



# **ISA WORK PROGRAMME**

**THIRD REVISION 2013**

**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	Publication Office

#### 1.1.2 OBJECTIVES

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

This is achieved by:

- Collecting, organizing, maintaining and providing access to a repository of highly reusable semantic interoperability assets as well as promoting best practices, experiences and lessons-learned in the area of semantic interoperability.
- Providing the infrastructure via the Joinup platform for accessing, sharing and reusing semantic interoperability assets and open source software (OSS) that may be hosted in national repositories.
- Promoting the ADMS-based federation of semantic assets repositories.
- Supporting alignments and agreements on common definitions and specifications at the semantic layer.
- Promoting the use of the ISA Core Vocabularies at the European, national and local level to increase interoperability in the provision of European Public Services.
- Promoting linked data approaches and technologies for improving the interoperability of public administration systems.

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- Increasing the 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.

The 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.

All technical development related to the Joinup platform including the implementation of the federation of semantic assets and OSS, and generic animation activities are not considered within the scope of this action, as these will be covered via the Joinup Platform and the "Community building and effective use of the collaborative platform" Actions in the work programme.

There is a link between this Action and the Action for the European Federated Interoperability Repository (EFIR). EFIR builds on top of Action 1.1 results and especially on the ADMS specification as a basis for describing all different types of interoperability assets. EFIR will be also implemented in the Joinup platform.

### 1.1.4 PROBLEM/OPPORTUNITY STATEMENT

The environment in which data exchange 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;
- moreover, the Action develops and promotes common specifications for enabling federation of repositories storing semantic assets and OSS.

In line with the above, the Action has already developed three Core Vocabularies, namely Core Business, Core Person, and Core Location with close collaboration with other EU bodies including DG MARKT, Eurojust and JRC. These specifications have been endorsed by the ISA Coordination Group and have entered into the standardization process in W3C. This work will continue to identify and develop more Core Vocabularies. At the same time real world implementations of the existing vocabularies will be supported.

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 is being developed and will shortly become available via the Joinup platform. Through the federation users will be 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.

Through this action, the ISA programme sets to achieve a better collaboration between European public administrations towards agreements on the meaning of the exchanged information. Joinup provides the necessary infrastructure for this collaboration while a broad network of stakeholders including several EU bodies like JRC, DG SANCO, DG MARKT, OPOCE, DG TAXUD, DG MARE, DG CONNECT, and DG JUST follow the work.

### 1.1.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States' Public Administrations	<ul style="list-style-type: none"> <li>○ 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</li> <li>○ Possibility to promote their own semantic interoperability assets</li> <li>○ Forum to identify opportunities for harmonization at European level</li> <li>○ A virtual place to share best practices and experiences</li> <li>○ Core Vocabularies ready to be used in public administration information systems development</li> <li>○ Linked data best practices</li> <li>○ Reduced development costs,               <ul style="list-style-type: none"> <li>• due to reuse during the initial development phase</li> <li>• due to less interoperability conflicts while integrating systems or providing cross-agency/domain/country services</li> </ul> </li> </ul>
IT Services Industry	<ul style="list-style-type: none"> <li>○ Access to a European repository of reusable interoperability assets</li> </ul>

	<ul style="list-style-type: none"> <li>○ Reduced development costs, as explained above.</li> </ul>
European Commission Services	<ul style="list-style-type: none"> <li>○ A platform for storing semantic assets used by DG Informatics while developing applications and information systems for the European Commission</li> <li>○ 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</li> <li>○ 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</li> <li>○ A set of specifications in the form of Core Vocabularies that can be reused by the EC services to facilitate interoperability among different applications and systems</li> <li>○ Reduced development costs, as explained above.</li> </ul>

### 1.1.6 Related EU Actions / Policies

Action / Policy	Description of relation
Digital Agenda	<ul style="list-style-type: none"> <li>○ 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.</li> <li>○ 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.</li> </ul>
eGovernment Action plan	<ul style="list-style-type: none"> <li>○ 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.</li> <li>○ 2.4.1 of the Action Plan semantic interoperability is mentioned “...as an essential precondition for open, flexible delivery of eGovernment services”. The Action contributes to this end.</li> </ul>
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 goal and scope of the Action are limited 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>

Action / Policy	Description of relation
	As an indication of the relevance and importance of the conducted work, W3C has already taken the 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.
Large Scale CIP Pilots, and EU-funded initiatives to create semantic assets	There are several EU-funded initiatives that have created and are creating important semantic assets. The Action intends to identify and promote these assets. Examples include the INSPIRE directive <sup>1</sup> , Eurovoc <sup>2</sup> , the European Training Thesaurus <sup>3</sup> , and Large Scale CIP Pilots (e.g. SPOCS, STORK, PEPPOL, ePSOS)
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, 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>Moreover, the EC Open Data Portal was established and is maintained by the EC Publication Office. This portal is an infrastructure where the Core Vocabularies could be used for making available EC 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 could be described with ADMS to improve visibility and reuse.</p>
ISA Action 1.3 Catalogue of Services	Action 1.1 will develop a Core Vocabulary on public services that will be used as an input by Action 1.3 in order to develop a Catalogue of Services. Various stakeholders are expected to participate in the definition of this core vocabulary including the owners of national service portals.

## 1.1.7 ORGANISATIONAL APPROACH

### 1.1.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
Member States	<ul style="list-style-type: none"> <li>○ ISA Committee</li> </ul>

<sup>1</sup> <http://inspire.jrc.ec.europa.eu/>

<sup>2</sup> <http://eurovoc.europa.eu/>

<sup>3</sup> <http://libserver.cedefop.europa.eu/ett/en/>

Stakeholders	Representatives
	<ul style="list-style-type: none"> <li>○ ISA Coordination Group</li> <li>○ Trusted Information Exchange ISA Working Group</li> <li>○ Persons/units in charge of National Interoperability Frameworks and/or metadata standards catalogues/repositories, etc.</li> <li>○ Persons/units in charge of governmental portals</li> </ul>
Standardization bodies	<ul style="list-style-type: none"> <li>○ W3C</li> <li>○ OASIS</li> <li>○ GS1</li> <li>○ CEN</li> <li>○ UN/CEFACT</li> <li>○ ETSI</li> <li>○ Dublin Core Metadata Initiative</li> </ul>
DG Informatics (DIGIT)	Unit(s) responsible for metadata management
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

### 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		
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### 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. other DGs, standardization 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 2008-1010 took place. Based on this evaluation, recommendations were provided. Following these recommendations, the Action continues its successful operation providing a clearinghouse and federated access point to a rich collection of reusable semantic assets for public administrations. 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.

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. A Core Vocabulary for describing a public service is already planned to be developed and the results of this work will be used by Action 1.3 Catalogue of Services. In the meanwhile, the existing Core Vocabularies will be actively promoted in the EU MSs and beyond.

c) Horizontal dimension (*coverage*): The Action will improve the infrastructure for the ADMS-based federated portal for eGovernment metadata schemata and the enhanced federation of OSS. The new Joinup platform will play the role of a federated semantic asset and OSS portal where the users will be able to look for assets and OSS residing not only locally in the Joinup repository but also in other repositories hosted by MSs and third parties. Further improvements

to the provided federation in the Joinup platform are expected during 2013 coupled with an effort to attract more countries to publish their semantic assets using the ADMS specification.

## 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	<p>Continuation of Core Vocabularies work, enhancement of the federation of the semantic assets and OSS repositories, identification and registration of new semantic assets, documentation and promotion of EC semantic assets, identification of conflicts, overlaps and alignment opportunities collaboration activities for cross border asset development and sharing, showcasing real semantic interoperability examples.</p> <p>Maintenance of the online</p>	3000	ISA	Q1/2013	Q4/2015

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date	End date
	services via the Joinup platform including the clearing process, support activities, collaboration activities as well as all relevant news.				
	<b>Total</b>	<b>5.550</b>			

#### 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	1.000	
2015	Operational	1.000	

#### 1.1.10 ANNEX AND REFERENCES

Description	Reference link	Attached document
Federation of Semantic Assets Repositories	<a href="http://joinup.ec.europa.eu/asset/adms/description">http://joinup.ec.europa.eu/asset/adms/description</a>	
Federation of Open	<a href="http://joinup.ec.europa.eu/asset/adms_foss/description">http://joinup.ec.europa.eu/asset/adms_foss/description</a>	

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Source Software		
Core Vocabularies (Core Person, Core Business, Core Location)	<a href="https://joinup.ec.europa.eu/asset/core_business/release/100">https://joinup.ec.europa.eu/asset/core_business/release/100</a>	
Towards Open Government Metadata	<a href="http://www.semic.eu/semic/view/documents/towards_open_government_metadata.pdf">http://www.semic.eu/semic/view/documents/towards_open_government_metadata.pdf</a>	

## 1.2 ACCESS TO BASE REGISTRIES

### 1.2.1 CONTEXT

#### 1.2.1.1 Identification of the action

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

### 1.2.2 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.

Linked to this, a specific objective is to facilitate the interconnection of business registers as required by the recently adopted Directive 2012/17/EU. This prescribes the establishment of a system composed of the national business registers, a central European platform and the e-Justice portal, which will act as a single access point for information on EU companies serving cross-sectorial inquiries.

### 1.2.3 SCOPE

The action will focus 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, it will draw conclusions for the establishment of cross-border and cross-sector interoperability at the European level.

It will analyse the different governance methods their impact, taking into account all the four interoperability levels defined in the EIF:

- **Legal:** Many countries have legal acts and interoperability agreements guiding individual types of base registries. Furthermore, some of them have come up with overall legal frameworks guiding the principles behind the interoperable access to all types of base registries. Legal frameworks on interoperability in individual Member States also have a significant impact on the access to base registries and their cross-sector integration. The action will examine the state of play on this level in the Member States and come up with a set of best practices.

Any interoperability agreement will have to define:

- First, the roles of the actors involved in any data exchange taking place directly or through a broker or intermediary.
- Second, the set of conditions for the data exchange.

These roles and conditions set out in terms of interoperability and technological considerations would apply depending on the nature of the information being exchanged or transferred data in accordance with the law that might be applicable.

- **Organizational:** Different organizational structures might have different effects on the cross-sector interoperability of base registries. The study will examine the organizational structures and related architectural models (direct connection to base registries or through brokers or intermediaries) as well as processes in the individual Member States and at the EU level and will come up with lessons learnt and best practices.
- **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 will look 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) can be leveraged across the different base registries.
- **Technical:** Technical solutions are needed to enable the cross-sector access to base registries. Different solutions have been used at national and EU level with various degrees of integration. The study will look at these different technical implementations of base registry access and come up with best practices for this level. Particular consideration will be given to solutions based on a brokering methodology be it centralised or decentralised.

#### **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?

The solving of these key questions pertaining to base registries will ease the exchange of information cross-border. This will then allow public administrations to build cross-border European public services. These will then in turn make life easier for citizens and businesses.

### 1.2.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States' public administrations	More efficient and effective access to information across borders when establishing European Public Services
European Commission Services	Quicker and easier European Public Service establishment
Citizens and enterprises	Reduction of administrative burden

### 1.2.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
Directive 2007/2/EC	Covers interchange of spatial information
Directive 2003/98/EC	Covers the re-use of public sector information

Action / Policy	Description of relation
Directive 2012/17/EU on the interconnection of business registers	Covers interconnection of business registers and single European access to information on companies
e-Justice - Interconnection of national registers	Covers insolvency registers, land registers, commercial registers and registers of wills
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
Action 1.1 of the ISA programme	

## 1.2.7 ORGANISATIONAL APPROACH

The Action is run by DG DIGIT B2. The Action belongs under the Trusted Information Exchange Working Group. DG MARKT will be responsible for the study on the Interconnection of Business Registers.

### 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).

Stakeholders	Representatives
European Commission Services	Project managers
Member States' public administrations	ISA Trusted Information Exchange Working Group

## 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 2013, the action plans to launch 2 new studies:

#### Study on base registry interoperability

The second study will focus on the cross-sector requirements for base registries. It will examine 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 will identify the barriers faced by the existent solutions and how they were overcome. Special attention will also be given to governance aspects of the analysed examples. The study will consist of three phases:

- The initial phase will look 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 will build upon the results of the initial phase and will result in a more detailed description of the cross-sector interoperability of base registries in the Member States and cross-border interoperability. It will examine the situation in each of the four interoperability levels: legal, organisational, semantic, technical. Governance aspects will also be addressed.

Special attention will be 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 will also look at how feasible it would be to deploy these types of intermediary services at the 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 mechanisms for the interconnection of base registries and the exchange of data will also be examined.

- Phase two will come up with a list of requirements and a set of best practices. It will also propose further future actions in this sphere.

#### Study on the interconnection of business registries

This study will build upon the findings of the previous studies and apply them in a more specific context, that of the interconnection of business registries. **Directive 2012/12/EU** prescribes the development and establishment of a system of interconnection of business registers. The system will be composed of the national registers, a central European platform and the *e-Justice* portal, which will serve as a single access point for information on EU companies. It will examine related projects and identify the results and technical solutions that could be re-used for the development of the future system. The study is also expected to make

recommendations for the future architecture of the system and the best way to integrate and respond to existing solutions at Member State and European level. It is intended from the outset to build a generic solution that would support the interconnection of other types of base registries or national systems.

## 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	600	ISA	Q3/2013	Q3/2015
Study	Study on the interconnection of business registers	250		Q3/2013	Q1/2014
	<b>Total</b>	<b>1350</b>			

### 1.2.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010		300	300
2011		250 <sup>4</sup>	0

<sup>4</sup> 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 (1350 kEUR) and the annual ISA funding (1600 kEUR)

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2012		200	199
2013		450	
2014		200	
2015		200	

## 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 services<sup>5</sup>.

The specific objective of the present action is to implement a pilot solution to link the Catalogues of 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 the service 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 but to achieve a certain level of harmonisation around 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.

<sup>5</sup> 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 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States' Public Administrations	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
Action 1.2 ISA WP Access to Base Registries	Base Registries form one of the basic building blocks for public services
SPOCS	SPOCS is a Large-Scale Pilot to set up Single Points of Contact and

	help implement the Services Directive
Services Directive	Aims at establishing a single market for services within the EU
Action 1.1 ISA WP Semantic Interoperability	Semantic interoperability is one of the basic prerequisites for building public services and linking up service catalogues

### 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 Exchange WG	Member State Representatives	1 presentation in September

#### 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) will be done in two iterations:

#### Iteration 1: Analysis of existing Catalogue of services

The first iteration will include an assessment of current status of catalogues of services in Member States. National eGovernment portals should be also reviewed to document the different approaches MSs have used for describing public services. This work will be partly based on the results of the initial previous study in addition to external papers.

The study will assess legal, organizational, semantic, and technical issues and challenges and best practices of overcoming them. A set of characteristics common across the different catalogues will be 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 will determine the feasibility of building a European Catalogue of Public Services and potentially federating national catalogues to it. It should come up with concrete steps on how to build this catalogue.

### Phase 3 – development of tools

The action will develop the central catalogue and the means to link national catalogues to it.

### Phase 4 – pilot operation

The final part of the action would then be a pilot phase that would operate the federated catalogue with a limited number of federated national catalogues.

## 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	200	ISA	Q3/2010	Q4/2011

	Catalogue of Services (registry of web services)				
Study	Study on Catalogue of Public Services	250	ISA	Q4/2012	Q3/2013
Implementation	Further steps and development of tools	300	ISA	Q4/2013	Q3/2014
operation	Pilot operation	400	ISA	Q3/2014	Q4/2015
	<b>Total</b>	<b>1150</b>			

### 1.3.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010		200	200
2011		200	0 <sup>6</sup>
2012		250	200
2013		300	
2014		400	
2015			

<sup>6</sup> 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.

#### 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 still intend to authenticate users by means of their eID thanks to ECAS:

- IMI (Internal Market Information System – DG MARKT);
- eFP7 Participant Portal (DG RTD);
- 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"> <li>○ The European Commission demonstrates that it promotes the usage of European initiatives.</li> <li>○ All ECAS-enabled information benefit from the integration with national eID solutions with a minimal impact (ideally no impact at all).</li> <li>○ Confidence in the user identity is increased.</li> <li>○ Development is simplified thanks to the use of a common mechanism for all information systems.</li> <li>○ 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.</li> </ul>
Member States' public administrations	<ul style="list-style-type: none"> <li>○ Consistency is increased since the same credentials are used to access both national information systems and European Commission information systems.</li> <li>○ The level of security is automatically aligned with the one provided by the member state itself.</li> </ul>

### 1.4.6 Related EU actions / policies

Action / Policy	Description of relation
Digital Agenda	Allowing users to authenticate by means of their national eID in order to gain access to European Commission applications helps improve trust and security.

### 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	300	ISA	Q1/2012	Q4/2013
Execution	Support for mission critical applications	150	ISA	Q1/2012	Q4/2012
Execution	Generalisation	150	ISA	Q1/2013	Q4/2013
	<b>Total ISA budget</b>	<b>1760</b>			

### 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

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2013	Execution	300	
2014			
2015			

#### 1.4.10 ANNEX AND REFERENCES

description	Reference link	Attached document
ECAS-STORK Integration (pilot 6)	<a href="https://www.eid-stork.eu/pilots/pilot6.htm">https://www.eid-stork.eu/pilots/pilot6.htm</a>	

## 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 is 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 Countries<sup>7</sup> 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.

In the area of pan European public services, it is becoming a real necessity the deployment of infrastructures at European country level to ensure the provision of core services needed by the

<sup>7</sup> According to ISA legal act (Decision No 922/2009/EC), the term European countries refers to Member States, EEA countries and candidate countries

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 than linear with the adoption of new participants.

The project encompasses already 20 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 than linear with the adoption of new participants.

In the long run, the Connecting Europe Facility, for which the legislative proposal has been adopted by the Commission in October 2011 and on which the European Parliament is expected to vote in late 2012 or early 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.

#### 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 ISA actions / other 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>
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>Also, 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>
Action 1.18 Federated Managed Authentication Services for ECAS	<p>The purpose of this action 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 EC to login to authorized applications in case the user is a public official and the application aims at usage by an administration. This action 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.</p>

### 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
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.

### 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 MILESTONES<sup>8</sup>

#### 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

<sup>8</sup> All 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

Execution	Upgrade and maintenance of the Software modules	800	ISA	Q4/2012	Q4/2014
	<b>Total (ISA)</b>	<b>1350</b>			

### 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	<a href="https://www.eid-stork.eu/index.php?option=com_processes&amp;act=list_documents&amp;s=1&amp;Itemid=60&amp;id=312">https://www.eid-stork.eu/index.php?option=com_processes&amp;act=list_documents&amp;s=1&amp;Itemid=60&amp;id=312</a>	
STORK SW	<a href="https://joinup.ec.europa.eu/software/stork/home">https://joinup.ec.europa.eu/software/stork/home</a>	

## 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
Associated Services	DG MARKT – DG CONNECT – DG ENTR

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 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 ISA. The ISA programme can be used to ensure the sustainability of LSPs until other long term solutions are in place.

In 2011, two sustainability actions were part of the ISA Work Programme, one related to PEPPOL and another one to STORK. This action proposes to sustain 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 common e-Delivery solution will become the backbone of a Common Infrastructure for Public Administrations (hereafter referred to as CIPA). 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. CIPA would be maintained by DIGIT until 2015 within the ISA work-programme. 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.

### 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. In the last months, it has become apparent that the creation of purpose-built e-Delivery technical specifications by each LSP could potentially magnify this issue. 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. 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. If the Commission does nothing 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).

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 of CIPA.
- 2nd: Ensure that PEPPOL's e-Delivery building block can run efficiently and effectively.
- 3rd: Ensure that PEPPOL's e-Delivery building block is migrated to the common e-Delivery technical specifications which will be agreed among all LSPs.

This action will also contribute to the implementation of the "common vision for a European Interoperability Architecture", ISA action 2.1. 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.

- Scope of the 1st Objective: In the last months, 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: As explained above, DIGIT will take-over the maintenance of PEPPOL's e-Delivery building block. Hence, DIGIT may need to correct shortcomings so that it can run in operations efficiently and effectively.
- Scope of the 3rd Objective: DIGIT will work with the LSPs on the e-Delivery convergence i.e. PEPPOL (BusDoX), SPOCS (SOAP REM), epSOS (epSOS messaging protocol) and e-Codex (in the process of selecting the technical

specifications for its e-Delivery building block). PEPPOL's e-Delivery building block will most likely need to be somewhat adapted to support the common technical specification. As this is not expected to happen before the end of the PEPPOL pilot, DIGIT may take over the migration of PEPPOL's building block.

This action is complementary to the PEPPOL Sustainability action introduced by DG CONNECT in the ISA Work Programme 2013, which aims at sustaining the PEPPOL's SML services. Therefore, the following aspects are out of the scope of the current action:

- Hosting of the central components
- Management of the PKI: The OpenPEPPOL organization has opted for an alternative to the PKI contract which was amended in the context of the current action.
- Service Management

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## 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 will possibly adopt ebXML's ebMS. 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. This confirms that the Commission should intervene by creating CIPA. Its adoption 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 will undertake this project to create CIPA consistent with the strategic intent of the Digital Agenda for Europe and The eGovernment Action Plan 2011–2015. 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.

### 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 is not sustained beyond this date, this may 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:

- **Certificates:** The transmission of data across borders must be trusted. In the case of PEPPOL this is ensured through certificates given to its Access Points (APs), which comply with the technical specifications adopted by PEPPOL.  
**Hosting:** 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.

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

- According to ISA's legal basis, the building blocks developed by PEPPOL 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 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 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	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.
Software industry and IT service markets	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 taken on board. 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.

