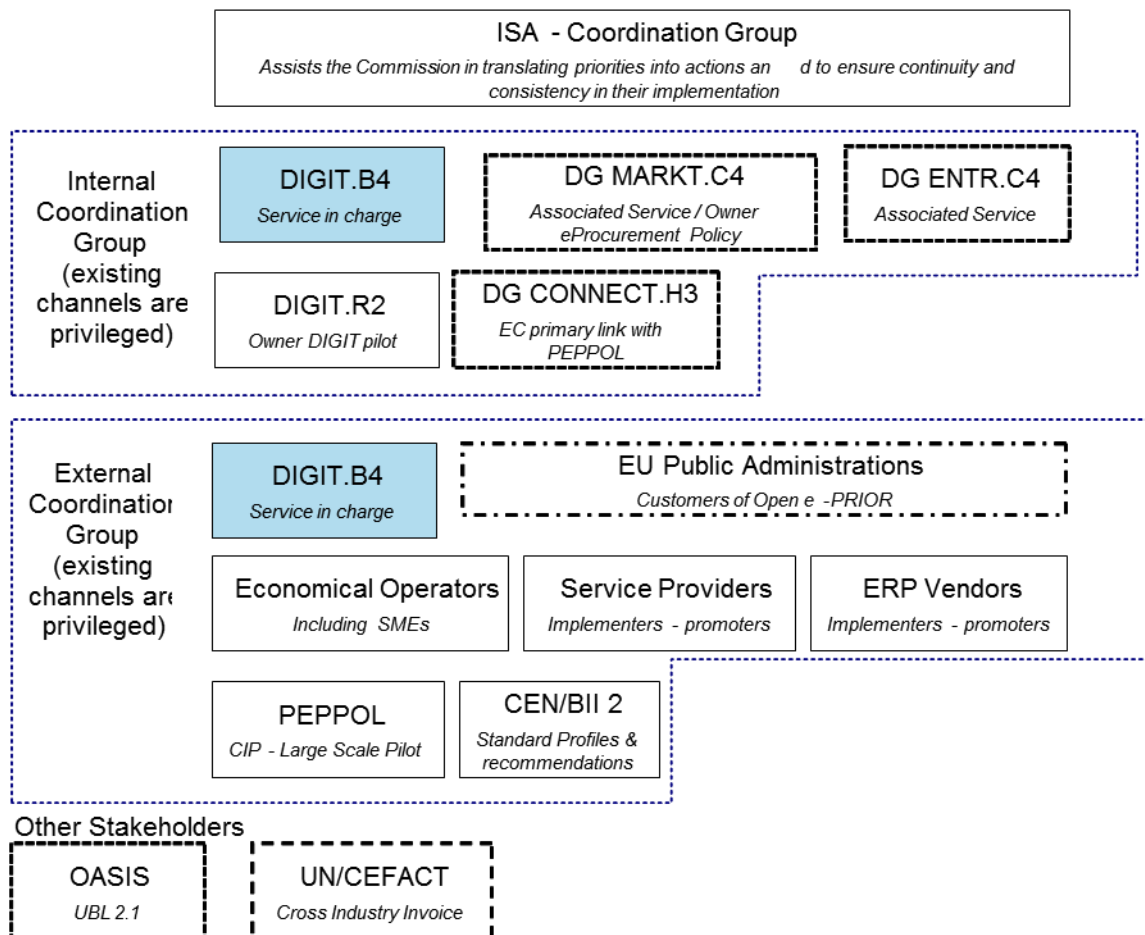
1.7.7.3 Governance approach

The e-PRIOR participation to PEPPOL has been considered as one of the PEPPOL Pilots. A close collaboration between the two projects is already in place and will continue to be harnessed.

Bi-weekly project review meetings (review of the project progress), alternated by bi-weekly team meetings (review of the individual tasks) will ensure the timely delivery of the project and the involvement of the associated services, DG MARKT and DG ENTR. Additionally, a coordination group will be used to bridge the perspectives among the internal stakeholders and another one, with similar purposes, for external stakeholders. These groups will have the mission to ensure the successful governance of efforts in the internal and external ecosystems. These groups will not be formal committees but a set of mechanisms using the existing communication channels,

workshops and meetings. The basic principle is that these groups should be versatile and empowering with minimal bureaucracy overhead. Of course that when and if required, these groups may be further formalised into committees.

Regarding the methodologies, RUP@EC will be used for software development and ITIL for service management. The governance structure is summarized in the schema below:



1.7.8 TECHNICAL APPROACH

This project is realized in three stages as depicted in the high-level project plan, provided in the last page, as explained hereunder.

The kick-off phase of the project was the Inception phase whereby a project charter has been set up for defining in more detail the activities within the scope of this project, as explained in section 1.7.3.

Following the project charter phase, the project is then executed in 2 separate phases as follows:

Phase 1 has focused on those activities which will contribute to the success of the PEPPOL pilot and generalisation of cross-border trusted information exchange by promoting the use of e-PRIOR.

Phase 2 has focused on supporting the transition of PEPPOL into production in coherence with the PEPPOL Sustainability Plan and the upcoming Green Paper on e-Procurement of DG MARKT.

Phase 2a covered the further enhancements to the post-award procurement process, while phase 2b has looked into the pre-award procurement processes in order to establish the feasibility study.

Phase 3 will realize the implementation of the pre-award processes as defined in the feasibility study of Phase 2b, and will include the cross-sector aspects of objective 4.

These phases are aligned with the objectives in section 1.1.2.

It is proposed that each of the phases defined above will be executed in two sub-phases, being an Execution sub-phase and an Operational sub-phase. The activities involved in the Execution sub-phase will contribute towards the development of further functionality in order to support the goal of the phase whereas the activities for the Operational sub-phase will contribute towards providing the necessary support. Where possible, the existing e-PRIOR project team and the applied development tools and methodologies (based on RUP@EC for software development and ITIL for service management) will be used, in order to ensure the continuity of the e-PRIOR project.

The results of each development phase will be formally documented by an execution report.

1.7.9 COSTS AND MILESTONES

1.7.9.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Inception	Project charter	0	DIGIT internal resources	Q1/2010	Q2/2010
Phase 1: Support the PEPPOL pilot and promote the use of e-PRIOR					
Execution	Phase 1 - Execution report	2.950	ISA	Q2/2010	Q2/2011
Operational		750	ISA	Q2/2010	Q4/2011

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Phase 2: Support the transition of PEPPOL into production / Support DG MARKT's e-Procurement strategy					
Execution	Phase 2a - Execution report (UN/CEFACT, e-Signature, GUI for SMEs)	900 ¹⁶	ISA	Q3/2011	Q2/2012
Execution	Phase 2b - Execution report: Pre award: Feasibility Study, e-Submission, e-Qualification and e-Awarding; Admin Console; Cross-sector reuse (analysis/opportunities)	2.150 ¹⁷	ISA	Q3/2011	Q4/2013
Operational		600 ¹⁸	ISA	Q1/2012	Q4/2013
Phase 3: Support DG MARKT's e-Procurement strategy (continued)					
Execution	Phase 3a – Execution Report: e-Evaluation, e-Catalogue, e-Attestation, Cross-sector pilot	1.450	ISA	Q1/2014	Q4/2014
Execution	Phase 3b - Execution Report: e-Auctions, Dynamic Purchasing System and e-Tendering Interoperability Model	1.350	ISA	Q1/2015	Q4/2015
Operational		300	ISA	Q1/2014	Q4/2015
	Total	10.450			

¹⁶ 1.050 k€ of the original proposal – 150 k€ moved to Operation 2012 for UN/CEFACT, as per the Execution Report of Phase 2a

¹⁷ 1.850 k€ of the original proposal + 150 k€ moved from Operational 2012 + 2x150 k€ additional budget for the Admin Console.

¹⁸ 600 k€ of the original proposal + 150 k€ moved from Execution 2a for UN/CEFACT – 150 k€ moved to Execution 2b

1.7.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010	Phase 1 Execution	1830	1830
	Phase 1 Operational	320	319
2011	Phase 1 Execution	1120	1122
	Phase 2a Execution	200	200
	Phase 2b Execution	100	100
	Phase 1 Operational	430	430
2012	Phase 2a Execution	700	700
	Phase 2b Execution	600	750
	Phase 2 Operational	300	300
2013	Phase 2b Execution	1450	
	Phase 2 Operational	300	
2014	Phase 3a Execution	1450	
	Phase 3 Operational	150	
2015	Phase 3b Execution	1350	
	Phase 3 Operational	150	

1.7.10 ANNEX AND REFERENCES

Description	Reference link	Attached document
Green Paper on expanding the use of e-Procurement in the EU (DG MARKT)	http://ec.europa.eu/internal_market/consultations/docs/2010/e-procurement/green-paper_en.pdf	
Communication on e-Invoicing "Reaping the benefits of electronic invoicing in Europe" (DG ENTR / DG MARKT)	http://ec.europa.eu/enterprise/sectors/ict/files/com712_en.pdf	
Digital Agenda	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0245:FIN:EN:PDF	
Communication on eInvoicing and eProcurement policy (COM 2013 453)	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2013:0453:FIN:EN:PDF	

Description	Reference link	Attached document
Communication "A strategy for e-Procurement" (DG MARKT)	http://ec.europa.eu/internal_market/publicprocurement/docs/eprocurement/strategy/COM_2012_en.pdf	

1.8 TRUSTED EXCHANGE PLATFORM (E-TRUSTEX)

1.8.1 CONTEXT

1.8.1.1 Identification of the action

Type of Action	Project
Type of Activity	Reusable generic tools
Service in charge	DG DIGIT
Associated Services	SG A.1.A1, SG.G.3, SG.R.3, COMP R.3, MARKT.B.1, DG EMPL

1.8.2 OBJECTIVES

The initial goal of this project was to provide a Trusted Exchange Platform re-using the existing e-PRIOR infrastructure and to prove its cross-sector re-usability.

The main objective of this action is now to support public administrations in the implementation of European policies in different sectors by promoting Interoperability through re-use. The specific objectives are:

- Demonstrate the re-use of the e-TrustEx platform in several sectors. The purpose was to demonstrate that e-TrustEx can accelerate the implementation of secured exchange of information between Publication Administrations cross-border and cross-sector. Additionally, this platform will facilitate the automation of document exchange choreographies and offer value added services such as a canonical data model (semantic shield), validation and routing of information. When needed and possible, the receipts given by the post (with legal equivalent value) will be replaced by electronic receipts. Thanks to the Open Source policy, Member States will be able to re-use and extend it themselves for their own specific needs at national, regional or local level.
- Definition of a holistic Architectural Vision. This has been derived through the analysis of the CIP Large Scale Pilots, e-PRIOR and other exchange platforms. It is clear that the implementation of this vision has inherited many of the challenges which are currently being debated by the CIP LSPs. Therefore, the execution of this project will include active participation in the on-going action to harmonise the CIP document exchange platforms. The roadmap of e-TrustEx has further detailed how the Architectural Vision will be implemented taking into account any dependencies on other actions.
- Implementation of the roadmap resulting from the afore-mentioned Architectural Vision, as described in section SCOPE below (Phases 2-5)

1.8.3 SCOPE

This action mostly addresses the domain of Administration-to-Administration (A2A) information exchange and is related to the Trusted Information Exchange cluster of ISA. It is split into several Phases, the details of which are given in the section "*Technical approach*".

The main activities for Phase 1 were:

1. Customisation and extension of e-PRIOR in order to automate document workflows by exchanging information, such as legislative and competition related documents in PDF, Word, etc. in electronic format via a reliable and secure platform. Envisaged recipients are permanent representations, national parliaments, local governments, EU institutions, national competition authorities and others;
2. Develop extensions to allow the exchange of large documents, generic "bundles" of documents, and their sending in multicast mode;
3. Development of a web GUI to send and receive documents.

The main activities for Phase 2 were:

1. Finalisation of an Architectural Vision and Roadmap resulting from:
 - a. Analysis of similar initiatives (e.g. EESSI of DG EMPL or PEC of the French "Direction Générale pour la Modernisation de l'Etat");
 - b. Discussion with representatives of Member States participating in the ISA Trusted Information Exchange cluster;
 - c. Consultation of IRMs in the DGs of the European Commission;
 - d. Coordination with on-going activities on convergence of transport infrastructure in the CIP pilots.
2. Review of the Platform after the conclusion of Phase 1 to facilitate its release in Open Source (this also includes additional configurability features to reduce costs in supporting new types of exchanges and to facilitate the "sustainability" of the platform, once implemented by Member States in their own context);
3. Part 1 of Architecture Roadmap Implementation;
4. Implementation of pilots.

The main activities for Phase 3 were:

1. Part 2 of Architecture Roadmap Implementation (generality of the platform)
 - a. Enhancement of the generality of the platform by removing all the dependencies with the e-Procurement domain
 - b. Integration of e-TrustEx and the CIPA e-Delivery building blocks to enable cross-border exchange of documents between Public Administrations
 - c. Enhancement of the generic e-TrustEx GUI to support additional functionalities (e.g. outbox consultation)
 - d. Development of a generic administration console for the configuration of the platform
2. Implementation of pilots.

The main activities for Phase 4 are:

1. Part 3 of Architecture Roadmap Implementation (scalability and reliability of the platform)
 - a. Ensure that the platform can be deployed in a clustered environment
 - b. Implementation of the functionalities for archiving and retention of documents
 - c. Implementation of the functionalities for audit and logging
3. Enhancement of the generic administration console to enable system administrators to monitor audit and logging information generated by the system
4. Implementation of pilots.

The main activities for Phase 5 are:

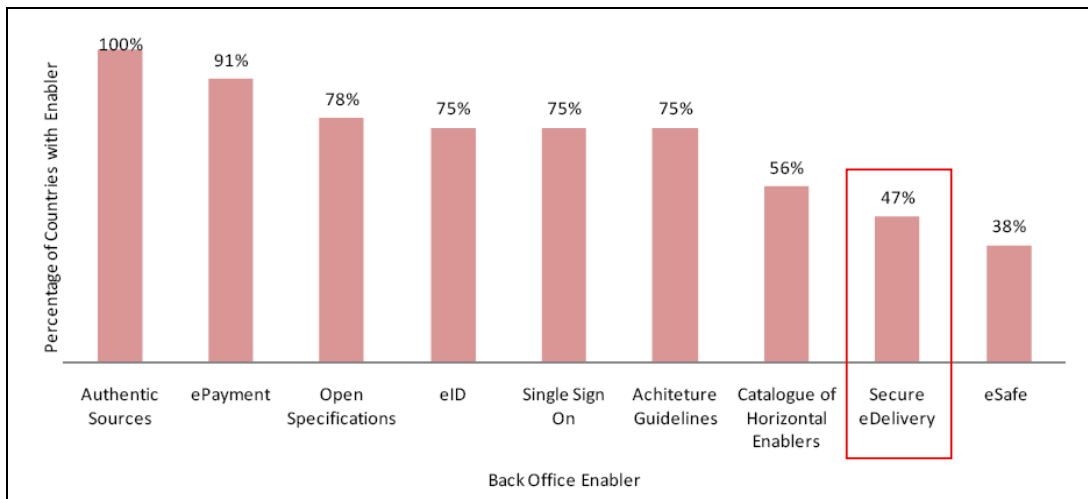
1. Part 4 of Architecture Roadmap Implementation (Additional Functionalities)
 - a. Support for message exchange priority
 - b. Implementation of business notification
 - c. Integration with external systems for time stamping and storage of documents
 - d. Support of the exchange of large structured documents in XML format
2. Implementation of pilots.

NB: The exchange of classified documents is out of the scope of this action. Regarding the scope of the support model:

- In the context of each pilot, the DG responsible for the system connected to e-TrustEx will provide direct support to its Users. This means that the service desk of each pilot will be run by the pilot beneficiaries and not the e-TrustEx team.
- The support and deployment model of the e-TrustEx platform is further detailed in the Architectural Vision. Technical documentation and technical support by the eTrustEx team will cover all aspects related to the platform as a re-usable tool (e.g. the specifications of the technical interface and of the several components of the platform).

1.8.4 PROBLEM/OPPORTUNITY STATEMENT

European policy increasingly requires information between public administrations in the EU Member States to be exchanged electronically. To enable the sharing of data across the 27 Member States, their systems must be made interoperable. Public administrations are therefore receiving increasingly frequent requests to take action and to switch from paper, e-mail or other non-interoperable solutions to secured electronic information exchange.



The 9th Benchmark Measurement of European e-Government services¹⁹ shows that there is an increasing need of the Member States for a secure e-Delivery platform. This is also confirmed by a survey carried out by the e-TrustEx project team in 2010, whereby Member States agreed that the European Commission should promote the re-use of a common set of building blocks for cross-border data exchange.

Through its value-added services, in particular the greater ease of connecting backend-systems to an e-Delivery platform and of directly submitting documents to such a platform through a GUI, e-TrustEx will make available a key enabler for secure eDelivery to the Member States currently lacking one

The Trusted Exchange Platform (e-TrustEx) supports policy implementation by public administrations in the European Union by:

- Piloting cross-border information exchange, in several sectors, through the same exchange platform (i.e. cross-sector re-usability of software building blocks and technical interoperability frameworks). Most of these pilots will involve a significant enhancement in the way data is currently exchanged between Public Administrations in the Member States and the European Commission;
- Making this platform accessible in open source to all public administrations in Europe (i.e. levelling the playing field by making a proved and tested interoperable solution available to all public administrations). It should be noted that this exchange platform aims at being an extensible solution, which could serve policy areas beyond the ones covered by the pilots of this initiative.

E-TrustEx itself will be developed through re-use and extension:

¹⁹ https://ec.europa.eu/digital-agenda/sites/digital-agenda/files/egov_report.pdf

- First, it will be based on the building blocks of the e-PRIOR platform.
- Second, when possible, e-TrustEx will "integrate with" the building blocks coming from the CIP Large Scale Pilots. PEPPOL's transport infrastructure (BUSDOX) and SPOCS' e-Delivery framework (REM SOAP) are integral in achieving a Pan-European interconnection among existing information exchange communities.

Each of the above mentioned Pan-European exchange platforms offers generic and highly reusable components and services; however, if not integrated, the lack of "end-to-end" coverage (including the "last-mile") and interoperability between them may hinder their actual re-use. Member States require a solution for secured message exchange, not tailor-made platforms for each specific sector with limited reach and a particular technical implementation. If an "end-to-end" solution is not available and easily accessible, the multiplication of technical specifications platforms, standards, and "e-Government clouds" are likely to continue developing in a non-coordinated way. This phenomenon may potentially lead to the creation of additional barriers and hurdles for the secure exchange of information cross-border and cross-sector, mainly due to the underlying complexity and potential interoperability issues.

Ultimately, e-TrustEx will enable the Member-States to implement commitments on interoperability and standards which are fundamental for the availability of cross-border services across Europe.

As required by the ISA decision, this platform promotes EU-wide interoperability and re-use of existing building blocks, so as to avoid duplication of effort. By supporting policy implementation in several sectors and overcoming obstacles for electronic information exchange, this action will ultimately contribute to the creation of a Digital Single Market in Europe. Instead of working on developing a solution with generic but abstract requirements, the approach is to exploit the opportunities offered by the implementation of concrete examples via the interoperability of real working systems having significant functional and non-functional requirements. This will contribute to the expansion of the user community, to the inclusion of more potential parties and it will also allow the coverage of additional sectors / policy areas together with the progressive support of additional features. The identified business cases offering the opportunity to test and extend the technical platform are described in the section "Technical Approach".

Sustainability / financial Model for eTrustEx as a Tool

According to the definition given in the ISA decision "*generic tools' means reference platforms, shared and collaborative platforms, common components and similar building blocks which meet common user requirements across policy areas*". The sustainability/financial model should be as follows:

- **Case of the Platform offered to EU Institutions:**
ISA should cover the development of the core / generic functionality and the technical support of the platform while the Policy DGs should fund with their own budget the

integration of their back-offices, the hosting, the specific support and the development of specific functionality and extensions.

- **Case of the Platform offered to Member States:**

ISA should cover the development of the core / generic functionality and the technical support of the platform while the Administrations of Member States adopting the platform (or the relevant Policy DGs) should manage the hosting, the specific support and the development of specific functionality and extensions.

Once all the generic developments are completed the maintenance costs will be sustained by the platform users (policy DGs/Other EU Institutions/MS Administrations).

1.8.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Direct Beneficiaries	Anticipated benefits
Member States' public administrations and EU institutions	<ul style="list-style-type: none"> - Switching from expensive registered post to large scale digital exchange of information (as an example, in France around 25 to 40 million letters with delivery receipt are exchanged by public administrations – around 4€ to 5€ each). - Enable the creation of a European ecosystem of electronic message exchange which could serve several sectors requiring cross-border exchange of information. This should also prevent the creation of specific and ad-hoc information exchange solutions for each sector. - Support secure exchange of documents between parties exceeding the capabilities of the current ways of exchange either electronically (e-mail) or physical (paper documents, CD, DVDs, faxes, etc.), reducing manual work and increasing reliability and the efficiency of the whole process. - Cost savings and improve efficiency, reduce time-to-market and ensure interoperability of information exchange at European, national, regional or local level. - Free-to-use open source tools for national parliaments and permanent representations to send and receive electronic legal documents and metadata. These tools can be used for exchanging other electronic business documents with other stakeholders with enhanced reliability, security, efficiency, and an increase in the capacity of information exchange. - Experience, lessons learnt, specifications, tools and components published as open source reusable by any Member State or EU Institution.

Direct Beneficiaries	Anticipated benefits
IT services in the Commission	The European Commission, because of its trans-national position, is more and more called upon to develop distributed systems to coordinate political actions in various fields. If a generic system can be defined and later put in place, it will be a very big progress for the whole interoperability issue in Europe. This would of course also represent important cost savings since the infrastructure of such systems would then be reusable.

1.8.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
Digital Agenda	<p>Action 27: Member States to implement Malmö and Granada declarations Member States should implement commitments on interoperability and standards in the Malmö and Granada Declarations by 2013.</p> <p>Action 26: MS to implement European Interoperability Framework Member States should apply the European Interoperability Framework at national level by 2013.</p> <p>http://ec.europa.eu/information_society/digital-agenda/index_en.htm</p>
The eGovernment Action Plan 2011 – 2015	<p>Action 33 "Exchanges of expertise, promotions of the re-use and sharing solution to implement interoperable eGovernment services" The Commission will organise exchanges of expertise and promote the re-use and sharing of solutions to implement interoperable eGovernment services. This includes establishment of interfaces to gain access to and use authentic national sources.</p> <p>Action 40 Pilot projects for innovative architecture and technologies in eGovernment The Commission will launch pilot projects to demonstrate how public administrations can deliver eGovernment services in a more flexible and efficient way by using innovative architecture and technologies.</p> <p>http://ec.europa.eu/information_society/activities/egovernment/action_plan_2011_2015/index_en.htm</p>
ISA Action 1.6 – PEPPOL Sustainability (CIPA)	The eTrustEx platform will integrate the e-Delivery, e-Document and eID components provided by ISA Action 1.6 when operational.

Action / Policy	Description of relation
ISA Action 1.7 – e-PRIOR	The e-PRIOR document exchange functionality is based on the eTrustEx platform from ISA Action 1.8.
ISA Action 1.10 – Internal Market Information (IMI) system	The eTrustEx platform provides the secure transfer of SOLVIT complaint forms from the IMI front end to the IMI back-office.
ISA Action 1.11 – Interoperable and Generic Notification Services	The eTrustEx platform will be used when developing the GENIS Information System, to provide efficient, trusted and transparent exchange of data (structured and unstructured) between the Commission (COMP, AGRI, and MARE) and Member States administrations within the State Aid Notification Process (e.g. attachments associated to the State Aid Notification Forms and to messages exchanged in the case shared repository).
ISA Action 1.12 – OSS platform for online collection of statements of support for European citizens' initiatives	The OCS is currently storing all the data from the ECI, however in the future it aims at transferring them to the Member States. For this purpose, the ISA Action 1.12 could reuse one part of eTrustEx. This is currently under discussion with the project team of the ISA Action 1.8.
ISA Action 1.16 – Common Information Sharing Environment (CISE)	CISE development shall be carried out taking into consideration the results of ISA Action 1.8.
ISA Action 1.20 – Application of EU Law	ISA Action 1.20 will develop the future Infringement (INFR) service as a single exchange platform and repository of all official infringement documents exchanged between Member States and the Commission (by using the eTrustEx platform for the transmission of official documents to the Member States and reception of acknowledgement from them), mainly in legislation and competition policy areas.
ISA Action 4.2.1 – ISA Integrated Collaboration Platform	Joinup acts as a platform to support the building of a user community around the eTrustEx tool.
ISA Action 4.2.6 – Interoperable testbed	ISA Action 4.2.6 should be capable to test software solutions built to support crossborder exchange of information between Public administrations. Since ePrior, eTrustEx, STORK Sustainability and CIPA aims to sustain the solutions of these LSPs and have therefore created or will create testbeds for them, these actions are also linked to the ISA Action 4.2.6.

Action / Policy	Description of relation
DG CONNECT (CIP Large Scale Pilot)	The eTrustEx platform will be integrated with the solution deriving from the convergence of the eDelivery solutions of the CIP Large Scale Pilots when operational.
DG EMPL EESSI	eTrustEx will support DG EMPL efforts to implement a common platform for Electronic Exchange of Social Security Information (EESSI project, see Regulations (EC) Nos. 883/2004 and 987/2009 on the coordination of national social security schemes). The project EESSI will explore the use of generic services (transport and messaging) from eTrustEx for its platform. http://ec.europa.eu/social/main.jsp?catId=869

1.8.7 ORGANISATIONAL APPROACH

A Project Steering Committee has been established to provide overall guidance and direction for the project with the participation of all concerned services. Working groups will be organised with different families of beneficiaries to gather their requirements.

The action is multiannual and organised in phases. Within each phase, the integration of additional back-end systems and/or the support of additional requirements will be covered.

1.8.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
ISA Coordination Group	The ISA coordination group assists the Commission in translating priorities into actions and to ensure continuity and consistency in their implementation.
DIGIT – Directorate General of Informatics of the European Commission	<p>Unit DIGIT.B.4 (<i>Information Systems for Policy Support, Grant Management, and e-Procurement</i>)</p> <p>This unit is the main service in charge of this action and responsible for the development coordination and maintenance of e-TrustEx. It ensures the development and re-use of the e-PRIOR related modules and services and coordinates the interaction between the different stakeholders.</p> <p>Unit DIGIT.B.1 (<i>Information systems for document management and corporate decision making processes</i>)</p> <p>This unit is in charge of the e-GREFFE project and the coordinator of integration with A.S.A.P.</p>

Stakeholders	Representatives
DG COMP - Directorate General Competition of the European Commission	<p>Unit COMP.R.3. (Information Technology) This unit is in charge of the EDMA project and will be responsible of the development of the EDMA and GENIS specifically related modules.</p> <p>Unit COMP.R1 (Document Management) This unit is the system owner and business project manager of EDMA and represents the interests of the EDMA users.</p> <p>COMP.H (State aid: Cohesion, R&D&I and enforcement) This Directorate is the system owner of the GENIS project.</p>
Secretariat general Of the European Commission	<p>Unit SG.A1 (Advice, developments and logistics) This unit is the system owner and business project manager of e-GREFFE and represents the interests of the e-GREFFE users.</p> <p>Unit SG.R3 (Information Technology) This unit is the system supplier of A.S.A.P..</p> <p>Unit SG.G3 (European Economic and Social Committee, Committee of the Regions, European Ombudsman and National Parliaments) This unit is the system owner of A.S.A.P..</p>
DG MARKT – Directorate General for Internal Market and Services of the European Commission	<p>Unit MARKT.B.1 (Internal Market Information System) This unit is the owner of the IMI system. The expansion strategy of IMI in other sectors considers eTrustEx as complementary to the IMI system. In fact IMI currently supports the exchange of data and information between end-users. In addition to these features, eTrustEx could provide Member States with the possibility to exchange information securely between existing systems and IMI.</p>
DG CONNECT – Directorate General for Communications Networks, Content and Technology	<p>Unit CONNECT.H3 (ICT for Government and Public Services) The cooperation with CONNECT is key given its role as the primary link between CIP pilots and the Commission.</p>
DG ENTR – Directorate General for Enterprise and Industry	<p>Unit ENTR.D3 (ICT for Competitiveness and Industrial Innovation) Its participation is essential given the importance of standards for the enablement of secure information exchange.</p>
Organisations in Member States and	Members States representatives of administrations either working on similar initiatives or interested in adopting eTrustEx.
Other DGs of the European Commission (as required)	Representatives of other DGs / EU Institutions either working on similar initiatives or interested in adopting eTrustEx.

1.8.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
ISA TIE Working Group	eTrustEx team members, Member States representatives, ISA unit members, ISA Coordination Group	Quarterly
Project Coordination Group	Team leaders and HoUs of development teams of eTrustEx	Monthly
Extended Coordination Group	Team leaders and HoUs of development teams of eTrustEx and system owners (business stakeholders) of the involved pilots	Only when issues cannot be solved in the Project Co-ordination Group.
Bilateral meetings with Member States	DIGIT representatives, Member States representatives	These meetings are arranged by DIGIT on ad hoc basis.
Bilateral meetings with Policy DGs	DIGIT representatives, Policy DGs representatives	These meetings are arranged by DIGIT on ad hoc basis.
Relevant conferences and events	DIGIT with any other project stakeholder	DIGIT is invited to participate in meetings organised by Member States, the LSPs, e-Practice, etc..

1.8.7.3 Governance approach

First and foremost, the e-TrustEx project is an action of the ISA programme and therefore, it follows the ISA governance structure. The diagram below shows that this action will report back to the representatives of the Member States in the Trusted Information Exchange work-group under the “key enablers for interoperability” theme.

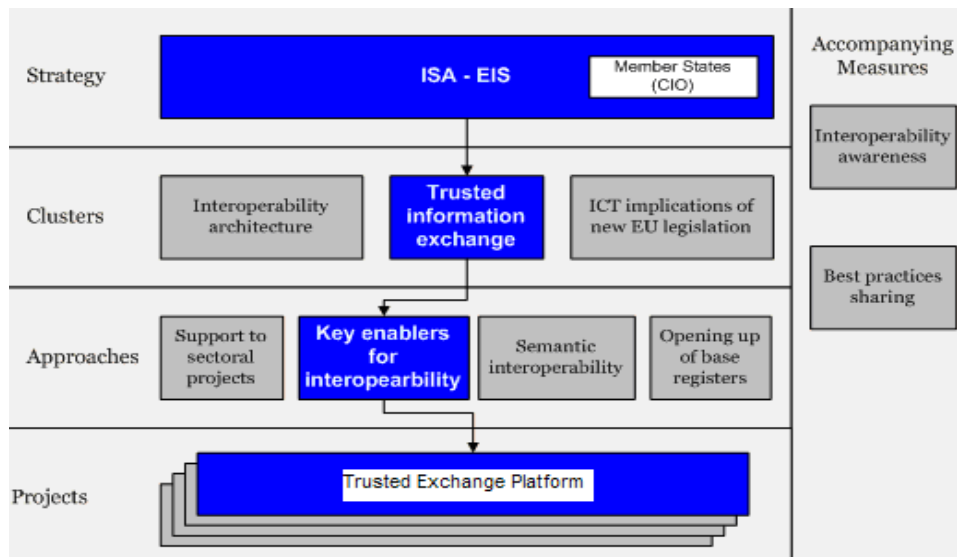


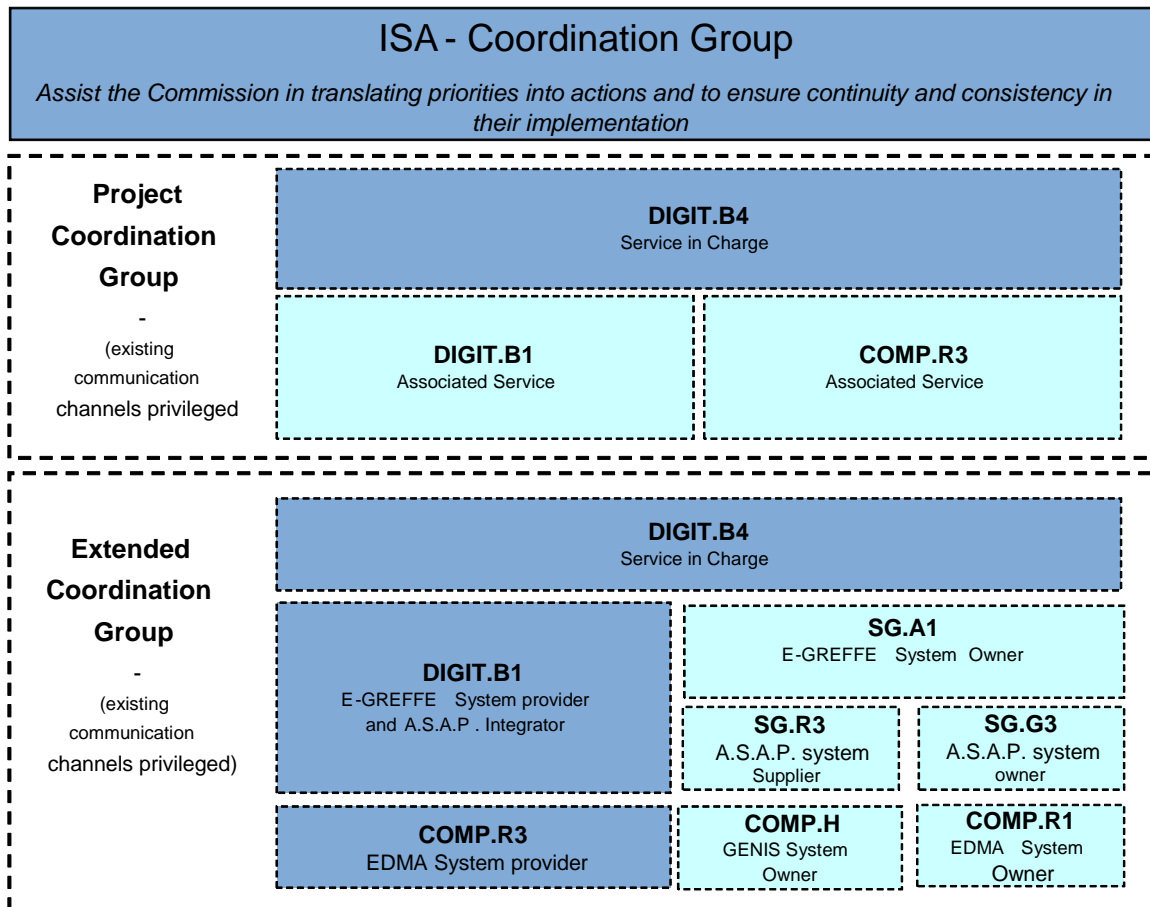
Figure: ISA Governance Structure

To achieve the aforementioned objectives, this project will collaborate with several DGs of the European Commission and with several other stakeholders (e.g. participants of CIP pilots, Member States). In particular for the integration of the pilots, structured coordination is required and described hereafter.

The Project Coordination Group ensures coordination and involvement of each of the associated services. The coordination with the system owners of the systems connected to e-TrustEx is assured by their system providers. Decisions and other important information are communicated to all involved entities through the Project Coordination Group. In addition to the scheduled meetings, these groups meet when necessary and they should be versatile and empowering with minimal bureaucracy.

Based on the actual needs and to better bridge the technical and the business aspects, an Extended Coordination Group could be set-up to also involve the "business" stakeholders (system owners) of the back-end systems participating in the pilot. The system owners would represent the interests of the final users of the exchange platform that are external to the Commission. Meetings of the Extended Co-ordination Group would take place exceptionally: only when issues cannot be solved in the Project Co-ordination Group.

The governance/coordination structure of the Phase 1 and 2 pilots is summarized in the schema below; the same "model" will be extended to any new additional pilot in Phase 3 and 4.



1.8.8 TECHNICAL APPROACH

To achieve quick results for the European Commission and Member States, this initiative first took a "Bottom-up" approach, through the execution of pilots in a specific sector. This shall now be complemented by a "Top-down" approach through the analysis of a number of architectural significant information exchange platforms to identify generic exchange needs and common features. The outputs and results of this initiative will be available in several phases:

The first phase focused on the analysis and implementation of the adaptation of the e-PRIOR platform to support the functional and architectural requirements necessary for the integration of a number of Commission back-end systems (pilots). The main focus of this phase was to evaluate the fit for purpose of the platform in new business contexts.

The second phase introduced a parallelism between:

- the definition of a robust architecture vision with an associated implementation roadmap; the defined vision, in combination with the transport infrastructure created by the CIP pilots, would make the platform the reference for cross sector and cross border information exchange and

- the implementation of pilots together with a first series of actions / additional features described in the roadmap that would prove the validity of its architecture in real / concrete situations.

This parallelism allowed the further development of the platform within a defined vision consequently enhancing the functionality and demonstrating the validity of the platform in different contexts.

Based on the roadmap mentioned above, three additional phases have been identified. Specifically:

The third phase will focus on the implementation of a sub-set of features resulting from the Architecture Vision. The main objective of this phase is to ensure the generality of the platform and the removal of any architectural dependencies with e-Procurement.

The fourth phase will focus on those features of the Architecture Vision roadmap that aim at enhancing the reliability and security of the platform.

The fifth phase will focus on the remaining features of the Architecture Vision roadmap, with the objective of integrating e-TrustEx with existing Commission systems for time stamping and storage of documents.

Like for Phase 1 and Phase 2 the implementation of new functionalities will be accompanied and validated by their use in the context of concrete business cases (pilots as described in the table below).

Some cases of cross-border information exchange have already been selected to be piloted or to serve as information source for an all-around Architecture Vision of the e-TrustEx platform.

The "pilots" are chosen on the basis of:

- the significance of their functional and not functional requirements (e.g.: security requirements, complexity of the "exchange"/"conversation", volumes and size of the exchanged documents etc...);
- the type of involved parties (e.g.: EU institutions, Member States administrations, etc.);
- the coverage of additional sectors / policy areas;
- the "political" importance of the document exchange to support.

The table below shows the pilots:

Pilots	Description
Exchange of legislative related	E-GREFFE is a workflow application supporting the decision making process of the EU Commission. It enables electronic management of all

Pilots	Description
<p>documents (e-GREFFE of SG) [Phase I pilot and Phase II]</p>	<p>documents adopted by the Commission. After adoption, e-GREFFE forwards electronic copies of these legislative documents to all relevant EU Institutions as well as to the permanent representations of the Member States and to the national parliaments and local governments in the EU. These documents are PDF or Word documents, accompanied by metadata (in XML format).</p> <p>The exchanges of documents are complex and are performed to fulfil specific legal obligations. The email-centred business process is both time consuming and inefficient. Furthermore, delivery is not guaranteed or reliable (it cannot be used to discharge legal obligations). Other characteristics of email further limit its usefulness (e.g., the consequences of passing unencrypted data over public networks, size limitations, etc.). As a consequence, the assembly, dispatch and registered delivery of paper documents are mandatory.</p> <p>The discontinuation of email and the discontinuation of delivery of paper documents can be achieved through replacing the process by a solution taking full advantage of the possibilities offered by modern IT systems. Particularly, e-notification will bring significant added value to the e-GREFFE stakeholders.</p>
<p>Exchange of competition cases related documents (EDMA of DG COMP) [Phase I - II pilot, Phase III - IV enhancements, Phase V operation]</p>	<p>EDMA - Document Management System of DG COMP. Currently DG COMP systems exchange information and documents with various external entities (national competition authorities and ministries of EU Member States, enterprises and others). The documents are exchanged in electronic format via e-mail or by post. A significant amount of documents is transferred by physical means like CDs, DVDs, faxes, pen drives, etc. Due to the security constraints the documents must be encrypted or electronically signed in some cases and delivered either personally or through special delivery.</p> <p>The email-centred business process has the same problems and limitations as described for the e-GREFFE pilot above. In these conditions the business processes cannot be integrated in a reliable and secure way, human intervention is required in almost all cases and interoperation with other IT services is not always possible.</p> <p>The exchange via encrypted email also overloads the Commission e-mail server, does not fulfil equal treatment to all 3rd parties and many external entities would not accept encrypted attachments due to corporate policies (scan the e-mails against viruses).</p>
<p>Exchange of legislative related documents</p>	<p>The adoption of the Lisbon Treaty introduced an even greater involvement of national parliaments in the legislative process. National parliaments now have greater opportunities to be involved in the work of the EU. In</p>

Pilots	Description
<p>(A.S.A.P. of SG) [Phase III, IV pilot]</p>	<p>this context, A.S.A.P. (Application de Suivi des Avis des Parliaments nationaux) is an application developed and operated by the Secretariat General that allows the management and the collection of National Parliaments advices on the legislative proposals of the European Commission. These legislative proposals are originated by the e-Greffe application, therefore the inclusion of A.S.A.P. In the pilots is the natural extension of the e-Greffe support since it would introduce a fully bi-directional exchange.</p> <p>The solution currently used by A.S.A.P. to receive advices from National Parliaments is the e-mail. A.S.A.P. would benefit from the integration with the Trusted Exchange Platform by replacing the existing e-mail document transfer in a secured and trusted way and by allowing an automated treatment of structured data.</p> <p>The National Parliaments may choose to send their advices through the GUI of the platform or, alternatively, using their own system through seamless integration.</p>
<p>Exchange of state aid related documents (GENIS – State Aid Notification Services – of DG COMP) [Phase IV pilot]</p>	<p>The ISA action 1.11 "Interoperable and Generic Notification Services" (GENIS) by DG COMP aims at modernising and / or setting-up common services to support, in a generic and interoperable way, the State Aid notification processes (bi-directional data transmissions between Commission services and Member States Ministries). This action involves also Directorates General MARE and AGRI.</p> <p>GENIS would benefit from the integration with the Trusted Exchange Platform to ensure trust and data privacy, support of structured information exchange (several different "forms" are to be supported) and definition of message choreographies.</p> <p>In principle National Ministries will send their State Aid notifications using their own system connected to the platform. Alternatively, the use of the GUI of the platform might be evaluated to exchange the messages.</p>
<p>Exchange of electronic claims in the justice domain (e-Justice Portal of DG Justice) [Phase III pilot]</p>	<p>DG Justice and DIGIT agreed to conduct an initiative to use e-TrustEx to support the electronic process of submitting a subset of claim types (European Payment Order – EPO – and Small Claims). These claims will be submitted by European citizens, through the e-Justice Portal, and transferred to systems in Member States via the e-Codex network.</p>

Pilots	Description
Exchange of legislative documents for publication by the OP (OP systems) [Phase III and IV pilots]	The Publications Office and DIGIT agreed to conduct an initiative to use e-TrustEx to secure the transmission of documents exchanged by the Publications Office with its stakeholders (Secretariat General, Court of Justice, Council and European Agencies) for the secure transmission of electronic documents.
Exchange of legislative related documents (SG systems) [Phase III and IV pilots]	Secretariat General is evaluating the adoption of eTrustEx in the context of various exchange workflows with other EU and National bodies. Ongoing contacts are about the re-use in the context of the <i>IPEX</i> system (<i>InterParliamentary EU information eXchange</i> : platform for the mutual exchange of information between the national Parliaments and the European Parliament concerning issues related to the European Union, especially in light of the provisions of the Treaty of Lisbon)
Exchanges in the context of the Internal Market Directives (IMI of DG MARKT) [Phase IV pilots]	As mentioned in the "IMI" expansion strategy document, eTrustEx has been indicated as complementary to the IMI system. In fact IMI currently supports the exchange of data and information between end-users. In addition to these features, eTrustEx could provide Member States with the possibility to exchange information securely between existing systems and IMI.
Exchange of information about companies and their foreign branches. (BRIS of DG MARKT) [Phase V pilot]	<p>The Directive 2012/17/EU of the European Parliament and of the Council requires the establishment of a system of interconnection of business registers comprising:</p> <ul style="list-style-type: none"> • The Member States' Business Registers, • A European Central Platform and • The e-Justice Portal, serving as European Electronic Access Point. <p>This system has been named the Business Registers Interconnection System.</p> <p>The e-TrustEx platform may be a potential solution for the Member States to exchange information about companies and their foreign branches.</p>

In the context of the completion of the Architecture Vision, a number of contacts with Member States and DGs took place:

Contact with Member States

1.8 Trusted Exchange Platform (E-TrustEx)

- *PEC (by the French Direction Général pour la Modernisation de l'Etat)*: The PEC implements solutions for secured dematerialised exchanges within the French administration. The exchange module is currently partially operational and its usefulness in the exchanges within the French administration is recognised (e.g.: costs and time savings for exchange of supporting documents, reliability and traceability).
- *Malta (M.I.T.A.)*: Contacts with representatives of the MALTA INFORMATION TECHNOLOGY AGENCY took place to understand requirements that can contribute to the definition of the Architecture Vision of the exchange platform.
- *EESSI of DG EMPL (Exchange of social security related documents)*: The infrastructure put in place in the EESSI context is meant to address cross-border communication of structured information and interoperability of information systems. Several completely independent sectors (even though all related to social security) are covered by the current system (Sickness, Accidents at work and Occupational Diseases, Pensions, Unemployment Benefits and Family Benefits).
- National parliaments (Austrian Bundesrat, German Bundesrat, Netherlands Senate and Czech Republic senate) and permanent representations of the MSs (Hungary and Portugal): The Secretariat-General of the European Commission has invited the Permanent Representations and National Parliaments of the Member States to participate in the pilot phase of the e-TrustEx / e-Grefte implementation. Public authorities receiving inter-institutional proposals can be connected to the platform and use the system-to-system connection via web services, or use the web access of e-TrustEx in case they do not have an own back-office system. Since August 2013, all participants mentioned above are receiving production documents issued by the Commission via the e-TrustEx web application, in parallel to the traditional email sending workflow that has been in place for some time. The German Bundesrat and the Danish Parliament have also requested technical documentation from DIGIT to allow them to implement a web service connection with the Commission (potentially using the e-TrustEx adapter)

CIP Pilots

e-TrustEx will re-use/ "integrate with" the building blocks when coming from the CIP Large Scale Pilots. In this context, the Pan-European e-Delivery interface(s) used by the LSPs will be of great value and importance. This is the example of the e-Justice pilot where e-TrustEx is integrating with the e-Codex building blocks (connector/gateway).

Various DGs of the European Commission

The project team is in contact with several DGs such as SG, MARE, MOVE, JUST, REGIO, MARKT, CONNECT, ECFIN etc.) and projects of the European Commission to understand their needs and existing solutions for trusted information exchange. Questionnaires have been collected and analysed.

Information has been exchanged with TAXUD which develops some major systems implementing data exchanges with Member States. Opportunities for collaboration are being investigated in the context of the project *COPIES*.

Contacts are on-going in the context of the *C.I.S.E.* (Common Information Sharing Environment) project for the surveillance of the EU maritime domain led by MARE.

DETAILS ON THE ACTION PHASES:

The various phases of this action will be realized in three sub-phases: inception, execution and operational sub-phase. The activities involved in each execution sub-phase will contribute towards the development of further functionality in order to support the objectives of the phase, whereas the activities for the operational parts will contribute towards providing the necessary support and roll-out, and cooperation with MS and policy DGs in order to facilitate their adoption of the tool. In order to encourage the stakeholders to move from awareness to action, DIGIT.B4 will define and execute an adoption plan, leveraging its own experiences to facilitate user adoption and provide advice to public administrations.

Phase 1 - The activities are grouped into 2 Work Packages (WPs).

	Scope	Identified objectives
WP1	Services and features necessary to support the requirements identified for the e-GREFFE pilot, analysis and development of the common services, components and metadata	<ul style="list-style-type: none"> ▪ Bundle Management; ▪ Web GUI for Inbox consultation; ▪ Technical Acknowledgement; ▪ Secure Transmission Channel; ▪ Administration Console for the Exchange Platform (scripts based); ▪ Possibility for a back-end external to the Commission to check its associated inbox (provision of "adaptor" with polling functionalities).
WP2	Services and features necessary to support the requirements identified for the EDMA pilot and the type of exchanges with DG COMP's external correspondents	<ul style="list-style-type: none"> ▪ Extended Bundle Management (up to 500 files in a Bundle); ▪ Transmission / reception of large files (up to 100 Mbytes); ▪ GUI for Inbox consultation/download/upload of large files (up to 100 Mbytes); ▪ Secure Transmission Channel; ▪ Administration scripts for the Exchange Platform (User configuration); ▪ Multilingual GUI; ▪ Outbox consultation at GUI level.

Phase 2 - The activities can be seen as grouped into 4 Work Packages (WPs).

	Scope	Identified objectives
WP1	<p><i>Architectural Vision and Roadmap</i></p> <ul style="list-style-type: none"> ▪ Analysis of convergence with similar initiatives in Member States and within the Commission; ▪ Discussion with MS in ISA WG Trusted Information Exchange; ▪ Consultation of IRMs in the DGs; ▪ Coordination with on-going activities 	<ul style="list-style-type: none"> ▪ Finalised Architecture Vision and; ▪ Finalised Architecture Roadmap; ▪ Input for updated proposal of ISA Work Programme (description of further phases after Phase 2).

	<p>on convergence of transport infrastructure in the CIP pilots;</p> <ul style="list-style-type: none"> ▪ Elaboration of a support and deployment model. 	
WP2	<p><i>General Architecture enhancements</i></p> <ul style="list-style-type: none"> ▪ General Architecture enhancements of the e-TrustEx Platform (Part 1 of implementation of Architecture Roadmap: high priority actions, features common to the Phase 2 pilots). 	<ul style="list-style-type: none"> ▪ Review of Phase 1 developments, lessons learned and change requests management; ▪ Support of advanced non-repudiation features (receipt for delivered documents, use of eSignature); ▪ Enhancement of support of multi-recipients exchange; ▪ Open Source release of the e-TrustEx platform, to be re-used by Member States; ▪ Incorporation of additional "toolbox" services (e.g.: "outbox"); ▪ Configurability features (e.g.: to reduce development required to support additional structured business documents); ▪ Admin Console.
WP3	<p><i>Services and features for the SG pilots</i></p> <ul style="list-style-type: none"> ▪ Additional Services and features necessary for the A.S.A.P. and eGrefe pilots still as of Part 1 of implementation of the Roadmap. 	<ul style="list-style-type: none"> ▪ Support of additional exchanges <ul style="list-style-type: none"> ○ eGrefe: eNotification (notification of approved legislation decisions to National Representation with digitally signed receipt) ○ A.S.A.P.: opinions / advices sent by National Parliaments associated to legislation proposal previously sent by eGrefe ▪ Documentation and assistance to configuration of Open Source version to be deployed in Member States Parliaments.
WP4	<p><i>Services and features for the DG COMP pilots</i></p> <ul style="list-style-type: none"> ▪ Additional Services and features necessary for the DG COMP systems: GENIS (new pilot) and EDMA (enhancement) still as of Part 1 of implementation of the Roadmap. 	<ul style="list-style-type: none"> ▪ Support of sensitive information requiring secure handling (e.g. encryption); ▪ Enhanced security features with regard to monitoring and logging; ▪ Enhancement of user management facilities (part of Admin Console features); ▪ Support of bi-directional exchanges in the context of State Aids notifications.

Phase 3 - The activities can be seen as grouped into 4 Work Packages (WPs).

	Scope	Identified Objectives
WP1	<p><i>Architectural Roadmap Implementation – Part 2</i></p> <ul style="list-style-type: none"> ▪ Enhancements of the generality of the platform ▪ 	<ul style="list-style-type: none"> ▪ Admin console for users/parties management ▪ Removal of dependencies with the e-Procurement and other domains ▪ Support of run-time configuration of interchange agreements ▪ Support of flexible validation of the exchanged information based on configuration ▪ Submission of a generic XML document ▪ Enhance usability of services through the creation of proxies ▪ Ensure compatibility of the e-TrustEx GUI with open source standards

		<ul style="list-style-type: none"> ▪ Web Application for the consultation of the outbox ▪ Support run-time configurability of store-and-forward integration pattern ▪ Definition of a common structure for logging ▪ Logging of predefined events on the e-TrustEx platform ▪ Enhance Internationalisation of the e-TrustEx GUI (e-TrustEx GUI applet to support multiple languages) ▪ Customization and configurability of the e-TrustEx GUI ▪ Support run-time configuration of retention policies ▪ Adaptation of the e-TrustEx GUI/Adapter to support the new e-TrustEx interfaces ▪ Enhancement of the e-TrustEx GUI/Adapter point-to-point solution for integrity (use of the WS-Security standards) ▪ Enhancement of the e-TrustEx GUI/Adapter end-to-end solution for encryption (encryption at adapter level)
WP2	Architectural enhancement to support cross-border exchange of documents.	Integration of e-TrustEx with the eDelivery building blocks.
WP3	Improvement of the efficiency of the EDMA pilot, to better fulfil DG COMP's needs. (Inception)	Analysis of the impacts on the architecture for the improvement of metadata management, user friendliness/efficiency, and multicasting.
WP4	<i>Services and features for the A.S.A.P pilot. (Inception)</i>	Analysis of the needs of the Secretariat General for the exchange of information about legislative proposals and advice with National Parliaments.

Phase 4 - The activities can be seen as grouped into 4 Work Packages (WPs):

Scope	
WP1	<p><i>Architectural Roadmap Implementation – Part 3</i></p> <ul style="list-style-type: none"> ▪ Enhancements of reliability and scalability of the platform. ▪ ▪

		exchanged information through the use of external systems
WP2	Services and features for the IMI pilot.	The e-TrustEx platform will be used by Member States to exchange information securely between existing systems and IMI.
WP3	Improvement of the efficiency of the EDMA pilot, to better fulfil DG COMP's needs. (Execution)	Implementation of generic features for: <ul style="list-style-type: none"> ▪ Enhancement of metadata management ▪ Enhancement of user friendliness and efficiency of the e-TrustEx GUI ▪ Implementation of multicasting functionalities
WP4	<i>Services and features for the A.S.A.P pilot (Execution + Operation)</i>	Enable communication between the Secretariat General and National Parliaments for the exchange of information about legislative proposals and advice.
WP5	<i>Services and features for the GENIS pilot (Inception + Execution)</i>	Enable communication between National Ministries to send their State Aid notifications either using their own system connected directly to the e-TrustEx platform, or by using the generic e-TrustEx GUI. During the inception phase the following tasks will be carried out: <ul style="list-style-type: none"> • Gathering of requirements • Assessment of the impact on the current architecture During the execution phase the following activities will be carried out: <ul style="list-style-type: none"> • Adaptation of the e-TrustEx services in accordance with the gathered requirements Roll-out in production

Phase-5: The activities of this phase are contained into a single Work Package (WP):

	Scope	Identified objectives
WP1	<i>Architectural Roadmap Implementation – Part 4</i>	<ul style="list-style-type: none"> ▪ Business notification ▪ Support of message exchange priority ▪ Support of interfaces with external storage systems ▪ Support of interfaces with external systems for time stamping ▪ Support of multicasting ▪ Implementation for the exchange of large XML documents
WP2	Services and features for the BRIS pilot.	The e-TrustEx may potentially be used by Member States to exchange information about companies and their foreign branches in the context of the BRIS project.
WP5	Improvement of the efficiency of the EDMA pilot, to better fulfil DG COMP's needs. (Operation)	Roll-out and fine tuning of the EDMA pilot in production

Similar to Phase 1 and 2, the implementation and the test of new features in Phase 3, 4 and 5 will be done in parallel to the execution of pilots to prove of the validity of the architecture in real/concrete situations.

ISA has defined a set of KPIs to measure the maturity, effectiveness and user take-up of the platform. These KPIs can be found in the ISA web-site.

Methodology:

The project teams will use the RUP@EC methodology for software development, PM2 for project management and ITIL for service management.

The key point of the chosen approach consists in:

1. incremental development which progressively makes available the support of complex interactions and exchange of additional business documents;
2. re-use of best practices and existing implementation as well as the reference to existing standards that have been developed already.

1.8.9 COSTS AND MILESTONES

1.8.9.1 Breakdown of anticipated costs and related milestones

Phase:	Description of milestones reached or to be reached	Anticipated allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Phase 1 - Inception	Project Charter	300	ISA	Q2/2010	Q4/2010
Phase 1 - Execution	Development for e-GREFFE pilot and generic common services Development for EDMA pilot	1.200	ISA	Q4/2010	Q3/2011
Phase 1 - Operational	Phase 1	0	ISA	Q1/2011	Q4/2011
Phase 2 - Inception	Update of Project Charter + Executive Architectural Vision and Roadmap	200	ISA	Q1/2011	Q2/2011
Phase 2 - Execution	e-TrustEx available in Open Source Architecture Roadmap Implementation – Part 1 Phase 2 pilots Phase 2 - Execution report	1.200	ISA	Q3/2011	Q4/2012

Phase:	Description of milestones reached or to be reached	Anticipated allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Phase 2 - Operational	Roll-out to Operations (incremental roll-outs)	0	ISA	Q1/2012	Q4/2012
Phase 3 - Inception	Update of Project Charter	150	ISA	Q2/2012	Q2/2012
Phase 3 - Execution	Roadmap implementation – part 2	1.550	ISA	Q3/2012	Q4/2013
Phase 3 - Operational	Cooperation with and adoption by MS			Q4/2013	Q3/2014
Phase 4 - Inception	Update of Project Charter	100	ISA	Q2/2013	Q4/2013
Phase 4 - Execution	Roadmap implementation – part 3 Improvement of the efficiency of the EDMA pilot (Execution).	1.650	ISA	Q4/2013	Q4/2014
Phase 4 - Operational	Cooperation with and adoption by MS	150		Q3/2014	Q2/2015
Phase 5 - Execution	Roadmap implementation – part 4 Improvement of the efficiency of the EDMA pilot (Operation).	1.260		Q1/2015	Q4/2015
Phase 5 - Operational	Operation phase 5	150	ISA	Q2/2015	Q1/2016
	Total	7.910			

1.8.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010	Phase 1 - Inception	300	300
	Phase 1 - Execution	1.200	1.200

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2011	Phase 2 - Inception	200	200
	Phase 2 - Execution	400	407
2012	Phase 2 – Execution	800	821
	Phase 3 – Inception	150	150
	Phase 3 – Execution	400	420
2013	Phase 3 – Execution	1.150	
	Phase 3 – Operational		
	Phase 4 – Inception	100	
	Phase 4 – Execution	200	
2014	Phase 4 – Execution	1.450	
	Phase 4 – Operational	150	
2015	Phase 5 – Execution	1.260	
	Phase 5 – Operational	150	

1.8.10 ANNEX AND REFERENCES

Description	Reference link	Attached document
Project Charter approved by Restricted DIGIT Management Meeting of 10/06/2011		Available on request
IMI expansion Strategy	http://ec.europa.eu/internal_market/imi-net/docs/strategy_paper_en.pdf	
Presentations to TIE WG of 22/06/2011 (Charter + Executive Architecture Vision)		Available on request
Conclusions from TIE WG of 22/06/2011		Available on request
Digital Agenda	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0245:FIN:EN:PDF	

1.9 SUPPORTING TOOLS FOR TSL AND E-SIGNATURE CREATION/VERIFICATION

1.9.1 CONTEXT

1.9.1.1 Identification of the action

Type of Action	Project
Type of Activity	Reusable generic tools
Service in charge	DG MARKT
Associated Services	DG DIGIT.B2; DG DIGIT A3; DG CONNECT/eIDAS Task Force

1.9.2 OBJECTIVES

The objective of the action is to allow Member States to render their public e-services more efficient and to pool resources by providing them with generic tools which would ensure interoperability for one of the key-enablers, i.e. e-signatures and allow for their automated creation and verification based on trusted lists as established under Decision 2009/767/EC, as amended by Commission Decision 2010/425/EU. Namely, the tools would allow Member States to:

1. Establish their trusted lists, and check their conformity with Decision 2009/767/EC (and its updates) and to generate a conformant human readable form in PDF of their trusted lists. It is important to ensure a coherent and consistent implementation of Member States of trusted lists in practice as these would be the basis for information on and trust in e-signatures originating from other Member States;
2. Create and verify advanced e-signatures on the basis of the trusted lists. The tool would also take into account the common advanced e-signature reference format for cross-border use with e-Documents which would require additional efforts from Member States if they were to do it individually. Making this tool available would facilitate in practice convergence towards the use of an interoperable formats of e-signatures by Member States' public administrations.

1.9.3 SCOPE

The proposed action would be of a horizontal nature in support of Single Market. It would cover the creation at EU level of common shared solutions for the establishment and maintenance of trusted lists (TLs) in accordance with Decision 2009/767 and for the creation and TSL based verification of advanced e-signatures in accordance with possible advanced e-signature

reference formats currently under discussion with MS in the framework of the Services Directive.

Even though Decision 2009/767/EC is limited to the implementation of the Services Directive, the Trusted Lists defined therein have the potential of becoming the de-facto standard when verifying qualified electronic signatures cross-border. This makes the proposed action a vehicle for facilitating also the take up of the Signature Directive 1999/903/EC in general.

The action would fall in the priority area of trusted information exchange in the EIS as it would support EU efforts on improving the interoperability of public key infrastructures, i.e. e-signatures.

The open and re-usable solution would allow a consistent and correct implementation of the trusted lists as well as facilitate the creation and verification of e-signatures used with documents and thereby enhance trust in and interoperability of the cross-border exchange of electronically signed documents.

1.9.4 PROBLEM/OPPORTUNITY STATEMENT

Under Decision 2009/767/EC Member States have to establish, maintain and publish in a secure manner trusted lists of certification service providers issuing qualified certificates to the public. This information has to be continuously updated in order to guarantee the reliability of the data used for the validation of e-signatures, in particular those coming from other Member States. As changes can be made to the Decision 2009/767/EC when necessary due to further technological developments, there is a need to ensure quick and consistent modifications in the national trusted lists and in the EC compiled list which in its turn would be facilitated via the use of a generic tool available for all parties relying on e-signatures.

First experiences with the trusted lists as implemented under Decision 2009/767/EC have shown that some deficiencies exist. These deficiencies are due to different technical interpretations of the Trust Lists, but also due to difficulties getting test certificates from other Member States and the fact that some certification service providers do not follow standards. This hinders the automatic processing of user certificates and creating the path to the Trusted List entries. It is therefore necessary to speed up convergence of trusted list implementations and thus facilitate the implementation of the Decision by the Member States by:

1. Collecting experiences in implementing the Decision;
2. Identifying misinterpretations in Trusted Lists provided by the Member States;
3. Establishing a set of test certificates to verify implementations;
4. Identifying where the noncompliance with certificate standards causes problems.

Linked to the cross-border use of e-signatures, there is a need to allow and enhance the use by public authorities of e-signatures with documents and also allow for an automated processing of the information contained in the trusted lists. The signature creation and verification tool would take into account the discussions that are currently on-going with Member States on the reference format(s) for advanced e-signatures used with eDocuments in cross-border cases. Developing and testing such tools by each Member State could be time and resources consuming (as they do not yet exist even if a couple of Member States are starting to develop these). Therefore it would be justified to provide Member States with a common generic

creation and verification tool as well as testing facilities (at a central level) which could ensure an efficient automated use of the trusted lists across EU, enhance cross-border use of electronically signed documents and create added value for public administrations relying on e-signatures.

1.9.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Public service developers in Member States	<ol style="list-style-type: none"> 1. Enhance trust in and interoperability of e-signatures used at cross-border level for the completion of electronic public services through the use of a common solution shared by public administrations and, 2. Facilitate the governance of their trusted lists. <p>Saving resources and increasing efficiency of provided e-services and compliance with EU legislation, including via a proper implementation of trusted lists.</p> <ol style="list-style-type: none"> 3. Faster take up of e-signature solutions at the point of single contacts (PSC).
CSPs	Identification of problems with their practices allowing them to correct these.
Businesses and citizens	As verification will be more easily possible, trust and confidence and by this take-up of e-signatures will arise.

1.9.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
Services Directive, Actions related to e-signatures, E-Government	The Action provides tools for facilitating the compliance for Member States with their legal obligations under the Services Directive and beyond, for e-government and cross-border use of e-signatures in general.
ISA Action 1.7 – ePRIOR	ePrior will use the tool developed by ISA Action 1.9 for the signing of the economic operator in the pre-ward phase and for the signature receipt of the competent authority.
ISA Action 4.1.1 – Communication activity	Development of a communication concept and implementation of specific actions to increase the knowledge about and use of the tools developed by the ISA Action 1.9.
DG CONNECT eCODEX	eCODEX will use the tool developed by the ISA Action 1.9 for the pilots at the eJustice portal.

1.9.7 ORGANISATIONAL APPROACH

1.9.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
Member States' public administrations	Member States Administrations

1.9.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
Workshops, expert groups, conferences on Services Directive and e-signatures	Member States, Industry	4-5 times per year

1.9.7.3 Governance approach

The open source software for Trusted Lists and e-signature creation and validation is uploaded in Joinup and assistance (regarding implementation) is provided by the developer to Member States using the software until end 2012. The software will also be submitted to ETSI Plugtests and possible improvements will be made following Member States comments or needs and possible bugs detected during the testing.

1.9.8 TECHNICAL APPROACH

In order to allow Member States to establish and check the conformity of their trusted lists with the Decision 2009/767/EC and to generate the human readable form of the lists, some practical tools were made available by ETSI under a contract with the Commission. After the expiry of the contract (end 2012), there was a need to continue making these tools available to Member States. The most optimal solution in the short term has been to continue using ETSI services for hosting and updating the Conformance Checker especially in view of the possible changes to

the underlying standard by ETSI which would need to be implemented in the conformance checker.

In order to detect and deal with deficiencies in the actual implementation of trusted lists, a detailed analysis is needed of Member States' implementations of Trusted Lists that should be carried out at regular intervals to ensure their continuous compliance. This input has and will be used to organise workshops with the Trusted List implementers to give an update on the state of play of TLs, share some best practices and to identify possible problems as well as recommendations for further changes in Decision 2009/767/EC and the relevant ETSI technical specifications.

An e-signature creation and verification tool relying on the trusted lists and implementing the common reference format for advanced e-signatures has been developed at EU level and made available for Member States to be used nationally. Some initial assistance for implementers at national level is necessary to integrate the tool into their e-Government systems. Some further improvements have been made to the software, notably to provide additional guidance and flexibility for implementers, and to create an end user validation report. Some additional adjustments may be required with some experience of use over time, and to take into account the latest versions of relevant ETSI standards. The software is made available in Joinup. Some role needs to be kept by the COM or its outsourced contractor to manage the open source community after the software is no more directly enhanced by the Commission but by the community members,

In order to allow the Commission to sign the EC compiled list, support for signing and verification will be integrated into the Electronic Signature Service Infrastructure of the Commission to allow the use of various certificates.