### 1.6.6 Related EU actions / policies

Action / Policy	Description of relation
Digital Agenda for	According to <a href="#">Action 84</a> (Support seamless cross-border eGovernment

Europe	<p>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 will continue to support the experience sharing and good practice exchange between running and new Large Scale Pilots. The Commission will launch studies to assess critical sustainability issues of the STORK and PEPPOL Large Scale Pilots. The Commission will launch a study to analyse the existing and future needs and cost benefit of cross-border eGovernment services and assess the organisational, legal, technical and semantic barriers together with the Member States.</p> <p>In 2012: The Commission will facilitate 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 <a href="#">Action 23</a> (Roll out Large Scale Pilot projects and start new ones, coordination and re-use of results &amp; 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> <p>(a) the establishment and improvement of common frameworks in support of cross-border and cross-sectoral interoperability (...)</p> <p>(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);</p> <p>(d) the improvement of existing reusable generic tools and the establishment, provision and improvement of new reusable generic tools.</p>
Communication "A strategy for e-Procurement" (DG MARKT)	<p>DG MARKT's <a href="#">Communication</a> "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.</p>
1.19 Peppol sustainability action	<p>The action will sustain the PEPPOL Service Metadata Locator (SML)</p>

## 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. It has started a separate and complementary action for the sustainability of PEPPOL.
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. The intention is that they re-use it in their projects.
Standardisation	<b>OASIS – BDX:</b> The new OASIS Business Document Exchange (BDX) Technical Committee is being formed by proponents of

Bodies	<p>PEPPOL. The PEPPOL's BusDoX are therefore currently transitioning to OASIS.</p> <p><b>OASIS – ebXML:</b> 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 that not by used by PEPPOL, SPOCS or epSOS, eCodex is now considering adopting it and is likely to recommend that the other LSPs to converge to it.</p> <p><b>ETSI – REM:</b> ETSI has worked with SPOCS in the creation of a web-services version of REM, known as SOAP REM.</p> <p><b>CEN/ISSS WS/BII 2:</b> As both e-PRIOR and PEPPOL are amongst the first projects to implement the CEN BII profiles, it is therefore very important to understand the sustainability of CEN BII 2.</p> <p><b>W3C XKMS:</b> The specification of PEPPOL WP1 is based on the XML Key Management Specification (XKMS).</p>
European Public Administrations	<p>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 is aligned with their needs.</p>
LSPs	<p><b>PEPPOL Consortium:</b> We will coordinate our action with the pilot closing activities of the PEPPOL project.</p> <p><b>SPOCS:</b> This LSP is currently participating in the meetings to converge the e-Delivery technical specifications in use by the several LSPs.</p> <p><b>eCodex:</b> This LSP is currently participating in the meetings to converge the e-Delivery technical specifications in use by the several LSPs.</p> <p><b>STORK:</b> We will coordinate our action with any follow up actions to the STORK sustainability initiative.</p> <p><b>epSOS:</b> This LSP may also join the meetings to converge the e-Delivery technical specifications in use by the several LSPs.</p>
Market Players	<p><b>Economical Operators:</b> 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</p>

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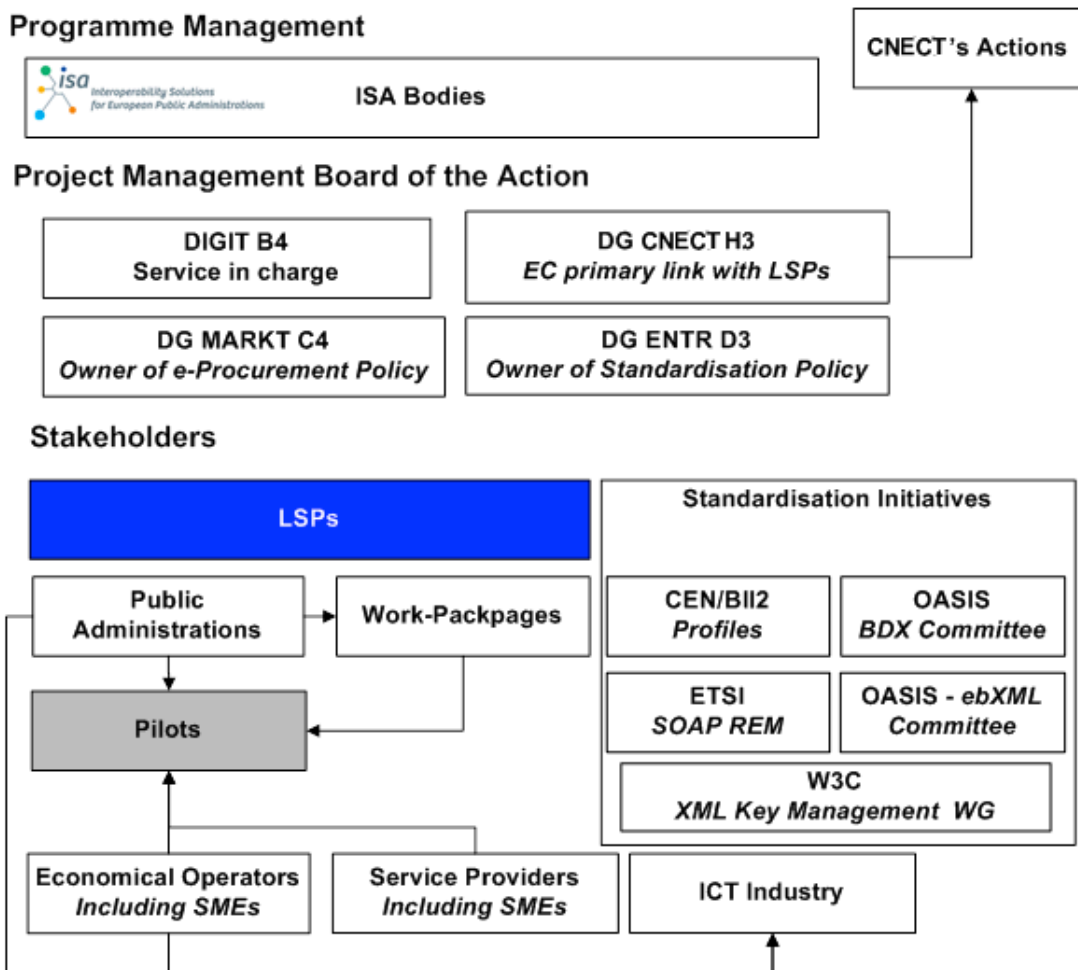
	<p>improved electronic collaboration will enable Public administrations to provide required information, documentation and certification quickly and reliably.</p> <p><b>ICT Industry (ERP Software Vendors and System Integrators):</b> Economical operators might take on board the technical specifications 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.</p>
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### 1.6.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
LSPs Convergence Meetings	PEPPOL, SPOCs, e-Codex, and DIGIT	These meetings are arranged by DG CONNECT 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 will be the first LSP to benefit from CIPA, the first deliverable of this project is a Business Gap Analysis, which includes the Lessons Learnt of PEPPOL's production pilots and a Take-Over Feasibility Study. Any possible take-over issue is therefore being identified before the PEPPOL project ends so that it can be jointly analysed. Afterwards, and based on the collected input, improvement alternatives and a Transition Roadmap will be outlined to potentiate the realisation of quick wins, mitigate the migration risks and contribute to the sustainability of the relevant PEPPOL's key public services so that European public administrations can 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 will be used in the production of the Business Gap Analysis. The Rational Unified Process (RUP) will be used for software development and enhancement.

### Phase 1: Inception

*Work-Package "Take-over Feasibility Study"*: This action establishes a realistic understanding of:

- The Commission's capability to operate and/ or host the building blocks coming from PEPPOL. This involves identifying these building blocks and understanding 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, will 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. This also involves the identification of these services, their requirements and their extent in the context of a federated architecture where the boundaries between central and local responsibilities will 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) require detailed analysis to ensure the smooth evolution of the overall PEPPOL ecosystem.

### Phase 1: Execution

*Work-Package "Business Gap Analysis"*: In addition to the take-over feasibility study described above, this project analyses the value of the several building blocks and tools which are to be migrated to operation. This track looks beyond the technical elements and focuses 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. This work-package will be divided into two separate tracks:

- Track 1—Analysis of Business Sustainability
- Track 2—Analysis of Pilots Lessons Learned

*Work-Package “Transition Roadmap”*: The findings collected at the previous step is consolidated and used by DIGIT to decide which PEPPOL building blocks to sustain. Following the decision step, a transition roadmap is created. Particular attention is given to the alignment between the building blocks to be sustained and 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, the convergence of e-Delivery technical specifications is analysed and added to the Transition Roadmap.

*Work-Package “Detailed Design of Target Operating Model”*: This step aims at detailing the operational IT services (including support to the implementation of CIPA’s Access Points and support to their deployment throughout Europe) and also the daily infrastructure management processes in accordance with the transition roadmap.

*Work-Package “Migration Plan”*: This work-package outlines the migration to the envisaged Target Operating Model.

*Work-Package “Monitoring the implementation of Transition Roadmap”*: The implementation of the transition roadmap is accompanied by a monitoring process to ensure that risks are managed and the schedule respected.

#### Phase 1: Operational

Phase 1 ends with the transfer and set up of infrastructural building blocks (see reference to the decision step in WP "Transition Roadmap"). It is based on the transition roadmap. The procedures necessary to run the central components of e-Delivery (the PKI and the SML) are documented. A framework contract is established with a PKI provider in order for the managing authority to issue the certificates and to manage them.

#### Phase 2: Inception

Update of the Project Charter to reflect the new scope of the action. The project charter makes it possible for DIGIT to agree at the outset what the desired outcome should be for Phase 2, 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.

#### Phase 2: Execution

*Work-Package “e-Delivery Migration”*: In the context of this work-package, DIGIT will work on these 2 steps:

- **Step 1:** Interact with the LSPs on the convergence of e-Delivery technical specifications.
- **Step 2:** Extension of 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.

- **Step 3:** Development of converter software, embedded in the gateway, which enables the change/ or co-habitation (to be defined) of technical specifications. 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.
  - *Work-Package “e-Delivery enhancements”*: In the context of this work-package, DIGIT will:
- **Step 1:** First iteration to implement first priority requirements regarding the monitoring of the operations and the respect of the SLAs for Quality of Service (QoS) purpose.
- **Step 2:** Second iteration to implement second priority requirements regarding the monitoring of the operations and the respect of the SLAs for Quality of Service (QoS) purpose.

#### Phase 2: Operation

DIGIT will maintain the sample implementations of Access Points, SMPs and possibly other related software, and provide support to Public Administrations which are implementing these components.

The maintenance of the source code will result in bug fixing and change management activities. The following change requests have already been identified:

- Merge of the Oxalis and Silicone versions of the sample implementations.
- Support of the AS2 protocol.
- Development of an admin console for the SML.

## 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 <b>Phase 1</b>	0	DIGIT B4	Q1/2012	Q1/2012
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” Step 3  Work Package “e-Delivery enhancement” Step 2	150	ISA	Q1/2014	Q4/2014
Phase 2 Operational	Operation 2014	300	ISA	Q1/2014	Q4/2014
Execution Report of Phase 2	Update of Execution Report <b>Phase 2</b>	00	DIGIT B4	Q1/2015	Q1/2015
Phase 2 Operational	Operation 2015	250	ISA	Q1/2015	Q4/2015
	<b>Total ISA budget</b>	<b>2570</b>			

### 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 <sup>9</sup>
2012	Operational Phase 1	250	250
	Execution Phase 2	100	76
	Operational Phase 2	420 <sup>10</sup>	170
2013	Execution Phase 2	200	
	Operational Phase 2	300	
2014	Execution Phase 2	150	
	Operational Phase 2	300	
2015	Operational Phase 2	250	
Grand Totals		2570	

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

<sup>10</sup> 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.

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### 1.6.10 ANNEX AND REFERENCES

Description	Reference link	Attached document
Digital Agenda for Europe	<a href="http://ec.europa.eu/digital-agenda/">http://ec.europa.eu/digital-agenda/</a>	
eGovernment Action Plan	<a href="http://ec.europa.eu/digital-agenda/en/european-egovernment-action-plan-2011-2015">http://ec.europa.eu/digital-agenda/en/european-egovernment-action-plan-2011-2015</a>	
ISA legal basis and reference documents on interoperability	<a href="http://ec.europa.eu/isa/">http://ec.europa.eu/isa/</a>	

## 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 - DG ENTR.D3

I. The PEPPOL project, 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 depends on 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). 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.

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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 model, 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.

## 1.7.2 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 are already in place, the participation in the pilot can be achieved within a relatively short time provided the availability of resources. Participation as from day one will show 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. In its first three months, the first release of e-PRIOR's open sourced version on the OSOR website has triggered more than 350 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.

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

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follow-up of this initiative, the second CEN/ISSS WS/BII, to ensure the sustainability and proper evolution of these profiles. Additionally, e-PRIOR will be 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, will make e-PRIOR very attractive to the MS administrations and thus accelerate 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. Support of the UN/CEFACT XML standard i.e. CII v2

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.

##### 2. Support of Advanced Electronic Signatures

Today, e-PRIOR is working in an EDI concept 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 will also become option. This implies that signing and verification mechanisms will be supported by e-PRIOR. This will enable 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 will focus on the requirements of the e-

Submission / e-Awarding process, and investigate 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 study 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, using an approach that foresees a progressive incremental coverage, implying that by the end of 2012 we should have a first e-Submission module, 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.

### 1.7.3 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 PEPPOL gateway among other added-value services).

The reuse of e-PRIOR will help increase the number of PEPPOL 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 exchange<sup>11</sup> will contribute to the take up of interoperable e-Procurement, the sustainability of PEPPOL and the reuse of these building blocks in other sectors.

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<sup>11</sup> See action 1.8 Trusted Exchange Platform

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 is to create a blue-print for an e-Tendering solution; and
- The e-Procurement Golden Book of Good Practice: this study is collecting good practices for (mainly pre-Award) e-Procurement, and practices to be avoided.

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

#### 1.7.4 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States' Public Administrations - implementers of Public Services	<ul style="list-style-type: none"> <li>• 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;</li> <li>• Free-to-use open specifications for data and processes (CEN/ISSS WS/BII 2) that have been tested in a real-life environment ;</li> <li>• Shared experience in and support for setting up pre- and post-award e-Procurement;</li> <li>• Large cost savings and efficiency improvements, with reduced investment;</li> <li>• 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'</li> </ul>

	<p>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-Greffe with e-PRIOR.</p> <ul style="list-style-type: none"> <li>• Re-use of e-Submission components in other sectors different than procurement</li> </ul>
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.

### 1.7.5 Related EU actions / policies

Action / Policy	Description of relation
The PEPPOL project (CIP Large Scale Pilot – DG CONNECT)	As a complementary solution, e-PRIOR contributes to the success of PEPPOL
Communication on e-Procurement (DG MARKT)	e-PRIOR is seen as an important action to support e-Procurement in Europe
Communication on e-Invoicing (DG MARKT / DG ENTR)	The European Commission is leading by example by implementing e-Invoicing for own public procurement purposes, through e-PRIOR. (action 6.2)
Digital Agenda	Interoperable e-Procurement and leading by example are explicitly mentioned in the Digital Agenda (see Key Action 16 and related "other actions")

### 1.7.6 ORGANISATIONAL APPROACH

#### 1.7.6.1 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	Arturo Caballero Bassedas
DG MARKT.C4	Alain Deckers, Marco Tardioli, Ivo Locatelli, Tudor-Trestieni Ion

DG ENTR.D4	Antonio Conte, Nathalie Pasquier
DG CONNECT.H2	Jean-François Junger, Hannele Lahti
PEPPOL Consortium	Klaus Vilstrup Pedersen, Carmen Ciciriello
European Public Administrations	
Economical Operators	
Service Providers	
ERP Software Vendors	
CEN/ISSS WS/BII 2	

### 1.7.6.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
ISA TIE Working Group	e-PRIOR team member	Quarterly
PEPPOL Conference	e-PRIOR team member	Yearly
EXPP Summit	e-PRIOR team member	Yearly
CEN/ISSS WS/BII 2	e-PRIOR team member	Quarterly
CEN/ISSS WS/E-Invoicing 3	e-PRIOR team member	<i>This initiative has ended</i>
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)	

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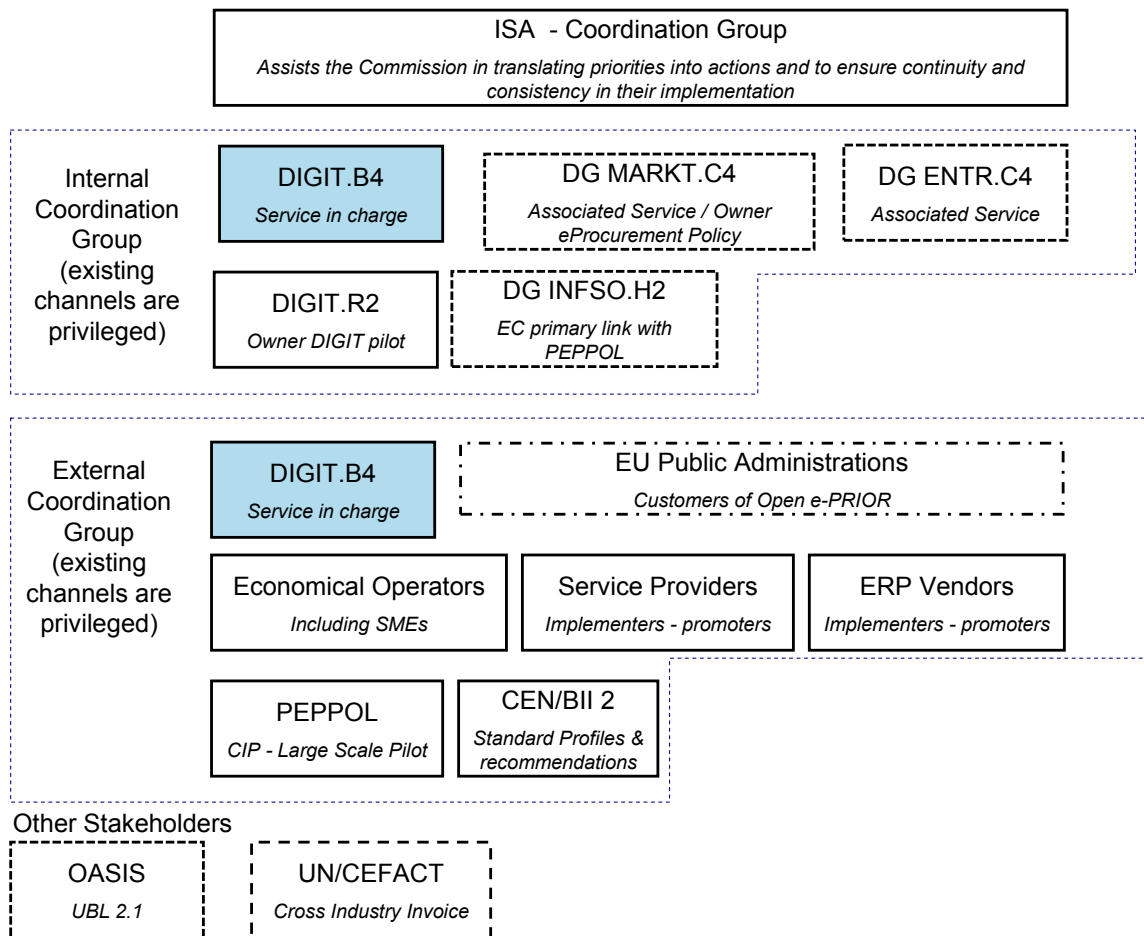
LinkedIn e-PRIOR Group	(online)	
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### 1.7.6.3 Governance approach

The e-PRIOR participation to PEPPOL will be 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:



## 1.7.7 TECHNICAL APPROACH

This project will be 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 will be the Inception phase whereby a project charter will be 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** will focus 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** will focus 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 covers the further enhancements to the post-award procurement process, while phase 2b will look 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.

Given that the PEPPOL programme of works is still unclear for the post-pilot period this proposal shall request funding for the activities of Phase 1 only as they are within the scope of the current programme of works of PEPPOL. A revision will later be made in order to reflect better the activities planned for Phase 2 once the PEPPOL post-pilot implementations are more clearly defined.

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

## 1.7.8 COSTS AND MILESTONES

### 1.7.8.1 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)
Inception	Project charter	0	DIGIT internal resources	Q1/2010	Q2/2010
Phase 1: Support the PEPOL 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 2: Support the transition of PEPOL into production / Support DG MARKT's e-Procurement strategy					
Execution	Phase 2a - Execution report (UN/CEFACT, e-Signature, GUI for SMEs)	900 <sup>12</sup>	ISA	Q3/2011	Q2/2012
Execution	Phase 2b - Execution report: Pre award: Feasibility Study, e-Submission, e-Qualification and e-Awarding Cross-sector reuse (analysis/opportunities)	2.150 <sup>13</sup>	ISA	Q3/2011	Q4/2013
Operational		600 <sup>14</sup>	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	1.350	ISA	Q1/2015	Q4/2015

12 1.050 k€ of the original proposal – 150 k€ moved to Operation 2012 for UN/CEFACT, as per the Execution Report of Phase 2a

13 1.850 k€ of the original proposal + 150 k€ moved from Operational 2012.

14 600 k€ of the original proposal + 150 k€ moved from Execution 2a for UN/CEFACT – 150 k€ moved to Execution 2b

	Report: e-Auctions, Dynamic Purchasing System and e-Tendering Interoperability Model				
Operational		300	ISA	Q1/2014	Q4/2015
	<b>Total</b>	10.450			

### 1.7.8.2 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	320
2011	Phase 1 Execution	1120	1120
	Phase 2a Execution	200	200
	Phase 2b Execution	100	100
	Phase 1 Operational	430	430
2012	Phase 2a Execution	700	750
	Phase 2b Execution	600	650
	Phase 2 Operational	300	330
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	

### 1.7.9 ANNEX AND REFERENCES

description	Reference link	Attached document
Green Paper on expanding the use of e-Procurement in the	<a href="http://ec.europa.eu/internal_market/consultations/docs/2010/e-procurement/green-paper_en.pdf">http://ec.europa.eu/internal_market/consultations/docs/2010/e-procurement/green-paper_en.pdf</a>	

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EU (DG MARKT)		
Communication on e-Invoicing "Reaping the benefits of electronic invoicing in Europe" (DG ENTR / DG MARKT)	<a href="http://ec.europa.eu/enterprise/sectors/ict/files/com712_en.pdf">http://ec.europa.eu/enterprise/sectors/ict/files/com712_en.pdf</a>	
Digital Agenda	<a href="http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0245:FIN:EN:PDF">http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0245:FIN:EN:PDF</a>	
Communication "A strategy for e-Procurement" (DG MARKT)	<a href="http://ec.europa.eu/internal_market/publicprocurement/docs/e-procurement/strategy/COM_2012_en.pdf">http://ec.europa.eu/internal_market/publicprocurement/docs/e-procurement/strategy/COM_2012_en.pdf</a>	

## 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, REGIO.A.4, MARKT.B.1, EMPL.G4

### 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 with the specific objectives being:

- Demonstrate the re-use of the e-TrustEx platform in several sectors. This will show 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 will be 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 will most likely inherit 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 will further detail how the Architectural Vision will be implemented taking into account any dependencies on other actions.

### 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 are:**

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 GUI to send and receive documents.

**The main activities for Phase 2 are:**

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 are:**

1. Part 2 of Architecture Roadmap Implementation;
2. Implementation of pilots.

**The main activities for Phase 4 are:**

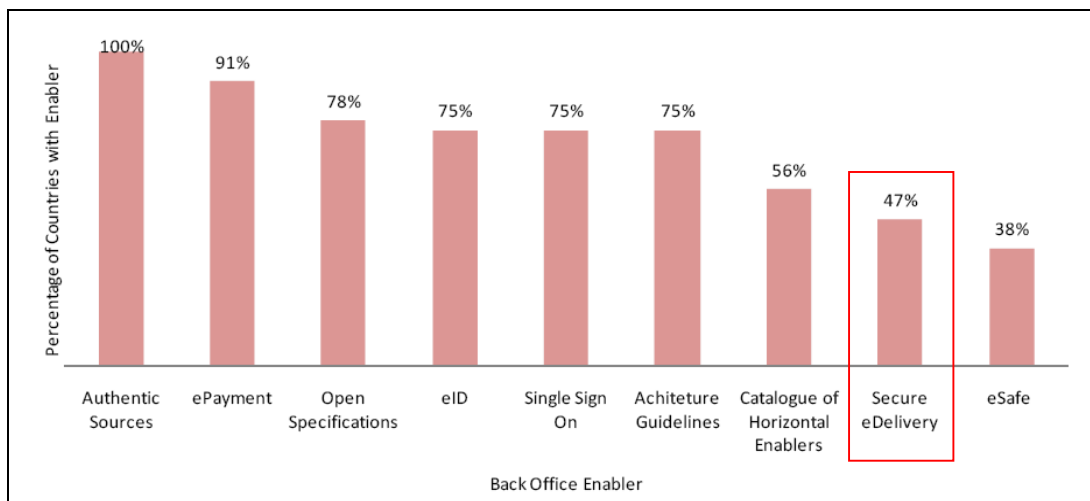
1. Part 3 of Architecture Roadmap Implementation;
2. Implementation of pilots.

**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.



According to the 9th Benchmark Measurement, out of nine horizontal enablers that have been analysed through country surveys and independent (part) assessments, secure eDelivery is available in less than 50% of the EU27+ countries. E-TrustEx will make available a key enabler for secure eDelivery to the Member States currently lacking one.

In 2010, the Member States participating in the ISA Trusted Information Exchange Cluster were surveyed by the e-TrustEx project team. When asked whether "The European Commission should promote the re-use of a common set of proven and tested building blocks for cross-border (and cross-sector) data exchange e.g. ISA outputs, CIP Large Scale Project outputs, etc." 87% agreed that the European Commission should do this.

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

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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:

- 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) 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 underlining 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 not 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 policy DGs that use the platform.

An important example of adoption of the eTrustEx platform (for which discussions are on-going) is in the context of the implementation of the *eCohesion* project led by DG REGIO.

### 1.8.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Direct Beneficiaries	Anticipated benefits
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Member States' public administrations and EU institutions	<ul style="list-style-type: none"> <li>- 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).</li> <li>- 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.</li> <li>- 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.</li> <li>- Cost savings and improve efficiency, reduce time-to-market and ensure interoperability of information exchange at European, national, regional or local level.</li> <li>- 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.</li> <li>- Experience, lessons learnt, specifications, tools and components published as open source reusable by any Member State or EU Institution.</li> </ul>
IT services in the Commission	<p>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.</p>

### 1.8.6 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
CIP LSPs – DG CONNECT	eTrustEx will implement an Access Point to the solution deriving from the convergence of the eDelivery solutions of the CIP Large Scale Pilots.