1.9.9 COSTS AND MILESTONES

1.9.9.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Execution	Delivery of generic tools in support of trusted lists management, including maintenance.	100	ISA	Q4/2010	Q3/2012

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Execution	Delivery of the generic tool for e-signature creation and verification based on a possible common reference format for advanced electronic signatures; testing of the tools.	500	ISA	Q4/2010	Q3/2011
Execution	Delivery and initial assistance to Member States for the installation of the e-signature creation and verification tool.	100	ISA	Q3/2011	Q3/2012
Execution	a) TSL quick desk research report and study on MS outreach & report; b) Workshop and its report.	80	ISA	Q2/2011	Q1/2012
Execution	a) unsolicited sample certificate repository and its governance process definition; b) standardization and establishment of a solicited sample certificate repository.	90	ISA	Q2/2011	Q1/2012
Execution	Final Study & Report	40	ISA	Q3/2011	Q1/2012
Execution	Update of the generic tool for e-signature creation and verification based on a possible common reference format for advanced electronic signatures; testing of the tools.	300	ISA	Q2/2012	Q1/2013

1.9 Supporting tools for TSL and e-signature creation/verification

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Execution	Maintenance and update of the generic tools in support of trusted lists management, to incorporate changes in underlying standard and Commission Decision 2009/767/EC.	100	ISA	Q2/2013	Q2/2015
Execution	Enhancements to the open source software for e-signature creation and verification based on common reference format for advanced electronic signatures (Decision 2011/130/EU); testing of the tools, remote assistance to MS.	150	ISA	Q2/2013	Q2/2014
Execution	Management of the open source community on Joinup for the open source software for trusted lists and e-signatures.	100	ISA	Q3/2014	Q4/2015
Execution	Regular analysis of Member States Trusted Lists (syntactic and semantic), possible recommendations for further changes.	200	ISA	Q2/2013	Q4/2015
	Total	1.760			

1.9.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010	Execution	600	552
2011	Execution	310	371 ²⁰
2012	Execution	300	274
2013	Execution	300	
2014	Execution	250	
2015	Execution		

1.9.10 ANNEX AND REFERENCES

Description	Reference link	Attached document
Decision 2009/767/EC setting out measures facilitating the use of procedures by electronic means through the 'points of single contact' under Directive 2006/123/EC of the European Parliament and of the Council on services in the internal market amended by Commission Decision 2010/425/EU	OJ L 274 of 20.10.2009, replaced by Corrigendum in OJ L 299 of 14.11.2009, OJ L 199 of 31.07.2010	
Decision 2011/130/EU establishing minimum requirements for the cross-border processing of documents signed electronically by competent authorities	OJ L 53 of 26.02.2011	

²⁰ An additional 70kEUR was granted to the action during the execution of the 2011 revision to undertake the following tasks: a.) List of Trusted List signature applications/service, b.) ISA-CA PKI evaluation/integration for signing the EU List of Trusted List, c.) Support for DG MARKT's OSS project for AdES

Description	Reference link	Attached document
under Directive 2006/123/EC of the European Parliament and of the Council on services in the internal market		
Action Plan on e-signatures and e-identification to facilitate the provision of cross border public services in the Single Market	COM(2008) 798 final	
Directive 1999/93/EC on a Community framework for electronic signatures		

1.10 INTERNAL MARKET INFORMATION (IMI) SYSTEM (FUNDING RE-INITIATED)

1.10.1 CONTEXT

1.10.1.1 Identification of the action

Type of Action	Project
Type of Activity	Reusable generic tools
Service in charge	DG MARKT
Associated Services	DG DIGIT (as system supplier), DG EMPL (pilot for posting of workers), DG ECFIN (cash in transit), DG SANCO (use for patients' rights to be launched Q4 2013) DGT (providing machine translation) DG JUST + DG ENTR (pending legislation under negotiation) DG MOVE (Certification of Train Drivers)

1.10.2 OBJECTIVES

The objectives of the action are:

1. to realise the full potential of the IMI application as a generic tool-kit for administrative cooperation used for a wide spectrum of community policies;
2. to create new policy areas in the system;
3. to deliver generic improvements to the operational IMI application for the current users, namely more than 7000 competent authorities in 31 EEA Member States who use the application for four policy areas as well as for SOLVIT case handling.

IMI meets the objectives of the ISA programme as it:

- facilitates the free and unimpeded movement, establishment and employment of citizens in the Member States by enabling competent authorities to take informed decisions quickly;
- facilitates cross-border and cross-sectoral interaction between European public administrations via a secure internet application;
- is demand driven: it takes account of the needs of local and regional administrations (currently more than 7000 authorities at local, regional and national level throughout the EEA are using IMI to exchange information);

- reduces administrative burdens and costs (IMI is designed to integrate smoothly in a typical office environment for a public administration since it requires only internet access and a browser to be used) and allows new forms of administrative cooperation;
- is a fully multi-lingual application (all official EU languages);
- adheres to the principles of security, privacy and protection of personal data.

1.10.3 SCOPE

IMI today

IMI is a generic, customisable, administrative cooperation platform. It provides public authorities in the 28 Member States and 3 EFTA countries with a fast and secure communication channel for cross-border information exchange based on community legislation. IMI overcomes barriers due to different languages and different administrative structures. The European Commission offers IMI as a service to Member States, developing the application and hosting the computing infrastructure.

IMI currently supports four sectors (the Directive on the Recognition of Professional Qualifications, the Services Directive, the Cash in Transit Regulation and on a pilot basis the Directive on Posting of Workers). Furthermore, the SOLVIT case handling workflow was integrated in IMI at the start of 2013, reusing part of IMI functionality and generating further synergies in the user community.

Continuing Expansion

Additional policy areas will be introduced for the e-Commerce Directive and the Directive on cross-border health care during Q4 2013.

Further expansion of IMI is foreseen for the coming years, notably, the revised Professional Qualifications Directive, expected to be adopted before the end of 2013, foresees the use of IMI for a European Professional Card, for sending alerts concerning medical professionals and for notifications about new diplomas. For the full list of current and foreseen policy areas see 1.10.6.

In December 2012 the Commission adopted an IMI Regulation which ensures a high level of data protection and provides a flexible instrument for the expansion of IMI to other areas of administrative cooperation.

Current scope as a project and within the EIS

This action addresses the "trusted information exchange" priority area from the European Interoperability Strategy (EIS). The scope of the action covers improvements to the services currently offered by IMI and the further development of IMI towards the goal of providing a complete administrative cooperation tool-kit.

1.10.4 PROBLEM/OPPORTUNITY STATEMENT

IMI is a flexible administrative cooperation platform, supporting European public administrations that need to exchange information in order to facilitate the free and unimpeded movement, establishment and employment of citizens throughout the Single Market.

The IMI system must be easy to use, requiring little or no training, and should enable users to perform the widest possible range of their daily, weekly or monthly tasks in relation to EU law. As many authorities are responsible for more than one policy area, the expansion of IMI to new policy areas continues to generate important synergies.

Since 2010, improvements have been made to the system based on the needs of existing and future users. Furthermore, as proposed in the IMI strategy Communication, to unlock the full potential of IMI and meet the needs of a wider range of policy areas, IMI has been extended to provide an administrative cooperation "tool-kit". This work has been funded by the ISA programme and by DG MARKT as set out in 1.10.9.

However, some work remains to complete the tool-kit, namely the elaboration of the IMI front office to facilitate administrative cooperation between competent authorities where actors not permitted to directly access the IMI back office, need to submit requests to, and exchange information with, public authorities as part of administrative procedures handled through IMI. A number of existing and potential policy areas share this need including Professional Qualifications, Cash in Transit, SOLVIT, Civil Status Documents and European Railways.

1.10.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Citizens and enterprises	IMI enables administrations to communicate faster and more effectively across borders. The public interface will speed up this process even further as it creates the missing link between citizens and businesses on the one hand, and administrations on the other. This will avoid delays and misunderstandings and enable European citizens and enterprises to fully benefit from their rights in the single market.
Member States' Public Administrations	The improvements are based on experience and reflect the demands of the current user community and stakeholders. New functionality contributing to a full administrative tool-kit will provide support for a wider range of cooperation via a single platform and avoid system proliferation.

Beneficiaries	Anticipated benefits
European Commission Services	Re-using an existing IT tool will result in important savings on human and financial resources. The wider use of IT support for administrative cooperation will result in better implementation of EU law.

1.10.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
DG MARKT Professional qualifications directive	IMI facilitates the exchange of information concerning the qualifications of professionals from other Member States. The use of IMI in this area will be extended by the revised Professional Qualifications Directive.
DG MARKT Services Directive	IMI facilitates the exchange of information concerning cross-border service provision.
DG MARKT SOLVIT (complaint handling)	IMI incorporates a case handling workflow which is used by SOLVIT centres allowing them to work together to resolve cross-border problems raised by citizens and businesses arising from the misapplication of EU law by public authorities.
DG EMPL Posting of Workers Directive	A pilot project allows employment authorities to exchange information concerning posted workers.
Eurozone: Cash in Transit	IMI facilitates the sharing of information concerning cash in transit licences (issued for the transit of Euro cash across borders)
DG SANCO Patient Rights Directive	From Q4 2013, IMI will be used for this directive on cross-border health care, to exchange information about health professionals' right to practice.
DG MARKT e-Commerce Directive	From Q4 2013, IMI will be used to exchange information about measures that have or will be taken concerning ISS providers.
DG MARKT Public Procurement	A new directive on public procurement foresees the use of IMI for exchanging information such as the authenticity of documents.
DG MOVE Certification of Train Drivers	An implementing act is being prepared to launch a pilot allowing national safety authorities to exchange information concerning train driving licences.

Action / Policy	Description of relation
DG JUST Civil Status Documents	The use of IMI is foreseen to support a regulation under negotiation to simplify the acceptance of certain public documents.
DG ENTR Cultural Goods	The use of IMI is foreseen to support the proposed Directive on the return of unlawfully removed cultural goods.
ISA Action 1.8 – Trusted Information Exchange Platform	The eTrustEx platform provides the secure transfer of SOLVIT complaint forms from the IMI front end to the IMI back-office.
ISA Action 1.14 – Cross Sector Solvit	SOLVIT has been integrated as a case solving workflow within IMI.
ISA Action 2.8 – Machine Translation Service by the European Commission	MT@EC provides on-request machine translation services to IMI since May 2012. The translation service is based on the use of prototype engines.

1.10.7 ORGANISATIONAL APPROACH

1.10.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
Member States	IMI working group of the Internal Market Advisory Committee (IMAC) An IMI Committee assists the Commission in establishing implementing acts concerning how new legal areas and new procedures are introduced in IMI. Expert Groups and Committees representing the policy areas listed in 10.1.6
Public Administrations/ Competent Authorities; end users	EU MS Administration - National IMI Coordinators EU MS Administration –Delegated IMI Coordinators

Stakeholders	Representatives
EU Commission	DG MARKT (System Owner, multiple service usage) DIGIT (DIGIT B4 as system supplier) DGT (as translation supplier) DG EMPL (pilot service usage) DG ECFIN (service usage) DG SANCO (future service usage) DG JUST (future services usage) DG ENTR (future service usage) DG MOVE (Certification of train drivers)

1.10.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
Annual Report	All	Annual
Conferences	All	Annual or every second year
IMAC/IMI Working group meetings	IMI working group of the Internal Market Advisory Committee (IMAC) / EU MS Administration - National IMI Coordinator Representatives of EU policy areas are invited to present progress and discuss foreseen activities.	Quarterly
Coordinator training	EU MS Administration - National IMI Coordinators and Delegated IMI Coordinators	As required (2 or 3 per year)
Cluster training And support for local awareness and training events	EU MS Administration – Competent Authorities	As required (approximately 10 per year)

1.10.7.3 Governance approach

The existing steering committee, chaired by DG MARKT, continues to guide the project. The committee will be expanded to include representatives for other policy areas when they decide to use IMI.

The committee:

- Decides on the project charter;
- Establishes a long term technical strategy for the IMI system;
- Takes decisions in line with the strategy;
- Sets priorities for further developments and improvements to the system based on the strategy and the requirements and priorities expressed by Member State stakeholders;
- Supervises timely delivery and quality of new developments delivered by the system developer.

DG MARKT has established a dedicated unit responsible for the on-going development and operation of IMI, the liaison with MS stakeholders and further IMI policy development. This team produces the functional specifications for the system, ensuring that the features developed meet the stakeholders' expectations. The unit carries out quality assurance on behalf of the user community and provides a help desk facility for Member States. It is also responsible for developing training material, for system data administration and for managing the language aspects of the application.

As new areas continue to be introduced in IMI and the stakeholder and user communities are expanding there is a need to revise the governance structure to support IMI as a service supporting EU policies. The first steps towards defining a new model for IMI Governance are being taken. A paper, most likely an IMI Governance Communication, will be prepared which will cover all Governance aspects including the composition of a Steering Committee and a method to distribute costs.

1.10.8 TECHNICAL APPROACH

IMI is a web-based application accessible via standard browsers, imposing no specific hardware or software requirements on clients. It has a classical multi-tier architecture, with an interface to MT@EC for machine translation, and already uses e-TrustEx to transfer SOLVIT cases from a simple IMI front end.

Inception Phase

Since the IMI tool is already provided as a service that was set up and developed to serve multiple policy areas, further developments do not typically require a feasibility study. Instead, the project charter is refined once the various elements for further development and improvement have been determined, and the business requirements for each of these elements

have been elaborated. An estimate of time and costs for each of the elements are determined by the system developer. On this basis the steering committee defines the development iterations based on the priorities it has determined and the anticipated costs and timing provided by the system developer.

Execution Phase

The execution phase of the project is carried out in a number of iterations as defined in the project charter. This ensures that development can be handled in manageable work packages and that there will be a regular schedule of deliverables for end-users. The timing and content of the next iterations concerning ISA supported activities will be defined in a revised project charter to be delivered in Q1 2014.

Operational phase

Operation of the service has already started and therefore the operational phase runs in parallel with the execution phase for new developments. Since Q2 2013, operational costs have been borne by DG MARKT.

The activities and deliverables described in this proposal are divided into phases. An initial project charter was produced which is revised and extended for each phase.

Phase 1 (ISA Work programme 2010) addressed improvements to IMI in response to user demand including improvements to:

- Search for a Competent Authority;
- Split, link and copy information requests;
- Identity and access management;
- Question set generator;
- Multilingual system management;
- Provision of IMI covered application maintenance and support of the IMI system (including online application help and selection and implementation of an automated testing tool).

Phase 2 (ISA Work programme 2011) mainly addressed improvements to support the extension of IMI to new sectors.

Execution covered the following:

- Analysis of requirements for common components of the administrative cooperation "tool-kit" and recommendations for solutions, including possible integration of tools already available within the Commission;
- Technical analysis of work required to develop a common workflow engine ;
- Technical analysis of work required to develop a dynamic screen engine;
- Investigation of ECAS to replace IMI proprietary authentication method;
- Begin implementation of "Google-like" text search tool based on the recommendations of the study conducted in Phase 1;
- Begin the development of the first elements of the "tool-kit".

End-user requested improvements

- Request management (attachments, improvements to partial reply feature);
- Request lists (display and search, improved monitoring view);
- Authority management (enhance standard email with rich text, attachments, possibility to email all or selected users of an authority);
- Provision of IMI covered continued application maintenance and support of the IMI system (including simplified implementation of translation module to include sorting algorithms and on-going improvement to application user interface "look and feel").

Phase 3 (ISA Work programme 2012) addressed the development of new tools in IMI, generic improvements of benefit to any sector and further extensibility improvements.

Execution included the following:

- Development of a new generic notification workflow with customisable features providing flexibility to meet the needs of different policy areas and different implementing procedures;
- A content management tool, similar to the question set generator, which can support multiple workflows including the new notification;
- A generic information repository, capable of storing content assets for different policy areas;
- Work on existing tools to improve extensibility, maintainability and performance;
- Further improvements to existing functionality in response to user demand;
- Provision of IMI covers continued application maintenance and support of the IMI system (including further improvements to the user interface).

Phase 4 (Financed by DG MARKT) addresses streamlining of authority and user management as well as fully integrating the original information request in the tool-kit.

Execution includes:

- Extending the metadata management tool (MDMT) to support additional content types;
- Integrating the information request workflow into the tool-kit and allowing linkage between instances of different workflows;
- Work on existing tools to improve extensibility, maintainability and performance;
- Further improvements to existing functionality in response to user demand;
- Provision of IMI covering continued application maintenance and support of the IMI system (including further improvements to the user interface).

Phase 5 (ISA Work programme 2014) addresses elaboration of a generic Front Office allowing external actors to exchange information with the IMI back office as part of administrative procedures supported by IMI and foreseen in relevant legal acts.

Execution includes:

- Analysis of requirements for common components of the IMI front office and for a model for exchanging information with the IMI back office. The results of the analysis should include recommendations for solutions, including the reuse of tools already available within the Commission wherever possible;
- A proof of concept or prototype of the Front Office, based on technology supporting mobile devices.

- Development of the final IMI Front Office framework;

In parallel to the work above, DG MARKT will finance analysis and development required to adapt IMI to meet the needs of the revised Directive for Professional Qualifications, mainly to support the processing of European Professional Cards.

1.10.9 COSTS AND MILESTONES

1.10.9.1 Breakdown of anticipated costs and related milestones

Phase	Description of milestones reached or to be reached	Anticipated allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Phase 1: Improvements to IMI in response to user demand					
Inception	Initial Project Charter	(0)	MARKT	Q1/2010	Q2/2010
Execution	Improvements to key components of IMI	550	ISA	Q3/2010	Q2/2011
Execution	Provision and improvement (maintenance and technical support)	450	ISA	Q3/2010	Q2/2011
Operational	Hosting	237	MARKT	Q1 2010	Q4 2010
Operational	Promotion and Training	200	MARKT	Q1 2010	Q4 2010
Phase 2: Improvements required to support extension of IMI to new sectors					
Inception	Extended Project Charter	0	MARKT	Q4 2010	Q1 2011
Execution	Business and technical analyses concerning the extension of IMI to new sectors. Further end-user requested improvements	550	ISA	Q2 2011	Q1 2012
Execution	Provision and improvement (maintenance and	450	ISA	Q3 2011	Q1 2012

Phase	Description of milestones reached or to be reached	Anticipated allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
	technical support)				
Operational	Hosting	237	MARKT	Q1 2011	Q4 2011
Operational	Promotion and Training	200	MARKT	Q1 2011	Q4 2011
Phase 3: Improvements and extension of IMI functionality					
Inception	Extended Project Charter	0	MARKT	Q4 2011	Q1 2012
Execution	Development of a new workflow, and an information repository, and extensibility and end user requested improvements	700	ISA	Q2 2012	Q2 2013
Execution	Provision and improvement (maintenance and technical support)	300	ISA	Q2 2012	Q1 2013
Operational	Hosting	237	MARKT	Q1 2012	Q4 2012
Operational	Promotion and Training	200	MARKT	Q1 2012	Q4 2012
Phase 4: Improvements and extension of IMI functionality					
Inception	Extended Project Charter	0	MARKT	Q1 2013	Q3 2013
Execution	Authority and user management streamlining. Full integration of information request in the new tool-kit.	500	MARKT	Q3 2013	Q2 2014
Execution	Provision and improvement (maintenance and technical support)	300	MARKT	Q2 2013	Q1 2014
Operational	Hosting	237	MARKT	Q1 2013	Q4 2013

Phase	Description of milestones reached or to be reached	Anticipated allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Operational	Promotion and Training	200	MARKT	Q1 2013	Q4 2013
Phase 5: Improvements and extension of IMI functionality					
Inception	Extended Project Charter	0	MARKT	Q1 2014	Q1 2014
Execution	Analysis, prototyping and development of an IMI Front office framework.	360	ISA	Q2 2014	Q3 2015
	Analysis and development to create IMI workflows for the EPC.	400	MARKT	Q2 2014	Q1 2015
Execution	Provision and improvement (maintenance and technical support)	300	MARKT	Q2 2014	Q1 2015
Operational	Hosting	150	MARKT	Q1 2014	Q4 2014
Operational	Promotion and Training	200	MARKT	Q1 2013	Q4 2013
	Total ISA budget	3.360			

1.10.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010	Execution	1.000	1.000
2011	Execution	1.000	1.000
2012	Execution	1.000	1.011
2013	-	0	0
2014	Execution	360	
2015			

1.10.10 ANNEX AND REFERENCES

Description	Reference link	Attached document
Initial IMI study		IMI inception study
IMI Vision for Version 3		Vision Document IMI Version 3
IMI Strategy Communication 'Better governance of the Single Market through greater administrative cooperation: A strategy for expanding and developing the Internal Market Information System	COM (2011) 75 final	
Commission Proposal for a regulation 'on administrative cooperation through the Internal Market Information System ('the IMI Regulation')	Regulation (2012) 1024	

1.11 INTEROPERABLE AND GENERIC NOTIFICATION SERVICES (GENIS)

1.11.1 CONTEXT

1.11.1.1 Identification of the action

Type of Action	Project
Type of Activity	Reusable Generic Tools
Service in charge	COMP
Associated Services	AGRI, MARE, SG, DIGIT

1.11.2 OBJECTIVES

The objective of the GENIS ISA action is to identify and implement/adapt/develop reusable building blocks (existing or new ones – see 1.1.3 Scope) of cross-sector interest, necessary to develop the GENIS Information System. The aim of the GENIS Information System is to provide efficient, trusted and transparent exchange of data (structured and unstructured) between the Commission (COMP, AGRI, and MARE) and Member States administrations within the State Aid Notification Process (see: Project Charter).

The reusable building blocks tackled in this action (see 1.1.3 Scope) as well as the GENIS Information System to be developed on them, address the domain Government-to-Government (G2G) and the following principles of the European Interoperability Framework:

- Security and privacy,
- Multilingualism,
- Administrative simplification,
- Transparency,
- Preservation of information,
- Openness,
- Reusability,
- Effectiveness and efficiency.

Specifically, GENIS main goals for this phase will be:

- Increase the levels of interoperability (technical and semantic) in the building blocks developed in the previous iteration (Forms, Reference Data²¹ and Multilingualism).
- Increase transparency and foster collaboration between administrations by sharing case/project data between Commission and Member States.

²¹ In previous documents this component was named "Metadata management". The term Reference Data is more accurate to the purpose of this building block

- Ease the management (creation, change, versioning, maintenance) of schemas for structured data exchange.
- Promote the reusability of the building blocks developed by release the software as Open Source in the Join Up platform.
- Analyse collaboration and reusability possibilities with other ISA actions like action "Document Repository System" and Trusted Information Exchange.

1.11.3 SCOPE

The overall business scope of GENIS is to cover the exchange of structured and unstructured data and to share case/project data between Member States and Commission within the domain of State Aid Notification Process (applicable to any business domain with similar data exchange needs between administrations).

On the technical side, the scope of this ISA action is:

I) Identify reusable cross-sector building blocks (services and components) required to build GENIS Information System. Integrate/adapt existing components or develop new reusable building blocks. Finally, putting together these reusable building blocks to develop the GENIS Information System.

II) Implement a common architecture based on building blocks and services for all State aid systems for exchange with MS (GENIS, SARI and State aid Scoreboard).

III) Assess and implement the most important changes on State aid data exchanges with MS (foremost impacting GENIS IS), resulting from on-going State aid legislation review.

The execution of GENIS is foreseen in iterations, the scope of which is defined in the table below.

Iteration	Scope Business	Scope Technical
Execution - Iteration 1	<ul style="list-style-type: none"> • Enable the efficient management of State Aid notification schemas (currently more than 40) that must be used by Member States to notify State Aid measures to the Commission, as defined in EU legislation. • Provide means for the Member State administrations to select, encode, validate and submit/transmit (in a trusted and secure way) State Aid 	<p>Reusable building blocks (ISA scope):</p> <ul style="list-style-type: none"> • FORMS: Repository and management tool for notification schemas. (New, based in Open Source software) • REFERENCE DATA: Repository and management tool (basic) for domain semantics: metadata, reference data, dictionaries, translations. (New)

Iteration	Scope Business	Scope Technical
	<p>notifications to the Commission.</p> <ul style="list-style-type: none"> • Provide workflow and de-centralised user management for the Member State administrations to manage and validate the State Aid notifications. 	<ul style="list-style-type: none"> • MULTILINGUISM: Component to support (basic) multilingualism (management of translations) of User Interface, form schemas and domain vocabulary (New) • eTrustEx: Component for the trusted transmission of data (Reuse, eTrustEx action, no extra requirements needed). • ECAS: Authentication service (Reuse, no adaptations necessary).
Execution - Iteration 1.1	<ul style="list-style-type: none"> • Enable the efficient management of State Aid notification schemas (currently more than 40) that must be used by Member States to notify State Aid measures to the Commission, as defined in EU legislation. • Provide means for the Member State administrations to select, encode, validate and submit/transmit (in a trusted and secure way) State Aid notifications to the Commission. • Provide workflow and de-centralised user management for the Member State administrations to manage and validate the State Aid notifications. 	Build and put in production the GENIS IS v1.0 built on the building blocks of iteration 1, incl. parameterizations, adaptations etc.
Execution - Iteration 2	<ul style="list-style-type: none"> • Implement interoperable notification service (system-to-system). • Management of the communications between the Commission and the Member States within the State Aid case lifecycle. 	<p>Reusable building blocks (ISA scope):</p> <ul style="list-style-type: none"> • Complete/enhance components from Iteration 1: <ul style="list-style-type: none"> ○ FORMS: Implement generic web-services based on notification schemas to enable system-to-system exchange. ○ METADATA: Enhance to provide necessary

1.11 Interoperable and Generic Notification Services (GENIS)

Iteration	Scope Business	Scope Technical
		<p>semantic interoperability to support the above referred interoperability.</p> <ul style="list-style-type: none"> ○ MULTILINGUISM: improved translation support. • SHARED CASE REPOSITORY: Component to share case/project data between the Member States and the Commission (New). ISA action "Document Repository Exchange": Study possible reusability and integration to support the shared case repository component • e-TrustEx: Component for the trusted transmission of data (Reuse, eTrustEx action)
Execution - Iteration 2.1	<ul style="list-style-type: none"> • Implement interoperable notification service (system-to-system). • Management of the communications between the Commission and the Member States within the State Aid case lifecycle. 	Build and put in production the GENIS IS v2.0 based on the building blocks of iteration 2, incl. parameterizations, adaptations etc.
Execution – SA Integration	Implement a common architecture based on building blocks and services for all State aid systems for exchange with MS.	All State aid systems for exchange with MS (GENIS, SARI and State aid Scoreboard) will be built on a common building blocks and service architecture: ECAS, eTrustEx, common UI, reference data management, de-centralised user management, multilingual management, ESTAT tools, web services for exchange with MS.
Execution – SA Impact	Assess and implement the most important changes on State aid data exchanges with MS foremost on GENIS IS, resulting of on-going State aid legislation review, i.a.: new block exemption	Implement in GENIS IS the State notification forms (structured data schemas) that will change in 2014 resulting from legislation change; inclusive respective changes in data

Iteration	Scope Business	Scope Technical
	regulations, new transparency principle to be introduced in all State aid legislation and guidelines, new handling of complains, new market information tests.	<p>transmission between GENIS IS and backend.</p> <ul style="list-style-type: none"> • The standard notification form; • The Block Exemption forms, respectively for AGRI, MARE and COMP; • Approx. 25 supplementary forms. <p>Carry out IT impact assessment of on-going State aid legislation change on State aid data exchanges with MS, to take into consideration for Update WP2015 (concrete impact, necessary actions, updated budget needs).</p>

1.11.4 PROBLEM/OPPORTUNITY STATEMENT

Currently, the IT support to the State Aid Notification Process faces a number of problems, e.g.:

- There is no unified / formalised description of the State Aid Notification processes involving COMP, AGRI, MARE and the Member States (solved in phase 0) Existing systems do not cover all data exchange needs. In particular there are serious limitations in the implementation of notification forms, the management of communications and underlying workflows between Commission and Member States;
- Existing systems are not flexible enough to evolve or be adapted easily to cope with legislation change that implies changes of notification schemas;
- New developments and evolution under the current architecture are slow, risky and expensive;
- Interoperability with the Member States (system-to-system exchange) is not provided by existing systems;
- During the contacts with other DGs regarding the Form component, form management has been confirmed as a common problem at the Commission.

The problems lead to a set of important opportunities for this project:

- Carry out a business analysis / modelling of the State Aid Notification Process (COMP, AGRI, MARE) to better understand the business context, process boundaries and interactions with other processes (done in phase 0);
- Design a new architecture for State Aid Notification Process based on reuse of building blocks (services, components) to enable the development of IT solutions to better cover the business needs, which are more efficient, flexible and scalable to cope with new requirements that might result from legislation changes;

- Identify existing or develop new reusable building blocks to support the new architecture to cover the exchange of structured and unstructured data of the State Aid notification process;
- Promote semantic interoperability with the Member States in EU policy domains (e.g. the State Aid domain). A unique repository of reference data can help to improve the levels of semantic interoperability;
- Improve productivity and data quality by providing better interfaces for the Member States to exchange data with the Commission – specially implement interoperability (system-to-system exchange).

1.11.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Administrations in general	<p>Reuse, reducing IT costs.</p> <p>The outcome of the GENIS ISA action:</p> <ul style="list-style-type: none"> - IT architecture based on reuse of building blocks (services and components); - new/adapted reusable building blocks: Portal as integration component to provide data exchange services (UI / web services), Schema management, reference data management, Translation management, Shared case/project repository; together with existing reusable building blocks (eTrustEx, ECAS, etc.); <p>will be available to Member States administrations and Commission services to reuse / integrate in information systems in any domain covering similar data exchange processes between administrations.</p>
Member States and European Commission	<p>Security and privacy, preservation of information</p> <p>The GENIS Information system will guarantee a high level of trust and data preservation by using eTrustEx as data exchange channel.</p>
Member States	<p>Administrative simplification, effectiveness and efficiency, data quality</p> <p>The GENIS Information System will increase efficiency and data quality by implementing state-of-the-art user interface and interoperability (system-to-system) for the pre-notification and notification of State Aid measures by the Member States to the Commission.</p>
European Commission	<p>Efficient IT development and evolution, flexibility, scalability, adaptability to legislation change</p> <p>The GENIS Information System will be flexible, scalable and adaptable by:</p>

Beneficiaries	Anticipated benefits
	<ul style="list-style-type: none"> - Being developed on a service and component oriented IT architecture); - Using a schema management component to efficiently manage notification schemas (de-coupling schema management from the IS implementing generic notification forms and web services, allowing management and evolution of schemas by business).
Member States and European Commission	<p>Transparency, openness</p> <p>The GENIS Information System will improve the transparency and openness of data exchange between Commission and Member States by developing/adapting and using a component to share case/project-related data.</p> <p>GENIS will contribute to semantic interoperability by implementing and maintaining a State Aid Notification Process' semantic repository (metadata, dictionaries, translations) accessible and re-usable for Commission Services and for the Member States.</p>
Member States and European Commission	<p>Data quality</p> <p>The GENIS Information will improve data quality and integrity, and preservation of information by implementing state-of-the-art user interface and interoperability to back-office and by using reliable and trusted data transfer.</p>

1.11.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
ISA Action 1.1 – Promoting semantic interoperability amongst the European Union Member States	GENIS Reference Data building block is likely to be chosen to implement the pilot Reference Data that will be run by ISA Action 1.1.
ISA Action 1.8 – Trusted Information Exchange Platform	The eTrustEx platform will be used when developing the GENIS Information System, to provide efficient, trusted and transparent exchange of data (structured and unstructured) between the Commission (COMP, AGRI, and MARE) and Member States administrations within the State Aid Notification Process (e.g. attachments associated to the State Aid Notification Forms and to messages exchanged in the case shared repository).

Action / Policy	Description of relation
ISA Action 2.9 – Document repository services for EU policy support	GENIS user management component aims to be used for the European Competition Network (ECN).
DG COMP State Aid control under Article 107 of the Treaty on the Functioning of the European Union (TFEU)	The GENIS IS will be a key element to implement the State Aid control in the European Union. The objective to reach by 2015 is that all State aid exchange systems (GENIS, SARI and State aid Scoreboard) are built on the same building blocks and service architecture: ECAS, eTrustEx, common User Interface, reference data management, decentralised user management, multilingual management, web services.
DG COMP SARI	SARI information system (State aid expenditures from Member States) has used GENIS' multilingual building block to manage the translations since Q2 2013.
DG COMP State Aid Modernisation Exercise (2012-2013)	In 2011, Commissioner Almunia launched a priority project to streamline State Aid control procedures. This triggered an in-deep exercise to review and modernise the State Aids legislation. This exercise is currently at status of Commission Proposals which are expected for adoption as of End 2013. The legislation changes that will be proposed are likely to impact the exchanges of information between the Member States and the Commission – hence they will impact the GENIS project. GENIS architecture (better alignment with business requirements, based on components and services) will be flexible enough to absorb with reasonable costs the IT impact of the legislation change.
DG AGRI will review the procedural rules during 2013	The current legal framework in which DG AGRI is working in the context of State Aid will be changed during 2013. GENIS architecture (better alignment with business requirements, based on components and services) will be flexible enough to absorb with reasonable costs the IT impact of the legislation change.

1.11.7 ORGANISATIONAL APPROACH

1.11.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
System Owner (SO)	Blanca RODRIGUEZ GALINDO (COMP Acting Director of Directorate H "State Aid cohesion, R&D&I and enforcement")
Business Manager (BM)	Ulrich Diez, (COMP.H.3)
System Supplier (SS)	Manuel PEREZ-ESPÍN (COMP.R3)
Project Manager (PM)	Roberto ATIENZA (COMP.R3)
AGRI Users Representatives	Ludmila Hamtcheva, Maria Elisabete DIAS COSTA, Linas VISOMIRSKIS (AGRI.DDG4.M.2)
MARE Users Representatives	Johan MIRTOP, Cecilie DUCATEZ (MARE. F4)
COMP Greffe Users Representatives	Alain Wettach (COMP.R1)
Member States Users Representatives	One representative per Member State (Member State representatives attending the State Aid Working group, chaired by COMP.H3)

1.11.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
State Aid working group	Representatives from all the Member States	Once or twice per year
CTI: Presentation Form component	IRM from the different Commission DG	December 2012
Meetings with ISA Programme Manager	ISA Programme Manager responsible for the GENIS action	At least 2 per year

Questionnaires for input on GENIS IS to MS	COMP.H3, Member States Users Representatives	Q1, Q2 2013
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Also as part of the communication plan between the operational units and the Member States there are some groups of interest created in CIRCA and acting as a network.

1.11.7.3 Governance approach

This action will respect the general ISA Governance: under the supervision of the ISA Coordination Group and integrated inside the cluster "Trusted Information Exchange".

The GENIS action will be part of the ISA Working Group: "Trusted Information Exchange" For this first phase there will be different working groups or committees to coordinate the diverse aspects of this project phase.

The project governance for this project will follow the PM2 methodology for project management and their main actors are described as follows:

Working group or entity	Composition	Responsibilities
ISA Coordination Group	Representatives from the Member States and the Commission	Monitor and supervise the development of the different ISA actions.
ISPMB	High level IT representatives from different Commission services	(a) Examine all new IT project proposals with a projected Total Cost of Ownership (TCO) over 500 k€; (b) Advise on corporate and other solutions for DGs business needs; (c) Prepare, for approval by the High Level Committee on IT, guidelines to facilitate the work of DGs on IT project design and management which will be endorsed by the ABM +IT steering committee for use by DGs in formulating new IT investments;

Working group or entity	Composition	Responsibilities
GENIS IS Project Steering Committee	<p><u>System Owner:</u> Blanca Rodriguez Galindo (Acting Director of COMP Directorate H "State Aid cohesion, R&D&I and enforcement).</p> <p><u>Business Manager:</u> Ulrich Diez, (COMP.H.3)</p> <p><u>System Supplier:</u> Manuel Perez-Espín (HoU of COMP R.3, IT Unit at DG COMP)</p> <p><u>Project Manager:</u> Roberto Atienza as Project Manager (COMP R.3)</p> <p><u>Associated Services:</u></p> <p>DG AGRI: Gereon Thiele (HoU of AGRI.DDG4.M.2, "Competition" unit in charge of State Aid at DG AGRI) delegates in Ludmilla Hamtcheva</p> <p>DG MARE: Friedrich Wieland (HoU of MARE.F.4, "Legal Matters" unit, in charge of State Aid in DG MARE) delegates in Johan Mirtop;</p> <p>SG: Representative of the Unit in charge of the Application of EU Law (SG.DSG2.C.3)</p>	<p>Controls and steers of the project, high-level management e.g. change control and conflict resolution.</p> <p>Project Ownership is delegated in a Project Manager, and the system provider delegates in an IT Project Manager</p>
State Aid Working Group	Representative from the different Member States, Chaired by COMP.H3	Formulate Member State's requirements related with information systems supporting the State Aid policy

Working group or entity	Composition	Responsibilities
Users Committee	<p>Users from different units dealing with State Aid at DG COMP.</p> <p>Users from the units dealing with State Aid in DG AGRI, DG MARE and SG.</p> <p>Users from the Public Administrations (at national and regional level) involved in State Aid from the 27 Member States</p>	<p>Formulate user requirements and provide business feedback.</p> <p>Provide support to the Business Project Manager for carrying out user tests.</p>
Technology Committee	<p>System provider: DG COMP.R3</p> <p>Technological Partner DIGIT.B4</p>	<p>This working group will define, from a technical point of view, the reusable components or common services required for the State Aid Notification Process.</p> <p>Taking into account the current status in architectures, components and services existing nowadays in the Commission.</p>

1.11.8 TECHNICAL APPROACH

The GENIS IS architecture is based on

- Existing reusable components and services – eTrustEx, ECAS;
- New building blocks (e.g. Forms management, see 1.1.3 Scope and Annexes I and II) which will be made available under the most appropriate Open Source licensing to Member State administrations and Commission services.

The execution phase is organised in iterations following also the guidelines of the RUP@EC software development methodology. At the end of the each iteration generic and reusable building blocks (as described in 1.1.3 Scope and Annexes I and II) will be made available for reuse.

A version of GENIS IS will be fully functional at the end of Iteration I. In order to manage risks, building blocks are being developed under an iterative and incremental approach.

The work will be structured in the following way:

Iteration 0 (Finished):

1.11 Interoperable and Generic Notification Services (GENIS)

- (2011) identify the requirements/features of the building blocks necessary to build GENIS IS. This identification will be done in the IS Architecture document designed to cope with the business needs of the State Aid Notification Process derived from the Business Architecture
- (2011) Analysis of existing components that could be part of GENIS architecture and gap analysis to define which new building blocks are needed for GENIS. There could be existing components in the Commission or open source components Decide whether the components are:
 - Fully reusable, and they will be part of GENIS
 - Partially reusable, and they will require adaptations/development

For more details about the results obtained during Iteration 0, please check the Annex II "GENIS - Results Iteration 0.doc"

Iteration 1 – Execution (finished)

- Duration: **Q2 2012 – Q2 2013**
- Scope:
 - Develop new building blocks and adapt existing ones, necessary to build the GENIS Information System v1.0. The new building blocks are:
 - Forms management,
 - Reference data management,
 - Multilingual management.
 - Functional analysis, building blocks architecture,
 - Develop prototypes and proofs of concept
 - Implement new building blocks / adapt existing ones
 - Integration tests.
- Deliverables:
 - Building blocks ready to be used to build GENIS Information System v1.0.
 - Execution Report.

For more details about the results obtained during Iteration 1 – Execution, please read Annex III "Execution Report – GENIS Execution Iteration 1"

Iteration 1 – Operational:

- Duration: Q3 2013 – Q2 2014
- Scope: Fine-tuning. Production. Publication of deliverables.
- Deliverables: Release the building blocks of Iteration 1 in the Joinup platform.

Iteration 1.1. – Execution:

- Duration: Q3 2013 – Q1 2014
- Scope: Build the GENIS Information System v1.0 using the building blocks from Iteration 1.
- Deliverables: GENIS Information System v1.0 developed.

Iteration 1.1. – Operational:

- Duration: Q2 2014 – Q4 2014
- Scope: Fine-tuning. Production.

- Deliverables: GENIS Information System v1.0 operational.

Iteration 2 – Execution:

- Duration: Q3 2013 – Q2 2014
- Scope: Develop new building blocks for Iteration II and complete the blocks already developed under Iteration I
 - Functional analysis, building blocks architecture
 - Develop prototypes and proofs of concept
 - Implement new building blocks and adapt existing ones
- Deliverables:
 - Building blocks ready to be used to build GENIS Information System v2.0.
 - Execution Report.

Iteration 2 – Operational:

- Duration: Q3 2014 – Q2 2015
- Scope:
 - Scope: Fine-tuning. Production. Publication of deliverables.
 - Deliverables: Release the building blocks of Iteration 2 in the Joinup platform.

Iteration 2.1. – Execution:

- Duration: Q3 2014 – Q1 2015
- Scope: Build the GENIS Information System v2.0 using the building blocks from Iteration 2.
- Deliverables: GENIS Information System v2.0 developed.

Iteration 2.1. – Operational:

- Duration: Q2 2015 – Q4 2015
- Scope: Fine-tuning. Production.
- Deliverables: GENIS Information System v2.0 operational.

NEW iterations introduced in the update of WP2014

SA Integration. Objective: A common architecture based on building blocks and services for all State aid systems for exchange with MS (GENIS, SARI and State aid Scoreboard).

Inception – SA Integration

- Duration: Q3 2013 - Q2 2014
- Scope / deliverables:
 - Update Project Charter of ISA Action 1.11.
 - Architecture integration document defining a common building blocks and services architecture for all State aid systems for exchange with MS (GENIS, SARI and State aid Scoreboard).

Execution – SA Integration Iteration 1

- Duration: Q2 2104 - Q2 2015.
- Scope: Partial implementation of the integration architecture roadmap.
- Deliverables: SARI partially integrating common building blocks with GENIS: ECAS, reference data management, de-centralised user management, multilingual management.

Execution – SA Integration Iteration 2

- Duration: Q2 2015 – Q1 2016
- Scope: Complete implementation of the integration architecture roadmap.
- Deliverables: All State aid systems for exchange with MS built on / reusing common building blocks and service architecture: ECAS, eTrustEx, common UI, reference data management, de-centralised user management, multilingual management, ESTAT tools, web services for exchange with MS.

Operational – SA Integration

- Duration: Q4 2015 – Q2 2016.
- Scope: Fine-tuning. Deployments.

SA Impact. Objective: Assess and implement the most important changes on State aid data exchanges with MS foremost on GENIS IS, resulting of on-going State aid legislation review, i.a.: new block exemption regulations, new transparency principle to be introduced in all State aid legislation and guidelines, new handling of complains, new market information tests.

SA Impact – Execution 1

- Duration: Q2 2104 - Q2 2015.
- Scope / deliverables:
 - Implement in GENIS the State notification forms that will change in 2014 inclusive respective changes in data transmission GENIS to backend.
 - The standard notification form;
 - The Block Exemption forms, respectively for AGRI, MARE and COMP;
 - Approx. 25 supplementary forms.
 - IT impact assessment of on-going State aid legislation change on State aid data exchanges with MS. Update WP2015 (detailed impact and necessary actions, updated budget).

SA Impact – Execution 2

- Duration: Q2 2015 – Q1 2016
- Scope / deliverables: To be defined in the impact assessment in the previous phase.

Operational – SA Impact

- Duration: Q4 2015 – Q2 2016.
- Scope: Fine-tuning. Deployments.

1.11.9 COSTS AND MILESTONES

1.11.9.1 Breakdown of anticipated costs and related milestones

Note: Annex IV provides a visualisation of the GENIS planning.

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Inception	Project Charter	410	ISA	Q2/2010	Q4/2010
Execution - Iteration 0	Execution report: Business Architecture, IS Architecture.	350	ISA	Q1/2011	Q2/2012
Execution - Iteration I	Reusable building blocks (see 1.1.3 Scope, Annexes I and II): functional analysis, prototyping, development and adaptation of building blocks. Execution Report.	600	ISA	Q2/2012	Q2/2013
Operational – Iteration I		110	ISA	Q3/2013	Q4/2013
Execution – Iteration 1.1	Integration building blocks. Implementation GENIS IS v1.0	120	ISA	Q3/2013	Q1/2014
Operational – Iteration 1.1		100	ISA	Q2/2014	Q4/2014
Execution – Iteration 2	Reusable building blocks (see 1.1.3 Scope): functional analysis, prototyping, development and adaptation of building blocks.	500	ISA	Q2/2013	Q2/2014

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
	Execution Report				
Operational – Iteration 2		220	ISA	Q3/2014	Q4/2015
Execution – Iteration 2.1	Integration building blocks Implementation GENIS IS v2.0	160	ISA	Q3/2014	Q1/2015
Operational – Iteration 2.1		90	ISA	Q2/2015	Q4/2015
Inception – SA Integration	Update Project Charter. Architecture integration document.	80	ISA	Q3/2013	Q2/2014
Execution – SA Integration – Iteration 1	Partial implementation of the SA integration architecture roadmap.	160	ISA	Q2/2014	Q2 2015
Execution – SA Integration – Iteration 2	Complete implementation of the integration SA architecture roadmap.	160	ISA	Q2/2015	Q1/2016
Operational – SA Integration		60	ISA	Q4 2015	Q2 2016
Execution – SA Impact – Iteration 1	Implementation of changed State aid notification forms. IT impact assessment of on-going State aid legislation.	160	ISA	Q2/2014	Q2/2015

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Execution – SA Impact – Iteration 2	Scope to be defined in the IT impact assessment from previous year.	160	ISA	Q2/2015	Q1/2016
Operational – SA Impact		60	ISA	Q4 2015	Q2 2016
	Total ISA budget	3.500			

1.11.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010	Inception	410	410
2011	Execution 0	350	350
2012	Execution 1	600	600
2013	Operational 1 Execution 1.1 Execution 2 Inception – SA Integration	610	
2014	Operational 1.1 Operational 2 Execution 2.1 Execution – SA Integration Iter.1 Execution – SA Impact Iter.1	100 220 160 160 160	
2015	Operational 2.1 Execution – SA Integration Iter.2 Operational - SA Integration Execution – SA Impact Iter.2 Operational - SA Impact	90 160 60 160 60	

1.11.10 ANNEX AND REFERENCES

Annex	Description	Reference link	Attached document
Annex I	This document describes the main results and conclusions achieved during the Iteration 0 and their impacts in the following iterations and phases of the project		GENIS - Results Iteration 0.doc
Annex II	This document provides an updated overview of the implementation costs of the building blocks to be implemented		GENIS Building blocks costs - 2013
Annex III	ISA Execution Report for execution of Iteration 1, including Annex: Summary of results		Execution Report – GENIS Execution Iteration 1.pdf
Annex IV	Overview / visualisation of the GENIS planning		ISA 1_11 GENIS - Planning overview - update WP2014.pdf

1.12 OPEN SOURCE SOFTWARE FOR ONLINE COLLECTION OF STATEMENTS OF SUPPORT FOR EUROPEAN CITIZENS' INITIATIVES

1.12.1 CONTEXT

1.12.1.1 Identification of the action

Type of Action	Project
Type of Activity	Reusable generic tools
Service in charge	DIGIT B.1
Associated Services	SG G.4; JUST C.2

1.12.2 OBJECTIVES

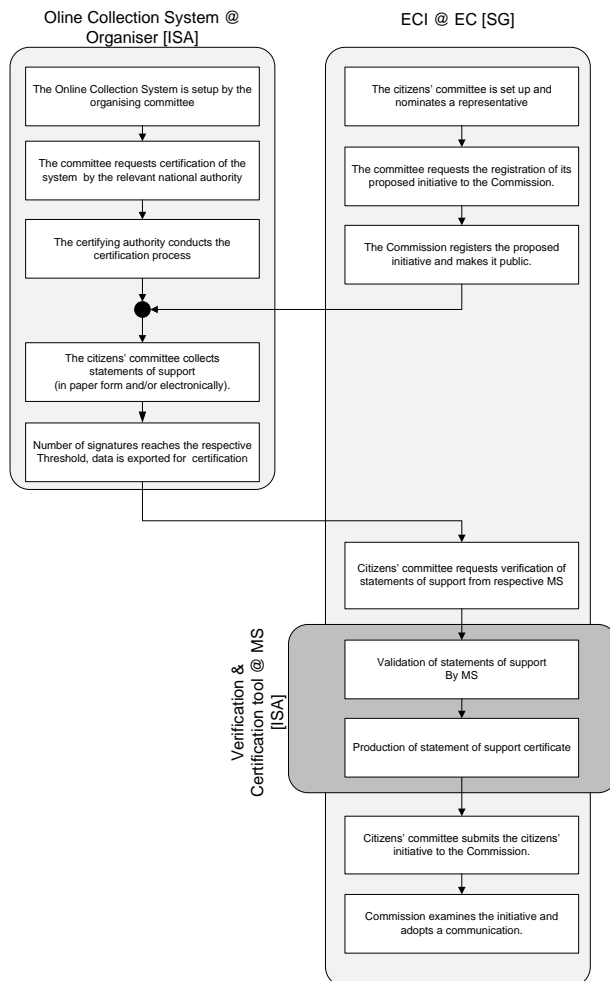
The objective of this action is to provide organisers of citizens' initiatives with a re-usable tool (OCS) allowing the online collection of statements of support in a way that complies with the Regulation on the citizens' initiative as regards the format and data collected as well as the security and technical requirements.

This re-usable tool will be provided as an open source web application that will be made available as a free download.

This action will also provide a validation tool that relevant Member State Authorities can use in order to verify the statements of support and produce the required statement of support certificate.

This will facilitate on the one hand compliance with the above mentioned requirements by organisers of initiatives, verification of data collected and certification of online collection systems by the relevant Member State authorities.

Below you may find an overview of main activities of the ECI process and how it is supported by IT systems run by European Commission, organisers and Member States authorities:



Another objective of this action is to improve the way Member States exchange data on EU citizens who register to vote in the Member State where they reside (*Directive 93/109 on European elections*). These improvements will be formulated as guidelines and published by the Commission as a Communication in view of preparing the 2014 EP elections during November 2012

1.12.3 SCOPE

This action is related to the following priority areas of the European Interoperability Strategy:

- Interoperability Architecture – Building blocks
- Trust and Privacy
- Supporting processes

The following actions have been identified and will be further investigated during requirements analysis phase to indicate which developments are necessary

1. (Completed): Develop open source software for online collection of statements of support which complies with the Regulation on the citizens' initiative as regards the format and data collected as well as the security and technical requirements.

1.12 Open source software for online collection of statements of support for European citizens' initiatives

In addition to the technical and security features that the software will need to comply with, the following features will be also included in order to facilitate the management of the initiative by the organiser and the verification of statements of support by MS authorities:

- a) Adaptations of the statement of support form according to the Member States of residence/nationality of the signatory;
- b) Automatic grouping of statements of support according to the Member State to which they will be sent for verification;
- c) Possibility to export the statements of support as a data file. This data file could then be sent directly to the relevant Member State (if requested/accepted by that Member State).

2. Develop open source software for the verification and analysis of collected data as well as producing the certificates of statements of support by MS authorities.

3. Communication material: in order to promote and explain the use of the software, informational material will need to be disseminated.

4. Prepare the standard definition of XML file to be exchanged between MS Electoral authorities.

5. Adapt the Cryptography tool to support the secure data exchange process between Electoral authorities in Member States.

The following services are proposed for this action:

1. A helpdesk will be put in place to advice organisers of citizens' initiative on the installation and usage of the software as well as assist officials in charge of verifying online collection systems in MS authorities.

1.12.4 PROBLEM/OPPORTUNITY STATEMENT

The Lisbon Treaty introduces the European citizens' initiative, which enables one million citizens who are nationals of a significant number of Member States to call directly on the European Commission to bring forward an initiative of interest to them in an area of EU competence.

A few ground rules and procedures had to be laid down in a Regulation before citizens could start exercising this new right. This Regulation was adopted by the European Parliament and the Council on 16 February 2011²². It provides that statements of support for citizens' initiatives can be collected by organisers both on paper or electronically.

Given that online collection is more prone to fraud and problems linked to data protection than paper collection, the regulation includes some specific requirements that the organisers' online collection system would have to satisfy. The organiser would be required to ensure that the system complies with these requirements and obtain a certificate confirming that. Only one

²² <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:065:0001:0022:EN:PDF>

Member State would need to certify an online collection system used for an initiative across several Member States.

In order to facilitate on the one hand compliance with these requirements by organisers of initiatives and on the other hand certification of online collection systems by the relevant Member State authorities, the Regulation requires that the Commission develops an open source software for online collection, which would satisfy the requirements of the regulation and could be freely downloaded by anyone.

The open source software has to allow the collection of the data necessary to support a citizens' initiative and has to comply with the security and technical requirements for online collection systems as set out in the Regulation:

Article 6(4) of the Regulation:

"Online collection systems shall have adequate security and technical features in place in order to ensure that:

- a. only natural persons may submit a statement of support form online;
- b. the data provided online are securely collected and stored, in order to ensure, inter alia, that they may not be modified or used for any other purpose than their indicated support of the given citizens' initiative and to protect personal data against accidental or unlawful destruction or accidental loss, alteration or unauthorised disclosure or access.
- c. the system can generate statements of support in a form complying with the models set out in Annex III, in order to allow for the verification by the Member States, in accordance with Article 8(2)."

Regarding Member States exchange of data on EU citizens who register to vote in the Member State where they reside, in the 2010 EU citizenship report the Commission announced that it shall take action to improve the mechanism for preventing double voting in European Parliament elections which is laid down in Directive 93/109/EC (participation of EU citizens in EP elections). These efforts are necessary to alleviate the administrative burden on the Member States by increasing the efficiency of the mechanism

1.12.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Organisers of citizens' initiative	The open source software will be freely downloadable by organisers. It will help organisers to build their online collection systems and it will ease the online collection software certification process.
Organisers of citizens' initiative	The open source software will be offered freely and ready to be used by organisers. It will help organisers run the online collection and also ease the online collection system certification process by Member States.

Beneficiaries	Anticipated benefits
Member States' authorities certifying online collection systems	An easier and quicker process of verification of online collection systems if the organiser uses the open source software provided by the European Commission.
Member States' authorities verifying statements of support	The format of the data collected through online collection systems using the software could facilitate their verification process.
Member States' authorities verifying statements of support	The verification tool can validate data (encrypted statements of support) received from organisers and deliver the required certificates.
Member States' Electoral authorities	They could be able to exchange data on EU citizens related to European elections in a standardised and secure way.

1.12.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
European citizens' initiative (ECI)	Regulation (EU) No 211/2011 of the European Parliament and of the Council of 16 February 2011 on the citizens' initiative: <i>Article 6(2)</i> <i>By 1 January 2012, the Commission shall set up and thereafter shall maintain open-source software incorporating the relevant technical and security features for compliance with the provisions of this Regulation regarding the online collection systems.</i>
EU Treaty – Elections to European parliament	Council Directive 93/109/EC of 6 December 1993 <i>Article 13</i> <i>Member States shall exchange information required for the implementation of Article 4 (...)</i>
ISA Action 1.4 – ECAS – STORK Integration	ECAS aims to be used by ISA Action 1.12 in order to authenticate and sign statements of support using an electronic identity card.
ISA Action 1.8 – Trusted Information Exchange Platform	The OCS is currently storing all the data from the ECI, however in the future it aims at transferring them to the Member States. For this purpose, the ISA Action 1.12 will assess the feasibility of re-using eTrustEx.

Action / Policy	Description of relation
ISA Action 4.1.1 – Communication activity	Communication activities on the benefits of using the OCS software for the European citizen's initiative will be performed in the course of ISA Action 4.1.1, in particular the promotion of the use of the software towards organisations and persons that would like to set up an ECI and towards the Member States that need to verify the correctness of the electronic signatures collected by an ECI, Communication of additional fields of use of the tool (e.g. allowing the validation of non-resident voters' signatures).
ISA Acion 4.2.1 – ISA Integrated Collaboration Platform	Joinup acts as a platform to support the building of a user community around the ECI software.
ISA Acion 4.2.2 – Community building and effective use of the collaborative platforms	ISA Action 4.2.2 hosts and manages communities. Discussions are on-going to see the extent to which ISA Action 1.12 could benefit from the work performed under ISA Action 4.2.2.

1.12.7 ORGANISATIONAL APPROACH

1.12.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
Member States	ISA Coordination Group: The ISA coordination group assists the Commission in translating priorities into actions and to ensure continuity and consistency in their implementation.
Member States' authorities certifying online collection systems	Expert group on the citizens' initiative
Member States' authorities verifying statements of support	Expert group on the citizens' initiative
Member States' Electoral authorities	Member States' Electoral authorities expert group

Stakeholders	Representatives
DIGIT – Directorate General of Informatics of the European Commission	Unit DIGIT.B.1 (Information systems for document management and corporate decision making processes) This unit is the main service in charge of this action and responsible for the development coordination and maintenance of European Citizens' Initiative website and online collection software for ECI.
DG JUST – Directorate General Justice of the European Commission	Unit JUST C2 (Union Citizenship and Free Movement) The mission of this unit is to ensure that citizens of the Union are informed about and able to enjoy fully their rights under the Treaty. The unit is responsible for: <ul style="list-style-type: none"> - Policy developments in the field of Union Citizenship; - Monitoring the effective exercise of the freedom of movement of persons; - Ensuring the effective protection of unrepresented European citizens in third countries by the consular and diplomatic authorities of other Member States at the same conditions as nationals; - Overseeing the exercise of the electoral rights of European citizens at local and European elections.
Secretariat-General of the European Commission	Unit SG.G.4 (General Institutional Issues) This unit is the European Citizens' Initiative system owner and business project manager.

1.12.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
Meeting	ISA Coordination Group	Participate on Working Group for MS experts for the Trusted Information Exchange
Meeting	MS expert meeting on the implementation of Regulation No 211/2011 on the citizens' initiative	29/06/2011
Meeting	Meeting of the Expert Group on the citizens' initiative	17/01/2012
Meeting	Meeting of the Expert Group on the citizens' initiative	12/03/2012

Event	Representatives	Frequency of meetings / absolute dates of meetings?
Meeting	Meeting of the Expert Group on Electoral Matters on participation of EU citizens in European elections (Directive 93/109/EC) and in municipal elections (Directive 94/80/EC)	14/03/2012
Meeting	ISA Coordination Group	19/09/2012
Workshop	Workshop with MS experts on Validation Tool	19/09/2012
Workshop	Online Collection Software Workshop	29/11/2012
Meeting	ISA Coordination Group	23/01/2013
Meeting	Meeting in Koln, organised by Bundesverwaltungsamt - Federal Office of Administration, Germany	23/01/2013
Workshop	Workshop with ECI MS Expert Group on Validation Tool	05/03/2013
Meeting	ISA TIE Working Group	13/03/2013
Meeting	ISA Coordination Group	19/03/2013

1.12.7.3 Governance approach

A Project Steering Committee is established to provide overall guidance and direction for the project with the participation of all concerned services. Working groups, workshops and other appropriate meetings may be organised with the different experts.

1.12.8 TECHNICAL APPROACH

The approach of this project is based on phases as follows:

Phase 1 (Inception 1): As a part of the inception phase 1 of the action, DIGIT.B1 carried out a study that covered two aspects:

- Work package 1: Requirements specification for the tool
- Work package 2: Inventory of existing tools or components eligible for reuse

IT solutions developed within the eParticipation programme managed by DG CONNECT were analysed and used as a basis for the future software (ex: Europetition, eMPower, etc.). Meetings of experts have also been organised to share best practices in the field of online transnational petitioning systems. The output is the requirements for such a tool (OCS) and which tools or components may be reused in this context.

Phase 2 (Inception 2): Having the results of phase 1, a project charter was elaborated. The aim of this phase was to analyse and find the gaps between the chosen tool (if one) and the requirements. The outcome of this phase is the OCS Project Charter.

1.12 Open source software for online collection of statements of support for European citizens' initiatives

Phase 3 (Execution 1): The OCS execution phase was divided into two iterations. The first iteration was focused on the implementation (or adaptation) of the main services and components and the second one covered remaining functionality identified during inception phase as well as latest requirements coming from Member States.

During 2012 we have also:

- organised meetings and training sessions with the ECI organisers in order to explain the use and installation of the software and to exchange best practices.
- provided documentation (Business Impact Assessment, Security Plan, Security Scope, OCS Risk Assessment, Risk Treatment Plan, Statement of Applicability, etc.) needed for the certification of the online collection systems, as required by the ECI regulation and Technical specifications for OCS
- implemented and delivered support the Live CD (part of OCS software installation).
- aligned ECI submission forms with corrigendum to Regulation 211/2011
- support the re-use of the tool, facilitate the community of users and (possible) third-party developers around the tool

Phase 4:

- **Inception 3:** DIGIT carried out a study of the already existing tools for automatic validation of statements of support. The output is the requirements for such software and which components may be reused in this context

- **Inception 4:** Make a study on the possibility of using electronic signatures for the online collection tool. Experience output will be the requirements for such software and which components may be reused in this context.

Phase 5

- **Inception 5:** Having the results of **phase 4** during which the requirements and reusable components were identified, the Project Charter was elaborated for the Validation Tool. The focus here was to analyse and find the gaps existing between the chosen tool - the Validation Tool developed by Bundesverwaltungsamt (Federal Office of Administration, Germany) - and the requirements. -

- **Inception 6:** Having the results of **phase 4**, a feasibility study, a policy document and project charter will be elaborated for the usage of electronic IDs within online collection tool.

Phase 6

- **Execution 2: The activities** covered the analysis and implementation of latest requirements coming from Member States (change in the data requirements for signing, add the relevant form for Croatia, add validation rules, etc.) and also the development of the validation tool to be installed/used by MS authorities. An updated version of OCS, ready for Croatia and also featuring other improvements was available on Joinup by the 1st of July, date when Croatia joined the European Union as the 28th member state.

The first version of the enhanced Validation Tool was also available on Joinup during July 2013. In this context, the Validation Tool developed by Bundesverwaltungsamt (Federal Office of Administration, Germany) was shared with EC and Member States under EUPL license and

therefore available for reuse. The approach was to further develop the software received from Bundesverwaltungsamt so that it supports other Member States validation process.

During 2014, because a new version of the Annex III of the Regulation (EU) No 211/2011 of the European Parliament and of the Council of 16 February 2011 on the citizens' initiative will enter into force at the beginning of October 2013, the Validation Tool will be updated in order to support multiple versions of the statement of support at same time.

- **Execution 3:** Implement electronic signature support within online collection tool.

Phase 7

- **Inception 7:** The activities performed were requirements gathering, analysis and design the Encryption/Decryption Tool in order to add functionality needed to support Member States requirements for the exchange of information on EU voters in EP elections context. A demo of the Encryption/Decryption Tool was organised during April to show the implementation of method proposed for encryption, decryption and transmission of data required in order to ensure the necessary level of protection of personal data of EU voters and EU candidates.

The main elements of the suggested improvements, as per conclusions of a meeting that took place in March 2012 with the electoral experts of the Member States, are as follows:

- the Commission prepared the standard definition of XML file to be exchanged
- EC provides Member States with a tool to generate the encryption keys, used for the transmission of the XML files.

The approach was to reuse the *Cryptography* tool, developed in OCS **Phase 3** (Execution 1) and adapt it for encrypting/decrypting the information to be exchanged between Electoral authorities in the Member States.

The Cryptography tool is a standalone application responsible for decrypting statements of support collected online. It is also used for the OCS web application authentication process, as required by point 2.7.3. (h) of the *Commission Implementing Regulation (EU) No 1179/2011 of 17 November 2011 laying down technical specifications for online collection systems*²³ pursuant to *Regulation (EU) No 211/2011 of the European Parliament and of the Council on the citizens' initiative*²⁴.

The Project Charter of European Parliament Elections Crypto Tool was elaborated as result of this phase. A draft version of the user guide was also prepared. In order to facilitate the communication with Member States a dedicated working space was also setup on CIRCABC.

Phase 8

- **Execution 4:** During this phase, the Cryptography tool was adapted in order to answer the needs of Electoral Authorities. The XML schema for the exchange of information on EU voters and EU candidates in the context of Directive 93/109/EC was agreed with MSs and then implemented. The EP Crypto tool was already available for testing by the Member States

²³ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:301:0003:0009:EN:PDF>

²⁴ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:065:0001:0022:EN:PDF>

during May 2013, assisted by the Commission services in case of questions and further clarification.

- **Execution 5:** Implement improvements to all delivered tools and put in place the helpdesk. Continue organising meetings/training sessions in order to explain the use and installation of the software and to exchange best practices. This helpdesk will also support the usage of Cryptography tool by the Electoral authorities in the Member States, assist installation of Validation Tool within Member States infrastructure and integration with their respective local back-ends, and help enlarge and manage open source community around both OCS and Cryptography tools. It will maintain and support the Live CD (part of OCS software installation), support the re-use of the tool, facilitate the community of users and (possible) third-party developers around the tool.

The project teams will work using the RUP@EC methodology for software development and ITIL for service management.

1.12.9 COSTS AND MILESTONES

1.12.9.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Inception 1	Study (OCS)	100	ISA	Q1/2011	Q1/2011
Inception 2	Project Charter (OCS)	100	ISA	Q1/2011	Q2/2011
Execution 1	Execution report (OCS)	300	ISA	Q2/2011	Q4/2012
Inception 3	Study (VT)	50	ISA	Q1/2012	Q3/2012
Inception 4	Study (e-ID)	50	ISA	Q1/2013	Q3/2013
Inception 5	Project Charter (VT)	50	ISA	Q3/2012	Q4/2012
Inception 6	Project Charter (e-ID)	50	ISA	Q3/2013	Q4/2013
Execution 2	Execution report (VT)	340	ISA	Q4/2012	Q4/2014
Execution 3	Execution report (e-ID)	200	ISA	Q1/2014	Q4/2014
Inception 7	Project Charter (CT)	40	ISA	Q1/2013	Q2/2013
Execution 4	Execution Report (CT)	50	ISA	Q2/2013	Q4/2013

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Execution 5	Execution Report (OCS)	470	ISA	Q1/2013	Q4/2015
	Total	1800			

1.12.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010			50
2011	Inception	200	150
2011	Execution	300	299
2012	Inception	75	75
2012	Execution	125	185
2013	Inception	140	
2013	Execution	400	
2014	Execution	450	
2015	Execution	110	

1.12.10 ANNEX AND REFERENCES

Description	Reference link	Attached document
Study		EC DIGIT - ISA Citizens Inventory of existing systems - FINAL VERSION - public.pdf
Study		EC DIGIT - ISA Citizens initiative requirements - FINAL VERSION amended - public - v20110323.pdf
Project Charter		OCT Project Charter - 2011-07-06 - v1.4.doc

Description	Reference link	Attached document
Study		EC DIGIT - ISA European Citizens' Initiative Requirements for a software for validation of statements of support
Study		EC DIGIT - ISA European Citizens' Initiative Reusable software for validation of statements of support
Project Charter		Project Charter - EPE Crypto Tool - v1.0.doc
Project Charter		Project Charter - Validation Tool - v1.5.doc
Online Collection Software - Project Home	https://joinup.ec.europa.eu/software/ocs/home	
Online Collection Software Workshop	https://joinup.ec.europa.eu/software/ocs/event/online-collection-software-workshop	

1.13 LEOS - LEGISLATION EDITING OPEN SOFTWARE

1.13.1 CONTEXT

1.13.1.1 Identification of the action

Type of Action	Project
Type of Activity	Reusable generic tools
Service in charge	SG
Associated Services	DG DIGIT, European Parliament, EU Publications Office

1.13.2 OBJECTIVES

At EU level as well as in Member States, drafting legislation is a complex process involving many actors. A new generation of IT tools could assist authors in respecting high level quality standards, and enable to generate some structured representations of legal texts in order to ease interoperability and automatic processing of the legal texts (publication, consolidation...).

In that context, the objectives of this action are:

- To analyse what kind of tools are currently used by EU and MS public administrations to write their legislation;
- Identify best practices, reusable solutions and areas where common efforts are possible;
- Taking into account the results, develop some solutions for common needs.

The two first objectives have already been achieved and the results of the analysis have been gathered in the document available at <http://joinup.ec.europa.eu/elibrary/document/isa-leos-final-results>. The activities necessary to achieve the third objective are now being planned.

1.13.3 SCOPE

This action aims at making the legislation process with its increasingly pan-European dimension more efficient. There are currently some XML standardisation activities defining generic models for law (like Akoma Ntoso/LegalDocML and Metalex). The development of tools implementing these models would facilitate for EU and MS public administrations:

- the production of structured and high quality documents all along the legislative process;
- the review by other internal or external entities, using different techniques and tools;

- the management of changes and amendments during the adoption phase;
- the respect of presentation rules and canvasses;
- the tracking of EU and national legislations which are more and more interconnected (implementation of EU directives in national laws...)
- the processing of the texts for post adoption treatments (consolidation) and publication.

The scope of this action is limited to the development of tools to support the writing of legislation. The developed software will ease the writing of high quality legislative acts and the output will be a structured representation of acts using a marking semantic dedicated to law.

1.13.4 PROBLEM/OPPORTUNITY STATEMENT

The use of office automation tools is currently widespread for creating and editing texts. In that context, administrations are facing the problem of reconciling the freedom associated with these tools and the necessity to produce structured, homogeneous and high quality documents at the end of the process. Most of the time writers would like to keep flexibility, whereas the other steps of the process leading to the publication and entry into force, (during which text might need to be reviewed, amended, translated by other internal or external entities using different techniques and tools), would require a very strict structure marking in order to enable some automatic processing and controls on the acts.

As word processors are by definition designed to provide the maximum freedom to users, and software for structured content (like XML editors) are intended to be used by some specialised users with a technical background, there is no tool fulfilling the needs in the market.

1.13.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States', National parliaments, public administrations and EU Institutions	<p>Re-use of best practices, standards and tools, in order to:</p> <ul style="list-style-type: none"> ▪ save costs ▪ improve efficiency and transparency ▪ reduce time-to-market ▪ ensure interoperability <p>Indeed handling legal documents and follow up of legal procedures can be automated.</p> <p>Tools and components developed in the context of this action will be designed in a generic way and published under an open source licence in order to ease re-usability by national public administrations and EU Institutions.</p> <p>Facilitate the interconnection of legal databases and the performance of search engines.</p>

1.13.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
ISA Action 1.1 – Promoting Semantic Interoperability Amongst the European Union Member States	Reusable semantic interoperability assets in the area of legislation could be shared with other Public Administrations, at both EU and Member States level.
ISA Action 1.21 – European Legislation Identifier	ISA Action 1.21 will provide input to the ISA Action 1.13.

1.13.7 ORGANISATIONAL APPROACH

1.13.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
Member states	ISA Coordination Group The ISA coordination group assists the Commission in translating priorities into actions and in ensuring continuity and consistency in their implementation.
Secretariat general of the European Commission	Unit SG.A.1 This unit is the system owner of the tool used at the Commission for writing legislation and thus provides the requirements for the Commission in close cooperation with the legal service.
DIGIT – Directorate General of Informatics of the European Commission	Unit DIGIT.B.1 This unit is the system supplier of the tool used at the Commission for writing legislation and thus is responsible of development activities necessary to fulfil the requirements.

1.13.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
Steering Committee meeting	<ul style="list-style-type: none"> • Secretariat general of the European Commission • DIGIT – Directorate General of Informatics of the European Commission 	Bi annual or ad-hoc
Project management status meeting	<ul style="list-style-type: none"> • Secretariat general of the European Commission • DIGIT – Directorate General of Informatics of the European Commission <p>When required:</p> <ul style="list-style-type: none"> • Legal Service of the European Commission • DGT – Directorate General for Translation 	Monthly
Meeting/workshop of the Community of interest	European Commission, EU public administration interested in the action	Ad-hoc

1.13.7.3 Governance approach

ISA Governance

The LEOS project follows the ISA governance structure. The diagram below shows that this action will report back to the representatives of the Member-States in the Trusted Information Exchange work-group under the “Support to sectoral projects” theme.

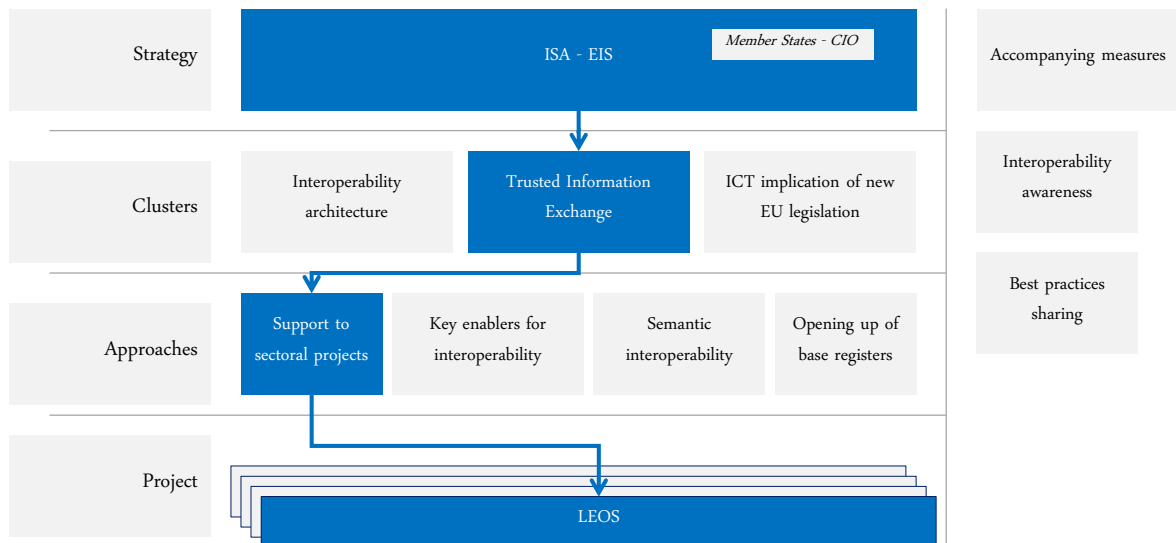


Figure: ISA Governance Structure

The coordination of the project will be handled by 3 different groups.

- The project management team
- The extended project management team
- The community of interest

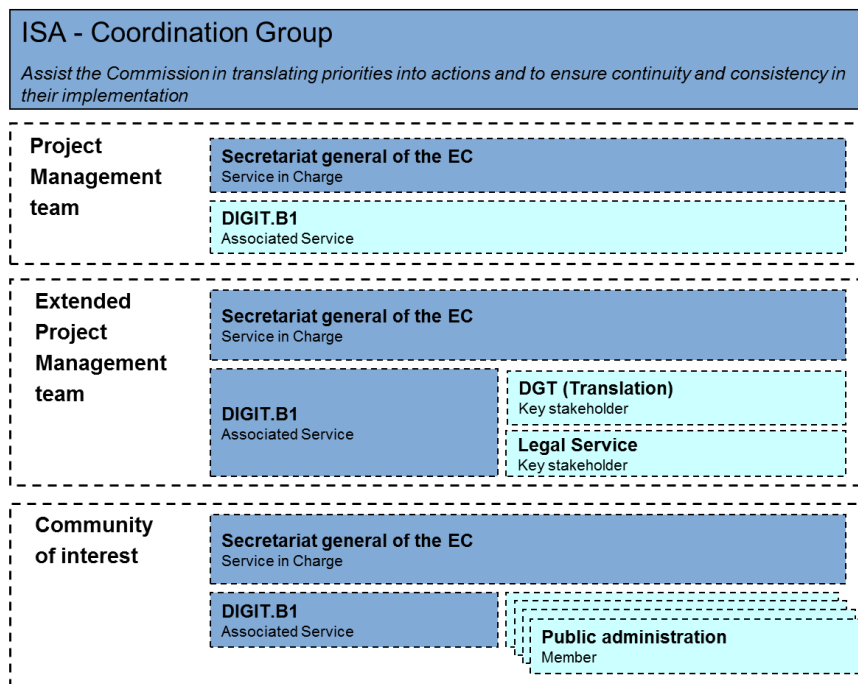


Figure: Coordination structure

The **Project Steering Committee** will meet on a regular basis (2 times a year):

- to ensure the project is progressing satisfactorily
- to take strategic decisions

The steering committee is held at the level **Head of Unit** of the **Project Management Team** entities. In case any critical risk or issue is raised, the steering committee may also meet on request of the Project managers, in order to decide on actions to be launched.

Monthly **Project Status Meetings** (review of the project progress) will be held with between entities of the **Project Management team**, to ensure the timely delivery of the project. Contrary to the steering committee, the status meeting is held at the level **Project Manager**. Project Managers of the **Extended project Management Team** will join the status meeting depending on the agenda.

The Community of interest is made of representatives of some national organisations and Institutions working on similar projects, reusing some code of the project or not. These meetings will be an opportunity to share experiences on these projects (lessons learnt, technical issues, change management strategies...). This Community will be facilitated by DIGIT B1 and the Joinup platform will be used to support the communication and the dissemination of material (software, documents...).

1.13.8 TECHNICAL APPROACH

1.13.8.1 Definition of the solution

The first phase (inception – 1) of the project included a study of the existing situations and planned projects in National public administrations and EU institutions, with a view to identify needs, trends, strengths, best practices and opportunities. The results of the study are gathered in a document available at <http://joinup.ec.europa.eu/elibrary/document/isa-leos-final-results>.

Based on these results, the second phase (inception – 2) consisted in:

- Defining a set of common functional requirements, based on the functionalities of tools currently used in MS and EU institutions;
- Defining a structure: adequacy of an existing schema for the structure of the European Legislation;
- Development of 2 Proofs of Concept (POCs), in order to:
 - Validate the structure, illustrate the requirements;
 - Enable to choose the most accurate technical platform(s).

The first POC is a word-processor based tool whereas the second one is a web editor. As a first conclusion it appears that the web approach is not only efficient for the comment/update/review phase, but could also suit some needs for the original drafting of documents. On the contrary, the Word processor approach keeps some disadvantages, the main being:

- A strong dependency on the Word processor in which it is embedded (vendor lock in)
- It appears that the verification of the document (structure, format) can be executed only after the writing, while users should be prevented to perform unauthorised actions in order to avoid problems at a later stage
- The guidance proposed to users for fixing quality and structure issues is limited.

Having this preliminary conclusion in mind and in order to better evaluate the impact and the constraints of the web editor, the Execution – 1 phase, will focus on the development of a prototype of such a tool. This prototype, built on the findings from the proof of concept and of the study is expected to be delivered by June 2014. This prototype will allow measuring the perceived quality enabling to get the feedback from the users and identify areas of improvements.

The POC phase enabled to reassess the development effort necessary to develop for the first version of the tool. More specifically it pointed out that the tool won't be a set of drafting features only. It will also have to provide a set of services that will have to be used by applications supporting the workflows, the management and the web publication of the acts. Indeed using as a storage format a non-Word processor type of file has for consequence to require the development on server side of services implementing features usually supported by Word processors. These features are:

- to get on screen a readable and formatted representation of the acts
- to get a printable representation of the acts (with page numbers, footnotes at bottom of the pages..)
- to share comments, propose and accept/reject changes about an act (to replace track-changes)

This last item will request a significant development effort as a specific user interface will have to be developed and the consolidation mechanism of the XML files as well as the versions management will be complex.

1.13.8.2 Requirements for the prototype

The following high level requirements will be covered by the prototype.

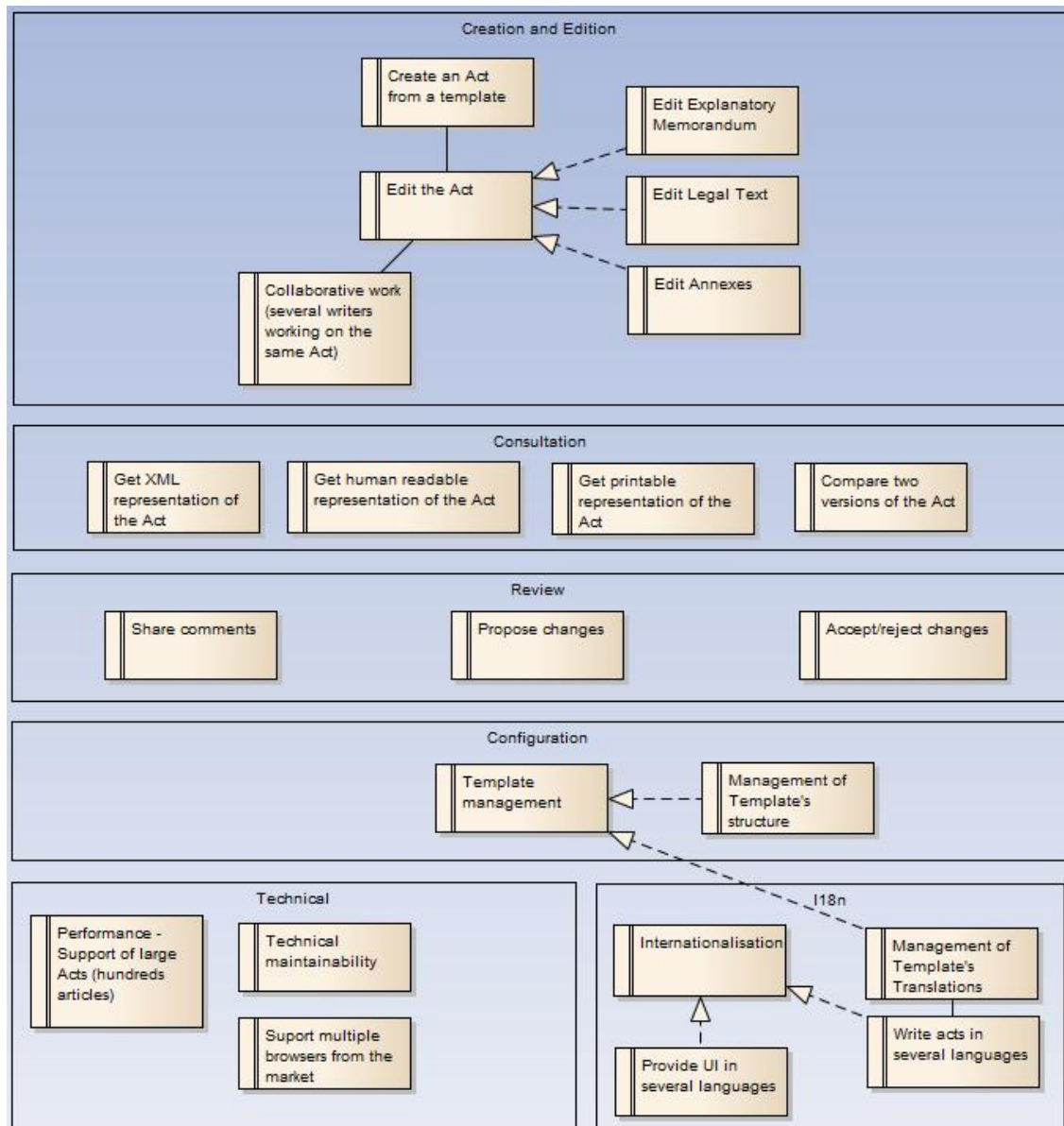


Figure: High level requirements covered by the prototype

1.13.8.3 Technical strategy

As it does not appear to be realistic that the prototype will be able to edit any kind of national legal text structure out of the box, it will be developed in a modular way, so that the adaptations necessary to support a new structure and its associated lay-out will be targeted (configuration files and/or plug-ins module).

All high level requirements previously mentioned will be analysed and components will be created for them. Then the second step will be to establish how these components can interact.

The main requirement for each component is to be opened for extensibility with a clear and easy to use API.

Once the high level components will be defined and it is known how they communicate among themselves, the work will be carried out on each of them independently. As such, the work could be divided across multiple teams. Since each component can further be divided into specialized components, we can have an incremental approach opened for extension.

Regarding the methodologies, PM² will be used at the project management level and RUP@EC will be used for software development.

1.13.9 COSTS AND MILESTONES

1.13.9.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Inception 1	Study	200	ISA	Q3/2011	Q2/2012
Inception 2	Requirements analysis Proof of concepts Project charter	300	ISA	Q3/2012	Q2/2013
Execution 1	Development of a prototype Release open source Execution report	300	ISA	Q3/2013	Q2/2014
Execution 2	Development of version 1.0, ready for production First type of act generated in XML Release open source of the software Execution report	585	ISA	Q3/2014	Q1/2015

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Execution 3	Extension of the scope of the application Extension of the number of acts generated in XML Release open source of the software Execution report	300	ISA	Q2/2015	Q4/2015
	Total	1685			

1.13.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010	-	-	-
2011	Inception 1	200	200
2012	Inception 2	300	300
2013	Execution 1	300	
2014	Execution 2	585	
2015	Execution 3	300	

1.13.10 ANNEX AND REFERENCES

Description	Reference link	Attached document
As is study	http://joinup.ec.europa.eu/elibrary/document/isa-leos-final-results	

1.14 CROSS SECTOR SOLVIT (FUNDING CONCLUDED, INTEGRATED IN ACTION 1.10 IMI)

1.14.1 CONTEXT

1.14.1.1 Identification of the action

Type of Action	Project
Type of Activity	Reusable generic tools
Service in charge	DG MARKT
Associated Services	DG DIGIT B.4 (system supplier)

1.14.2 OBJECTIVES

The new SOLVIT database has been conceived to achieve, as a common service, the objectives below, in line with the goals of the ISA programme:

- deliver a generic solution to be used by Member States in similar contexts of cooperation between national administrations and with the European Commission in specific policy fields;
- offer a service oriented architecture in order to facilitate the interoperability with other information systems from the European Commission (Your Europe Advice, Commission complaint handling systems such as CHAP and EU Pilot....) and the MS;
- reduce administrative burden and costs (support problem-solving in the context of misapplication of EU law in an easy and efficient way between MS);
- enhance the feedback capabilities provided by the new SOLVIT to prevent future problems and thus contribute to more and better opportunities for EU citizens and businesses in the Internal Market and other policy areas;
- facilitate cross-border interaction between European public administrations via a secure internet application;
- be used by all 30 EEA Member States supporting all EEA official languages;
- adhere to the principles of security, privacy and protection of personal data.

With the adoption of the staff working document in February 2012 on reinforcing the SOLVIT network, it has been highlighted the need to further increase the interoperability of SOLVIT with other help, advice and complaint handling tools. In particular:

- treat information & advice requests outside SOLVIT by expanding the IT-based filter and transfer tools between SOLVIT and other services
- better integrate SOLVIT in complaint-handling by the Commission, by mainstreaming the use of SOLVIT by Commission services and by improving IT links & information transfers between CHAP – SOLVIT – EU Pilot

1.14.3 SCOPE

The SOLVIT network was created in 2002 by the European Commission and the EEA Member States in order to provide citizens and businesses with practical solutions to problems caused by the misapplication of single market rules. The network is composed by a SOLVIT centre in each Member State set up within the national administrations. The centres cooperate via a web application to provide rapid and pragmatic solutions to the problems submitted by citizens and businesses.

The European Commission facilitates the SOLVIT network and offers the current SOLVIT IT system to Member States. In order to allow for a generic and cross-sector use of the system, the European Commission decided to develop a new cross-sector information system supporting these requirements.

The submission to the ISA Programme is for funding in accordance with Article 3 c) for the establishment and improvement of the new cross-sector SOLVIT system as a common service. The action addresses the "trusted information exchange" priority area from the European Interoperability Strategy (EIS).

1.14.4 PROBLEM/OPPORTUNITY STATEMENT

The SOLVIT ISA Action was submitted originally to fulfil the points 1-7 below:

1. The initial system has been designed for the single purpose of making the problem solving more transparent. In the meantime the case load of SOLVIT has grown from 120 cases a year to 120 cases a month. There is political pressure (European Parliament's different resolutions; Monti report on the Internal Market) on the system to grow further and to make use of the system as an instrument for feedback on how the internal market is functioning in practice. Thus enabling policy makers to address these problems in a structural way, including the monitoring of how unresolved cases are followed up.
2. With the growing case load it also becomes important that there is a possibility to integrate or link up existing or future administrative cooperation systems, which are either sector or target group specific systems in order to ensure effective case handling and feedback.
3. From an evaluation of SOLVIT conducted by an external contractor in the course of 2011, the importance of new functionalities of the system, including the better use of the database as a tool for monitoring developments in the internal market were identified. Also there is a large number of different information and assistance services. The Commission is promoting the cooperation between these networks as it will make the signposting more effective and thus provides a more direct and easy access to the right service for citizens and businesses. The optimal situation would be if all the different services could be linked up and this way an easy flow of information about the signposting and the follow up to cases can be generated. This situation can be reached if these services use the same system for cooperation and problem solving.
4. The SOLVIT system is currently used to solve problems in the context of incorrect application of Internal Market law, which covers already a wide range of issues (including residence rights, social security, taxation, professional qualifications recognition etc.). Through the new database it will be more easily detectable if there are other fields which could profit from the system provided. Experts from national administrations in certain Internal Market areas should be able to link up to SOLVIT to assist SOLVIT centres in handling complex cases, e.g. experts from Administrative Commission on social security.

5. The new cross-sector system will be implemented with the knowledge and experience acquired during the development of the Internal Market Information System (IMI). Following the analysis of the new SOLVIT system and the launch of the IMI Communication strategy earlier this year, it was concluded that important synergies and cost savings could be obtained by integrating SOLVIT within IMI. Introducing SOLVIT as a module within IMI, means that IMI's services (user management, authentication), technologies and infrastructure will be shared, generating future savings in terms of maintenance and hosting, and reducing the number of different applications offered to Member States. Any costs arising from the integration will be compensated by the savings resulting from the reuse of IMI components and services. The SOLVIT module will provide a generic problem solving workflow based on case handling as well as the required reporting and search features.

These opportunities remain valid, as they form part of the awareness of the SOLVIT network. With the adoption of the staff working document in February 2012 on reinforcing the SOLVIT, new opportunities needs SOLVIT attention:

6. to increase the efficiency of the articulation between SOLVIT and Commission complaint handling system, such as CHAP and EU Pilot, SOLVIT intends to make use of the new IT possibilities.
7. to identify overlapping in the Case Handling flow, reducing the administrative tasks and providing a unique interface to citizens while solving their complaints
8. to successfully redirect the citizens to the assistance services of the European Commission by better links with Your Europe, Your Europe Advice, Europe Direct etc.

1.14.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Citizens and businesses	<p>Citizens and businesses often encounter problems and barriers when trying to enforce their Internal Market rights. SOLVIT provides fast and free service and tries to solve such problems caused by public administration informally, thus avoiding for the client to start lengthy and costly legal proceedings. Since its start it has known a steady growth of 120 cases a year in 2002 to 120 cases over the last years. With a Europe of 500 million inhabitants it is assumed that this is still only the tip of the iceberg.</p> <p>Because of the clear quality standards and high performance, SOLVIT serves as an example for other problem solving networks. The new system can extend the advantages of SOLVIT to other policy areas and it will further help European citizens and enterprises to fully benefit from their rights.</p> <p>It will also enable better and more consistent implementation of community legislation. The feedback provided will also enable policy makers to address structural problems and avoid future problems for citizens and businesses.</p>
Public administrations from Member States	<p>This new technical solution will enable administrations and MS to cooperate in a most-efficient and fast way in order to solve problems related to the misapplication of EU law, first in the context of the Internal Market but ultimately, also in other relevant policy areas.</p> <p>Problem-solving through SOLVIT helps to avoid a significant number of infringement procedures as it solves problems informally before they reach the level of formal complaints to the European Commission.</p>
European Commission (MARKT, ENTR, EMPL, HOME, JUST, AGRI, TAXUD, MOVE; SANCO; EAC; SG)	<p>The new SOLVIT system will offer assistance to the different services of the European Commission responsible for the correct application of EU law in handling individual complaints. Improved possibilities for feedback from the database will make it possible to give tailor-made reports to the policy units on the functioning of the internal market and help Commission services decide which problems need to be addressed.</p>

1.14.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
Internal Market Single Market Act as adopted 27/10/2010 (COM 2010 (608) final	Making the internal market function better for citizens and businesses and providing them with practical redress when their rights are being denied in cross border situations. Action nr 50 from SMA: <i>"The Commission, in partnership with the Member States, will strengthen informal problem-solving tools, specifically by consolidating and reinforcing the EU Pilot project, the SOLVIT network and the networks of European Consumer Centres. Based on an assessment in 2010, it will make specific proposals concerning SOLVIT"</i>
SOLVIT Strategy 2012	The SOLVIT Strategy sets out a series of possible concrete actions to reinforce the SOLVIT network and its unique contribution to a better functioning single market. The European Parliament has repeatedly asked for a further reinforcement of SOLVIT. It has also stressed the need to develop an integrated approach to informal problem-solving by building stronger synergies between 'different problem-solving tools to ensure efficiency and user friendliness and avoid unnecessary overlaps.' In addition, it has become evident that for the single market to contribute to more growth and jobs, a renewed focus is needed on the way single market rules are implemented, applied and work in practice for individuals and businesses.
ISA Action 1.10 – Internal Market Information (IMI) system	SOLVIT has been integrated as a case solving workflow within IMI.
ISA Action 1.20 – Application of EU Law	Potential synergies with SOLVIT for the management of complaints could be exploited within the scope of the THEMIS (Theorizing the Evolution of European Migration Systems) project.
ISA Action 2.7 – Your Europe - Facilitating the re- use of content from National portals	The new SOLVIT offers a new Service Oriented Architecture in order to facilitate the interoperability with other Information Systems from the European Commission (e.g. EU Pilot and Your Europe Advice) and the Member States.

1.14.7 ORGANISATIONAL APPROACH

1.14.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
European Commission	DG MARKT, Commission SOLVIT team's users able to perform administrative functions in the system, who can also oversee the case handling procedure. Secretariat General, DG EU Pilot and CHAP teams DG MARKT: Your Europe Advice DG COMM: EDCC
End users: SOLVIT centres	The SOLVIT centres in the EU Member States (as well as in Norway, Iceland and Liechtenstein)
End users: Citizens and Businesses	The users who submit cases to the system
System Owner	Directorate General of the European Commission responsible for Internal Market and Services. DG MARKT is represented by MARKT.B.TF1, Task Force Single Market advice and SOLVIT, Amaryllis Verhoeven
System Supplier	Directorate General of the European Commission responsible for Information technology. DG DIGIT is represented by DIGIT B4, Angelo Tosetti
Project Manager	DG DIGIT/B4, Information Systems supporting Policies, Financial management and Activity management, represented by Krzysztof Iwanski
Business Manager	DG MARKT.B.TF1, Task Force Single Market advice and SOLVIT, represented by Miguel Angel Gomez Zotano
Document Management Officer	The Document Management Officer is nominated by the DG and ensures a coherent implementation of the Decision 2002/47/CE , CECA , Euratom in the DG: represented in DG MARKT by Michele Hance-Jalhay.
Data Protection Coordinator	The Data Protection coordinator is nominated by the DG and ensures a coherent implementation of the Regulation 45/2001 in the DG, represented in MARKT by Hakan Ander.

1.14.7.2 Communication plan

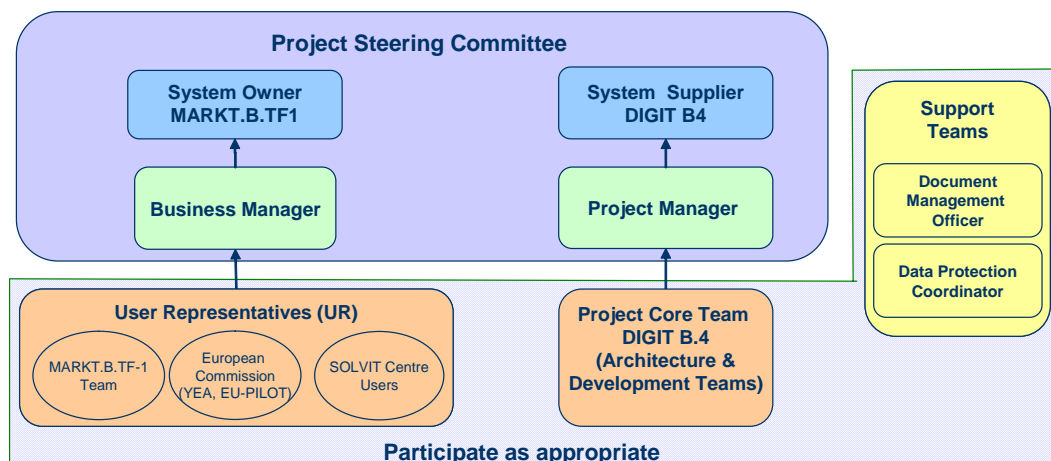
Event	Representatives	Frequency of meetings / absolute dates of meetings?
SOLVIT Workshops	<ul style="list-style-type: none"> - Representatives from the different SOLVIT Centres of the MS - DG MARKT.B.TF1, Task Force Single Market advice and SOLVIT staff 	Two to three times a year, first one will be end of September 2012

1.14.7.3 Governance approach

The Governance approach is based on a Steering Committee that will:

- Champion the project, raising awareness at senior level
- Guide and promote the successful execution of the project at a strategic level
- Provide high level monitoring and control of the project
- Adopt the project charter
- Follow timely delivery and quality of new developments delivered by the system supplier
- Set priorities, authorise plan deviations, scope changes with high project impact and decide on recommendations
- Arbitrate on conflicts and negotiate solutions to important problems
- Drive and manage change in the organisation
- Ensure adherence to organisation policies and directions
- Approve and sign-off all key management milestone artefacts (vision document, project plan, business case, etc.)

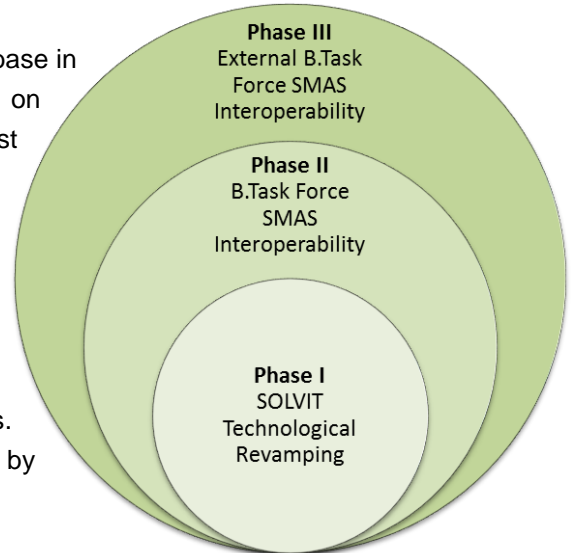
The Steering Committee is composed of DG MARKT (system owner) and DIGIT (system supplier) with the participation of other stakeholders when required; as depicted in the following diagram:



1.14.8 TECHNICAL APPROACH

The development of the SOLVIT system has been divided in three phases:

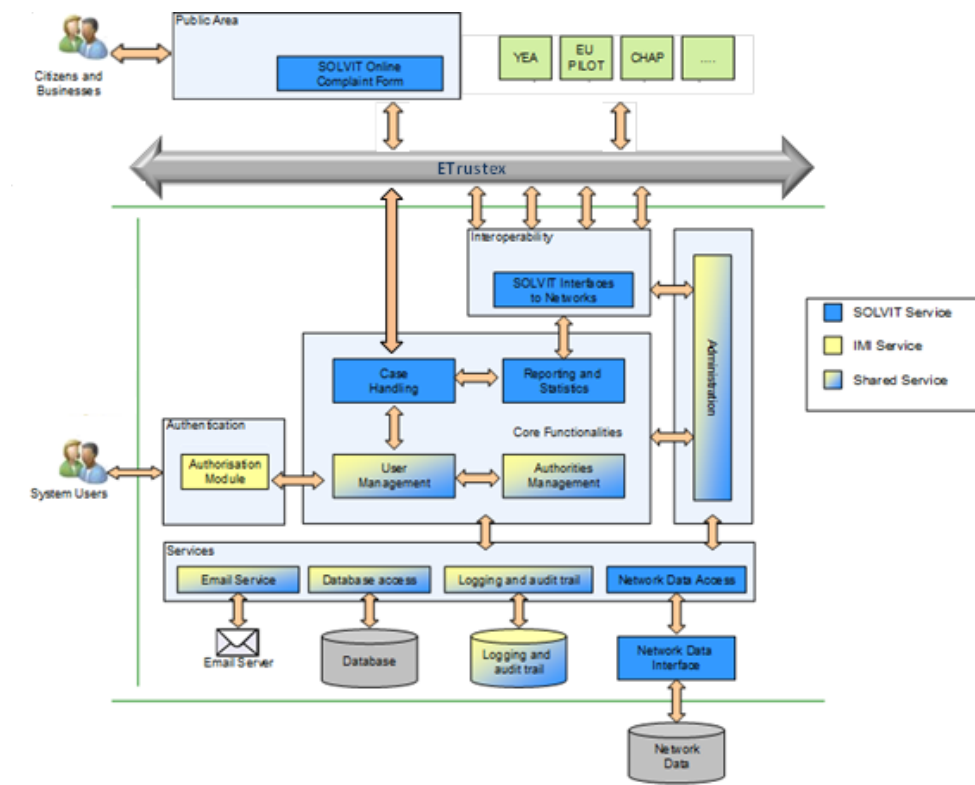
- **Phase I:** Revamping of the current SOLVIT database in a new service oriented architecture based on ETrustEx as service bus. This phase is almost finished, and the new platform will be in production in Q3/2012.
- **Phase II:** Reinforcement of the interoperability between B.Task SMAS tools by constructing the technical interfaces between SOLVIT and Your Europe Advice to enable the mutual transfer of cases between the two applications. This phase is about to start and will be finished by Q2/2013.
- **Phase III:** Enable a better and more efficient articulation between the Commission complaint handling system (CHAP – SOLVIT – EU PILOT, taking into account all the necessary data protection conditions, and expanding the IT-based filter with Your Europe. This phase is foreseen by Q3/2013.



Phases I and II have been financed by the ISA Programme in previous years, the current proposal concerns the work of phase III. There are two main actions that DG-MARKT will carry out:

1. Subject to approval of the secretariat general responsible for EU Pilot and CHAP explore and implement subsequently possible interconnections and/or transfer of data in order to avoid overlapping and ensure efficient signposting of cases when appropriate.
2. Revamping of the technical interfaces between SOLVIT and Your Europe to facilitate the submission of complaints and to effectively redirect citizens to the most suitable European Commission service.

The following image shows the complete system in a Context Diagram:



1.14.9 COSTS AND MILESTONES

1.14.9.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Inception	Project Charter		Internal DIGIT/MARKT resources	Q4/2010	Q1/2011
Execution	Phase I of the new and generic SOLVIT system to replace the current system	550	ISA	Q2/2011	Q3/2012
Execution	Phase II of the new SOLVIT system including services and new requirements	250	ISA	Q3/2012	Q2/2013

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Execution	Phase III of the new SOLVIT system including services and new requirements	200	ISA	Q3/2013	Q4/2013
	Total	1000			

1.14.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010			
2011	Execution Phase 1	550	541
2012	Execution Phase 2	250	250
2013	Execution Phase 3	200	0
2014			
2015			

1.15 OPEN GOVERNMENT DATA (*FUNDING CONCLUDED*)

1.15.1 CONTEXT

Type of Action	Study
Type of Activity	Common Frameworks
Service in charge	DG DIGIT
Associated Services	

1.15.2 OBJECTIVES

The goal of this activity is twofold:

- To assist the Commission services to understand the role of Open Government Data (OGD) and how the Commission services can make relevant information available to others for reuse;
- To run small scale pilot implementations in order to gather experiences, identify directions and receive feedback on how Open Government Data (OGD) technologies and tools can be used within the Commission context.

More specifically, the "Open Government Data" activity will draft an OGD framework for the Commission, documenting the present situation, and identifying opportunities, problems and risks in the area of OGD by:

- identifying and evaluating existing methodologies and business processes, for implementing and supporting the above-mentioned framework;
- identifying, documenting and evaluating existing technologies and tools for publishing, accessing and reusing OGD;
- identifying existing best practices.

This action and the above objectives are addressing the ISA programme, Decision No 922/2009/EC of the European Parliament and of the Council [2], in general and in specific article 4 (b) "openness", (c) "reusability" and (e) "security".

1.15.3 SCOPE

The action has been identified within the Trusted Information Exchange cluster within the EIS. It may also have an effect and influence the cluster "Interoperability Architecture", in case the findings indicate that OGD policies become an essential part of a European interoperability architecture in general.

Coordination with the Action "Access to base registers" is required as there may be some overlapping and/or sharing of findings of common interest (e.g. data/registries descriptions and metadata).

Links and relationships with the Action "Catalogue of Services" should be also identified as OGD may be used and facilitate cross-border service execution, while information about services and even the Catalogue of Service per se may become available as a core open dataset.

1.15.4 PROBLEM/OPPORTUNITY STATEMENT

Governmental agencies are considered to be the most significant data owners and providers in modern societies. The sheer volume and wealth of this data makes apparent the potential benefits of reusing, combining, and processing governmental data. However, administrations typically express reluctance to make their data available, for various cultural, political, institutional and technical reasons. They keep data within their legacy systems, fenced and isolated. The EU has already taken action in this area via the Public Sector Information reuse directive.

The Open Government Data movement which recently becomes visible in various countries promotes the openness on public sector information. This is often materialised with public sector catalogues becoming available through governmental portals where public agencies make their datasets available to the general public.

However, the first efforts of publishing data in raw format and in an ad hoc fashion often result in extended lists of datasets with huge bulk of data which is difficult to be processed, combined and reused. As a result of this fragmented development, there is no up-to-date information with regards to available data on both a member state and EU level. There is also a lack of technologies and tools to efficiently and easily access and reuse Open Government Data. Efforts like the Linked Data initiative try to ameliorate such problems by proposing approaches and tools to semantically link the data in the Linked Data Cloud²⁵. New issues arise then related to provenance, security, quality, as well as technology readiness for supporting such advanced data publishing and querying services.

Aside efforts at national and/or regional level, there are a number of European (research) projects like the European Public Sector Information (PSI) Platform which was set up as a result of a CIP project²⁶. Moreover the newly launched LOD2 IP 7th Framework ICT project²⁷ promises to increase public access to high-value, machine-readable data sets generated by the European, national as well as regional governments and public administrations. Last, the Linked Open Data Around the Clock (LATC)²⁸ FP7 Support Action supports interesting partners to publish and consume Linked Data on the Web.

Nevertheless, the practical implications of national OGD projects in promoting interoperability amongst European public administration and the EU role are still not understood or systematically discussed. National Interoperability Frameworks (NIF's) so far seem to be unaware of Open Government Data related policies. The effects of such policies on NIF's, cross-border special requirements, the EU perspective and the interoperability challenges, the

²⁵ <http://richard.cyganiak.de/2007/10/lod/>

²⁶ The CIP project was funded by CONNECT E6 Safer Internet. The follow-up project to the PSI platform is managed by CONNECT Digital Content and Cognitive Systems, Unit E4 — Access to Information

²⁷ <http://lod2.eu/WorkPackage/wp9.html>

²⁸ <http://latc-project.eu/>

opportunities and risks for this growing number of governmental data catalogues which so far follow an ad hoc development model also need to be understood. Opportunities for harmonization amongst the various national and local projects should be also identified as well as the emerging new interoperability requirements in this fast-growing public sector information market. Last, the feasibility of a European level infrastructure may be also investigated and alternative architectural approaches may be identified and assessed.

These issues are tackled at the EU level via a combination of activities: the research projects mentioned above, the revision of the PSI directive, some planned activities under the CIP. Final goal is to propose a coherent framework as a roadmap for Open Government Data to the MSs and the EU.

This ISA activity will collaborate closely with all other relevant Commission activities. The activity will also prepare the Commission to play its role in such collaboration and to "lead by example".

1.15.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States' Public Administrations	Ability to efficiently re-use information available in other Member States. Easier provision of cross-border data exchange.
European Citizens	Easy access to European public sector data and information.
Industry	New business opportunities for value added services and data mash-ups in a single EU Public Sector Information marketplace.

1.15.6 ORGANISATIONAL AND TECHNICAL APPROACH

The study will deliver its results in a progressive and iterative fashion:

1. Learning from others: Identification of a national, regional, local Open Government Data projects in EU and beyond, understanding policy and technological drivers, understanding implementation strategies, costs and expected benefits. This will be a study of available information, combined with selected contacts and engagement in relevant communities on the Internet.
2. Identification of possible EC sources of Open Government Data. This will be done in two iterations, a first one identifying "low-hanging fruit" (information that is already made publically available or that easily can be made available) and a second one, identifying further potential sources of information.
3. Creation of an EU Open Government Data Community of Practice. Identification of EC services that should be involved and the key persons in these services. Bringing these key persons together and introduce them to the bigger community of practice that is forming on the web. Support this community of practice by using existing collaboration platforms.

4. Define the needs of a Commission OFG portal and propose an architecture for such portal.
5. The output of the activity will be a proposal for a structural approach to OGD in the Commission and how this structural approach should create synergies with work done in Member States and elsewhere.

1.15.7 COSTS AND MILESTONES

As the exact scope of the total action is not known yet, only the budget to start the activity is requested at present. Over the coming months, the overall approach of the Commission toward Open Government Data will be defined and additional work may be identified.

1.15.7.1 Breakdown of anticipated costs and related milestones

Phase	Description of milestones reached or to be reached	Anticipated allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
	Study	100	ISA	Q1/2011	Q4/2011
	Total	100			

1.15.7.2 Breakdown of ISA funding per budget year

Budget Year	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010	-	-
2011	100	100
2012		
2013		
2014		
2015		

1.16 DEVELOPMENT OF KEY IT COMPONENTS FOR THE ESTABLISHMENT OF THE COMMON INFORMATION SHARING ENVIRONMENT (CISE) FOR THE SURVEILLANCE OF THE EU MARITIME DOMAIN

1.16.1 CONTEXT

1.16.1.1 Identification of the action

Type of Action	Project
Type of Activity	Reusable generic tools
Service in charge	European Commission – DG MARE D1
Associated Services	European Commission– JRC/IPSC.G4, MOVE.D1 MOVE.D2, MOVE.D4, HOME.C1, TAXUD.A1, TAXUD.A3, TAXUD.R5, ENTR.H3, DIGIT.B ECHO.B1, ENV.D2, JUST.B3

1.16.2 OBJECTIVES

The global objective is to establish a Common Information Sharing Environment (CISE) for enhancing awareness of what is happening at sea as a contribution to efficiency in maritime operations and eventually safer, more secure and cleaner seas. In line with the EU digital agenda, this translates into interoperable and trusted cross-sector data exchange between public administrations across seven policy areas (maritime safety and security, marine environment and pollution preparedness and response, fisheries control, border control, law enforcement, customs and defence) within the EU maritime domain, respecting a set access rights policy. The cross-sector aspect constitutes the major innovative aspect of CISE. Indeed, public authorities could substantially enhance their sectoral awareness picture by complementing it with information already gathered by authorities from other sectors. To illustrate with an invented example: a law enforcement authority enquiring on illegal arms smuggling carried out on board a fishing vessel may not only require police intelligence gathered by Europol through systems such as 'Siena' and potentially exchanged with border guards through the future 'Eurosur' or the 'European Patrol's Network' systems but may well also require the vessel's position provided by the Transport community thorough systems such as 'SafeSeaNet' and 'LRIT', information as regards the fishing activities of the said vessel provided by the fisheries authorities through systems such as 'VMS' and 'VDS' and may finally exchange part of this information with Coast guards or even military vessels through potential future systems such as 'Marsur' in case the latter authorities are required for an interception operation at sea. All such information exists only in different formats and can therefore at present not be exchanged and in a straightforward and readable manner between all the above actors through a coherent system. The CISE shall provide an information environment that

1.16 Development of key IT components for the establishment of the Common Information Sharing Environment (CISE) for the surveillance of the EU maritime domain

allows for such seamless and even automated cross-sector exchange of readable information between a more than 400 relevant public authorities throughout the EU/EEA.

The specific objectives of this action are, in fine, (i) the technological and functional definition of the CISE, (ii) prototyping critical functions and infrastructure, (iii) create a blueprint of the supporting framework to be implemented from 2015, including the governance aspects.

The initiative is pushed by the Member States Expert Subgroup on Integrated Maritime Surveillance, and supported by already several Council decisions²⁹ and by the Limassol Declaration of the European Ministers responsible for the Integrated Maritime Policy and the European Commission, on a Marine and Maritime Agenda for growth and jobs³⁰.

1.16.3 SCOPE

A group of experts established by the Commission (The CISE Technical Advisory Group, TAG) already identified more than 500 data types together with associated supply and demand across 400+ public authorities belonging to 7 User Communities (i.e. sectors) which were identified for the purposes of CISE. These 400+ public authorities are considered both data providers and end-users of CISE. The project entails the establishment of generic reusable tools to achieve interoperable and trusted cross-sector and cross-border exchange of data between these public authorities, while complying with the diverse data security obligations.

1.16.4 PROBLEM/OPPORTUNITY STATEMENT

Due to diversity of legal frameworks across the EU, data provided by such systems is not interoperable. Today, only a fraction of data is or can be exchanged/exposed, mostly sectoral and cross-border. Information sensitivity is generally considered a barrier for data sharing. The project will enable following opportunities:

- a scalable, adaptive and open solution for sharing and exchanging adequately protected data;
- building from existing systems and networks, with minimum cost impact;
- integrating results from ISA on-going actions;
- allowing the numerous maritime user communities to seamlessly exchange data.

²⁹ http://ec.europa.eu/maritimeaffairs/pdf/external_relations_council_conclusions_17112009_en.pdf

http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/EN/genaff/122177.pdf

http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/genaff/115166.pdf

http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/gena/104617.pdf

http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/agricult/137604.pdf

³⁰ <http://www.cy2012.eu/index.php/el/file/TphGtH7COdr2nxXo9+AUZw==/>

1.16.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
EU institutions and agencies	Effective implementation and enforcement of EU legislation in the fields of maritime safety and security, border control and fisheries control, customs and environment. Incremental value added for surveillance systems they manage through expansion of users. Cooperative governance at the level of EU Agencies.
National authorities in the EU/EEA with a remit at sea	No duplication in data collection reduces costs. Powerful data mining for reliable awareness picture and increased effectiveness of operations. Civil/military cooperation improves public and national security. Silo-breaking mentality improves maritime governance and stimulates competition amongst public services.
Citizens in the EU/EEA	Safety, security and control are fundamentals for democracy and preconditions for maritime activities to flourish (contribution to economic growth).
European industry	Development of appropriate interoperability standards enhances competitiveness and demand for surveillance capabilities. Unfolding a net to unreliable maritime operators will benefit EU maritime industry.

1.16.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
All policies related to the seven maritime user communities/ functions to be served by the CISE	The 7 user communities to be interconnected through the CISE and their functions are: maritime safety and security, marine environment and pollution preparedness and response, fisheries control, border control, Law enforcement, customs and defence. Cross-border and cross-sectoral data exchange generates knowledge and enables sound decision making and better implementation of EU legislation in the above policy areas. Further specific examples with respect to three of those functions are given below (see points 3-4).
Digital Agenda	CISE is relevant to several focus areas of the digital agenda but most pertinent to the creation of borderless online environment and services in the public domain (eGovernment action plan) as well as to the application of ICT solutions to respond to societal challenges. It includes consideration of INSPIRE.

Action / Policy	Description of relation
Maritime Transport	<p>The maritime transport sector has developed efficient systems to monitor maritime traffic. This situational awareness picture is relevant and useful to all maritime user communities. The 2011 transport white paper (COM(2011)144) specifically refers to the contribution of the maritime transport monitoring and data exchange system SafeSeaNet to the CISE. As a contribution to this, the EMSA agency is implementing the new IMDate system to create a web service layer on top of those systems.</p> <p>The Single Window initiative included in the Reporting Formalities Directive will create a single window / single point of reporting obligation when arriving in a port. It covers several sectors including customs.</p>
Illegal Immigration	The CISE was referred to as the 8th and final step of the Border Surveillance System EUROSUR (COM(2008)68final), stating that it will go beyond border related aspects, thus covering all maritime activities.
Inspire Directive	As the INSPIRE also addresses the spatial harmonisation of data related to basic hydrographical including marine areas as well as oceanographic features and sea regions, the CISE action will take into account the relevant data schemas and exchange put in place in the INSPIRE infrastructure
CSDP	The CISE has been one of the first tangible domains of civil/military cooperation at EU level, as beneficial to the tasks of both authorities. CSDP operations - being of humanitarian or security nature - may benefit from enhanced data exchanges. The CISE is specifically mentioned in EEAS papers on the concept of Maritime Security Operations (discussions taking place in the EU Military Staff and EU military Committee), in the Commission Communication of July 2013 "Towards a more competitive and efficient defence and security sector" (COM(2013) 542 final) ³¹ and in a Parliament report on the maritime dimension of the Common Security and Defence Policy (2012/2318(INI)) ³² .
CIPA solution ³³	The CISE architecture definition shall be carried out taking into consideration the possibility to reuse the CIPA solution (eTrustEx platform and CIPA gateway).

³¹ http://ec.europa.eu/internal_market/publicprocurement/docs/defence/130724_communication_en.pdf

³² <http://www.europarl.europa.eu/oeil/popups/ficheprocedure.do?reference=2012/2318%28INI%29&l=en>

³³ ISA action 1.6

Action / Policy	Description of relation
ISA Action 1.1 – Promoting semantic interoperability amongst the European Union Member States	<p>The methodology defined by the ISA Action 1.1 for defining semantic assets will be reused in the CISE project to define use cases, information services and the associated data formats and semantics. The approach of the CISE project will be based as appropriate on the governance, process and methodology proposed by ISA Action 1.1.</p> <p>Furthermore, under ISA Action 1.1, a pilot has been carried out to demonstrate the potential interest of Linked Data technologies. In this context, it is envisaged to collaborate further with ISA Action 1.1 on the definition of useful core vocabularies for the maritime domain, and on the set up of a platform to disseminate the CISE common data model ("Data Dictionary").</p>
ISA Action 1.6 – PEPPOL Sustainability (CIPA)	The CISE architecture definition shall be carried out taking into consideration the possibility to reuse the CIPA solution, in particular the eTrustEx platform and CIPA gateway.
ISA Action 1.8 – Trusted Information Exchange Platform	CISE development shall be carried out taking into consideration the results of ISA Action 1.8.
ISA Action 2.1 – Elaboration of a common vision for an European Interoperability Architecture (EIA)	The European Interoperability Architecture developed by ISA Action 2.1 will be taken into consideration when developing the CISE platform.
ISA Action 2.14 – Assessment of Trans-European Systems (TESS) supporting EU Policies	CISE should ultimately improve interoperability between the systems of 7 different sectors, in which specific sectorial solutions have already been put in place to exchange information. However, the CISE initiative should not yet create another new interoperability framework. In that context the rationalization of existing trans-European systems between administrations is seen as an opportunity. CISE shall seek alignment with corporate recommendations to interconnect administrations, and in any case shall ensure convergence with such recommendations or corporate solutions.

1.16.7 ORGANISATIONAL APPROACH

1.16.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
EU level: Commission DGs and Agencies	DG MARE, JRC, MOVE, HOME, TAXUD, ENV, DIGIT, ECHO, JUST, OLAF EMSA, FRONTEX, EFCA, EUROPOL, EEA, MAOC, EDA, EUSC
Member States	National authorities carrying out the 7 CISE functions. They will be the participants to the CISE and they have been identified in autumn 2011 in accordance with Step 1 of the Roadmap towards establishing the CISE (COM(2010)584). A total of ~400 national authorities have been identified contributing to the 7 identified mission areas (User Communities).

1.16.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
Member States Experts sub-group on the integration of maritime surveillance (MSEsG)	Cross-sectoral group, comprising national representatives from all EU and EEA states, alongside EU Agencies and representatives of the pilot projects on the integration of maritime surveillance (BlueMassMed, MARSUNO and CoopP Maritime Surveillance). A 17-member Technical Advisory Group (TAG) with experts from each user community + EU Agency + pilot projects assists the JRC and DG MARE in the implementation of the CISE Roadmap and provide feedback to the work of the MSEG.	2 to 4 MSEsG meetings per year 5 to 7 TAG meetings per year

Event	Representatives	Frequency of meetings / absolute dates of meetings?
Sectoral working groups	Member States representatives from the respective sectoral policy area (e.g. High Level Steering Group of SafeSeaNet -transport, Eurosur working group – border control, fisheries control working group, PT MARSUR group -defence).	Depending on the group, approximately three to four times a year
Interservice Group on Integrated Maritime Surveillance	All European Commission services concerned by integrated maritime surveillance. This group plays the role of Steering Committee for the Impact Assessment for the CISE.	4 per year
Bilateral visits to Member States / Agencies	CISE always included on the agenda.	20 per year
European Maritime Day	All kinds of stakeholders, including the general public. One workshop dedicated to the CISE each year.	May each year
Leaflets, publication material, website	In particular in the context of European Maritime Day, exhibits in Parliament etc. Maritime Forum.	https://webgate.ec.europa.eu/maritimeforum

1.16.7.3 Governance approach

Management of the action is done jointly by DG MARE D1 and the Joint Research Centre, under the provisions of the Administrative Arrangement (AA) between the two Commission services of 21.9.2010 (ARES(2010)617946 – 22.9.2010) or any amendment/extension thereof. Six persons (4 from DG MARE and 2 from the JRC) are responsible for the implementation of the action.

There are already established bodies/groups ensuring stakeholders' involvement and coordination at all levels:

1.16 Development of key IT components for the establishment of the Common Information Sharing Environment (CISE) for the surveillance of the EU maritime domain

- the seven user communities, including the EU Agencies, participate to the Technical Advisory Group bringing in the necessary expertise from their sectoral policy and related actions;
- an interservice group consisting of representatives of all associated DGs ensures coordination at Commission level. This group plays the role of Steering Committee for the Impact Assessment for CISE;
- the Member States Experts sub-group which is the principal actor for the implementation of the CISE Roadmap is kept updated regularly on the development of the project.

1.16.8 TECHNICAL APPROACH

This action contributes to *Step 4* of the Roadmap to establish CISE³⁴. The activities performed through this action will produce different technical elements in order to develop the supporting framework which will have the capability of:

- Enabling trusted data exchange between largely decentralised information systems, while the data ownership is retained by the originating administrations, in full respect of the specificities of national legislation;
- Defining the standardised data structures to be exchanged between existing systems in order to bridge with least modification all pre-existing information repositories and information systems;
- Securing the data exchange (preferred approach will be to use the Internet) and providing a flexible and efficient access rights management solution allowing dynamic management of access rights across all user communities (including Civilian and Defence communities);
- Offering a fully scalable and flexible solution allowing adding easily new services.

The above mentioned actions shall be carried out taking into consideration the results of other projects, such as:

- FP7 projects³⁵;
- Lessons learned from pilot projects in the maritime domain (BlueMassMed, MARSUNO, CoopP Maritime Surveillance);
- On-going developments from EU agencies (EDA/MARSUR, EMSA/IMDatE, FRONTEX/EUROSUR...);
- Existing ISA actions, like the eTrustEx platform (already under investigation by DG MARE), action 2.1 EIA, action 1.1 on Semantic Operability;
- The rationalization initiative of trans-European systems between administrations, related to ISA Action 2.14, from which final conclusions and recommendations will shape and have an impact on the solution proposed for establishing CISE;

³⁴ Ref2 hereafter

³⁵ IPs SeaBILLA and I2C, DP Perseus, some GMES Projects

- Other EU funded Pan-European interoperability projects such as the European Competitiveness and Innovation Programme (CIP) Large Scale Pilots that have the potential of being re-used across sectors (ex PEPPOL, SPOCS, eCodex etc.).

The high level planning is elaborated as follows and associated cost and milestones are detailed in section 1.1.9.1:

ISA Inception Phase

1. Preparation of Terms of Reference for a study on the existing information systems landscape in the field of maritime surveillance (as-is situation), and on the existing projects which could potentially be [partially] reused (e.g. the ISA actions). The study already identified weaknesses of a status-quo, existing problems and opportunities for improving the efficiency in maritime operations. The study also provided a good understanding of what is already existing at national, regional or European level, in view of reusing as much as possible (software components as well as concepts).
2. Execution of the study by the selected contractor (use of a framework contract).
3. Elaboration of the ISA Project Charter
4. DG MARE initially had the intention to set up an interoperability pilot between a few EU Agencies (EMSA, EFCA, FRONTEX) based on eTrustEx³⁶ (CIPA solution³⁷) to have a better practical understanding of eTrustEx, to identify potential deviations from the CISE needs and to collect arguments in favour of the solution. Unfortunately this couldn't be done because of the business opportunity (Bluefin tuna control campaign) which was candidate for the pilot was too business critical, and the EU agencies didn't want to take the risk of not being operational on time. The initial technical approach foresaw a technical study to define the architecture after the study on the as-is, i.e. to be launched in 2012. However in the meantime, it became clear that the requirements for the *to-be* were not detailed enough to be able to launch such a technical study. This has been highlighted also by the Member States Expert Group on Integrated Maritime Surveillance, and by DG DIGIT (in particular through the closer cooperation with other ISA actions). This lead DG MARE to revise the technical approach and to add intermediate steps before launching the technical study. The technical roadmap for CISE will be refined thoroughly based on Commission experience in other existing Large Scale pilots. The new steps already identified are added below.
5. Review of the work of step 1 by DG DIGIT to benefit from DG DIGIT's expertise and experience in existing Large Scale Pilots and in the CIPA solution.
6. Study to refine the CISE needs and business requirements for a cross-sector and cross-border information exchange environment (architecture, governance, security...) and to define high level architectural options for the CISE environment. This work is based on the results of the as-is study and involved intensively the Member States.
7. Establishment of a CIPA test bed in MARE/JRC (eTrustEx, CIPA gateway...) to get a practical understanding of eTrustEx and to identify potential deviations from the CISE requirements.

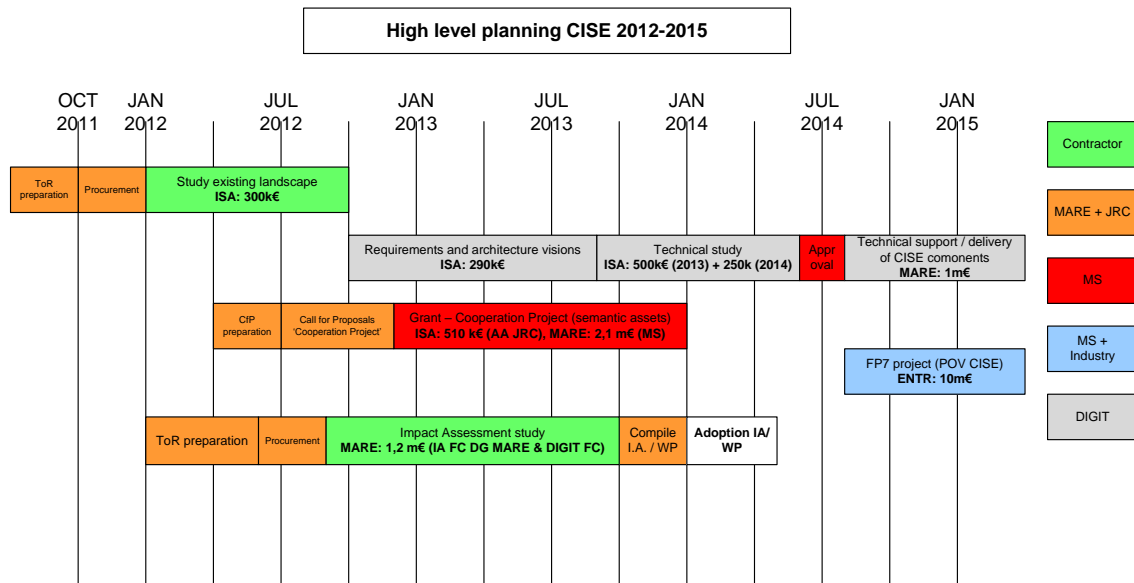
³⁶ See action 1.8

³⁷ See action 1.6

ISA Execution Phase

8. Launch of a Cooperation Project with a consortium of Member States (grant agreement – CoopP Maritime Surveillance) with the purpose to establish in detail the data sets and access rights concerning the information to be exchanged between communities in the context of the first phase of CISE (pre-operational validation). This project will make best use of the result and recommendations from ISA action 1.1 on semantic interoperability. The work on semantic assets will be used to scope the following Pre-Operational Validation project under the FP7 programme. To mitigate the risk of the Cooperation Project not delivering on time, a close follow up by JRC is foreseen. JRC will make use as appropriate of experts from external organisations like standardisation bodies.
9. Technical study to define the CISE environment (in particular the CISE interface specifications) on the basis of business requirements (to be refined on the basis of the grant project with Member States – CoopP Maritime Surveillance, see above), and to assess the impact on existing solutions for information exchange in the 7 sectors. The possibility to reuse the CIPA solution will be assessed in detail in view of building a strong argumentation to the MS Expert Group (note that the CISE environment will be used by MS public administrations and that the Commission doesn't play an active role in the operational aspects, hence the difficulty to *impose* upfront a Commission corporate solution, in a context where all these authorities are already using different sectorial information exchange mechanisms and frameworks). The study should tackle the following topics:
 - a. Translate business requirements into functional analysis.
 - b. Identify and analyse technology options for the key functions (criticality, technology readiness level, technical risks, practical impact on the current situation, cost impact, time impact, Intellectual Property access and long term maintainability, SWOT, Governance model options, sustainability...).
 - c. Analyse effort, time and cost impact for different combinations of options, and compare the different selected combinations of options.
 - d. Provide a final recommendation
10. Selection of the preferred implementation option by the Commission, the TAG and the Member States Experts Group.
11. Launch of a Pre-Operational Validation project under the FP7 project, taking as input the results from the Cooperation Project (see point 8), and the technical definition (see point 9). Technical support for the implementation of the defined specifications of the CISE environment and delivery of potential CISE components would run in parallel.
12. Formal assessment of the FP7 POV project by the Commission, the TAG and the Member States Experts Group.
13. Elaboration of the ISA Execution Report.

These phases and milestones are summarized in the following high-level planning:



1.16.9 COSTS AND MILESTONES

1.16.9.1 Breakdown of anticipated costs and related milestones³⁸

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Inception	Terms of Reference for study on the as-is.	0	MARE/JRC	Q3/2011	Q4/2011
Inception	Execution of study on the as-is.	300	ISA	Q4/2011	Q3/2012
Inception	ISA Project Charter.	0	MARE	Q2/2012	Q2/2012

³⁸ The initial cost and milestones table had foreseen a pilot project based on eTrustEx (development of common functionalities and definition of needed data model and semantics). This was finally not implemented as justified and explained in the technical approach. The technical study initially foreseen to be carried out with ISA budget will be carried out with DG MARE budget only, and it has been delayed as justified in the previous section on the technical approach. The pre-operational validation phase will be carried out under the FP7 programme. The new detailed technical approach is presented in detail in the previous section.

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Inception	-Technical roadmap for CISE refined - work on the as-is reviewed by CIPA experts - CIPA test bed installed in MARE/JRC	140	ISA	Q3/2012	Q2/2013
Inception	CISE requirements detailed and high level architectural options defined	150	ISA	Q3/2012	Q3/2013
Execution	Data flows (including data formats and semantics) for pre-operational validation/pilot defined with MS	2 100	MARE	Q3/2012	Q1/2014
		340	ISA	Q3/2012	Q1/2014
Execution	Technical solution for the CISE defined (including detailed assessment of eTrustEx against CISE requirements) Common generic components will be designed by the Commission (with the ISA budget), on the basis of the CIPA solution and ISA action 2.1 and 2.14. The rest of the CISE design will be done by DG MARE with DG MARE budget.	250	MARE	Q3/2013	Q2/2014
		740	ISA		

1.16 Development of key IT components for the establishment of the Common Information Sharing Environment (CISE) for the surveillance of the EU maritime domain

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Execution	FP7 Pre-operational Validation project running	10 000	ENTR	Q2/2014	Q3/2015
		170	ISA		
		1 000	MARE		
Execution	Formal assessment of the POV		MARE/JRC	Q3/2015	Q3/2015
	Total ISA budget	1.840			

1.16.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010			
2011	Inception	0	300 ³⁹
2012	Execution	800	799
2013	Execution	500	
2014	Execution	240	

1.16.10 ANNEX AND REFERENCES

The general need for a Common Information Sharing Environment (CISE) for the EU Maritime Domain has been expressed and justified as a key component of the Integrated Maritime Policy of the EU, and developed in the following Commission Communications:

- Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions: Towards the integration of maritime surveillance: A Common Information Sharing Environment for the EU maritime domain, COM (2009) 538 dated 15 October 2009;
- Communication from the Commission to the Council and European Parliament on a Draft Roadmap towards establishing the Common Information Sharing Environment for the surveillance of the EU maritime domain, COM(2010) 584 dated 20 October 2010,.

³⁹ The action was launched in 2011 using non-allocated budget of 2011 as permitted by DECISION No 922/2009/EC (ISA Legislation) Article 10(4)

The Council of the EU endorsed the guiding principles leading to integration of surveillance, asked for a Roadmap towards the CISE and subsequently supported the Commission's approach to establish a six-step draft Roadmap by means of dedicated set of conclusions:

- Council conclusions on integration of maritime surveillance, 2974th External Relations Council meeting, Brussels, 17 November 2009;
- Council conclusions on integration of Maritime Surveillance Towards the integration of maritime surveillance: A common information sharing environment for the EU maritime domain; 3092nd General Affairs Council meeting, Brussels, 23 May 2011.

The present action mainly relates and contributes to the realisation of the fourth Step of the draft Roadmap, i.e. the development of the supporting technical framework of the CISE. The steps are:

Step 1 - Identifying all User Communities.

Step 2 - Mapping of data sets and gap analysis for data exchange

Step 3 - Common data classification levels

Step 4 - Developing the supporting framework for the CISE

Step 5 - Establishing access rights

Step 6 - Ensuring respect of legal provisions

The supporting technical framework is however considered as the operational heart of the CISE to be established once the outputs of all six interlinked steps are dressed institutionally at EU level. As announced in the Roadmap, legislative proposals for the implementation of the CISE, setting out an appropriate timeframe for Member States and EU bodies to implement it should be expected by 2013-2014.

All relevant documents are referenced in the following table:

Description	Reference link	Attached document
Commission Communication: CISE Guiding principles	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0538:FIN:EN:PDF	
Commission Communication: Draft Roadmap towards the CISE	http://ec.europa.eu/maritimeaffairs/pdf/maritime_policy_action/com_2010_584_en.pdf	
Council conclusions Nov 2009	http://ec.europa.eu/maritimeaffairs/pdf/external_relations_council_conclusions_17112009_en.pdf	
Council conclusions May 2011	http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/EN/genaff/122177.pdf	

Description	Reference link	Attached document
Council conclusions June 2010 (para 11)	http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/genaff/115166.pdf	
Council conclusions Dec 2008 (para 5, page 45)	http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/gena/104617.pdf	
European Parliament resolution on Integrated Maritime Policy (paras 31-36)	http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P7-TA-2010-0386+0+DOC+XML+V0//en	
ECOSOC opinion, July 2010	http://www.eesc.europa.eu/?i=portal.en.ten-opinions.16088	
Technical Advisory Group: Terms of reference, meeting minutes, progress reports	https://webgate.ec.europa.eu/maritimeforum/frontpage?tid_2=519	
Council conclusions Jun 2013	http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/agricult/137604.pdf	
Limassol Declaration, Oct 2012	http://www.cy2012.eu/index.php/el/file/TphGtH7COdr2nxXo9+AUZw==/	
Parliament report on the maritime dimension of the Common Security and Defence Policy (2012/2318(INI)) - Committee on Foreign Affairs	http://www.europarl.europa.eu/oeil/popups/ficheprocedure.do?reference=2012/2318%28INI%29&I=en	
Commission Communication: Towards a more competitive and efficient defence and security sector	http://ec.europa.eu/internal_market/publicprocurement/docs/defence/130724_communication_en.pdf	

1.17 RE-USABLE INSPIRE REFERENCE PLATFORM (ARE3NA)

1.17.1 CONTEXT

1.17.1.1 Identification of the action

Type of Action	Project
Type of Activity	Common service
Service in charge	DG JRC (H06)
Associated Services	DG ENV(D4), DG DIGIT (B2)

1.17.2 OBJECTIVES

To establish A Reusable INSPIRE Reference Platform (referred to as “ARE3NA”) and develop common components for the successful implementation of a EU spatial data infrastructure in line with the requirements of the (infrastructure for Spatial Information for Europe) INSPIRE Directive taking into consideration policies such as Digital Agenda for Europe and open data related initiatives in the Member States and the EC, such as the open data portal for the Commission.