Digital Agenda	<p><b>Action 27: Member States to implement Malmö and Granada declarations</b> Member States should implement commitments on interoperability and standards in the Malmö and Granada Declarations by 2013.</p> <p><b>Action 26: MS to implement European Interoperability Framework</b> Member States should apply the European Interoperability Framework at national level by 2013.</p> <p><a href="http://ec.europa.eu/information_society/digital-agenda/index_en.htm">http://ec.europa.eu/information_society/digital-agenda/index_en.htm</a></p>
The eGovernment Action Plan 2011 – 2015	<p><b>Action 33 "Exchanges of expertise, promotions of the re-use and sharing solution to implement interoperable eGovernment services"</b> 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><b>Action 40 Pilot projects for innovative architecture and technologies in eGov</b> 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><a href="http://ec.europa.eu/information_society/activities/egovernment/action_plan_2011_2015/index_en.htm">http://ec.europa.eu/information_society/activities/egovernment/action_plan_2011_2015/index_en.htm</a></p>
1.11 GENIS	<p>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.</p>
EESSI	<p>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.</p> <p><a href="http://ec.europa.eu/social/main.jsp?catId=869">http://ec.europa.eu/social/main.jsp?catId=869</a></p>

### 1.8.7 ORGANISATIONAL APPROACH

A Project Steering Committee will be 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><b>Unit DIGIT.B.4</b> (<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><b>Unit DIGIT.B.1</b> (<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>
DG COMP – Directorate General Competition of the European Commission	<p><b>Unit COMP.R.3.</b> (<i>Information Technology</i>)</p> <p>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><b>Unit COMP.R1</b> (<i>Document Management</i>)</p> <p>This unit is the system owner and business project manager of EDMA and represents the interests of the EDMA users.</p> <p><b>COMP.H</b> (<i>State aid: Cohesion, R&amp;D&amp;I and enforcement</i>)</p> <p>This Directorate is the system owner of the GENIS project.</p>
Secretariat general Of the European Commission	<p><b>Unit SG.A1</b> (<i>Advice, developments and logistics</i>)</p> <p>This unit is the system owner and business project manager of e-GREFFE and represents the interests of the e-GREFFE users.</p> <p><b>Unit SG.R3</b> (<i>Information Technology</i>)</p> <p>This unit is the system supplier of A.S.A.P..</p> <p><b>Unit SG.G3</b> (<i>European Economic and Social Committee, Committee of the Regions, European Ombudsman and National Parliaments</i>)</p> <p>This unit is the system owner of A.S.A.P..</p>
DG MARKT – Directorate General for Internal Market and Services of the European	<p><b>Unit MARKT.B.1</b> (<i>Internal Market Information System</i>)</p> <p>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</p>

Stakeholders	Representatives
Commission	could provide Member States with the possibility to exchange information securely between existing systems and IMI.
DG REGIO – Directorate General for Regional Policy	<b>Unit REGIO.A.4 (Information Technology)</b> This unit is in charge of the implementation of the eCohesion project (initiative aiming to set up the enablers required for the reduction of administration burden for beneficiaries of grants).
DG CONNECT – Directorate General for Information Society and Media	<b>Unit CONNECT.H2 (ICT for Government and Public Services)</b> The cooperation with CONNECT is key given its role as the primary link between CIP pilots and the Commission.
DG ENTR – Directorate General for Enterprise and Industry	<b>Unit ENTR.D3 (ICT for Competitiveness and Industrial Innovation)</b> Its participation is essential given the importance of standards for the enablement of secure information exchange.
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 (e.g.: DG EMPL with its EESSI project) 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	DIGIT representatives, Policy DGs representatives	These meetings are arranged by DIGIT on ad hoc basis.

Event	Representatives	Frequency of meetings / absolute dates of meetings?
Policy DGs		
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.

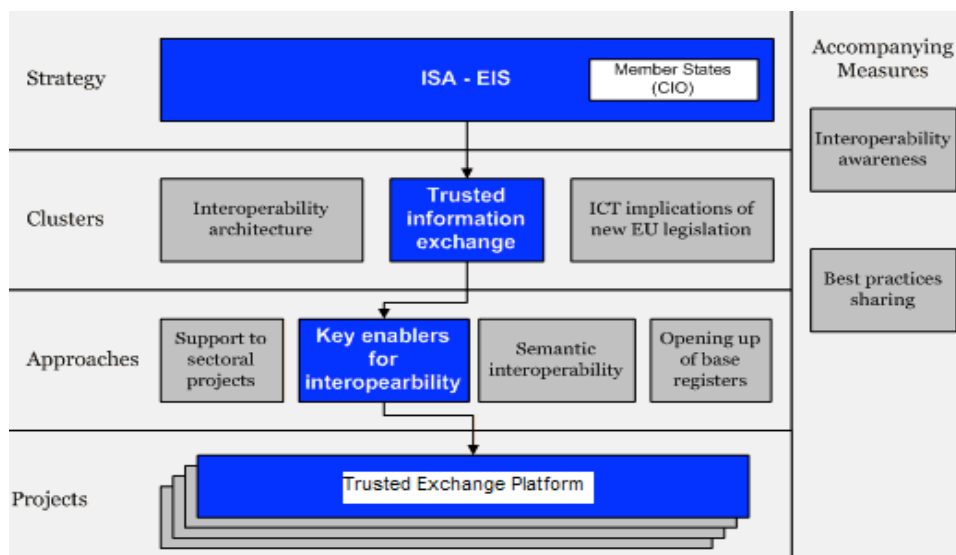


Figure: ISA Governance Structure

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

# ISA - Coordination Group

Assist the Commission in translating priorities into actions and to ensure continuity and consistency in their implementation

**Project Coordination Group**

**DIGIT.B4**  
Service in Charge

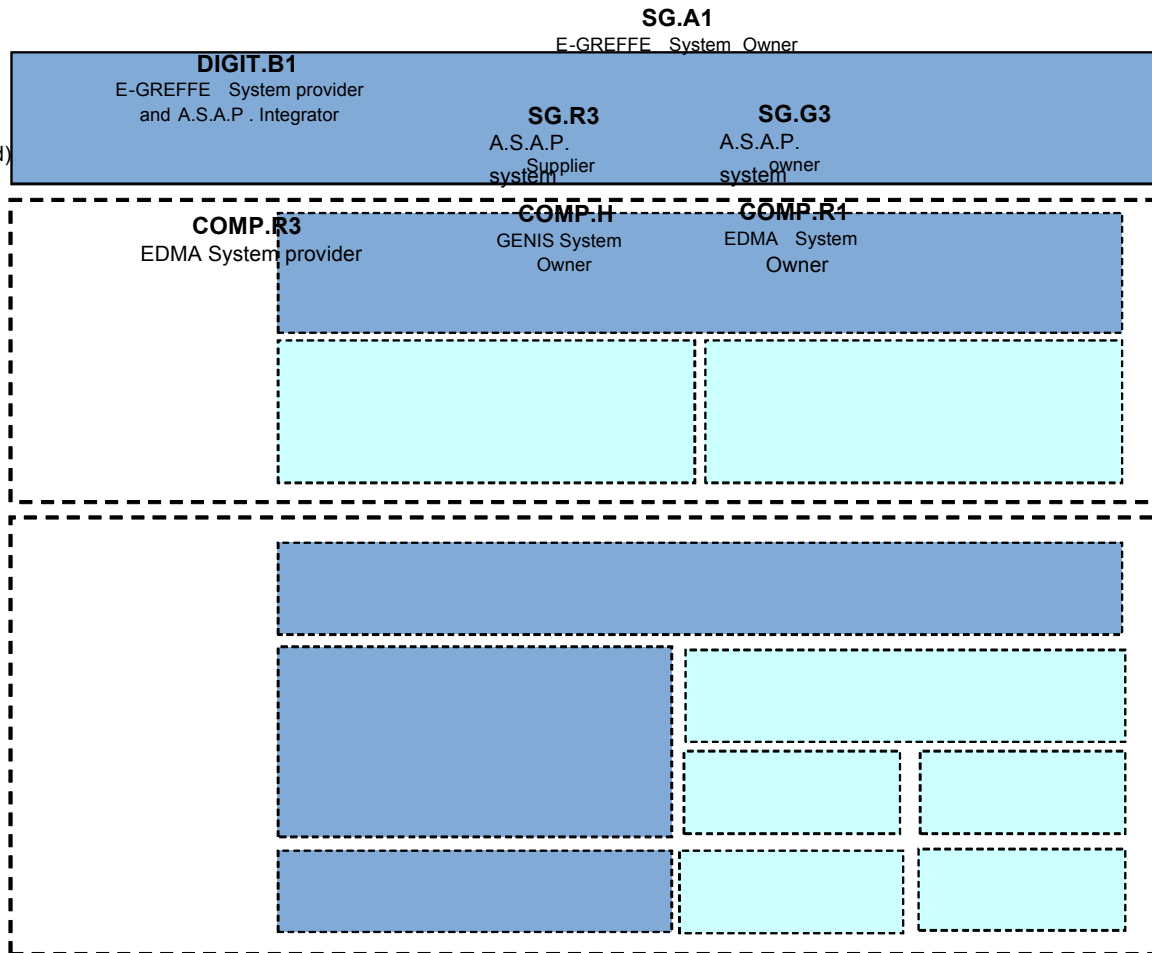
(existing communication channels privileged)

(system owners) of the back-end systems participating in the pilot. The system owners would represent the interests of the final users of the e-PRIOR 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.

**Extended Coordination 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.

(existing communication channels privileged)



## 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 that would make the platform the reference for cross sector and cross border information exchange integrated with the transport infrastructure created by the CIP pilots 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.

**Other phases** will be identified based on the roadmap mentioned above, in fact the Roadmap actions will be implemented in 3 "parts":

- part 1 will be covered during the **second phase**;
- part 2 during the **third phase** and;
- part 3 during the **fourth phase**.

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).

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 documents (e-GREFFE of SG)	E-GREFFE is a workflow application supporting the decision making process of the EU Commission. It enables electronic management of all documents adopted by the Commission. After adoption, e-GREFFE forwards electronic copies of these legislative documents to all relevant

Pilots	Description
[Phase I pilot and Phase II]	<p>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)</p> <p>[Phase I pilot, Phase II enhancements]</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 (A.S.A.P. of SG)</p> <p>[Phase II pilot]</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 this context, A.S.A.P. (Application de Suivi des Avis des Parlements nationaux) is an application developed and operated by the Secretariat General that allows the management and the collection of National</p>

Pilots	Description
	<p>Parliaments advices on the legislative proposals of the European Commission. These legislative proposals are originated by the e-Grefe application, therefore the inclusion of A.S.A.P. In the pilots is the natural extension of the e-Grefe 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)</p> <p>[Phase II 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>Exchanges in the context of eCohesion implementation of DG REGIO</p> <p>[Phase III pilot]</p>	<p>This initiative aims to set up the enablers required for the reduction of administration burden on the beneficiaries of e-Cohesion grants. The adoption of eTrustEx will allow the switch from paper to electronic data exchange between Beneficiaries with or without a Back Office (eTrustEx GUI) and Managing Authorities or Joint Technical Secretariats The data exchanges involving Intermediate Body and Other authorities at national level may also be digitised.</p> <p><b>NB:</b> This pilot is relevant because the tool will be used for the first time at the level of local administrations.</p>

Pilots	Description
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. On-going 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 III or 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.

In the context of the completion of the Architecture Vision, a number of contacts with Member States and DGs are on-going:

#### Contact with Member States

- *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 are on-going 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).

#### CIP Pilots

When possible, e-TrustEx will re-use/ "integrate with" the building blocks 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.

#### 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 are currently being 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.

**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"> <li>▪ Bundle Management;</li> <li>▪ Web GUI for Inbox consultation;</li> <li>▪ Technical Acknowledgement;</li> <li>▪ Secure Transmission Channel;</li> <li>▪ Administration Console for the Exchange Platform (scripts based);</li> <li>▪ Possibility for a back-end external to the Commission to check its associated inbox (provision of "adaptor" with polling functionalities).</li> </ul>
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"> <li>▪ Extended Bundle Management (up to 500 files in a Bundle);</li> <li>▪ Transmission / reception of large files (up to 100 Mbytes);</li> <li>▪ GUI for Inbox consultation/download/upload of large files (up to 100 Mbytes);</li> <li>▪ Multicast mode;</li> <li>▪ Secure Transmission Channel;</li> <li>▪ Administration scripts for the Exchange Platform (User configuration);</li> <li>▪ Multilingual GUI;</li> <li>▪ Outbox consultation at GUI level.</li> </ul>

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

	Scope	Identified objectives
WP1	<i>Architectural Vision and Roadmap</i> <ul style="list-style-type: none"> <li>▪ Analysis of convergence with similar initiatives in Member States and within the Commission;</li> </ul>	<ul style="list-style-type: none"> <li>▪ Finalised Architecture Vision and;</li> <li>▪ Finalised Architecture Roadmap;</li> <li>▪ Input for updated proposal of ISA Work Programme (description of further phases after Phase 2).</li> </ul>

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

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

Scope	
WP1	<p><i>Architectural Roadmap Implementation – Part 2</i></p> <ul style="list-style-type: none"> <li>▪ Enhance generalisation of the GUI associated to the platform;</li> <li>▪ Further enhancements on message exchange, non-repudiation and security functionalities;</li> <li>▪ Further enhancements on modularity and configurability;</li> <li>▪ GUI for configuration / parameterisation of the platform with the objective implement new business exchanges without any development (e.g.: support of additional exchange choreographies);</li> <li>▪ Time Stamping on exchanged documents.</li> </ul>

WP2	<i>Initial CIP Access Point implementation (including support of protocols such as ebXML)</i>
WP3	<i>Detailed Study of possible convergence with EESSI platform of DG EMPL</i>
WP4	<i>Detailed Study of possible convergence / interoperability with Member States exchange platforms (such the French "PEC")</i>

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

	Scope
WP1	<i>Architectural Roadmap Implementation – Part 3</i> <ul style="list-style-type: none"> <li>▪ Management of business messages exchange priorities;</li> <li>▪ Enhance reliability of delivery in case of cold/hot restart of the platform (e.g.: in case of stop/restart of servers);</li> <li>▪ Enhanced Audit system (Admin Console);</li> <li>▪ Monitoring Tools (Admin Console);</li> <li>▪ Advanced features for preservation of documents (eSafe).</li> </ul>
WP2	<i>Enhanced CIP Access Point implementation (including possible extensions to cover selected protocols implemented by Members States)</i>
WP3	<i>Implementation of essential convergence with EESSI platform on selected features</i>
WP4	<i>Implementation of essential convergence (on specific feature) / interoperability with selected Member States exchange platforms</i>

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

#### **Methodology:**

The project teams will use the RUP@EC methodology for software development 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	Anticipated allocations	Budget line ISA/ others	Start date (QX/YYYY)	End date (QX/YYYY)
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or to be reached		(KEUR)	(specify)		
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 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  Initial CIP Access Point implementation	1.550	ISA	Q3/2012	Q4/2013
Phase 3 - Operational	Roll-out to Operations (various incremental roll-outs foreseen)	0	<i>funded by Policy DGs running the pilots</i>	Q4/2013	Q4/2014
Phase 4 - Inception	Update of Project Charter	100	ISA	Q2/2013	Q4/2013
Phase 4 - Execution	Roadmap implementation – part 3  Advanced CIP	1.400	ISA	Q4/2013	Q4/2014

	Access Point implementation				
Phase 4 - Operational	Roll-out to Operations (incremental roll-outs)	0	<i>funded by Policy DGs running the pilots</i>	Q4/2014	Q4/2015
	<b>Total</b>	<b>6.100</b>			

### 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
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 4 – Inception	100	
	Phase 4 – Execution	200	
2014	Phase 4 – Execution	1.200	

### 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	<a href="http://ec.europa.eu/internal_market/imi-net/docs/strategy_paper_en.pdf">http://ec.europa.eu/internal_market/imi-net/docs/strategy_paper_en.pdf</a>	
Presentations to TIE WG of 22/06/2011 (Charter + Executive Architecture Vision)		Available on request
Conclusions from TIE WG of		Available on

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22/06/2011		request
Digital Agenda	<a href="http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0245:FIN:EN:PDF">http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0245:FIN:EN:PDF</a>	

## 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 A.3

### 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

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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"> <li>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,</li> <li>2. Facilitate the governance of their trusted lists.</li> </ol> <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"> <li>3. Faster take up of e-signature solutions at the point of single contacts (PSC).</li> </ol>
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 for tools 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.

### 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 is a need to continue making these tools available to Member States. The most optimal solution in the short term is 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 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.

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 and some further improvements may be required with some experience of use over time. 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
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	90	ISA	Q2/2011	Q1/2012

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)
	certificate repository.				
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
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	200	ISA	Q2/2013	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)
	recommendations for further changes.				
	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	380 <sup>15</sup>
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	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	

<sup>15</sup> 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

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Description	Reference link	Attached document
and of the Council on services in the internal market amended by Commission Decision 2010/425/EU		
Decision 2011/130/EU 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	OJ L 53 of 26.02.2011	
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 CONCLUDED)

### 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 SANCO (awaiting MS agreement on implementation details for patients' rights) DG ECFIN (on-going discussions on possible use of IMI for cash in transit)

### 1.10.2 OBJECTIVES

The objectives of the proposed action are:

1. to realise the full potential of the IMI application as a generic tool-kit for administrative cooperation across 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 6500 competent authorities in 30 EEA Member States who use the application for two policy areas and are currently piloting a third area.

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 6500 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 is a generic, customisable, administrative cooperation platform. It provides public authorities in the 27 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 two sectors (the Directive on the Recognition of Professional Qualifications and the Services Directive) and in May 2011, a pilot project was launched to support the Directive on Posting of Workers. An additional policy area will be introduced for the Directive on cross-border health care adopted in March 2011, which foresees that IMI will be used to exchange information about health professionals' right to practice. Furthermore, the SOLVIT IT application will be integrated in IMI, reusing part of IMI functionality.

Further expansion of IMI is foreseen for the coming years, as described in the Commission Communication on the future expansion of IMI, adopted in February 2011. Moreover, in August 2011 the Commission submitted a proposal for an IMI Regulation to the European Parliament and Council, to ensure a high level of data protection and a flexible instrument for expansion of IMI to other areas of administrative cooperation.

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 full 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.

In order to make a real success story of IMI, it is essential that the further development of the system is driven by the needs of the current and the future users. The system has to be easy to use, without requiring too much training, if any at all, and it should enable the 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, further expansion of IMI to these other policy areas would generate important synergies.

A number of the developments under this action were part of the recommendations of the original external study commissioned jointly by DG DIGIT and DG MARKT in 2006 prior to beginning development of IMI. These remaining developments suggested by the study would make it easier to extend IMI to cover a wide spectrum of community policies.

Other improvements have been raised by the users of IMI over the past three years. They are generic requirements which are not specific to a single policy area supported by IMI but are likely to deliver benefits to future users of IMI across a range of policy areas.

Furthermore, in February 2011, the Commission adopted a Communication on the future strategy for the Internal Market Information system. It describes unlocking the full potential of

IMI by expanding it to support a wide range of policy areas. It defines the criteria for expansion and it proposes the extension of IMI to provide an administrative cooperation "tool-kit", which would cover a broader range of administrative activities, supporting the expansion to new sectors. A study is currently underway to examine the soundness of the current architecture and propose a suitable technical approach for the envisaged extension.

On the basis of an inventory of requirements from these three sources and with any external assistance that may be needed to deliver a project plan that has a sufficiently broad view and takes full account of the real user needs over a longer period, priorities and working methods will be determined to establish an updated project charter by Q1 2012.

### 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. As a result many problems experienced by citizens and businesses due to delays and misunderstandings can be avoided. This will enable European citizens and enterprises to fully benefit from their rights in the single market.
Member States' Public Administrations	The proposed improvements are based on experience and reflect the demands of the current user community and stakeholders. They will increase effectiveness of the tool in the following areas: identification of interlocutors in other Member States, handling of information requests, and improved security through the introduction of ECAS. New functionality will provide support for a wider range of cooperation via a single interface and avoid system proliferation.
European Commission Services	Re-using an existing IT tool will result in important savings on human and financial resources. A wider spread 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
Internal Market: Professional qualifications directive	IMI facilitates the exchange of information concerning the qualifications of professionals from other member states.
Internal Market:	IMI facilitates the exchange of information concerning cross-border

Services Directive	service provision.
Employment: Posting of Workers Directive	A pilot project allows employment authorities to exchange information concerning posted workers.
Health and Consumers: Patient Rights Directive	This directive on cross-border health care, adopted in March 2011, foresees that IMI will be used to exchange information about health professionals' right to practice.

## 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) Group of Coordinators for the recognition of Professional Qualifications Services Directive expert group on Administrative Cooperation
Public Administrations/ Competent Authorities; end users	EU MS Administration - National IMI Coordinator EU MS Administration – Super Delegated IMI Coordinator
EU Commission	DG MARKT (System Owner, service usage) DIGIT (DIGIT B4 as system supplier) DGT (as translation supplier) DG EMPL (pilot service usage) DG SANCO (future service usage)

### 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	Quarterly

	progress and discuss foreseen activities.	
Coordinator training	EU MS Administration - National IMI Coordinator EU MS Administration – Super Delegated IMI Coordinator	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, will continue to guide the project. The committee will be expanded to include representatives for other policy areas when they decide to use IMI.

The committee will:

- Decide on the project charter;
- Establish a long term strategy for the IMI system;
- Take decisions in line with the strategy;
- Set priorities for further developments and improvements to the system based on the strategy and the requirements and priorities expressed by Member State stakeholders;
- Supervise 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.

### 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 and in the course of this action, anticipated interfaces include MT@EC for machine translation, EU Pilot for case

transfer, Your Europe for content syndication and ECAS for authentication. An on-going study is evaluating the introduction of a business process approach to improve the development process and facilitate interaction with other systems. In the context of interacting with other systems, e-TrustEx will be considered as a potential communication platform.

#### 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 needed will not require a feasibility study. Instead, the project charter will be 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 will be determined by the system developer. On this basis the steering committee will define 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 will be carried out in a number of iterations which will be defined in the project charter. This will ensure that development can be handled in manageable work packages and that there will be a regular schedule of deliverables for end-users. The precise timing and content of these iterations will be defined in the project charter, to be delivered in Q1 2012.

Corrective and adaptive maintenance and technical support will be detailed and estimated on the basis of a rolling maintenance and technical support work programme to be submitted at the same time as the project charter.

#### Operational phase

Operation of the service has already started and therefore the operational phase runs in parallel with the execution phase for new developments.

The activities and deliverables described in this proposal are divided into three phases. Work included in the initial project charter and the rolling maintenance and technical support programme produced in Q2 2010 is considered as Phase 1. Further improvements to IMI, which are mainly related to the extension of IMI to new sectors, are included in an extended project charter produced in Q2 2011, these activities along with continued activities relating to the provision of IMI are considered as Phase 2. Phase 3 relates to further development to be covered by a revised project charter in Q1 2012.

Phase 1 (ISA Work programme 2010) addressed improvements to IMI in response to user demand Execution will include 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 will cover 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 addresses improvements to support the extension of IMI to new sectors

Execution will cover 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;
- Implementation 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 will cover 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) will address the development of new tools in IMI, generic improvements of benefit to any sector and further extensibility improvements.

Execution will include 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;
- The question set generator, which supports the existing information request workflow, will be adapted to support multiple workflows including the new notification;
- A generic information repository will be developed, capable of storing content assets for different policy areas;

- Work on existing tools will be undertaken to improve extensibility, maintainability and performance;
- Further improvements to existing functionality in response to user demand;
- Provision of IMI will cover continued application maintenance and support of the IMI system (including further improvements to the user interface).

## 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)
<b>Phase 1: Improvements to IMI in response to user demand</b>					
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
<b>Phase 2: Improvements required to support extension of IMI to new sectors</b>					
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 technical support)	450	ISA	Q3 2011	Q1 2012
Operational	Hosting	237	MARKT	Q1 2011	Q4 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)
Operational	Promotion and Training	200	MARKT	Q1 2011	Q4 2011
<b>Phase 3: Improvements and extension of IMI functionality</b>					
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	Q1 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
	<b>Total ISA budget</b>	<b>3.000</b>			

### 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			
2014			
2015			

### 1.10.10 ANNEX AND REFERENCES

Description	Reference link	Attached document

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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	<a href="#">COM (2011) 75 final</a>	
Commission Proposal for a regulation 'on administrative cooperation through the Internal Market Information System ('the IMI Regulation')	<a href="#">COM (2011) 522 final</a>	

## 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

### 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 specific IS development is out of scope of ISA). 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 Data<sup>16</sup> and Multilingualism).
- Increase transparency and foster collaboration between administrations by sharing case/project data between Commission and Member States.

<sup>16</sup> 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, firstly: identify reusable cross-sector building blocks (services and components) required to build GENIS Information System. And secondly, integrate/adapt existing components or develop new reusable building blocks. Putting together these reusable building blocks to develop the GENIS Information System is out-of-scope of this ISA action.

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

There is a change in the technical scope in this Work Programme with respect to last year's document, related to the "Portal" building block. After the architecture analysis of Iteration 0, the potential benefits of a portal component in comparison with the effort to build it advise against its implementation. For that reason it has been discarded for the following iterations. The functionality required to build the GENIS Information System that will not be provided by the portal building block will be part of the particular implementation of GENIS with Admin budget and out of the ISA scope.

Another output from the architecture analysis in Iteration 0 is that the complexity of the Reference Data component was higher than expected. For that reason resources originally allocated for the Portal will be finally allocated to the Reference Data component. (Please check Annex I for more details in the costs per building block)

Iteration	Scope Business	Scope Technical
Execution - Iteration 1	<ul style="list-style-type: none"> <li>• 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</li> </ul>	Reusable building blocks (ISA scope): <ul style="list-style-type: none"> <li>• FORMS: Repository and management tool for notification schemas. (New, based in Open Source software)</li> <li>• REFERENCE DATA: Repository</li> </ul>

Iteration	Scope Business	Scope Technical
	<p>legislation.</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• Provide workflow and de-centralised user management for the Member State administrations to manage and validate the State Aid notifications.</li> </ul>	<p>and management tool (basic) for domain semantics: metadata, reference data, dictionaries, translations. (New)</p> <ul style="list-style-type: none"> <li>• MULTILINGUISM: Component to support (basic) multilingualism (management of translations) of User Interface, form schemas and domain vocabulary (New)</li> <li>• eTrustEx: Component for the trusted transmission of data (Reuse, eTrustEx action, no extra requirements needed).</li> <li>• ECAS: Authentication service (Reuse, no adaptations necessary).</li> </ul> <p>Out of ISA scope (admin 2013 already requested):</p> <ul style="list-style-type: none"> <li>• Build and put in production the GENIS IS v1.0 on the building blocks of this iteration, incl. parameterizations, adaptations etc.</li> </ul>
Execution - Iteration 2	<ul style="list-style-type: none"> <li>• Implement interoperable notification service (system-to-system).</li> <li>• Management of the communications between the Commission and the Member States within the State Aid case lifecycle.</li> </ul>	<p>Reusable building blocks (ISA scope):</p> <ul style="list-style-type: none"> <li>• Complete/enhance components from Iteration 1: <ul style="list-style-type: none"> <li>○ FORMS: Implement generic web-services based on notification schemas to enable system-to-system exchange.</li> <li>○ METADATA: Enhance to provide necessary semantic interoperability to support the above referred interoperability.</li> <li>○ MULTILINGUISM:</li> </ul> </li> </ul>

Iteration	Scope Business	Scope Technical
		<p>improved translation support.</p> <ul style="list-style-type: none"> <li>• 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</li> <li>• e-TrustEx: Component for the trusted transmission of data (Reuse, eTrustEx action)</li> <li>• eTrustEx: Component for the trusted transmission of data (Reuse, eTrustEx action).</li> </ul> <p>Out of ISA scope (admin budget for common projects will be requested):</p> <ul style="list-style-type: none"> <li>• Build and put in production the GENIS IS v2.0 based on the building blocks of this iteration, incl. parameterizations, adaptations etc.</li> </ul>
Execution - Iteration 3 (Non-ISA)	All State Aid related communication between Commission and the Member States, from Notification to Monitoring and Publishing (see Project Charter) via a single entry point GENIS.	<p>Out of ISA scope (admin budget for common projects will be requested):</p> <ul style="list-style-type: none"> <li>• Integration of the State Aid reporting tool (SARI) and the Online State Aid Scoreboard in GENIS IS (GENIS IS v3.0).</li> </ul>

#### 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
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Beneficiaries	Anticipated benefits
Administrations in general	<p><b>Reuse, reducing IT costs.</b></p> <p>The outcome of the GENIS ISA action:</p> <ul style="list-style-type: none"> <li>- IT architecture based on reuse of building blocks (services and components);</li> <li>- 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.);</li> </ul> <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><b>Security and privacy, preservation of information</b></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><b>Administrative simplification, effectiveness and efficiency, data quality</b></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><b>Efficient IT development and evolution, flexibility, scalability, adaptability to legislation change</b></p> <p>The GENIS Information System will be flexible, scalable and adaptable by</p> <ul style="list-style-type: none"> <li>- Being developed on a service and component oriented IT architecture);</li> <li>- 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).</li> </ul>
Member States and European Commission	<p><b>Transparency, openness</b></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</p>

Beneficiaries	Anticipated benefits
	(metadata, dictionaries, translations) accessible and re-usable for Commission Services and for the Member States.
Member States and European Commission	<p><b>Data quality</b></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
State Aid control under <a href="#">Article 107 of the Treaty on the Functioning of the European Union (TFEU)</a>	The GENIS IS will be a key element to implement the State Aid control in the European Union.
Commissioner Almunia priority project to streamline State Aid control procedures (2011)	The Almunia's Cabinet aims to streamline / simplify the State Aid procedures requiring an Information System architecture better aligned with business requirements and flexible in order to adapt to possible legislation changes (e. g. changes in the notification schemas).
ISA Action1.8 e-TrustEx	The attachments associated to the State Aid Notification Forms, and to messages exchanged in the case shared repository should be managed by e-TrustEx
State Aid Modernisation Exercise (2012-2013)	Trigger by the previous communication from Commissioner Almunia, DG COMP has launched an exercise to review the way State Aids are analysed in the Commission. This exercise is expected to provide outputs at the end of 2012. Some of the changes that will be proposed could impact the exchanges of information between the Member States and the Commission
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.

## 1.11.7 ORGANISATIONAL APPROACH

### 1.11.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
System Owner (SO)	Humber Drabbe (COMP 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)	David ARRANZ (COMP.R3)
AGRI Users Representatives	Ludmila Hamtcheva, Maria Elisabete DIAS COSTA, Linas VISOMIRSKIS  (all of them from AGRI.DDG4.M.2)
MARE Users Representatives	Maria VLADIMIROVA WALFRIDSON, Cecile DUCATEZ (All of them from 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)

### 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	ISA Programme Manager responsible for the GENIS	At least 2 per year

Programme Manager	action	
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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;
GENIS IS Project Steering Committee	<p><u>System Owner:</u> Hubert Drabbe (Director of Directorate H "State Aid cohesion, R&amp;D&amp;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>	Controls and steers of the project, high-level management e.g. change control and conflict resolution. Project Ownership is delegated in a Project Manager, and the system provider delegates in an IT Project Manager

Working group or entity	Composition	Responsibilities
	<p><u>Project Manager:</u> David Arranz as Project Manager (COMP R.3)</p> <p><u>Associated Services:</u>  <b>DG AGRI:</b> Gereon Thiele (HoU of AGRI.DDG4.M.2, "Competition" unit in charge of State Aid at DG AGRI) delegates in Ludmila Hamtcheva  <b>DG MARE:</b> Friedrich Wieland (HoU of MARE.F.4, "Legal Matters" unit, in charge of State Aid in DG MARE) delegates in Maria Vladimirova Walfridson;  <b>SG:</b> Representative of the Unit in charge of the Application of EU Law (SG.DSG2.C.3)</p>	
State Aid Working Group	Representative from the different Member States	Formulate Member State's requirements related with information systems supporting the State Aid policy
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</p>	This working group will define, from a technical point of view, the reusable components or common services required for the State Aid Notification

Working group or entity	Composition	Responsibilities
	DIGIT.B4	Process.  Taking into account the current status in architectures, components and services existing nowadays in the Commission.

### 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):

- (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**

- (2012) Develop new building blocks and adapt existing ones for the Iteration I
  - Functional analysis
  - Develop prototypes and proofs of concept
  - Implement new building blocks / adapt existing ones; make them available.
- (2013) Finalise phase I of the GENIS building blocks
- (2013) Assemble building blocks in order to build GENIS IS v1.0
- (2013) Release the building blocks as Open Source in the Joinup platform

**Iteration 2**

- (2013) Develop new building blocks for Iteration II and complete the blocks already developed under Iteration I
  - Functional analysis
  - Develop prototypes and proofs of concept
  - Implement new building blocks and adapt existing ones
- (2014) Finalise phase II of the GENIS building block
- (2014) Assemble building blocks in order to build GENIS IS v2.0 (non-ISA)
- (2014) Release the building blocks as Open Source in the Joinup platform

**Iteration 3**

- (2014) Integration of the State Aid IS: GENIS IS, SARI, State Aid Scoreboard (non-ISA).

**1.11.9 COSTS AND MILESTONES****1.11.9.1 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)
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 - ISA	Reusable building blocks (see 1.1.3 Scope, Annexes I and II): func.	600	ISA	Q2/2012	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)
	analysis, prototyping, development and adaptation of building blocks. Execution Report.				
Execution – Iteration 1 – non ISA	Integration building blocks. Implementation GENIS IS v1.0	160	Admin	Q3/2013	Q4/2013
Operational – Iteration I - ISA		110	ISA	Q3/2013	Q4/2013
Execution – Iteration 2 - ISA	Reusable building blocks (see 1.1.3 Scope): Func.analysis, prototyping, development and adaptation of building blocks. Execution Report	500	ISA	Q2/2013	Q2/2014
Execution – Iteration 2 – non ISA	Integration building blocks Implementation GENIS IS v2.0	160	Admin	Q3/2014	Q4/2014
Operational – Iteration 2		220	ISA	Q3/2014	Q4/2015
Execution – Iteration 3 – non ISA	Integration building blocks Implementation GENIS IS v3.0	220	Admin	Q1/2015	Q4/2015
	<b>Total ISA budget</b>	<b>2.190</b>			

**For a detailed analysis of the costs refer to Chapter 2 in Annex II: "GENIS Building blocks costs - 2013"**

### 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	409
2011	Execution 0	350	350
2012	Execution 1	600	600
2013	Operational 1	110	
	Execution 2	500	
2014	Operational 2	220	
2015			

### 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	

## 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

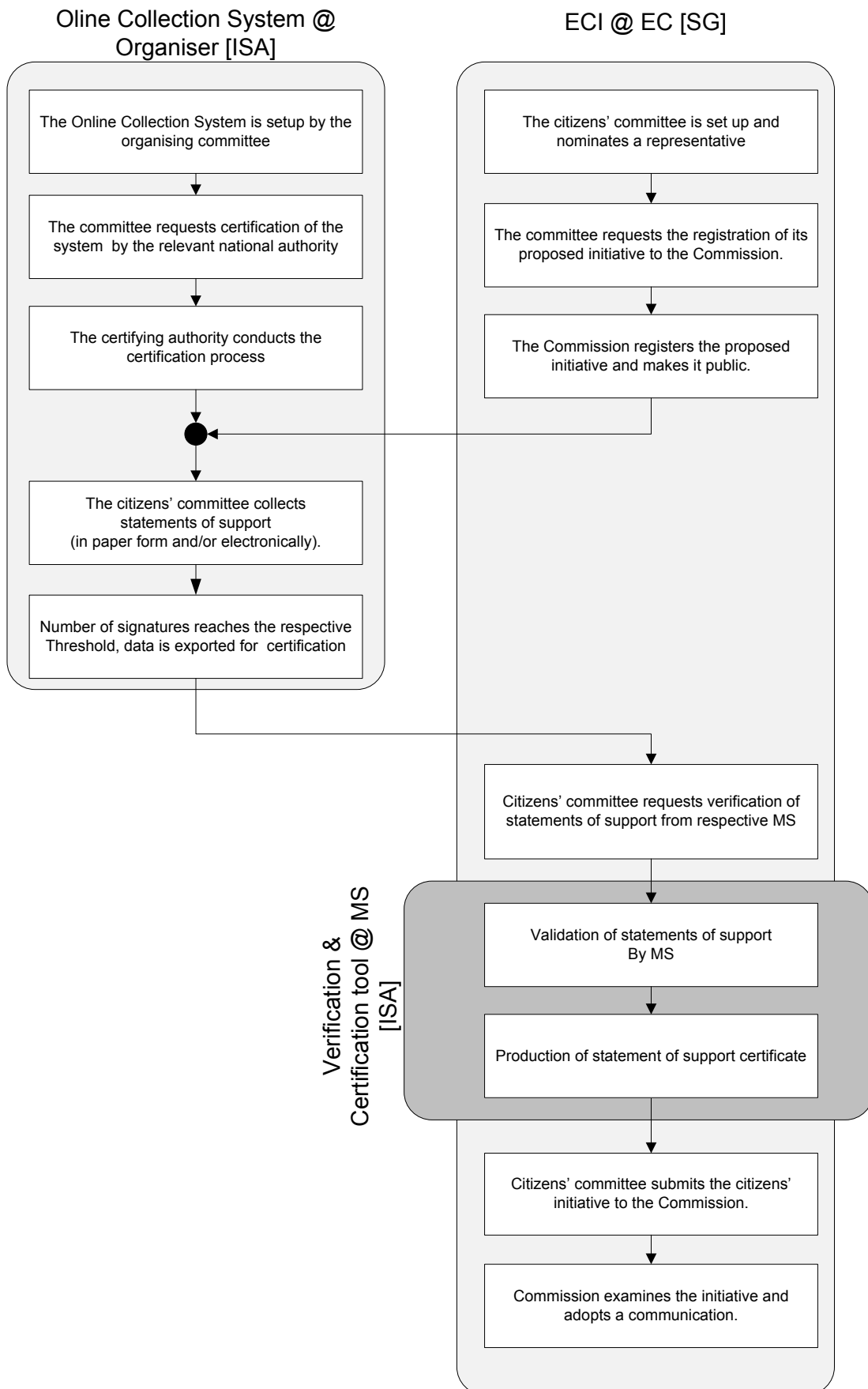
The objective of this action is to provide organisers of citizens' initiatives with a re-usable tool (OCS) allowing the online collection of statements of support in a way that complies with the Regulation on the citizens' initiative as regards the format and data collected as well as the security and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

#### 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. Done: 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.

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.

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### 1.12.3 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 2011<sup>17</sup>. 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 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

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<sup>17</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:065:0001:0022:EN:PDF>

### 1.12.4 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.
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.

### 1.12.5 Related EU actions / policies

Action / Policy	Description of relation
Lisbon Treaty - European citizens' initiative (ECI)	Implementation of 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>
ECAS – STORK	Use ECAS in order to authenticate & sign statements of support using

Integration	an electronic identity card
EU Treaty – Elections to European parliament	COUNCIL DIRECTIVE 93/109/EC of December 1993 Article 13 Member States shall exchange information required for the implementation of Article 4 (...)

## 1.12.6 ORGANISATIONAL APPROACH

### 1.12.6.1 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
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"> <li>- Policy developments in the field of Union Citizenship;</li> <li>- Monitoring the effective exercise of the freedom of movement of persons;</li> <li>- 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;</li> <li>- Overseeing the exercise of the electoral rights of European citizens at local and European elections.</li> </ul>

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.
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### 1.12.6.2 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
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

### 1.12.6.3 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.

### 1.12.7 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 .

**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**, a feasibility study and project charter will be elaborated for the validation tool. The aim of this phase is to analyse and find the gaps that may exist between the chosen tool (if one) and the requirements. Depending on phase 4, if no tool comes out as being appropriate, the feasibility for the new tool, based on existing components will be the outcome of this phase.

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

## Phase 6

- **Execution 2:** Cover the 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 develop the validation tool to be installed/used by MS authorities
- **Execution 3:** Implement electronic signature support within online collection tool.

## Phase 7

- **Inception 7:** Gather detailed requirements for the Cryptography tool in order to support the secure data exchange process between Electoral authorities in Member States. 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 will prepare the standard definition of XML file to be exchanged
- EC will also provide Member States with a tool to generate the encryption keys, used for the transmission of the XML files.

In a first phase we propose 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*<sup>18</sup> pursuant to *Regulation (EU) No 211/2011 of the European Parliament and of the Council on the citizens' initiative*<sup>19</sup>.

The tool should, at least, be able to encrypt, handle 27 public keys and be translated to Croatian. During this phase we will also analyse and find the gaps that may exist between the existing Cryptography tool and the requirements. A project charter will be elaborated as result of this phase.

## Phase 8

- **Execution 4:** Implement changes in Cryptography tool for Electoral Authorities.
- **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 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.

<sup>18</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:301:0003:0009:EN:PDF>

<sup>19</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:065:0001:0022:EN:PDF>

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

## 1.12.8 COSTS AND MILESTONES

### 1.12.8.1 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)
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)	200	ISA	Q4/2012	Q4/2013
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
Execution 5	Execution Report (OCS)	470	ISA	Q1/2013	Q4/2015
	<b>Total</b>	1660			

### 1.12.8.2 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	300
2012	Inception	75	75
2012	Execution	125	185
2013	Inception	140	
2013	Execution	400	
2014	Execution	310	

2015		110	
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### 1.12.9 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
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

## 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

### 1.13.2 OBJECTIVES

- Analyse the tools currently used by EU and MS public administrations to create and edit their legal texts;
- Identify best practices, reusable solutions and areas where common efforts are possible;
- Compare the potentials offered by open source software vs. proprietary solutions;
- Taking into account the results of the analyses implement in a second phase some solutions for common needs while drafting legal texts;
- Ensure that these solutions will enable to generate legal texts in a structured format (XML) easing interoperability for cross-borders exchanges (e.g. EU text disseminated in national parliaments for their opinion and national implementations of directives)

### 1.13.3 SCOPE

Drafting a new legislation is a complex process, involving many actors. In most democratic countries, the process follows the following sequence of tasks:

Preparation phase - the upstream "drafting" process is usually performed under the leadership of one specific public Department or a Member of Parliament, and the draft text is generally discussed with stakeholders and modified accordingly. The editing of the text is generally done by clerical staff, using office automation tools. Format, content and structure are continuously changed during this phase.

- Adoption phase - subsequently, the draft legislation is submitted to the political entities responsible for its adoption, (government, Parliament, institutional consultative bodies....) along clearly structured processes. During this political process, the text is progressively stabilising and the final version is generally emerging under the control of a central body, which takes care of the formal, legal and editorial quality of the text under adoption. The tools used at this level are generally office automation tools, but with some "pre-publishing" features in mind.
- Entry into force phase - ultimately, the adopted text is cleaned from any remaining elements of the previous phases and "stamped" as adopted, with a view to publish it and/or make it available to the concerned parties, in different formats. For the

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publication process at least, the tools used are often specialised and operated by qualified staff.

In many member states, efforts are on-going to improve the flows along these phases and use new technologies to facilitate the production of laws and improve their quality.

The EU legislation process is similar but is yet more complex by two additional factors:

- The EU-level processes interact with 27 independent Member state-level processes (e.g. : The Lisbon Treaty gives to the National Parliaments some rights to comment the draft legislation proposed by the Commission);
- EU legislation addressed to citizens need to be translated into 22/23 languages and all adopted languages have the same legal value.

There is a concern in all public administrations about the "continuity of editing facilities" along complex processes and the potential offered by IT tools in assisting the authors in respecting high level quality standards. From a more technical viewpoint, this concern addresses issues relating to:

- the standardisation of legislative texts (despite the fact that their structure can be rather complex, incorporate graphics and tables, and vary from one document to another);
- the dichotomy between "general office automation tools" and "specialised software";
- the use of the XML standard and the potential of open source re-usable facilities;
- the long term conservation and authenticity of legal electronic texts.

#### **1.13.4 PROBLEM/OPPORTUNITY STATEMENT**

Office automation tools are widespread used for creating and editing texts.

In the case of legal texts,

- the creation step is only the first one in a process leading to the publication and the entry into force of the laws;
- texts might need to be reviewed by other internal or external entities, using different techniques and tools;
- the texts have to respect certain presentation rules and canvasses;
- there are XML standardisation activities aiming at defining a generic model for a law (like Akoma Ntoso/LegalDocML and Metalex);
- All administrations are facing the question of reconciling the freedom associated with Office automation tools and the necessity to produce structured documents at the end of the process;
- There is no overall view of the way Member states address that question, with a view to share best practices;
- The EU and national legislations are more and more interconnected (for instance when Member states implement EU directives or when National Parliaments issue opinions on the Commission proposals) and Commission legal texts could be re-used in these entities.

Therefore, a better understanding of the way public administrations address the issue of drafting their legislations is useful, with a view to identify best practices, improvements and areas where

common efforts and developments are possible (with a special attention on the potential offered by open source software in this respect).

### 1.13.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States' public administrations and EU Institutions	<p>Re-use of best practices and tools.</p> <p>Save costs, improve efficiency and transparency, reduce time-to-market and ensure interoperability as handling legal documents and follow up of legal procedures can be automated.</p> <p>Experience, lessons learnt, specifications, tools and components published as open source re-usable by any Member State or EU Institution.</p> <p>Improvement of interoperability capabilities in the area of EU Legislation , using for EU legal text an open structured format (XML) in addition to the actual proprietary format (Word processor files or pdf)</p> <p>Facilitate the interconnection of legal data bases and the performance of search engines.</p>

### 1.13.6 Related EU actions / policies

Action / Policy	Description of relation
Trusted Exchange Platform e-TrustEx - Action 1.8	Some EU legal text (the proposals of the Commission) will be sent by the Commission to National parliament via the eTrustEx exchange platform

### 1.13.7 ORGANISATIONAL APPROACH

#### 1.13.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
LEOS Community	The community is made of people from public administration in the Member States and European institutions, having participated to the first study on existing situation and planned projects.

### 1.13.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
Meeting/workshop	Members of LEOS Community	Ad hoc

### 1.13.7.3 Governance approach

A Project Steering Committee will be set up to provide overall guidance and direction for the project with the participation of all concerned services. Working groups, workshops and other appropriate meetings will be organised with the different administrations and institutions in order to gather their expertise and their requirements.

## 1.13.8 TECHNICAL APPROACH

The approach of this project is based on several phases as explained hereafter.

The first phase (inception – 1) of the project included a study of the existing situation and planned projects in Member States and EU institutions, with a view to identify needs, trends, strengths, best practices and opportunities. This study was very welcome and some useful information on existing and planned projects has been received from Members States and European Institutions (AT, CZ, DE, DK, EE, FI, IE, IT, LT, NL, UK, EP...). 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) consists in:

- Defining a set of common functional requirements, based on the functionalities described in the AS IS of tools currently used in MS and EU institutions
- Defining a common structure:
  - A study on the “compatibility” / adequacy of an existing schema for the structure of the European Legislation;
  - Assessment of what needs to be done (adaptation of structures or of the standard)
  - Possible participation to on-going standardisation efforts (e.g. LegalDocML)
- Proofs of Concept:
  - Which validate the structure, illustrate the requirements;
  - The choice of target technical platform(s)

As regards the choice of the technical platform, the initial "as-is" study clearly demonstrated that the ideal tool does not exist and that 2 approaches have their own advantages/disadvantages and are then complementary:

- A word-processor based editor is more efficient for the original drafting (it provides a lot more flexibility to the writer)
- A web editor is very efficient for the comment/update/review phase.

That's why the proofs of concept will explore these two approaches and will try to demonstrate that a document can be exported from one tool to the other one using an XML representation. These proofs of concept will be developed reusing code identified during the initial study.