1.17.3 SCOPE

Includes:

- Inventory of existing platforms and tools spanning multiple policy areas (INSPIRE, Water Framework Directive, Digital Agenda for Europe, open data, Shared Environmental Information System (SEIS);
- Support existing or initiate new open source projects to address identified gaps within INSPIRE and between INSPIRE and relevant ISA activities;
- Produce extended multilingual documentation to help setting up the INSPIRE Infrastructure/node based on existing Member States relevant initiatives;
- Shared and collaborative platforms:
 - Generic distributed registry platform;
 - Generic volunteer geographic information (VGI) platform applied to selected INSPIRE Spatial Data Themes, software and other items (e.g. style layer descriptors).

1.17.4 PROBLEM/OPPORTUNITY STATEMENT

EU Member States are currently implementing the INSPIRE Directive and related regulations. Technical guidelines for the INSPIRE implementation have been developed or are currently under development. The technical guidelines are based on existing international standards.

Implementations, however, often implement standards in different ways or use different versions of the relevant standards. Standards themselves evolve on a regular basis, but they are rarely coordinated with changes in other standards. These limit interoperability between systems and inhibit the ability to create a European spatial data infrastructure especially for what concerns cross-borders areas.

Guidance, collaboration, sharing of best practices and approaches and a reference implementation of common components to solve these interoperability issues are critical to our ability to implement INSPIRE and provide support to the Member States in doing so. ARE3NA shall address these issues and enable INSPIRE's use in a wider context such as eGovernment, open data or the Digital Agenda for Europe.

1.17.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
EU Member States Public Authorities, CIB	Implementation of INSPIRE requirements; increased interoperability among public authorities

1.17.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing a n Infrastructure for Spatial Information in the European Community (INSPIRE).	<p>Legal basis for the project.</p> <p>The Action will also provide evidence and recommendations for the revision of the INSPIRE Directive, including relevant inputs from sections of the ARE3NA survey dealing with missing items in technologies and standards that will be running for the duration of the Action.</p>
Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, and the Committee of the Regions: A Digital Agenda for Europe - COM(2010)245 final.	<p>DAE Action 21: Propose legislation on ICT interoperability Where relevant, the project results will provide recommendations for the revision of the INSPIRE Directive and for the Implementing Rules legal acts still under development.</p> <p>Action 22: Promote standard-setting rules The results of this project will rely, where possible and feasible, on European and international standards, and will involve standardization organizations.</p> <p>Action 23: Provide guidance on ICT standardisation and public procurement The resulting framework will contain specifications and guidelines that facilitate public procurement. Commission Regulation (EC) No 976/2009 of 19 October 2009 implementing Directive 2007/2/EC of the European Parliament and of the Council as regards the Network Services.</p>
Commission Regulation (EC) No 976/2009 Of 19 October 2009 implementing Directive 2007/2/EC Of the European Parliament and of The Council as regards the Network Services.	The project builds on the technical guidance of this regulation.

Action / Policy	Description of relation
<p>Commission Regulation (EU) No 1089/2010 of 23 November 2010 implementing Directive 2007/2/EC of the European Parliament and of the Council as regards interoperability of spatial data sets and services</p>	<p>The project builds on the technical guidance of this regulation.</p>
<p>Communication From the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions Towards a Shared Environmental Information System (SEIS) COM(2008)0046.</p>	<p>The project will directly contribute towards the implementation plan of COM(2010)0311.</p> <p>Shared Environmental Information System is an initiative for the flows of environmental data in Europe (from monitoring to reporting) that INSPIRE could help to be more streamlined once INSPIRE-like data start to be shared. ISA Action 1.17 is interested in SEIS because it is using similar tools as INSPIRE and because part of the INSPIRE research team used to work on SEIS project.</p>

Action / Policy	Description of relation
ISA Action 1.1 – Promoting semantic interoperability amongst the European Union Member States	<p>As part of the CESAR community, ISA Action 1.17 provided contributions to the work of ADMS through the description of semantic assets from INSPIRE Data Themes.</p> <p>In addition, JRC have also been heavily involved in the development and review of the Core Location Vocabulary, that is partly built on elements of INSPIRE.</p>
ISA action 4.2.1 – ISA Integrated Collaboration Platform	<p>Via Joinup, ARE3NA will provide semantic assets from INSPIRE for registration in ADMS including the remaining 24 data specifications from the Annex Themes of the INSPIRE Directive, having already provided the details of the nine Annex I themes. These assets offer the basis for potential reuse of INSPIRE in other sectors, as part of the ARE3NA work on missing items. The improved organisation of these assets could also be addressed with other ISA actions, depending on Member States demand.</p>
ISA Action 2.13 – EULF	<p>Both Actions relate to the implementation of the INSPIRE Directive, where the EULF seeks to establish common understanding of the role of location/geospatial data in the public sector (and beyond) and where the ISA Action 1.17 will aim to provide the technical components to help foster INSPIRE's development within the geospatial data and broader ICT communities.</p> <p>Appropriate synergies will be sought with the EULF to maximise the efficiency and impact of both Actions.</p>
ISA Action 4.2.4 – EFIR	<p>The framework of EFIR is a potential means to better organise the content that the ISA Action 1.17 is starting to share through Joinup. ISA Action 1.17 contributed to their recent evidence base, providing ideas for better organisation of content and the role of 'context' in aiding the identification of different EFIR 'asset' levels that INSPIRE touches on: the <u>legal assets</u> such as the Directive 2007/2/EC, <u>semantic assets</u> such as the data themes' materials, <u>service assets</u> such as the services we provide in INSPIRE to aid interoperability and software/technology assets which are the reusable components that ISA Action 1.17 aim to register or develop and share through Joinup.</p>
ISA Action 4.2.5 – Sharing and re-use	<p>ARE3NA will follow this Action in relation to the sharing and reuse strategy and any new developments following EFIR (ISA Action 4.2.4) or related Actions for the better organisation of assets and work related to open data initiatives, in line with the ARE3NA's objectives.</p>

1.17.7 ORGANISATIONAL APPROACH

1.17.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
Standardisation bodies (CEN, ISO, OGC, W3C, OASIS, etc.) including their relevant Focus Groups on e-Government	
Member States	Member States' Contact Points (which consists of representatives from Member State public authorities responsible for the implementation of INSPIRE) and the newly appointed representatives of the INSPIRE Maintenance and Implementation Group (MIG), where appropriate. The project will also benefit from the inputs of members of a joint ISA Spatial Information and Services Working Group (SIS-WG) with Action 2.13 (see governance, below)

1.17.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
INSPIRE Conferences	INSPIRE stakeholders	Once/year (2014 Denmark)
Workshops	MIG / SIS-WG	1-2/year
Teleconferences	MIG / SIS-WG	Bi-monthly
Foss4g (FOSS4G is the global conference focused on Free and Open Source Software for Geospatial, organised by OSGeo)	Open source community, INSPIRE stakeholders	once/yr.
Interoperability workshops	MIG, Open source community, INSPIRE stakeholders	1/yr.

Event	Representatives	Frequency of meetings / absolute dates of meetings?
Specific components workshops	MIG, Open source community, INSPIRE stakeholders	1/yr.
e-practice workshop	eGovernment	once/yr.

1.17.7.3 Governance approach

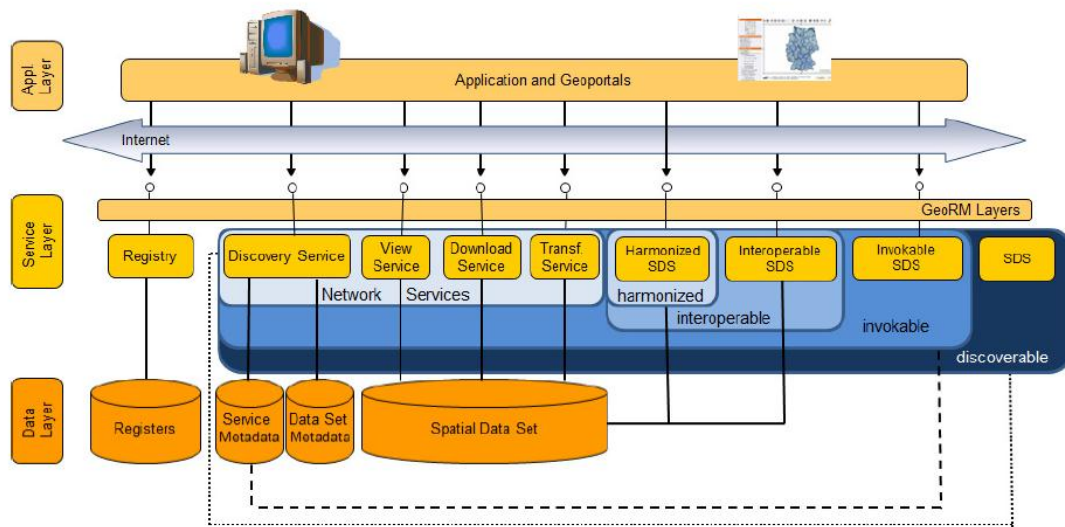
For what concerns INSPIRE existing structures such as the INSPIRE regulatory Committee the Member States Contact Points as mandated by the INSPIRE Directive. The INSPIRE Maintenance and Implementation Group (MIG), under the Maintenance and Implementation Framework (MIF), will now act as the technical group of experts for INSPIRE and will be consulted by this Action.

The planned Steering Committee has been established as an ISA Working Group, consisting of Member State representatives, Commission staff from relevant DGs and COGI.

The resources provided for this study will be complemented with Institutional resources from JRC through the new INSPIRE Maintenance and Implementation (IMI) project. The project will be managed by the Digital Earth and Reference Data Unit of IES/JRC and will be part of its Work Programme.

1.17.8 TECHNICAL APPROACH

The high-level overview of the INSPIRE technical architecture is shown below with the updated version from the draft implementing rule on *INSPIRE Spatial Data Services and services allowing spatial data services to be invoked*. It illustrates the required elements within the infrastructure and their relationships, as well as the responsible party for drafting the relevant specification. The technical specifications of the individual elements are described in Technical Guidance documents (see references).



The goal of discovery services is to support discovery of data, evaluation and use of spatial data and services through their metadata properties. View services as a minimum, display, navigate, zoom in/out, pan, or overlay spatial data sets and display legend information and any relevant content of metadata; A download service supports download of a complete dataset or datasets, or a part of a dataset or datasets, and where, practicable, provides direct access to complete datasets or parts of datasets. Transformation Service is a special case among the recognized INSPIRE service types, as its function is to help other services in achieving compliance with the relevant INSPIRE specifications. The INSPIRE Invoke Spatial Data Services Service enables the usage of an INSPIRE Invokable Spatial Data Service within the infrastructure of INSPIRE Network Services by supporting the binding (i.e. invocation) of one (or several) INSPIRE Spatial Data Service(s) into a service or an application similar to accessing the other INSPIRE Network Services.

In addition to the above, there are additional components that are needed for the correct functioning of the infrastructure such as registers.

To create a reusable reference platform with the core components identified above it is planned to do the following:

- Inventory of
 - Existing INSPIRE components from the Open Source community;
 - Components used within the Member States to implement INSPIRE;
 - Missing components (e.g. registries, volunteered geographic information platform);
- Selection of other policies and initiatives from other sectors requiring exchange and sharing and maintenance of spatial data sets and services.

- Selection of the missing components and/or functionalities, including contributions to other ISA Actions relating to reusable components, open data etc.. Multilingual support is envisioned where required;
- Support Open Source projects to develop the missing items and produce the related documentation (installation guides and technical documentation in several languages);
- Selection and development where required of conformance test suites;
- Set up a collaborative platform to share and maintain the components;

In 2014, the following activities are foreseen:

- developing technical specification of missing items, platform promotion and sustainability;
- supporting INSPIRE reuse based on the frameworks of other ISA Actions (e.g. INSPIRE assets, linked open data, metadata and open data portals).
- support work relating to conformance test suites in INSPIRE (as previously planned),
- support the remaining missing items being identified by Member States.

1.17.9 COSTS AND MILESTONES

1.17.9.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Inception	Inventory	150	ISA	Q4/2012	Q2/2013
Inception	Target policies & components	100	JRC	Q3/2012	Q3/2013
Execution	Development of missing items	1100	ISA	Q4/2013	Q3/2015
Execution	Conformance suites	100	ISA	Q4/2013	Q2/2015
Execution	Assessment of Collaborative platforms and Community Management	100	ISA	Q4/2012	Q4/2014
	Total	1550			

1.17.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2011			
2012	Inception	150	134
2012	Execution	100	100
2013	Execution	600	
2014	Execution	700	

1.17.10 ANNEX AND REFERENCES

Description	Reference link
Directive 2007/2/EC Of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE)	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32007L0002:EN:NOT
INSPIRE Metadata Regulation	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32008R1205:EN:NOT
Commission Regulation amending Regulation (EC) No 976/2009 As regards download services and transformation service	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:02009R0976-20101228:EN:NOT
COMMISSION REGULATION implementing Directive 2007/2/EC of the European Parliament and of the Council as regards interoperability of spatial data sets and services	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:3:0011:0102:EN:PDF
COMMISSION REGULATION amending Regulation 1089/2010 as regards interoperability of spatial data sets and services	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32011R0102:EN:NOT
Technical Guidance for the implementation of INSPIRE Discovery Services	http://inspire.jrc.ec.europa.eu/documents/Network_Services/TechnicalGuidance_DiscoveryServices_v3.0.pdf
Technical Guidance for the implementation of INSPIRE View Services	http://inspire.jrc.ec.europa.eu/documents/Network_Services/TechnicalGuidance_ViewServices_v3.0.pdf
INSPIRE Spatial Data Services and services allowing spatial data services to be invoked – Draft implementing rules	http://inspire.jrc.ec.europa.eu/documents/Spatial_Data_Services/Draft_IR_SDS_and_Invoke%202.pdf

Description	Reference link
Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions -- Towards a Shared Environmental Information System (SEIS) {SEC(2008) 111} {SEC(2008) 112}	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52008DC0046:EN:NOT
Directive 2007/2/EC Of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE)	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32007L0002:EN:NOT

1.18 FEDERATED AUTHORISATION ACROSS EUROPEAN PUBLIC ADMINISTRATIONS

1.18.1 CONTEXT

1.18.1.1 Identification of the action

Type of Action	Project
Type of Activity	Common Services
Service in charge	DIGIT.A3
Associated Services	

1.18.2 OBJECTIVES

The objective of the action is to extend ECAS multi-factor authentication using STORK with a federated authorisation solution that allows public officials to log in to EC applications and be granted access based on their role or position in a national administration.

Access rights are fully administered in the users' home country. The action removes the overhead to manage users at national level for internal needs and at ECAS level for EC information systems.

The action is placed within the ISA objectives of establishment and improvement of common frameworks in support of interoperability across borders and sectors. It builds on and extends the existing ECAS-STORK integration from natural person authentication to federated role-based access and authorization, such as asserting a public administration's authorized representative.

1.18.3 SCOPE

The scope of this Action includes reviewing existing approaches in the Member States, choosing a suitable model, defining common, generic specifications and implementing the chosen model. These project's steps cover the needs of a federated authorisation solution. It especially addresses the risks and concerns of heterogeneous solutions within Europe and potential architectural approaches to fulfil the needs of trust and security..

1.18.4 PROBLEM/OPPORTUNITY STATEMENT

The problem seen in different external SSO scenarios is the role based authentication – a user is granted a role within the system but how to connect the roles to other portals and/or applications? Which are the appropriate technical and organisational specifications for providing a reasonable external authentication system? The ECAS integration has shown with STORK

the subject of handling natural persons and is now missing the adoption and enlargement for roles within non-natural persons as far as they are public administrations. For different ECAS-connected applications of the EC, it might not be relevant whether a user is Mr X or Mrs Y, but that the user is a proper authorized representative of a specific entity (the European Commission or National administration etc.) and is acting in a special role. Therefore, it would be perfectly sufficient for the application to receive credentials by a “trusted third party” (the responsible national administration). Thus, the attribution of a specific user to a specific entity would be done by that entity itself; the application – via ECAS – would trust this entity; this approach would also help to avoid ‘triple management of users and roles’: MS at national level for internal needs and for ECAS evidence and update needs as well as the managing of the users and roles in the ECAS system itself.

1.18.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
EC	Delegation of authorization tasks to MS
MS	Usage of national models for authorization tasks with ECAS solution
Administrations	Local, self-administration
Third Parties	In general, this project is aiming A2A communication but could be a pattern for A2B (or B2B) communication integration at a later stage.

1.18.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
ISA	TIE – register integration, ECAS, authentication issues IA – interoperability architecture & services

Action / Policy	Description of relation
eGovernment action plan	<p>Examples:</p> <p>Priority 1.2: Collaborative Production of Services</p> <ul style="list-style-type: none"> - Action 4: Exchange of knowledge and expertise, agreement on common targets for the roll out of collaborative services <p>Priority 3.2: Reduction of Administrative Burdens</p> <ul style="list-style-type: none"> - Action 29: Sharing of experiences on implementation of the 'once-only' registration principle and on electronics procedures and communications, cost-benefit analysis and roadmap design <p>Priority 4.1: Open Specifications and Interoperability</p> <ul style="list-style-type: none"> - Action 32: Put into action the European Interoperability Framework (EIF) and the European Interoperability Strategy (EIS) - Action 33: Exchanges of expertise, promotions of the re-use and sharing solution to implement interoperable eGovernment services <p>Priority 4.3: Innovative eGovernment</p> <ul style="list-style-type: none"> - Action 40: Pilot projects for innovative architecture and technologies in eGovernment <p>...</p>
Digital Agenda - Interoperability and Standards - Trust and Security - ICT for Social Challenges	<p>Examples:</p> <p>Action 26: Member States to implement European Interoperability Framework</p> <p>Action 54: Develop a new generation of web-based applications and services</p> <p>Action 89: Member States to make eGovernment services fully interoperable</p> <p>...</p>
ISA Action 1.4 – ECAS-STORK integration	ISA Action 1.18 aims at building on and extending the existing ECAS-STORK integration from natural person authentication to federated role-based access and authorisation.

Action / Policy	Description of relation
ISA Action 1.5 – STORK sustainability	<p>The purpose of the ISA Action 1.18 is to extend the ECAS multi-factor authentication mechanism with a federated solution, for instance, a user identified by a trusted third party and credentials transmitted to the Commission to login to authorized applications in case the user is a public official and the application aims to be used by an administration.</p> <p>In this context, the ISA Action 1.18 will build on and extend the existing ECAS-STORK integration from natural person authentication to federated role-based access and authorisation, such as asserting a public administration's authorised representative, by relying on the common specifications for eID maintained up-to-date by the ISA Action 1.5.</p>
ISA Action 1.20 – Application of EU Law	ISA Action 1.20 will assess the feasibility of re-using the results of ISA Action 1.18 in relation to the web services interfaces developed by this action.
ISA Action 2.9 – Document repository services for EU policy support	Assessment of possible re-use of federated authorisation component for decentralised user management will be performed in the course of the ISA Action 2.9.
DG CONNECT STORK	The objective of the ISA Action 1.18 is to extend ECAS multi-factor authentication using STORK with a federated authorisation solution that allows public officials to log in to EC applications and be granted access based on their role or position in a national administration.

1.18.7 ORGANISATIONAL APPROACH

1.18.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
Member States	CIOs of national initiatives / eGovernment strategy
EC	Heads of DGs & responsible people from DGs according to the tasks out of eGovernment action plan and ISA program

1.18.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
Workshop(s)	CIOs national	3 times
Workshop(s)	EC / DGs, ISA Working Group on Interoperability Architecture	2-5 times

1.18.7.3 Governance approach

Definition of a Core working group and Project Management Board (EC DGs & MS representatives) to evaluate and support the project aim – 4/5 meetings planned, either face to face meetings or also Webinars possible (at the beginning of the project: 1st definition of surveys for approaches of MS, 2nd: evaluating the results of the surveys and defining a plan for general model, 3rd: choosing a model to fulfil the project aims and provide an implementation plan, implementation – choosing ‘Testing’-MS with different technical backgrounds, adding other MS with different technical backgrounds, ...; 4th: review phase of project and existing results).

1.18.8 TECHNICAL APPROACH

Elements to consider: existing National systems as good practices, ECAS, open interfaces, SAML, STORK.

eGovernment can only function efficiently when public authorities work closely together and cooperate on an administration-wide scale. This happens when government portals team up with each other to form a “portal group” and share the existing infrastructure.

The advantage of the portal group concept is that many applications are available from a single entry point. The user only needs to identify him once when he first logs on to the portal in order to access various resources, information sources, or “digital offices”. The technical term for only requiring the user to sign in once is called “single sign on”.

Within the portal group, data applications from one authority can be made accessible to other authorities on the basis of a common use and security agreement and a standardised portal group protocol (SAML Profile). The portal group system allows participating organisations to use their own user management systems on the so-called base portal to access external applications. The operators of these applications can delegate the job of authenticating and authorising users to other portals. The operator defines access rights in accordance with the relevant statutory provisions for data protection. Access rights are granted to administrative units only, not to individual users. For individual users, roles are defined that users can be added to. Human resources grants access rights via roles to internal users according to their area of responsibility.

This has the advantages that it reduces the effort on the side of the application because it does not have to carry out user management. It also eliminates the need for multiple parallel user

directories. In addition, single-sign-on is more convenient for users and makes the application easier to use.

Participation in the portal group is governed by an Arrangement concluded between the participating entities. This arrangement sets out the rights and duties with which the joining partners must comply, such as carrying out user identification at login or other data security measures. Local authority bodies, public-law entities and other institutions performing public functions may also join the portal group.

The common protocol forms the technical basis of the portal group. It supplements the organisational issues covered in the arrangement with technical details on the transmission of authentication and authorisation data. Other details include the protocol parameters, the link to HTTP or SOAP, the portal architecture, error messages, URL conventions and generic role definitions.

The action's feasibility has been assessed via a survey with the Member States administrations (via the ISA TIE WG) and the ECAS team. Both activities resulted in the same high level architecture, to be further defined and implemented in the following timeframe.

1.18.9 COSTS AND MILESTONES

1.18.9.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Inception	Feasibility study: Legal, Semantic & Technical Approaches in Member states overview of existing approaches in MS.	150	ISA	Q1/2012	Q4/2012
Inception	Architectural and Functional SWOT e.g. for Federation of Portal / Portal group Project in A.	105	ISA	Q3/2012	Q4/2012
Execution	definition of common, generic specification choosing of a suitable model.	150	ISA	Q1/2013	Q3/2013

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Execution	Implementation plan for integration of MS solutions.	150	ISA	Q3/2013	Q4/2013
Execution	Providing necessary gateway, transformation services to connect ECAS to national solutions.	300	ISA	Q1/2014	Q4/2015
Execution	Lessons learned, ...	50	ISA	Q3/2015	Q4/2015
	Total	905			

1.18.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010		0	
2011		0	
2012	Inception	240	225
2012	Execution	15	15
2013	Execution	300	
2014	Execution	200	
2015	Execution	150	

1.19 PEPPOL SUSTAINABILITY (CONCLUDED ACTION– ACTIVITIES INTEGRATED WITH ACTION 1.6 CIPA)

1.19.1 CONTEXT

1.19.1.1 Identification of the action

Type of Action	Project
Type of Activity	Common services
Service in charge	DG CONNECT
Associated Services	DG MARKT, DG DIGIT

Between 2007 and 2012, the European Commission has funded several Large Scale Pilots (LSPs) on cross-border services within the strategic priorities of the CIP (Competitiveness and Innovation Framework Programme). Their duration is typically 36 months with a pilot service operating for 12 months. As a number of these LSPs will end in 2012, the European Commission is analysing how to ensure their sustainability. As stated in the Digital Agenda for Europe, the European Commission will support seamless cross-border eGovernment services in the single market through the Competitiveness and Innovation Programme (CIP) and Interoperability Solutions for European Public Administrations (ISA) Programme. The ISA programme is at the moment an instrument that can be used to ensure the sustainability of LSPs. It should be noted that, if the European Commission creates a funding mechanism to ensure the long-term sustainability of the LSPs, ISA's involvement may cease at an earlier date.

This action proposes to sustain PEPPOL's core services, called SML services and should be run until 2015 within the ISA work-programme. SML (Service Metadata Locator) services are core services for running the PEPPOL document transport infrastructure (eDelivery). The PEPPOL eDelivery/Transport Infrastructure can be used for several of the eProcurement processes: tendering Processes and purchasing processes. The PEPPOL eDelivery/Transport Infrastructure and its components can be used also in other domains where the exchange of eDocuments between eCommunities is a requirement.

1.19.2 OBJECTIVES

As PEPPOL project ended in 2012, the objectives of this action is to keep PEPPOL's core services alive until their migration to the proposed CEF (Connecting Europe Facility) Digital Services Infrastructure and ensure that PEPPOL's core services are provided efficiently and effectively.

1.19.3 SCOPE

This action is related to the operational aspects of PEPPOL (cross border eProcurement services). This action is complementary to and will be carried out in close cooperation with the ISA work programme action "Common Infrastructure for Public Administrations sustainability" (CIPA).

1.19.4 PROBLEM/OPPORTUNITY STATEMENT

PEPPOL has been designed to remove administrative barriers to ensure that eProcurement services can be offered on a non-discriminatory basis to all businesses across Europe. It will not meet its objectives if not sustained after the pilot phase.

PEPPOL contributes to Digital Agenda for Europe objectives such as to make available a number of key cross-border services by 2015. This action will help to ensure that the actual good take up by Public Administrations will continue and make eProcurement one of the successful EU eServices in the coming years.

This action should be coordinated with the ISA CIPA action which maintains the PEPPOL technical specifications and software code and with the OpenPEPPOL non-profit association which ensures the overall PEPPOL governance.

1.19.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States' public administrations	<p>Member States will be able to benefit from the interoperable cross-border e-Procurement services put on-line through PEPPOL.</p> <p>The financial resources and work performed by PEPPOL project will not be lost and its sustainability will be consistent with the strategic intent of the <i>Digital Agenda for Europe</i> and <i>The eGovernment Action Plan 2011-2015</i>.</p>
European Commission services	PEPPOL on-line cross-border services support DG MARKET's eProcurement policy.

1.19.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
Digital Agenda for Europe COM(2010)245	As stated in the Digital Agenda for Europe, the European Commission will support seamless cross-border eGovernment services in the single market through the Competitiveness and Innovation Programme (CIP) and Interoperability Solutions for European Public Administrations (ISA) Programme. The Interoperability Solutions for European Public Administrations (ISA) programme is an important instrument that could analyse and suggest ways to ensure the sustainability of common services and generic tools developed and demonstrated in the Large Scale Pilots. (...)
The European eGovernment Action Plan 2011–2015 COM(2010)743	According to the eGovernment Action Plan 2011 - 2015 the Commission will support and coordinate the efforts of Member States to roll out Large Scale Pilot projects and to start new ones, while encouraging coordination and re-use of results and solutions between them.
Decision No 922/2009/EC on interoperability solutions for European public administrations (ISA)	Article 3 - Activities The ISA programme shall support and promote: (a) the establishment and improvement of common frameworks in support of cross-border and cross-sectoral interoperability (...) (c) the operation and improvement of existing common services and the establishment, industrialisation, operation and improvement of new common services, including the interoperability of public key infrastructures (PKI); (d) the improvement of existing reusable generic tools and the establishment, provision and improvement of new reusable generic tools.
"A strategy for e-Procurement" COM(2012)179	Key action (6) of the Communication: European Commission to support the sustainability of PEPPOL components as of mid-2012.
ISA Action 1.6 – PEPPOL Sustainability (CIPA)	ISA Action 1.19 aims to sustain the Service Metadata Locator (SML) component provided by the ISA Action 1.6, as these SML services are core for running the PEPPOL document transport infrastructure (eDelivery).

1.19.7 ORGANISATIONAL APPROACH

1.19.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
ISA	The ISA Committee will oversee the project, with the assistance of the ISA Coordination Group. The project will regularly report to the ISA Trusted Information Exchange Workgroup.
EC DG CONNECT Unit CONNECT.H.3 Public Services	European Commission's DG CONNECT is in charge of this action.
EC DIGIT Unit DIGIT.B.4 Information Systems for Policy Support, Grant Management, e- Procurement	This unit is responsible for the maintenance of PEPPOL specifications and software code.
DG MARKT Unit MARKT.C.4 Economic Analysis and e-Procurement	This unit is an associated service of this project and responsible for the activities around EU's e-Procurement policy.
European Public Administrations	Any public administration in Europe is a target user of PEPPOL services.
LSPs	The OpenPEPPOL association will ensure the governance of PEPPOL activities and provide the necessary certificates for authentication of the PEPPOL access points.
Market Players	Economical Operators: Economical operators are Users of public services and the actors from where public administrations procure products and services. They will therefore benefit since improved electronic collaboration will enable Public administrations to provide required information, documentation and certification quickly and reliably.

1.19.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
Bilateral meetings with DG MARKET	DG MARKET and DG CONNECT	These meetings are arranged on ad hoc basis
Bilateral meetings with DG DIGIT	DG DIGIT and DG CONNECT	These meetings are arranged on ad hoc basis
Relevant e-Government meetings and events	DG CONNECT with any other project stakeholder	DG CONNECT is invited to participate in meetings organised by Member States, the LSPs, e-Practice, etc.

1.19.7.3 Governance approach

To achieve its objectives this project will work closely together with European Commission's DG MARKET, DG DIGIT and OpenPEPPOL association. Close cooperation is foreseen with the ISA work programme action "Common Infrastructure for Public Administrations sustainability" (CIPA). Also, particular attention will be given to the coordination between this action and any future actions of DG CONNECT in the e-Government area.

1.19.8 TECHNICAL APPROACH

The action will comply with the following main specifications:

The SML functionality:

- The functionality must be compliant with the specification PEPPOL BusDox SML Specification in the PEPPOL EIA, see http://www.peppol.eu/peppol_components/peppol-eia/eia#ict-architecture/transport-infrastructure/models

The SML components should be:

- Webserver for the web service interface (Tomcat)
- SML-Application handling requests, storing data in database and pushing them to the DNS
- Database for storing the entries
- Public DNS master server for creating the DNS entries

Service Level Agreements (SLA)

1.19 PEPPOL Sustainability (Concluded action– Activities integrated with action 1.6 CIPA)

SML services for updating registrations by PEPPOL SMP's must be available on average:

- 98.5% of the time from Monday - Friday from 7:00 to 18:00 CET (business hours)
- 94.0% of the remaining period.

The DNS master server must have 99,5+% availability

- Availability is measured monthly and service windows are included in "down time".

Monitoring and support

End-to-End transaction monitoring is required.

Availability of sufficiently trained 2nd level support personnel during business time with sufficient English speaking capabilities for solving support requests.

Security

As this is a mission critical system, there must be a tight security and SML must run in a secure physical and logical environment, where access is restricted to authorized users and personnel only.

The SML Service must support OpenPEPPOL certificates for authentication of the SML service itself for both production and test environment.

1.19.9 COSTS AND MILESTONES

1.19.9.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Operational	Services operation	50		Q2/2013	Q3/2014
	Total	50			

1.19.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2013	Operational	50	

1.19.10 ANNEX AND REFERENCES

Description	Reference link	Attached document
Digital Agenda for Europe	http://ec.europa.eu/digital-agenda	No
eGovernment Action Plan	http://ec.europa.eu/digital-agenda/en/european-egovernment-action-plan-2011-2015	No
ISA legal basis and reference documents on interoperability	http://ec.europa.eu/isa/	No
Strategy for e-Procurement	http://ec.europa.eu/internal_market/publicprocurement/e-procurement/index_en.htm	

1.20 APPLICATION OF EU LAW: PROVISION OF CROSS SECTOR COMMUNICATION AND PROBLEM SOLVING TOOLS

1.20.1 CONTEXT

1.20.1.1 Identification of the action

Type of Action	Project
Type of Activity	Common services
Service in charge	SG.C.3
Associated Services	SG.R.3, EU Publications Office , DG CONNECT

1.20.2 OBJECTIVES

Managing the application of EU law involves both the European Commission and the Member States, working in close partnership. Member States are responsible for the timely and correct implementation and application of EU law while the Commission's responsibility is to ensure that EU law is applied consistently. This is reviewed by contacts and correspondence with the Member States.

The objective of this action is to identify and implement common services of cross-sector interest. The project will analyse, design and develop or implement the following services that will manage and support the exchange of information between Member States and the Commission during the phase of implementation of European legislation, problem resolution within the EU-Pilot dialogue and within the infringement proceedings:

- notification of national measures of execution for the transposition of directives (MNE);
- communication between the Commission and the Member States before launching infringement procedure (EU Pilot).
- communication of replies and requests for prolongation of the deadlines to infringement decisions (INFR);

All these services (MNE, EU Pilot and INFR) are to be integrated in a new application currently under development as NIF2, with a tentative future designation of THEMIS.

The objective of THEMIS is to provide a one-stop solution for Commission services and Member states' administrations with regard to all aspects of the application of EU law; starting from the transposition process of directives into national legislation and the notification and subsequent review of the corresponding legal acts, through dialogue based problem resolution triggered either by complaints or own-initiative of the Commission, onto the full bi-directional

flow of information in the context of infringement proceedings. Reporting and statistical tools will be part of the package. THEMIS will be integrated with the future 'dorsale décisionnelle' system supporting the Commission decision-taking process.

The services in the scope of this project charter will represent the common external module of the future THEMIS system.

System-to-system data exchanges between administrations and the Commission will reduce extra manual data encoding. This will allow Member States to transmit data directly from their back-office systems according to the following principles of the European Interoperability Framework: security and privacy, multilingualism, administrative simplification, transparency, preservation of information, openness, reusability, effectiveness and efficiency. History of all data exchanges with the Member States' administrations should be accessible to either party.

All services will be strongly integrated to ensure a consistent and reliable workflow.

1.20.3 SCOPE

The proposed developments will provide a reliable, robust and secure mechanism to interconnect systems in Member States' public authorities (existing or under development) with the future NIF2 (THEMIS) system which will replace the current NIF/MNE/INFR/EUPILOT systems.

The current systems cover the following activities:

- NIF – directive transposition and infringement monitoring and management
- MNE – notification of National Measures transposing directives
- INFR – communication by Member States of official replies to Commission notifications in infringements proceedings
- EUPILOT – pre-infringement information exchange and problem resolution with regard to potential breaches of EU legislation

Deliverables covered under this Project Charter will include both web-services and their corresponding backend services, providing for bi-directional data and document exchange facilities for the following 3 domains:

- Transposition of directives
- EU-Pilot dialogue
- Infringement proceedings

The underlying principle is that public authorities responsible for implementing and ensuring compliance with EU legislation should not be presented with a proliferation of different information systems but rather a single interface in the form of the future NIF2 (THEMIS) system

and its externally accessible interfaces, thus ensuring that information existing in Member States own system need not be re-encoded.

The European Commission offers the deliverables as a service to Member States, developing the required application and interfaces and hosting the computing infrastructure.

This will be accompanied by technical documentation detailing the interfaces to be used. Furthermore, on request, the Commission will provide assistance to Member States, in order to ensure correct and reliable interconnection between Member States' system and NIF2 (THEMIS).

1.20.4 PROBLEM/OPPORTUNITY STATEMENT

The development project falls within the focus area "Trusted Information Exchange" of the European Interoperability Strategy.

It facilitates the structured or non-structured data exchange between Member States and the Commission via web-services by improving interoperability between infringement proceedings applications managed by the Secretariat-General of the Commission and IT tools managed by Member States, with a particular focus on the following:

- Provide a single point of access for Member States as regards to application of EU law
- Reduce administrative burden of the Member States and of the European Commission
- Enhance efficiency and transparency of reporting and monitoring of EU law application
- Improve statistical tools to simplify the gathering of information, its dissemination and reporting

1.20.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
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Beneficiaries	Anticipated benefits
Member States and European Commission	<p>Security, rapidity and privacy, preservation of information:</p> <p>The service dedicated to the communication of transposition measures will guarantee the information exchange system providing:</p> <ul style="list-style-type: none"> - immediate transmission (MS are required to respect deadlines), - secure transmission with acknowledgement of receipt (high level of trust); and - secure data preservation (legal security for both MS and the EC).
Member States and European Commission	<p>Data quality</p> <p>NIF2 external services will improve data quality, integrity and preservation of information by implementing a state-of-the-art user interface and interoperability to back-office and by using reliable and trusted data transfer. Search and statistics retrieval will be also improved.</p>
Member States and European Commission	<p>Better cooperation</p> <p>NIF2 external services will improve the transparency and openness of data exchange between Commission and MS by developing/adapting and using a component to share case/project related data.</p>
Member States	<p>Administrative simplification, effectiveness and efficiency, data quality</p> <p>NIF2 external services will increase efficiency and data quality by implementing state-of-the-art user interface and interoperability (system-to-system) for:</p> <ul style="list-style-type: none"> - the notification of national measures of execution for the transposition of directives by the Member States to the Commission; - the transmission of replies and prolongation of deadline requests in the matter of infringement proceedings.
Member States	<p>Independence from technology</p> <p>Web services will allow easy interoperability with MS own systems, regardless of respective infrastructure and technology choices.</p>
European Commission	<p>Efficient management of infringements</p> <p>NIF2 external services will provide data quality, efficient and secure data dissemination among services and will be the basis of the decision making process in matter of infringements.</p>
European Commission	<p>Efficient IT development and evolution, flexibility, scalability, adaptability to legislation change</p> <p>NIF2 external services will be flexible, scalable and adaptable by being developed as a service and component oriented IT architecture.</p>

Beneficiaries	Anticipated benefits
Citizens and businesses	<p>Transparency and openness through efficient interoperability with EurLex</p> <p>NIF2 external services will provide increased interoperability, communicating data on transposition of directives to all citizens via EUR-Lex.</p>
EU Pilot service	
Citizens and businesses	<p>Efficient management of pre-infringement correspondence</p> <p>One of the benefits of EU Pilot is making the pre-infringement correspondence with the Member States more structured and provide timeframe for it. EU Pilot creates a possibility for the citizen and business to get a reply to its complaint or inquiry resolved together with a Member State in 140 days.</p>
Commission services and the Member States	<p>Data search</p> <p>EU Pilot will offer new functions helping services in handling complaints and own initiative cases. One of the foreseen practical developments is to include into the database searchable information on the legal basis for an EU Pilot file, to give an overview of prevailing legal problems per sector.</p>
Commission services and the Member States	<p>Training</p> <p>EU Pilot will be delivered with efficient training/e-learning modules for new users. Currently, such trainings are not available.</p>

1.20.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
<p>Communication "Towards interoperability for European public services" COM(2010) 744 final</p>	<p>This Communication introduces European Interoperability Strategy (EIS) and the European Interoperability Framework (EIF) for European public services, being part of the Digital Agenda, focusing on interoperability.</p>

Action / Policy	Description of relation
Communication "A Europa of Results – Applying Community Law" COM(2007) 502 final	Policy basis for establishment of EU Pilot in response to the need to resolve problems quickly. Thanks to EU Pilot <i>"Member States would have the opportunity to resolve issues arising within this agreed framework, operating at the point closest to the citizen within its national legal and institutional context, in conformity with the requirements of Community law. With the necessary commitment, there would be a greater possibility for enquiries and complaints to be seen through to an early conclusion."</i>
eGovernment Action – Plan 2011 - 2015	Reducing administrative burden by horizontal integration of processes across administrative authorities.
ISA Action 1.8 – Trusted Information Exchange Platform	ISA Action 1.20 will develop the future Infringement (INFR) service as a single exchange platform and repository of all official infringement documents exchanged between Member States and the Commission (by using the eTrustEx platform for the transmission of official documents to the Member States and reception of acknowledgement from them), mainly in legislation and competition policy areas.
ISA Action 1.14 – Cross Sector Solvit	Potential synergies with SOLVIT for the management of complaints could be exploited within the scope of the THEMIS (Theorizing the Evolution of European Migration Systems) project.
ISA Action 1.18 – Federated Managed Authentication Services for ECAS	ISA Action 1.20 will assess the feasibility of re-using the results of ISA Action 1.18 in relation to the web services interfaces developed by this action.
ISA Action 1.21 – European Legislation Identifier	ISA Action 1.21 will provide input to the ISA Action 1.20.
DG CONNECT STORK	The THEMIS (Theorizing the Evolution of European Migration Systems) system ideally requires SAML2.0 based token passing for identity propagation, as well as a legally binding electronic signature. Since SAML2.0 is the underlying mechanism in STORK, there might be future synergies to be exploited, as soon as all Member states will be on board.

1.20.7 ORGANISATIONAL APPROACH

1.20.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
European Commission – administrator	Unit SG C.3 of the Secretariat General administrating the application, providing policy guidance on its use.
System Owner	Unit SG. C.3 of the Secretariat General responsible for application of the EU law.
End users – Commission Services	Infringement correspondents, infringements case handlers and EU Pilot coordinators in all Commission services.
Project Manager	Unit SG R.3 (Information Technology) responsible for NIF 2 development.
End users - Member States authorities	Current MNE/INFR end users (various national administrations in all Member States), Central Managers (Ministry of Foreign Affairs) and EU Pilot users in the Member States represented directly in the EU Law Network.
End users – citizens and businesses	Persons and entities submitting the complaints or enquiries to the EU that need to be resolved in cooperation with the Member States. Their interests are indirectly represented by the EU Law Network.

1.20.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings
EU Law Network	All Member States	Once or twice a year (second and fourth quarter)
Infringement correspondents meetings	Representatives from all DGs	Once or twice a year
Directors network	Representatives from all DGs	Once or twice a year
Project owner/System owner	SG.C.3/SG.R.3	Quarterly reporting using PM ² methodology

Additionally, there is a CIRCA group of interest created for the EU Law Network of MS representatives

1.20.7.3 Governance approach

The governance approach has established weekly coordination meetings between SG.C.3 (project owner) and SG.R.3 (system supplier). In addition, this action will respect the general ISA Governance under the supervision of the ISA Coordination Group inside the cluster "Trusted Information Exchange". The governance of the NIF2 project is described in the minutes of the meeting of 4/05/2012 meeting - ARES(2012)613099 (point 1 b) "Working methods". According to this document, the Steering Committee monitors completion of the project phases; sets project requirements, objectives and outcomes, validates project deliverables, tests activities and disseminates information about the project to the Commission services. It is composed of members from Units C.3, R.2 and R.3 of the Secretariat General and representatives of other DGs (DG AGRI, DG CLIMA, DG EMPL, DG ENER, DG ENTR, DG ENV, DG HOME, DG CONNECT, DG JUST, Legal Service, DG MOVE, DG MARKT, DG SANCO and TAXUD). The list of the Steering Committee participants is subject to change (see last meeting's minutes for the updated list). In parallel, Member States are participating in THEMIS work through the EU Law Network. Tests and feedback can be submitted to functional mailbox: SG-THEMIS-FEEDBACK@ec.europa.eu.

1.20.8 TECHNICAL APPROACH

The technical implementation of the proposed data-exchange services has the following requirements:

- State of the art secure web services allowing for the exchange of meta-data for normal (notification of measures) and confidential (pre-infringement dialogue; official notification of infringements and MS replies to those notifications) dossiers; these services should permit uploading such information from MS systems into the Commission system.
- Non-repudiation for official notifications of infringements.
- Legally binding electronic signature for official notification of infringements and transmission of the corresponding MS replies (explicit requests by Spain and Germany). Here we see a potential to leverage the eTrustEx platform.
- A transfer mechanism allowing for highly reliable exchange of documents, including very large documents if needed (electronic transmission should be the unique notification mechanism). Here we see a potential to leverage the eTrustEx platform.

- A publishing service allowing MS to 'pull' information accessible to them in a format compliant with open government publication standards, allowing them to integrate the extracted information into their own IT systems.
- A notification service which will inform the concerned parties that new tasks/data are available in the system, allowing either for specific action in the external interface, or automated download procedures for available data.

Backwards compatibility with the current basic web services used by MS needs to be ensured for an initial length of time (6-12 months), since often MS have out-sourced IT developments and any changes on our side will have a non-negligible impact for them.

By the same token, it is imperative to involve MS from the inception phase onwards, in order to ascertain that current and future MS requirements are met. The Commission will inform Member States at an early stage of the projected developments, in order to collect potential requirements. Follow-up will be channelled through the existing EU Law Network, with regular coordination meetings in Brussels.

Last, but not least, formalise the exchange of information (web service) to allow for better integration between the new THEMIS and SOLVIT2, with a particular emphasis on cross checks for the submission of the same issues to both systems, since parallel action on issues should be avoided (single source of truth principle).

The proposed web-services all form part of the future common external module for the THEMIS project, leveraging business services which will be provided by the Commission's internal backend currently under development in this project.

The precise content and scope of these future business services are also part of the development proposed under ISA funding, as outlined below.

1.20.9 COSTS AND MILESTONES

1.20.9.1 Inception phase results: Identification of 15 use cases

- *ISA1 Submit a measure:* This technical use case describes the required actions, associated data and the web-service call structure to correctly upload measure meta-data and associated documents via a web-service call.
- *ISA2: Retrieve measure:* This technical use case describes the required actions and the web-service call structure to retrieve measure related meta-data and documents in a machine-readable format (XML)

- *ISA3 Retrieve directive*: This technical use case describes the required actions and the web-service call structure to retrieve all meta-data and documents associated with a directive in machine-readable format (XML)
- *ISA4 Submit reply to infringement notification*: This technical use case describes the required actions, associated data and the web-service call structure to correctly upload meta-data and associated documents for the reply by a MS to an official infringement notification
- *ISA5 Request an extension of deadline for a reply to an infringement*: This technical use case describes the required actions, associated data and the web-service call structure to correctly upload a meta-data and associated documents with regard to a request for an extension of deadline
- *ISA6 Retrieve reply*: This technical use case describes the required actions and the web-service call structure to retrieve all meta-data and documents associated with a reply to an infringement notification in a machine-readable format (XML)
- *ISA7 Retrieve infringement notification*: This technical use case describes the required actions and the web-service call structure to retrieve all meta-data and documents associated with a given dossier and accessible to a MS in a machine-readable format (XML)
- *ISA8 Retrieve infringement dossier*: This technical use case describes the required actions and the web-service call structure to retrieve all meta-data and associated documents accessible to a MS for an entire infringement dossier in a machine-readable format (XML)
- *ISA9 Accept or reject an EUPILOT case*: This technical use case describes the required actions and the web-service call structure to provide the position of a MS (ACCEPT/REJECT) with regard to an EUPILOT case
- *ISA10 Submit reply to EUPILOT case*: This technical use case describes the required actions and the web-service call structure to upload required meta-data and associated documents as a reply to an EUPILOT case enquiry
- *ISA11 Update an EUPILOT case*: This technical use case describes the required actions and the web-service call structure to provide the necessary data related to updated information in an EUPILOT case

- *ISA12 Retrieve reply to EUPILOT case:* This technical use case describes the required actions and the web-service call structure to retrieve all meta-data and documents associated with a reply to an EUPILOT case in a machine-readable format (XML)
- *ISA13 Retrieve EUPILOT enquiry:* This technical use case describes the required actions and the web-service call structure to retrieve all meta-data and documents associated with an enquiry sent by the Commission to a MS in a machine-readable format (XML)
- *ISA14 Respond to complainant on an EUPILOT case:* This technical use case describes the required actions and the web-service call structure to provide the necessary data related to a response to a complainant in an EUPILOT case
- *ISA15 Provide MNE related information and texts of Member State's legislative acts (measures) for publication in EURLEX:* This technical use case describes the mechanism by which meta-data and documents pertaining to notified measures are extracted and transmitted to the EU Publications Office's EURLEX database for official publication.

1.20.9.2 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Inception	Choice of technical platform; catalogue of requirements; validation of the approach; high-level analysis	50	ISA	Q2/2013	Q2/2013
Inception	Detailed formal (technical use cases) of the required business services and their exposure through web services; complete analysis document; validation of the proposal by all actors	125	ISA	Q3/2013	Q3/2013
Execution	Development of 'in/out' backend business services V1; set-up of testing and acceptance environments	225	ISA	Q3/2013	Q4/2013
Execution	Development of the corresponding 'in/out' web services V1 (MS to Commission – push, Commission to MS - pull); web service based interaction between NIF2 and SOLVIT2	80	ISA	Q1/2014	Q1/2014

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Execution	Testing and training; technical documentation for Member States to allow them to integrate their systems with the new services	30	ISA	Q1/2014	Q1/2014
Operational	Roll-out V1	30	ISA	Q1/2014	Q1/2014
Execution	Development of additional Member States requirements following initial roll-out; in/out web services and their corresponding business services V2	190	ISA	Q2/2014	Q3/2014
Execution	Testing and training V2; updated technical documentation for Member States for V2	20	ISA	Q1/2014	Q1/2014
Operational	Roll-out V2	30	ISA	Q4/2014	Q4/2014
	Total	780	ISA		

1.20.9.3 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2013	Inception	175	
2013	Execution	225	
2014	Execution	320	
2014	Operational	60	

1.20 Application of EU Law: Provision of Cross Sector communication and problem solving tools

1.20.10 ANNEX AND REFERENCES

Description	Reference link
Articles 4 and 17 TEU	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2010:083:0013:0046:EN:PDF
Articles 258 and 260 TFEU	http://eur-lex.europa.eu/JOHtml.do?uri=OJ:C:2010:083:SOM:EN:HTML
Decision 2002/47/CE, CECA, Euratom for document management rules	OJ L 21, 24.1.2002, p. 23–27
Annual Reports on monitoring the application of Community law	http://ec.europa.eu/eu_law/infringements/infringements_annual_report_en.htm
Communication 'A Europe of results – Applying Community law' (the 2007 Communication)	COM (2007) 502
Communication on the application of Article 260 (3) TFEU	http://ec.europa.eu/eu_law/infringements/infringements_260_en.htm
Framework Agreement between the Commission and the European Parliament (Section on 'Monitoring the application of Community law')	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:304:0047:0062:EN:PDF
Public access to documents relating to infringement proceedings	SEC(2003)260/3 http://www.cc.cec/sg_vista/cgi-bin/repository/getdoc/COMM_PDF_SEC_2003_0260_3_EN.pdf
Monitoring the application of community law: manual of procedures	SEC(2005)254/5 http://www.cc.cec/sg_vista/cgi-bin/repository/getdoc/COMM_PDF_SEC_2005_0254_5_EN.pdf

1.21 EUROPEAN LEGISLATION IDENTIFIER (ELI)

1.21.1 CONTEXT

The European Union is based on the rule of law. However, the exchange of legal information across borders, and in particular data relating to European or national legislation, is hampered by the lack of effective means for sharing this type of data. The increased availability and use of legislation in electronic formats has if anything exacerbated the problem given the differences that exist in the technical systems used to store and display legislative acts. We are missing some of the most basic building blocks for interoperability, such as agreed and maintained unique identifiers for legislative acts, to share data between information systems.

To address this issue, on 24 September 2012, the Council of the European Union adopted the conclusions on the European Legislation Identifier (ELI), published in the Official Journal of the European Union dated 26 October 2012, 12012/C 325/02 and its annex, EU Council document 9922/13.

At the meeting of the Working Party on e-Law (e-Law) on 20 December 2012, the Chair proposed that an ELI task force should be set up to further study and define the developments of a unique identifier for national and European legislation.

1.21.1.1 Identification of the action

Type of Action	Study
Type of Activity	Common frameworks
Service in charge	Publications Office
Associated Services	SG, Luxembourg, France, United-Kingdom Council of the EU, Working Group e-law (e-law);DG DIGIT, DG SG

1.21.2 OBJECTIVES

ELI is a basic building block for the interoperability and exchange of legislation data in Europe. It provides a practical and flexible system for naming legislation documents, and for sharing metadata.

ELI enables a far greater degree semantic interoperability:

1. between European and domestic legislation systems;

2. between legislation systems of different Member States;
3. between legislation systems and the many other systems containing data that relates to legislation.

Devising a common basis for naming legislation documents that is sufficiently standardised to realise the benefits of interoperable legislative data, but that respects each member state's unique legislative and legal traditions, is a difficult task. ELI has been carefully constructed to respect the legal and constitutional differences between Member States. The trade-off for this flexibility is that implementing ELI requires a degree of judgement, thought and experience. Constructing a unique identifier for a nation's legislation documents is not a trivial exercise.

To foster and support the ELI initiative, this proposal seeks funding to deliver the following five objectives:

1. **Assets**: to develop a set of interoperability assets for ELI and thereby for the sharing of legislation data. These will include common components for identifier schemes, models for representing data, ways of serialising data, and documentation;
2. **Implementation**: to put in place the software, such as a registry, and the technical support that is needed for ELI to be adopted and used;
3. **Adoption**: to establish a peer group of experts to support Member States with designing their national ELI, sharing best practice and providing practical help and advice;
4. **Standards**: to align ELI with existing standards and standardisation initiatives in Europe and internationally;
5. **Dissemination**: to promote the use of ELI across the Europe Union and beyond, maximising the benefits of this new approach, encouraging Member States to implement an ELI for their own jurisdiction, and encouraging others, to embrace ELI in their own data.

The objectives of this project are a close fit with the wider objectives of the ISA programme. The success of ELI will enable a far greater degree of interoperability between different legal information systems in Europe and beyond, and, if funded, will be a substantial deliverable from the ISA Programme overall.

1.21.3 SCOPE

The project will take forward work packages for each of the five objectives:

- Assets,

- Implementation,
- Adoption,
- Standards,
- Dissemination.

The Publications Office in cooperation with the delegations of France, Luxembourg and the United Kingdom, as well as other Member States wishing to contribute, proposes to take forward a series of activities to develop, foster and support ELI.

The group will take forward the following specific tasks to achieve the objectives outlined:

I. Assets:

- Refine and extend the ELI ontology;
- Define the canonical forms for serialising ELI metadata;
- Develop a set of example bindings of the ontology to the instance data for the transposition of EU Directives into national law. This use case will show how ELI can be used to enable the exchange of information between different systems (e.g. between national Official Journals and EUR-Lex);
- Write a “Guide to Best Practices for ELI Implementation”.

II. Implementation

- Conduct a feasibility study into the use and integration of ELI in the EU Commission's “MNE” (National Measurement execution) database and national third party applications to monitor the transposition of European legal acts;
- Implement a multilingual central registry of information on Member States’ URI structures and information on the ELI implementation and other interoperability assets in this context;

III. Adoption

- Develop a package of assistance for Member States wishing to implement ELI for their legislation;
- Establish a forum for peer discussion and review amongst experts from Member States about their ELI implementation. These discussions have already proven useful for the Publications Office and for Member States which are moving ahead to implement their own ELI.

IV. Standards

- Progress the adoption of ELI as a formal specification in a standardization forum formally recognised by the European Union;

- Align ELI with other standards by engaging with groups and communities working in areas that relate to ELI or are adjacent to it.

V. Dissemination

- Document ELI success stories and share news about the progress being made to implement ELI;
- Present the ELI project to appropriate audiences, at conferences and events.

1.21.4 PROBLEM / OPPORTUNITY STATEMENT

Prior to ELI there was no agreed approach for identifying legislation documents that was sufficiently uniform to achieve interoperability but sufficiently flexible to be consistent with each Member States constitutional and legal requirements and history.

ELI now provides a flexible, consistent and reliable way to uniquely identify legislation documents from different jurisdictions, and to reference and share those documents. ELI achieves this by providing a unique and stable identifier for each legislative act in the European Union, while at the same time taking full account of the specific requirements of national legal systems.

The European Council in its Council Conclusions invites ELI as a voluntary scheme for Member States. Its very flexible means and the support provided to adopt and implement ELI will benefit significantly Member States.

ELI is cost effective because as it is merely a specialisation of how resources are generally identified on the web. The approach to ELI benefits from the work that has gone in to technologies and standards for Linked Open Data and the semantic web. These approaches enable information to be directly processed by computers and humans alike.

ELI is a foundational piece of architecture for this era of online legislation. Therefore the benefits of ELI are very wide. For example, a member state, having implemented ELI, will then be able to exchange legislative information more quickly, efficiently and reliably. ELI also enables the efficient searching of legislation of other jurisdictions, with cross border searches. It enables too, a more precise investigation and understanding of the transposition of directives.

1.21.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States	<p>Each aspect of the ELI will be implemented on a voluntary, gradual and optional basis alongside existing identifiers. It would therefore be useful if Member States could draw on the discussions, which have already taken place as well as from a minimum set of recommendations.</p> <p>Some Member States have already found it useful to discuss implementation of ELI with a peer group. Therefore it is proposed to formalise this support.</p>
European Commission	<p>The Publications Office intends to integrate ELI into its portals by the end of 2014;</p> <p>Better integration and efficient exchange of information, e.g. transposition of Directives.</p>
Citizen and businesses	<p>ELI would allow effective, user-friendly and faster access to legislation as well as exchange of information between heterogeneous systems for citizens and legal professionals (legislators, judges ...).</p>
Candidate countries, EFTA and other countries	<p>Better integration and efficient exchange of legal information with EU.</p>

1.21.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
Directive 2013/37/EC	Re-use of public sector information
Interconnection and exchange of information	ELI guarantees a cost-effective public access to reliable and up-to-date legislation and allowing for a greater, faster and efficient exchange of information between national legal information systems and EUR-Lex
National implementation measures "MNE"	Increase efficiency and information of national implementation measures "MNE"

Action / Policy	Description of relation
ISA Action 1.1 – Promoting semantic interoperability amongst the European Union Member States	ISA Action 1.1 will provide support in the course of the ISA Action 1.21, in particular regarding the specification of the semantic attributes.
ISA Action 1.13 – LEOS ISA Action 1.20 – Application of EU law	ISA Action 1.21 will provide input to the ISA Actions 1.20 and 1.13.

1.21.7 ORGANISATIONAL APPROACH

1.21.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
Project Manager	Publications Office of the European Union
Chair	<p>António Carneiro Director Publications Office of the European Union 2, rue Mercier 2985 Luxembourg LUXEMBOURG Antonio.CARNEIRO@publications.europa.eu</p>

Stakeholders	Representatives
Co-chairs	<p>Luxembourg :</p> <p>John Dann Chargé de Direction Ministère de l'Economie et du Commerce extérieur 19-21, boulevard Royal L- 2914 Luxembourg Tel: +352 - 247 84181 Fax: +352 - 24 18 14 john.dann@eco.etat.lu</p> <p>France:</p> <p>Jean-Michel Thivel Chef de bureau administration générale Premier ministre Secrétariat général des affaires européennes 68 rue de Bellechasse 75011 Paris +33 1 44 87 10 70 jean-michel.thivel@sgae.gouv.fr</p> <p>United Kingdom:</p> <p>John Sheridan Head of Legislation Services The National Archives Kew, Richmond, Surrey TW9 4DU United Kingdom john.sheridan@nationalarchives.gsi.gov.uk</p>

1.21.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings
e-law group of the EU Council	EU e-law members	Twice a year during each Presidency, June and December.
Promote and share the work on ELI	International community	

1.21.7.3 Governance approach

A Task Force, composed notably of Denmark, Finland, France, Italy, Luxembourg (chair) Netherlands, United-Kingdom, the Member State assuring the EU Presidency and the Office of Publications of the EU, has been set-up, under the auspices of the EU Council Working Party e-Law (e-Law), to study the future developments of the ELI standard.

The approach is characterized by helping other Member States to adopt ELI, by sharing knowledge/expertise, without imposing a strict given schema and by taking into account their national specifics.

A steering committee, chaired by the Office of Publications of the EU and co-chaired by France, Luxembourg and United-Kingdom, shall be set up to follow this project.

1.21.8 TECHNICAL APPROACH

ELI is based on a gradual three-step approach defined as follows:

- uniform rules governing the identification and designation of and access to national and European legislation (URI: Uniform Resource Identifiers),
- metadata describing the legislative resources,
- ontology - information exchange format - describing the properties of the legislative texts and their relationship with other concepts or legislation.

Each aspect of the ELI will be implemented on a voluntary, gradual and optional basis alongside existing identifiers. It would therefore be useful if Member States could draw on the discussions which have already taken place as well as from a minimum set of recommendations and of those Member States with the most expertise in this matter.

1.21.9 COSTS AND MILESTONES

1.21.9.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Study	Finalisation of ELI ontology; Assisting the extension of the Eli ontology for national specificities Testing the ontology with instance data from the Publications Office, e.g. France, Luxembourg and the United Kingdom; Deployment of URI schema, common metadata and RDF language.	145	ISA	Q1/2014	Q2/2014
Study	Deployment of interoperable Information systems between Publications Office and selected Member States (for example France, Luxembourg, United Kingdom)	45	ISA	Q2/2014	Q3/2014
Study	Peer reviews with EU Member States, candidate countries and Lugano Convention states and others; Workshops with countries wanting to implement ELI	125	ISA	Q1/2014	Q4/2015
Study	Feasibility study on the integration of ELI into the Commission's national implementing measures' work flow	60	ISA	Q1/2014	Q4/2015

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Study	Implement a central registry of information on Member States' URI structures and information on the ELI implementation and other interoperability assets in this context	60	ISA	Q1/2014	Q4/2015
Study	Progress the adoption of ELI as a formal specification in a forum formally recognised by the European Union	65	ISA	Q2/2014	Q4/2015
Study	Develop best practices guide; Annual workshop /conference Technical meetings Participation to international workshops	140	ISA	Q1/2014	Q4/2015
	Total	1450			

1.21.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010			
2011			
2012			
2013			
2014	Study	300	
2015	Study	340	

1.22 ANNEX AND REFERENCES

Description	Reference link	Attached document
Conclusions of the Council of the European Union on the European Legislation Identifier (ELI) 2012/C 325/02	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2012:325:0003:0011:EN:PDF	
Report on the introduction of the ELI	9922/13 Jurinfo 25 28 May 2013	

2.INTEROPERABILITY ARCHITECTURE

2.1 EUROPEAN INTEROPERABILITY ARCHITECTURE (EIA)

2.1.1 CONTEXT

2.1.1.1 Identification of the action

Type of Action	Study
Type of Activity	Common frameworks
Service in charge	DG DIGIT/B2
Associated Services	DG JRC, DG CONNECT, DG TAXUD, DG SANCO

2.1.2 OBJECTIVES

As stated in ISA legal basis in:

- Article 3: "Activities

The ISA programme shall support and promote:

(a) the establishment and improvement of common frameworks in support of cross-border and cross-sectoral interoperability; ..."

"... (c) the operation and improvement of existing common services and the establishment, industrialisation, operation and improvement of new common services, including the interoperability of public key infrastructures (PKI)..."

- Article 7:

"Solutions

1. Common frameworks shall be established and maintained by means of studies...."

The objective of this action is:

- to work with the Member States and the concerned Commission services towards a joint vision on a European Interoperability Architecture (EIA) for European Public Services (its scope, the articulation of the main architectural building blocks and the need for interface standards between such architectural building blocks).

- to assess the need and the relevance of having common infrastructure services.

A first version of this common vision for an EIA has been elaborated in 2011 together with a list of Reference Interoperability Agreements (RIA). The common vision will be implemented through various ISA actions and other initiatives. In 2013, to further elaborate the objectives, the EIA it is expected that will describe a common architectural view based on a service oriented reference architecture to cover cross-border cross-sectorial interoperability needs at European level. This European Interoperability Reference Architecture (EIRA) will include the European Interoperability Cartography (EICart) which is the result of mapping existing Trans-European Solutions (TES) onto the EIRA. It is expected that a by-product of the EIA action in 2013 will be the taxonomy to be used by other ISA actions like EFIR.

For the 2014 revision of the ISA work programme the EIA action will provide guidelines of applications of the EICart including rationalization, reusability and portfolio management. The diffusion promotion of adoption and maintenance of the EIRA and EICart are an important part of the action in 2014 and the results obtained under Action 4.2.4 ("European Federated Interoperability Repository, EFIR") will be taken into account to this purpose. A methodology, tools and guidelines will be developed to assist public administration in developing cross-border interoperability. Finally, as a consequence of recent global concerns on security, security standards crucial in achieving secure cross-border and cross-sector interoperability will be identified, using work performed in these areas by other relevant organisations (e.g. ENISA). The need to conduct a more detailed analysis on formalised specifications will be evaluated and a separate action launched, if deemed necessary.

2.1.3 SCOPE

This action belongs to the Interoperability architecture cluster. The activities range from developing the EIA based on lessons learnt from sectorial projects or from large scale pilots to monitoring the contribution of ISA interoperability actions and other projects to the implementation of the EIA. The activities include the establishment of guidelines and may also cover the development of different tools.

The EIRA has a service oriented architecture style and it concerns only logical descriptions. Therefore, it does not cover physical descriptions (for example concrete product names).

2.1.4 PROBLEM/OPPORTUNITY STATEMENT

During the elaboration of the EIS Member States and Commission services agreed that there was:

* at the logical level, a lack of or insufficient :

- architectural guidelines for cross-border interoperability building blocks;
- concrete and reusable, use-case-based interoperability guidelines, rules and principles on standards, architecture, and specifications on how to develop information exchange between ICT systems;

concrete implementation guidelines.

* at the operational level, a lack of or insufficient:

- common infrastructures (i.e. an Interoperability Platform or a European Enterprise Service Bus (EESI)) at EU level for providing generic and standardised services at EC level (i.e. PKI, eID, eAuthentication, eAuthorisation).

2.1.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States' Public Administrations	Improved efficiency, cost reduction, performance and increased interoperability and cooperation in establishing European Public Services
European Commission Services	Improved efficiency, cost reduction, performance and increased interoperability and cooperation in establishing European Public Services

2.1.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
EIS	Action part of the interoperability architecture cluster
ISA Action 2.14 – Assessment of Trans-European networks supporting EU policies	The action will provide input for the EU cartography developed by the ISA Action 2.1, by identifying reusable solutions to map into the cartography (i.e. conceptual reference architecture) and by providing information collected on these solutions in order to feed the solution fiche of the EIA.
ISA Action 4.2.4 – European Federated Interoperability Repository (EFIR)	EFIR will become the main infrastructure to keep the EU interoperability cartography covering documented interoperability assets, building blocks and Information Systems. EIA will define its governance and may support in the long run the maintenance process of the cartography.
ISA Action 4.2.5 – Sharing and reuse strategy	EIA will provide input to the definition of the sharing and reuse criteria while the ISA Action 4.2.5 will also provide input to the EIA.
ISA Action 5.2 – EIS Governance support	The EIS holds the top of the Interoperability pyramid and relates directly to EIA.
DG CONNECT eSENS	e-SENS WP6 has the objective to make available a comprehensive set of building blocks for a sustainable European infrastructure for cross sector services. The development of these building blocks will be based on the European Interoperability Architecture (EIA) developed by ISA Action 2.1.

2.1.7 ORGANISATIONAL APPROACH

2.1.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
Member States	The ISA Working Group on Interoperability Architecture
Commission Services	IT Governance of the Commission and a representative from each concerned Commission service
ICT Industry	Representatives of ICT industry, SMEs, ...
Standardisation bodies	Representatives from standardisation organisation for a and consortia
Local and regional public administrations	Representatives from local and regional public administration European representative organisations such as Council of European Municipalities and Regions, Eurocities, ...

2.1.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
ISA IA WG		Around 4 meetings per year

2.1.7.3 Governance approach

This action will be run in close collaboration with the ISA working group on Interoperability Architecture and with the concerned Commission services.

2.1.8 TECHNICAL APPROACH

The studies on the EIA will encompass:

- Implement enhancements required by the ISA Working Group to the Reference Model used in the design of the EIRA and to the EIRA itself
- Implement updates to the EICart due to both changes in the EIRA and new TES's.
- A tool, check-list like, enabling the design of contextualised architectures 'a la carte' based on the EIRA.
- Guidelines of applications of the EICart including rationalization, reusability and portfolio management.
- A glossary of European Interoperability terms

- Supporting tools and guidelines recommended by the ISA Working Group for the EIRA and EICart
- A simple governance processes will be provided
- An observatory for the promotion of adoption and maintenance of the EIRA, EICart and supporting guidelines and tools with the mission of assisting public administration in developing cross-border interoperability
- Definition of “Architecture Patterns” that can be used by the different policy areas of the Commission. These patterns will provide blueprints that can effectively accelerate the development of new Trans-European Systems (TES's)
- Finally, as a consequence of recent global concerns on security, security standards crucial in achieving secure cross-border and cross-sector interoperability will be assessed

2.1.9 COSTS AND MILESTONES

2.1.9.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Study	Interoperability Architecture	500	ISA	Q3/2010	Q3/2011
Study	Reference Interoperability Agreements, European Interoperability Reference Architecture and European Interoperability Cartography	300	ISA	Q4/2011	Q1/2013

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Study and further development	<ul style="list-style-type: none"> - Enhancements to the Reference Model and EIRA - Updates to the EICart - A tool enabling the design of contextualised architectures 'a la carte' based on the EIRA - Guidelines of applications of the EICart - A glossary of European Interoperability terms - Supporting tools and guidelines for the EIRA and EICart - A simple governance processes - An observatory for the promotion of adoption and maintenance of the EIRA, EICart and supporting guidelines and tools - Architecture Patterns - Security standards for cross-border and cross-sector European interoperability 	665	ISA	Q2/2014	Q4/2016
	Total	1465			

2.1.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010		500	499
2011		300	200
2012		150	0

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2013		200	
2014		185	
2015		150	

2.2 CAMSS - COMMON ASSESSMENT METHOD STANDARDS AND SPECIFICATIONS

2.2.1 CONTEXT

2.2.1.1 Identification of the action

Type of Action	Study
Type of Activity	Common frameworks
Service in charge	DG DIGIT / ISA Unit
Associated Services	DG CONNECT, DG ENTR

2.2.2 OBJECTIVES

The objective of the Common Assessment Method Standards and Specifications (CAMSS) Action is:

- to implement and maintain a method for assessing interoperability standards and specifications Create a library of assessments using the above open methodology and support Member States to run their own assessments.
- to assess the different adoption methods for standards used by Member States. These methods may comprise of different instruments such as legislation, guidelines, rewards/fines, auditing and monitoring. The study aims at making an analysis of which adoption methods are utilised by Member States to move from selecting a formalised specification to have it actually used.
- To develop a common European methodology for developing open standards using the input from the Dutch BOMOS2 and BOMOS 2I projects as well as input from an ISA workshop conducted in 2013.

More specifically, the purpose of the CAMSS method is:

- To ensure that assessments of formal ICT specifications and interoperability profiles are performed to high and consistent standards;
- To ensure that assessments contribute to the interoperability of systems implementing these specifications and profiles;
- To enable the re-use, in whole or in part, of such assessments;
- To continuously improve the efficiency and effectiveness of the assessment process for ICT formal specifications and interoperability profiles.

These are addressing the ISA programme, Decision No 922/2009/EC of the European Parliament and of the Council, in general and specifically article 3 (a) "the establishment and improvement of common frameworks in support of cross-border and cross-sectoral interoperability" and article 4 (a) "technological neutrality and adaptability;" (b) "openness;" and (c) "reusability".

The CAMSS action also aims to secure the sustainability of the method including the use and maintenance of the CAMSS and the CAMSS library as well as the alignment of the CAMSS to the other standards' related actions of the Commission, Member States and relevant organisations, such as standardisation bodies.

As a part of CAMSS action a study on the different adoption methods of standards used by Member States will be conducted. A case that could serve as a pilot in the assessment of the different methods and standards used by Member States is the Dutch management and development model for open standards (BOMOS2 and 2I).

ISA is already working closely with the BOMOS/2I community on the overall assessment of the model from national to European level. In a workshop organised by ISA in 2013 the Dutch model have attracted lots of attention from other Member States and from the Large Scale Pilots of the EC. The further investigation on this model was one the outcomes of the workshop.

This investigation will be done through CAMSS which is the ideal tool to assess and evaluate whether the BOMOS2 and 2I manage to become a European level model for developing and maintaining open standards. The assessment will include the following steps:

- Monitor the integration of BOMOS2 and 2I. Some tasks on this direction have already started. The results are in Joinup.
- Identify potential updates to BOMOS/2I with the feedback from the workshop from 2013. In this exercise the dedicated CAMSS Joinup community will be used to receive examples from Member States, from the LSP (if possible) and from other from EC projects
- Evaluate the outputs of the BOMOS/2I assessment and organise follow up activities like workshops or publications. Through this activity it will be measured again the interest that the model is gaining from the Member States.

In alignment with the CAMSS the overall aim of the BOMOS/2I assessment will facilitate the action to its offering of a tool to evaluate European or national interoperability standards and specifications. Furthermore the objective of BOMOS/2I to create and disseminate European maintenance and management of open standards guidelines is served through the maintenance of the CAMSS and the CAMSS library in Joinup.

2.2.3 SCOPE

The Interoperability Architecture cluster in the European Interoperability Strategy (EIS) proposes, inter alia, providing guidance on interoperability architecture domains of shared Member State interest and the need for common interface standards.

The Commission's White Paper on 'Modernising ICT Standardisation in the EU - The Way Forward' states that "to facilitate the use of the best available standards in support of European legislation and policies it is necessary to lay down requirements, in the form of a list of attributes, for such standards and their associated standardisation processes".

The White Paper also suggests that when defined within the context of ICT strategies, architectures and interoperability frameworks, the implementation of standardised interfaces can be made a requirement in public procurement procedures, provided the principles of openness, fairness, objectivity and non-discrimination and the public procurement directives are applied. Public authorities need to be able to define their ICT strategies and architectures, including interoperability between organisations, and be able to procure ICT systems / services and products or components thereof, that meet their requirements.

According to the European Interoperability Framework (EIF) the "decisions on what formalised specifications and technologies to use to ensure interoperability for European public services should be based on transparency, fairness and non-discrimination. One way to do this is to agree on a common assessment methodology and selection process." This means that a common methodology to use in the assessments of formalised specifications relevant to public administration needs could be defined to support the development of European public services.

The assessment and implementation of formalised specifications, including standardised interfaces, should follow commonly acceptable principles. They should also be based on open, common and unbiased criteria. When making assessments the main emphasis should be on the business needs, but also aspects such as maturity, market support and openness are important. Selection and assessment of relevant specifications for public administrations' business needs is often difficult, complex and time consuming. To help Member States in these assessments of formalised specifications, for public procurement, architecture planning and other purposes, the Commission's ISA programme includes action CAMSS – 'Common assessment method for standards and specifications'.

CAMSS action offers a neutral and unbiased method to assist Member States in their assessments of formalised specifications needed in the development of interoperable national and cross-border eGovernment services. CAMSS aims to provide a framework, which would ensure that public administrations can assess and select the most relevant interoperability standards for their needs. The revised CAMSS method has been published in June 2012 on the CAMSS wiki pages, and migrated to a dedicated Joinup community in 2013. The method and the first assessments are available on Joinup.

In several Member States, governmental agencies chose to use certain standards for a specific domain. Once a standard has been selected, there are several effective instruments to have it actually used and implemented. These instruments include law, comply or explain approaches, fines/rewards, information meetings, auditing, monitoring etc. CAMSS action should identify the main mechanisms which are used in different countries for the adoption of standards, and identify how successful these mechanisms are, their strong and weak aspects, etc. An inventory of adoption methods should be created, coupled with the analysis of their effectiveness.

Furthermore, included in CAMSS objectives is to develop a common European methodology for developing open standards. In this direction the input of the BOMOS2 and 2I is of high value since it provides already a framework of this development. It is important to include in the CAMSS library all assessments that derive from the various models that exist in the Member States. The BOMOS/2I serves this goal with its offering to test and evaluate the model in other member States and include in the model all these findings that are relevant to the creation of the common European methodology for developing open standards. Furthermore it contributes to the EIS since it helps to create better interoperability standards

2.2.4 PROBLEM/OPPORTUNITY STATEMENT

Within the context of the elaboration of their National Interoperability Frameworks, Member States need to define interoperability architecture domains and standardised interfaces. The same is true when various Member States want to link up their systems in order to establish cross-border European public services.

Decisions and recommendations concerning formal specifications often call for resource intensive and time consuming assessments. By following a common assessment process and criteria, and by sharing and re-using assessments done in other Member States, the burden of assessment could be made easier. Also assessments made by Member States could be, at least partially, shared and re-used utilizing the CAMMS assessment library. This would provide Member States new collaboration opportunities in the development of interoperability.

The common framework would provide guidance on the assessment of ICT standards and specifications when defining ICT architectures and establishing European public services. The framework would also ensure transparency and openness of the assessment process and could lead to better decisions regarding ICT standards and specifications.

The Action will also provide the necessary support to Member States to use the method and start populating the assessments library.

To achieve interoperability the use of standards is crucial. This is emphasised more when the use concerns open standards. Often, there are problems with the management and maintenance of these standards. This results in a lack of continuity which eventually affects the service provision. E.g. software methods for maintenance processes usually fail to emphasize openness and collaboration. The lack of continuity and the lack of addressing “open” issues often prevent the achievement of full adoption and cross stakeholder interoperability. The creation of common European guidelines of developing and maintaining open standards will help overcome these problems.

2.2.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States' Public Administrations, Standardisation Bodies and ICT Services Industry	<p>A commonly agreed assessment method, assessment process and a list of assessment attributes brings transparency to the selection of standards in the context of ICT strategies, architectures and interoperability frameworks. The re-use and sharing of completed assessments reduces resources and time needed, when establishing, maintaining and commenting on Interoperability Statements.</p> <p>Using CAMSS offers the following main benefits:</p> <ul style="list-style-type: none"> ▪ A clear guideline that allows the assessments of formalised specifications to be made consistently and in high quality by applying neutral, unbiased and transparent criteria. ▪ Helps Member States to make interoperability agreements based on formal specifications, by providing a common assessment method for these needs. ▪ Helps Member States to assess formalised specifications in public procurement. ▪ Re-use of assessments, in whole or in part. Avoids duplication of effort, for the already finalised assessments of formalised specifications can be shared via the library to be available on Joinup. ▪ The assessed formalised specifications will contribute to the interoperability of systems implementing these specifications. ▪ The possibility of more efficient use of public funds, because of easier and faster assessments and a CAMSS library to reuse formalised specifications meant for similar business needs. ▪ Improvement of the expertise of civil servants working with formalised specifications. ▪ Offers a complimentary tool to support European Interoperability Framework in the evaluation of European or national interoperability standards and specifications

2.2.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
Digital Agenda Action 21 & 22	Alignment to be ensured between renewed ICT standardisation regulation, procedures and CAMSS
Digital Agenda Action 23	Alignment to be ensured between new ICT standards related procurement guidelines and CAMSS
ISA Action 2.12 – eHealth European Interoperability Framework	The guidance on a Common Assessment Method for Standards and Specifications (CAMSS) provided by the ISA Action 2.2 was taken into account in the design of the eHealth European Interoperability Framework from the ISA Action 2.12.
ISA Action 4.1.1 – ISA Integrated Collaboration Platform	Communication on CAMSS will be performed in the course of ISA Action 4.1.1.
ISA Action 4.2.4 – European Federated Interoperability Repository (EFIR)	The CAMSS project develops guidelines on how to evaluate standards and encourages Member States to exchange and reuse such evaluations. The guidelines as well as the specific national evaluations have the potential to become interoperability solutions, which should be stored on the EFIR platform.

2.2.7 ORGANISATIONAL APPROACH

2.2.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
Member States	ISA Committee, ISA Coordination Group, ISA Interoperability Architecture Working Group, Ad Hoc Group if necessary
Standardisation bodies	ICT Standards Multi-stakeholder Platform (DG ENTR), Standardisation bodies
ICT industry	ICT industry, relevant associations

2.2.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
ISA Groups	Member States	4 times per year
ICT / SC meetings	Standardisation bodies	As needed

2.2.7.3 Governance approach

The Commission coordinates consensus building around CAMSS, and all relevant stakeholders will be consulted. Alignment between CAMSS and related EU actions and policies will be ensured by close interdepartmental collaboration inside the Commission. The proposal for the organisation and future governance of CAMSS, including the assessment library, will be planned as part of the implementation of the action. The action is managed by DG Digit's ISA Unit and a contractor will help in the implementation of the action. The Commission will also work closely together with OASIS and other standardisation bodies to assess the feasibility of CAMSS becoming a global open specification.

As ICT standardisation is a rapidly changing and expanding area, a sustainable governance of further development of CAMSS is essential. Also the CAMSS assessment library needs to be maintained and updated frequently.

2.2.8 TECHNICAL APPROACH

The first version of CAMSS was developed by the Commission and Member States under the IDABC Programme, the predecessor of the ISA Programme. The first version of CAMSS was completely revised in 2011-2013. The documentation of the revised new CAMSS is publicly available online at the following address: <https://joinup.ec.europa.eu/community/camss/home>

The current version of CAMSS comprises 1) a process, 2) a set of criteria and 3) a plan for an assessment library. The CAMSS process describes how to complete an assessment utilising the CAMSS criteria. The first assessments from Member States have already been identified and will soon be published in the Joinup platform.

The technical approach is as following:

- a) to conduct a study on the adoption methods for standards used by the Member States;
- b) to continue populating the assessment library, supporting the Member States to run or map to CAMSS assessments of standards, and animate the Joinup CAMSS community.

c) to evaluate the BOMOS/2I model for the development and management of open standards.

2.2.8.1 Description of tasks

In the context of the action there are 3 tasks identified.

Task 1: Study on the adoption methods for standards

The study should identify what are the main mechanisms which are used in different countries for the adoption of standards, and identify how successful these mechanisms are, their strong and weak aspects, etc. An inventory of adoption methods should be created, coupled with the analysis of their effectiveness. The overall study will focus on the use and implementation of the standards in each case identified and under which instruments this take up is feasible.

Task 2: Continue populating the CAMSS library, and facilitate discussions with stakeholders

The following sub-tasks are identified:

- Assist Member States to populate the library with assessments. Animate Member States to use CAMSS, supporting them during the CAMSS process.
- Continuous update during the whole action duration the Joinup platform, publishing of results and other dissemination material (e.g. guidelines, lessons-learned, good practices, news).
- Maintaining open communication channels with relevant initiatives from DG ENTR including the Multi-stakeholder ICT Standardization Platform.
- Create liaisons and participate in discussions with standardization bodies to ensure CAMSS sustainability and investigate standardization opportunities.
- Assist in discussions and communications with all relevant stakeholders (i.e. ICT industry) about CAMSS.
- Assess the uptake of the CAMSS in the Member States and EU institutions.

Task 3: BOMOS/2I assessment

This assessment will be done to evaluate whether the BOMOS2 and 2I manage to become a European level model for developing and maintaining open standards. The assessment will include the following steps:

- Monitor the integration of BOMOS2 and 2I. Some tasks on this direction have already started. The results are in Joinup.
- Identify potential updates to BOMOS/2I with the feedback from the workshop from 2013. In this exercise the dedicated CAMSS Joinup community will be used to receive

examples from Member States, from the LSP (if possible) and from other from EC projects

- Evaluate the outputs of the BOMOS/2I assessment and organise follow up activities like workshops or publications. Through this activity it will be measured again the interest that the model is gaining from the Member States.

2.2.9 COSTS AND MILESTONES

2.2.9.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Inception	Coordinating consensus building around CAMSS and standardisation related EU actions with stakeholders. Planning the execution.	0	n.a.	Q1/2010	Q2/2011
Execution	Transposing the CAMSS work done under IDABC into a comprehensive framework. Planning the organisation structure and governance of CAMSS for maintenance and further development.	150	ISA	Q3/2011	Q2/2012

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Deployment	Deployment of CAMSS method utilisation and organising CAMSS library governance in collaboration with related ISA actions (e.g. Joinup). If necessary, further refinement of CAMSS based on feedback from stakeholders. Securing the alignment of the CAMSS with relevant actions. Conducting a study on the adoption methods of standards in Member States.	200	ISA	Q3/2012	Q4/2013
Maintenance and update	Maintenance of the CAMSS library and updating the method. Assess the BOMOS/2I model for management and development of open standards.	180	ISA	Q1/2014	Q4/2015
	Total	530			

2.2.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010		-	
2011		150	150
2012		200	200
2013		50	
2014		130	

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2015			

2.2.10 ANNEX AND REFERENCES

Description	Reference link
White paper - Modernising ICT Standardisation in the EU : the Way Forward	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52009DC0324:EN:NOT
Decision No 922/2009/EC of the European Parliament and of the Council on ISA	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:260:0020:01:EN:HTML
CAMSS wiki-page where the method is published	https://webgate.ec.europa.eu/fpfis/mwikis/idabc-camss/

2.3 PKI SERVICES

2.3.1 CONTEXT

2.3.1.1 Identification of the action

Type of Action	Project
Type of Activity	Common Services
Service in charge	DG DIGIT
Associated Services	AGRI, BUDG, COMP, DIGIT, ECFIN, ECHO, EMPL, JLS, TAXUD, TRADE

2.3.2 OBJECTIVES

The objective is ensuring the operation of PKI services established under the IDA and IDABC programmes. These services can be used by Commission services and agencies for cross-border use in projects involving the trusted exchange of information between Member States and EU Institutions.

2.3.3 SCOPE

The scope of this project is to provide application-layer security to allow trusted exchange of information between Member State competent authorities and European institutions or agencies by using public key infrastructures (PKI) certificates from a single source.

2.3.4 PROBLEM/OPPORTUNITY STATEMENT

These and previous (IDA, IDABC) PKI Services have been conceived as a temporary solution, awaiting interoperable national PKI Services. The PKI Services are used for Closed User Groups (CUGs) to protect the information exchanged under various regulations.

2.3.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Relevant national competent authorities or agencies	Ability to use these services for the increased security of their data exchange.
EU Institutions and agencies services	Ability to use these services for the increased security of their data exchange.

2.3.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
Community framework for electronic signatures	Directive 1999/93/EC defines the legal framework for (qualified) electronic signatures.

2.3.7 ORGANISATIONAL APPROACH

2.3.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
EU Institutions and Agencies Services	Project officers

2.3.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?

2.3.7.3 Governance approach

Certificates can be ordered by EU Institutions and agencies for a duration that does not go beyond the duration of the ISA PKI project. EU Institutions and agencies are themselves responsible for the sustainability of their own projects.

2.3.8 TECHNICAL APPROACH

Under this action a (PKI) infrastructure will be put in place in the framework of ISA that can inter alia (1) run CUGs both connected to the internet and to sTESTA and (2) issue TLS/SSL server certificates, in order to replace the infrastructure that was built under IDA and IDABC for this purpose. It is envisaged that a framework contract will be signed, allowing the services and agencies to order CUGs and certificates that use the common infrastructure, in order to allow their projects to exchange information in a trusted way.

The provision of certificates shall not be financed by the programme, but rather by the services or agencies themselves. The programme is proposed to cover the fixed-cost component, such as the initial infrastructure set-up and the connection to sTESTA.

2.3.9 COSTS AND MILESTONES

2.3.9.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Operational	Infrastructure	25	ISA	Q3/2010	Q2/2014
Operational	Certificates	315	Services / Agencies	Q3/2010	Q2/2014
	Total	340			

2.3.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010	Operational	300	6
2011	Operational	25	0 ⁴⁰
2012	Operational	5	2

⁴⁰ Due to the limited number of requests for new certificates, no additional commitments were necessary in 2011.

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2013	Operational	5	
2014	Operational	5	
2015			

2.3.10 ANNEX AND REFERENCES

Description	Reference link
Commission Decision of 16 August 2006 C(2006) 3602 concerning the security of information systems used by the European Commission.	http://ec.europa.eu/internal_market/imi-net/docs/decision_3602_2006_en.pdf
Directive 1999/93/EC of the European Parliament and of the Council of 13 December 1999 on a Community framework for electronic signatures.	http://eur-lex.europa.eu/smartapi/cgi/sga_doc?smartapi!celexapi!prod!CELEXnumdoc&numdoc=31999L0093&model=guichett

2.4 DATA COMMUNICATION NETWORK SERVICE (STESTA / TESTA NG)

2.4.1 CONTEXT

Type of Action	Project
Type of Activity	Common Services
Service in charge	DIGIT.C.2
Associated Services	EUROSTAT.B3

2.4.2 OBJECTIVES

The sTESTA network service is the continuation of an existing action of the ISA Programme. A number of sectoral networks are currently using the sTESTA services for their sectoral applications (OLAF, DG TREN, DG ESTAT, DG JLS, DG SANCO, CDT, DG FISH, DG ENV and DG TRADE). The network is also used by the European Institutions and the European agencies. In addition, the sTESTA framework is also extensively used by DG HOME for the implementation of the SIS II and VIS II networks and EUROPOL for the implementation of their own dedicated EUROPOL network. Recently also the General Secretariat of the Council is using the sTESTA framework contract for the implementation of the FADO network, the Council Extranet and Courtesy networks.

sTESTA is also used in the context of non-Community projects by Member State administrations or organisations acting on their behalf under certain conditions as described in the sTESTA Memorandum of understanding. One of the most successful non-community programmes is the trans-border police cooperation in the context of the Prüm treaty and the Financial Intelligence Unit network in the context of money laundering.

sTESTA is currently focusing on the following objectives:

- **Connectivity:** The provision of a highly available, extendable, flexible and secured communication infrastructure between public administrations in Europe, so that current and future communication needs between these administrations can be covered;
- The consolidation of existing data networks currently spread over different contracts and independently managed by other Institutions or European bodies.
- **Security:** The provisioning of a secured, RESTREINT UE accreditable (if required) communication infrastructure;
- **Support:** Provision of a single support infrastructure that can act as a single entity for trouble shooting, support to sectors and administrations, alert management and reporting;
- **Management:** The overall project management as well as service management and administrative management of the sTESTA networking services;
- **Assistance:** The provision of assistance services dedicated to control and audit of the operational networking services.

2.4.3 SCOPE

The objective of sTESTA (secured Trans European Services for Telematics between Administrations) is to exchange electronic data between administrations in Europe in a secure, reliable and efficient way. It is foreseen that both unclassified and classified (if required by) information can be exchanged. It is dedicated to inter-administrative requirements and is providing guaranteed performance levels and security.

Facilitate cooperation between public administrations, create interoperability at the EU level through shared generic solution, consolidating existing parallel networks by providing a secure reliable and flexible building, cost reduction are the main driving forces for the new TESTA NG call for tenders. In preparation of the TESTA NG network a study was carried out to determine the requirements of existing and potential future stakeholders. The main requirements that were expressed by the sTESTA stakeholders are:

- Network Services: 77% of the stakeholders expressed the need for new network services e.g. Secure Email, Audio Teleconference (ATC), Video Teleconference (VTC), Collaboration, etc.
- Internet as a Transport Alternative: 68% of the stakeholders suggested using the public Internet to improve availability and scalability and especially to lower costs
- Differentiated NW Services: 58% of the stakeholders (89% of the users) request different combinations of (guaranteed) availability, bandwidth and latency as required for applications interoperability, for audio conferences, video conferences, collaboration, etc.
- Security: 55% of the stakeholders state the current sTESTA security levels must be preserved.
- Application security services A2A: 52% of the stakeholders expressed the need for application level security services (A2A), e.g. identification, authentication, authorization (through a service catalogue) certification, logging and non-repudiation
- Dedicated Network Security must be Kept: 32% of the stakeholders are of the opinion that encryption is sufficient to preserve confidentiality

These requirements were taken into account in the tendering specifications for TESTA NG. As a result of a restricted call for tenders procedure a new framework contract has been awarded to T-Systems (<http://ted.europa.eu/udl?uri=TED:NOTICE:263766-2013:TEXT:EN:HTML>) who provided the best quality price offer. The call for tenderers was organised by DG DIGIT but was also opened for other EU Institutions and EU Agencies. In this new contract the recurring costs of TESTA NG will be reduced by 60% compared to the current sTESTA.

TESTA NG will be operated as a fully resilient network always having a look into confidentiality, integrity and availability.

2.4.4 PROBLEM STATEMENT

The current sTESTA Framework contract will get to an end by September 2013 and will allow the EC to continue the current services up until September 2014. The new TESTA NG Framework contract has been signed in 12 July 2013. The migration of sTESTA to TESTA NG

is under preparation. Initially it was estimated that the migration of the complete sTESTA network (Security operation centre, centrals services, all sTESTA connections to all stakeholders including also SIS II, VIS , EUROPOL and Council networks) would last for 18 to 24 months. Due to delays in the awarding process of the TESTA NG the remaining time between the end of the sTESTA contract is reduced. It is likely that an extension of the current sTESTA services is required during maximum 5 to 6 months. In this case a negotiated contract will need to be established with sTESTA provider (OBS/HP)

2.4.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Specific sectors	Ability for sectors and agencies to use a secured trans-European network service for the exchange of data with specific availability or security requirements over a shared quality solution. Prevents proliferation of uncontrolled networks.
Member States' public administrations	Ability for MS administrations to use a secured trans-European network service for the exchange of data with specific availability or security requirements, with EU Institutions, EU agencies and other MS administrations. The provided solution is managed and the access points are under control of the MS administrations.
EU institutes and agencies	Avoids the unnecessary implementation of costly shadow network infrastructures.
Non-community programs	sTESTA can be used in the context of a non-Community project by Member States administrations or organisations acting on their behalf under certain conditions described in the sTESTA Memorandum of understanding. It stimulates the re-usage of an existing infrastructure.
Citizens and enterprises	Citizens and enterprises are out of the scope of the sTESTA networking services but are indirectly benefiting due to the protection of the personal data on the level of the network.

2.4.6 ORGANISATIONAL APPROACH

2.4.6.1 Related EU actions / policies

Action / Policy	Description of relation

Action / Policy	Description of relation
ISA Action 4.2.5 – Sharing and reuse strategy	In its report on the sustainable business models for sharing and reuse, ISA Action 4.2.5 included sTESTA and in particular its cost sharing model, as a successful case.
90 EU applications are using sTESTA to ensure secured and reliable information exchange between related administrations in the EU (e.g. EURODAC, FIDES, CECIS)	
Eurodac	Council Regulation No 2725/2000 of 11 December 2000 concerning the establishment of 'Eurodac' for the comparison of fingerprints for the effective application of the Dublin Convention. Eurodac Legal Basis
CARE	Council Decision of 30 November 1993 on the creation of a Community database on road accidents CARE Legal Basis
FIDES	COUNCIL REGULATION (EC) No 2371/2002 of 20 December 2002 on the conservation and sustainable exploitation of fisheries resources under the Common Fisheries Policy FIDES Legal Basis
HOLIS	Council Regulation (EC) No 1257/96 of 20 June 1996 concerning humanitarian aid HOLIS Legal Basis
SIS II	Regulation (EC) No 1987/2006 of the European Parliament and of the Council of 20 December 2006 on the establishment, operation and use of the second-generation Schengen Information System (SIS II). SIS II Legal Basis
CECIS	Council Decision 2007/779/EC, Euratom of 8 November 2007 establishing a Community Civil Protection Mechanism. CECIS Legal Basis
SIGL	COUNCIL REGULATION (EEC) No 3030/93 of 12 October 1993 on common rules for imports of certain textile products from third countries. SIGL Legal Basis
Prüm	Trans-border police cooperation in a non-community programme
FIUNET	Financial Intelligence Network (non-community programme)

2.4.6.2 Expected stakeholders and their representatives

Stakeholders	Representatives
EU institutions, Member States, EEA countries, Candidate countries, EU Agencies	sTESTA representatives

2.4.6.3 Communication plan

Event	Representatives	Frequency of meetings / Absolute dates of meetings?
sTESTA workshop	sTESTA national experts	2 times a year
sTESTA stakeholders	EU Institutions or national governments	On demand
sTESTA SAP	EU Member States NSA representatives	On hold up until activation on request

2.4.6.4 Governance approach

The sTESTA / TESTA NG approach is collaborative: it builds on national efforts to establish national, regional or local administrative networks by forging these to a trans-European network. In this so called domain based approach, every connected domain will have to fulfil the necessary security, performance and organisational requirements in order to obtain a full access to the sTESTA network. In addition to the default setup, administrations might decide to implement additional access points and closed user groups or secured network services on the existing sTESTA infrastructure. The budgetary impact of such a decision will fall under their responsibility. The sTESTA network is controlled and supported by a central support and operation service, responsible for all operational issues, including the security management of encryption devices.

DIGIT C2 responsible for network infrastructure services at the European Commission has the organisational and contractual control over the execution of the sTESTA contracts. This organisational approach guarantees the operational and technical sustainability.

2.4.7 TECHNICAL APPROACH

The sTESTA contract will end in Q3 2013. Due to the complexity of the provided services and the multiple communities that are served, a migration period of 18 months starting in 2013 is foreseen. During this migration period the continuity of the current sTESTA services needs to be guaranteed. Therefore critical parts of sTESTA and TESTA NG will need coexist. The financing that is required for this parallel operation was already budgeted in previous work programmes.

2.4.8 COSTS AND MILESTONES

2.4.8.1 Breakdown of anticipated costs and related milestones

Phase:	Description of milestones reached or to be reached	Anticipated allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Inception	Study sTESTA requirements	500	IDABC	Q4/2009	Q2/2010
Operational	Continuation of the current sTESTA services	9.000	IDABC	Q4/2009	Q3/2010
Operational	Continuation of the current sTESTA services	12.400	ISA	Q4/2010	Q1/2012
Operational	Continuation of the current sTESTA services + migration setup sTESTA follow up	20.000	ISA	Q2/2012	Q4/2013
Operational	Finalisation migration+ continuation new sTESTA services	32.400	ISA	Q1/2014	Q4/2016
	Total ISA Budget	67.800			

2.4.8.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010	Operational	12.400	12.775
2011	Operational	8.800	9.911
2012	Operational	9.600	10545
2013	Operational	10.050	
2014	Operational	8.000	
2015	Operational	7.500	

2.5 CIRCABC

2.5.1 CONTEXT

The CIRCABC project delivers a web application and related services enabling the collaboration, communication and documents exchange between many types of European entities like Member states administrations, businesses, citizens, European institutions, centralised or decentralised bodies...

The CIRCABC user's population (**120.000+ users**) is in majority (**80%**) **from Member States**.

2.5.1.1 Identification of the action

Type of Action	Project
Type of Activity	Common services
Service in charge	DG DIGIT A3
Associated Services	DG DIGIT.C

2.5.2 OBJECTIVES

CIRCABC (Communication and Information Resource Centre for Administrations, Businesses and Citizens) is deployed both in Member States and at the European Commission as a central service. It allows easy cross-border and cross-sector interactions and is a heavily used reference in this context.

The objective of this submission is to:

- Enable the maintenance and service continuity
- Guarantee a reliable and effective service including support to end-users
- To serve current and coming business needs. **The initial request covers a feasibility study and a prototype of these improvements.**
- Extend the interoperability and integration possibilities
- Better integration/harmonization with external repositories like DRS (ISA action 2.9)
- Reinforce the communication towards the current and future users
- Monitor and promote the distribution of the tool via the Joinup portal as open source software.
- To execute a market study covering the technical, functional and financial aspects of the integration/deployment of a Dropbox like tool in the scope of CIRCABC. The execution that might follow in 2015 will be determined by the results of this market study.

2.5.3 SCOPE

CIRCABC enables widespread collaborative groups to share information and resources in private workspaces.

It is an open-source **multilingual** application offering **publication, distribution and management of documents** in any format, with **fined grained security**. It includes version control, management of translations, multilingual search, forums and is widely accessible to users with disabilities (WAI compliance).

CIRCABC contributes to the implementation of many EU cross border and cross sector priorities **both inside Institutions and in Member States** by providing them with a trustable and easy to use collaboration, information and document exchange repository.

As reported by the EISS study, CIRCABC's architecture and its availability under the EUPL license **enables its reuse as an interoperable building block for other solutions**. It can be deployed as a standalone alternative in EU Administrations or Businesses.

CIRCABC key figures:

- **downloaded more than 1000 times**
- **2000+ active groups**
- Around 1400 Service Help-Desk calls for CIRCABC in 2012
- **120.000+ users** and **1.700.000+ published documents** (2.5TB+ of data)
- **50+ trainings (450p+ trained) in 2012** and 10+ personal trainings & presentations

CIRCABC is for instance used by:



2.5.4 PROBLEM / OPPORTUNITY STATEMENT

2.5.4.1 Service sustainability

The CIRCABC service and the CIRCABC OSS version disseminated via the Joinup source forge are heavily used by several Institutions, administrations and businesses.

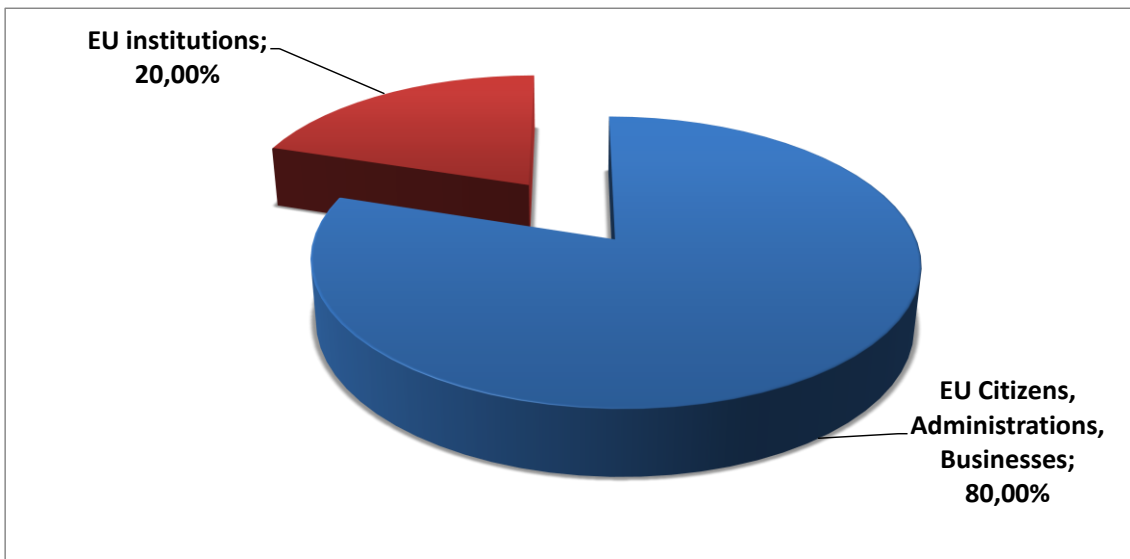


Figure 1: CIRCABC usage breakdown

CIRCABC is critical for these bodies to continue their mission to serve 100.000+ citizens from the Member States, and it is therefore **mandatory to sustain this service** and continue to deliver up-to-date OSS versions.

European Commission, administrations, businesses and policy makers have to be **more and more reactive** for the collaboration with their stakeholders contributing from all around the world.

These contributors are in need of intuitive, reliable and modern tools suited to the fast pace they are confronted with. These have to favour automated and productivity tools enabling them to concentrate on their core business and activities.

2.5.4.2 CIRCA Phase out and archiving

Migration from CIRCA to CIRCABC started in 2010 in agreement with all the Interest Groups Leaders and CIRCA has been phased out when the migration was successfully completed (end of 2012).

All CIRCA user's (160.000+ user accounts) were either migrated to CIRCABC or deleted.

After this migration a lot of additional load impacted:

- The CIRCABC system
- The CIRCABC support service: currently 2 persons supporting 120.000+ users with daily usage of 2000+ users.
- The CIRCABC training service: performed by the support team (50+ in 2012, end-users and leaders).

The migration is finished but it is required to continue to address increased user feedback after the migration process.

As an official document repository, CIRCA will now be archived on a dedicated virtual machine in order to provide on demand access to archived documents.

2.5.4.3 Future of CIRCABC

Based both on the feedback about CIRCABC and the evolution of document management systems/collaborative tools in general, the following four main axes emerge:

- Performance improvement (dedicated instances, upgrade software/hardware architecture...)
- User interface improvement (ergonomics, navigation, end users personalization, technology upgrade ...)
- New features (dashboard, workflows and integration with external systems, automatic translations & summaries...)
- CIRCABC as a document repository integrated in other solutions (c.f. ISA 2.9 DRS proposal) to publish document outside the European Institutions

The overall improvement will induce work packages which cannot be covered with the current resources which only foresee service continuity.

2.5.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
European Institutions & bodies	CIRCABC service is readily available to the European Institutions to ease the collaborative work around policy and projects along the lifecycle of documents. They have the possibility to do local deployments.

Beneficiaries	Anticipated benefits
Member States' public administrations, businesses, citizens	Member State public administrations and businesses are the main target who benefit from the CIRCABC service either for collaboration within the EU framework or for other purposes or decide to deploy the OSS version in their services.

2.5.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
ISA Action 1.4 – ECAS-STORK	Both CIRCABC and ECAS-STORK systems are integrated to enable CIRCABC users to authenticate on CIRCABC by means of their national eID.
ISA Action 2.6 – EUSurvey	Both CIRCABC and EU Survey systems are integrated.
ISA Action 2.9 – Document repository	<p>The objective of ISA Action 2.9 is to provide generic document management solutions for EU policy support that can be used by Member States' public administrations, European Institutions and bodies and other organisations.</p> <p>They could clearly benefit from leveraging the European Commission's central electronic document management system (HERMES) and open source multilingual document exchange platform (CIRCABC) to support common document management functionality and particularly in cross-border IT systems that support EU policies.</p>
Applications from ECHA, EMPL and SANCO	Web services integration to upload and manage documents more easily and from other applications (CIRCABC was configured in a way that allows looking for, sending and modifying documents stored in the different applications from DG ECHA, EMPL and SANCO).
Applications from ESTAT, JUST and OP	FTP integration to upload documents more easily (CIRCABC was configured in a way that allows to look for information stored in applications from DG ESTAT, JUST and OP).

2.5.7 ORGANISATIONAL APPROACH

2.5.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
ISA programme management	DIGIT.B2 (Margarida ABECASIS)
European Institutions, Member State Administrations and businesses	ISA management committee, ISA working group
DIGIT A	Christos ELLINIDES, Jose MARIN, Pascal BRAHY, Benoît ORIGAS
DIGIT C	Marcel JORTAY

2.5.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
User Group Conference	Pascal BRAHY, Benoît ORIGAS, Margot FASSIAN	Once a year
2011 NIDBS CIRCABC conference	Laurent BUNIET, Benoît ORIGAS	November 2011
Tour of the Member States	Pascal BRAHY, Benoît ORIGAS, Margot FASSIAN	Presentation to specific key stakeholders from Member States (dates to be determined)
ISA WORKING GROUP on Interoperability Architecture	Benoît ORIGAS	20 th September 2012
ICT Conference 2013	Pascal BRAHY, Margot FASSIAN	

2.5.7.3 Governance approach

The project is managed by DIGIT A and contracts external resources for service management, maintenance, community management, trainings and help-desk support. DIGIT A provides a Project and Service Manager.

A User Group community was created around the CIRCABC service and regular meetings with the users will provide the opportunity to submit enhancement requests, exchange opinions and best practices.

2.5.8 TECHNICAL APPROACH

The technical approach is following the RUP@EC methodology and is based on a three steps workflow: Inception, Execution and Operational. Those three steps are cycling as often as requested by the expressed user's needs.

CIRCABC is delivered as an OSS via Joinup, the Forge made available by ISA.

The OSS community has the possibility to actively contribute at the source code level.

2.5.9 COSTS AND MILESTONES

2.5.9.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YY YY)	End date (QX/YYY Y)
Operational	Continuation of the current CIRCABC Service	183	ISA	Q1/2010	Q4/2010
Operational	Continuation of the current CIRCABC Service	350	ISA	Q1/2011	Q4/2011
Operational	Continuation of the current CIRCABC Service	300	ISA	Q1/2012	Q4/2012
Operational	Continuation of the current CIRCABC Service	350	ISA	Q1/2013	Q4/2013
Operational	Continuation of the current CIRCABC Service	350	ISA	Q1/2014	Q4/2014
Operational	Continuation of the current CIRCABC Service	350	ISA	Q1/2015	Q4/2015

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YY YY)	End date (QX/YYY Y)
Inception	Study of technical and functional requirements, architecture and user interface (inclusive mobile aspects) for CIRCABC 4.0 aiming a better integration with other external systems like DRS (Action 2.9)	80	ISA	Q1/2013	Q3/2013
Execution	Implementation of the outcomes of the 2 studies performed in 2013: <ul style="list-style-type: none"> • Architecture revamping • User interface redesign 	50	ISA	Q1/2014	Q4/2014
Execution	Implementation of the outcomes of the 2 studies performed in 2013: <ul style="list-style-type: none"> • Architecture revamping • User interface redesign 	50	ISA	Q1/2015	Q4/2015
Inception	Study of technical and functional requirements, architecture and user interface (inclusive mobile aspects) for a Dropbox like component aiming to create a simplified / faster document sharing facility.	50	ISA	Q1/2014	Q4/2014
Operational	Communication & Trainings	50	ISA	Q1/2013	Q4/2013
Operational	Communication & Trainings	50	ISA	Q1/2014	Q4/2014
Operational	Communication & Trainings	50	ISA	Q1/2015	Q4/2015
	Total	2263			

2.5.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010	Operational	183	200
2011	Operational	350	362
2012	Operational	300	354
2013	Inception	80	
2013	Operational	400	
2014	Inception	50	
2014	Operational	400	
2014	Execution	50	
2015	Operational	400	
2015	Execution	50	

2.5.10 ANNEX AND REFERENCES

Description	Reference link	Attached document
#1 CIRCABC Service	https://circabc.europa.eu/	
#2 CIRCABC OSS project on joinup.eu	https://joinup.ec.europa.eu/software/circabc/home	
File Sharing (Wiki)	http://en.wikipedia.org/wiki/File_sharing	

2.6 EUSURVEY (PREVIOUSLY IPM)

2.6.1 CONTEXT

2.6.1.1 Identification of the action

Type of Action	Project
Type of Activity	Common Services – Communication with citizens
Service in charge	DG DIGIT
Associated Services	DGT.R3, DG EAC, EUROSTAT.B5

2.6.2 OBJECTIVES

The IPM (Interactive Policy Making), renamed to EU Survey in 2013, service deployed by DIGIT is widely used by the Institutions and in Member States. It enables to easily collect citizen's opinion, key information for decision making processes and implementation of cross-border and cross-sector activities.

The objective of this submission is:

- To sustain the service availability guarantying a reliable and effective service including support to end-users.
- To serve the current business requests and coming needs.
- Improve the interoperability, integration and distribution of the tool, as a service or open source software.
- To execute the conclusion of the market study performed in 2013, revamping of the application architecture and used technologies

2.6.3 SCOPE

IPM/EUSurvey enables the creation of surveys amongst European businesses, administrations and citizens, and the collection of answers via a web based user interface. It is an open-source **multilingual** application which is widely accessible and provides support for either identification or anonymity, depending on the survey requirements.

EUSurvey is the ideal tool for quickly and reliably poll opinions from a widespread community, guiding them throughout the contribution process. It contributes to the implementation of many EU priority sectors but also to many other various types of surveys and forms.

EUSURVEY is used for very large scale consultations aimed at the European population down to citizens such as:

- Public consultation on the possible revision of the Tobacco Products Directive 2001/37/EC (70.000+ answers)
- Internet consultation relating on Periodic Technical Inspections (PTI) for motor vehicles and their trailers (10.000+ answers)
- Consultation on the 2013 EU Citizenship Report 'EU citizens - Your rights, your future' (5.000+ answers)
- Questionnaire on access of Erasmus/exchange students to bank accounts (6.000+ answers)

As EUSurvey is available from an open source software forge (joinup.eu) under the EUPL license, it can also be installed anywhere as a standalone application or reused as a component of another Information System.

EUSURVEY key figures:

- **1500+ surveys** per year
- 1200+ Service Help-Desk calls in 2010, 1500+ in 2011 and 1500+ in 2012
- **750.000+** surveys answers since 2010
- **Used by most of the Member States**

The scope of the project includes:

- Maintain the quality of the current service and support
- Increase EUSurvey interoperability and reusability towards other national & EU systems
- Develop new features and improvements following user's requests
- Following the conclusions of the market and feasibility study: Implementation of a new architecture using up-to-date technologies and best practices

2.6.4 PROBLEM/OPPORTUNITY STATEMENT

The EUSurvey service and the EUSurvey OSS version disseminated via Joinup are already used by many Institutions, administrations and businesses. EUSurvey is necessary for these bodies to continue their mission and it is therefore critical to sustain this service and continue to deliver up-to-date applications.

Businesses and policy makers have to be more and more reactive and need to gather reliable information while the stakeholders are contributing from all around the world. The contributors are in need of intuitive, reliable and modern tools suited to the strict data collection rules they are confronted with and will favour automated and productivity tools enabling them effortlessly to answer surveys and to concentrate on their core business and activities.

A market research is being performed in order to identify if parts/all of the business needs can be covered by alternative tools available on the market.

EUSurvey is based on aging technology and it is necessary to revamp its architecture and user interface, improve its performance, scalability and user-friendliness.

2.6.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Institutions	EUSurvey service is readily available to Institutions for the creation of surveys, forms and the management, collection and publication of answers in the policy making or any other context. They have the possibility to do local deployments.
Member States' public administrations and other, non EU administrations	Administrations can also benefit from the EUSurvey service either for answering surveys within the EU policy context or for other purposes. They can as well decide to deploy the OSS version in their services.

2.6.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
ISA Action 1.4 – ECAS-STORK	Both EU Survey and ECAS-STORK systems need to be integrated to enable EUSurvey users to authenticate on EUSurvey by means of their national eID.
ISA Action 2.5 – CIRCABC	Both CIRCABC and EU Survey systems are integrated.
EAC programmes Mobility actions	At the end of Erasmus exchanges, students and other participants are asked to fill in satisfaction questionnaires. These are designed via EU Survey. The Web service integration that will be implemented, aiming at collecting and consolidating feedback on Erasmus+ Mobility actions, will enable to store the database within DG EAC.

2.6.7 ORGANISATIONAL APPROACH

2.6.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
ISA programme management	DIGIT B2 (Margarida ABECASIS)
European Institutions, Member State Administrations	ISA Management Committee, ISA Working Group
DIGIT A	Christos ELLINIDES, Jose MARIN, Pascal BRAHY, Benoît ORIGAS
DIGIT C	Marcel JORTAY

2.6.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
User Group Conference	Pascal BRAHY, Benoît ORIGAS, Margot FASSIAN	Once a year
ICT Conference	Pascal BRAHY, Margot FASSIAN	Once
ISA Events	Pascal BRAHY, Benoît ORIGAS, Margot FASSIAN	

2.6.7.3 Governance approach

The project is managed by DIGIT A and contracts external resources for service management, maintenance, community management, training and help-desk support. DIGIT A provides a Project Responsible and a Project Manager, both Officials in the unit.

A User Group community has been created around the EUSurvey service and regular meetings will provide the opportunity to submit enhancement requests, exchange opinions and best practices.

2.6.8 TECHNICAL APPROACH

EU Survey is delivered as an OSS project via joinup.eu, the Forge made available by ISA. The OSS community will have the possibility to actively contribute at the source code level. Support is also provided to the community.

2.6.9 COSTS AND MILESTONES

2.6.9.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Operational	EUSURVEY Service	133	ISA	Q1/2010	Q4/2010
Operational	EUSURVEY Service	250	ISA	Q1/2011	Q4/2011
Operational	EUSURVEY Service	300	ISA	Q1/2012	Q4/2012
Operational	EUSURVEY Service	300	ISA	Q1/2013	Q4/2013
Operational	EUSurvey Service	250	ISA	Q1/2014	Q4/2014
Operational	EUSurvey Service	300	ISA	Q1/2015	Q4/2015
Inception	Market study of comparable survey tools. Study of functional and technical requirements, architecture, user interface	50	ISA	Q1/2013	Q4/2013
Execution	Revamping/modernization of EUSurvey architecture	100	ISA	Q1/2014	Q4/2014
Operational	Training – e-learning	50	ISA	Q1/2014	Q4/2014
Operational	Training – e-learning	50	ISA	Q1/2015	Q4/2015
	Total	1783			

2.6.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010	Operational	133	116

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2011	Operational	250	267
2012	Operational	300	251
2013	Operational	350	
2014	Operational	300	
2014	Execution	100	
2015	Operational	350	

2.6.10 ANNEX AND REFERENCES

Description	Reference link	Attached document
EUSURVEY OSS project on joinup.eu	https://joinup.ec.europa.eu/software/ipm/home	
What is EUSURVEY on Europa	http://ec.europa.eu/yourvoice/ipm/	
EUSURVEY service	http://ec.europa.eu/yourvoice/ipm/forms/html/index.html	
Joinup.eu	http://joinup.ec.europa.eu/	

2.7 YOUR EUROPE – FACILITATING RE-USE OF CONTENT FROM NATIONAL PORTALS (*FUNDING CONCLUDED*)

2.7.1 CONTEXT

2.7.1.1 Identification of the action

Type of Action	Project
Type of Activity	Common frameworks
Service in charge	DG MARKT
Associated Services	DG MARKT, DG ENTR, DG TAXUD, DG SANCO, DG EMPL, DG JUST, DG MOVE, DG HOME and DG EAC

2.7.2 OBJECTIVES

The project's objectives are in accordance with Articles 1 and 3 of ISA Decision 922/2009/EC of 16 September 2009, namely to support cooperation between public administrations by facilitating their efficient and effective electronic cross-border interactions (Art.1) via the establishment of a common framework in support of cross-border interoperability (Art.3).

Through the ISA project, the Commission would like to establish a common framework for European information portals aimed at citizens (in the form of a semantic asset or by assessing the possibility of promoting the structure of European content on national portals) which would then go on to facilitate automated cross-border data exchange and updates between European public administrations and the Your Europe portal via content syndication.

Thus, as a result of this action, the Commission will automate cross-border information exchange and update between European public administrations and the Your Europe portal via content syndication. This will provide savings in resources both for the EU Commission and the public administrations, increased co-operation, more transparency and a multilingual service catalogue.

2.7.3 SCOPE

This action covers the activities between Your Europe portal and national information portals to develop share and re-use of a common framework for European Information portals. This common framework will be in a semantic asset form and will thus contribute to Semantic Interoperability, one of the priority areas in the ISA programme.

Activities that will increase the quality of the information received will also be within the scope of this action. This will ensure validity of the information provided to citizens and businesses when exercising their rights in another EU State.

This action has been devised in different phases starting with a preliminary feasibility study to implement the syndication incrementally. The first two phases of the implementation has been defined as follows:

- During the period 2011-2012, it is planned to conduct a pilot project to automate the syndication of content of two sections of the Your Europe portal with a limited number of Member States, based on the results of the feasibility study. The results of this phase are likely to be a proven reusable methodology for content syndication, a governance model and technical artefacts that could be reused by the European Commission.
- During the year 2013 and depending on the outcome of the aforementioned pilot project, the Commission intends to extend the syndication to the remaining sections of the Your Europe portal with content provided by the aforementioned Member States. After this second phase, the artefacts to syndicate content in the portal will be developed.

During the development of phase 2, the Commission's Your Europe team will define the strategy to syndicate the rest of the Member States within the portal. Therefore, further funds to finance this extension may be requested.

2.7.4 PROBLEM/OPPORTUNITY STATEMENT

The provision of national information for the Your Europe portal has been done so far through a non-automated process of ad-hoc requests being addressed to national authorities via the members of the Your Europe Editorial Board - originally set out by the PEGSCO committee members under the IDABC programme. This is, however, a time-consuming exercise for both national authorities and the European Commission. In addition, Member States are increasingly pressing for the use of more cost-efficient methods of information provision and information sharing.

Due to the lack of common terminology and content structure between the different national portals and Your Europe, national authorities are obliged to feed two portals with information; their national portals and Your Europe at the same time. Not only does this put an extra burden on scarce public administrations' resources at national and EU level but also delivers a bad service to the EU citizens.

People who wish to find information online are confronted with a multitude of presentations of the information, different terminologies being used for the similar or identical concepts, etc. This obviously does not help reinforcing the feeling of an efficient European information service.

This action aims to make information exchange between these portals and Your Europe simpler and faster.

2.7.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States' public administrations as direct beneficiaries	<p>This action will avoid having to update two different websites (national information portal and Your Europe).</p> <p>Beyond this, the Member States' public administrations benefit from a coordinated and structured way of providing information.</p> <p>Through content syndication, the resource intensity of content provision is kept at a minimum level.</p> <p>The time taken by citizens to find out the information they need in order to perform a task in another EU country is also reduced.</p> <p>Member States that have not yet set up their national information portals may re-use the life-cycle structure of the Your Europe portal as the basis for creating these.</p>
European citizens as indirect beneficiaries	<p>EU citizens will find, in a single central and user-friendly location, all their rights and obligations derived from EU law in relation to everyday situations of a cross-border nature. Thus, the Citizens section will contribute to better functioning of the single market.</p>
IT services industry as indirect beneficiary	<p>This action will bring closer together various communities, bodies and organisations working on semantic interoperability with the main aim of supporting public administrations in their coordination activities.</p>
European Commission services as indirect beneficiaries	<p>This action will remove the need to request annual information updates for the Your Europe portal from management authorities in the Member States.</p> <p>Available EU assistance services (YEA, SOLVIT, Europe Direct, Enterprise Europe Network, European Consumer Centres network, etc.) will be able to provide their services directly via Your Europe.</p>

2.7.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
Internal Market Single Market Act as adopted 27/10/2010 (COM 2010 (608) final	Making the internal market function better for citizens and businesses and providing them with practical redress when their rights are being denied in cross border situations. Action nr 49 from SMA: <i>"Proposal No 49: In 2010, the Commission will continue to promote a one-stop shop to provide citizens and businesses with information and support concerning their rights in the single market, on the internet, by telephone or in person, by developing the 'Your Europe' internet portal and improving its coordination with 'Europe Direct'. The Commission will also strengthen its partnerships with the Member States with a view to ensuring that information on national rules and procedures is also available through this one-stop shop."</i>
ISA Action 1.3 – Catalogue of services	Your Europe is one of the potential candidates for a European catalogue of services and the life events description will provide input to any future work on the definition of a semantic classification for public services.
ISA Action 1.14 – Cross Sector Solvit	The new SOLVIT offers a new Service Oriented Architecture in order to facilitate the interoperability with other Information Systems from the European Commission (e.g. EU Pilot and Your Europe Advice) and the Member States.

2.7.7 ORGANISATIONAL APPROACH

2.7.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
European Commission	DG MARKT, Your Europe team' as the responsible for the action.
Member States' public administrations	Representatives of each Member State involved having both functional and technical skills.
Document Management Officer	The Document Management Officer is nominated by the DG and ensures a coherent implementation of the Decision 2002/47/CE, CECA, Euratom in the DG: represented in DG MARKT by Michele Hance-Jalhay.

Stakeholders	Representatives
Data Protection Coordinator	The Data Protection coordinator is nominated by the DG and ensures a coherent implementation of the Regulation 45/2001 in the DG, represented in MARKT by Hakan Ander.

2.7.7.2 Governance approach

The Governance approach is based on a Project Management Board that will:

- Champion the project, raising awareness at senior level;
- Guide and promote the successful execution of the project at a strategic level;
- Provide high level monitoring and control of the project;
- Adopt the project charter;
- Follow timely delivery and quality of new developments delivered by the system supplier;
- Set priorities, authorise plan deviations, scope changes with high project impact and decide on recommendations;
- Arbitrate on conflicts and negotiate solutions to important problems;
- Drive and manage change in the organisation;
- Ensure adherence to organisation policies and directions;
- Approve and sign-off all key management milestone artefacts (vision document, project plan, business case, etc.).

DG MARKT will assign a total of two staff to ensure correct project implementation. Policy units responsible for single market rights in DG MARKT, DG ENTR, DG TAXUD, DG SANCO, DG EMPL, DG JUST, DG MOVE, DG HOME and DG EAC will be regularly invited to contribute to the content development of the Your Europe portal as they are already involved in the project at its current stage.

The Member States' public administrations will also be closely involved in the different project phases through the existing Your Europe Editorial Board in order to discuss and agree on the proposals for common terminology and the choice of the most suitable content syndication tool.

2.7.8 TECHNICAL APPROACH

The objective is to ensure that ICT implications are taken into account in good time so as to allow timely, efficient and effective ICT support for implementation. Early consideration of the ICT implications increases the chances of optimal support for the study's implementation through ICT technologies. This way, it can ensure timely implementation (thereby cutting the administrative burden), avoid the creation of new e-barriers and support the functioning of the Internal Market.

The solution must be fully integrated into the workflow established for the Your Europe project. The workflow must include the processing of documents conveyed by EB members as well as those fed automatically from national sites. Since documents that are fed in automatically must follow the same process for translation, content processing must be directly integrated into the Word/XML and XML/Word conversion processes.

The exchange format used between national websites and the application will be RSS 2.0. Word documents will contain links to these RSS feeds and the links will be replaced with their content during the conversion to XML Document format. This solution provides for the encoding of fixed text in which a portion is dynamically fed in from an external site.

The proposed solution for syndication is a stand-alone application we have named 'XMLSYN' (XML Syndication). The application will be written in Java using an Oracle database to allow for potential hosting by the DIGIT Data Centre.

The application will have to adapt to three different scenarios: Scenarios (i) and (iii) will be straightforward. However scenario (iii) will require more complexity in terms of feed management. More than one feed will be required per page and the content of the feed will be parsed so that only useful content is extracted.

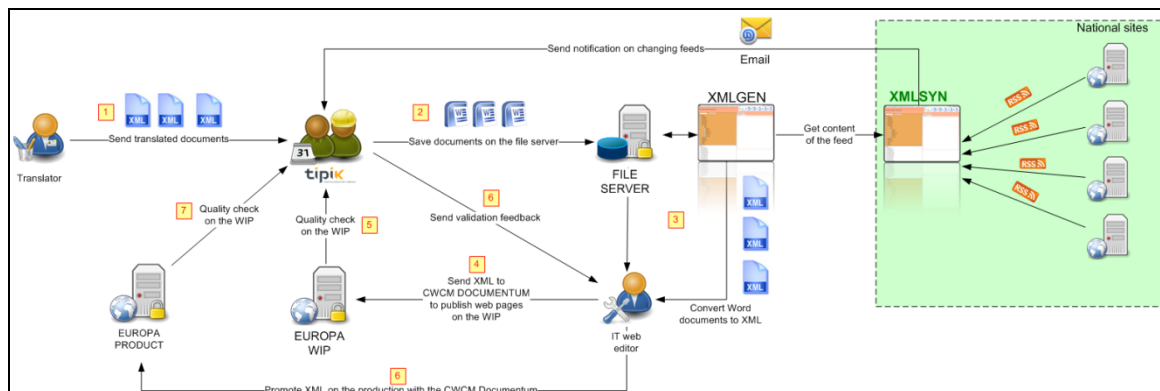
Features to be implemented:

- Data/RSS feed reception and storage: An application that retrieves daily RSS feeds and notifies key stakeholders of changes to content.
- Sharing of content via a Web service: This Web service is used by the third-party application to retrieve the contents of streams sent as parameters.
- Transmission to various stakeholders as well as to the IT and translation team: A plug-in integrated into the Word/XML conversion process is used to replace links to streams with their content. The filled Word documents are sent to stakeholders.

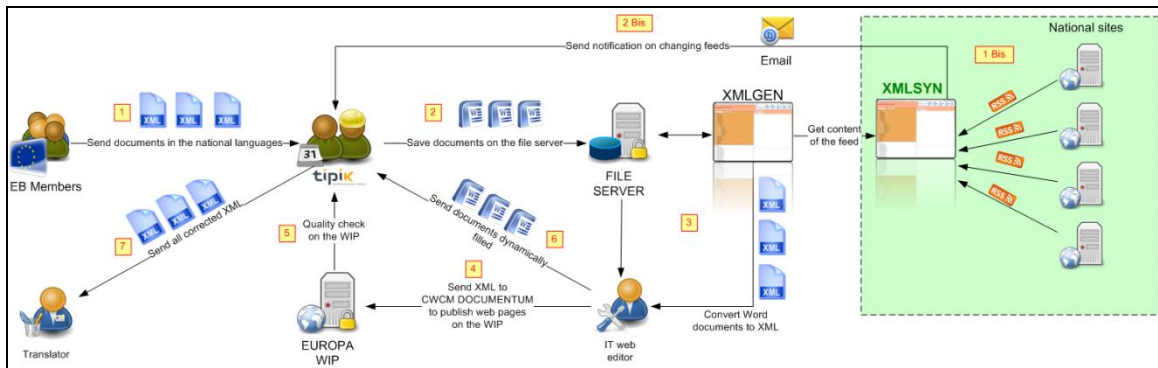
The application makes it possible to convert XML dynamically fed by RSS into Word documents for forwarding to editors. These documents will no longer contain dynamic links, but instead the final content will be reconstituted from RSS feeds.

These reconstituted Word documents may be used directly by translators in exactly the same way as documents supplied manually by the EB members.

Transmission to different stakeholders:



Transmission to the IT and translation team:



2.7.9 COSTS AND MILESTONES

Inception Phase

Execution of a feasibility study that encompassed the technical and functional requirements of content syndication and the possibilities for building on the knowledge gained from the now-concluded EU-SPOCS project. These specifications provide solutions on how to link national web pages to the Your Europe website via RSS feeds. A practical case study is presented. These specifications also offer different solutions for organising the team in charge of checking consistency between pages.

Execution Phases

According to the feasibility study and the ensued project charter, the project should then be executed in two phases, as stated in the Scope of the action:

- Phase 1 consists in the execution of a Pilot Project to syndicate the content of two sections of Your Europe portal with a limited number of Member States;
- Phase 2 will focus in the remaining sections of Your Europe portal to syndicate the content with the aforementioned Member States.

2.7.9.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Inception	Feasibility study	200		Q1/2011	Q3/2011
Execution	Phase 1: Syndication of two sections of a limited number of Member States	500		Q4/2011	Q4/2012
	Total	700			

2.7.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010	Feasibility Study	200	200
2011	Execution Phase 1	500	360
2012			
2013			
2014			
2015			

2.8 MACHINE TRANSLATION SERVICE BY THE EUROPEAN COMMISSION

2.8.1 Context

2.8.1.1 Identification of the action

Type of Action	Project
Type of Activity	Common Service
Service in charge	DGT
Associated Services	OP, DG MARKT

2.8.2 OBJECTIVES

The ultimate objective is to facilitate the efficient and effective electronic cross-border interaction between European public administrations. This will be achieved through development and

operation of a common Machine Translation service offered by the European Commission which will be used by European and national public administrations and will be customised for their specific needs.

The MT@EC service will replace the European Commission Machine Translation Service (ECMT) which was in operation until December 2010. It will offer not only better quality of output, i.e. better translation, but also better quality of service, i.e. many more languages in the initial system, as well as the possibility to develop new language pairs and customised solutions to fit the specific needs of users in a flexible and cost-efficient way.

Examples of potential uses and users of the MT@EC include online services funded by Community funds through IDABC or ISA project, which require multilingual support and were previously users of ECMT (as for example services like IMI, TED or Joinup), networks of national experts and public administrations working on a specific field wishing to exchange information on their national context in their own language that can then be understood by the others, as well as exchanges between European and national administrations in the context of the monitoring the implementation of an EU directive etc.

MT@EC is also the expected response by the Commission (DG Translation - DGT) to the Multi-Annual European e-Justice Action Plan 2009-2013 (OJ C 75/1 of 31.3.2009), which states explicitly that the Commission (Translation Service) should ensure financing for "legal translation tools in all European language pairs" in the period 2009-2013. This was confirmed in the roadmap endorsed by the Council of Justice and Home Affairs held in Luxembourg on 3 and 4 June 2010, which refers to the development of "Automated legal translations". In this context the Commission presented the MT@EC proposal to the Council Working Party on Legal Data Processing (e-Law) at its 10-11 June 2010 meeting. It is worth noting as well the potential synergies with the pilot A project that is expected to be funded by the CIP programme according to the 2010 work programme for the development of the e-Justice service aimed at developing basic components in the coming 2 to 3 years.

2.8.3 SCOPE

A common Machine Translation (MT) Service offered by the European Commission (MT@EC) would provide the means for fostering trusted information exchange between European and national public administrations, i.e. the first strategic consideration of EIS. This is because:

4. the language barrier would no longer limit the access to information and therefore hinder the increase of its use;
5. the efficiency of the usage of information is improved:
 - the person (or service) who accesses the information in their own language, will be able to understand very quickly whether it is relevant for their purpose and "route" it accordingly;
 - the sender of information will not have to translate the information they want to share/communicate in one or several common working languages. This will not only save the time and resources needed for a human translation in just one or several languages, but will also mean that the message/information is accessible in any of the languages offered by MT@EC at no additional cost and without time being wasted.
6. a service run by the Commission, as opposed to services freely available on the internet, will guarantee continuity and quality of service as well as respect of confidentiality and other legal aspects related to trust in information exchange.

2.8.4 PROBLEM/OPPORTUNITY STATEMENT

Information being exchanged across borders should be made available in the languages of all those concerned, i.e. both the sender/author and the recipient/user. It was for this purpose that the EC had made available the ECMT service to European and national public administrations.

However the ECMT service as it had been in operation until December 2010, was using outdated "rule-based" technology with upgrades being very difficult and resource greedy, and with very uncertain results in terms of quality.

In the last years there has been a shift in MT technology towards a data-driven approach (SMT - Statistical Machine Translation) which opens new opportunities.

The key difference between the "new" SMT technology and the "old" rule-based technology of ECMT is the fact that the former is data-driven. This means that, instead of requiring manual development of dictionaries, rules etc. by humans, SMT uses existing language resources (monolingual corpora, parallel text corpora, dictionaries etc.) and implements a more or less standard set of statistical algorithms to "train" a system that will then produce automatically the translation. The system is improved by "retraining" with translations of human quality, which can be post-edited machine translations, and with further language resources that are added.

In terms of resources this implies a huge difference between the current rule-based system and a future data-driven system:

- ECMT required huge investment in human resources specialised for the maintenance and improvement of each language pair, BUT very limited IT resources for its actual operation
- a data-driven system (SMT) requires significant IT resources, especially for training and retraining it but also for running it with an acceptable speed, and huge and high quality language resources as underlying data, BUT minimum human intervention which can come from any user (not necessarily specialists) by proposing a post-edited version of the output of the MT system (see for example the "suggest a better translation?" invitation in Google translate and other similar systems).