Depending on the conclusions of the second phase, the third phase (Execution – 1) will be the construction of prototypes. So far it does not appear as realistic that the prototypes will be able to edit any kind of national legal text structure. That is why the tools will be developed in a modular way, so that the updates necessary in order to support a new structure and its associated lay-out will be targeted (configuration files and/or plug-ins module).

Finally, the success of the third phase could lead to the finalisation of the tools in order to release them under an Open Source licence so that interested administrations can adapt them in order to fulfil their specific needs.

## 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	Q2/2011	Q3/2012
Inception 2	Requirements analysis Proof of concepts Project charter	300	ISA	Q2/2012	Q3/2014
Execution 1	Prototype Execution report	300	ISA	Q2/2013	Q3/2014
Execution 2 Operational			ISA	Q1/2015	Q4/2015
	<b>Total</b>	<b>800</b>			

### 1.13.9.2 Breakdown of ISA funding per budget year

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

### 1.13.10 ANNEX AND REFERENCES

description	Reference link	Attached document
As is study	<a href="http://joinup.ec.europa.eu/elibrary/document/isa-leos-final-results">http://joinup.ec.europa.eu/elibrary/document/isa-leos-final-results</a>	
Oasis technical committee for LegalDocML	<a href="https://www.oasis-open.org/committees/tc_home.php?wg_abbrev=legaldocml">https://www.oasis-open.org/committees/tc_home.php?wg_abbrev=legaldocml</a>	

## 1.14 CROSS SECTOR SOLVIT

### 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

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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	<p>The new SOLVIT system will offer assistance to the different services of the European Commission responsible for the correct application of</p>

(MARKT, ENTR, EMPL, HOME, JUST, AGRI, TAXUD, MOVE; SANCO; EAC; SG)	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.
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### 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: <b><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></b>
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.

### 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 <a href="#">Decision 2002/47/CE</a> , <a href="#">CECA</a> , <a href="#">Euratom</a> in the DG: represented in DG MARKT by Michele Hance-Jalhay.
Data Protection Coordinator	The <a href="#">Data Protection coordinator</a> 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	- 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

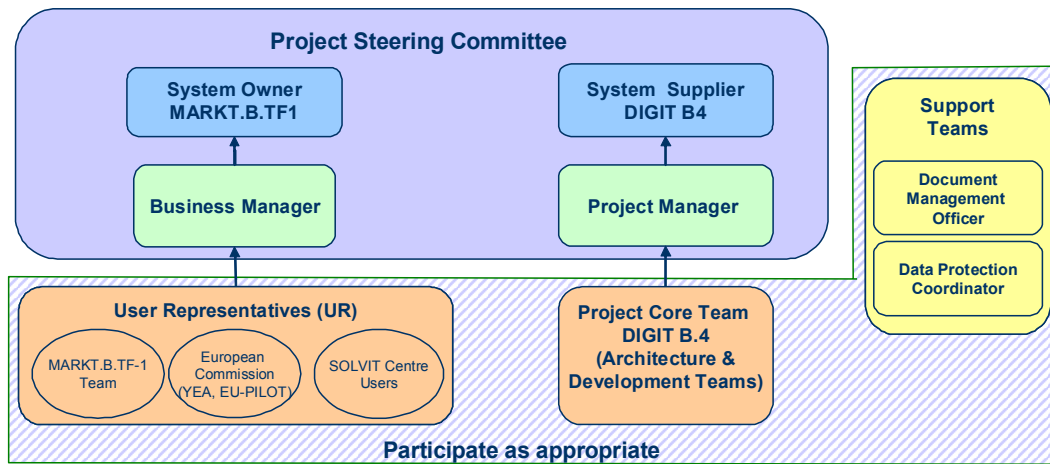
#### 1.14.7.3 Governance approach

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.)

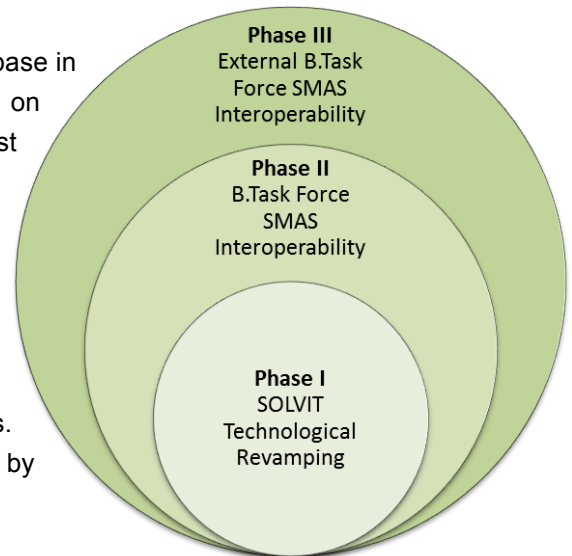
The Steering Committee is composed of DG MARKT (system owner) and DIGIT (system supplier) with the participation of other stakeholders when required; as depicted in the following diagram:



### 1.14.8 TECHNICAL APPROACH

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

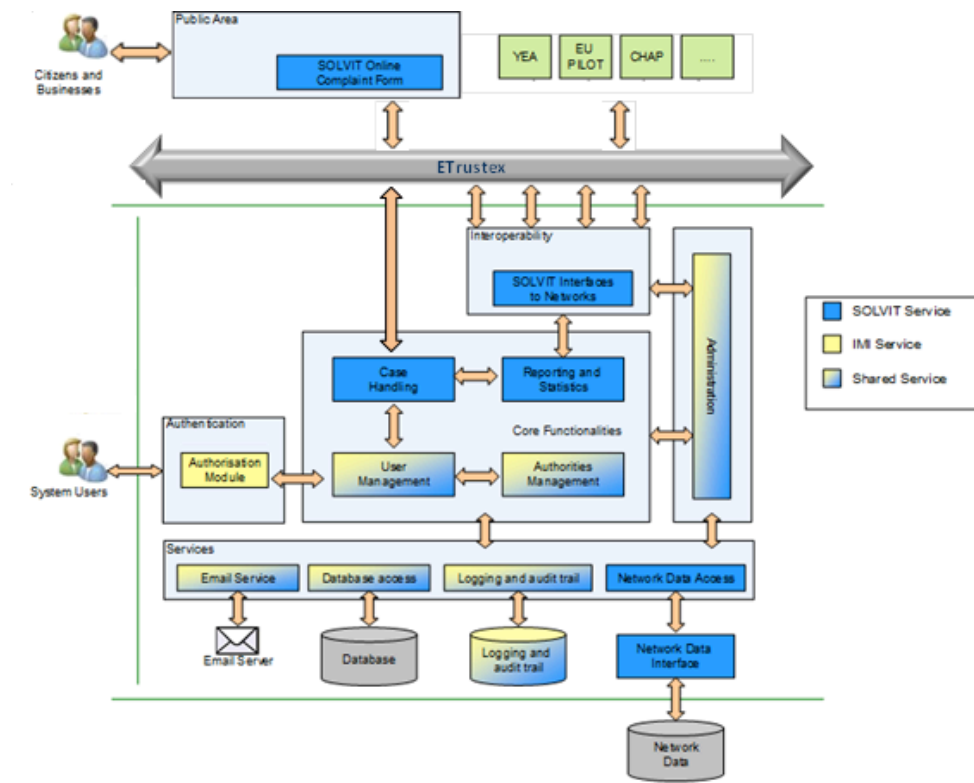
- **Phase I:** Revamping of the current SOLVIT database in a new service oriented architecture based on ETrustEx as service bus. This phase is almost finished, and the new platform will be in production in Q3/2012.
- **Phase II:** Reinforcement of the interoperability between B.Task SMAS tools by constructing 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
Execution	Phase III of the new SOLVIT system including services and new	200	ISA	Q3/2013	Q4/2013

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	requirements				
	<b>Total</b>	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	540
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).

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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 Cloud<sup>20</sup>. 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 project<sup>21</sup>. Moreover the newly launched LOD2 IP 7<sup>th</sup> Framework ICT project<sup>22</sup> 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)<sup>23</sup> 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

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<sup>20</sup> <http://richard.cyganiak.de/2007/10/lod/>

<sup>21</sup> 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

<sup>22</sup> <http://lod2.eu/WorkPackage/wp9.html>

<sup>23</sup> <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 EC 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
	<b>Total</b>	<b>100</b>			

#### 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.B4, 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. 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 through 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 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 decisions<sup>24</sup>.**

### 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 hardly 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.

### 1.16.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
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<sup>24</sup> [http://ec.europa.eu/maritimeaffairs/pdf/external\\_relations\\_council\\_conclusions\\_17112009\\_en.pdf](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/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/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/gena/104617.pdf)

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
1. 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).
2. 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 as well as to the application of ICT solutions to respond to societal challenges. It includes consideration of INSPIRE.
3. Maritime Transport	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

Action / Policy	Description of relation
	the new IMDate system to create a web service layer on top of those systems.
4. 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.
5. 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
6. 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).
7. CIPA solution <sup>25</sup>	The CISE architecture definition shall be carried out taking into consideration the possibility to reuse the CIPA solution (eTrustEx platform and CIPA gateway).
8. ISA action 1.1 on Semantic interoperability	That ISA action defined a methodology for defining semantic assets, which 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 that ISA action.
9. ISA action 2.1	The European Interoperability Architecture developed by action 2.1 will be taken into consideration when developing the CISE platform.

## 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 EMSA, FRONTEX, CFCA, EUROPOL, EEA, MAOC, EDA, EUSC

<sup>25</sup> ISA action 1.6

Member States	National authorities carrying out the 7 CISE functions. They will be the participants to the CISE, to be identified in autumn 2011 in accordance with Step 1 of the Roadmap towards establishing the CISE (COM(2010)584). Preliminary estimation raises the number to ~400 national authorities contributing to the 7 identified mission areas (User Communities).
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### 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 and MARSUNO). 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
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.	2 per year
Bilateral visits to Member States /	CISE always included on the agenda.	20 per year

Event	Representatives	Frequency of meetings / absolute dates of meetings?
Agencies		
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.	<a href="https://webgate.ec.europa.eu/maritimeforum">https://webgate.ec.europa.eu/maritimeforum</a>

### 1.16.7.3 Governance approach

Management of the action will be 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) will be responsible for the implementation of the action.

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

- 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;
- the Member States Experts sub-group which is the principal actor for the implementation of the CISE Roadmap will be kept updated regularly on the development of the project.

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### 1.16.8 TECHNICAL APPROACH

This action contributes to *Step 4* of the Roadmap to establish CISE<sup>26</sup>. 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 projects<sup>27</sup>;
- Lessons learned from pilot projects in the maritime domain (BlueMassMed, MARSUNO,...);
- 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) and action 2.1 EIA;
- 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 will already identify weaknesses of a status-quo, existing problems and opportunities for improving the efficiency in maritime operations. The study will also provide 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).

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<sup>26</sup> Ref2 hereafter

<sup>27</sup> IPs SeaBILLA and I2C, DP Perseus, some GMES Projects

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 eTrustEx<sup>28</sup> (CIPA solution<sup>29</sup>) 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 will be based on the results of the as-is study and will involve intensively the Member States.
7. Preparation of the Terms of References for the technical study to define the CISE, based on the detailed business requirements.
8. 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.

#### *ISA Execution Phase*

9. Launch of a Cooperation Project with a consortium of Member States (grant agreement) 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.
10. Technical study to define the CISE environment on the basis of business requirements. The possibility to reuse the CIPA solution will be assessed in detail in view of building a

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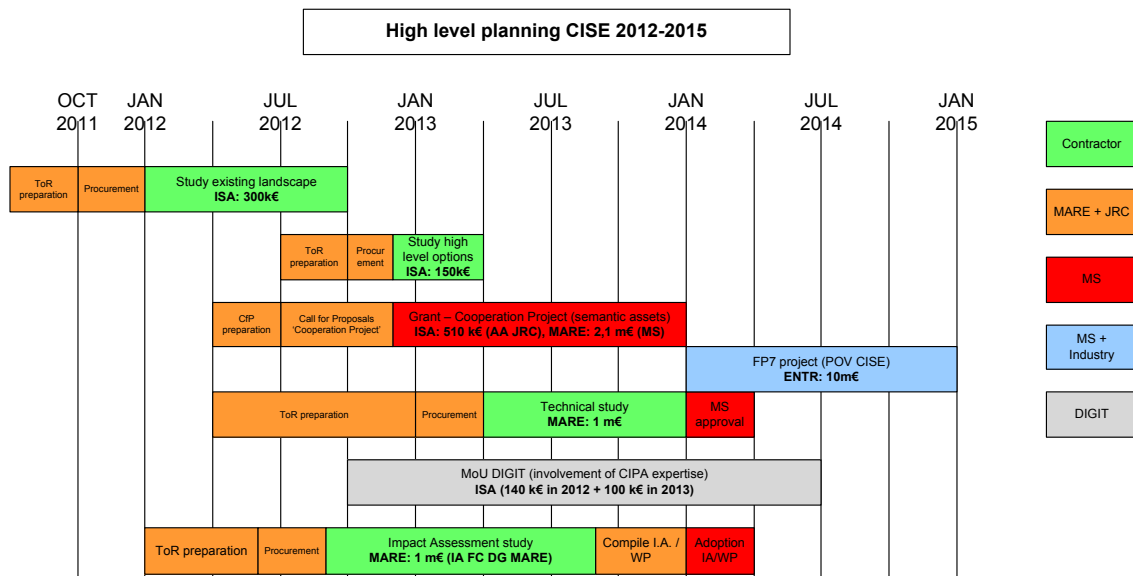
<sup>28</sup> See action 1.8

<sup>29</sup> See action 1.6

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). 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
11. Selection of the preferred implementation option by the Commission, the TAG and the Member States Experts Group.
  12. Launch of a Pre-Operational Validation project under the FP7 project, taking as input the results from the Cooperation Project (see point 9), and the technical definition (see point 10).
  13. Formal assessment of the FP7 POV project by the Commission, the TAG and the Member States Experts Group.
  14. 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 milestones<sup>30</sup>

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
Inception	-Technical roadmap for CISE refined - work on the as-is reviewed by CIPA experts -Terms of Reference of the technical study ready - 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	Q2/2013
Execution	Data flows	2100	MARE	Q3/2012	Q1/2014

<sup>30</sup> 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)
	(including data formats and semantics) for pre-operational validation/pilot defined with MS	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. The rest of the CISE design will be done by DG MARE with DG MARE budget.	800	MARE	Q2/2013	Q1/2014
		500	ISA		
Execution	FP7 Pre-operational Validation project running	10 000	ENTR	Q1/2014	Q2/2015
		170	ISA		
		100	ISA		
Execution	Formal assessment of the POV		MARE/JRC	Q4/2014	Q1/2015
Execution	ISA Execution Report.	0	MARE/JRC	Q1/2015	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)
	<b>Total ISA budget</b>	<b>1.700</b>			

### 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 <sup>31</sup>
2012	Execution	800	799
2013	Execution	500	
2014	Execution	100	

<sup>31</sup> 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)

## 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,.

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, 2974<sup>th</sup> 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; 3092<sup>nd</sup> 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
1 Commission Communication: CISE Guiding principles	<a href="http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0538:FIN:EN:PDF">http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0538:FIN:EN:PDF</a>	
2 Commission Communication: Draft Roadmap towards the CISE	<a href="http://ec.europa.eu/maritimeaffairs/pdf/maritime_policy_action/com_2010_584_en.pdf">http://ec.europa.eu/maritimeaffairs/pdf/maritime_policy_action/com_2010_584_en.pdf</a>	
3 Council conclusions Nov 2009	<a href="http://ec.europa.eu/maritimeaffairs/pdf/external_relations_council_conclusions_17112009_en.pdf">http://ec.europa.eu/maritimeaffairs/pdf/external_relations_council_conclusions_17112009_en.pdf</a>	
4 Council conclusions May 2011	<a href="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/122177.pdf</a>	
5 Council conclusions June 2010 (para 11)	<a href="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/genaff/115166.pdf</a>	
6 Council conclusions Dec 2008 (para 5, page 45)	<a href="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/gena/104617.pdf</a>	
7 European Parliament resolution on Integrated Maritime Policy (paras 31-36)	<a href="http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P7-TA-2010-0386+0+DOC+XML+V0//en">http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P7-TA-2010-0386+0+DOC+XML+V0//en</a>	
8 ECOSOC opinion, July 2010	<a href="http://www.eesc.europa.eu/?i=portal.en.ten-opinions.16088">http://www.eesc.europa.eu/?i=portal.en.ten-opinions.16088</a>	
9 Technical Advisory Group: Terms of reference, meeting minutes, progress reports	<a href="https://webgate.ec.europa.eu/maritimeforum/frontpage?tid_2=519">https://webgate.ec.europa.eu/maritimeforum/frontpage?tid_2=519</a>	

## 1.17 RE-USABLE INSPIRE REFERENCE PLATFORM

### 1.17.1 Context

#### 1.17.1.1 Identification of the action

Type of Action	PROJECT
Type of Activity	Reusable generic tools
Service in charge	JRC.H06

### 1.17.2 OBJECTIVES

To establish a reference platform 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;
- 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 MS 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 reference implementation of common components to solving these interoperability issues is critical to our ability to the implementation of INSPIRE and provide support to the MS in doing so. These RP shall also enable its use in a wider context such as eGovernment, open data or 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 the 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 an Infrastructure for Spatial Information in the European Community (INSPIRE).	Legal basis for the project.
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	The project builds on the technical guidance of this regulation.

<p>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>	
<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>ISA Action 2.13: Establishment of a European Union Location Framework</p>	<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 this Action will aim to provide the technical components to help</p>

(EULF)	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.
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## 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, Initial Operating Capability Task Force (consists of representatives from MS public authorities responsible for the implementation of INSPIRE).

### 1.17.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
INSPIRE Conferences	INSPIRE stakeholders	Once/year (2012 Turkey)
Workshops	IOC TF	3-4 /year
Teleconferences	IOC TF	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/year
Interoperability workshops	IOC TF, Open source community, INSPIRE stakeholders	1/year
Specific components	IOC TF, Open source	1/year

workshops	community, INSPIRE stakeholders	
e-practice workshop	eGovernment	once/year

### 1.17.7.3 Governance approach

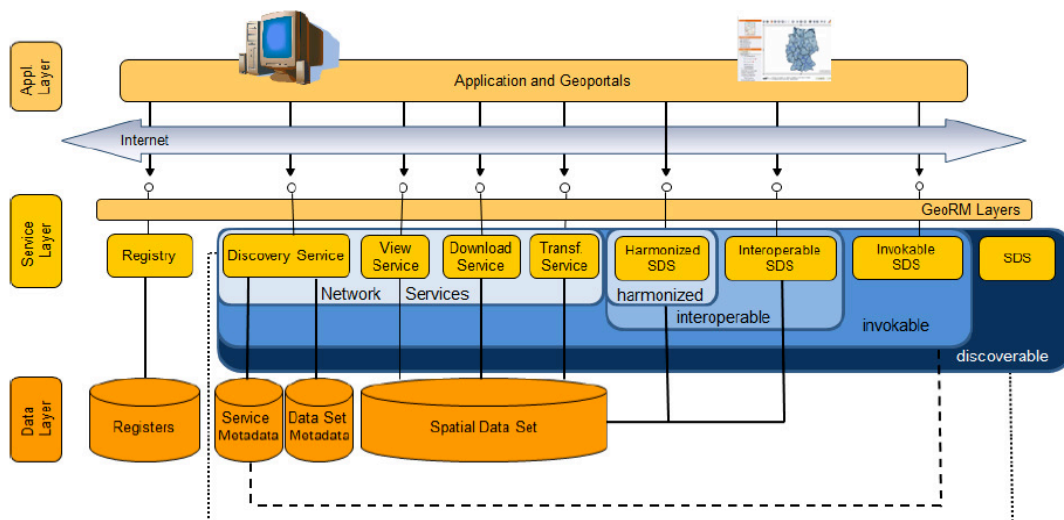
For what concerns INSPIRE existing structures such as the INSPIRE regulatory Committee the Member States Contact Points as mandated by the INSPIRE directive as well as the INSPIRE Network Services Initial Operating Capability Task Force to be replaced by an INSPIRE overarching body to address Maintenance and Evolution of the infrastructure once put in place.

It is planned to set up a Steering Committee consisting of Commission staff from DG ENV, DG ESTAT and DG CONNECT for what concerns Digital Agenda for Europe.

The resources provided for this study will be complemented with Institutional resources from JRC through the Institutional Actions ENABLE 11601 and SHAPE 11602. The project will be managed by the SDI Unit of IES/JRC and will be part of the Work Programmes of the two actions above.

### 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.

The above elements are the main subject of this proposal. 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. 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;

Approximately 30 kEUR is currently being planned for a high level workshop and report examining issues of Access, Authentication and Accounting (AAA) related to the work on the inventory and the development of missing items from INSPIRE (e.g. development of the Rights Management Layer in the INSPIRE Technical Architecture presented above). Plans are being made for a possible State-of-Play of the ICT tools used within the Member States as part of their INSPIRE/e-government infrastructure(s).

## 1.17.9 COSTS AND MILESTONES

### 1.17.9.1 Breakdown of anticipated costs and related milestones

Work on Target Policies and Components (and the remaining funding under the JRC budget line) are intended to run until Q4 2013 and will involve creating synergies with evidence gathered from both this Action and the work of the EULF (ISA Action 2.13), as noted above (see Section 1.1.6).

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	800	ISA	Q4/2013	Q1/2015
Execution	Conformance suites	100	ISA	Q4/2013	Q4/2014
Execution	Setting up collaborative platform	100	ISA	Q4/2012	Q4/2014
	<b>Total ISA budget</b>	1150			

### 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	116
2012	Execution	100	118
2013	Execution	600 <sup>32</sup>	
2014	Execution	300	

## 1.17.10 ANNEX AND REFERENCES

description	Reference link

<sup>32</sup> To allow for full use of the evidence base for the development of missing components, some of the anticipated allocations from 2013 (on total €300k) have been moved to an execution phase for 2014.

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)	<a href="http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32007L0002:EN:NOT">http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32007L0002:EN:NOT</a>
INSPIRE Metadata Regulation	<a href="http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32008R1205:EN:NOT">http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32008R1205:EN:NOT</a>
Commission Regulation amending Regulation (EC) No 976/2009 As regards download services and transformation service	<a href="http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:02009R0976-20101228:EN:NOT">http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:02009R0976-20101228:EN:NOT</a>
COMMISSION REGULATION implementing Directive 2007/2/EC of the European Parliament and of the Council as regards interoperability of spatial data sets and services	<a href="http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:3:0011:0102:EN:PDF">http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:3:0011:0102:EN:PDF</a>
COMMISSION REGULATION amending Regulation 1089/2010 as regards interoperability of spatial data sets and services	<a href="http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32011R0102:EN:NOT">http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32011R0102:EN:NOT</a>
Technical Guidance for the implementation of INSPIRE Discovery Services	<a href="http://inspire.jrc.ec.europa.eu/documents/Network_Services/TechnicalGuidance_DiscoveryServices_v3.0.pdf">http://inspire.jrc.ec.europa.eu/documents/Network_Services/TechnicalGuidance_DiscoveryServices_v3.0.pdf</a>
Technical Guidance for the implementation of INSPIRE View Services	<a href="http://inspire.jrc.ec.europa.eu/documents/Network_Services/TechnicalGuidance_ViewServices_v3.0.pdf">http://inspire.jrc.ec.europa.eu/documents/Network_Services/TechnicalGuidance_ViewServices_v3.0.pdf</a>
INSPIRE Spatial Data Services and services allowing spatial data services to be invoked – Draft implementing rules	<a href="http://inspire.jrc.ec.europa.eu/documents/Spatial_Data_Services/Draft_IR_SDS_and_Invoke%202.pdf">http://inspire.jrc.ec.europa.eu/documents/Spatial_Data_Services/Draft_IR_SDS_and_Invoke%202.pdf</a>
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}	<a href="http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52008DC0046:EN:NOT">http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52008DC0046:EN:NOT</a>
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)	<a href="http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32007L0002:EN:NOT">http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32007L0002:EN:NOT</a>

## 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
eGov action plan	Examples: Priority 1.2: Collaborative Production of Services - Action 4: Exchange of knowledge and expertise, agreement on common targets for the roll out of collaborative services Priority 3.2: Reduction of Administrative Burdens - 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 Priority 4.1: Open Specifications and Interoperability - 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 Priority 4.3: Innovative eGovernment - Action 40: Pilot projects for innovative architecture and technologies in eGov ...
Digital Agenda - Interoperability and Standards - Trust and Security - ICT for Social Challenges	Examples: Action 26: Member States to implement European Interoperability Framework Action 54: Develop a new generation of web-based applications and services Action 89: Member States to make eGovernment services fully interoperable ...
Action 1.4, « ECAS-STORK integration	

## 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 eGov 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

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### 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: 1<sup>st</sup> definition of surveys for approaches of MS, 2<sup>nd</sup>: evaluating the results of the surveys and defining a plan for general model, 3<sup>rd</sup>: 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, ...; 4<sup>th</sup>: 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.

## 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.	90	ISA	Q3/2012	Q4/2012
Execution	definition of common, generic specification choosing of a suitable model.	150	ISA	Q1/2013	Q3/2013
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	Q2/2014
Execution	Lessons learned, ...	50	ISA	Q3/2014	Q4/2014
	<b>Total</b>	<b>890</b>			

**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	350	

## 1.19 PEPPOL SUSTAINABILITY

### 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	Member States will be able to benefit from the interoperable cross-border e-Procurement services put on-line through PEPPOL.  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> .
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.

## 1.19.7 ORGANISATIONAL APPROACH

### 1.19.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
<b>ISA</b>	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.
<b>EC DG CONNECT</b>  Unit CONNECT.H.3  Public Services	European Commission's DG CONNECT is in charge of this action.

<p><b>EC DIGIT</b></p> <p>Unit DIGIT.B.4</p> <p>Information Systems for Policy Support, Grant Management, e-Procurement</p>	<p>This unit is responsible for the maintenance of PEPPOL specifications and software code.</p>
<p><b>DG MARKT</b></p> <p>Unit MARKT.C.4</p> <p>Economic Analysis and e-Procurement</p>	<p>This unit is an associated service of this project and responsible for the activities around EU's e-Procurement policy.</p>
<p><b>European Public Administrations</b></p>	<p>Any public administration in Europe is a target user of PEPPOL services.</p>
<p><b>LSPs</b></p>	<p>The <b>OpenPEPPOL</b> association will ensure the governance of PEPPOL activities and provide the necessary certificates for authentication of the PEPPOL access points.</p>
<p><b>Market Players</b></p>	<p><b>Economical Operators:</b> 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.</p>

### 1.19.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
Bilateral meetings with DG MARKT	DG MARKT 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	DG CONNECT with any other project stakeholder	DG CONNECT is invited to participate in meetings organised by Member

meetings and events		States, the LSPs, e-Practice, etc.
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### 1.19.7.3 Governance approach

To achieve its objectives this project will work closely together with European Commission's DG MARKT, 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](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)

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 2<sup>nd</sup> 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
		50		Q4/2014	Q3/2015
	<b>Total</b>	100			

### 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	
2014	Operational	50	

## 1.19.10 ANNEX AND REFERENCES

description	Reference link	Attached document
Digital Agenda for Europe	<a href="http://ec.europa.eu/digital-agenda">http://ec.europa.eu/digital-agenda</a>	No
eGovernment Action Plan	<a href="http://ec.europa.eu/digital-agenda/en/european-egovernment-action-plan-2011-2015">http://ec.europa.eu/digital-agenda/en/european-egovernment-action-plan-2011-2015</a>	No
ISA legal basis and reference documents on interoperability	<a href="http://ec.europa.eu/isa/">http://ec.europa.eu/isa/</a>	No
Strategy for e-	<a href="http://ec.europa.eu/internal_market/publicprocurement/e-">http://ec.europa.eu/internal_market/publicprocurement/e-</a>	

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## 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 , Publication Office

### 1.20.2 OBJECTIVES

Managing the application of the EU law involves both the European Commission and the Member States, working in close partnership. Member States are responsible for the timely and correct application of EU law while the Commission's responsibility is to ensure that EU law is applied in the same way. This is reviewed by contacts and correspondence with the Member States.

The objective of this action supporting the application of EU-Law is to identify and implement common services of cross-sector interest. The project will design, develop or and 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 and within the infringement proceedings:

- notification of national measures of execution for the transposition of directives (MNE);
- correspondence between the Commission and the Member States before launching infringement procedure (EU Pilot).
- communication of replies and requests for prolongation of the deadlines to infringements decision (MNE-INFR); and

All these services (MNE, MNE-INFR and EU Pilot) are designed to be used as a primary communication tool. MNE and EU Pilot are used by all Member States. MNE-INFR is used by 21 Member States (pending some further acceptance).

All services will be integrated as a common external module in the future NIF2 system that will manage the process of implementation monitoring of EU-Law end-to-end.

System-to-system data exchanges between administrations will reduce extra manual data encoding. This will allow Member States to transmit data directly from their back-office systems to the EC 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.

The main objectives of the common external module for NIF2 are to:

- define an IT architecture based on reuse of building blocks simplifying (in terms of cost and time) development of information systems, their maintenance and evolution;
- analysis and development of web-services for system-to system data exchange;
- facilitate the management (creation, change, versioning, maintenance) of schemes for structured data exchange;
- facilitate exchange of structured data and non-structured data between Member States and the Commission via web-services for system-to system data exchange (increased interoperability); and
- increase transparency by sharing case/project data between Commission and Member States.

For example and specifically, the EU Pilot module will:

- offer information about files already being treated by SOLVIT (a tool for problem solving between Member States, where there is cross-border misapplication of Internal Market rules);
- reduce administrative burden and costs by reducing the number of infringement cases (80% of EU Pilot files submitted by 09/2011 were solved without initiating the infringement procedure); and
- facilitate feedback submission, thus, it contributing to problems prevention;

### **1.20.3 SCOPE**

The common external module for NIF2 will be Government-to-Government system (G2G). It will cover the following services:

- MNE (National Measures of Execution) will handle electronic notifications for transposing measures of EU legislation. These notifications are provided by the Member States to the Commission;

- 
- INFR (Infringements Management) will support the exchange of information/notifications on official infringement documents between all Member States and the Commission;
  - EU-Pilot will facilitate communication between the Commission and a Member State, still in the pre-infringement phase. It will enhance problem solving efficiency and information exchange.

These services will be strongly integrated to ensure a consistent and reliable workflow.

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.

#### **1.20.4 PROBLEM/OPPORTUNITY STATEMENT**

Improving interoperability between infringement proceedings applications managed by the Secretariat-General of the Commission and IT tools managed by Member States.

Major development is required to provide common methods of operations in the EU law application field in synch with IT tools managing the implementation cycle or transposition status or infringements in general. In particular this action will achieve the following:

- Provide a single point of access for Member States as regards to application of EU law

The common external module for NIF2 will enhance Member States reporting of national transposing measures and the Commission's follow-up to the late communication of such measures, especially during the accession of a new Member State. It will also ease communication of pre-infringement concerns or exchange of official documents related to infringement procedures.

- Reduce administrative burden of the Member States and of the European Commission

For example, on 31 August 2012, the number of files submitted to the MS via the current EU Pilot system since its inception reached 3,527. Therefore, constant improvements to the system are needed to deal with this caseload and to facilitate the management of the files can be smoother. Boosted services provided by the new common module (access rights, statistics retrieval, search tools, document

management and training modules) will decreasing costs of system maintenance and hosting.

- Enhance efficiency and transparency of reporting and monitoring of EU law application

Improved statistical tools will simplify the gathering of information, its dissemination and reporting (for example, drafting the Annual Report on Monitoring the Application of EU Law).

- Enhance interoperability between NIF2 and the Member States or Commission services applications

Interoperability with other systems such as EurLex and e-Greffe will be enhanced through web services. In the same way national IT tools should be able to connect and interact easily and automatically with NIF2. This is becoming increasingly important as the Member States are developing IT applications and online services managing EU legislative work, complaints and infringement proceedings at national level.

For example, the Commission currently manually uploads the procedural documents in NIF. These are communicated to Member States or Permanent Representation in paper format in the absence of an integrated IT system for the official notification. The Member States upload their reply or request for extended deadline to reply (to Commission documents sent in paper) in INFR on a voluntary basis. In parallel they may send these documents (to various addressees in the Commission) per email, per fax or by regular email, as an advance copy or as an official reply. The project will develop the future INFR service as a single exchange platform and repository of all official infringement documents, exchanged between all Member State and Commission. This will be done by improving the interoperability with eGreffe (notification of uploaded letters to the Member States) and by (re)using the eTrustEx platform<sup>33</sup> for transmission of official documents to the Member States and reception of acknowledgement from them.

Moreover, such a communication tool concept or its database modules can be easily reused and adjusted for the communication between the Commission and the Member States or between the Member States in other sectors.

### 1.20.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
<b><i>MNE/INFR services</i></b>	

<sup>33</sup> See action 1.8 Trusted Information Exchange Platform

Member States and European Commission	<p><b>Security, rapidity and privacy, preservation of information:</b></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"> <li>- immediate transmission (MS are required to respect deadlines),</li> <li>- secure transmission with acknowledgement of receipt (high level of trust); and</li> <li>- secure data preservation (legal security for both MS and the EC).</li> </ul>
Member States and European Commission	<p><b>Data quality</b></p> <p>MNE/INFR 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><b>Better cooperation</b></p> <p>MNE/INFR 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><b>Administrative simplification, effectiveness and efficiency, data quality</b></p> <p>MNE/INFR 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"> <li>- the notification of national measures of execution for the transposition of directives by the Member States to the Commission;</li> <li>- the transmission of replies and prolongation of deadline requests in matter of infringements.</li> </ul>
Member States	<p><b>Independence from technology</b></p> <p>Web services will allow easy interoperability with MS own systems</p>
European Commission	<p><b>Efficient management of infringements</b></p> <p>MNE/INFR 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><b>Efficient IT development and evolution, flexibility, scalability, adaptability to legislation change</b></p> <p>MNE/INFR will be flexible, scalable and adaptable by being developed on a service and component oriented IT architecture.</p>
Citizens and businesses	<p><b>Transparency and openness through efficient interoperability with EurLex</b></p> <p>MNE/INFR will provide increased interoperability, communicating data on transposition of directives to all citizens via EurLex.</p>
<b>EU Pilot service</b>	
Citizens and businesses	<p><b>Efficient management of pre-infringement correspondence</b></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</p>

	with a Member States in 140 days.
Commission services and the Member States	<b>Data search ability</b> 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 legal basis for an EU Pilot file, to give an overview of prevailing legal problems per sector.
Commission services and the Member States	<b>Training</b> EU Pilot will be delivered with efficient training/e-learning modules for new users. Currently, such trainings are not available.

### 1.20.6 Related EU actions / policies

Action / Policy	Description of relation
Communication Towards interoperability for European public services COM(2010) 744 final	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.
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.
Trusted Exchange Platform – e-TrustEx	Helping to exchange structured and unstructured large documents (in legislation and competition policy areas) between the European institutions and Member States.
ISA-STORK	NIF2 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 well be future synergies to be exploited, as soon as ALL Member states are on board. Meanwhile, NIF2 will ensure that future interoperability/compatibility with a common European eID is safeguarded.
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## 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 to the services.
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 users in all Commission services.
Project Manager	Unit SG R.3 (Information Technology) responsible for NIF 2 development.
End users - Member States authorities	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, forming 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)
Infringements correspondents meetings	Representatives from all DGs	Once or twice a year
Directors	Representatives from all DGs	Once or twice a year

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network		
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Additionally, there is a CIRCA group of interest created for the EU Law Network of MS representatives.

### 1.20.7.3 Governance approach

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 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 NIF2 work through the EU Law Network. Tests and feedback can be submitted to functional mailbox: [SG-NIF2-FEEDBACK@ec.europa.eu](mailto:SG-NIF2-FEEDBACK@ec.europa.eu).

### 1.20.8 TECHNICAL APPROACH

The technical implementation of the proposed data-exchange services has the following requirements:

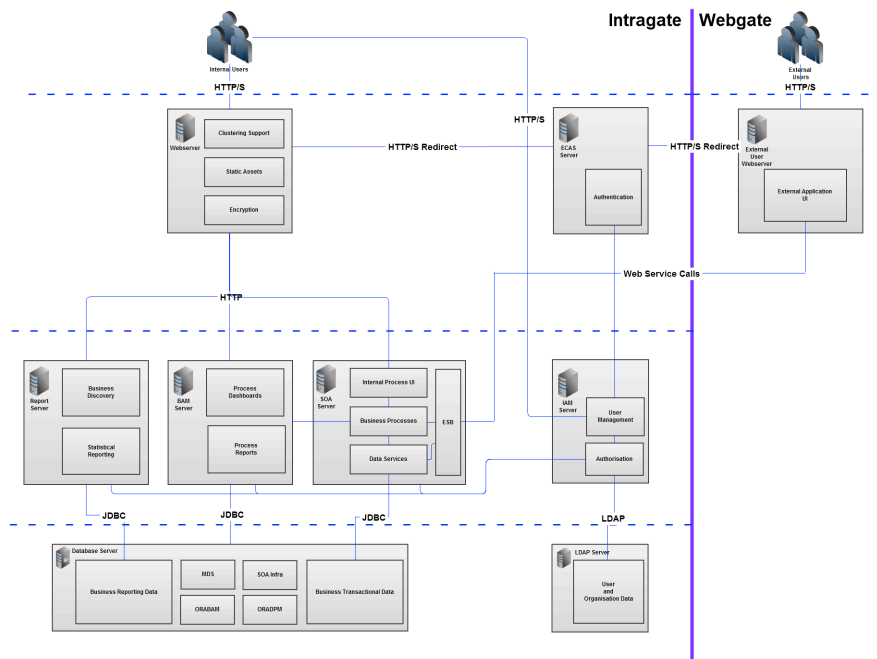
- State of the art secure web services allowing for the exchange of meta-data for normal (notification of measures) and confidential (pre-infringement dialogue; official notification of infringements and MS replies to those notifications) dossiers; these services should permit uploading such information 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 link with the ISA STORK project.
- 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 leveraging of 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.

Accompanying the actual exchange mechanism should be notification services which will inform the concerned parties that new tasks/data are available in the system.

Backwards compatibility with the current basic web services used by MS for certain 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 not only Commission requirements, but also current and future MS requirements are met. It might be advisable to set up a working group with MS representatives, based on the existing EU Law Network, with regular coordination meetings in Brussels.

Last, but not least, formalize the exchange of information (web service) to allow for better integration between NIF2 and SOLVIT2, to the extent they are compatible with each other.



The proposed web services all form part of the future common external module for NIF2 leveraging business services, which will be provided by the Commission's internal backend currently under development in the NIF2 project.

The precise content and scope of these future business services are also part of the development proposed under ISA funding, as outlined under point 1.1.9.1.

## 1.20.9 COSTS AND MILESTONES

### 1.20.9.1 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	Choice of technical platform; Catalogue of requirements; validation of the approach; high-level analysis	50	ISA	Q1/2013	Q1/2013
Inception	Detailed formal process description (EPC and BPMN) of the required business services and their exposure through web services; complete analysis document; validation of the proposal by all actors	125	ISA	Q2/2013	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	95	ISA	Q1/2014	Q1/2014
Execution	Testing and training; technical documentation for Member States to allow them to integrate their systems with the	30	ISA	Q1/2014	Q1/2014

	new services				
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	195	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
	<b>Total</b>	800			

#### 1.20.10 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	340	
2014	Operational	60	

#### 1.20.11 ANNEX AND REFERENCES

Description	Reference link/document attached
Articles 4 and 17 TEU	<a href="http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2010:083:0013:0046:EN:PDF">http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2010:083:0013:0046:EN:PDF</a>
Articles 258 and 260 TFEU	<a href="http://eur-lex.europa.eu/JOHtml.do?uri=OJ:C:2010:083:SOM:EN:HTML">http://eur-lex.europa.eu/JOHtml.do?uri=OJ:C:2010:083:SOM:EN:HTML</a>
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	<a href="http://ec.europa.eu/eu_law/infringements/infri">http://ec.europa.eu/eu_law/infringements/infri</a>

of Community law	<a href="#">ngements_annual_report_en.htm</a>
Communication 'A Europe of results – Applying Community law' (the 2007 Communication)	COM (2007) 502
Communication on the application of Article 260 (3) TFEU	<a href="http://ec.europa.eu/eu_law/infringements/infringements_260_en.htm">http://ec.europa.eu/eu_law/infringements/infringements_260_en.htm</a>
Framework Agreement between the Commission and the European Parliament (Section on 'Monitoring the application of Community law')	<a href="http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:304:0047:0062:EN:PDF">http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:304:0047:0062:EN:PDF</a>
Public access to documents relating to infringement proceedings	SEC(2003)260/3 <a href="http://www.cc.cec/sg_vista/cgi-bin/repository/getdoc/COMM_PDF_SEC_2003_0260_3_EN.pdf">http://www.cc.cec/sg_vista/cgi-bin/repository/getdoc/COMM_PDF_SEC_2003_0260_3_EN.pdf</a>
Monitoring the application of community law: manual of procedures	SEC(2005)254/5 <a href="http://www.cc.cec/sg_vista/cgi-bin/repository/getdoc/COMM_PDF_SEC_2005_0254_5_EN.pdf">http://www.cc.cec/sg_vista/cgi-bin/repository/getdoc/COMM_PDF_SEC_2005_0254_5_EN.pdf</a>

## 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	Concerned Commission services

#### 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. To further elaborate the objectives, the EIA will describe a common architectural view based on an established architectural framework to cover cross-border interoperability needs at European level. This includes also identifying the existing operational interoperability solutions and solution building blocks and covers different types of interoperability assets including infrastructure services, information systems, applications,

software components, semantic assets, organisational and legal interoperability assets. Analysis of possible missing solutions and building blocks is also needed. Once completed the description provides an overview on interoperability assets and forms a cartography mapping the European interoperability solutions. The definition, implementation and maintenance of the means to maintain the EU cartography are an important part of the action 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.

As part of the EIA 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 sectoral 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.

### **2.1.4 PROBLEM/OPPORTUNITY STATEMENT**

During the elaboration of the EIS Member States and Commission services agreed that there was:

\* at conceptual 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 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 actions	All ISA actions which contribute to the implementation of the EIA

## 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

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### 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:

- Define EIA governance processes, roles, responsibilities and missions
- Ensure strategic alignment of EIA with the EIS
- Define, maintain and improve the EIA
- Establish a cartography of interoperability solutions as part of the EIA and establishing the means to maintain it, using the results from the EFIR action
- Identify security standards needed to assure secure interoperability
- Translate the EIA vision into executable projects
- Assessment of contributions of projects to the EIA

During 2010-2012 the elaboration of the common vision for an EIA was completed including templates for interoperability agreements and a survey on selected interoperability actions of both the Commission and Member States. The currently on-going work concentrates on the next step to move from the vision to the development and description of the EIA. This includes the establishment of a cartography of interoperability solutions meaning mapping the existing European interoperability solutions to the architecture. Security standards will also be addressed. These studies will be followed by implementation activities such as development of common guidelines for the EIA, including guidance on the use of the EIA main components, common interfaces and the common infrastructure services.

## 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 and European Interoperability	300	ISA	Q4/2011	Q1/2013

	Architecture governance				
Maintenance and further development	European Interoperability Architecture	650	ISA	Q2/2013	Q4/2016
	Total	1450			

### 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
2013		200	
2014		150	
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 CAMSS action is to implement and plan the maintenance of a method for assessing interoperability standards and specifications.

The purpose of the 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. 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.

### 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.

### 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.

## 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"> <li>▪ 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.</li> <li>▪ Helps Member States to make interoperability agreements based on formal specifications, by providing a common assessment method for these needs.</li> <li>▪ Helps Member States to assess formalised specifications in public procurement.</li> <li>▪ Re-use of assessments, in whole or in part. Avoids duplication of effort, for the already finalised assessments of formalised specifications can be shared.</li> <li>▪ The assessed formalised specifications will contribute to the interoperability of systems implementing these specifications.</li> <li>▪ 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.</li> <li>▪ Improvement of the expertise of civil servants working with formalised specifications.</li> <li>▪ Offers a complimentary tool to support European Interoperability Framework in the evaluation of European or</li> </ul>

	national interoperability standards and specifications
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## 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

## 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 Multistakeholder 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	2 times per year
Public consultations	Standardisation bodies, ICT industry	2 times per year


### 2.2.7.3 Governance approach

The Commission collaborates with Member States to transpose the work done under IDABC into a comprehensive CAMSS framework. 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.

When CAMSS action is implemented its governance needs to be organised to guarantee the sustainability of the action results. As ICT standardisation is a rapidly changing and expanding area, a sustainable governance of further development of CAMSS is essential. Also CAMSS assessment library needs to be maintained and updated frequently.

## 2.2.8 TECHNICAL APPROACH

n.a.

## 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	150	ISA	Q3/2011	Q2/2012

	the organisation structure and governance of CAMSS for maintenance and further development.				
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	100	ISA	Q1/2014	Q4/2015
	<b>Total</b>	450			

### 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		50	
2015			

## 2.2.10 ANNEX AND REFERENCES

description	Reference link
White paper - Modernising ICT Standardisation in the EU : the Way Forward	<a href="http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52009DC0324:EN:NOT">http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52009DC0324:EN:NOT</a>
Decision No 922/2009/EC of the European Parliament and of the Council on ISA	<a href="http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:260:0020:01:EN:HTML">http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:260:0020:01:EN:HTML</a>
CAMSS wiki- page where the method is published	<a href="https://webgate.ec.europa.eu/fpfis/mwikis/idabc-camss/">https://webgate.ec.europa.eu/fpfis/mwikis/idabc-camss/</a>

## 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	Ability to use these services for the increased security of their data

agencies services	exchange.
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### 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
	<b>Total</b>	<b>340</b>			

### 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 <sup>34</sup>
2012	Operational	5	2
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	<a href="http://ec.europa.eu/internal_market/imi-net/docs/decision_3602_2006_en.pdf">http://ec.europa.eu/internal_market/imi-net/docs/decision_3602_2006_en.pdf</a>

<sup>34</sup> Due to the limited number of requests for new certificates, no additional commitments were necessary in 2011.

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security of information systems used by the European Commission.	
Directive 1999/93/EC of the European Parliament and of the Council of 13 December 1999 on a Community framework for electronic signatures.	<a href="http://eur-lex.europa.eu/smartapi/cgi/sga_doc?smartapi!celexapi!prod!CELEXnumdoc&amp;numdoc=31999L0093&amp;model=guichett">http://eur-lex.europa.eu/smartapi/cgi/sga_doc?smartapi!celexapi!prod!CELEXnumdoc&amp;numdoc=31999L0093&amp;model=guichett</a>

## 2.4 DATA COMMUNICATION NETWORK SERVICE (STESTA)

### 2.4.1 CONTEXT

Type of Action	Project
Type of Activity	Common Services
Service in charge	DIGIT.C.2
Associated Services	

### 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 preparation of the tendering specifications.

### 2.4.4 PROBLEM/OPPORTUNITY STATEMENT

The current Framework contract will get to an end by September 2013. A Call for Tenders is now on-going in order to be ready for the replacement of the current sTESTA provider. The goal of this CfT is to ensure the continuity of the original sTESTA services to give an answer to the user needs of the different sTESTA communities<sup>35</sup>. Always having a look into confidentiality,

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<sup>35</sup> The sTESTA framework contract is used to provide the sTESTA network cloud services interconnecting Member States and EU bodies, but 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. The Council has also started to make use of the sTESTA Framework Contract for their FADO, Courtesy and Extranet networks.

integrity and availability requirements as well as new services in preparation of the TESTA NG future evolutions.