That is why SMT has been widely taken up, not only by known innovators like Google (<http://translate.google.com/>) or newcomers on the MT market like Language Weaver (<http://www.languageweaver.com/>) or AsiaOnLine (<http://www.asiaonline.net/>) but also by companies like Systran (<http://www.systran.fr/>) who combine SMT with their existing rule-based system to get what they call "hybrid" technology. It is worth noting that many of the successful services on the market (including Google, AsiaOnline and Systran) are based on "Moses" (<http://www.statmt.org/moses/>), an SMT "toolkit" developed under an EU funded project, Euromatrix (<http://www.euromatrix.net/>).

As part of the reflection within the Commission on a new strategy for Machine Translation an inter-service Task Force has been created in 2009. Acting on a mandate given by the Director General of DGT and the Commissioner responsible for Multilingualism, Mr Orban, the Task Force produced its report in April 2010. This recommended that the Commission should develop a new machine translation system which should:

- cover at least the same user needs as the former ECMT service,
- allow for customisation to the needs of services offered and/or supported by the Commission (like TED, IMI, OSOR.eu, etc.), facilitating cross-border information exchange (for example procedures requiring exchanges between the Commission and Member States and other activities related to the implementation of EU policies), and

- cover at least the 24 official EU languages.

It should also:

- guarantee the trusted exchange and use of confidential information and ensure the full protection for intellectual property rights of the source material that is translated and the language resources and technologies used,
- use efficiently the language resources available in all DGs (text corpora, translation memories, dictionaries, terminology databases, etc.) as well as the language applications and linguistic expertise available in DGT,
- be sustainable in financial and technical terms, and
- ensure continuity of service.

The Task Force proposed to build the MT@EC around two pillars, or hubs: the "data management hub", i.e. the infrastructure for collecting, managing and processing the language resources underlying the MT system and the "MT engines hub", i.e. the infrastructure for receiving, managing and processing the MT request. The latter will consist of two basic components: the "engines", which includes all the MT engines for the different languages and the "dispatcher" which receives the translation request, processes it, directs it to the appropriate MT engine, receives back the MT output and returns it to the requester in the appropriate form.

The Task Force was re-established in 2011 with the revised mandate "to develop and promote the Commission's new machine translation service by identifying user needs and ensuring that these are taken into account in the design and implementation of MT@EC".

2.8.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
European Commission Services	Main use: Asynchronous MT of working documents, letters, emails (like the present ECMT) - speed: the receiving Commission service understands quickly the information, without having to wait for a translation and "routes" it to the right person/department resulting to quicker response to the sender (national administration, citizen etc.) - cost: human translators in the Commission only receive requests when the incoming document is important and relevant while they are asked to translate only the relevant pages.
Member states' Public Administrations	Main use: Public administrations may use it for asynchronous MT of working documents, letters, emails (like the present ECMT) - speed : the receiving administration understands quickly the information coming from other public administrations, without having to wait for a translation and "routes" it to the right person/department resulting to quicker response to the interested parties (other national administration, citizens, EU bodies etc.) - cost: human translation is requested by the sender only when the incoming document is important and relevant and only for the relevant pages.
European Commission Services	Online services offered or supported by the Commission Main use: Synchronous and asynchronous MT for online services offered to the citizens, Member States' administrations or enterprises

	<p>either directly by the Commission or through Commission funded projects (like the ISA projects).</p> <p>Benefits:</p> <ul style="list-style-type: none"> - speed: the user can access information in a language s/he understands without having to wait for the content provider or the online service provider to translate it. This could mean as well that services with a requirement for multilingual versions to be available before publishing it, could opt for translating the most frequently requested languages and still offer the possibility to access the information in all languages offered by MT, thus speeding up the information publication process - cost: human translation is requested only for static or repetitive elements but dynamic content, free text etc. is still accessible in more languages through MT@EC.
Member States' Public Administrations	<p>Networks of member states representatives at EU level</p> <p>Main use: Spaces where information is exchanged between national representatives (for example circa interest groups, judicial collaboration etc.) in the framework of EU wide collaboration activities</p> <p>Benefits:</p> <ul style="list-style-type: none"> - efficiency: national experts may participate in the work of expert groups based on their expertise and not on their knowledge of the working language(s) of the group and contribute without the language barrier (at least for written communication) - speed : the representatives in expert groups can circulate the information at the national level quickly and to the appropriate persons without having to translate the information; experts at the national level can respond in their own language and the national representative can share the reply without having to translate it to the working language of the group/network - cost: human translation is used only when it is really needed and only for what is really relevant.

2.8.6 Related EU actions / policies

Action / Policy	Description of relation
e-Justice	"Automated legal translations" are included in the e-justice action plan
Open Dispute Resolution (ODR) Platform	The ODR platform from DG SANCO is considered as a potential user of MT@EC as of 2015.
ISA Action 1.10 – IMI (Internal Market Information System)	MT@EC provides on-request machine translation services to IMI since May 2012. The translation service is based on the use of prototype engines.
ISA Action 4.1.1 – Communication activity	Communication on MT@EC aims to be performed in the course of ISA Action 4.1.1.
ISA Action 4.2.1 – ISA Integrated Collaboration Platform	Joinup will make use of the services of the machine translation platform to provide automatically translated descriptions of software, semantic assets, etc.

2.8.7 ORGANISATIONAL APPROACH

2.8.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
DGT Translators	MT User Group
Commission Policy users	Through representatives of policy DGs in the Inter-service Task Force on Machine translation (MTF)
Public Administrations	Through Policy DGs
Users of other EU institutions	Interinstitutional Committee of Translation and Interpretation (ICTI) where the Commission is represented by DGT

2.8.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
DGT user group	DGT translators	Ad hoc
Inter-service Task force on Machine Translation	Representatives of DGs	Ad hoc (continuous possibility of communication through wiki)

Council meetings on e-law and e-justice	Representatives of Member States	Twice to three times a year
MT@EC user conferences	Focus: 2012: Translators of EU institutions 2013: Commission and other EU institutions 2014: Member States	Annual conference

2.8.7.3 Governance approach

The MT@EC project is managed in the context of the IT governance of the Commission and DGT. In DGT, the IT Steering Committee, chaired by the Director-General, has the overall responsibility, with its decisions being prepared, for matters related to machine translation, by the Language Applications Committee. The Project Steering Committee, involving the System Owner (Director of resources) and his delegate, the Business Manager (head of a translating unit), the System Supplier (IRM) and the Project manager (ISA action manager), runs the project.

The interests of the user DGs are represented through the Inter-service task force on machine translation, which was reactivated in 2011 to accompany the elaboration and construction phase. It is chaired by DGT and currently has representatives of SG, COMM, JRC, CONNECT, MARKT, JUST, HR, DIGIT and OP, but is open to other DGs interested in contributing to this activity. The interests of public administrations of Member States are represented by the DGs that are responsible for supporting them, for example in the area of Judicial cooperation (e-Justice) through SG, OP and JUST or in the area of internal market information exchanges , through DG MARKT.

The governance structure may need to be adapted due to the integration of the service in the Connecting Europe Facility (CEF), the details of which are not known which at the time of the writing of the revision.

2.8.8 TECHNICAL APPROACH

An MT system based on a data-driven approach requires two main parts:

- on one hand language resources, i.e. the data (parallel multilingual text, text corpora, dictionaries etc.) which are used by the SMT "engine", and
- on the other hand sufficient IT resources and appropriate organisation for storing, and processing the data and operating the service.

Following up on the Task Force recommendations, DGT established an MT action plan in June 2010, organised along the three main components of MT@EC (data, engines, service) which is currently being implemented. According to this plan, DGT shall target its investment to providing the first, more language oriented part, provide the necessary resources and infrastructure for the required underlying data/language resources.

The ISA programme, on the other hand contributes to the "IT and organisation" part, i.e. putting in place the appropriate IT infrastructure, and developing the IT and organisational environment for developing and operating the basic generic (so called "baseline") MT@EC service.

More specifically, the ISA action is part of an MT@EC "programme", that covers the following elements:

- the required infrastructure for training and running the system (which includes a "MT execution" part and the "dispatching" part)
- the engineering of the MT@EC baseline MT engines for the execution of the MT tasks
- the engineering of the system for dispatching requests for MT and output
- the helpdesk operations
- the reception, technical analysis and implementation of requests for "custom engines"
- the contacts with national and EU administrations, users of the system

Finally, the development of a customised solution to serve specific needs of one or the other MT users in terms of subjects, languages, interfaces, etc. using the MT@EC service should be organised as a separate mini-project, most probably funded by the requesting "client", which could be for example a service like IMI, TED, EurLex, etc. or a network of national administrations or other "eligible" bodies (eligibility criteria to be defined).

DGT is responsible for launching and managing the ISA funded projects, for steering the MT action plan and the related projects and, later on, for the contacts with "clients", including the analysis of the linguistic part of requests for "custom engines".

DGT is also be responsible for the final overall MT@EC service and for ensuring its sustainability after the ISA funding for its development and initial operation is over.

The first part of the Inception phase ran between October 2010 and April 2011. Its objective was:

- to establish the scope and boundary conditions for the MT@EC, including operational concept, acceptance criteria, and descriptions of what is and is not intended to be part of the service,
- to discriminate the critical use cases of the system, that is, the primary scenarios of behaviour that will drive the system's functionality and will shape the major design trade-offs,
- to exhibit at least one candidate architecture against some of the primary scenarios (proof of concept),
- to identify the risks, i.e. the sources of unpredictability,
- to provide estimates for the elaboration phase that should follow immediately after the inception phase.

The second part of the Inception phase (corresponding to the elaboration phase of the MT@EC) ran from May/June 2011 for one year and it had the following objectives:

- review findings from the inception phase and adjust the design of the system architecture accordingly, identify components that need to be added, modified, or

replaced, evaluate alternative options for the implementation of subcomponents, adjust developments to make most efficient use of IT resources,

- identify key users and elaborate on the user requirements from a functional point of view, and set up test and evaluation environments, involving the users,
- examine architectural options to ensure scalability, availability and fault tolerance of the system.

At the end of the Inception phase the following deliverables were delivered:

- an executable architectural prototype implementation is in place, but with a limited set of supported language pairs;
- all major risks elements are clearly identified and an acceptance/avoidance/mitigation strategy is in place;
- a sufficiently complete list of user requirements in terms of language coverage, performance, translation quality, expected data volume, supported data formats, and security and confidentiality levels, to be able to provide estimates for work and time requirements for the development phase that should follow.

The Execution phase of the project (corresponding to the construction of the MT@EC service) started in June 2012 and ran for approximately one year. It had the following objectives:

- develop the first production release of MT@EC service taking into account the conclusions from the inception phase, including the tests of the prototype developed in its second part.
- integrate the service and its components with some related Commission IT systems and processes
- test the service with selected end users and third-party applications
- deploy the first production release of MT@EC service

At the end of the Execution phase the following deliverables were delivered:

- MT@EC service "1.0" deployed.
- Technical specifications and procedures for third-party applications to connect to the service.

The pilot operation phase of the project started in July 2013, i.e. after the new baseline service is deployed. The main concern is to elaborate the methods and structures for exploiting the full potential of the new service in terms of cost-effectiveness, flexibility and openness in order to satisfy the needs of different types of customers under different conditions of use. These methods and structures for developing custom solutions and connecting to the baseline service will have to be put in place and tested in real-life conditions, while ensuring at the same time that the normal operation of MT@EC is not put at risk. This phase has the following objectives:

- setting up, testing in real-life conditions and fine-tuning the offer of technical support for MT@EC, so as to take into account the different types of beneficiaries of the service,
- elaboration and testing of change management procedures covering the different types of beneficiaries of the service,

- setting up and testing of the structure and methods needed on the MT@EC service provision side for the reception, technical analysis and implementation of requests for custom engines or other customisation requests, taking into account the "Technical specifications and procedures for third-party applications to connect to the service" established at the end of the execution phase.

At the end of the pilot operation phase the following deliverables are expected:

- organisation and operational procedures for technical support put in place,
- change management procedures put in place,
- custom needs support for custom requests put in place,
- a pilot report explaining the choices made based on cost effectiveness analysis, taking into account the flexibility, openness and sustainability requirements.

Additional development work is required (execution phase) between Q2/2014 and Q3/2015 to elaborate on offering custom MT solutions not only to individual public administrations in the Member States, as a follow-up of the pilot operation phase, but also to digital services to benefit from the Connecting Europe Facility (CEF⁴¹). The CEF is an initiative anchored in the Europe 2020 Strategy for smart, sustainable and inclusive growth, which puts digital infrastructures at the forefront as part of the flagship initiative "Digital Agenda for Europe" and is included in the multi-annual financial framework (MFF) for 2014-2020. The "Regulation of the European Parliament and of the Council on guidelines for trans-European telecommunications networks and repealing Decision No 1336/97/EC⁴²", which aims to establish a series of guidelines covering the objectives and priorities envisaged for broadband networks and digital service infrastructures in the field of telecommunications in the context of the CEF, includes machine translation among the core "building blocks digital service infrastructures a priori identified to be included in the work programmes" (together with electronic identification and authentication, electronic invoicing, electronic delivery of documents and critical digital infrastructures support), in the following way: *Automated translation: this refers to machine translation engine and specialised language resources including the necessary tools and programming interfaces needed to operate the pan-European digital services in a multilingual environment.*

Therefore an action is required to prepare for delivering good quality MT service to other CEF digital services taking into account also the conclusions from pilots with Member States administrations on the way to serve specific needs. This phase will have the following objectives:

7. develop and test alternative techniques for domain adaptation of the machine translation engines,
8. develop and test arrangements that automate as much as possible the whole process of building and making available "quality engines on demand" to users,
9. develop a proof-of-concept on how to exploit other elements of the core "automated translation" platform of CEF, like the shared language resources (translation memories, parallel multilingual corpora, named entity databases, morphologies, grammars, etc.) and related tools (taggers, parsers, multilingual indexers, etc.),
10. develop a service integration model, aimed at making connecting to the service and negotiating custom services easier for Public Administrations and SMEs,

⁴¹ [to add reference after the "CEF regulation" is adopted]

⁴² [to add reference after the "Guidelines Regulation" is adopted]

11. analyse the possibilities for scaling up and improving MT performance offered in the framework of the overall infrastructural arrangements of CEF, which are expected to be much more significant than those currently available for MT@EC.

At the end of the execution phase the following deliverables are expected:

12. a highly automated workflow for creating custom engines for MT@EC, going from data preparation up to deployment (back-end operation),
13. a proof-of concept on the way to offer the "custom MT service" through the MT@EC "front end", i.e. through the web user interface and web services (service integration),
14. a report analysing the potential use of the CEF infrastructural arrangements.

2.8.9 COSTS AND MILESTONES

2.8.9.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocation (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YY YY)
Inception Phase 1	Project Charter (initial version)	330	ISA	Q4/2010	Q2/2011
Inception phase 2	Project management: Project Charter (detailed version)	70	ISA	Q2/2011	Q2/2012
Inception phase 2	Architecture and analysis	55	ISA	Q2/2011	Q2/2012
Inception phase 2	Development	656	ISA	Q2/2011	Q2/2012
Inception phase 2	MT Engines "training"	150	ISA	Q2/2011	Q2/2012
Inception phase 2	Testing	69	ISA	Q2/2011	Q2/2012
Execution	Project management	90	ISA	Q3/2012	Q3/2013
Execution	Architecture and analysis	60	ISA	Q3/2012	Q3/2013
Execution	Development	750	ISA	Q3/2012	Q3/2013
Execution	Testing	100	ISA	Q3/2012	Q3/2013
Operation	Technical support elaboration and testing	100	ISA	Q3/2013	Q4/2014
Operation	Custom needs support elaboration and testing	400	ISA	Q3/2013	Q4/2014
Operation	Change management elaboration and testing	200	ISA	Q3/2013	Q4/2014
Operation	Project management	100	ISA	Q3/2013	Q4/2014
Execution	Custom engines Development	300	ISA	Q2/2014	Q2/2015
Execution	Service Development	100	ISA	Q2/2014	Q2/2015

	Total	3 530			
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2.8.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010	Inception – First stage	330	272
2011	Inception – Second stage	1000	1000
2012	Execution	1000	1000
2013	Operation (pilot)	800	
2014	Execution	400	
2015			

2.9 DOCUMENT REPOSITORY SERVICES FOR EU POLICY SUPPORT

2.9.1 CONTEXT

The action aims at contributing to the objectives of the ISA Programme in terms of cross border collaboration and reuse in the document management domain with a strong focus on interoperability. It builds upon the conclusions of the feasibility study ran in the Inception phase in 2010-2011, which has analysed the opportunities to offer generic document management services and components to European, national, regional and local bodies.

2.9.1.1 Identification of the action

Type of Action	Project
Type of Activity	Common services
Service in charge	DIGIT.B.1, COMP.R3
Associated Services	European, national, regional and local bodies, policy Directorate Generals

2.9.2 OBJECTIVES

The objective of the project is to provide common document management services for EU policy support that can be used by Member States' public administrations, at national, regional and local level, European Institutions and bodies and other organisations. They could clearly benefit from leveraging the European Commission's central electronic document management system (HERMES) and open source multilingual document exchange platform (CIRCABC) to streamline their document management processes in the EU policy context.

By establishing common services that can be used across different policy areas, notably in support of cross-border interoperability, the action fits particularly well to the Interoperability Architecture cluster of the ISA programme.

2.9.3 SCOPE

The scope of the action includes:

- Already done: a study in order to analyse the document management needs of potential clients (national and European public administrations) and the feasibility of reusing HERMES and/or CIRCABC functionalities;
- Already done: the integration of the two complementary systems HERMES and CIRCABC;
- The development and provisioning of common document management components and

services (Document Repository Services – DRS).

In 2013, the scope was extended to include the ECN Pilot to exemplarily demonstrate the reusability of the Document Repository Services. The European Competition Network (ECN) consists of the National Competition Authorities and DG COMP. The ECN information system (described in 2.9.10) will reuse the Document Repository Services in this pilot to implement the exchange and sharing of documents related to competition cases and competition matters.

Scope of the ECN Pilot:

- Development by COMP.R3 of a DRS-ECN Interface that will use the generic document repository services (DRS) in the context of the European competition policy. An initial set of features is described in 2.9.10.
- Development by COMP.R3 of the ECN user interface. An initial set of features is described in 2.9.10.

The list of DRS generic services will be defined in coordination with the ECN pilot analysis so that ECN requirements can be fulfilled.

2.9.4 PROBLEM/OPPORTUNITY STATEMENT

The Member States, the European Commission and other European Institutions create, exchange and store millions of business and legal documents each year. Certain exchanges have been digitized, whereas in others there is a hybrid combination with paper (scanning of paper inbound documents, or electronic storage of copies of outbound paper documents).

The national, regional, local and European public administrations frequently build different systems to automate the exchange and processing of official documents in the context of one or several EU policies. These exchanges are complex and manual intervention is often required to transfer documents from one system to another, which leads to increased administrative burden and problems with version management amongst others. Today, many repositories with different implementation rules co-exist. A proper and well-designed document management system could contribute to the further harmonisation of document processing in EU policy making.

The action consists in reusing document management components and services built within the European Commission by exposing them in a secure manner to Member States' public administrations and European institutions and bodies, thereby leveraging the previous investments and enabling public administrations to streamline their document management processes in the EU policy context.

Problem/opportunity to the ECN Pilot.

Currently, members of the European Competition Network use different systems (ECN information system, CIRCA) to exchange and share documents on competition cases. This

situation has a negative impact on efficiency as users have to check different places to find information and documents.

The ECN information system has become the de-facto user interface for National Competition Authorities and DG COMP to share documents, due to its lightness, user-friendliness and advanced features (e.g. de-centralised user and role management, end-end encryption for sensitive documents). However, ECN does not provide document repository and document management features like e.g. preservation, archiving, versioning, full-text search, check-in/checkout, with the impact of not respecting document management standards.

There is therefore the opportunity of reusing DRS to implement document repository and document management features in the ECN information System.

2.9.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States' Public Administrations (national, regional and local), European Institutions and bodies and other organisations	<p>Streamlining document exchange and archiving processes</p> <p>Economies of scale (infrastructure)</p> <p>Cost savings (development)</p> <p>Compliance (with common document management standards)</p> <p>More transparent document management procedures in European policy execution</p> <p>Finding and sharing information more easily</p>
Member States' Public Administrations (national, regional and local), European Institutions and bodies and other organisations	<p>Benefits of the ECN Pilot:</p> <p>Demonstrate the reusability of DRS with corresponding benefits: cost savings, economies of scale, etc.</p> <p>Promote interoperability with a concrete and exemplary case based on common infrastructure and architecture components.</p>
European Competition Network composed by the National Competition Authorities and DG COMP	<p>Evolve the ECN information system to implement common document management standards for EU policy support and more transparent document management procedures in European policy execution.</p>

It is expected that other information systems (i.e. Acquis Communautaire, eProcurement) will reuse the DRS services from 2014 onwards.

2.9.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
ISA Action 1.3 – Catalogue of services	The Document Repository web Services will be published through this the catalogue of services.
ISA Action 1.8 – eTrustEx	The potential cooperation (between both actions) related to document management is currently being assessed. Depending on the needs of ECN (European Competition Network), the usage of eTrustEx could be considered.
ISA Action 1.11 – Interoperable and Generic Notification Services	GENIS user management component aims to be used for the European Competition Network (ECN).
ISA Action 1.18 – Federated authorisation across EU public administrations	Assessment of possible re-use of federated authorisation component for decentralised user management will be performed in the course of the ISA Action 2.9.
ISA Action 2.5 CIRCABC	<p>The objective of ISA Action 2.9 is to provide generic document management solutions for EU policy support that can be used by Member States' public administrations, European Institutions and bodies and other organisations.</p> <p>They could clearly benefit from leveraging the European Commission's central electronic document management system (HERMES) and open source multilingual document exchange platform (CIRCABC) to support common document management functionality and particularly in cross-border IT systems that support EU policies.</p>
DG COMP ECN (European Competition Network)	The scope of the ISA Action 2.9 is extended to include the ECN pilot to exemplarily demonstrate the reusability of the Documents Repository Services. The ECN information system will reuse the Document Repository Services in this pilot to implement the exchange and sharing of documents related to competition cases and competition matters. The analysis of requirements from ECN has started already.

2.9.7 ORGANISATIONAL APPROACH

2.9.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
Member states	ISA Interoperability Architecture Working Group
System supplier System owner Hermes	Project Coordination Group
Current and potential clients of Hermes and CIRCABC	Stakeholder Coordination Group
IT project leaders & teams DRS and ECN Pilot (DIGIT.B1 and COMP.R3)	ECN Pilot project coordination group
DRS project manager, ECN Pilot owner and supplier	ECN Pilot Steering Committee (management DIGIT.B1, COMP.A4, COMP.R3)
European Competition Network	ECN Working Group (one representative per National Competition Authority and DG COMP)

2.9.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
Meeting	ISA Interoperability Architecture Working Group	Every 6 months
Meeting	Project Coordination Group	Every month
Meeting/conference	Stakeholder Coordination Group	Organised whenever necessary
Meeting	ECN Pilot project coordination group	Every month (or every two weeks if necessary)
Meeting	ECN Pilot Steering committee	Organised whenever necessary, at least every 2 months
Presentation	ECN Working Group	Organised whenever necessary

2.9.7.3 Governance approach

The approach and governance of the project is structured around 3 groups: the ISA Interoperability Architecture Working Group, the Project Coordination Group and the Stakeholder Coordination Group.

The mission of these groups will be to ensure the successful governance of efforts in relation to the internal and external stakeholders. These groups will not be formal committees but a set of

mechanisms using the existing communication channels, workshops and meetings. The basic principle is that these groups should be versatile and empowering, with minimal overhead bureaucracy. Of course, when and if required, these groups may be further formalised into committees.

- The **ISA Interoperability Architecture Working Group** assists the Commission in translating priorities into actions and ensures continuity and consistency in their implementation. The ISA Interoperability Architecture Working Group will meet each two months to ensure coordination and involvement of services in the project coordination group and ISA.
- The **Project Coordination Group** will be used to bridge the perspectives among the internal stakeholders. The Project Coordination Group will meet regularly to ensure coordination of the associated services, DIGIT.B1, DIGIT.A3 and (when needed) SG.B2. Regular project review meetings (review of project progress), alternating with team meetings twice every two weeks (review of the individual tasks) will be held inside each of the involved entities (DIGIT.B1, DIGIT.A3) to ensure timely delivery of the project.
- The **Stakeholder Coordination Group** will be used to consult the stakeholders, when additional information and clarification is required. Based on the actual needs and to better bridge the technical and the business aspects, a Stakeholder Coordination Group could be set up to involve the “business” stakeholders of the current and potential users of HERMES and CIRCABC. Meetings of the Stakeholder Co-ordination Group will take place on exceptional basis: only when additional information and clarification is required.

The following methodologies will be used on the project: PM² will be used at the project management level; RUP@EC will be used for software development and ITIL for service management.

Stakeholders:

- **DIGIT – Directorate General of Informatics of the European Commission.** Unit DIGIT.B.1: this unit is in charge of the HRS project and will ensure the development of specific HRS- related modules. Unit DIGIT.A.3: this unit is in charge of the CIRCABC project and will ensure the development of specific CIRCABC-related modules.
- **Secretariat general.** Unit SG.B.2: this unit is process owner of document management within the Commission.
- **Group of public administrations, agencies, DGs and permanent representations to EU.** The group includes the organisations having marked an interest in reusing the document repository services (the first client is the European Competition Network).

Governance / sharing of responsibilities for the ECN Pilot:

DIGIT.B1 has the overall project management of ISA action 2.9 supplying the DSR components and services.

COMP.A4 (ECN unit) is system owner and COMP.R3 (IT unit) is system supplier of the ECN Pilot components (DRS-ECN Interface and ECN GUI). DG COMP is responsible for their

development and integration within agreed planning.

- Technical coordination meetings of the ECN Pilot project coordination group (consisting of the IT project leaders & teams COMP.R3 and DIGIT.B1) are held monthly (or every two weeks if necessary) to review the issues, risks and decisions, to review and coordinate the planning.
- Meetings of the ECN Pilot Steering Committee (management DIGIT.B1, COMP.A4 and R3) are held upon request.
- Presentations to the ECN Working Group to collect user input and to present the stand of implementation will be organised by COMP.A4 upon request / need.

COMP.R3 will provide DIGIT.B1 with the drafts concerning the ECN Pilot necessary to update the Project Charter of action 2.9. DG COMP is responsible for the fulfilment of the KPIs related to the ECN pilot.

DG COMP is responsible for regular reporting on the ECN Pilot (ISA Interim Report and ISA Annual Report).

Methodology: PM² will be used at the project management level; RUP@EC will be used for software development.

2.9.8 TECHNICAL APPROACH

The approach of the project is based on three phases:

- Inception phase - Business requirements analysis and feasibility study

A study has been performed to collect needs from various public administrations, assess their interest in using common services derived from the European Commission's existing document management systems, identify the development priorities and establish a business case.

- Execution phase - Development and assistance for implementation

The two complementary systems HERMES and CIRCABC have been integrated. The priority in the first development stage is now to develop and expose in a secure manner DRS (Document Repository Services) to Member States' public administrations and European Institutions.

The second development stage consists in extending DRS to provide advanced functionalities (in particular: multi-tenancy to be able to support other clients and extended full-text search capabilities) and to adapt to the requirements of the European Competition Network (based on the experience of the pilot)...

- Operational phase – Operations, support and assistance for pilot clients (e.g. European Competition Network) and hosting of the Document Repository Services.

Phases of the ISA action excl. the ECN Pilot	
Inception phase	ISA Feasibility Study: <ul style="list-style-type: none"> • D1.1 Description of the Document Management portfolio for HERMES and CIRCABC • D2.1 Scenarios for reuse of document management services by potential service consumers • D3.1 Roadmap and business cases for the selected DM service consumers
	Project charter for execution phase 1
Execution phase	Execution phase stage 1: Common document management services <ul style="list-style-type: none"> • WP1: Integration between HERMES and CIRCABC services • WP2: Secure access to Document Repository Services (DRS) over the internet • WP3: Development of Document Repository Services (DRS)
	Execution phase stage 2: Extended DRS
Operational phase	Operations, support and assistance for pilots including hosting of DRS.

ECN Pilot (in parallel of the execution phase stage 1 mentioned above)

The approach will be based on two phases. An execution phase (with two iterations) and an operational phase:

- Execution phase Iteration 1 – Requirements analysis and functional specification
 - The requirements analysis will deliver a requirements catalogue, with needs and related features. The requirements impacting DRS have to be validated by DIGIT.B1.
 - The architecture analysis will deliver the IS architecture for the ECN GUI and the ECN-DRS Interface. The IS architecture will focus on interoperability with DRS; hence it has to be validated by DIGIT.B1.
 - The architecture will be validated through a prototype.
- Execution phase Iteration 2 - Development
 - Development of the DRS-ECN Interface by COMP.R3. DRS-ECN Interface will implement and expose domain/policy oriented document repository services orchestrated on top of the basic document repository services of DRS.
 - Re-development/adaptation of the ECN user interface by COMP.R3, to interoperate with DRS-ECN Interface to implement document repository and management functionalities.
- Operational phase – Operation of ECN
 - Beta testing, fine-tuning, and deployment in production of the outcome of the ECN Pilot: ECN implementing document repository and document management by reusing DRS.

2.9.9 COSTS AND MILESTONES

2.9.9.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Inception	ISA Feasibility Study Project Charter	350	ISA	Q3 2010	Q3 2011
Execution	Stage 1: Common document management services WP1, Functional specifications, Design specifications, Development	100	ISA	Q4 2011	Q2 2013
Execution	Stage 1: Common document management services WP2, Functional specifications, Design specifications, Development	240	ISA	Q1 2012	Q4 2013
Execution	Stage 1: Common document management services, WP3, Functional specifications, Design specifications, Development	450	ISA	Q2 2012	Q4 2013
Execution	Stage 1: Common document management services WP1, WP2; WP3 Execution report	10	ISA	Q4 2013	Q4 2013

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Execution	Stage 2: Extended DRS Functional specifications, Design specifications, Development, Execution report	310	ISA	Q1 2014	Q4 2015
Operational	DRS assistance of pilot clients and hosting	280	ISA	Q2 2013	Q4 2015
ECN Pilot Execution – Iteration 1	Requirements and functional analysis. IS architecture. Prototype.	100	ISA	Q2 2013	Q4 2013
ECN Pilot Execution – Iteration 2	Development of DRS-ECN Interface. Developments and adaptation of ECN user interface.	350	ISA	Q4 2013	Q4 2014
ECN Pilot Operational	Deployment of the pilot	100	ISA	Q3 2014	Q4 2014
	Total	2290			

2.9.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010	Inception	350	350
2011	Execution	450	451
2012	Execution	350	350
2013	Execution	300	
2013	Operational	50	
2014	Execution	360	
2014	Operational	180	
2015	Execution	100	
2015	Operational	150	

2.9.10 ANNEX AND REFERENCES

Description	Reference link	Attached document
Annex 1.1: ECN Information System overview	Included at the end of this document	
Annex 1.2: DRS-ECN Interface service list	Included at the end of this document	
Annex 1.3: ECN Interface features list	Included at the end of this document	

2.9.10.1 Annex 1.1: ECN Information System overview

The European Competition Network (ECN), consisting of the National Competition Authorities and DG COMP, exchange and share information and documents related to competition cases and competition matters (Cartels, Antitrust, and Mergers):

- Information on national and Commission competition cases (using ECN).
- Sensitive documents on competition cases like e.g. documents to prepare an inspection (using ECN, which implements end-end encryption for sensitive documents).
- Non-sensitive documents on general competition matters (using ECN, and less: CIRCA).

ECN was developed by DG COMP (partially under IDABC) between 2006-2010 and is deployed at DIGIT Datacentre. ECN interoperates with DG COMP's case and document management applications to push and get case information and documents in both directions.

With ECN in operation, the users from the National Competition Authorities are requesting to centralize and rationalize the communication, eliminating the current use of different tools

2.9.10.2 Annex 1.2: DRS-ECN Interface service list

- Scalable and performing document storage.
- Ability to handle up and downloads of big documents ("big" to be defined and agreed with DIGIT.B1) resume or recover stalled or cancelled uploads of big sized documents
- Management of document description/metadata (policy specific)
- Management of document access security/ rights, including content role identity mapping to secure DRS content from policy-specific perspective.
- Preservation, archiving, and versioning of documents.
- Batch actions on documents (batch metadata update),
- Document grouping/ordering ("folders/containers").

- Batch file actions (e.g. multiple file upload).
- Notifications/alerts on document operations, reports.
- Basic collaboration: Document check-in/check-out (or more advanced collaboration features: nice to have)
- Document metadata and document full text searches
- Document workflow (nice to have)

2.9.10.3 Annex 1.3: ECN Interface features list

- Implements user management: Create/edit/update/delete users and profiles
- Implements additional document security (end-to-end encryption).
- Implement authentication (ECAS) and authorization to ECN Information system features.
- Manage repository structure.
- Define access rights of documents and folders
- Define audience / recipients of uploaded documents
- Browse, get document lists and respective document metadata displayed.
- View document.
- Upload/ download/delete one or several document.
- Enter/edit document metadata.
- Mark document and/or folders as protected (encryption).
- Move a document from a folder/container to another.
- Bulk relocation of documents from a folder/container to another.
- Notification when an uploaded document is assigned.
- Subscribe to notification/alert when a document or a folder changes.
- Basic collaboration e.g. lock/unlock a document to signal other users that document is being edited.
- Archive/ restore documents and folders.
- Full text search on text (doc, pdf, txt, etc.) documents and document metadata.

2.10 MULTISECTORIAL CRISIS AND BUSINESS CONTINUITY SERVICES (FUNDING CONCLUDED)

2.10.1 CONTEXT

Type of Action	Project
Type of Activity	Reusable generic tools
Service in charge	DG DIGIT
Associated Services	SG.B.3, DG ECHO

2.10.2 OBJECTIVES

The objective of this project is to provide re-usable components and standard services supporting some needs in the area of crisis management and business continuity

More specifically this action aims at:

- Providing re-usable components to European Institutions and Member States covering Crisis Management and Civil Protection activities;
- Provide services for specific needs (messaging, tracking ...);
- Providing a generic systems to European Institutions and Member States covering some standard Business Continuity functionalities;
- Putting in place some information exchange capabilities between some Business Continuity or Crisis Management systems.

This action covers the identification of needs, the study of the know-how, best practices and existing systems at European Institutions and Member States national administrations, the adjustment of components eligible for reuse, the analysis and development of some new components and the put in place of some information flows between systems.

This action will covers evaluate the identification of needs for the services linked to this generic system. , the study of the know-how, best practices and existing systems at European Institutions and Member States national administrations, the adjustment of components eligible for reuse, the analysis and development of some new components and the put in place of some information flows between systems.

The action will also cover the support for the deployment of the tools and components in the Member States and will give assistance on the configuration and adaptation to the new versions where needed.

2.10.3 SCOPE

This action is related to the following priority areas of the ISA programme:

-
- Interoperability Architecture – Building blocks
 - Trust and Privacy

The scope of this action is twofold:

- Providing reusable software components in the area of Business Continuity;
- Providing reusable software components and information exchange flows in the area of Crisis Management and Civil Protection.

Reusable software components in the area of Business Continuity

This action includes the development of a generic system (an open source version), based on Noah components, which will increase the cooperation and the information sharing in the business continuity domain. Noah is generic by design, which means that it is easy to be used in other contexts than the European Commission. This system will offer the means for effective communication, increasing interoperability between the existing systems of EC and Member States and by facilitating the creation of new standard systems easy to set-up.

This new system will cover the main functionalities needed for the business continuity management, principally for preparedness and response phases but also some aspects for prevention and recovery, such as:

- Forum & document repository;
- Instructions/checklists templates, implementation and follow-up;
- Potential impact description;
- Different communication means (web pages, portals, emails, sms, pda, ...);
- Communication tracking;
- Logbook.

The system could use a wide range of means of communication such as web pages, emails, sms and RSS feeds. It could also be made available on alternative devices such as tablet pc or pda.

Reusable software components in the area of Crisis Management and Civil Protection

The scope of this action also includes the identification of existing systems and/or components used at other institutions and Member States in the area of Crisis Management. Argus, the communication tool used at the Commission for crisis management, will also be part of the study.

Based on the collected information, components eligible for re-use and missing components will be identified. After implementation they will be made available to institutions and members states national administrations.

Within the interoperability context the possible evolution or concretisation of existing standards, such as OASIS CAP, EDXL will be examined.

2.10.4 PROBLEM/OPPORTUNITY STATEMENT

In the domain of business continuity and crisis management the following relevant issues are faced:

- Non-usage of common procedure, standards and tools among the key players from EC and Member States;
- No information on cross-sector and cross-border interoperability between the existing systems;
- Lack of information on existing reusable and reliable multichannel messaging and message tracking solution to be used in case of a BC event or crisis.

In the last years a significant effort was made at EC to develop some communication tools for Business Continuity and crisis management and these tools showed technical excellence and eligibility for reuse. Sharing these solutions with Member States and potentially reusing their proven solutions is in line with the objectives of the ISA programme. Business and crisis process have a lot of standard or generic elements, which could have been implemented with some generic components.

The European Commission's internal ARGUS system facilitates internal coordination and timely communication throughout the duration of crises occurring within and outside the EU. ARGUS also allows the European Commission to make an effective contribution as part of the EU Crisis Coordination Arrangements (CCA), exchanging information with the Council and Member States.

Interest in the usage of both Crisis and BC management systems has already been shown by different agencies and institutions.

2.10.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
European Commission services and Member States' public administrations	<ul style="list-style-type: none"> - Free to use open source tools for implementing crisis and business continuity processes, for which maintenance and further development are guaranteed; ○ Better integration of crisis and business continuity IT Systems; ○ Better messaging and better tracking of messages; ○ Solid, scalable and extensible interoperability platform; ○ Increased level of cooperation between stakeholders from EC and Member States; ○ Shared experience and support for setting up the crisis and business continuity management tool.

2.10.6 ORGANISATIONAL AND TECHNICAL APPROACH

A Project Steering Committee will be established to provide overall guidance and direction for the project, which will have members from all concerned stakeholders. A working group will also be established with the Member States.

The first phase of the action will cover the inception and will have as output a feasibility study and the project charter.

The feasibility study will define how the existing IT systems used in business continuity and crisis management at EC and in Member States could benefit of the reusability and information exchange capabilities. This could also support the implementation of standards in crisis and business continuity management (e.g. OASIS CAP).

The study will also identify the best reusable solutions for common technical issues, particularly related to messaging, message tracking and interoperability, if needed, propose new or combined solutions to support the crisis and business continuity processes.

The feasibility study may identify a need for services (and not only components) from a common infrastructure supporting specified needs in the domain of crisis and business continuity management.

The feasibility study will also identify potential clients for these solutions based on existing systems in production or still in a project phase.

The project charter will detail the different phases needed to cover the identified needs.

The project teams will work using the RUP@EC methodology for software development and ITIL for service management.

The key point of the chosen approach consists in:

- the study of some existing information systems at the European Institutions and in Member States administration to identify valuable know how, reusable components, components to be developed and possible data exchange flows;
- the adoption of an incremental development process which progressively makes available the support of more complex interaction;
- the re-use of best practices and existing implementation as well as the reference to existing standards that have been already developed.

2.10.7 COSTS AND MILESTONES

2.10.7.1 Breakdown of anticipated costs and related milestones

Phase:	Description of milestones reached or to be reached	Anticipated allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Inception	Feasibility study & project charter	300	ISA	Q2/2010	Q1/2011

Phase:	Description of milestones reached or to be reached	Anticipated allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Inception	Extend Feasibility study with PoC's of identified building blocks	100	ISA	Q2/2011	Q1/2012
	Total	400			

2.10.7.2 Breakdown of ISA funding per budget year

Budget Year	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010	300	300
2011	100	100
2012		
2013		
2014		
2015		

2.10.7.3 ANNEX AND REFERENCES

Description	Reference link
Commission Staff Working Document - Framework for Business Continuity Management in the Commission	SEC(2006)898
Commission Decision on Provisions for Setting-up the ARGUS General Rapid Alert System	C(2005)5306
ARGUS Vision Document	<<no ref >>
Community Capacity in Crisis Management (C3M) Interservice Group - Inventory of crisis management capacities in the European Commission and community agencies	http://critechportal1.jrc.it/c3m/tabid/90/Default.aspx?ItemID=426&ModID=534
OASIS CAP	http://www.oasis-open.org/committees/tc_home.php?wg_abbrev=emergency

2.11 PROMOTING CONSISTENT EU E-PROCUREMENT MONITORING

2.11.1 CONTEXT

2.11.1.1 Identification of the action

Type of Action	Study
Type of Activity	Common framework
Service in charge	DG MARKT
Associated Services	DIGIT.B4, CONNECT, ENTR.D4

2.11.2 OBJECTIVES

The project is part of a comprehensive plan of co-ordinated actions designed to make available to MS a coherent set of information assets supporting e-Procurement and EU-wide cross-border accessibility to such operations. The ultimate goal is to foster convergence of independently designed e-Procurement solutions towards models ensuring wide cross-border and SME accessibility.

Within the overall plan, this ISA action is to define and test the indicators and a method for monitoring e-Procurement use and performance consistently across the EU.

2.11.3 SCOPE

A key impediment to wide accessibility across the EU to the existing e-Procurement platforms is the proliferation of different national/regional e-Procurement approaches, which due to their very diversity (e.g. in terms of access and the demands they place on suppliers) are hindering companies (especially SME) from responding to tendering opportunities on multiple platforms. The envisaged work fits within the logic and rationale of the EIS. Technology itself poses no technical barriers to building pan-European EIF-compliant e-Procurement services, but uncoordinated deployments continue to prevent cross-border procurement. The information tools that will be produced aim to:

- identify common barriers to participation in cross border e-Procurement;
- develop common tools and approaches to overcome these obstacles;
- develop and share with the MS greater capacity to monitor e-Procurement developments.

2.11.4 PROBLEM/OPPORTUNITY STATEMENT

E-Procurement involves handling the government purchasing phases using electronic communication and processing, thereby achieving efficiency and cross-border participation while fulfilling legal and procedural requirements. The vision driving the EU policy has been that any economic operator can, through a PC with an Internet connection, compete for government contracts published anywhere in the EU. This is a powerful vision, but experience to date shows that its actual delivery is very challenging for a range of business, practice and change-management reasons. There is a need for a continued strong EU dimension to support the generalised deployment of e-Procurement given the expected benefits, to prevent that the use of functionally different e-Procurement systems across the EU create new barriers to cross-border procurement.

2.11.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States' public administrations	EU public offices will receive information support tools in designing fully EIF-compliant e-Procurement operations, enabling cross-border access and interoperability. This will increase the general uptake of e-Procurement and level of SME inclusion.
Procurement authorities	National procurement authorities will acquire greater capability to monitor e-Procurement developments in their domestic markets, setting out the conceptual foundation for drawing up their own policy and plans. In addition the performance monitoring system will naturally evolve to a system for monitoring procurement as a whole once the obligation for the contracting authorities to use electronic means comes into force (this obligation is foreseen in the procurement legislative reform underway.)
Software industry and IT service markets	By providing a coherent model for implementing e-Procurement operations within the broader EU Interoperability framework, we will offer to industry and services market a much clearer reference scenario to define their own strategies. The availability of tools for EU-wide comparable measurement will enable software and service industry to improve their offer.
European Commission Services	The project deliverables will complement and reinforce the actions that other EC services are carrying out in other dimensions of the e-Procurement domain (R&D, policy support action, internal procurement).

2.11.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
2010-2013 ICT standardisation work programme	The project will result in a blueprint for widely-accessible e-Procurement solutions that is going to facilitate the identification of gaps to be filled by the implementation of new standards.
Various ICT R&D actions in particular the forthcoming e-SENS project within DG CONNECT PSP programme	The above-mentioned blueprint will serve as a reference framework to draw up work plans for developments in e-Procurement related projects (in particular e-SENS) that are really relevant.
Upcoming multi-stakeholder forum on e-Procurement and e-Invoicing and COM initiative to set out reference implementation approaches	The project deliverables will set up an important starting point for harmonisation of the EU e-Procurement practices
Modernisation of procurement directives (on-going)	The project will flank the legislative action with coordinated measures to facilitate wide adoption of the revised framework.
ISA Action 1.6 – PEPPOL Sustainability (CIPA)	ISA Action 1.6 promotes the reuse of infrastructure tools developed by the PEPPOL project to meet the requirements of European Public Administrations. The two actions combined will result in a coherent set of requirements to be met by the Commission when implementing its pre-awarding e-Procurement operation.
ISA Action 1.7 – ePRIOR	The two combined actions will result in a coherent set of requirements to be met by the Commission when implementing its pre-awarding e-Procurement operation.

2.11.7 ORGANISATIONAL APPROACH

2.11.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives

Stakeholders	Representatives
e-Procurement authorities in the MS	Senior MS procurement agency representatives within the EXPP and its technical arm for e-Procurement, the epWG
e-Procurement operation managers	These are being directly targeted by the project team by means of specific questionnaires and interviews as the main source of information for the study
Software industry	Software industry is targeted by the project team by means of specific questionnaires and interviews
Application services providers	A panel of business expert has been set up within the project in July 2012 grouping representatives of e-Procurement operations in the EU plus market/business specialists. They are being convened at planned stages to advise on the main decisions to be made in the project. The panel is expected to be enlarged to contracting authorities.

2.11.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
EXPP meetings	Senior MS procurement agency representatives	4 per year
epWG meetings	Senior MS procurement agency representatives specialising in e-Procurement	4 per year
Press statements and other Commission communications	Procurement community at large; policy makers	Frequency to be decided as appropriate
Annual conference on e-Procurement	Procurement community at large; policy makers	Annual

2.11.7.3 Governance approach

The project is being run by DG Markt C.4 via the following decision levels:

1) Overall action planning – The overall strategy has been defined by the Commission in its communication to the EP, the Council, the European Economic and Social Committee and the Committee of the Regions, "A strategy for e-Procurement" - COM(2012) 179 final. This communication has been further reinforced by the 2013 Commission Communication on end-to-end procurement and e-Invoicing to modernise the public administration.

The strategy builds upon the e-Procurement provisions contained in the legislative proposals adopted by the European Commission in December 2011, which would replace the existing legislative framework. Besides new streamlined rules enabling more efficient, open e-Procurement solutions, the proposal foresees a gradual transition towards full electronic means of communication. These would become mandatory for some procurement phases and for some actors by established deadlines. Central Purchasing Bodies should in particular move to full electronic means of communication, including electronic submission of bids (e-submission) prior to other contracting authorities. To support fast and convergent implementation of this strategy, the communication defines flanking actions which this project is part of.

2) Policy level - All the decisions made in the project will be reviewed and agreed upon within the policy makers in the procurement domain within the EXPP and epWG, consulted at regular intervals. Representatives in particular will be asked to mobilise national stakeholders to help Com identify and share goals and approach.

3) Market/business level – As part of the project, the contractor has set up various channels (including a panel of business experts) to regularly consult, at planned stages of the project's work plan, with industry, services providers and representatives of the MS in order to draw up and test with business players the main decisions to be made in the project.

4) Action level - Technical tasks have been entrusted to the contractor under the day-to-day management of DG MARKT C.4 team.

2.11.8 TECHNICAL APPROACH

Overview of the status and plans for the whole ISA Action

This ISA action is midway through. The action has designed a first set of indicators for e-Procurement and tested them with a number of EU platform providers who have agreed to participate.

As a result of this exercise, the action refined the indicators, data model and exchange protocols used to extract the information from the tested platforms and a new testing phase will be started. The test group will be enlarged to include in the sample more MS, more business approaches and different system architectural approaches. In addition, the contractor is going to update the information on the state of play.

In the subsequent work phase, to be covered by ISA 2014 budget, the Commission will try to extend the experiment to the largest possible number of MS via an operational test, consolidate

the assets produced and gather MS agreement on starting up a permanent monitoring process. To make this possible, the Commission will submit the project outcome (i.e. indicators, data models to be supported by systems and exchange protocols for such business data) to the EU standardisation process. Standardisation is necessary to ensure that the project assets obtain EU wide industry recognition and become immediately available to all the EU players, i.e. beyond the limited sample of users who experimented them. We will seek collaboration with Eurostat to align the data model with the EU statistical requirements. Finally, as part of the activities to enforce the Procurement legislative proposal that will enter into force, the Commission will align the data model with the notice forms for publication on TED of contract notices, contract award notices and others.

Approach to Monitoring e-Procurement

One of the necessary conditions for EU and national policy-makers to be able to accompany and steer the take-up of e-Procurement is the capacity to track developments and measure the impact of change. This capacity is currently very limited, although e-Procurement platforms embed by design business data monitoring functionality.

The Commission decided it was time to find ways of harmonising this business data monitoring functionality via a pragmatic approach that would bring around the table e-Procurement players to agree upon data structures and to test their capability to draw the information needed out of the data held in their databases.

A Tender notice (2011/S 142-235043 of 27/07/2011, lot 1) was published in September 2011 covering phase 1 of this ISA action within the 2011 ISA workplan. With this project, which started in January 2012, the Commission:

- collected updated information on the current state of development of e-Procurement;
- defined a strategy and the means to make the collection of this information increasingly automatic;
- started to test to which extent existing platforms can produce homogeneous business data;
- start discussion with the standards-makers for collaboration on e-Procurement indicators.

The contractor mapped the e-procurement landscape across the Member States, collected business data (amount of transactions performed electronically, evolution of profiles of participants / winners, cost benefits, etc.) with questionnaires and interviews, tested ways of extracting this information directly from e-Procurement systems and informed the Commission on an ideal set of e-Procurement indicators that could be derived from e-procurement platforms.

This task finished in June 2013, with a delay against the previous ISA action schedule due to the complexity of the exercise that turned out to exceed our initial expectation. However the outcome of the project is satisfactory and demonstrates that, with increasing collaboration of the EU platforms, we can extract an increasing amount of business data directly from the systems; this means that increasing parts of statistical data needed by e-Procurement policy makers, from

year to year, will be available with no human intervention and the information to be collected via interviews or questionnaires carried out by consultants will decrease accordingly.

Approach to trialling the e-Procurement performance indicators

This task corresponds to phase 2.a and 2.b of of this ISA action within the ISA 2013 workplan.

Due to the delay of Phase 1, this task has not yet started, but it is now about to start.

The task, on completion of the study on the performance indicators carried out under phase 1, aims to test automatic extraction of business data in a trial exercise involving the EU procurement operations and the Member States that have agreed to participate.

The contractor will support the Commission and its partners concerned in the MSs in establishing a first experimental process for e-procurement performance measurement providing the following support activities:

- overall management (planning, monitoring and reporting covering each single operation involved);
- information dissemination (supporting the Commission in the communications with its partners in the MS in preparation for the trial; preparation of detailed guidelines and information material on how to carry out the trial);
- on-field technical/managerial support to the organisations involved in the trial.

The delay of phase 1 mentioned above has determined a shifting of the breakdown of the ISA funding as approved last year.

ISA 2012 funding has not been used and the task will be funded with 2013 ISA budget.

Approach to consolidation of the e-Procurement performance indicators

This is the subject of the present request for ISA funding for 2014.

On conclusion of the trial previously described, the Commission will:

1. Consolidate the findings of the trial and finalise all the resulting specifications;
2. Involve the largest possible number of Member States and e-Procurement operations in the Member states in an experimental operational test;
3. Roll-out the system and repeat the tests;
4. further refine the indicators, data model and exchange protocols based on the findings of the operational test;
5. build EU standards to ensure that indicators, data models to be supported by system and exchange protocols for such business data acquire a real pan-European dimension, i.e. beyond the limited sample of users who tested them;
6. align the data model with the EU statistical requirements;
7. align the data model with the notice forms for publication on TED of contract notices, contract award notices and others

The project will be carried out as part of the previously illustrated contract awarded in 2011. The Commission will simply order the second contractual extensions available, conditional upon viability of the findings of the trial, agreement of the Member States as well as availability of ISA funding for financial commitment.

Implementing actions

In 2014, the Commission will pursue the convergence of the various actions initiated under the global plan and the outcome of this ISA action to provide a comprehensive framework for e-Procurement operation planning and design. The framework will assist policy makers, contracting authorities and industry to make informed decisions.

Current DG MARKET plans involve the development of support tools for e-procurement designers/planners and policy makers. Deliverables involve a detailed study on a comprehensive standardisation mandate (a new generation of accessibility standards for pre-awarding operations are envisaged), business/ operational and technical guidelines for setting up e-procurement operations, operational support for the COM and the MS to implement the operational performance measurement process integrated with the regulation on public procurement notices.

2.11.9 COSTS AND MILESTONES

2.11.9.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Study - Phase 1 (monitoring)	Review and mapping of EU e-Procurement infrastructure identification of feasible indicators	300	ISA	Q3/2011	Q1/2013
Study - Phase 2.1 (monitoring)	Trial of e-Procurement monitoring system	200	ISA	Q3/2012	Q3/2013

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Study - Phase 2.2 (monitoring)	Trial of e-Procurement monitoring system	191	ISA	Q3/2013	Q3/2014
Study Phase 3 (consolidation)	Operational trial and standardisation	191	ISA	Q3/2014	Q3/2015
Study - Phase 4 (implementation)	Implementation actions	200	ISA	Q4/2015	Q4/2016
	Total	1.082			

2.11.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in EUR)
2010			
2011	Study - Phase 1 (monitoring)	300	279
2012	Study - Phase 2.1 (monitoring)	200	0
2013	Study - Phase 2.2 (monitoring)	191	
2014	Study - Phase 3 (consolidation)	191	
2015	Study - Phase 4 (implementation)	200	

2.11.10 ANNEX AND REFERENCES

Description	Reference link	Attached document
Summary of the Green Paper responses:	http://ec.europa.eu/internal_market/publicprocurement/eprocurement/consultations/index_en.htm	
Expert Group: Terms of Reference and call for applications:	http://ec.europa.eu/internal_market/publicprocurement/eprocurement/expert/index_en.htm	
Terms of Reference for the e-Procurement monitoring and benchmarking study (notice 2011/S 142-235043 of 27/07/2011):	http://ec.europa.eu/dgs/internal_market/calls_en.htm	
Commission communication to the EP, the council, the European Economic And Social Committee and the Committee Of The Regions, "A strategy for e-Procurement" - COM(2012) 179 final.	http://ec.europa.eu/internal_market/publicprocurement/docs/eprocurement/strategy/COM_2012_en.pdf	
Communication from the Commission to the European Parliament, the Council, the European Economic And Social Committee and the Committee of the Regions on End-to-end e-Procurement to modernise public administration	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2013:0453:FIN:EN:PDF	

2.12 E-HEALTH EUROPEAN INTEROPERABILITY FRAMEWORK (FUNDING CONCLUDED)

2.12.1 CONTEXT

2.12.1.1 Identification of the action

Type of Action	Study
Type of Activity	Common Frameworks
Service in charge	CONNECT H1
Associated Services	DG MARKT.C4 - DG ENTR.D4

2.12.2 OBJECTIVES

This action directly relates to action 2.12 of the ISA work program which is to establish an interoperability framework for European Cross border eHealth projects on the basis and under the umbrella of the EIF. The overall objective of this eHealth European Interoperability Framework is to define, agree on and share a common set of standards (including semantic standards), technical specifications, profiles, guidelines, testing tools and procedures, quality management system, certification scheme, roles, responsibilities and processes that would be used by all stakeholders involved in the design, development, deployment, operations and maintenance of eHealth Systems in Europe.

Before agreeing on which standards and specifications should be part of the eHealth EIF, those standards, developed by leading fora and consortia, need first to be recognised. Action 2.2 of the ISA work program provides guidance on a common assessment method for standards and specifications (CAMSS), which we propose to directly apply for this action.

2.12.3 SCOPE

The proposal is in line with the sectoral based approach of the EIS. The action belongs to the "Interoperability Architecture" cluster, and should help elaborating a joint vision on interoperability architecture of eHealth and providing guidance on architecture domains where Member States share a common interest. The eHealth European Interoperability Framework will be developed under the umbrella of the European Interoperability Framework, and might also enrich and induce changes in the EIF.

2.12.4 PROBLEM/OPPORTUNITY STATEMENT

A specific action of the Digital Agenda is to "Foster EU-wide standards, interoperability testing and certification of eHealth systems by 2015 through stakeholder dialogue".

Phase I of Mandate 403 (Mandate to the European Standardisation Organisations CEN, CENELEC and ETSI in the field of Information and Communication Technologies, applied to the domain of eHealth) identified the need to develop profiles to ensure technical interoperability in the eHealth domain. Semantic Interoperability can only be achieved if eHealth systems developers and users agree on common semantic resources for different health domains, such as ontologies and terminologies, to be used. Interoperability at the organizational level will only be achieved if eHealth systems are implementing interoperable processes and functionalities.

In its communication COM(2011) 315 final, the Commission highlights the need to recognize the specifications developed by fora and consortia in order to be able to use them in public procurement, provided that these standards comply with a set of criteria based on the WTO principles, and which are the basis of the CAMSS.

2.12.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States, regional authorities	Will have a guidance to establish their own national or regional interoperability frameworks.
Systems developers	Will have a clear framework to develop interoperable systems.
Purchasers	Will have a clear framework to specify their needs and ensure the interoperability of the solutions they purchase.
Patients	Will benefit safer health care, of higher quality.

2.12.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
Digital Agenda	Action 77: Foster EU-wide standards, interoperability testing and certification of eHealth
European Standardization Policy	COM(2011)311, COM(2011)315 final
ISA Action 2.2 – CAMSS	The guidance on a Common Assessment Method for Standards and Specifications (CAMSS) provided by the ISA Action 2.2 was

Action / Policy	Description of relation
	taken into account in the design of the eHealth European Interoperability Framework from the ISA Action 2.12.
eHealth Governance Initiative	Coordination was established between ISA Action 2.12 and the eHealth Governance Initiative (eHGI) especially with its work package named "Interoperability, Standardization and Market".
eHealth Task Force	Area of interest: Cross-Border Interoperability
epSOS	The contractor of the ISA Action 2.12 was requested to liaise and interview the epSOS projects, particularly the technical and semantic work packages.
Hitch Project	ISA Action 2.12 also coordinated with the Hitch project which was about developing a vision of the ways interoperability and conformance testing of eHealth systems should be organised in Europe and beyond.
NoE in Semantic Interoperability	The contractor of the ISA Action 2.12 was requested to liaise and interview the Network of Excellence on Semantic Interoperability.
CIP-PSP	eHR-Q ^{TN}

2.12.7 ORGANISATIONAL APPROACH

2.12.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
Member States	eHealth Governance Initiative
EC	DG CONNECT H1, ENTR D, MARKT C4
epSOS	epSOS project coordinator
Consortia and fora	IHE, Continua Health Alliance, IHTSDO, EuroRec, HL7
SDOs	CEN, CENELEC, ETSI
Industry	eHealth Governance Initiative
Users	eHealth Governance Initiative

2.12.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
Inception meeting	EC, contractor.	
eHealth Governance initiative	EC CONNECT H1, WG on Standards, Interoperability and Markets.	End of the study.
Progress meetings	EC, contractor.	Every two months.
Final meeting	EC, contractor.	End of the study.

2.12.7.3 Governance approach

The contractor will be requested to:

- Liaise and interview the eHealth Governance Initiative WG on Standards, Interoperability and Markets;
- Liaise and interview the Network of Excellence on Semantic Interoperability;
- Liaise and interview the epSOS projects, particularly the technical and semantic work packages.

2.12.8 TECHNICAL APPROACH

The contractor will be required to propose a methodological approach and a plan to make the study. This methodological framework will include the understanding of key terms, concepts, regulatory and policy framework, the Common Assessment Method for Standards and Specifications, a clear plan for the study, multi-stakeholder interviews, list of experts and organisations to be interviewed, due diligence of Consortia processes, standards and rules, iterative approach, quality assurance, deliverable review process, risk management. The resources who will conduct the study will have the relevant experience in eHealth interoperability and EU standardization. If needed, the contractor will subcontract some tasks to experts in the domain.

2.12.9 COSTS AND MILESTONES

2.12.9.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
	Deliver the plan and methodological approach of the study	13,5	ISA	Q4/2011	Q4/2011
	Draft intermediate study report	186,5	ISA	Q4/2011	Q1/2012
	Second draft intermediate study report	100	ISA	Q1/2012	Q3/2012
	Final report and publication	100	ISA	Q3/2012	Q4/2012
	Total	400			

2.12.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010			
2011		200	200
2012		200	200

2.12.10 ANNEX AND REFERENCES

Description	Reference link	Attached document
eHealth Governance Initiative	http://ec.europa.eu/information_society/activities/health/policy/ehealth_governance_initiative/index_en.htm	
epSOS project	http://www.epsos.eu/	
Digital Agenda for Europe	http://ec.europa.eu/information_society/digital-agenda	

Description	Reference link	Attached document
eHT-Q TM	http://ehrqtn.eurorec.org/	
eHealth Task Force	http://europa.eu/rapid/pressReleasesAction.do?reference=IP/11/551&format=HTML&aged=0&language=en&guiLanguage=en	

2.13 ESTABLISHMENT OF A EUROPEAN UNION LOCATION FRAMEWORK (EULF)

This ISA Action 2.13 is complementary to ISA Action 1.17 A Reusable INSPIRE Reference Architecture (referred to as ARE3NA), which in combination focus on spatial information and services aspects within the ISA programme. Together they are scoped to provide public administrations with: This ISA Action 2.13 delivers strategic and technical guidance at all levels of interoperability; and ISA Action 1.7 delivers a re-usable platform and software tools; both within the realm of sharing and re-use of spatial information. Details on the relationship between are provided in the document Introduction to the ISA Actions on Spatial Information and services.

2.13.1 CONTEXT

2.13.1.1 Identification of the action

Type of Action	Project
Type of Activity	Common Frameworks
Service in charge	JRC.H06
Associated Services	ENV (F04), ESTAT (E04), DG MOVE, DG MARE, EEA

2.13.2 OBJECTIVES

The INSPIRE Directive⁴³ establishes an infrastructure for spatial information in Europe for the purposes of EU environmental policies and policies or activities which may have an impact on the environment. The infrastructure is a multi-purpose infrastructure for the exchange and sharing of spatial data, meaning that it can be used for other thematic sectors as well.

The objective of the project is to test the feasibility of the European Union Location Framework (EULF) concept, an EU-wide, cross-sectoral interoperability framework for the exchange and sharing of location data and services, compatible with the European Interoperability Framework (EIF) and the Digital Agenda for Europe⁴⁴ (DAE), based on INSPIRE.

The EULF concept is envisaged to consist of a package of case studies, specifications, guidelines, training materials, recommendations and actions required by public administrations and stakeholder communities to facilitate the implementation, use and expansion of INSPIRE in

⁴³ Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE)

⁴⁴ COM(2010)245 final

an e-government context. The EULF will set-up an open and interoperable framework that public authorities should use for their procurement. It will complement existing INSPIRE Technical Guidance documents to facilitate the introduction and use of the infrastructure in new thematic sectors.

The EULF project will assess the feasibility of re-using selected INSPIRE elements within a different e-Government context and evaluate the actual real-world need and viability of the EULF concept.

It is anticipated that the EULF project will set in place the foundation for the future open and interoperable framework that public authorities should use for their procurement and implementation of location information and services. It will recommend amendments to existing INSPIRE Technical Guidance documents to facilitate their introduction and use within new thematic sectors. The EULF will be architected to enable the implementation of cross-border applications through its focus on key interoperability improvements. In addition, the EULF project is intended to support improved coordination of the activities among the services within the Commission by describing a framework for analysis and action.

The EULF concept and project do not start from scratch. In fact, they build on extend on the results of both on-going and completed programmes and projects at national⁴⁵ ⁴⁶ and international⁴⁷ ⁴⁸ ⁴⁹ levels. The EULF project will include evaluating existing frameworks to assess their fitness for purpose and liaise with the organisations in charge.

Based on the intermediate results of this ISA Action 2.13 EULF, it has become apparent that there is a pressing need to pilot the EULF concept within a few policy areas. Two policy areas on which the EULF concept shall be tested are:

1. Transport policy domain: to include the Intelligent Transport Systems Directive.
2. Marine policy domain: within the context of the Marine Strategy Framework Directive.

A possible third policy area will be identified in collaboration with the ISA Working Group on Spatial Information and Services.

These pilots will assess and verify the feasibility of the EULF concept and define the platform and tool requirements which will then be developed within by ISA Action 1.17 ARE3NA.

2.13.3 SCOPE

Based on the experience gained during the initial engagement with key-stakeholders in 2012 and 2013, the scope of the EULF Action has been revised to better reflect the needs and

⁴⁵ UK Location Framework, <http://location.defra.gov.uk/>

⁴⁶ GIDEON – Key geo-information facility for the Netherlands, <http://www.rijksoverheid.nl/>

⁴⁷ EuroGeographics, <http://www.eurogeographics.org/>

⁴⁸ European Spatial Data Infrastructure with a Best Practice Network (ESDIN), <http://www.esdin.eu/>

⁴⁹ United Nations programme on Global Geospatial Information Management, <http://ggim.un.org/>

expectations. Specifically, the project has been re-focused to prioritise the testing of the feasibility of the EULF concept.

Included in the scope are the following aspects:

- Alignment in the use of location information and INSPIRE in EU policy areas and Member State e-Government strategies;
- United Nations Expert Group on the Global Geographic Information Management
- Development of the interoperability framework concerning aspects related to the exchange and sharing of location data and location services in Member State e-Government services, including cross-border services;
- INSPIRE Directive and related Implementing Rule Legal Acts;
- Input to the INSPIRE policy evaluation project revision of the INSPIRE Directive (2014);
- Link to SEIS Implementation Plan;
- EIS/EIF alignment;
- Recent open data initiatives such as the EU open data portal;
- Linked open data / Internet of Things;
- Volunteered Geographic Information / crowd sourcing;
- Use of standards and other measures to promote interoperability; interaction with standardisation organisations;
- Link to maintenance of the INSPIRE legal acts and Technical Guidance documents;
- Cloud computing;
- Governance of the EULF.
- Cost and benefits
- Testing the feasibility of the EULF concept using pilots within the Transport and Marine policy sectors.

2.13.4 PROBLEM/OPPORTUNITY STATEMENT

COM(2010) 744 mentions the INSPIRE Directive (2007/2/EC) and the related Implementing Rules Legal Acts as a sectoral example of interoperability in the area of the environment. Due to the nature of INSPIRE, its 700 stakeholder organisations are involved not only in the environmental sector, but in a large number of other sectors as well – ranging from transport to health to energy to utilities and the military. There is also a link with standardisation activities and the GI and service-provider industry.

This context creates excellent boundary conditions to create a EU location interoperability framework compatible with the EIF. This will be based on– albeit generalised – versions of the INSPIRE framework and technical guidance documents, the experience of those MS that are building INSPIRE into their national e-government frameworks, and on pan-European organizations and results of projects that have started activities around the concepts similar to the EULF⁵⁰.

⁵⁰ Including <http://www.eurogeographics.org/>, <http://www.esdin.eu/>, <http://www.eurogi.org/>

So far, a number of important steps are under way. Member States are making progress in implementing the INSPIRE Directive, and some of them are using INSPIRE as cross-sector infrastructure embedded in their e-government activities. Also, the INSPIRE Maintenance and Implementation Group (MIG) has started its activities. The formal UN expert group on Global Geospatial Information Management (GGIM) is in the process of producing reports on EULF-related topics that could impact Member States. Various European co-funded projects are developing interoperability solutions and services related to INSPIRE (e.g. the European Location Framework, eENVplus). Developments are also taking place on open data, standards, and common approaches to reporting and statistics. Member States are generating good examples on INSPIRE, e-Government and Open Data and these have the potential for wider adoption.