## 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

Eurodac	<p>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.</p> <p><a href="#">Eurodac Legal Basis</a></p>
CARE	<p>Council Decision of 30 November 1993 on the creation of a Community database on road accidents</p> <p><a href="#">CARE Legal Basis</a></p>
FIDES	<p>COUNCIL REGULATION (EC) No 2371/2002 of 20 December 2002 on the conservation and sustainable exploitation of fisheries resources under the Common Fisheries Policy</p> <p><a href="#">FIDES Legal Basis</a></p>
HOLIS	<p>Council Regulation (EC) No 1257/96 of 20 June 1996 concerning humanitarian aid</p> <p><a href="#">HOLIS Legal Basis</a></p>
SIS II	<p>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).</p> <p><a href="#">SIS II Legal Basis</a></p>
CECIS	<p>Council Decision 2007/779/EC, Euratom of 8 November 2007 establishing a Community Civil Protection Mechanism.</p> <p><a href="#">CECIS Legal Basis</a></p>
SIGL	<p>COUNCIL REGULATION (EEC) No 3030/93 of 12 October 1993 on common rules for imports of certain textile products from third countries.</p> <p><a href="#">SIGL Legal Basis</a></p>

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 gov., 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 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.

For the security accreditation of the classified part of the sTESTA network, the Commission Policy Advisory Group (CSPAG) has established the Security Accreditation Panel (SAP) in accordance with Commission Decision 2001/844/EC, ECSC, EURATOM (OJ L 317, 3.12.2001, p. 1). The SAP, which has been mandated to issue the final accreditation statement, granting approval to handling EU Classified Information up to the level of RESTREINT UE in its operational environment, is expected to meet twice a year. Furthermore, three workshops are expected to be held yearly to coordinate sTESTA activities with sTESTA stakeholders.

#### **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 2 years starting in 2012 is foreseen. During this migration period the continuity of the current sTESTA services needs to be guaranteed. Therefore, as from 2012 additional budget will need to be foreseen in order to build critical parts of the new sTESTA network.

## 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
	<b>Total ISA Budget</b>	<b>64.800</b>			

### 2.4.8.2 Breakdown of ISA funding per budget year

Once the outcome of the currently on-going Call for Tenders is known, the figures for 2013, 2014 and 2015 may need to be reviewed at the light of the new prices and the migration plan.

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	10.519	
2015	Operational	11.000	



## 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 (**100.000+ 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.

### 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 **finer 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 EIS 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
- 1900+ active groups
- Around 1400 Service Help-Desk calls for CIRCA and 1000 for CIRCABC in 2011 (1200+ by September 2012)
- 100.000+ users and 1.000.000+ published documents (1TB+ 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 (EU institutions 20%, EU citizens, administrations, businesses: 80%).

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

Migration from CIRCA to CIRCABC started in 2010 in agreement with all the Interest Groups Leaders and CIRCA will be phased out when the migration is agreed to be successfully completed (end of 2012).

All CIRCA user's (160.000+ user accounts) will either be migrated to CIRCABC or deleted.

This migration represents a lot of additional load on:

- The CIRCABC system
- The CIRCABC support service: currently 2 persons supporting 70.000+ 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 has reached 80% and user's feedback has to constantly be addressed during the process.

#### *Key figures (migration ongoing)*

##### **80% migrated**

900.000+ documents  
70.000+ users  
1700+ Interest groups  
1+ TB of data

##### **100% migrated**

1.500.000 documents  
100.000 users  
2000 Interest groups  
2TB of data

### 2.5.4.3 Future of CIRCABC

A study is necessary to collect, analyse and report on the needs of Member States, public administrations and various European institutions. It will enable to:

- Isolate the building blocks and priorities for each need and request
- Assess the impact, integration and technical feasibility of those on the current system

Based both on the feedback about CIRCABC and the evolution of document management systems/collaborative tools in general, the following three main axes emerge:

- Performance improvement (dedicated instances, upgrade software/hardware architecture...)
- User interface improvement (ergonomic, 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 documents outside the European Institutions

The overall improvement will induce work packages which cannot be covered with the current resources which only cover service continuity.

The conclusion of the study will allow us to determine the priorities and to create more detailed project charter for the execution phase.

### 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.
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
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2.6 IPM	Interactive Policy Making, another ISA action
2.9 Document repository	Document repository services for EU policy support through the HERMES repository.
1.4 ECAS-STORK	In order to authenticate by means of the national eID.

## 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 <sup>th</sup> September 2012

### 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)	Budg et line ISA/ other s (speci fy)	Start date (QX/YYYY)	End date (QX/YYYY )
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
Inception	Study of technical and functional requirements, architecture and user interface (inclusive mobile aspects) for CIRCABC 4.0	80	ISA	Q1/2013	Q3/2013

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	aiming a better integration with other external systems like DRS (Action 2.9)				
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
	<b>Total</b>	<b>213</b>			

### 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	350
2012	Operational	300	354
2013	Inception	80	
2013	Operational	400	
2014	Operational	400	
2015	Operational	400	

### 2.5.10 ANNEX AND REFERENCES

description	Reference link	Attached document
#1 CIRCABC Service	<a href="https://circabc.europa.eu/">https://circabc.europa.eu/</a>	
#2 CIRCABC OSS project on joinup.eu	<a href="https://joinup.ec.europa.eu/software/circabc/home">https://joinup.ec.europa.eu/software/circabc/home</a>	

## 2.6 INTERACTIVE POLICY MAKING (IPM)

### 2.6.1 Context

The IPM project delivers a web application and related services enabling the creation, execution and publication of surveys. It allows public consultations targeting many types of centralized or decentralized European entities like Member states administrations, businesses, citizens, European institutions...

IPM 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)

This document provides an overview of the current project situation and expresses the needs for its evolutions.

#### 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

### 2.6.2 OBJECTIVES

The IPM (Interactive Policy Making) 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 execute a market study covering the technical, functional and financial aspects. The execution that will follow in 2014 will be determined by the results of this market study.
- 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.

### 2.6.3 SCOPE

IPM (Interactive Policy Making) 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.

IPM 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 too many other various types of surveys and forms.

As IPM is available from [joinup.eu](http://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.

IPM key figures:

- **1000+ surveys** per year
- 1200+ Service Help-Desk calls in 2010, 1500+ in 2011 and 800+ by September 2012
- **500.000+** 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
- A market research to see if parts/all of the business needs can be covered by alternative tools available on the market.
- A feasibility study and technology selection for a new IPM architecture and user interface + prototype
- Increase IPM interoperability and reusability towards other national & EU systems
- Develop new features and improvements following user's requests

### 2.6.4 PROBLEM/OPPORTUNITY STATEMENT

The IPM service and the IPM OSS version disseminated via the Joinup repository are already used by many Institutions, administrations and businesses. IPM 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 OSS versions.

Business 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.

IPM is based on aging technology and it is necessary to revamp its user interface, improve its performance and user-friendliness.

A market research has to be performed in order to identify if parts/all of the business needs can be covered by alternative tools available on the market. The study will be structured as follows:

- Identify key users and understand better their needs
- List of IPM business cases
- List of candidates survey tools
- Set realistic targets and criteria's to shortlist the candidates
- Compare the tools, describing the positives and negatives points
- Analyse the costs, risks and if necessary, the migration procedure
- Give a recommendation

A specific document describing in details all those requirements and market analysis will be provided. Actions for 2014 will depend on the outcomes of this study.

## 2.6.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Institutions	IPM 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 IPM 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
2.5 CIRCABC	Communication and Information Resource Centre for Administrations, Businesses and Citizens, another ISA action.
1.4 ECAS-STORK	Integration to be done for authentication by means of the national eID

## 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
Tour in the member states	Pascal BRAHY, Benoît ORIGAS, Margot FASSIAN	Presentation to specific key stakeholders from member states (dates to be determined)

### 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 will be created around the IPM service and regular meetings will provide the opportunity to submit enhancement requests, exchange opinions and best practices.

### **2.6.8 TECHNICAL APPROACH**

IPM is delivered as an OSS project via [joinup.eu](https://joinup.eu), the repository funded by ISA.

The OSS community will have the possibility to actively contribute at the source code level.

## 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	IPM Service	133	ISA	Q1/2010	Q4/2010
Operational	IPM Service	250	ISA	Q1/2011	Q4/2011
Operational	IPM Service	300	ISA	Q1/2012	Q4/2012
Operational	IPM Service	300	ISA	Q1/2013	Q4/2013
Inception	Market study of comparable survey tools. Study of functional and technical requirements, architecture, user interface	50	ISA	Q1/2013	Q4/2013
	<b>Total</b>	<b>1033</b>			

### 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
2011	Operational	250	250
2012	Operational	300	251
2013	Operational	300	
2013	Inception	50	

### 2.6.10 ANNEX AND REFERENCES

description	Reference link	Attached document
IPM OSS project on joinup.eu	<a href="https://joinup.ec.europa.eu/software/ipm/home">https://joinup.ec.europa.eu/software/ipm/home</a>	
What is IPM on Europa	<a href="http://ec.europa.eu/yourvoice/ipm/">http://ec.europa.eu/yourvoice/ipm/</a>	
IPM service	<a href="http://ec.europa.eu/yourvoice/ipm/forms/html/index.html">http://ec.europa.eu/yourvoice/ipm/forms/html/index.html</a>	
Joinup.eu	<a href="http://joinup.ec.europa.eu/">http://joinup.ec.europa.eu/</a>	

## 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	

### 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
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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
<p>Internal Market Single Market Act as adopted 27/10/2010 (COM 2010 (608) final</p>	<p>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:</p> <p><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></p>

## 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.
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, 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.

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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.

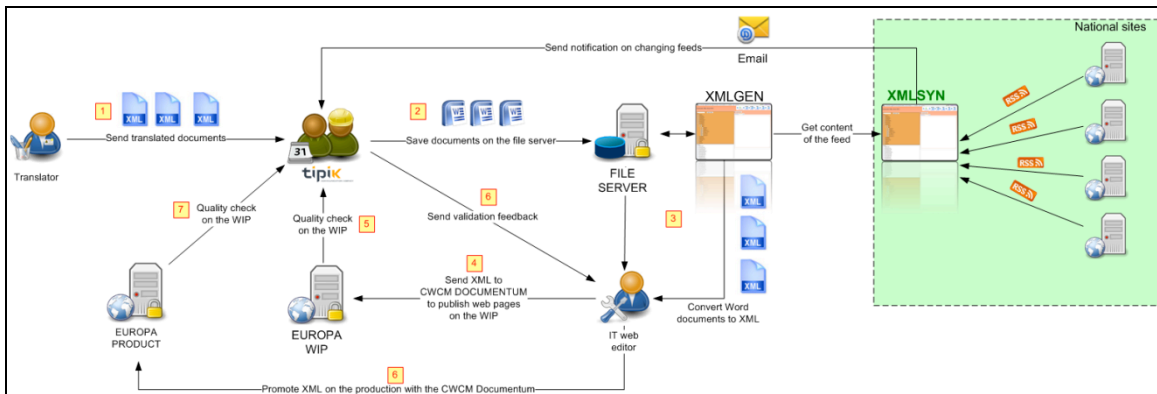
Features to be implemented:

- 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.

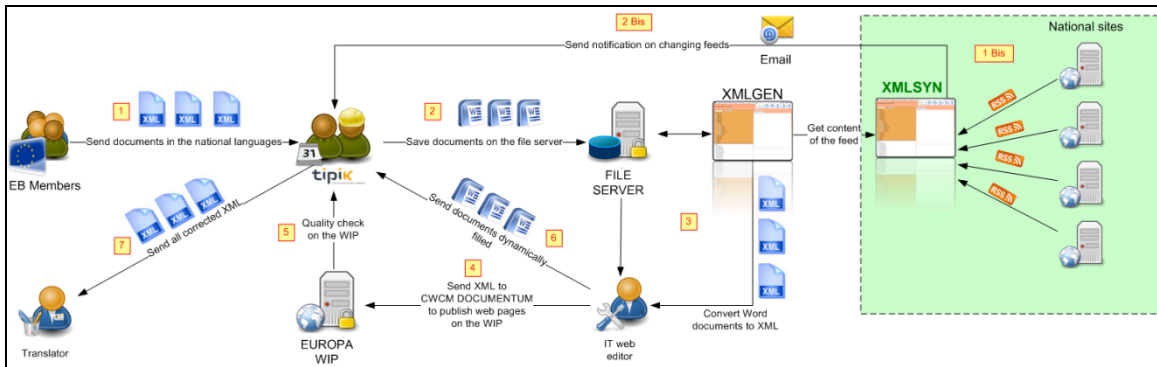
The application makes it possible to convert XML dynamically fed by RSS into Word documents for forwarding to editors. These documents will no longer contain dynamic links, but instead the final content will be reconstituted from RSS feeds.

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 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
	<b>Total</b>	<b>700</b>			

### 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 OSOR.eu), 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.

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### 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

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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 23 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	<p>Main use: Asynchronous MT of working documents, letters, emails (like the present ECMT)</p> <ul style="list-style-type: none"> <li>- 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.)</li> <li>- 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.</li> </ul>
Member states' Public Administrations	<p>Main use: Public administrations may use it for asynchronous MT of working documents, letters, emails (like the present ECMT)</p> <ul style="list-style-type: none"> <li>- 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.)</li> <li>- cost: human translation is requested by the sender only when the incoming document is important and relevant and only for the relevant pages.</li> </ul>
European Commission Services	<p>Online services offered or supported by the Commission</p> <p>Main use: Synchronous and asynchronous MT for online services offered to the citizens, Member States' administrations or enterprises either directly by the Commission or through Commission funded projects (like the ISA projects).</p> <p>Benefits:</p> <ul style="list-style-type: none"> <li>- 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</li> <li>- 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.</li> </ul>
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"> <li>- efficiency: national exerts 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)</li> <li>- 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</li> </ul>

	- cost: human translation is used only when it is really needed and only for what is really relevant.
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## 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
ISA action 1.10 IMI (Internal Market Information System IMI (Internal Market Information system)	Potential User. DG MARKT is an associated service for action 2.8, while the May 2012 production version of IMI already uses the engines developed within the MT@EC project.
ISA action 4.2.1 Collaborative Platform (Joinup)	Potential user.
Open Dispute Resolution (ODR) Platform	Potential user as of 2015 (DG SANCO)

## 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	Representatives of DGs	Ad hoc (continuous possibility)

Machine Translation		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.

## 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 will 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 will run for approximately one year. It has 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 are expected:

- 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 will start 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 will have 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.

## 2.8.9 COSTS AND MILESTONES

### 2.8.9.1 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/YY YY)
Inception	Project Charter (initial version)	330	ISA	Q4/2010	Q2/2011
Execution	Project management: Project Charter (detailed version)	70	ISA	Q2/2011	Q2/2012
Operational	Architecture and analysis	55	ISA	Q2/2011	Q2/2012
Inception phase 1	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	Development	400	ISA	Q2/2014	Q1/2015

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	<b>Total</b>	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 (Hermes and CIRCABC) 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.

### 2.9.3 SCOPE

The European Commission has developed HERMES, a central system to support its electronic document management policy for all internal services and executive agencies. The system is in production, currently widely used by more than 40.000 users (European Commission, Executive Agencies and European External Action Service) and its usage is increasing significantly. Another complementary system is CIRCABC. The system provides internal and external interest groups with a private web workspace to collaborate on common objectives and tasks, enabling the effective and secure sharing of resources and documents.

The scope of the action includes:

1. A study (already done) 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;
2. The development of common document management components and services of HERMES and/or CIRCABC (Document Repository Services – DRS);
3. At a later stage, the development of a user interface on top of these document management components and services.

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.

The scope is 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 0) 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	Streamlining document exchange and archiving processes Economies of scale (infrastructure) Cost savings (development) Compliance (with common document management standards) More transparent document management procedures in European policy execution Finding and sharing information more easily
Member States' Public Administrations (national, regional and local), European Institutions and	Benefits of the ECN Pilot: Demonstrate the reusability of DRS with corresponding benefits: cost savings, economies of scale, etc. Promote interoperability with a concrete and exemplary case based on

bodies and other organisations	common infrastructure and architecture components.
European Competition Network composed by the National Competition Authorities and DG COMP	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.

## 2.9.6 Related EU actions / policies

Action / Policy	Description of relation
1.3 Catalogue of services	Publication of Document Repository services in the Catalogue of services
2.5 CIRCABC	Integration with CIRCABC
1.8 eTrustEx	Assessment of possible cooperation related to document management
1.18 Federated authorisation across EU public administrations	Assessment of possible re-use of federated authorisation component for decentralised user management.

## 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	ECN Pilot project coordination group

COMP.R3)	
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 2 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 monthly 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: PM<sup>2</sup> 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).

<b>Governance / sharing of responsibilities for the ECN Pilot:</b>
--

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: PM<sup>2</sup> 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:

### 1. 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.

### 2. Execution phase - Development and assistance for implementation

Based on the study mentioned above, the priority in the first development stage is to integrate the two complementary systems previously mentioned (HERMES and CIRCABC) and to expose in a secure manner common document management services (DRS – Document Repository Services) to Member States' public administrations and European Institutions.

The second development stage consists in extending the document management services and building a user interface on top of these services, for organisations that require a fully-fledged document management system. However, its scope may be adjusted based on the results of the first stage and the feedback of the Member States' public administrations and European institutions.

### 3. Operational phase – Operations, support and assistance for pilot clients (e.g. European Competition Network).

Phases of the ISA action excl. the ECN Pilot

Inception phase	ISA Feasibility Study: <ul style="list-style-type: none"> <li>• D1.1 Description of the Document Management portfolio for HERMES and CIRCABC</li> <li>• D2.1 Scenarios for reuse of document management services by potential service consumers</li> <li>• D3.1 Roadmap and business cases for the selected DM service consumers</li> </ul>
	Project charter for execution phase 1
Execution phase	Execution phase stage 1: Common document management services <ul style="list-style-type: none"> <li>• WP1: Integration between HERMES and CIRCABC services</li> <li>• WP2: Secure access to Document Repository Services (DRS) over the internet</li> <li>• WP3: Development of Document Repository Services (DRS)</li> </ul>
	Execution phase stage 2: Extended DRS and user interface
Operational phase	Operations, support and assistance for pilots

**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:

1. 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.

2. 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.

3. 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	Q1 2013
Execution	Stage 1: Common document management services WP2, Functional specifications, Design specifications, Development	240	ISA	Q1 2012	Q1 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
Execution	Stage 2: Extended DRS and user interface	500	ISA	Q1 2014	Q2 2015

	Functional specifications, Design specifications, Development, Execution report				
Operational	Stage1: Common document management services assistance of pilot clients	50	ISA	Q2 2013	Q4 2013
Operational	Stage 2: Extended DRS and user interface assistance of pilot clients	100	ISA	Q3 2015	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	Q2 2014
ECN Pilot Operational	Deployment of the pilot	100	ISA	Q3 2014	Q4 2014
	<b>Total</b>	2350			

### 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	450
2012	Execution	350	350
2013	Execution	300	
2013	Operational	50	

2014	Execution	500	
2014	Operational	100	
2015	Execution	150	
2015	Operational	100	

## 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	

### 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

### 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)

### **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	<p>- Free to use open source tools for implementing crisis and business continuity processes, for which maintenance and further development are guaranteed;</p> <ul style="list-style-type: none"> <li>○ Better integration of crisis and business continuity IT Systems;</li> <li>○ Better messaging and better tracking of messages;</li> <li>○ Solid, scalable and extensible interoperability platform;</li> <li>○ Increased level of cooperation between stakeholders from EC and Member States;</li> <li>○ Shared experience and support for setting up the crisis and business continuity management tool.</li> </ul>

### 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
Inception	Extend Feasibility study with PoC's of identified building blocks	100	ISA	Q2/2011	Q1/2012
	<b>Total</b>	<b>400</b>			

### 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	0
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 >>

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Description	Reference link
Community Capacity in Crisis Management (C3M) Interservice Group - Inventory of crisis management capacities in the European Commission and community agencies	<a href="http://critechportal1.jrc.it/c3m/tabid/90/Default.aspx?ItemID=426&amp;ModID=534">http://critechportal1.jrc.it/c3m/tabid/90/Default.aspx?ItemID=426&amp;ModID=534</a>
OASIS CAP	<a href="http://www.oasis-open.org/committees/tc_home.php?wg_abbrev=emergency">http://www.oasis-open.org/committees/tc_home.php?wg_abbrev=emergency</a>

## 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 frameworks
Service in charge	DG MARKT
Associated Services	DIGIT.B4, CONNECT, ENTR.D4, Publication Office

### 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, the project will 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.
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.
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
ePrior (ISA WP 1.7)	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.
Common Infrastructure for Public Administrations (CIPA) (ISA WP	The Common Infrastructure for Public Administrations (CIPA) action 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.

1.6)	
Modernisation of procurement directives (on-going)	The project will flank the legislative action with coordinated measures to facilitate wide adoption of the revised framework.
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 standards makers.
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.

## 2.11.7 ORGANISATIONAL APPROACH

### 2.11.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
e-procurement authorities in the MS	Senior MS procurement agency representatives within the ACPC 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

### 2.11.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
ACPC meetings	Senior MS procurement agency representatives	4 per year
epWG meetings	Senior MS procurement agency	4 per year

	representatives specialising in e-procurement	
Press statements and other Commission communications	Procurement community at large; policy makers	Frequency to be decided as appropriate

### 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. 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 the transposition deadline. Central Purchasing Bodies should also move to full electronic means of communication, including electronic submission of bids (e-submission) by that date. All other contracting authorities would be required to perform all procurement procedures using electronic means of communication no later than two years after the transposition deadline. 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 ACPC 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. In addition, a Steering Group has been set up to gather feedback from relevant Commission services.

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.

A change in the governance approach has been made with respect to the previous revision of the ISA work programme. The plan also involved consultation with an informal expert group on e-Tendering being set up by DG MARKT with the main goal of defining a blue-print for optimal e-procurement solutions. The group was expected to assist with decision support at

market/business level. When DG MARKT started the e-Tendering expert Group in October 2011, it was agreed it would not be appropriate to add this extra task to the workload already assigned to the expert group.

### **2.11.8 TECHNICAL APPROACH**

The following activities are planned:

#### **Definition of an EIF-based model for design and set up of pre-award e-procurement operations**

Strictly speaking, this activity is not part of the ISA-funded action. However it is mentioned because its outcome is going to make up the foundation for the project. DG Markt as set up on its own budget an informal expert group on e-tendering (e-TEG). The group started work in January 2012 and will run for one year (8 meetings are scheduled) with a planned optional extension for an additional year. The group brings together professionals with a proven record of experience in the various areas of e-procurement. Membership encompasses all e-procurement dimensions (demand and offer side of the business, IT architectures, economics, administration, etc.) and a balanced representation of the stakeholders (businesses, contracting authorities, geographic areas, etc.) Under the chairmanship of the Commission, the group is studying and will come up with a blueprint of ideal models for tender submission. The models, taking account of the different business context and approaches across the EU, will enable seamless, borderless participation as well as SME inclusion. By referring to these models, procurement actors will be able to build up e-tendering solutions which, although independently designed, converge towards a homogeneous set of interfaces enabling wide SME and cross-border accessibility. The group is addressing key issues such e-Signature, e-catalogues, e-procurement tools, etc., with the aim to define ways to ensure a common (or interoperable) approach across the EU. As part of the task, the group will perform a standardisation gap analysis, to see which standards would be necessary or desirable, and come up with specific business requirements for future standardisation work. To draw up the blueprint, the Expert Group is building upon the practical results of a study on accessibility and functionality of e-procurement platforms that has been launched in January 2011. The study, funded by DG Markt, is performing detailed testing and comparison of relevant active/successful e-procurement platforms in Europe, with a view to identifying problem areas and successful approaches to addressing them. The focus of the project is to ensure that best practices, but also errors to be avoided, are identified and can be reapplied.

#### **Monitoring e-Procurement**

This is the core part of the ISA action. A Tender notice (2011/S 142-235043 of 27/07/2011, lot 1) was published in September 2011 covering phase 1 of the study within the 2011 ISA workplan. With this project, which started in January 2012, the Commission is collecting

updated information on the current state of development of e-procurement and defining a strategy and the means to make the collection of this information increasingly automatic. 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. Therefore the contractor is asked to map the e-procurement landscape across the Member States, collect business data (amount of transactions performed electronically, evolution of profiles of participants / winners, cost benefits, etc.) and inform the Commission on an ideal set of e-Procurement indicators that could be derived from e-procurement platforms. One of the key features that will be measured is the ability of e-procurement operations to attract more SME and cross-border competitors than the traditional procedures and to increase their chances to win contracts.