Many of these initiatives are in their early stages. Several concentrate on data supply and those that are general in nature require translation into specific approaches for location information. There is therefore a need to connect with these initiatives in a structured manner to develop a common, agreed, framework to target user needs, address barriers, share good practices, and promote the opportunities relating to the interoperability and use of location information.

2.13.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States authorities and agencies; European Bodies and Institutions	Increased awareness of the importance of interoperability A recognised and coherent location framework to facilitate the exchange and sharing of location data, as well as the development and procurement of location data, and -services.
Public sector users of location data and services	Better business processes (cross-sector and cross-border) Effective systems (ICT, SDI, business systems) Effective structures and governance (including links with other departments / e-Government) Effective skills (location competency) Reduced costs (helping achieve cost reduction targets)
Public sector providers of location data and services	Access to best practices, standards and guidelines Knowledge sharing with peers across the EU More effective partnering between related organisations and initiatives Cost savings from re-use and interoperability

Beneficiaries	Anticipated benefits
Citizens and businesses	<p>Better services (designed around their needs)</p> <p>Cost and time savings</p> <p>Better communication with government</p> <p>Better use of tax payers' money by government</p> <p>Increased transparency and participation</p> <p>Wider socio-economic benefits</p>
Private sector suppliers of location-related products and services	<p>More effective partnering with government</p> <p>Easier to introduce new products and offer cost effective services</p> <p>Access to wider markets through use of standards</p> <p>Impact on profitability and growth</p>
Research and academia	<p>Better access to interoperable information and reusable software</p> <p>More innovative and authoritative research</p>

2.13.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relationship
Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE).	Legal basis for the project.
Commission Regulation (EC) No 976/2009 of 19 October 2009 implementing Directive 2007/2/EC of the European Parliament and of the Council as regards the Network Services.	The project builds on the technical guidance of this regulation.
Commission Regulation (EU) No 1089/2010 of 23 November 2010 implementing Directive 2007/2/EC of the European Parliament and of the Council as regards interoperability of spatial data sets and services.	The project builds on the technical guidance of this regulation.

Action / Policy	Description of relationship
<p>Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, and the Committee of the Regions: A Digital Agenda for Europe - COM(2010)245 final.</p>	<p><i>DAE Action 21: Propose legislation on ICT interoperability</i></p> <p>Where relevant, the project results will provide recommendations for the revision of the INSPIRE Directive and for the Implementing Rules legal acts still under development.</p> <p>If successful, the project will clear the ground for a Commission Decision on the European Union Location Framework.</p> <p><i>Action 22: Promote standard-setting rules</i></p> <p>The results of this project will rely, where possible and feasible, on European and international standards, and will involve standardisation organizations.</p> <p><i>Action 23: Provide guidance on ICT standardisation and public procurement</i></p> <p>The resulting framework will contain specifications and guidelines that facilitate public procurement.</p> <p><i>Action 89: Member States to make eGovernment services fully interoperable</i></p> <p>EULF should consider reusing the already acquired know-how applying it for the development of the EULF location eServices.</p> <p><i>Action 92: Apply the Intelligent Transport System Directive in support of interoperability and rapid standardisation</i></p> <p>A potential contribution of the EULF could speed up the process and help achieve more accurate location-related results.</p>

Action / Policy	Description of relationship
Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, and the Committee of the Regions - Towards interoperability for European public services - COM(2010)744 final.	The project will directly contribute to COM(2010)744 final by facilitating interoperability for geospatial components in e-government contexts.
COM(2010)308 final Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions "Action Plan on Global Navigation Satellite System (GNSS) Applications".	The project will contribute to Action 17: The European Commission will promote the use of EGNOS and GALILEO in surveying in the Member States and third countries. The capabilities of EGNOS and GALILEO for improving the update of geographical databases will be explored by such means as exchanges of best practice and coordination among Member States.
Communication from the Commission to the European Parliament, the Council, and the European Economic and Social Committee - A strategic vision for European standards: Moving forward to enhance and accelerate the sustainable growth of the European economy by 2020 - COM(2010)0311.	The project will directly contribute to the realisation of the objectives of COM(2010)0311 by promoting the use of European standards.
Directive 2010/40/EU of the European Parliament and of the Council, 7 July 2010 on the framework for the deployment of Intelligent Transport Systems in the field of road transport and for interfaces with other modes of transport	The project will assess the feasibility of implementing key INSPIRE elements, specifically the INSPIRE Transport Network data theme, within the context of the directive including: priority action a) provision of EU-wide multimodal travel information services; and priority action b) provision of EU-wide real-time traffic information.
Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive)	This Action will help Member States in the implementation of selected upcoming INSPIRE-compliant reporting towards the EEA. Integration with EMODNET, including the identification of its INSPIRE relationship, is supported.

Action / Policy	Description of relationship
Thematic policies collecting or using location information	There are opportunities for better alignment in the collection and use of location information in different policy areas, including transport, marine, environment, agriculture, energy, health etc.
Interoperability Solutions for Public Administrations (ISA) Programme	Other actions in the ISA programme have synergies with the EULF, in particular the actions relating to Core Vocabularies, Base Registries, European Interoperability Architecture and the Reusable INSPIRE Reference Platform (ARE3NA). EULF and ARE3NA both relate to the implementation of the INSPIRE Directive, EULF from a policy and usage perspective and ARE3NA in providing technical components. EULF will support the definition and initial design of an INSPIRE-based interoperability pilot that will create and test re-usable solutions for legal, technical interoperability solutions for spatial applications.
UN-GGIM Europe (co-chaired by ESTAT)	This committee of experts provides input to the UN Committee on Geospatial Information Management and aims to influence policy and promote good practices.
ISA Action 1.1 – Promoting semantic interoperability amongst the European Union Member States	EULF aims to review semantic interoperability case studies from a spatial perspective, help define cross-border examples and re-use case studies.
ISA Action 1.17 – Reusable INSPIRE Reference Platform	Both Actions relate to the implementation of the INSPIRE Directive, where the EULF seeks to establish common understanding of the role of location/geospatial data in the public sector (and beyond) and where the ISA Action 1.17 will aim to provide the technical components to help foster INSPIRE's development within the geospatial data and broader ICT communities. Appropriate synergies will be sought with the EULF to maximise the efficiency and impact of both Actions.

Action / Policy	Description of relationship
ISA Action 2.1 – Elaboration of a common vision for an European Interoperability Architecture (EIA)	Discussions took place with the team working on ISA Action 2.13 (EULF) to see how the work performed on this action can inspire the Reference architecture model for the EIA that will be delivered by ISA Action 2.1.
European Location Framework	The ELF is developing a pan-European infrastructure and products incorporating harmonised core geospatial data aimed at making it easier to build cross-border applications. The project will also include a series of pilots in particular sectors. The ELF will therefore be an important stakeholder in identifying strategies and solutions to improve cross-border support mainly related to reference geospatial data. The EULF will be interested in potential use cases and demand for the ELF, and the pilots could potentially be used as case studies
eENVplus	eENVplus aims to integrate infrastructures and create an operational framework for cross-border sharing of environmental data, compatible with INSPIRE. The project will include a series of pilots to support various environmental scenarios and will develop a multi-lingual thesaurus framework, tools for data harmonisation and validation and a series of e-learning modules. All of these will be relevant in their own right to the EULF.
smeSpire	smeSpire aims to enable and encourage participation of SMEs in making environment content available, exploiting the opportunities afforded by INSPIRE and related technologies such as Linked Open data, Sensor Web and cloud computing. EULF will be particularly interested in its assessment of potential market and growth impacts afforded to SMEs and will take account of the barriers and opportunities identified in defining its guidance and actions. The smeSpire community could also be consulted on further considerations relevant to the EULF.

Action / Policy	Description of relationship
SmartOpenData	This project is developing a series of practical applications of Open Linked Data through five pilots in the field of environmental protection and research in order to exploit open data for policy making, to foster participation of citizens, to generate new products and services and to collaborate between researchers. The project will provide EULF with valuable case studies and lessons learned, as well as re-usable assets that may be exploited in wider contexts.

2.13.7 ORGANISATIONAL APPROACH

2.13.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
Services of the Commission	Inter-service group of relevant DGs, e.g. ENV, ESTAT, CONNECT, DIGIT, ENTR, MOVE, AGRI, MARE, ENER, etc.
INSPIRE	Regulatory Committee Maintenance and Implementation Group (MIG) Member States National Contact Points (NCPs) Legally mandated organisations (LMOs)
ISA	Committees, working groups, and Actions established under the ISA Programme ISA Working Group on Spatial Information and Services
ITS	ITS Committee ITS working groups
Other policy domains*	Committees, working groups
Standardisation bodies (CEN, ISO, OGC, W3C, OASIS, etc.)	Coordination groups, including relevant focus groups on e-Government
Pan-European interest groups, organisations and projects	UN-GGIM Europe, Open Source and Volunteer Geographic Information communities, research / academic groups, thematic expert groups, industry groups EuroGeographics, EUROGI FP7 & CIP projects: European Location Framework, eENVplus, SMEspire, SmartOpenData
EEA/EIONET, National environment agencies	EEA/EIONET national focal points (NFPs), National Reference Centres for Information Systems.
ESPON	ESPON secretariat.

* To be identified in cooperation with the ISA Working Group on Spatial Information and Services (c.f. section 1.1.2, last paragraph).

2.13.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
ISA Working Group Meetings	MS representatives	Twice yearly
Joint ISA-INSPIRE Working Group	MS and Commission representatives	1-2 times per year
EULF workshops	MS and Commission representatives, invited experts	3-4 times per year
INSPIRE Conferences	INSPIRE stakeholders	Once per year in June or July
INSPIRE Committee	INSPIRE committee members	As required to cast opinion on proposed IR legal acts and other matters related to INSPIRE
INSPIRE Member States Contact Points meetings	INSPIRE MSCPs	Once per year
INSPIRE Maintenance and Implementation Group and Sub-Group meetings	MS representatives and invited experts	To be determined
Meetings of relevant standardisation groups (CEN, ISO, OGC, W3C, ..)	Standards experts	2 - 3 times per year
European Conferences on eGovernment – ECEG	eGovernment	Once per year in June
Dedicated ePractice workshops	eGovernment	Once per year
EULF Public Consultation event	General invite	Q1/2014
INSPIRE/EU Location Conference 2015	INSPIRE stakeholders	2015-06 or 07
Meetings of the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM)	UN-GGIM members	Once per year
Meetings of UN-GGIM Europe	UN-GGIM Europe members	Twice per year
Ad hoc partner events, e.g. EUROGI, "Powered by INSPIRE", ELF, SMEspire, eENVplus, SmartOpenData	Organisers and participants	As required to promote and obtain inputs to the EULF
Digital Agenda Assembly	Invited stakeholders	Once per year

2.13.7.3 Governance approach

European Location Framework Expert Group

ISA Working Group on Spatial Information and Services

The Working Group will provide policy and technical advice on the role of spatial information in support of the Digital Agenda for Europe, with particular emphasis on policy alignment, integration of e-government services across sectors and borders, and development and adoption of common reusable technical components also relevant to INSPIRE.

Responsibilities:

The Group will:

- identify common challenges to, and good practices in, the application and use of location information and technologies
- promote the ISA Actions that are addressing spatial information and services (currently Action 1.17 Reusable INSPIRE Reference Platform and Action 2.13 European Union Location Framework) at the Member State level
- identify policy areas or initiatives where a more integrated, efficient or innovative approach to location information is required
- identify opportunities for INSPIRE assets to be reused in other thematic sectors beyond the environment, in line with Member States' e-government developments
- provide information on developments in e-government within their country that are potentially relevant for INSPIRE, including reusable technical components, missing items and opportunities for joint pilot or test activities, thereby reducing the burden on Member States for the development of tools
- provide feedback on results, guidelines and recommendations coming from the Actions
- advise on strategies for the future sustainability of the Actions.

In addition, the Working Group may be invited to identify initiatives at national level that could be coordinated and aligned with related EU actions, facilitating the follow-up of ISA work programme activities at the national level, including the communication of initiatives and results to the relevant organisations and/or persons.

As part of their activities, the Working Group members may, inter alia, also be invited to contribute to ISA Actions by providing input to and feedback on deliverables, by national information gathering, by communicating and explaining ISA results, by contributing to the identification of relevant stakeholders and by informing Working Group members about national interoperability initiatives.

Members

The Working Group will be chaired by the Commission and composed of one representative from each country participating in the ISA Programme alongside representatives of interested Commission services, including DIGIT, the Joint Research Centre, DG Environment, and Eurostat. The Commission will ensure the coordination with the Commission inter-service Group on Geographic Information (COGI).

Member State representatives shall be appointed by the ISA Committee members in coordination with the INSPIRE National Contact Points. The ISA Committee members shall notify any substitutions to the ISA Committee secretariat. Replacements should be kept to a minimum to maintain continuity.

Ideally, the Member States' representatives to the Working Group should have a good knowledge of the INSPIRE strategy and related activities in their country together with a good level of awareness of their cross-sector and cross-border interoperability aspects and eGovernment activities in their country.

Oversight of ISA Actions related to spatial information and services will rest with the ISA Committee, and decisions relating to INSPIRE – with the INSPIRE Committee.

JRC

The resources provided for this project will be complemented with institutional resources from JRC through the institutional actions ENABLE 11601 and SHAPE 11602 (until 2013) and I-EVOLV (from 2014 onwards). In particular, JRC will provide the chair for the ISA Working Group on Spatial Information and Services. Also, results of the JRC institutional work programme will feed into the EULF.

COGI

2.13.8 TECHNICAL APPROACH

(Completely revised based on feedback from Commission Services and stakeholders in the Member States that it is premature to propose new legal measures at this point in time)

The EULF deliverables will consist of a package of a number of elements, including:

- The EULF strategic vision;
- Assessment of the conditions of the EULF, which is a report on the analysis of existing and legal acts and gaps; and
- The *EULF Blueprint* which contains methodologies, specifications, guidelines and best practices in five focus areas (Policy and Strategy Alignment, e-Government Integration, Standardisation and Interoperability, Cost Benefit Focus, and Committed Partnerships).

The table below describes for each of the phases of the project what activities will be focussed on in relation to the mentioned focus areas.

Phase	(Focus area) Activity	Deliverable
Inception	(All focus areas) draft the baseline of the EULF strategic vision (Version 0) (e-Government Integration) Establish Joint ISA-INSPIRE Working Group	EULF Strategic Vision v0 Minutes of the ISA Working Group on Spatial Information and Services
Inception	(All focus areas) Analysis of existing legal acts and gaps in the area of spatial information and e-government; (e-Government Integration) e-Government and location survey to understand current state of play and identify best practices	Report on the Assessment of the conditions of the EULF Report on EULF input to the INSPIRE Policy Evaluation process (review of the INSPIRE Directive)
Inception	Organise feedback from Commission services and key stakeholders on the EULF Strategic Vision v0	EULF Strategic Vision v1
Inception	(Policy and Strategy Alignment) Raise awareness and guide to policy DGs (e.g., DG MOVE, DG MARE, DG AGRI) in the alignment of their activities with INSPIRE	Report on recommendations for the use of location in the cross-sector specifications – as part of the EULF Blueprint v1, to include the focus areas of Cost Benefit and Committed Partnerships.
Inception	(Standardisation and Interoperability) Promote cooperation between GI and ICT standards communities; Work with CEN/TC 287 to review GI and e-Government standards; Promote use and extension of INSPIRE Technical guidance documents; Share outputs / lessons on use of open standards / solutions	Input to EULF blueprint v1 and to CEN/TC 287 Work Item on CEN/TR 15449 part 6: e-Government
Execution	(All focus areas – preparation of pilots for verification of the EULF for the marine community): <ul style="list-style-type: none"> • Preparation of the Marine pilot, including establishing the links with the relevant stakeholder community (e.g., MSFD, CISE Action⁵¹, EMODNET, Transport, ...). • Evaluation and integration of the relevant ISA Actions results and recommendations. • Identification of potential synergies with other policy domains concerning location. 	Report on the legal, organizational, and semantic requirements in preparation of the Marine pilot

⁵¹ The CISE Action focuses more on the management of data for the surveillance of ship movements, whereas this pilot will focus on the wider marine context.

Phase	(Focus area) Activity	Deliverable
Execution	<p>(All focus areas – preparation of pilot for verification of the EULF for the transport sector):</p> <ul style="list-style-type: none"> • Preparation of the transport pilot, including establishing the links with the relevant stakeholder community (e.g., ITS Committee & WGs, ERA, TN-ITS deployment platform, UIC, ...). • Evaluation and integration of the relevant ISA Actions results and recommendations. • Identification of potential synergies with other policy domains concerning location. 	Report on legal, organisational, and semantic requirements in preparation of the Transport pilot
Execution	Organise Public and stakeholder consultation; process feedback on the EULF Strategic Vision by the ISA Working Group on Spatial Information and Services	EULF Strategic Vision v2
Execution	<p>(Policy and Strategy Alignment, Standardisation and Interoperability, Cost Benefit Focus) Development of the EULF blueprint which is a structured set of reference material on methodologies, specifications, guidelines and best practices. This is based on the concrete outcomes (legal, organizational, and semantic) of the pilots. This includes:</p> <p>(e-Government Integration) Identify and publish best practices and guidelines (e.g. procurement)</p> <p>(Committed Partnerships) Introduce EC-level strategic and operational coordination on agenda of the Commission Inter-service Group on Geographic Information (COGI); develop joint EULF/ ARE3NA-INSPIRE Communications Strategy and Plan; provide input to the INSPIRE Maintenance and Implementation Framework and State of Play reports; establish roles and relationships with UN-GGIM Europe and EU-funded activities (ELF, e-EnvPlus, smeSpire, smartOpenData, etc.).</p> <p>(Cost Benefit Focus) Conduct cross-sector and cross-border studies to assess benefits of consistent use of location information and services; Share best practices in business cases / benefit realisation; and organise a EULF e-Practice workshop or a session at the Digital Agenda Assembly.</p>	EULF Blueprint v2

Phase	(Focus area) Activity	Deliverable
Execution	(All focus areas – <u>preparation of pilots for verification of the EULF for the marine community</u>): Develop ad-hoc methodologies to streamline the identified ICT/marine policy requirements on data collection, sharing, provision. This work will use the intermediate results of the EULF and other, EU-funded, projects.	Report on the detailed system requirements for the implementation of the marine pilot (input to ARE3NA) Input to the EULF blueprint v2
Execution	(All focus areas – <u>preparation of pilots for verification of the EULF for the transport sector</u>): Develop ad-hoc methodologies to streamline the identified ICT/transport policy requirements on data collection, sharing, provision. This work will use the intermediate results of the EULF, EU-funded, projects.	Report on the detailed system requirements for the implementation of the transport pilot (input to ARE3NA) Input to the EULF blueprint v2
Execution	(All focus areas) Further development of the EULF Blueprint with reviews and plans in additional policy areas and further guidelines and models in key areas, including information policy, user involvement, funding and governance. Takes into account feedback from consultations as well as results from the pilots.	EULF Blueprint v2 EULF Roadmap

There is a correspondence between the focus areas mentioned above and the interoperability levels as defined within the European Interoperability Framework. The figure below is a simplified representation of this relationship.



Integrating with the European Interoperability Framework – interoperability levels

The Inception phase runs from July 2012 to June 2014 and the Execution phase from July 2014 to December 2015.

The State of Play Assessment and EULF Strategic Vision deliverables are underway. In addition the ISA Working Group on Spatial Information and Services has been formed with the initial meeting scheduled in mid-October. Collaborative arrangements with DG MOVE have been strengthened with particular emphasis on supporting the development of ITS Directive

specifications for the provision of EU-wide multimodal travel information services and provision of EU-wide real-time traffic information services as far as location is concerned.

2.13.9 COSTS AND MILESTONES

2.13.9.1 Breakdown of anticipated costs and related milestones

Note: The milestones for this action have been updated to reflect actual conditions on the project.

Phase: Inception Execution	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)	Status
Inception	EULF Strategic Vision v0*	250	ISA	Q1/2013	Q3/2013	Completed
Inception	EULF Expert Group ISA Working Group on Spatial Information and Services*** Kick-off meeting	25	ISA	Q4/2013	Q4/2013	16-17/10/2013
Inception	Report on EULF input to the INSPIRE Policy Evaluation process (review of the INSPIRE Directive)**	50	ISA	Q4/2013	Q2/2014	Started; to be completed in 2013
Inception	EULF Strategic Vision v1	100	ISA	Q3/2013	Q1/2014	Started; to be completed in 2014
Inception	Recommendations for the use of location in the technical specifications, e.g., for the ITS Delegated Act	50	ISA	Q3/2013	Q1/2014	To be completed in 2014

Phase: Inception Execution	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)	Status
Inception	Public and stakeholder consultation on the EULF Strategic Vision v1	25	ISA	Q4/2013	Q2/2014	To be completed in 2014
Execution	Feedback on the EULF Strategic Vision by the ISA Working Group on Spatial Information and Services	25	ISA	Q2/2014	Q2/2014	
Execution	Report on the legal, organizational, and semantic requirements in preparation of the Marine pilot	200	ISA	Q2/2014	Q4/2014	
Execution	Report on legal, organisational, and semantic requirements in preparation of the Transport pilot	100	ISA	Q2/2014	Q4/2014	Activity under way for Transport Sector
Execution	EULF Strategic Vision v2 EULF Blueprint v1 (with a focus on policy, standards and benefits reviews, case studies, best practices and guidelines) and Roadmap	250	ISA	Q2/2014	Q3/2014	To start in 2014
Execution	ISA Working Group on Spatial Information and Services meeting	25	ISA	Q3/2014	Q4/2014	To start in 2014

Phase: Inception Execution	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)	Status
Execution	Report on the detailed system requirements for the implementation of the marine pilot (input to ARE3NA)	(resources to be defined for WP 2015)	ISA	Q4/2014	Q1/2015	
Execution	Report on the detailed system requirements for the implementation of the transport pilot (input to ARE3NA)	(resources to be defined for WP 2015)	ISA	Q4/2014	Q1/2015	
Execution	Updated EULF Blueprint v2 (with reviews and plans in additional policy areas and further guidelines and models in key areas, including information policy, user involvement, funding and governance) and Roadmap	200	ISA	Q2/2015	Q3/2015	To start in 2015
Execution	Feedback from ISA Working Group on Spatial Information and Services and other policy groups (ITS, ...)	50	ISA	Q3/2015	Q4/2015	To start in 2015
Execution	Updated EULF Blueprint and Roadmap with updates of ISA Working Group on Spatial Information and Services.	200	ISA	Q3/2015	Q4/2015	To start in 2015
	Total	1525				

* Was EULF Version 0 in WP2012. The EULF Strategic Vision V0 has been written to describe vision and direction of the overall EULF concept and is expressly not intended to define the scope of work to be delivered as a result of this action. It will be used to facilitate discussion with

key stakeholders, such as the ISA Working Group on Spatial Information and Services. This document defines the scope of work to be delivered by the EULF project.

** The survey and public consultations related to the EULF is expected to generate reference material for the INSPIRE Policy Evaluation process.

*** An EULF Expert Group was planned to be formed in Q3/2012 and as a result of discussions with ISA, instead an ISA Working Group on Spatial Information and Services has been formed with its initial meeting scheduled for Q4/2013.

2.13.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2011			
2012	Study/Inception	300	300
2013	Inception	175	
2013	Execution	250	
2014	Execution	625	
2015	Execution	175	

2.13.10 ANNEX AND REFERENCES

Description	Reference link
Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE)	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32007L0002:EN:NOT
INSPIRE Metadata Regulation	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32008R1205:EN:NOT
Commission Regulation amending Regulation (EC) No 976/2009 as regards download services and transformation service	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:02009R0976-20101228:EN:NOT

Description	Reference link
COMMISSION REGULATION implementing Directive 2007/2/EC of the European Parliament and of the Council as regards interoperability of spatial data sets and services	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:323:0011:0102:EN:PDF
COMMISSION REGULATION amending Regulation 1089/2010 as regards interoperability of spatial data sets and services	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32011R0102:EN:NOT
Technical Guidance for the implementation of INSPIRE Discovery Services	http://inspire.jrc.ec.europa.eu/documents/Network_Services/TechnicalGuidance_DiscoveryServices_v3.0.pdf
Technical Guidance for the implementation of INSPIRE View Services	http://inspire.jrc.ec.europa.eu/documents/Network_Services/TechnicalGuidance_ViewServices_v3.0.pdf
Design Principles for UKLII	http://location.defra.gov.uk/wp-content/uploads/2010/04/UKLP-Design-Principles.pdf
Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE)	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32007L0002:EN:NOT
European Union Location Framework – Strategic Vision Version 0	To be published on http://ec.europa.eu/isa/actions/02-interoperability-architecture/2-13action_en.htm

2.14 ASSESSMENT OF TRANS-EUROPEAN SYSTEMS SUPPORTING EU POLICIES

2.14.1 CONTEXT

2.14.1.1 Identification of the action

Type of Action	Study
Type of Activity	Common Frameworks
Service in charge	DIGIT.B.2
Associated Services	CONNECT.H.3, DIGIT.01, DIGIT.B, MARKT.B.1 and TAXUD.R.4

2.14.2 OBJECTIVES

The European Commission is implementing an overall strategy to rationalise and streamline the IT systems it develops, maintains and operates. Such process is also on-going in Member States at their national or even regional levels. All sorts of IT systems in the Commission are to be examined in the light of this rationalisation strategy. This concerns both internal IT tools for administrative purposes and external IT tools used to implement EU policies in Member States.

Initial rationalisation inventories of systems supporting EU policy areas have already been started and are led by DIGIT and SANCO. The targeted systems were developed by the European Commission or other bodies (in some cases cofounded by MSs) to ensure cross-border exchange of information and delivery of online EU public services between Public Administration and supporting the implementation of EU policies. The aim of this exercise was to identify and take inventory of all major systems and building blocks in this area. This ISA action will build on the results of these inventories, provide input for the EU cartography (developed in the context of ISA action 2.1 – European Interoperability Architecture) and identify potential areas of rationalisation.

Rationalising the number of information systems supporting EU policies will result in a reduction of costs in terms of development, maintenance, implementation, operation, training, etc. at the EU and national level. At the same time the use of a rational set of solutions, methods, processes and tools will simplify cooperation between EU wide administrations. Rationalising systems supporting EU policies will provide additional flexibility and efficiency to the Commission in its policy execution role and will avoid new redundant developments.

First results should already be provided in 2013. For this to be possible, a step wise approach will be adopted by restricting the number of covered systems in a 1st phase (refer to the annexed 'List (non-exhaustive and revisable) of systems targeted in the Commission study').

2.14.3 SCOPE

The action would fall in the priority area of the Interoperability Architecture of the EIS as it pushes for the systematic reuse of solutions supporting EU policies.

This action will provide input to the EU cartography built in the context of the EIA action by identifying solutions which could be reused. Reusable solutions identified in this study will be stored in EFIR and described using ADMS specifications.

2.14.4 PROBLEM/OPPORTUNITY STATEMENT

Given the current scarcity of resources, European Public Administrations need to become more efficient with less means. This particular study on rationalisation of IT systems supporting EU policies will contribute to this objective.

Indeed, the aim of rationalisation is to avoid duplications and promote common, reusable and flexible solutions. The study conclusions should identify some priority areas for systems supporting EU policies that could be rationalised.

2.14.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States	<ul style="list-style-type: none"> • More streamlined interfacing/integration with less EU systems • Reduced training efforts as a fewer IT tools are used • Shorter time to obtain IT tools for new areas • Boost for e-government policies
Commission	<ul style="list-style-type: none"> • Reduced IT development and maintenance costs • Reduced training, helpdesk and awareness raising costs • Shorter time to deliver IT solutions for new areas

Beneficiaries	Anticipated benefits
EU citizens and businesses	<ul style="list-style-type: none"> • More coherent ICT systems mean increase friendliness, less administrative burden and increased efficiency for citizens and businesses • Wider use of IT tools for administrative cooperation will improve and accelerate services delivered by public authorities • Less administrative burden by replacing requirements to provide certificates and documents by fast and reliable information exchange between public authorities

2.14.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
2010 Digital agenda, increase availability of cross-border public services	Enhances the availability of cross-border public services.
European Interoperability Framework	This action will follow the EIF's guidelines on interoperability. The reusable solutions identified will be categorised according to their contribution to the different interoperability levels stated in the EIF (Political, Legal, Organisational, Semantic and Technical).
e-Commission 2012-2015	As the e-Commission, this initiative aims at streamlined processes and interoperable information systems supported by a cost-effective, resilient and highly performing ICT infrastructure.
Internal Commission IT rationalisation exercise	Significant reduction of IT maintenance and development costs, less human resources.

Action / Policy	Description of relation
ISA Action 2.1 – Elaboration of a common vision for an European Interoperability Architecture (EIA)	The action will provide input for the EU cartography developed by the ISA Action 2.1, by identifying reusable solutions to map into the cartography (i.e. conceptual reference architecture) and by providing information collected on these solutions in order to feed the solution fiche of the EIA.
ISA Action 4.2.1 – ISA Integrated Collaboration Platform	ISA Action 2.14 identifies components and solutions which can be used in supporting EU policies. Solutions, which are re-usable cross-border will be published on the Joinup platform.
ISA Action 4.2.4 – EFIR	Reusable solutions identified in the frame of the Trans-European systems supporting EU policies project will be stored in the repository developed on the Joinup.eu platform by the EFIR action. On the other hand, EFIR will also provide input to TES by identifying components already used at MSs level.
ISA Action 4.2.5 – Sharing and re-use strategy	ISA Action 2.14 defined criteria/attributes to qualify a building block of a TES as reusable while the ISA Action 4.2.5 also provided input on the definition of the criteria to be set in order to assess the reusability of solutions.
ISA Action 4.2.6 – Interoperable testbed	Based on the comprehensive list of systems provided by the ISA Action 2.14, the ISA Action 4.2.6 will verify these for which interoperability testing should be integrated.
ISA Action 5.2 – EIS Governance support	The TES comprises the ground that any development in the governance of EIS can be applied and tested. It is the type of systems that are interoperable by design or by integration that demonstrate an ideal example for the interoperability governance.

2.14.7 ORGANISATIONAL APPROACH

2.14.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
Policy DGs responsible for the setup of EU systems supporting exchanges between Member states and with EU institutions	Relevant units in each Policy DG.
IT Governance of the Commission	-
Public Administrations in the Member States responsible for the information systems connected or using these platforms of the Commission	Relevant departments in each public administration.

2.14.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
ISA working/coordination group meetings	Member States representatives	Yearly/Semester. Initial presentation on the study and the methodologies. High level reporting on the progress (information exchanged with EFIR, the information gathered and analysed). Final presentation of the possible rationalisation opportunities to representatives.

Event	Representatives	Frequency of meetings / absolute dates of meetings?
Internal dedicated Commission meetings	Policy DG's	Ad hoc Launch of study, analysed building blocks with responsible policy DG's. Final report discussion and presentation.

2.14.7.3 Governance approach

This study will be part of ISA's Interoperability Architecture cluster and follows the ISA governance approach.

Besides the ISA governance model, DIGIT will be in charge of the exercise in cooperation with the associated DG's being CONNECT, MARKET and SANCO. DIGIT will coordinate with the DGs owners of the Trans-European systems assessed.

2.14.8 TECHNICAL APPROACH

It is assumed that the Commission rationalisation inventory on Trans-European systems conducted by DIGIT and SANCO have been finalised and brought up a list of solutions.

The first part of the study was about setting the methodology and definition of criteria to assess the reusability of the identified solutions. The elements for the criteria should be in line with ISA's EIS and EIF. To qualify a solution as reusable, the analysis must not be limited to functional and infrastructure aspects but also address non-functional ones, that system owners take into account when evaluating the possible reuse of solutions (e.g. quality of service, service management, governance, financial model, legal base, costs, opportunity, constraints, risks, etc.). In the second part of the study the inventory of systems will be completed in collaboration with the concerned DGs. The analysis will then start, its purpose will be to verify the existence of any possible duplication of systems and assess the reusability of the identified solutions. This allows determining all possible synergies and qualifying potential candidates for re-use.

Based on the business and technical dimensions and taking into account the risks, the security, the governance and the financial aspects, the study team will identify opportunities to:

- **Consolidate** systems which have distinctive value but low technical health in a common data exchange platform. This will be done by adding their unique functionality into a separate module of the common data exchange platform;
- **Replace** systems of low technical health and no distinctive functionality by a common platform;

- **Federate** systems with good technical health through a common interface. Federation opportunities with key enablers such as eID, eSafe, etc. will also be analysed;
- **Converge** standards used by these systems which are distinctive and critical to the business.

Another aspect of the study will be on the one hand, to perform the mapping of the solutions qualified as reusable with the different European Interoperability Architecture views defined by action 2.1 (e.g. Business, Data, Application, Technology and Governance view). The EIA views were constructed from a top-down approach. This part of the action will feed back into the EIA model as a bottom-up approach. This could lead to further improvements of the EIA model.

On the other hand the reusable solutions identified will be categorised according to their contribution to the different interoperability layers defined in the EIF (i.e. Legal, Organisational, Semantic and Technical).

The conclusions of this project will be presented in the final report on the rationalisation of Trans-European systems which will be addressed to the High Level Committee on IT. This final report will be discussed with the concerned parties, to determine the extent to which the conclusions drawn could be transformed into concrete rationalisation actions, and to agree on a priority order.

2.14.9 COSTS AND MILESTONES

2.14.9.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
	Study	600		Q4/2012	2014
	Total	600			

2.14.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2012	1st report covering the 1st set of IS		105 ⁵²
2013	2nd report covering the 2nd set of systems	300	
2014	3rd report covering the 3rd set of systems	200	

2.14.10 ANNEX AND REFERENCES

Description	Reference link	Attached document
eGovernment Action Plan 2011 – 2015	http://ec.europa.eu/information_society/activities/e-government/action_plan_2011_2015/index_en.htm	
ISA Decision No 922/2009/EC of the European Parliament and of the Council	http://ec.europa.eu/isa/documents/isa_lexuriserv_en.pdf	
European Interoperability Framework (EIF)	http://ec.europa.eu/isa/documents/isa_annex_ii_eif_en.pdf	
e-Commission 2012-2015	http://ec.europa.eu/dgs/informatics/ecommm/doc/e-commission_in_10_questions.pdf	

List (non-exhaustive and revisable) of systems targeted in the Commission study

System Name	Responsible DG	System Name	Responsible DG
AFIS	OLAF	Food System	DG SANCO - DDG2.E
BRIS	DG MARKT	Géant	DG CONNECT
CCN/CSI	DG TAXUD - R5 -003	GENIS	DG COMP
CCN2	DG TAXUD - R4.001	ICSMS	DG ENTR
CECIS	DG ECHO	ICT	DG ESTAT

⁵² The action was launched in 2012 using 2012 non-allocated budget as permitted by DECISION No 922/2009/EC (ISA Legislation) Article 10(4)

System Name	Responsible DG	System Name	Responsible DG
CISE	DG MARE - D1	IMI	DG MARKT - DDG1.B1
CPCS	DG SANCO - B5	IMS	OLAF
DUES	DG TRADE	Inspire	DG JRC - H6
DW	DG ESTAT	IRI	DG JUST
EBR	European Economic Interest Grouping	MH	DG ESTAT - B5
ECAS	DG DIGIT	MT@EC	DGT - DDG.C.NL.1
ECC-Net	DG SANCO	NF-NET	DG SANCO - D4
ECLI	DG JUST	PEPPOL	DG CONNECT
ECN	DG COMP - R3	RAPEX	DG SANCO - A1
E-CODEX	DG CONNECT	REGIO-BO	DG REGIO
ECRIS	DG JUST	RESPER	DG MOVE - B1
EDAMIS	DG ESTAT	SARI	DG COMP
EESSI	DG EMPL	SEIS	DG ENV
e-Justice Portal	DG JUST - B2	SERV	DG ESTAT
eModNet	DG MARE - C1	SIGL2	DG TRADE - A3
e-Prior	DG DIGIT - B2	SIMSTAT	DG ESTAT - B3
epSOS	DG CONNECT	SINAPSE	DG RTD
ERRU	DG MOVE	SISII	DG HOME
ESBRs	DG ESTAT	SOLVIT	DG MARKT - DDG1.B.TF1
ESDEN	DG ESTAT	SPEED 2	DG TAXUD - R5
eSENS	DG CONNECT	SPOCS	DG CONNECT
ESSI	DG DIGIT	SSN	European Maritime Safety Agency (EMSA)
eTrustEx	DG DIGIT - B4	sTESTA	DG DIGIT - C2
EUCARIS	EUCARIS Participants Board	STORK	DG CONNECT
EUDRANET	European Medicines Evaluation Agency	TACHONET	DG MOVE - B.1.001
EUPHIN	DG SANCO	TRIS	DG ENTR
EURES	DG EMPL - G4	ULYSSE	DG HR
EURODAC	DG HOME	UMF II	DG HOME
EUROPHYT	DG SANCO	VIES	DG TAXUD
EUROSUR	DG HOME	VIS	DG HOME
FIDES3	DG MARE	XMLGate	DG SANCO - A.4.002
FNS	OLAF		

2.15 INTEROPERABILITY AGREEMENTS ON ELECTRONIC DOCUMENT AND ELECTRONIC FILE

2.15.1 CONTEXT

2.15.1.1 Identification of the action

Type of Action	Study
Type of Activity	Common Frameworks
Service in charge	DIGIT.B2
Associated Services	SG, DIGIT.B1, EU Publications Office, DG CONNECT

2.15.2 OBJECTIVES

Definition of common specifications (interoperability agreements) in relation to the electronic document and the electronic file:

- An interoperability agreement for electronic documents would define a common approach describing e-documents, including contents, e-signatures, and minimum required metadata, and the rules to exchange them; including also a detailed definition of the minimum required metadata, XML schemas for document exchange, and basic information on the signature of e-documents. In this regard, this common approach would allow the use of e-signatures as envisaged in the Commission Decision 2011/130/EU, of February 25, 2011, establishing minimum requirements for the cross-border processing of documents signed electronically by competent authorities under Directive 2006/123/EC of the European Parliament and of the Council on services in the internal market.
- An interoperability agreement for E-Files would define a common approach to the structure of e-files, including e-documents, e-indexes, e-signatures, and minimum required metadata, and the specifications to send them and make them available. The definition would contain also a detailed definition of the minimum required metadata and XML schemas for file exchange. In this regard, the e-file structure as defined in this Standard would allow the use of e-signatures as envisaged in the Commission Decision 2011/130/EU, of 25 February, 2011, establishing minimum requirements for the cross-border processing of documents signed electronically by competent authorities under Directive 2006/123/EC of the European Parliament and of the Council on services in the internal market.

As there are already several domains where standardization of electronic documents specifications has taken place (e.g. social security, taxation, maritime affairs), the Action will try to document the current state-of-the-play, by identifying document standards, promoting them in

machine-readable formats. Moreover, the Action will identify possible conflicts or gaps where further action is needed.

2.15.3 SCOPE

This action belongs to the Interoperability architecture cluster. The activity includes the development of a common approach to electronic documents and to electronic files.

2.15.4 PROBLEM/OPPORTUNITY STATEMENT

Administrative activity is distinguished by its documentary character, in the sense that the administrative documents are evidences of their activity and the external form of such acts.

The need to establish some guidelines for interoperability in the exchange of electronic documents is assumed, well known and it is a key for interoperability in a context in which frequently the object of exchange is the electronic document and not just the data it carries.

In the same way the need to establish some guidelines for interoperability in the exchange of electronic files is assumed, well known and it is a key for interoperability.

Lessons learned from existing experience in establishing relevant specifications shall be taken into account, including both national and European initiatives, especially from documents exchange taking place in the context of Trans-European Systems.

2.15.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Commission Services	Better efficiency in establishing European Public Services
Public Administrations	Reduction of administrative burden. It allows for shorter processing, fewer errors, reduced printing and postage costs and, most importantly, fully integrated processing.
Business and citizens	Reduction of administrative burdens.

2.15.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
EIF	Interoperability agreements.
Services Directive	Implementation of the Services Directive.
ISA Action 1.1 – Promoting semantic interoperability	ISA Action 1.1 promotes semantic interoperability. The standardized document formats will therefore contribute to this direction.
SPOCS ⁵³ eDocuments	The SPOCS eDocuments building block will be assessed during the implementation of the action

2.15.7 ORGANISATIONAL APPROACH

2.15.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
Member States	The ISA Working Group on Interoperability Architecture.
Commission Services	A representative from each concerned Commission service.
ICT	Representatives of ICT industry, SMEs,
Standardisation bodies	Representatives from standardization organization fora and consortia.

⁵³ <http://www.eu-spocs.eu>

2.15.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
Workshop	Interoperability Architecture ISA working group	Once per year

2.15.7.3 Governance approach

This action will be run in close collaboration with the ISA working group on Interoperability Architecture and with the concerned Commission services.

2.15.8 TECHNICAL APPROACH

The study will encompass in a 1st step an inventory and analysis of what exists in this area in terms of existing standards and solutions actually in use in Member States and at EU level. This will allow to scope the next steps towards, for example, the identification of overlaps and gaps, where definition and agreements on common templates of interoperability agreements specifically oriented towards electronic documents and electronic files could contribute to increase interoperability amongst EU systems.

2.15.9 COSTS AND MILESTONES

2.15.9.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
	Study	100	ISA	Q2 2013	Q4 2013
	Study (part II)	100	ISA	Q3 2014	Q2 2015
	Total	200			

2.15.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010		0	
2011		0	
2012		0	
2013		100	
2014		100	
2015			

3. ASSESSMENT OF ICT IMPLICATIONS OF EU LEGISLATION

3.1 ASSESSMENT OF ICT IMPLICATIONS OF EU LEGISLATION

3.1.1 CONTEXT

3.1.1.1 Identification of the action

Type of Action	Study
Type of Activity	Assessment of ICT implications of EU legislation (Art. 3 of the ISA decision)
Service in charge	DG DIGIT
Associated Services	

3.1.2 OBJECTIVES

The objective is to ensure that ICT implications of EU-legislation are taken into account in due time to allow timely, efficient and effective ICT support for the implementation thereof.

3.1.3 SCOPE

The scope is to analyse and assess the ICT implications of the EU legislation in the frame of the Impact Assessment procedure and provide support to the planning for the introduction of IT systems supportive to such legislation. In this respect, a method has been developed under IDABC that takes into account both cross border and cross-sectorial implications of proposed EU legislation.

The legislative process in the European Commission includes an Impact Assessment procedure to better evaluate the options for new EU legislation and to judge what type of impact the future legislation could have. It looks into the potential economic, social, and environmental consequences of the proposed legislation. The Impact Assessment procedure should be expanded with a method that will also assess the implications of legislation on ICT. Once this is done, assistance will be offered to the DGs to incorporate the method in their Impact Assessments reports. During the elaboration of the legal act and the inter-institutional decision making procedure, these implications may evolve. The method will be further refined during this process.

The method should provide policy makers and IT specialists with guidance on the assessment of ICT implications, assist the Commission in consultation with the MSs, but also support the Member States in assessing the implications of proposed EU legislation for their own administrations.

3.1.4 PROBLEM/OPPORTUNITY STATEMENT

ICT implications of new legislation are rarely taken into account already during the drafting stage. This often leads to either sub-optimal/missing support through available technologies, resulting in unnecessary administrative burden and/or problems during the implementation phase with regards to the timeline foreseen, lacking interoperability with other systems, feasibility problems etc.

An early consideration of ICT implications increases the chances for optimal support of the implementation of legislation through ICT technologies, with more guaranties of a timely implementation, cutting administrative burden, and avoiding the creation of new e-barriers.

3.1.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
European Commission Services	<p>Optimal support of ICT to facilitate the implementation of legislation. Higher probability that the legislation will reach the goals foreseen and within the time foreseen. Also, by identifying ICT needs upfront, the chance for the re-use of already existing components increases.</p> <p>Possibility to analyse the ICT implications of EU-legislation for the implementation at national/regional level at an early stage. Higher probability that the legislation will reach the goals foreseen and within the timeline foreseen.</p>
Member States' Public Administrations	

3.1.6 RELATED EU ACTIONS / POLICIES

N/A

3.1.7 ORGANISATIONAL APPROACH

3.1.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
European Commission Services	SG and European Commission Units in charge of drafting new legislation
	European Commission Units in charge of development of information systems to support new legislation

3.1.7.2 Communication plan

It includes presentations to the Impact Assessment Working Group and to the Impact Assessment units and support to the application of the proposed ICT impact assessment method.

3.1.7.3 Governance approach

The action will be run by DG DIGIT with the support of an external contractor.

3.1.8 TECHNICAL APPROACH

2010-Q2/2014 (Phase 1)

A pre-requisite for the success of this action is the incorporation of the evaluation of the ICT implications of new legislation in the Impact Assessment procedure. Once this principle is accepted, its implementation modalities will have to be established based on the ISA's or any other appropriate method. Assistance will be given to the DGs when using this method. Starting with a pre-assessment, the Impact Assessment workgroup will decide if a light, medium or full assessment of the legislation is needed. The method will be further refined with the experiences collected from some of its pilots applications.

In 2013, the ISA team was involved actively in the follow up of the activities of the Impact Assessment Working Group, proposed to include the ICT impact as an integral part of the Impact Assessment Guidelines and in Q2-Q3/2013 was invited to participate in the Impact Assessment workgroups of 3 DGs.

As from January 2014 we will commence the regular monitoring of the Impact Assessment Roadmaps to identify at an early stage cases where ICT implications are to be expected and

will more intensively support the DGs in the analysis of the ICT impacts in the course of their Impact Assessment process.

Q3/2014-2015 (Phase 2)

It includes continuation of the activities of phase 1 and the performance of additional ones such as, eventual refinement of the ICT impact assessment methods and connection of the Impact Assessment process with the IT Governance of the Commission mainly through reporting.

3.1.9 COSTS AND MILESTONES

3.1.9.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Study (phase 1)	<ul style="list-style-type: none"> Refinement of the method and elaboration of tools and 3 Pilots (initial assistance to DGs to incorporate the method in their Impact Assessments). Integration of the ICT impact in the Impact Assessment Guidelines Monitoring of the Impact Assessment Roadmaps Support (to the units preparing their Impact Assessment reports) in analysing the ICT impacts (using the ISA method or any other method is deemed appropriate) 	350	ISA	Q03/2010	Q2/2014
Study (phase 2)	<ul style="list-style-type: none"> Continuation of the activities of phase1 Eventual refinement/improvement of the ICT Impact Assessment methods Reporting to the IT Governance of the Commission for informative purposes 	350	ISA	Q3/2014	Q4/2015
	Total	700			

3.1.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010	Study	150	42
2011	Study	400	0 ⁵⁴
2012	Study	300	0
2013	Study	200	
2014	Study	150	
2015	Study	200	

⁵⁴ Due to a lack of suitable pilots, the execution of the action was delayed in 2011

4. ACCOMPANYING MEASURES

4.1 RAISING INTEROPERABILITY AWARENESS

4.1.1 Raising interoperability awareness – Communication activities

4.1.1.1 Context

4.1.1.1.1 Identification of the action

Type of Action	Accompanying measure
Type of Activity	Awareness raising
Service in charge	DG DIGIT
Associated Services	

4.1.1.2 OBJECTIVES

The objective of the communication activity is to establish an overall communication strategy for the ISA programme and implement a strategy-based communication programme over the full duration of the programme.

The communication programme covers both campaigns at programme level and activity specific campaigns based on communications plans developed for specific issues or activities addressed by the ISA programme or the ISA work programme. The ISA communication activity aims both at involving stakeholders in the programme and at promoting and informing about programme related issues and activities in a consistent and holistic way with a view to increase the effectiveness of the programme.

4.1.1.3 SCOPE

The communication activity covers issues and activities related to the ISA programme and spans the whole communication process right from the establishment of a global strategy to its implementation at action level through the holding of conferences and workshops and the publication of folders, magazines etc.

It covers all aspects of the European Interoperability Strategy (EIS), including the accompanying measure on "Interoperability Awareness". The activity will encompass both one-way and two-way communication.

4.1.1.4 PROBLEM/OPPORTUNITY STATEMENT

To achieve its objectives the ISA programme needs to communicate extensively with its stakeholders, as required by Article 14 of the ISA Decision, with a view to both establishing needs and promoting solutions supported or developed under the programme.

Consistent and coherent communication contributes to a stronger buy-in and a broader take-up thus increasing the effectiveness of the programme.

4.1.1.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States' public administrations	Through involvement in the programme, Member State administrations have the possibility to influence the focus of the programme and the solutions supported and offered. Awareness of on-going activities and solutions offered allows Member State administrations to align in due time and profit from generic and reusable solutions, which in turn is likely to increase their efficiency and effectiveness.
European Commission services	Through involvement in the programme, Commission services have the possibility to influence the focus of the programme and the solutions supported and offered. Awareness of on-going activities and solutions offered allows Commission services to align in due time and profit from generic and reusable solutions, which in turn is likely to increase their efficiency and effectiveness.
Other stakeholders, first and foremost the ICT community	Through involvement in the programme, other stakeholders have the possibility to influence the conception of the solutions supported and offered. Awareness of on-going activities and solutions offered allows, whenever appropriate, other stakeholders to align in due time, profit from generic and reusable solutions and better adapt their solutions to the needs of administrations.

4.1.1.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
Modernisation of Public administrations,	<p>Demonstration to the stakeholders of how the services, frameworks and tools developed under the ISA programme can contribute to the Modernisation of Public administration, namely in cross-border and cross-sector context.</p> <p>Demonstration of how the ISA results can help Public administrations save cost while at the same time increasing efficiency.</p>
Completing the European Digital Single Market	Demonstration of how the services, frameworks and tools developed under the ISA programme can help to overcome digital borders by facilitating interoperability, sharing and re-use in the electronic collaboration between Public administrations of the different Member States and between the Member States and the EU
ISA work programme	Increasing the awareness about the annual ISA work programme, the progress of on-going actions and information about the launch of new actions
ISA Action 1.1 – Promoting semantic interoperability amongst EU Member States	ISA Action 4.1.1 will promote the benefits of semantic interoperability amongst the European Union Member States, using appropriate non-technical language, and different channels (e.g. Communication of the results of the action through support of the annual SEMIC conference, promotion of the ADMS federation and the core vocabularies and provision of communication advice).
ISA Action 1.7 – ePRIOR	Information on e-PRIOR aims to be disseminated, in coordination with ISA action 4.1.1, in collaborative platforms such as ePractice.eu or SEMIC.eu, via the participation in selected expert groups, conferences, contributions to news articles and production of various communication artefacts.
ISA Action 1.9 – Supporting tools for TLS and e-signature creation/verification	Development of a communication concept and implementation of specific actions to increase the knowledge about and use of the tools developed by the ISA Action 1.9.
ISA Action 1.12 – OSS platform for online collection of statements of support for European citizens' initiatives	Communication activities on the benefits of using the OCS software for the European citizen's initiative will be performed in the course of ISA Action 4.1.1, in particular the promotion of the use of the software towards organisations and persons that would like to set up an ECI and towards the Member States that need to verify the correctness of the electronic signatures collected by an ECI, Communication of additional fields of use of the tool (e.g. allowing the validation of non-resident voters' signatures).

Action / Policy	Description of relation
ISA Action 2.2 – CAMSS	Communication on CAMSS will be performed in the course of ISA Action 4.1.1.
ISA Action 4.1.2 - IMM	Communication on IMM will be performed in the course of ISA Action 4.1.1.
ISA Action 2.8 – Machine Translation Service by the European Commission	Communication on MT@EC aims to be performed in the course of ISA Action 4.1.1.

4.1.1.7 ORGANISATIONAL APPROACH

4.1.1.8 Expected stakeholders and their representatives

Stakeholders	Representatives
National public administrations	ISA Committee ISA coordination group ISA working groups
Regional and local administrations	Relays: ISA Committee ISA coordination group ISA working groups Associations of regional and local administrations
ICT community	Companies advising public administrations on ICT strategies Companies building custom made ICT solutions for public administrations Companies building ICT infrastructure and products
European Commission services	IRM (information resource manager) networks in the DGs Director-General of DG DIGIT

4.1.1.9 Communication plan

Communication campaigns using both traditional print and electronic media as well as social media are organised to engage politicians and senior policy makers in the IT domains and in other policy domains. Both national public administrations and regional and local administrations are targeted.

Communication campaigns mainly using electronic media address IT practitioners in European, national, regional and local public administrations, as well as practitioners in the ICT communities.

4.1.1.10 Governance approach

The communication activity is run by DIGIT with the support of an external contractor. Regular reviews of the ISA communication strategy are organised based on the monitoring and evaluation of the communication impact. Results of the mid-term evaluation are publicly available in the ISA library, (see: REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL: **Interim evaluation of the ISA programme**, p.8-9. http://ec.europa.eu/isa/documents/interim_evaluation_of_the_isa_programme_en.pdf.)

4.1.1.11 TECHNICAL APPROACH

In a first phase, a global communication strategy for the ISA programme was developed and a communication campaign on ISA established. This global strategy and the related ISA communication campaign were the basis of the common foundation for communication activities at action level.

The global communication campaign on ISA is currently implemented as part of a second phase. While the global communication campaign runs throughout the duration of the programme, campaigns for specific actions and solutions are, whenever appropriate, developed and related communication plans implemented at various points in time throughout this phase, in function of the maturity of the action in question.

The developed communication strategies and plans are updated and revised to cater for changing needs if needed. They detail the objective(s), the stakeholders to involve, the message(s), the channels etc., and consequently encompass inter alia means, like workshops, info-days, collaborative platforms and websites, and publications, like folders, magazines, DVD's and video clips. For actions not mature enough for detailed communication plans, communication activities will be defined ad-hoc based on evolving needs, e.g. for interactions with stakeholders through workshops and consultations.

Numerous activities have been implemented in the meantime, e.g. presentations of ISA and its actions at some 60+ events throughout Europe, videos interviews with policy makers and stakeholders, and Twitter feeds on latest news. Factsheets for all ISA actions have been created and are distributed at events.

A new contractor took over the communication activities of the programme in November 2012. One of the first steps has been an update and overhaul of the website to reflect current

developments and the development and set-up of an ISA stand at events that are of high importance to the topics of the programme.

4.1.1.12 COSTS AND MILESTONES

4.1.1.13 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Execution Phase 1	Development of a communication strategy and communication plan at ISA programme level	56,8	ISA	Q3/2010	Q1/2011
Execution Phase 2	Implementation of the Communication campaign at ISA programme level and implementation of information campaigns at individual action level	4.843,2	ISA	Q3/2010	Q4/2015
	Total	4.900			

4.1.1.14 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010	Execution	1.050	1430
2011	Execution	1.100	720
2012	Execution	800	676
2013	Execution	800	
2014	Execution	550	
2015	Execution	600	

4.1.2 Interoperability Maturity Model

4.1.2.1 CONTEXT

Type of Action	Study
Type of Activity	Common Frameworks
Service in charge	DG DIGIT
Associated Services	

4.1.2.2 OBJECTIVES

The objective of this action is:

- a) To define a European Interoperability Maturity Model (IMM) that can be consistently applied throughout the different European public administrations.
- b) To support a selected set of interoperability assessments with the IMM, and draft conclusions for the best practices, bottlenecks, and challenges in achieving high levels of interoperability maturity.

The action's legal basis comes from articles 3 and 7 of the ISA Decision, that specify that the ISA Programme shall support and promote the establishment of common frameworks in support of cross-border and cross-sectoral interoperability by means of studies.

4.1.2.3 SCOPE

As the framework will be used both as a tool and a guide to identify needs in interoperability in the Member States, the action shall investigate the existing practices in Member States and then develop a maturity model and a tool for self-assessment. This tool will be tested in a number of cases to collect data on the issues and challenges related to the interoperability maturity of European Public Services.

The action has been identified as part of the "Raising Interoperability Awareness" accompanying measure to the EIS that establishes the need to "develop an interoperability maturity level self-assessment tool/model for public administrations" (paragraph 14.6).

4.1.2.4 PROBLEM/OPPORTUNITY STATEMENT

The Digital Agenda for Europe has identified the lack of interoperable applications as a major obstacle for growth. Although Member States have significantly worked in this domain, it is difficult to assess the progress made so far by each public administration.

The development of an interoperability maturity model would help towards the vision established in the EIS both raising interoperability awareness and providing a tool for public administrations to assess their interoperability readiness. In turn, this action will be complemented, so as to provide public administrations a tool for gap analysis of dos/don'ts when creating or establishing a European Public Service.

4.1.2.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States' public administrations	Assess their interoperability maturity against a common framework. In turn, this will also contribute to identify current interoperability gaps in public service provision.

4.1.2.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
ISA Action 4.2.1 – ISA Integrated Collaboration Platform	The development of needed technical features and services for the Interoperability Maturity Model is foreseen in Joinup.
ISA Action 4.2.3 – National Interoperability Framework Observatory (NIFO)	The NIFO action will monitor the degree of implementation of the NIFs within the MS. The IMM will be used as an input for such monitoring.

4.1.2.7 ORGANISATIONAL AND TECHNICAL APPROACH

As the notion of subsidiary is important in this focus area, the role of the Commission is to coordinate efforts and to steer a possible common approach, taking also into consideration inputs from other stakeholders (industry and other organisations).

A study has been conducted in the field of interoperability maturity models from national and international perspectives, focusing specially in those models that have been successfully applied in practice. While analysing four use case studies and five benchmarks, this action has validated the ease of use, relevance and completeness of a proposed maturity model.

This has led to the 1.0 version of the Interoperability Maturity Model currently available that has been made explicit through a self-assessment tool for Public Administrations throughout Europe.

Finally, the action shall organize a use of the model: to identify interoperability gaps in the provision of future or current European Public Services (EPS). As such it will consider at least the organisational and service (in the sense of EPS) perspectives.

4.1.2.8 COSTS AND MILESTONES

4.1.2.9 Breakdown of anticipated costs and related milestones

Phase:	Description of milestones reached or to be reached	Anticipated allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Phase 1	European Interoperability Model	300	ISA	Q3/2011	Q1/2012
Phase 2	Application of the model for benchmarking interoperability maturity, collection and processing of findings	200	ISA	Q2/2013	Q4/2014
	Total	500			

4.1.2.10 Breakdown of ISA funding per budget year

Budget Year	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010	-	-
2011	300	247
2012	0	0
2013	100	
2014	100	
2015		

4.2 SHARING OF BEST PRACTICES

4.2.1 Integrated collaborative platform - Joinup

4.2.1.1 Context

4.2.1.1.1 Identification of the action

Type of Action	Project
Type of Activity	Common Services
Service in charge	DIGIT.B2
Associated Services	DIGIT.C, DIGIT.A

4.2.1.2 OBJECTIVES

Enable a more efficient interaction between now separate communities by providing a central place for collaboration.

Lower the cost of maintaining the service by co-locating similar technical services into a common technical platform to minimize engineering, development and operational costs, to ease service management and to search for synergies towards end-users.

4.2.1.3 SCOPE

To develop and provide a common technical platform offering a set of services similar to those currently offered by the disparate three e-Government collaboration and information sharing platforms: SEMIC.eu, OSOR.eu and ePractice.eu.

The housing/hosting of this new platform at the EC and the provision of the technical support.

Technical support for the content migration.

In the first iteration, SEMIC.eu and OSOR.eu migrated to the new platform, Joinup in Q4 2011. ePractice will have migrated to Joinup by Q1 2014.

4.2.1.4 PROBLEM/OPPORTUNITY STATEMENT

The SEMIC.eu, OSOR.eu and ePractice.eu platforms share common elements:

- All of them are related to the use of information technology in public administrations;
- All of them are based on similar Web 2.0 technologies (e.g. content management systems, forums, blogs, wikis, etc.);
- They target different domains; however there is considerable overlap in the target population, shown in the user analysis;
- All of them have similar supporting requirements (e.g. hosting services, helpdesk) , which may be shared;
- They address similar user needs (reading case studies, news items, searching content, interact with other users – forums, blogs, comments);
- From a business point of view, the needs are different (e.g. content on semantic assets versus content on open source projects), but overlaps between them exist (e.g. most of the open source projects for public administrations use semantic assets).

The above similarities suggested the viability of developing and operating a common generic platform for collaborative and sharing purposes.

1. From an operational point of view, having an integrated platform requires less financial and human resources for the management of the underlying technical platform due to:
 - Sharing operation and maintenance cost among the three platforms;
 - Sharing of development costs among the three platforms.
2. From a user point of view, having an integrated platform enables the Commission to provide better, integrated services to the users of the platforms:
 - Common user authentication;
 - Coverage of topics that are related to multiple domains (e.g. semantic and open source domain);
 - More user friendly providing a coherent and similar set of services for all the content regardless of the domain (e.g. ePractice.eu users would transparently access the current OSOR.eu repository, SEMIC.eu users willing to read cases on eProcurement would find these transparently from ePractice content).

4.2.1.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States public administrations and their IT providers Other non-EU public administrations	Improving communication and collaboration on common projects (sharing ideas, code and implementations) with Public Administrations.
European Commission services	Reduced costs through the re-use of common packages integrated into a single hardware + software infrastructure and operated by a single technical service team.

4.2.1.6 Related EU actions / policies

Action / Policy	Description of relation
Digital Agenda	MSs are suggested in part 2.7.4 to " <i>Make eGovernment services fully interoperable, overcoming organisational, technical, or semantic barriers ...</i> ". The Action tries to provide a platform to facilitate the development of interoperable components.
eGovernment Action Plan	2.2.3 of the Action Plan: "The Commission will conduct a study with the MSs, of the demand for cross-border services and assess the organisational, legal, technical and semantic barriers." The action aims to provide a platform to facilitate the development of solutions with the objective to overcome these barriers. 2.3.1: "The Commission will facilitate the exchange of experience, encouraging re-use of successful solutions and applications and exploring new approaches to support the Member States in improving organisational processes".
ISA Action 1.1 – Promoting semantic interoperability amongst the European Union Member States	Joinup acts as a platform to support the objectives of the ISA Action 1.1 (e.g. the catalogue of semantic assets, ADMS and ADMS.SW open specifications, which are used to federated solution from national and international repositories, are available on Joinup.eu).

Action / Policy	Description of relation
ISA Action 1.17 – Reusable Inspire Reference Platform	Via Joinup, ARE3NA will provide semantic assets from INSPIRE for registration in ADMS including the remaining 24 data specifications from the Annex Themes of the INSPIRE Directive, having already provided the details of the nine Annex I themes. These assets offer the basis for potential reuse of INSPIRE in other sectors, as part of the ARE3NA work on missing items. The improved organisation of these assets could also be addressed with other ISA actions, depending on Member States demand.
ISA Action 2.8 – Machine Translation Service by the European Commission	Joinup will make use of the services of the machine translation platform to provide automatically translated descriptions of software, semantic assets, etc.
ePractice	The ePractice platform will be migrated to Joinup in Q2 2014
ISA Action 2.14 – Assessment of trans-European systems supporting EU policies	ISA Action 2.14 identifies components and solutions which can be used in supporting EU policies. Solutions, which are re-usable cross-border will be published on the Joinup platform.
ISA Action 4.1.2 – Interoperability Maturity Model	The development of needed technical features and services for the Interoperability Maturity Model is foreseen in Joinup.
ISA Action 4.2.2 – Community building and effective use of the collaborative platforms	Joinup offers the technical place to host the activities of the Community Building action.

Action / Policy	Description of relation
ISA Action 4.2.3 – National Interoperability Framework Observatory (NIFO)	ISA Action 4.2.1 will contain one work-package aimed at developing the missing features and services necessary for the implementation of the NIFO action. The NIFO online presence will then take place completely on the www.joinup.eu platform.
ISA Action 4.2.4 – European Federated Interoperability Repository (EFIR)	The Joinup platform ISA Action 4.2.1, which will host EFIR, will contain one work-package aimed at developing the missing features and services necessary for the implementation of the EFIR action (e.g. user interface and querying mechanism).
ISA Action 4.2.5 – Sharing and re-use	ISA Action 4.2.5 developed the criteria for re-usable solutions which will be used on the Joinup platform during the federation and the registration of new solutions.

4.2.1.7 ORGANISATIONAL APPROACH

4.2.1.8 Expected stakeholders and their representatives

Stakeholders	Representatives
Member States' public administrations	<ul style="list-style-type: none"> ○ ISA Committee ○ ISA Coordination Group ○ ISA expert group ○ Representatives of national repositories
European Commission DIGIT	Service provider for hosting/hosting services and project evolution
European Commission DIGIT	Action owner of 4.2.2 Community building... action
European Commission DIGIT	Action owner of 4.2.4 European Federated Interoperability Repository (EFIR)
European Commission DIGIT	Action owner of 4.2.3 National Interoperability Framework Observatory (NIFO) action
European Commission DIGIT	Action owner of 1.1 Promoting semantic Interoperability... action

4.2.1.9 Communication plan

Event	Representatives	Frequency of meetings / Absolute dates of meetings?
	ISA Exchange of best practice expert group	1-2 times per year.
Survey on future improvements	Users of the platform, national repositories	Once per year.
Enhanced federation	Action 4.2.2 Community building and action 1.1 SEMIC	Once. The requirements of the Member States will be collected and analysed through the Community building and SEMIC actions.

4.2.1.10 Governance approach

The project is managed by the Commission (DIGIT.B2, DIGIT.A3 and DIGIT.C).

The strategic decisions with regards to the direction of further developments will be influenced by evaluating the use of the platform and by surveying the end-users and other stakeholders of the platform. Actions 4.2.2 Community building, 4.2.3 NIFO, 1.1 SEMIC and the 4.2.4 European Federated Interoperability Repository represent the needs of their respective users and stakeholders.

A Joinup Steering Committee has been set up (consisting representatives of the above actions) to support the decision making process.

4.2.1.11 TECHNICAL APPROACH

In summary, the project contains three major work-packages:

1. the definition of a common architecture and the implementation of a common platform;
2. the provisioning of a common technical service offering similar functionalities as today provided by the three sites together (SEMIC.eu , OSOR.eu and ePractice.eu). All current services which are used by the users will be included in the future platform;
3. the development of missing features and services necessary for the implementation of the NIFO action (4.2.3) the EFIR action (4.2.4) and the IMM action (4.1.2)

The targeted common technical platform is based upon existing Open Source Software packages and re-uses expertise and components of the Flexible Platform For Internet Services (FPFIS) environment at the Data Centre of the European Commission.

The action has implemented the Inception phase, and launched the final platform at joinup.ec.europa.eu in Q4 2011.

The migration of the content from SEMIC.eu and OSOR.eu was done within the scope of action 4.2.1 Community building and finished by Q4 2011.

In the operation phase, between Q42011 and Q42012, the main directions for further developments were decided based on direct surveying of end-users and national repositories and on bilateral discussions of the action owners using the Joinup platform:

- further enhancement / bug fixing based on user survey;
- enhanced federation of semantic assets (see action 1.1 SEMIC);
- enhanced federation of open source projects (see action 1.1 SEMIC);

In 2013, the following further improvements will have been implemented:

- the development of needed technical features and services for the NIFO (4.2.3) enhanced and structured dissemination of interoperable assets (see action European Federated Interoperability Repository);
- federation of Open Source software Repositories based on the ADMS.SW open specification.
- providing machine translation for documents uploaded in languages other than English.
- enhancing usability, based on user feedback as a result of a future survey and internal study

In addition, the Commission launched the migration of the ePractice.eu platform to Joinup in 2013. This migration – while planned in the long term, was not foreseen for 2013, hence additional funding was needed for action 4.2.1 in 2013.

4.2.1.12 COSTS AND MILESTONES

4.2.1.13 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Inception	Detailed systems specifications and project plan	50	ISA	Q3/2010	Q3/2010
Execution	Implementation of the new integrated collaboration platform	500	ISA	Q3/2010	Q3/2011

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Operational	Provision of the common service	860	ISA	Q2/2012	Q42015
Operational	Maintenance and Improvement of the tool	1225	ISA	Q3/2011	Q4/2015
Operational	Support of the current platforms (OSOR.eu and SEMIC.eu)	400	ISA	Q3/2010	Q4/2011
	Total	3.027			

4.2.1.14 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010	Inception	50	693
2010	Execution	456	
2010	Operational (old platform)	200	
2011	Execution	44	74
2011	Operational (maintenance and improvement)	131	131
2011	Operational (old platform)	200	250
2012	Operational (maintenance and development)	250	261
2012	Operational (provision)	200	200
2013	Operational (maintenance and development)	262	
2013	Operational (provision)	200	
2014	Operational (maintenance and development)	320	
2014	Operational (provision)	230	
2015	Operational (maintenance and development)	262	
2015	Operational (provision)	230	

4.2.2 Community Building and effective use of collaborative platforms

4.2.2.1 Context

4.2.2.1.1 Identification of the action

Type of Action	Accompanying Measure
Type of Activity	Stakeholder involvement
Service in charge	DG DIGIT
Associated Services	DG CONNECT

4.2.2.2 OBJECTIVES

The main objective of this action is to establish the Joinup.eu platform as a central place for collaboration and a one stop shop for eGovernment and interoperability related matters for European Public Administrations.

This action aims to increase the interaction between members via the online communities by 40% by the end of the ISA Programme in 2015 by building communities in the areas of eGovernment, open source and interoperability, fostering active discussions, and providing the space for sharing and re-use of good practices and semantic assets and IT solutions for eGovernment to take place.

4.2.2.3 SCOPE

The online communities of EU public administrations on the Joinup.eu platform are the main target of this action. These communities are open to all stakeholders as long as they are not used for commercial purposes and clearly demonstrate that they represent the interest of the public service.

This action covers one of the priority areas of the European Interoperability Strategy which is the sharing of best practices and common solutions among public administrations. It covers also some priorities of the eGovernment action plan. As a result, it will not only focus on the building of new communities but also of maintaining and integrating already existing ones. For this purpose, the existing ePractice.eu portal will be migrated to the Joinup.eu platform. This will implement the EU eGovernment Action Plan 2011-2015 action stating that "The Commission will transform the ePractice.eu portal into an effective experience exchange and information tool

for Member States' eGovernment practitioners." New communities resulting from other interoperability measures will also be supported. These communities will not be enclosed for collaboration only within the EU but opportunities for outside the EU collaboration will be supported.

This action will cover the following domains:

- Interoperability, Open Standards and eGovernment/Public Services in General;
- OSS in public administrations;
- Semantic interoperability (see also action 1.01 Methodologies for the development of semantic assets);
- eSignature / eID;
- National Interoperability Frameworks Observatory (action 4.2.3 NIFO)

4.2.2.4 PROBLEM/OPPORTUNITY STATEMENT

European public administrations, who are the main target group of this ISA action, have progressed a lot in the area of interoperability and most of them already have advanced national portals/platforms as repositories for the sharing of their common solutions. These platforms are generally in the language of the Member State being used in, and therefore are sometimes more appealing than pan European ones. This poses a big challenge for the Commission as Joinup.eu might be perceived as a competitor to other local sites. The Commission should make the effort to market Joinup.eu as facilitating and complementing the local platforms and is not by all means a competitor.

Social networks like Facebook and LinkedIn are also growing in popularity as a means of community building and are also being used by Public Administrations to create and maintain communities whilst reaching their audience. Again the opportunity here for Joinup is to work together with these sites to promote its work and reach public administrations better. It is also fashionable that projects have their own collaborative sites. These are generally small ones depending on the type of the project itself, and therefore it presents an excellent opportunity for JoinUp.eu to partner with these projects to be able to promote itself on these projects websites and in turn offers the OSS for download via its repository.

Joinup.eu enjoys a number of advantages when compared to other online community platforms, like the ability to target specifically European public administrations and serve as a one stop shop for eGovernment and Public Services, open source resources and common solutions and interoperability in general. Because of the wide scope, richness of content and community functionalities amongst others, Joinup has the opportunity to serve as the main site amongst EU public administrations for the complete coverage of re-usable common solutions. Community building activities to increase the frequency and quality of online discussions and also the number of downloads and re-use are a step in the right direction to exploit such opportunity. Joinup already enjoys a high level of reputation with an increasing numbers of members and

contributions every month, and therefore, this has become an important instrument to implement the ISA programme and achieve interoperability.

Joinup.eu covers content from all across the EU and beyond and therefore it can also support public administrations taking more a European approach in interoperability rather than focusing at national level only. The re-use of best practices and solutions is not possible without providing European level visibility to such practices. This is exactly what Joinup.eu is committed to do and will be achieved by supporting the building and maintenance of online communities, improving on the current functionalities and on platform performance as well as the current design to make it more appealing and user-friendly for users.

4.2.2.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Online Community facilitators and members	<ul style="list-style-type: none"> • Better knowledge about developments / best practices elsewhere; • Opportunity to share their knowledge / solutions with others or to re-use others solutions; • Opportunities to work together with others on common problems; • Better, more effective and efficient public services via sharing, re-use and collaboration.

4.2.2.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
ISA Action 1.1 – Methodologies for the development of semantic assets	ISA Action 4.2.2 hosts and manages the SEMIC and CESAR communities of the ISA Action 1.1.
ISA Action 1.12 – European Citizen's Initiative	ISA Action 4.2.2 hosts and manages communities. Discussions are on-going to see the extent to which ISA Action 1.12 could benefit from the work performed under ISA Action 4.2.2.
ISA Action 4.2.1 – ISA Integrated collaboration platform	Joinup offers the technical place to host the activities of the Community Building action.

ISA Action 1.6 – PEPPOL Sustainability (CIPA)	ISA Action 4.2.2 hosts the user community around CIPA e-Delivery building block.
ISA Action 1.7 – e-Prior action	ISA Action 4.2.2 hosts the user community around the e-Prior tool.
ISA Action 1.8 – Trusted information exchange platform	ISA Action 4.2.2 hosts the user community around the e-TrustEx tool.
ePractice.eu	The communities currently hosted by ePractice.eu collaborative portal will be migrated to Joinup and supported by ISA Action 4.2.2.
ISA Action 4.2.3 – NIFO	ISA Action 4.2.2 hosts and manages the community for this action.

4.2.2.7 ORGANISATIONAL APPROACH

4.2.2.8 Expected stakeholders and their representatives

Stakeholders	Representatives
Member States	Member State Experts
Communities of Practice	ELANET
European Public Administrations	Public Administrations from the National, Regional and Local levels together with all EU Institutions and Agencies.

4.2.2.9 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?

4.2.2.10 Governance approach

The Community building action is at the core of the effectiveness of the Joinup.eu platform. This is not only because every project / semantic asset hosted on the platform can have its own community, but also because it is here where real discussions and collaborations take place.

In terms of governance, this action can be divided into two:

- Community Building

The Commission shall have a more active role in community building to support the transformation of community pages from content publishing pages into full collaborative environments, and the Commission will have an active role in those Communities that are related to European policy areas. To facilitate the use of the platform and thus improve on the experience of the users, the Commission shall continue to provide a Help Desk that provides a complete service management to all questions, comments and suggestions that members might have, be it on open source, interoperability or technical nature.

Since community facilitators are key to the success of community building and the Commission will be focusing supporting them to fulfil their objectives. The Commission intends to make sure that each community on Joinup.eu is active and therefore shall support facilitators to create news content and engage in discussions with the members of their communities. Activities to recognise the most active community and member will also be put in place. A set of guidelines for facilitators have been drawn up so as to help them perform their role. The Commission will also see that facilitators not only know how to fulfil their role but also to abide by such guidelines.

- Sharing of best practice

The Commission will be responsible for the content generation on eGovernment, Open Source, Semantic methodology Interoperability at large and eGovernment in general. It will not only provide such content, but support users to submit their own content in terms of news, events, cases and documents.

Looking internally within the Commission, this action is closely related to and sustains most of the actions within the ISA programme, as it is able to support their communities on Joinup.eu. Multiple actions including the NIFO and the Semantic Methodologies already have their communities well established on Joinup.eu and therefore the drive is to have this action to support such communities. The Commission will also use the Joinup.eu platform as the main repository for Open Source Software developed internally for its sharing and re-use within the Commission and the European public administrations.

The action will be run in close collaboration with the following actions:

-
- *Integrated Collaborative Platform* which will provide the technical platform on which most of the services within this action will be provided;
 - *Semantic Assets Development Methodologies* which will provide domain specific expert advices, guidelines as well as ad-hoc services, while the current action will provide more generic community related services;
 - *National Interoperability Framework Observatory* which will provide the latest information on Interoperability from European public administrations together with factsheets on each MS;
 - *European Citizens Initiative* which will provide the space and support for its community building and maintenance.

4.2.2.11 TECHNICAL APPROACH

The technical approach will be taken on two fronts to address the Governance issues as explained before. In order to achieve the objectives, the Commission will use the www.Joinup.eu platform. To address Community Building, the Commission shall:

- Provide the support to the community members and their facilitators to build and maintain the communities in terms of content, events, discussions and collaboration.
- Provide the facilitators with monthly statistics to support them in finding ways for improvement.
- Have a more active role in the management of communities that deal with European policies.
- Engage in a customer relationship management structure to improve the customer's experience of the platform.
- Support Communities from the ISA programme and provide consultancy on the use EUPL and other licenses in the Open Source Software.

To address the sharing of Best practices, the Commission shall:

- Participate at conferences and other events and by supporting virtual communities on the Common Collaboration platform support the collection of OSS IT solutions collaboration with other international, national and regional repositories.
- Organize of real-life events to support communities. Organizing workshops/conferences around different themes to support the emerging and strengthening of communities through knowledge sharing.
- Provide relevant and timely content.
- Facilitate the creation of cases, articles and events.
- Bring public administrations together to share and re-use common solutions.

- Foster discussions between public administrations to bring them closer facilitating collaboration.

The gathering of statistics is also another important part of this action. This permits the Commission to analyse monthly data to further improve its services, but also be able to measure its achievements. These statistics will also be analysed and recommendations will be submitted to the facilitators on which areas to focus in their particular community.

Through this action the Commission is taking a more pro-active role in the area of collaboration. The Commission shall research similar initiatives coming from different public administrations and identify possibilities for collaboration. The Commission therefore will act as a co-ordinator for collaboration initiatives between the public administrations.

Furthermore this action will be used to support communities of certain Commission projects including the National Interoperability Framework Observatory (NIFO), the European Citizen's Initiative (ECI) and the Management and Development model for Open Standards. The latter community aims to share and publish the implementation guidelines (BOMOS2i) and (BOMOS2) with the possibility for re-use by other public administrations.

4.2.2.12 COSTS AND MILESTONES

4.2.2.13 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Operational	Content provision, Moderation of online discussions, supporting online communities and support for existing communities, showcasing of best practices organising workshops.	4.450			
Operational	Provision of the ISA integrated collaborative platform (providing the platform as a common	414	ISA	Q1/2011	Q1/2012

	service)				
	Total	4.864			

4.2.2.14 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010	Operational	450	450
2011	Operational	1.300	1.400
2012	Operational	900	591
2013	Operational	600	
2014	Operational	600	
2015	Operational	600	

4.2.2.15 ANNEX AND REFERENCES

Description	Reference link	Attached document

4.2.3 National Interoperability framework observatory

4.2.3.1 CONTEXT

4.2.3.1.1 Identification of the action

Type of Action	Project
Type of Activity	Common Frameworks
Service in charge	DIGIT B2
Associated Services	DG CONNECT

4.2.3.2 OBJECTIVES

As countries across the European Union (EU) strive to combat the economic crisis, the need for cooperation and collaboration between them is ever increasing. In the world of eGovernment,

this collaboration comes in the form of cross border and cross sector interoperability. All of the EU Member States are working hard in this area and the NIFO has been set up by the EU Commission as a means to support collaboration by EU public administrations. In this respect, the NIFO aims to:

- 1) Maintain the NIFO with timely and updated information about the state of play of interoperability of each of the countries. In order to do this, the Commission will have a continuous communication with the Member States.
- 2) Support Member States in their effort to align their National Interoperability Framework (NIF) or similar initiatives to the European Interoperability Framework (EIF). This action is considered to be very important as this alignment will need to be in place by 2013 as per Action 26 of the Digital Agenda.
- 3) Manage the online space for the NIFO on Joinup.eu platform. This will not only facilitate the maintenance of the NIFO but it will also make it easier for users who would like to look for information and perform a comparative analysis between different countries.

These three objectives will be supported by the online Community on www.Joinup.eu which has the role to promote the work being done in this area as well as acting as a main communication channel for the work in this action.

4.2.3.3 SCOPE

This action will cover all EU public administrations, EEA countries and Candidate Countries with whom a Memorandum of Understanding regarding their participation in the ISA programme has entered into force. In all this action covers a total of 34 countries. EU Institutions are also recommended to take an active role and communicate their interoperability initiatives.

4.2.3.4 PROBLEM/OPPORTUNITY STATEMENT

The momentum around Interoperability has grown rapidly in the last years as more EU public administrations are aware of its benefits. This momentum is also thanks to the EU Commission successive IDABC and ISA programmes⁵⁵, which have been a key player in this field, through their various actions, particularly the NIFO action. The Digital Agenda also makes reference to the NIFO action through which it recommends an alignment between the NIFs and the EIF by 2013.

Nevertheless, the European Interoperability picture is somehow unclear due to the fact that the complete scenario and trends within the Member States need to be made more available. This

⁵⁵ <http://ec.europa.eu/isa/>

scenario quite complex both due to the fact that this is ever changing and also that different Member States have different Interoperability maturity levels due to different national legislation, country specifics, different political commitment level etc. This is reflected not only in the presence of an actual NIF but also their level of detail and the alignment of the Member States' interoperability initiatives to the EIF.

This context presents a number of opportunities to the EU public administrations and the EU Commission to collaborate and work together specifically to make sure significant progress on interoperability is achieved by taking all contextual factors into account, align their interoperability initiatives with the EIF and each other and make the NIFO a continuously maintained process. As a result of this alignment, the core concepts and the approach of the NIFs will become more similar in nature to each other, facilitating collaboration between EU public administrations at all levels.

4.2.3.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
EU public administrations	The NIFO action will provide guidance and support both for the development of new NIFs and the alignment of current interoperability initiatives to the EIF.
National Experts and Policy Officers	NIFO acts as an input to decision processes in national developments and national policy officials may require an objective overview of the European situation and the position of their member state in the spectrum of the development of the NIFs.
EU Commission	Policy-makers that require insight in the current state of the NIF into the various countries in order to develop European wide policies. As a consequence of the mission of the ISA program, the European Commission needs an overview of the status of the developments in the EU public administrations.
ICT Industry	Organisations that are involved in the realization of e-Government solutions like service integrators and software vendors. Driven by long lead times of solutions, commercial enterprises may have the requirement to have insight into the status of NIF developments across Europe.

4.2.3.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
European Interoperability Framework	The NIFO will support Member States to align their NIF to the EIF as recommended in the Digital Agenda. It will also provide input in the revision of the EIF.
ISA Action 1.1 – Methodologies for the development of semantic assets	As semantic interoperability is one of the components of the National Interoperability Frameworks (NIFs), the two actions will collaborate closely together to provide feedback to each other accordingly.
ISA Action 4.1.2 – Interoperability Maturity model	The NIFO action will monitor the degree of implementation of the NIFs within the MS. The IMM will be used as an input for such monitoring.
ISA Action 2.1 EIA	ISA Action 4.2.3 – will provide input for the EIA action by identifying possible building blocks in the MSs for the European Interoperability Reference Architecture.
ISA Action 4.2.1 – Collaborative platform (Joinup.eu)	ISA Action 4.2.1 will contain one work-package aimed at developing the missing features and services necessary for the implementation of the NIFO action. The NIFO online presence will then take place completely on the www.joinup.eu platform.
ISA Action 4.2.2 – Community Building and effective use of platforms	ISA Action 4.2.2 hosts and manages the communities for this action.
ISA Action 4.2.4 – European Federated Interoperability Repository (EFIR)	The NIFO project collects and publishes the Member States' efforts to implement national interoperability frameworks. Having implemented the EFIR will lead to a reduction of the effort of manually collecting data for the NIFO project. By effort we do not only mean the effort of the European Commission but especially the efforts of the Member States to deliver that information. The NIFO project in turn could concentrate on compiling and comparing the information and to derive more accurate and more up-to date recommendations for future work on the EIS implementation.
ISA Action 4.2.5 – Sharing and re-use strategy	The ISA Action 4.2.3 will provide input for the action with the help of collected analysis of best practices in national legislations.

Action / Policy	Description of relation
ISA Action 5.2 – EIS Governance support	The EIS itself has a monitoring and evaluation character of the implementation of EIS in the member states. In that sense there is a strong element of connection with all actions that provide input to or promote the implementing of interoperability.

4.2.3.7 ORGANISATIONAL APPROACH

4.2.3.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
Member States	National Experts and National Policy Officials
European Commission	Officials
Non-European public administrations	National representatives
ICT Industry	Industry associations

4.2.3.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
Workshop	National Interoperability Framework experts from the Member States	Q2 / 2014
Exchange of Best Practice Working Group	Member States Experts	Bi-annual

4.2.3.7.3 Governance approach

The success of the NIFO action solely depends on the commitment and support of the public administrations, especially now as the data input will have to be done primarily by them via the Joinup.eu platform. The main communication between the stakeholders will be done via the online NIFO Community on www.joinup.eu. This input will then be analysed and sent back to the respective country for validation, after which it will be published.

The main contact points for this action will be the officials nominated by the Public administrations and the experts of the Sharing of Best practices working group, however all public officials interested in interoperability will also be welcome.

4.2.3.8 TECHNICAL APPROACH

The online presence of the NIFO is through www.Joinup.eu⁵⁶ and is presented in two sections. The first section deals with content provision which consists of the NIFO case study, news and events and the country factsheets. The second section deals with the online collaboration of the community and the comparative analysis application through which users can compare how different countries implement interoperability.

The observatory is now governed by a continuous maintenance process which makes sure that the information provided by the NIFO is timely and accurate. This will also be reflected in the updates of the factsheets themselves.

The NIFO action also has close ties to the EIF, and although there is no directly related ISA action on the latter, the NIFO needs to reflect any changes and reviews done to the EIF during the lifetime of the ISA programme and provide input to possible adaptations of the EIF.

Through the online community, users may share interoperability news updates and events from across the EU, latest developments on NIFs and discussions permitting the sharing of experiences and best practices. The Commission will support and recommends countries to make use of the online community to share experiences, resources and also use it a public consultation tool for any interoperability related matters.

In order to provide the necessary assistance to the EU public administrations to apply the EIF at national level, the analytical model has been updated to permit public administrations to compare their NIF to the EIF and as a result highlights the differences. This gap analysis is useful to the EU public administrations to understand the actions to be taken. The results of this

⁵⁶ See Action 4.2.1 ISA Integrated Collaborative Platform

analysis will also be used as an input to another action of the ISA work programme, the Interoperability Maturity Model⁵⁷.

Although having a NIF is very important step towards achieving interoperability, it is definitely not enough. The Commission is also supporting public administrations in the implementation of their NIFs by facilitating the monitoring of implementation of the NIFs in the EU public administrations. This is quite close to the Interoperability Maturity Model Action and ways how these two actions could synchronise will be studied.

As part of the continuous development of NIFO, the United Nations Development Programme (UNDP) eGovernment Interoperability and the RAND study will be analysed for ways which will benefit both the EIF and the NIFO.

A prerequisite for the success of this action is the direct involvement of the EU public administrations and therefore the participation of the latter will be done via the Exchange of Best Practices working group and the online community on Joinup.eu

4.2.3.9 COSTS AND MILESTONES

4.2.3.9.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Execution	Definition of the NIFO maintenance process; Gap Analysis study between the NIFs and the EIF; Support of alignment of NIFs to the EIF through the development of guidelines.	200	ISA	Q2/2011	Q4/2011

⁵⁷ The Interoperability Maturity Model is an accompanying measure which will support Member States to identify the needs in interoperability. For more information, see Action 4.1.2

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Operational	Maintenance of the NIFO process including the update of the interoperability factsheets; Provision of support to the MS in the alignment of the NIFs to the EIF and development of new NIFs	250	ISA	Q2/2012	Q2/2013
Operational	Maintenance of the NIFO process including the update of the eGovernment and interoperability factsheets.	715	ISA	Q3/2013	Q4/2015
	Total	1190			

4.2.3.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010			
2011	Execution	200	200
2012	Operational	250	248
2013	Operational	175	
2014	Operational	270	
2015	Operational	270	

4.2.3.10 ANNEX AND REFERENCES

description	Reference link	Attached document

4.2.4 European Federated Interoperability Repository (EFIR)

4.2.4.1 CONTEXT

4.2.4.1.1 Identification of the action

Type of Action	Project
Type of Activity	Common service
Service in charge	DG DIGIT
Associated Services	- DG JRC

4.2.4.2 OBJECTIVES

The Action coordinates and supports relevant work in Actions 1.1 2.1 2.14, 4.1.2 and 5.2 in order to provide, populate and maintain a European Federated Interoperability Repository (EFIR) containing important interoperability solutions from the Member States and the EU institutions.

- *Repository*: The Action provides, via the Joinup platform, a service which allows the Member States and the European Commission to document their interoperability solutions related to EU policies and to share them with broader communities.
- *Interoperability solutions for EU policies*: The repository will be populated with a set of interoperability solutions, including e.g. semantic assets, architectural building blocks, services and descriptions of information systems related to the implementation of EU policies. This documentation will be the basis for the identification of challenges, conflict areas and opportunities for the alignment, promotion, and reusability of these solutions across Europe.
- *EU Cartography*: EFIR will create and practically host the EU Cartography. The cartography will present best in class solutions following the structure and the perspective of the European Interoperability Architecture.

The EFIR is not only a common service run by the European Commission. The implementation of the Federated Repository is also a re-usable generic tool, downloadable and usable by national public administrations as part of the Joinup platform (see action 4.2.1).

4.2.4.3 SCOPE

The EFIR will document and make available information about interoperability solutions related to EU policies of the Member States, and the European Commission, with the possibility to host

relevant information from other International Organizations, including standardization activities and bodies. By interoperability solutions we mean methods, techniques, guidelines, standards, specifications, service descriptions and software artefacts but a concrete definition and taxonomy of different types of IOP solutions is foreseen as part of this work. The listed solutions will be organised in multiple dimensions including the four level of EIF, including technical and semantic interoperability solutions (e.g. standards, metadata schemata), organisational interoperability solutions (e.g. business processes) and legal interoperability solutions (e.g. guidelines on how to achieve legal interoperability, decisions, laws). EFIR will also document the Trans-European Systems (TES) identified and analysed by the relevant Action. The TES will be documented and indexed based on multiple criteria including their business domain, the software components and building blocks, the services they make available, their technologies, etc. The exact model for the documentation of the TES will be determined in close collaboration with action 2.14 (Assessment of trans-European systems supporting EU policies) and 2.1 (European Interoperability Architecture).

The repository itself will become a valuable information source, which can be used by the Member States and European Commission services to boost interoperability. It will also serve as a tool to identify challenges and alignment opportunities for IOP solutions and ISs management at a European level. Given the focus of the repository and its structure along the four EIF interoperability levels, the project is also linked to the European Interoperability Architecture (Action 2.1). The governance of this repository, the definition of the process for updating its content, and the multiple dimensions for content categorization will be part of the work to be conducted under the EIA.

4.2.4.4 PROBLEM/OPPORTUNITY STATEMENT

Currently, there is no European access point which provides detailed up to date information on all types of interoperability solutions existent throughout the EU. At the same time, no global cartography exists on the different TES that have been implemented in different business domains to support EU policies. For example, although some of the interoperability solutions are already listed in EU portals, these portals concentrate either on a specific EIF layer, or provide high-level information, which is of limited use when implementing an interoperability architecture in the Member States, e.g. NIFO. Globally, we should rather acknowledge a lack of a cartography that could allow an overview of what is already available in terms of interoperability.

The main challenge of the proposed EFIR is to obtain relevant interoperability solutions from the Member States and the EC services and to keep this information up to date. To get this input, the Member States and the EC services should be encouraged to directly use this repository for documenting their IOP solutions.

In cases where there are already repositories with IOP solutions, MSs should be encouraged to map their own asset descriptions to the metadata schema adopted by the EFIR, an extension of the Asset Description Metadata Schema (ADMS) and export the information about their IOP assets into a machine-readable format. This information will be then collected and be available for querying, browsing etc. in EFIR through the Joinup platform and other national platforms via

a standardized interface. With this approach a light-weight, flexible and not hard-coded federation of IOP assets will become available via the Joinup platform. In addition, the project should try to check the feasibility to link and integrate existing data sources such as national platforms e.g. digitalizer.dk, www.xrepository.deutschland-online.de to reduce the burden for the Member States to report this data.

4.2.4.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States	<p>Member states obtain access to a set of interoperability solutions that can be re-used in their NIF. They could also obtain access to an overview of the different TES that exists to support EU policies. Solutions which could be re-used are not only software systems or parts thereof but also guidelines, methods and techniques, organisational and legal regulations and formal specifications. A selected set of all these elements which could qualify as best-in-class will constitute an EU Cartography. Since EFIR is a federated repository, Member States can seamlessly exchange interoperability solutions with EFIR and their local installations of the platform. A light-weight federation with non-EFIR repositories became available via the ADMS extended specification for describing any type of IOP assets.</p> <p>EFIP allows analysing the strengths and weaknesses of the Member States in specific interoperability areas.</p>
European Union	<p>The EU would use the platform to promote EIS, EIF and related concepts and ideas. In addition, the platform enables the EU to analyse the strengths and weaknesses of the Member States in specific interoperability areas and allows measuring the success of the EIS implementation in Europe. Measuring the success of the EIS implementation would be an important aspect of EIS governance.</p> <p>The European Commission is expected to use the platform to document also its own IOP solutions and the ISs which have been implemented to support EU policies.</p> <p>The EU will also acquire a more precise view on the current landscape of different solutions and their interrelationships, possible overlaps, complementarities, needs for interoperability, etc.</p>

Beneficiaries	Anticipated benefits
European Software Industry	The access to interoperability solutions like business processes, communication protocols, guidelines and techniques allows the European software industry to develop products, which fit the needs of European public administrations more closely. Therefore, the proposed repository fosters the creation of an innovative European software market offering interoperable products.
European Industry (excluding Software Industry)	Publishing communication protocols, guidelines and standards freely and on a central portal would help for the European industry to adapt their software systems easier to governmental needs. This frees the European industry from the burden to implement proprietary standards and software systems enforced by European or national legislation and reduces the dependence of the European industry from software vendors.

4.2.4.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
Digital Agenda	Interoperability and standards is a cornerstone of the Digital Agenda. Having access to interoperability solutions of all levels and all Member States is, therefore, an important step forward in implementing the Digital Agenda.
eGovernment Action Plan	Interoperability is a pre-condition to establish eGovernment. Given the scope of the project, it directly contributes to fulfilling this pre-condition.
ISA Action 1.1 – Promoting semantic interoperability amongst the European Union Member States	EFIR builds on the work conducted in the course of the ISA Action 1.1, as the definition of the ADMS will be reused and extended to cover other types of interoperability assets from other EIF layers, e.g. legal, technical and organisational assets.

Action / Policy	Description of relation
ISA Action 1.17 – Reusable Inspire Reference Platform	The framework of EFIR is a potential means to better organise the content that ISA Action 1.17 is starting to share through Joinup. ISA Action 1.17 contributed to their recent evidence base, providing ideas for better organisation of content and the role of ‘context’ in aiding the identification of different EFIR ‘asset’ levels that INSPIRE touches on (i.e. the <u>legal assets</u> such as the Directive, <u>semantic assets</u> such as the data themes’ materials, <u>service assets</u> such as the services we provide in INSPIRE to aid interoperability and software/technology assets which are the reusable components that ISA Action 1.17 aim to register or develop and share through Joinup.
ISA Action 2.1 – EIA	EFIR will become the main infrastructure to keep the EU interoperability cartography covering documented interoperability assets, building blocks and Information Systems. EIA will define its governance and may support in the long run the maintenance process of the cartography.
ISA Action 2.2 – CAMSS	The CAMSS project develops guidelines on how to evaluate standards and encourages Member States to exchange and reuse such evaluations. The guidelines as well as the specific national evaluations have the potential to become interoperability solutions, which should be stored on the EFIR platform.
ISA Action 2.14 – Assessment of trans-European systems supporting EU policies	Reusable solutions identified in the frame of the Trans-European systems supporting EU policies project will be stored in the repository developed on the Joinup.eu platform by the EFIR action. On the other hand, EFIR will also provide input to TES by identifying components already used at MSs level.
ISA Action 4.2.1 – ISA Integrated Collaboration Platform	The Joinup platform ISA Action 4.2.1, which will host EFIR, will contain one work-package aimed at developing the missing features and services necessary for the implementation of the EFIR action (e.g. user interface and querying mechanism).
ISA Action 4.2.3 – National Interoperability Framework Observatory (NIFO)	The NIFO project collects and publishes the Member States’ efforts to implement national interoperability frameworks. Having implemented the EFIR will lead to a reduction of the effort of manually collecting data for the NIFO project. By effort we do not only mean the effort of the European Commission but especially the efforts of the Member States to deliver that information. The NIFO project in turn could concentrate on compiling and comparing the information and to derive more accurate and more up-to date recommendations for future work on the EIS implementation.

Action / Policy	Description of relation
ISA Action 4.2.5 – Sharing and re-use strategy	EFIR will provide input to the definition of the sharing and reuse criteria while ISA Action 4.2.5 will provide input during the implementation of EFIR.
ISA Action 5.2 – EIS Governance support	Since EFIR will contain all interoperable items that exist under ISA but also in Member States it has a link with EIS in the sense that enriches the portfolio that EIS aims to offer. Please additional comment above in EIA.

4.2.4.7 ORGANISATIONAL APPROACH

4.2.4.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
European Union	Concerned Commission services. IT governance of the Commission.
Member States	Public Administrations. The ISA Working Group on Interoperability Architecture
Regional Municipalities	
Software Industry	
Other Industries (non-software)	

4.2.4.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
Regular meeting	ISA Working Group on Interoperability Architecture	The project should directly report to ISA in its project meetings. The project should also be controlled by ISA.
Requirements specification workshop	ISA IA WG + National Experts on MS interoperability portals	January/February 2013 in order to receive input for the requirements elicitation phase. Could be combined with a regular ISA WG meeting.

Event	Representatives	Frequency of meetings / absolute dates of meetings?
Newsletter on the project's website reporting the status of the project.	Interested public	Once every 3 months
Information day	Interested public	After the launch of the platform.
Related projects	Project members	After kick-off, the launch of the platform; Short presentations in the regular meetings of the related projects.

4.2.4.7.3 Governance approach

The project is led by the European Commission reporting to the European Interoperability Architecture Working Group. It is strongly recommended that Member States investigate ways that they could connect (federate) similar systems to EFIR. In addition, selected Member States will be invited to participate in pilot tests of the platform.

The key players in this project are: The European Commission/ISA Unit (project lead), the Member States and other European Commission services (client, data delivery).

4.2.4.8 TECHNICAL APPROACH

The project is organised in ten (10) phases as detailed below:

Inception Phase, executed in WP2012

- Phase 1: provides the state of the art in existing repositories and platforms, which already host interoperability solutions, including the Joinup platform.
- Phase 2: The functionalities of each platform have been analysed to gather requirements. With the end of this phase the additional requirements needed have been identified and this led to functional specifications for extensions of the Joinup repository in order to cover all types of solutions.
- Phase 3: An extension and/or instantiation of the ADMS specification has been drafted to include in its scope not only technical and semantic but also legal and organizational types of IOP assets.
- Phases 4: The functional specifications for the EFIR implementation in Joinup have been drafted.

The total budget of the Inception Phase for 2012 increased from 90K in the 2012 WP to 170K in the 2013 WP as the contract covering the Inception phase included some tasks originally foreseen for the Execution Phase (functional specifications and ADMS extension).

Execution and Operation Phases, to be executed in WP2013 and WP2014

- Phase 5: Pilot federation of existing interoperability assets from a small number of Member States.
- Phase 6 foresees the finalization of the platform specification (meaning here the EFIR together with the querying, indexing, browsing and generally UI infrastructure) can address the needs of the pilot members. Moreover, it includes the preparation of the required tests.
- In Phase 7: the platform will be tested and released to the public as part of the Joinup portal.
- In Phase 8:
 - Part A: the Action will identify, collect, document IOP assets from various Member States, European bodies and, where appropriate, from International organizations. These assets will be processed to identify initial challenges, overlaps and possible alignment opportunities. At the same time some focused and targeted activities for raising awareness and interest in the platform in the MSs will be executed.
 - Part B: the Action will update the initial TES documentation provided by action 2.14 (Assessment of trans-European systems supporting EU policies)
 - Part C: the Action will create and maintain the EU Cartography.
- In Phase 9, possible improvements will be proposed as revised functional specifications based on the experiences gathered during the first period of the repository operation. In this phase the functional specifications for the EU interoperability cartography will be drafted.

Operation Phase, to be executed within WP2014 and WP2015

- Phase 10: The newer version of the platform will become available via Joinup with all the added functionalities which will be identified in the previous phase. The Action will continue on identifying, collecting, documenting and analysing IOP assets from various sources, and at the same time updating the initial EU cartography. Special emphasis will be given in the analysis of the solutions and of the cartography to identify opportunities for alignment, complementarities, overlaps, etc. Additional tasks related to the harmonization, consensus building and promotion of reuse for important assets and software components will be also included in the work.

4.2.4.9 COSTS AND MILESTONES

4.2.4.9.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Inception	(1) State of the art analysis of existing interoperability portals	90	ISA	Q4/2012	Q1/2013
Inception	(2) Requirements elicitation, analysis and prioritization	60	ISA	Q1/2013	Q2/2013
Inception	(3) Extension and/or instantiation of the ADMS	40	ISA	Q1/2013	Q2/2013
Inception	(4) Functional specifications for the Joinup repository extension	50	ISA	Q1/2013	Q2/2013
Execution	(5) Federation of IOP assets from pilot MSs	40	ISA	Q3/2013	Q1/2014
Execution	(6) Adjustment and finalization of the platform specifications, and preparation of tests	40	ISA	Q4/2013	Q2/2014
Execution	(7) Tests and release of the EFIR	20	ISA	Q4/2013	Q1/2014
Operational	(8) Collection and processing of assets	140	ISA	Q1/2014	Q3/2014
Operational	(9) Revision of functional specifications	40	ISA	Q3/2014	Q3/2014
Operational	(10)	290	ISA	Q4/2014	Q3/2015
	Total	810			

4.2.4.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2012	Inception	90	170
2012	Execution	150	0
2013	Execution	100	
2013	Operational	180	
2014	Operational	290	
2015			

4.2.5 Sharing and Reuse

4.2.5.1 CONTEXT

4.2.5.1.1 Identification of the action

Type of Action	Study
Type of Activity	Common Frameworks
Service in charge	DIGIT/B2
Associated Services	

4.2.5.2 OBJECTIVES

The aim of the action is to develop a holistic approach to sharing and reuse across border and sectors with a view to helping public administrations all over Europe to share and reuse solutions related to public services delivery in an efficient and effective way. A common strategy is to be defined together with the governance, the processes and the instruments to optimise the potential of sharing and reuse activities and increase the savings they can bring to public administrations. Instruments, which may be implemented with little effort and which can have a significant positive impact on better sharing and re-use assets shall be implemented within the action.

4.2.5.3 SCOPE

The exact scope of the action will be defined during the course of the action itself but sharing and reuse can be applied to public service solutions like legal frameworks, ideas, approaches, processes, methods, specifications, tools, components, etc. Different reusable artefacts can be identified per interoperability layer as these are defined in EIF.

4.2.5.4 PROBLEM/OPPORTUNITY STATEMENT

The economic crisis affecting the EU requires EU public administrations to do the same or even more with much less. In this context, sharing and reuse has the potential to bring much needed savings.

Sharing and reuse can really bring savings and benefits if they are organised upfront of any development of new solutions for public service delivery.

At the same time reuse of solutions will contribute to a greater harmonisation and improved coherence of solutions across EU public administrations and thus make it easier for public

administrations to interact and enhance interoperability efforts undertaken under other initiatives and actions.

Member States and the Commission have already taken various steps towards this direction, but unless Member States and the Commission act together at EU level, sharing and reuse will not optimise the potential savings and facilitate interoperability across borders and sectors.

4.2.5.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
EU public administrations	Savings as well as indirect facilitation of interoperability through the reuse of existing public services solutions all over Europe

4.2.5.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
ISA Action 1.3 – Catalogue of services	Catalogue of services will provide input to the definition of the sharing and reuse criteria.
ISA Action 1.17 – Reusable Inspire Reference Platform	ARE3NA will follow this Action in relation to the sharing and reuse strategy and any new developments following EFIR (ISA Action 4.2.4) or related Actions for the better organisation of assets and work related to open data initiatives, in line with the ARE3NA's objectives.
ISA Action 2.1 – Elaboration of a common vision for an European Interoperability Architecture	EIA will provide input to the definition of the sharing and reuse criteria while the ISA Action 4.2.5 will also provide input to the EIA.
ISA Action 2.4 – Data communication network service (sTESTA)	In its report on the sustainable business models for sharing and reuse, ISA Action 4.2.5 included sTESTA and in particular its cost sharing model, as a successful case.

Action / Policy	Description of relation
ISA Action 2.14 – Assessment of Transeuropean networks supporting EU policies	ISA Action 2.14 defined criteria/attributes to qualify a building block of a TES as reusable while the ISA Action 4.2.5 also provided input on the definition of the criteria to be set in order to assess the reusability of solutions.
ISA Action 4.2.1 – Integrated Collaborative platform (Joinup)	ISA Action 4.2.5 developed the criteria for re-usable solutions which will be used on the Joinup platform during the federation and the registration of new solutions.
ISA Action 4.2.3 – NIFO	The ISA Action 4.2.3 will provide input for the action with the help of collected analysis of best practices in national legislations.
ISA Action 4.2.4 – EFIR	EFIR will provide input to the definition of the sharing and reuse criteria while ISA Action 4.2.5 will provide input during the implementation of EFIR.
ISA Action 5.2 – EIS Governance support	One of the elements of interoperability is the reusability of the tools and services. Therefore for the implementation of EIS and the governance of it we require input coming from the sharing and reuse action

4.2.5.7 ORGANISATIONAL APPROACH

4.2.5.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
Member States' public administrations	ISA Working Group experts
The European Commission	DIGIT, IT governance of the Commission as well as ICT services of other directorate generals

4.2.5.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
Presentation of quick wins and barriers and enablers study	All stakeholders	April 2013
Review of draft strategy document – workshop	All stakeholders	May 2013
Review of final draft strategy document – workshop	All stakeholders	August 2013

4.2.5.7.3 Governance approach

This action will be run in close collaboration with the ISA working group on Sharing of Best practices and with the concerned Commission services.

4.2.5.8 TECHNICAL APPROACH

Initial analysis

The Commission will carry out an initial assessment of the current situation and an analysis of existing national and European policies regarding sharing and re-use. This analysis will also serve as an input for the refining of barriers and enablers to sharing and re-use.

The task will be carried out in the form of desk research in addition to surveys and interviews with various stakeholders.

Identification and implementation "quick wins"

The Commission has already identified a number of "quick wins" – actions, which can be implemented with little effort and which can have a significant positive overall impact on sharing and re-use of assets:

1. Preparation of common "standard" clauses for contracts. Easy to paste standard clauses for contracts were prepared, which public administrations can use during procuring services. Clauses were developed both for development of IT tools that may be re-used and/or shared and for re-using already available IT tools possibly through customization.

2. Exploration and customisation of viable business models and incentives to sharing and re-using among public administrations. These business models cover the different possible situations namely, development of re-usable and/or shared tools, re-use of reusable tools, use of and development of shared services and shared developments. Co-financing and cost sharing were covered.
3. Preparation of guidelines and templates for implementing agreements (including service conditions) and identification of different governing models.
4. Preparation of guidelines describing requirements (documentation, support and other services, licensing, multi-lingual issues, ...) for re-usable assets (semantic assets, software, tools, ...)

Besides the implementation of the quick wins described previously, additional ones will be identified.

Develop a re-use and sharing strategy

Using the results of previous activities as input a common strategy on cross-border sharing and re-use of solutions and frameworks will be developed. The strategy will be developed with the active involvement of the representatives of relevant stakeholders.

The action will define a strategy addressing among others:

- Which kinds of solutions can be shared?
- How reuse and sharing should be organized at an EU level?
- What are the main barriers to sharing and reusing?
- How to better develop reusable solutions?
- How to leverage existing national initiatives?
- How to select reusable solutions at EU level?
- How to market reusable solutions to public administrations?
- How do you ensure reuse at all government levels?

4.2.5.9 COSTS AND MILESTONES

4.2.5.9.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Study		150	ISA	Q2/2012	Q4/2013
Study		250	ISA	Q4/2013	Q2/2014

	Total	400			
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4.2.5.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010		0	
2011		0	
2012		150	206 ⁵⁸
2013		200	
2014		50	
2015		0	

⁵⁸ The "identification and implementation of quick wins" activities were added to the action after the adoption of the 2012 revision of the work programme. This resulted in additional funding compared to the originally anticipated allocations.

4.2.6 Interoperable test bed

4.2.6.1 CONTEXT

4.2.6.1.1 Identification of the action

Type of Action	Study
Type of Activity	Common Frameworks
Service in charge	DIGIT
Associated Services	CONNECT

4.2.6.2 OBJECTIVES

ITB's (Interoperable Test Bed) objective is to provide a platform for hosting reference implementations of cross-border services. This platform would enable Member States' public administrations and their potential vendors to test existing national systems as well as individual services or products against a neutral, reliable and responsive test environment of reference. The test bed should be cross-border, cross-application and foster the uptake of cross-border services developed by research projects and pilots. In addition, research projects can benefit from an additional test instance.

4.2.6.3 SCOPE

ITB addresses all relevant aspects of an interoperability test-bed:

- Organization aspects: for secure and efficient operations and for cross-border, cross-sector applications
- Business aspects: business models for sustainability
- Technical aspects: provision of an interoperability test-bed

The test environment at the core of ITB will be able to work with national reference implementations of national infrastructures in a laboratory environment and thus go beyond common systems: It does not simply test data exchange, which is common place, but allows to test the entire technical integration in national infrastructures which goes far beyond simple portals and their testing. ITB will enable tests without threatening the operation of live systems.

4.2.6.4 PROBLEM/OPPORTUNITY STATEMENT

A considerable number of building blocks for cross-border services have been developed in publicly (EU and MS) funded projects, such as the “Large Scale Pilots”. Yet at the end of a project, the building blocks may be discontinued or not adequately disseminated.

Later, specifications, reference implementations and test facilities for cross border services and basic reusable functions may not be available any longer to support the secure connection of national infrastructures and services. This may impede technical implementation and adoption of these solutions by Member States (resp. their contractors). By providing organizational and technical resources, ITB will keep reference systems in operation for further tests and development. Thus, ITB may support the dissemination of interoperability solutions developed within the ISA programmes and other initiatives of the Commission (e.g. in the domains of health, eGovernment and eID).

4.2.6.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States' Public Administrations	European national authorities and agencies tend to shy off international data communication with embedded and integrated information systems for public services because the implications are too complex and the fidelity of the various systems under other nations' responsibility cannot be judged properly. ITB provides the means to test and verify the requirements and to do this repeatedly without threatening fragile and safety-critical systems. Testing can be greatly simplified and cost savings achieved because Member States can test one-to-one against the test-bed as opposed to far more complex and time-consuming one-to-many tests.
Citizens	Citizens may have difficulties in trusting the security of their personal data in their own country's public communication systems. Once communication is extended either across borders or across application domains doubts may become even larger. A truly neutral, resourceful and trusted test-bed service may alleviate such concerns. The test-bed will also be able to progress the introduction of new cross-border, cross-domain applications which may benefit citizens.

Beneficiaries	Anticipated benefits
Industry	<p>ITB will give vendors (in particular SMEs) early access to requirements and standards relevant for the implementation of new cross-border and cross-domain communication and the procurement of respective products and services. In addition, it provides an opportunity to test and eventually certify products against the requirements. Thus market access can be eased.</p> <p>Furthermore, the design and development of ITB will be carried out in close cooperation with industrial stakeholders from all application domains concerned.</p>
European Community as a whole	<p>The proposal is considered to become a major contribution to accelerate the introduction of European public services. It is in line with the related Communication of the European Commission COM (2010) 744 and similar initiatives, programmes and regulations.</p>

4.2.6.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
Digital Agenda	<p>ITB shall support dissemination and adoption of EU wide standards by national administrations based on results of individual publicly funded projects and activities.</p> <p>Action 77 (foster EU-wide standards, interoperability testing and certification of eHealth), Action 84 (to support seamless cross-border eGovernment services in the single market), and action 89 (to make eGovernment services fully interoperable), may directly benefit from ITB.</p>
eHealth Network / eHGI	<p>The eHealth Network (according to Article 14 of Directive 2011/24/EU for patients' rights in cross-border healthcare): in conjunction with the eHealth Governance Initiative works towards interoperability of eHealth services to support continuity of cross-border care in Europe. ITB may support the uptake and test of these services.</p>
LSPs	<p>Test bed for Large Scale Pilot epSOS</p> <p>ISA Action 4.2.6 should be capable to test software solutions built to support crossborder exchange of information between Public administrations... epSOS, PEPPOL and SPOCS (both have ended), STORK, STORK II, e-CODEX and e-SENS (in particular to the latter since this project is developing a similar testbed).</p>

Action / Policy	Description of relation
eHealth Interoperability Framework (EIF)	ITB may contribute to the EIF study by providing concepts for testing and certification of interoperable processes and functions defined in EIF
ISA Action 1.5 – STORK Sustainability ISA Action 1.6 – PEPPOL Sustainability (CIPA) ISA Action 1.7 – ePRIOR ISA Action 1.8 – eTrustex	ISA Action 4.2.6 should be capable to test solutions from any LSPs. Since ePrior, eTrustEx, STORK Sustainability and CIPA aims to sustain the solutions of these LSPs and have therefore created or will create testbeds for them, these actions are also linked to the ISA Action 4.2.6.
ISA Action 2.14 – Assessment of Transeuropean networks supporting EU policies	Based on the comprehensive list of systems provided by the ISA Action 2.14, the ISA Action 4.2.6 will verify these for which interoperability testing should be integrated.

4.2.6.7 ORGANISATIONAL APPROACH

4.2.6.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
European Commission Services	Project Managers
Member States' public administrations	Project Managers, ISA Coordination Group

4.2.6.7.2 Governance approach

To be defined

4.2.6.7.3 TECHNICAL APPROACH

The approach would consist of the establishment of a Framework contract under which particular requirements to provide a test bed for a specific system would be covered by the corresponding specific contracts.

The first step will be to assess the legal, organisation, technical and functional feasibility of a open call for tender related to the offering IT services in relation with the proposed universal test bed.

In case the feasibility of providing such a service via across organisations and borders is proven, the preparation of a new call for tender will follow.

1. Analysis of technical, legal requirements
2. Launching of call for tenders
3. Provisioning of service

4.2.6.8 COSTS AND MILESTONES

4.2.6.8.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
	Study – assessing legal, functional aspects	50		Q4 2013	Q1 2014
	Launching	100		Q3 2014	tbd
	Service provision	tbd		Q1 2015	

	Total	150			

4.2.6.8.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010			
2011			
2012			
2013		50	
2014		100	
2015			

5. PROGRAMME MANAGEMENT

5.1 MONITORING AND EVALUATION

5.1.1 CONTEXT

5.1.1.1 Identification of the action

Type of Action	Accompanying measures
Type of Activity	Monitoring and Evaluation (art. 13 of ISA Decision)
Service in charge	DG DIGIT
Associated Services	

5.1.2 OBJECTIVES

Art. 13 of the ISA legal Decision establish the obligation to regularly monitor the implementation of the ISA programme.

Therefore, the objective of this action is to monitor and evaluate, on regular basis, five main criteria at action and when relevant programme level:

- relevance – extent to which the action/the programme is meeting the objectives stated in the ISA legal Decision and of the EIS;
- effectiveness – extent to which the action is meeting the strategic objectives of the ISA programme by reaching the expected outcome;
- efficiency – extent to which the outputs planned to be produced in the frame of the action/the programme are produced within the time and budget given;
- perceived quality – extent to which the targeted users of the action/the programme are satisfied of what has been developed and their expectations are met (potential improvements are also gathered in that frame);
- utility – extent to which the action/the programme is answering the business needs defined upfront according to the different stakeholders.

5.1.3 SCOPE

The European Interoperability Strategy's vision states that in 2015, interoperability has significantly fostered European Public Services delivery through, among other things, "the establishment of appropriate governance organisation and processes in line with European Union policies and objectives". This requires that a suitable governance structure is put in place, and it is supported by the necessary processes and these are also followed – with clear interfaces with the Member States' respective organisations and processes.

It is within this context that the EIS defines the Interoperability Governance Pyramid. Thus, the EIS requires the establishment of an adequate Governance structure that is supported by this monitoring and evaluation action to achieve the EIS vision.

5.1.4 PROBLEM/OPPORTUNITY STATEMENT

The lack of continuous measurement severely limits the ability to achieve the intended results or even to identify if they were achieved. Therefore a system needs to be set up that is able to provide both quantitative and qualitative metrics, thus providing guidance on both ISA and EIS objectives. The supporting system will also act as an effective communication tool for decision-making.

5.1.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
European Commission	Ensure the objectives of the ISA legal Decision are met
	Cost reduction, as underperforming actions will be identified sooner
	Improve management process of the ISA program
	Increase transparency of the ISA work-programme investments
	Better decision-making tool
ISA Committee	Better communication of the results of individual actions
	Improved information of the overall ISA work-programme

5.1.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
EIS	EIS Governance structure
ISA Actions	Helps to steer course of ISA work programme

5.1.7 ORGANISATIONAL APPROACH

5.1.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
ISA Actions	Action owners
Member States	ISA Committee members

5.1.7.2 Communication plan

Event	Representatives	Frequency of meetings / Absolute dates of meetings?
ISA Governance Meetings	ISA Coordination Members	Twice a year

5.1.7.3 Governance approach

This action will be managed by DIGIT B.2 with the support of external contractor(s). In order to allow the ISA Committee Members and the ISA programme management to take decision the measurements collected in the frame of this action will be communicated on a monthly, quarterly, semester and yearly basis.

This action will follow three main phases in which project officers will be actively involved supported by the external contractor:

- 1) Definition of indicators and related management processes;
- 2) Implementation of the above mentioned processes;
- 3) Measurement and communication of the indicators on a regular basis (monthly, quarterly, semester and yearly).

In each period the relevant metrics will be gathered, grouped, analysed and communicated to all stakeholders (including EU citizens when privacy and business secrecy concerns are met). The metrics will be grouped in 3 categories:

- process metrics (e.g. cost, risk, time) – specifically related to efficiency;
- content-generic metrics (that will be the same for each type of action as defined in art. 3 of the ISA Decision, including policy impact metrics);

- content-specific metrics (that will be different for each action) – specifically related to effectiveness.

These tasks will be completed by the project managers of each ISA action and DIGIT with the support of external contractors.

5.1.8 TECHNICAL APPROACH

The measurements gathered in the frame of this action will be available to all stakeholders (ISA Programme management, ISA project officers, Member States, citizens, etc.) by Q1 2014 on the ISA dashboard which is inspired from the US federal IT dashboard.

The use of this tool helps in decision making and ensure transparency towards all the ISA programme stakeholders.

5.1.9 COSTS AND MILESTONES

5.1.9.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Phase 1	Design and implementation of the measurement process	200	ISA	Q3/2010	Q4/2011
Phase 2	2010 WP monitoring	250	ISA	Q3/2010	Q1/2011
	2011 WP monitoring	550	ISA	Q2/2011	Q1/2012
	2012 WP monitoring	550	ISA	Q1/2012	Q1/2013
	2013 WP monitoring	200	Admin	Q4/2013	Q2/2014
	2014 WP monitoring	200	Admin	Q2/2014	Q2/2015
Phase 3	Design and implementation of complementary monitoring actions	250	ISA	Q2/2014	Q2/2015
	Total	2.000			

Complementary monitoring actions will be implemented in 2014: the report on the links between ISA actions and ISA actions and other EU interoperability initiatives, a review of the ISA

solutions. Those actions will be funded on ISA budget. The monthly monitoring and the support to the EC governance bodies will be funded by administrative budget.

5.1.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010	Phase 1	350	348
2011	Phase 1 Phase 2	650	650
2012	Phase 2	550	548
2013		0	
2014	Phase 3	250	

5.2 EIS GOVERNANCE SUPPORT

5.2.1 CONTEXT

5.2.1.1 Identification of the action

Type of Action	Accompanying measures
Type of Activity	Management activities
Service in charge	DG DIGIT/B2
Associated Services	All Commission services

5.2.2 OBJECTIVES

As stated in the ISA Decision:

"The Member States and the Commission should increase their efforts to avoid market fragmentation, achieve interoperability and promote commonly agreed ICT solutions, while ensuring the appropriate governance."

"The ISA programme should be based on the experience gained from the IDA and IDABC programmes. The conclusions drawn from the evaluations of the IDABC programme, which address the relevance, efficiency, effectiveness, utility and coherence of that programme, should also be taken into account."

The objectives of this action are:

- to identify and assess relevant governance structures in the Member States public administrations and evaluate their efficiency and effectiveness vis-à-vis the multi-layered interoperability model,
- To identify and assess the organisational models that derive from the different governance structures in the Member States, evaluate their efficiency and effectiveness vis-à-vis the multi-layered interoperability model,
- To identify and assess the legal solutions used in the Member States and at EU level to ensure that EIS is in compliance with the EU context,
- To provide the EIS governance implementation guidelines to the Member States to constantly review the EIS governance implementation, the potential changes and developments in the Member States interoperability strategies and to evaluate these changes and their impact to the EIS governance in order to keep EIS updated,

Through this approach we will reach a reference model for governance and organisational interoperability structures that will be in accordance with the different structures and models within the EU and could aid the Member States in their national interoperability activities. Furthermore, EIS stays aligned with the EU political agenda and with the priorities and

initiatives of the Member States regarding European Public Services and interoperability activities.

5.2.3 SCOPE

This action will help instituting EIS governance, the related organisational models and the decision making processes and activities for implementing, monitoring and keeping up to date the European Interoperability Strategy (EIS).

Moreover this action will investigate the direct relation between the EIS governance and the organisational structures that promote interoperability in the public administrations. The aim in this respect will be the identification and assessment of the organisational interoperability models that exist at EU level and their evaluation.

The core organisational tasks of this EIS Governance action encompass the whole implementation of the EIS as well as ensuring the alignment of the long term vision with short term actions and their related objectives.

The action will have a permanent activity on screening which changes at EU and Member State level might have an impact on the EIS implementation and on the EIS itself.

In 2012, the EIS implementation was reviewed. The review identified the barriers that exist in the interoperability implementation throughout the EU. Also the EIS implementation review laid down an overview of the interoperability landscape and current actions in Member States as well as the Commission services. The review provided input to assist in keeping the EIS up-to-date and will be conducted regularly. For example, in the review, it is clearly identified that more coordination is required in the IT governance structures, and that the lack of organisational interoperability is one of the major barriers in the interoperability activities throughout EU. This EIS up to date has to be reflected in the ISA Work Programme and on other EU initiatives and may lead to an update of the European Interoperability Framework.

5.2.4 PROBLEM/OPPORTUNITY STATEMENT

Because the European situation and the situation in each Member State is also unique, organisational models are not necessarily *transposable* in different contexts. However, the principles upon which they are based as well as the elements that they consist of (or the approach to these elements) may be applicable.

Also, as stated in the EIF:

"Due to their cross border and in some cases cross-sectoral characteristics, European Public Services are operated in a complex and changing environment.

Ensuring interoperability between legal instruments, organisation business processes, information exchanges, services and components that support the delivery a European Public Service is a continuous task as interoperability will be disrupted by changes to the environment, i.e. changes to the legislation, business or citizens' needs, public administrations organisation, business processes or technologies.

Even if interoperability is maintained for a given European public service, its delivery often relies on components that are common to many European public services. These components, which are the results of interoperability agreements reached outside the scope of the European public service, should also be made available over time.

Moreover, as the common components and interoperability agreements are the results of work carried out by public administrations at different levels (local, regional, national, EU), coordination and monitoring this work requires a holistic approach."

This holistic approach will be ensured by EIS governance activities along the whole ISA programme life.

The EIS governance support action will work towards a tailored but adaptable and modular governance model and will help the EIS Project officer in this area.

5.2.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States' Public Administrations	Strategic alignment between interoperability activities and Member States related priorities, coherence of interoperability actions at EU and MS levels Awareness on and understanding of EU interoperability related activities
European Commission	Strategic alignment between interoperability activities and EU policies, coherence of interoperability actions within the Commission

5.2.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
Digital Agenda for Europe (DAE) - DAE High Level Group	The Digital Agenda for Europe (DAE) promote interoperability through the adoption of the European Interoperability Strategy. Furthermore, it has a pillar focusing on interoperability and standards, which includes an action agreed upon with the Member States saying that Member States should implement the EIF. However, the work related to the Digital Agenda is governed by the DAE High Level group.
eGovernment action plan	The eGovernment action plan refers to the implementation of the EIS via the ISA programme during the period of 2011-2015.

Action / Policy	Description of relation
European Commission ICT governance	The ICT systems of the European Commission, the offices and executive agencies themselves are governed by the Commission's internal ICT Governance structures, which were defined in 2010.
Impact Assessment Committee	This committee monitors and evaluates the impact assesment of EC actions and initiatives and recently acquired a dimension of the impact in ICT
ISA Action 2.1 – Elaboration of a common vision for an European Interoperability Architecture (EIA)	The EIS holds the top of the Interoperability pyramid and relates directly to EIA.
ISA Action 2.14 – Assessment of Transeuropean networks supporting EU policies	The TES comprises the ground that any development in the governance of EIS can be applied and tested. It is the type of systems that are interoperable by design or by integration that demonstrate an ideal example for the interoperability governance.
ISA Action 4.2.3 – National Interoperability Framework Observatory (NIFO)	The EIS itself has a monitoring and evaluation character of the implementation of EIS in the member states. In that sense there is a strong element of connection with all actions that provide input to or promote the implementing of interoperability.

5.2.7 ORGANISATIONAL APPROACH

5.2.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
Member States	The ISA committee and the eGovernment high level group through the EIS steering group
Commission Services	IT Governance of the Commission. A representative from each concerned Commission service
ICT Industry	Representatives of ICT industry, SMEs, ...
Standardisation bodies	Representatives from standardisation organisation for a and consortia

Stakeholders	Representatives
Local and regional public administrations	Representatives from local and regional public administration European representative organisations such as Council of European Municipalities and Regions, Eurocities, ...

5.2.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
EIS steering committee	Member States, Commission	At least once a year
EIS workshop	Member States, Commission	At least twice a year
EIS info day	External stakeholders	At least every 2 years
Conference	Public	When relevant

5.2.7.3 Governance approach

The action will be run by DIGIT with the support of a contractor.

In order to allow the ISA governance bodies to take decisions, all needed information should continuously gathered and analysed. Once a year (or punctually if necessary) some proposals should be put forward to the ISA governance bodies regarding strategic directions to be reinforced, given up or new ones to be adopted. Then decisions should be communicated to the relevant stakeholders, the impact on the ISA work Programme and if necessary on other EU initiatives should be analysed and adequate changes to the work programme should be made, implemented and monitored.

5.2.8 TECHNICAL APPROACH

Consequently, the EIS governance support action will include activities at 3 parallel work streams:

Work stream 1:

- Identify and assess the relevant types of governance models and elements they are comprised of, that are being used by EU public administrations covering EU bodies, national, regional and local levels
- Identify and assess the different project level IT governance models and elements of these that are most efficient and effective (in terms of ensuring that the projects are aligned with the decisions made by governance structure and knowledge is properly managed)

- Identify and assess the organisational models that promote the interoperability in the respective governance structures and the relevant types of legal solutions used in Member States and at EU level
- Identify and evaluate the models and elements that are applied by Member States and at EU level to ensure sustainability (flexibility to adapt) of the Interoperability Strategies
- Investigate how well does the multi-layer interoperability model apply (fit-for-purpose) to the current situation in the interoperability environment/ecosystem and what adaptations should be made to make it apply better to it?

Work stream 2:

- ensuring collection, analysis of new EU policies, Member State priorities and initiatives that can have an impact on the overall EIS as well as associated risks and opportunities;
- collecting data to develop reference governance models and the respective organisational interoperability models including the analysis of project status and value measurement;
- conducting an analysis on the possible consequences of new EU policies and Member State priorities and of the overall ISA Project Portfolio Management status regarding the EIS.
- issuing a yearly report proposing decisions to be taken on EIS strategic directions and the related impact on the ISA Work Programme, the European Interoperability Framework and on other EU initiatives if relevant.

▪ Work stream 3

- Investigate the trends in and changes in the interoperability strategies of the Member States
- Investigate policy developments at EU and Member State level might have an impact on the EIS and its implementation and evaluate the opportunities and risks associated with the developments
- Identify initiatives, trends and developments that are happening in third countries, the private sector, international standardisation bodies and universities, that could have an impact on the interoperability (ecosystem) and the EIS
- Conduct a recommendation analysis on the findings from above on what changes should be made to the EIS and its implementation?

Besides EIS governance activities, the evaluation of the level of performance in implementing the EIS will be performed through two complementary methods proposed as specific action of the ISA Work Programme.

The first one, on top of the EIS governance pyramid, is a Maturity Model. It seeks to provide a self-assessment tool for administrations to evaluate their level of maturity in the field of interoperability.

At the bottom of the EIS governance pyramid, the overall performance of specific projects falling under the different clusters can be assessed by means of metrics such as Key Performance Indicators. These indicators reflect the performances of clustered projects in terms of value, risk and progress performances.

5.2.9 COSTS AND MILESTONES

5.2.9.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Phase 1,	Collect all relevant data from Member States. Identify the EIS governance models. Evaluate the models. Propose the EIS governance reference model. Identify organisational structures that promote interoperability. Evaluate the legal environment of the above.	800	ISA	Q3/2010	Q1/2014
Phase 2, study	Perform an implementation review for the EIS. Evaluate the Member States and their developments on EIS. Cross check these developments with the overall ISA work programme. Study the organisational interoperability under the relevant governance structures	200	ISA	Q2/2014	Q1/2015

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Phase 3, study	Further evaluate the organisation interoperability in EU. Identify the connections that derive between the governance structures. Evaluate trends and developments . Evaluate further the legal environment. Conclude with recommendations for EIS and organisational structures that promote interoperability.	200	ISA	Q2/2015	Q4/2015
	Total	1.200			

5.2.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010		200	205
2011		200	298
2012		200	200
2013		200	
2014		200	
2015		200	

5.2.10 ANNEX AND REFERENCES

Description	Reference link	Attached document
The European Interoperability Strategy	http://ec.europa.eu/isa/documents/isa_annex_i_eis_en.pdf	

6. LIST OF ABBREVIATIONS AND ACRONYMS

Ares	tool under the e-Domec policy for the registration and filing of documents
BUSDOX	Business Document Exchange Network
CEN/ISSS WS/BII	CEN/ISSS workshop on 'Business Interoperability Interfaces on public procurement in Europe
CII	Cross Industry Invoice
CIP	Competitiveness and Innovation Programme
CIPA	Common Infrastructure for Public Administrations. The combination of infrastructural building blocks to enable activities between public administrations across borders and in different sectors
CIRCABC	Communication and Information Resource Centre for Administrations, Businesses and Citizens
COPIES	COPIES is a system developed by DG TAXUD for exchanging information about copyright infringements
e-CODEX	e-Justice Communication via Online Data Exchange
EDI	Electronic Data Interchange
e-Domec	policy for Electronic archiving and Document Management in the European Commission
e-Delivery	Electronic Delivery Secure messaging service of CIPA: cross-border services that provide public administrations with secure and interoperable means of exchanging information with other administrations. The main features of e-Delivery are <ul style="list-style-type: none"> ○ 1. Common messaging services; ○ 2. Dynamic discovery and addressing of entities (Service Metadata Publisher/Service Metadata Locator – based on DNS); ○ 3. Standard gateway to national/ regional/ local/ organisational domains;

- 4. Security:
 - Trusted exchange (PKI)
 - Non Repudiation (evidences)
 - Authenticity of origin
 - Integrity of content

1eFP7	Participant portal for the research community in Europe as single entry point of interaction with the Research DGs; is used to manage projects and funds under the FP7 programme
EFTA	The European Free Trade Association
EIF	European Interoperability Framework
EIS	European Interoperability Infrastructure Services - study on potential re-use of service modules and components
EIS	European Interoperability Strategy
e-PRIOR	electronic PRocurement, Invoicing and ORdering
FP7	Seventh Framework Programme - current EU programme for research
HERMES	Name of the central document management system at the Commission
HRS	HERMES Repository Services – web services to connect to HERMES
IBB	<ul style="list-style-type: none"> ▪ Infrastructural building block – basic building blocks with the potential to be re-used in any Pan-European project to enable the delivery of cross-border services;
IDABC	Interoperable Delivery of European eGovernment Services to public Administrations, Businesses and Citizens – a programme preceding the ISA programme.
ITIL	Information Technology Infrastructure Library - best practices for IT Service Management
LSP	Large Scale Pilot (also known as Type A) Pilots aiming to demonstrate a “federated” solution and borderless operation of national systems in at least 6 Member States but with the potential to scale up to

	all Member States
MoReq2	Model Requirements Specification for the Management of Electronic Records, version 2
NomCom	tool under the e-Domec policy for managing filing plans and file lists
OSOR	The Open Source Observatory and Repository for European public administrations (www.osor.eu). The platform was migrated into the Joinup.eu platform
PEPPOL	Pan-European Public Procurement Online PEPPOL was a LSP which aiming to enable cross-border eProcurement, connecting communities through standards-based solutions
PKI	Public Key Infrastructure
RUP@EC	Rational Unified Process, customized for the EC - methodology for software development
SEMIC	Semantic Interoperability Centre (www.semic.eu). The platform was migrated into the Joinup.eu platform
SEPA	Single Euro Payments Area
SFC2007	System for Fund Management in the European Community 2007 – 2013
SME	Small and Medium Enterprise
STORK	Secure Identity Across Borders Linked STORK is a LSP which aims to establish a European eID Interoperability Platform
SPOCS	Simple Procedures Online for Cross- Border Services SPOCS was a LSP which aimed at building the next generation of online portals, which every European country now has in place, through the availability of high impact cross- border electronic procedures
epSOS	Smart Open Services for European Patients epSOS is a LSP which aims to enable cross-border e-Health
UN/CEFACT	United Nations Centre for Trade Facilitation and Electronic Business

XML eXtensible Markup Language