### **Trialling the e-procurement performance indicators**

This action corresponds to phase 2 and 3 of the study within the ISA workplan, covering 2012/13 and 2013/14 respectively. Once the study on the performance indicators is completed, its results will be tested in a trial exercise involving the EU procurement operations and the Member State that will agree to participate. The project will be carried out as part of the previously illustrated contract awarded in 2011. Contractually, work is handled as an optional task, that may be ordered 2 consecutive times via contractual extensions, aimed at trialling the indicators in practice with the help of Member States / procurement agencies that will agree to participate. The Commission has the discretion to launch such work conditional upon viability of the finding of the study (as well as availability of ISA funding for financial commitment in 2012 and 2013). 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.

### **Implementing actions**

In late 2013, the combined results of the expert group and the contractor activities will provide clear directions for further implementation actions. Current DG MARKT 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.

## 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
Study - Phase 2.2 (monitoring)	Trial of e-procurement monitoring system	191	ISA	Q3/2013	Q3/2014
Study Phase 3 (pre-award)	Definition of an EIF- based model for design and set up of pre- award e-procurement operations	150	DG MARKT	Q3/2011	Q3/2013
Study - Phase 4 (pre-award)	Implementation actions	150	ISA	Q1/2014	Q3/2015
	<b>Total ISA budget</b>	841			

### 2.11.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010			
2011	Study - Phase 1 (monitoring)	300	300

2012	Study - Phase 2.1 (monitoring)	200	0
2013	Study - Phase 2.2 (monitoring)	191	
2014	Study - Phase 4 (pre-award)	80	
2015	Study - Phase 4 (pre-award)	70	

### 2.11.10 ANNEX AND REFERENCES

description	Reference link	Attached document
Summary of the Green Paper responses:	<a href="http://ec.europa.eu/internal_market/publicprocurement/eprocurement/consultations/index_en.htm">http://ec.europa.eu/internal_market/publicprocurement/eprocurement/consultations/index_en.htm</a>	
Expert Group: Terms of Reference and call for applications:	<a href="http://ec.europa.eu/internal_market/publicprocurement/eprocurement/expert/index_en.htm">http://ec.europa.eu/internal_market/publicprocurement/eprocurement/expert/index_en.htm</a>	
Terms of Reference for the e-procurement monitoring and benchmarking study (notice 2011/S 142-235043 of 27/07/2011):	<a href="http://ec.europa.eu/dgs/internal_market/calls_en.htm">http://ec.europa.eu/dgs/internal_market/calls_en.htm</a>	
Commission communication to the EP, the council, the European Economic And	<a href="http://ec.europa.eu/internal_market/publicprocurement/docs/eprocurement/strategy/COM_2012_en.pdf">http://ec.europa.eu/internal_market/publicprocurement/docs/eprocurement/strategy/COM_2012_en.pdf</a>	

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Social Committee and the Committee Of The Regions, "A strategy for e-procurement" - COM(2012) 179 final.		
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## 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
eHealth Governance Initiative	WG on Interoperability, Standards, Markets
eHealth Task Force	Area of interest: Cross-Border Interoperability
CIP-PSP	epSOS project
FP7	Hitch Project
FP7	NoE in Semantic Interoperability
CIP-PSP	eHR-Q <sup>IN</sup>

## 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
	<b>Total</b>	<b>400</b>			

### 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	

## 2.12.10 ANNEX AND REFERENCES

Description	Reference link	Attached
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		document
eHealth Governance Initiative	<a href="http://ec.europa.eu/information_society/activities/health/policy/ehealth_governance_initiative/index_en.htm">http://ec.europa.eu/information_society/activities/health/policy/ehealth_governance_initiative/index_en.htm</a>	
epSOS project	<a href="http://www.epsos.eu/">http://www.epsos.eu/</a>	
Digital Agenda for Europe	<a href="http://ec.europa.eu/information_society/digital-agenda">http://ec.europa.eu/information_society/digital-agenda</a>	
eHT-Q <sup>IN</sup>	<a href="http://ehrqtn.eurorec.org/">http://ehrqtn.eurorec.org/</a>	
eHealth Task Force	<a href="http://europa.eu/rapid/pressReleasesAction.do?reference=IP/11/551&amp;format=HTML&amp;aged=0&amp;language=en&amp;guiLanguage=en">http://europa.eu/rapid/pressReleasesAction.do?reference=IP/11/551&amp;format=HTML&amp;aged=0&amp;language=en&amp;guiLanguage=en</a>	

## 2.13 ESTABLISHMENT OF A EUROPEAN UNION LOCATION FRAMEWORK

### 2.13.1 Context

#### 2.13.1.1 Identification of the action

Type of Action	Study
Type of Activity	Common Frameworks
Service in charge	JRC.H06
Associated Services	ENV (F04), ESTAT (E04)

### 2.13.2 OBJECTIVES

The INSPIRE Directive<sup>36</sup> 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 study is to create a European Union Location Framework (EULF) addressing 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 Europe<sup>37</sup> (DAE), based on INSPIRE.

The EULF will consist of a package of legal acts, methodologies, specifications and guidelines, and training material required by public administrations and stakeholder communities to facilitate the implementation, use and expansion of INSPIRE in 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 study does not start from scratch. In fact, there are both on-going and completed programmes and projects at national<sup>3839</sup> and international<sup>404142</sup> levels that relate to the description of the EULF. The action will include using existing frameworks, assess their fitness for purposes and liaise with the organizations in charge.

<sup>36</sup> 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)

<sup>37</sup> COM(2010)245 final

<sup>38</sup> UK Location Framework, <http://location.defra.gov.uk/>

<sup>39</sup> GIDEON – Key geo-information facility for the Netherlands, <http://www.rijksoverheid.nl/>

<sup>40</sup> EuroGeographics, <http://www.eurogeographics.org/>

<sup>41</sup> European Spatial Data Infrastructure with a Best Practice Network (ESDIN), <http://www.esdin.eu/>

<sup>42</sup> United Nations programme on Global Geospatial Information Management, <http://ggim.un.org/>

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The study will further recommend strategies for a secure data exchange and management framework based on INSPIRE/e-government set-up in the Member States, and will contribute to a white paper on the evolution of INSPIRE/SEIS<sup>43</sup> in the context of the DAE.

### 2.13.3 SCOPE

Included in the scope are the following aspects:

- Development of the interoperability framework concerning aspects related to the exchange and sharing of location data and location services;
- INSPIRE Directive and related Implementing Rule Legal Acts;
- Input to the revision of the INSPIRE Directive (2014);
- Link to SEIS Implementation Plan;
- EIS/EIF;
- Recent open data initiatives such as the EU open data portal;
- Linked open data / Internet of Things;
- Volunteered Geographic Information / crowd sourcing;
- Interaction with standardisation organizations;
- Link to maintenance of the INSPIRE legal acts and Technical Guidance documents;
- Cloud computing;
- Governance of the EULF.

### 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 organizations 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 an EU location interoperability framework compatible with the EIF. This will be based on– albeit generalized – 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 EULF<sup>44</sup>.

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<sup>43</sup> 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.

<sup>44</sup> Including <http://www.eurogeographics.org/>, <http://www.esdin.eu/>, <http://www.eurogi.org/>

### 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.
Member States authorities and agencies; European Bodies and Institutions	Increased interoperability between public administrations.
European Bodies and Institutions, Member States	Increased coherence in future EU policies .

### 2.13.6 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 an Infrastructure for Spatial Information in the European Community (INSPIRE).	Legal basis for the study.
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 study 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 study builds on the technical guidance of this regulation.
Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee,	<i>DAE Action 21: Propose legislation on ICT interoperability</i> Where relevant, the study results will provide

<p>and the Committee of the Regions: A Digital Agenda for Europe - COM(2010)245 final.</p>	<p>recommendations for the revision of the INSPIRE Directive and for the Implementing Rules legal acts still under development.</p> <p>If successful, the study 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 study will rely, where possible and feasible, on European and international standards, and will involve standardization 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>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.</p>	<p>The study will directly contribute to COM(2010)744 final by facilitating interoperability for geospatial components in e-government contexts.</p>
<p>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”.</p>	<p>The study will contribute to Action 17:</p> <p>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.</p>
<p>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.</p>	<p>The study will directly contribute to the realization of the objectives of COM(2010)0311.</p>
<p>COM(2010)308 final Communication from the Commission to the Council, the</p>	<p>The study will contribute to Action 17:</p> <p>The European Commission will promote the use</p>

European Parliament, the European Economic and Social Committee and the Committee of the Regions “Action Plan on Global Navigation Satellite System (GNSS) Applications”.	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 study will directly contribute to the realization of the objectives of COM(2010)0311.
Action 1.17 : Re-usable Inspire reference platform (RIRP)	Both Actions relate to the implementation of the INSPIRE Directive. Action 1.17 RIRP will aim to provide the technical components to help foster INSPIRE’s implementation within the geospatial data and broader ICT communities, whereas Action 2.13 EULF addresses the policy dimension and further uptake and consistent use of INSPIRE across all relevant policy domains. Appropriate synergies will be sought with the RIRP to maximise the efficiency and impact of both Actions.

## 2.13.7 ORGANISATIONAL APPROACH

### 2.13.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
Services of the Commission	Inter-service group of ENV, ESTAT, CONNECT, DIGIT, ENTR, SEC GEN, complemented with representatives of other relevant DGs (e.g., MOVE, AGRI, REGIO).
Formal INSPIRE representation in Member States	INSPIRE Regulatory Committee INSPIRE Member States Contact Points.
INSPIRE Legally Mandated	LMO point of contact.

Organizations (250)	
ISA	ISA Working Group on Interoperability Architecture.
Standardisation bodies (CEN, ISO, OGC, W3C, OASIS, etc.) including their relevant Focus Groups on e-Government	
Pan-European organizations	EuroGeographics, EUROGI.
Eye on Earth community	Eye on Earth Framework Committee, reps of relevant WGs.
EEA/EIONET, National environment agencies	EEA/EIONET national focal points (NFPs), National Reference Centres for Information Systems.
ESPON	ESPON secretariat.
Thematic communities	Relevant EU expert groups.

### 2.13.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
INSPIRE Conference 2012	INSPIRE stakeholders	2012-06 or 07, Turkey
EULF workshop	EULF expert group, PMB	If possible in conjunction with INSPIRE 2012
INSPIRE Regulatory Committee	INSPIRE committee members	2012-07, and as required to cast opinion on proposed IR legal acts and other matters related to INSPIRE
INSPIRE Member States Contact Points meeting	INSPIRE MSCPs	Once per year
INSPIRE Conference 2013	INSPIRE stakeholders	2013-06 or 07
Meetings of relevant standardisation	Standardisation	2 - 3 times / year

groups (CEN, ISO, OGC, W3C, ..)		
12th European Conference on eGovernment – ECEG 2012	eGovernment	2012-06-14 and 15, Barcelona, Spain
Dedicated ePractice workshops	eGovernment	Once per year
Eye on Earth events	Environment agencies, mapping agencies,	Once per year
INSPIRE Conference 2014	INSPIRE stakeholders	2014-06 or 07
INSPIRE/EU Location Conference 2015	INSPIRE stakeholders	2015-06 or 07
Meetings of the United Nations Committee of Experts on Global Geospatial Information Management (GGIM)	UN members	1/year

### 2.13.7.3 Governance approach

#### Steering Committee

Role and responsibilities: the Steering Committee will be responsible to monitor the execution of the study. The Steering Committee will also:

- Contribute to and review the technical annex for any call for tender issued in the context of this activity;
- Review deliverables prepared by contractors;
- Launch stakeholder consultations;
- Adjust the project planning based on new developments;
- Contribute to the communication strategy.

Composition: Due to the links with DAE in general and EIF and standardization in particular, a Steering Board will be set-up, composed of the lead services for INSPIRE (ENV, ESTAT, JRC), representatives from DIGIT, CONNECT, and ENTR.

## European Location Framework Expert Group

Role and responsibilities: Establish the terms of reference, identify relevant reference material to be considered by the contractor, comment on intermediate versions of the European Location Framework, identify relevant stakeholders to include in consultations on the major versions.

Composition: INSPIRE Member States Contact Points, representatives of e-government, standardisation bodies, and pan-European stakeholder organizations including EuroGeographics and EUROGI, chaired by the European Commission.

## JRC

The resources provided for this study will be complemented with institutional resources from JRC through the institutional actions ENABLE 11601 and SHAPE 11602. In particular, JRC will provide the secretariat for the European Union Location Framework Expert Group. Also, results of JRC institutional work programme will feed into the EULF.

## 2.13.8 TECHNICAL APPROACH

The following activities are foreseen as part of the study:

- Establishment of the European Location Framework Expert Group;
- EULF Expert Group Kick-off workshop with the main objectives to:
  - Adoption of the terms of reference of the EULF Expert Group
  - Articulation of a common vision in line with EIS/EIF and INSPIRE, and
  - Identification of reference material and good practices
- Technical annex of tender, issue call for tender;
- Drafting of version 0 (internal) of the EULF. This draft is a package of the following:
  - A vision document on the EULF
  - A report on the analysis of existing and legal acts and gaps
  - Methodologies, specifications and guidelines, and
  - Existing and new training material, including videos
- Review by EULF Expert Group, second EULF meeting;
- Identification of ownership of the EULF within the Commission ;
- Revision into Version 1 of the EULF by contractor;
- Stakeholder and public consultation (incl. Your voice in Europe), presentation of the EULF in the Parliament;
- Revision into Version 2 of the EULF by contractor;
- Endorsement of the EULF by the EULF Expert Group;
- Commission services draft a Commission Decision/Communication on the EULF;
- EC Interservice consultation;
- Adoption of Commission Decision/communication on the EULF.

## 2.13.9 COSTS AND MILESTONES

### 2.13.9.1 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)
	EULF Expert Group Kick-off meeting	50	ISA	Q3/2012	Q3/2012
	EULF Version 0	250	ISA	Q1/2013	
	First EULF review meeting	50	ISA	Q2/2013	
	EULF Version 1	100	ISA	Q4/2013	
	Public and stakeholder consultation			Q4/2013	
	EULF Version 2	250	ISA	Q1/2014	
	Formal adoption of the EULF by the EULF Expert Group	50	ISA	Q1/2014	
	Commission Decision/communication on the EULF		ISA	Q2/2014	
	EULF Expert Group meeting	50		Q2/2014	
	<b>Total</b>	<b>800</b>			

### 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	300	300
2013	Study	425 <sup>45</sup>	
2014	Study	50	

<sup>45</sup> 25 kEUR originally foreseen to be allocated in 2013 was preloaded in 2012,

2015			
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### 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)	<a href="http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32007L0002:EN:NOT">http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32007L0002:EN:NOT</a>
INSPIRE Metadata Regulation	<a href="http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32008R1205:EN:NOT">http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32008R1205:EN:NOT</a>
Commission Regulation amending Regulation (EC) No 976/2009 as regards download services and transformation service	<a href="http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:02009R0976-20101228:EN:NOT">http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:02009R0976-20101228:EN:NOT</a>
COMMISSION REGULATION implementing Directive 2007/2/EC of the European Parliament and of the Council as regards interoperability of spatial data sets and services	<a href="http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:323:0011:0102:EN:PDF">http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:323:0011:0102:EN:PDF</a>
COMMISSION REGULATION amending Regulation 1089/2010 as regards interoperability of spatial data sets and services	<a href="http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32011R0102:EN:NOT">http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32011R0102:EN:NOT</a>
Technical Guidance for the implementation of INSPIRE Discovery Services	<a href="http://inspire.jrc.ec.europa.eu/documents/Network_Services/TechnicalGuidance_DiscoveryServices_v3.0.pdf">http://inspire.jrc.ec.europa.eu/documents/Network_Services/TechnicalGuidance_DiscoveryServices_v3.0.pdf</a>
Technical Guidance for the implementation of INSPIRE View Services	<a href="http://inspire.jrc.ec.europa.eu/documents/Network_Services/TechnicalGuidance_ViewServices_v3.0.pdf">http://inspire.jrc.ec.europa.eu/documents/Network_Services/TechnicalGuidance_ViewServices_v3.0.pdf</a>
Design Principles for UKLII	<a href="http://location.defra.gov.uk/wp-content/uploads/2010/04/UKLP-Design-Principles.pdf">http://location.defra.gov.uk/wp-content/uploads/2010/04/UKLP-Design-Principles.pdf</a>
Directive 2007/2/EC of the	

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European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE)	<a href="http://lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32007L0002:EN:NOT">lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32007L0002:EN:NOT</a>
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## 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.B1, DIGIT.B4, MARKT.B.1, SANCO.A.4 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 are those, funded by the Community budget, that support EU policies and exchanges between European Public Administrations at European and national level, covering systems managed by the European Commission allowing for exchanges between Member States

The aim of these inventories is to identify, take inventory of all major systems and its 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 the EIA action) 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...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 1<sup>st</sup> phase and the number of components targeted.

### 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 building blocks in systems supporting EU policies.

The targeted systems by this action are those that support EU policies and exchanges between European Public Administrations at European and national level. It covers systems managed by the European Commission allowing for exchanges between Member States.

The action will provide a map on which a strategic plan to raise the reuse and sharing maturity of the EU systems can be proposed. Also it will provide input to the EU cartography to be built in the context of the EIA action.

The definition of assessment criteria for rationalisation, the description of the building blocks, the actual analysis based on these criteria and proposing the list of rationalisation opportunities is in scope of the study. The rationalisation decision itself is however out of scope and is to be taken up by the Commission relevant policy DG's.

### 2.14.4 PROBLEM/OPPORTUNITY STATEMENT

The aim of rationalisation is to avoid duplication and promote common, reusable and flexible solutions.

The study conclusions should identify some priority areas for systems supporting EU policies that could be rationalized. Given the current scarcity of resources, European Public Administrations, at the various levels, need to become more efficient with less means. This particular study on rationalisation of IT systems supporting EU policies will contribute to this objective.

### 2.14.5 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States	<ul style="list-style-type: none"> <li>• More streamlined interfacing/integration with less EU systems</li> <li>• Reduced training efforts as a fewer IT tools are used</li> <li>• Shorter time to obtain IT tools for new areas</li> </ul>

	<ul style="list-style-type: none"> <li>• Boost for e-government policies</li> <li>• (and benefits from the EIA action)</li> </ul>
Commission	<ul style="list-style-type: none"> <li>• Reduced IT development and maintenance costs</li> <li>• Reduced training, helpdesk and awareness raising costs</li> <li>• Shorter time to deliver IT solutions for new areas</li> </ul>
EU citizens and businesses	<ul style="list-style-type: none"> <li>• More coherent ICT systems mean increase friendliness, less administrative burden and increased efficiency for citizens and businesses.</li> <li>• Wider use of IT tools for administrative cooperation will improve and accelerate services delivered by public authorities</li> <li>• Less administrative burden by replacing requirements to provide certificates and documents by fast and reliable information exchange between public authorities</li> </ul>

### 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.
Internal Commission IT rationalisation exercise	Significant reduction of IT maintenance and development costs, less human resources
2.1 EIA	The action will provide input for the EU cartography developed by 2.1 EIA
4.2.4 EFIR	The action will closely collaborate: identified building blocks of trans-European systems will be disseminated through EFIR. On the other hand, EFIR will also provide input by identifying components already used on MSs level.
4.2.5 Sharing and re-use	The sharing and re-use action will orchestrate the re-use of building blocks identified by this action.
European Interoperability Framework	This action will follow the EIF's guidelines on interoperability

e-Commission	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.
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## 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	Initial presentation on the study, progress reporting and final report presentation and discussions.
Internal dedicated Commission meetings	Policy DG's	Launch of study, analysed building blocks with responsible policy DG's. Final report discussion and presentation.

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### 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, MARKT and SANCO. DIGIT will coordinate with the DGs owners of EU systems.

### 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 building blocks.

The first part of the study will be the fixation and definition of the assessment criteria that will be used when evaluating opportunities to rationalisation. This will actually require to define benchmarking terms against the EIS and amongst systems that will allow to identify and cluster pools of opportunities for reuse and sharing. The analysis must not be limited to functional and infrastructure aspect but address as well non-functional aspects such as Quality of Service, Service Management, Governance, Financial model, legal base, costs, opportunity and risks. These are the elements that system owners take into account when evaluating the possible reuse of solutions. Next complete the available inventories and perform the actual assessment of the identified building blocks as identified in the inventory. This allows determining all possible synergies and qualifying potential candidates for re-use.

This study should be able to build a list from these building blocks as input to the EU cartography. It should also suggest a roadmap to raise the reusability maturity in the future with a view to optimise the overall cost/benefit ratio of these IT systems and to provide a more rational, transparent and offer of tools to the user communities in the Member States.

Based on the business, and technical dimensions and taking into account security, governance, financial and risks, 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 perform the mapping of the system with the different European Interoperability Architecture views or also called domains (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 different layers of the EIF, Legal, Organisational, Semantic and Technical levels will be envisaged.

This outcome will be discussed with the concerned parties and to what extent and in what order or priority these conclusions could be transformed into concrete rationalisation actions.

## 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
	<b>Total</b>	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 1 <sup>st</sup> set of IS		105 <sup>46</sup>

<sup>46</sup> The action was launched in 2012 using 2012 non-allocated budget as permitted by DECISION No 922/2009/EC (ISA Legislation) Article 10(4)

2013	2 <sup>nd</sup> report covering the 2 <sup>nd</sup> set of systems	300	
2014	3 <sup>rd</sup> report covering the 3 <sup>rd</sup> set of systems	200	

## 2.14.10 ANNEX AND REFERENCES

Description	Reference link	Attached document
eGovernment Action Plan 2011 – 2015	<a href="http://ec.europa.eu/information_society/activities/egovernment/action_plan_2011_2015/index_en.htm">http://ec.europa.eu/information_society/activities/egovernment/action_plan_2011_2015/index_en.htm</a>	
ISA Decision No 922/2009/EC of the European Parliament and of the Council	<a href="http://ec.europa.eu/isa/documents/isa_lexuriserv_en.pdf">http://ec.europa.eu/isa/documents/isa_lexuriserv_en.pdf</a>	
European Interoperability Framework (EIF)	<a href="http://ec.europa.eu/isa/documents/isa_annex_ii_eif_en.pdf">http://ec.europa.eu/isa/documents/isa_annex_ii_eif_en.pdf</a>	
e-Commission	<a href="http://ec.europa.eu/dgs/informatics/ecommm/doc/e-commission_in_10_questions.pdf">http://ec.europa.eu/dgs/informatics/ecommm/doc/e-commission_in_10_questions.pdf</a>	

List (non-exhaustive and revisable) of systems targeted in the Commission study

Responsible DG	System Name	Responsible DG	System Name
CLIMA	ETS	SANCO	Blood, cells and tissues - reporting system
CONNECT	E-CODEX	SANCO	BOVEX
CONNECT	epSOS	SANCO	CPCS
CONNECT	Géant	SANCO	ECC-net
CONNECT	PEPPOL	SANCO	Tobacco Products - Ingredient Reporting System
CONNECT	STORK	SANCO	TRACES
DGT	MT @EC	TAXUD	CCN Mail3 for OCDE countries
DIGIT	eDelivery	TAXUD	CCN/CSI
DIGIT	ePrior	TAXUD	CCN2
DIGIT	e-TrustEx	TAXUD	EWSE
DIGIT	sTESTA	TAXUD	DDS-2
EMPL	EESSI	TAXUD	Direct Taxation - exchange of electronic forms

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JUST	ECLI	TAXUD	EBTI-3
EMPL/REGIO	SFC2014	TAXUD	ECS
ENTR	ICSMS	TAXUD	eFCA
ENV	SEIS	TAXUD	EMCS
HOME	EURODAC	TAXUD	FISCO
HOME	SIS II	TAXUD	ICS
HOME	VIS	MARE	SafeSeaNET
JRC	INSPIRE	TAXUD	Mini 1SS
	INSPIRE		
	Geoportal		
JUST	e-Justice Portal	TAXUD	MSCIA
MARE	CISE	TAXUD	MVS
MARE	DEH	TAXUD	NCTS
MARE	EFDC project	TAXUD	Quota-2
MARE	EMODnet	TAXUD	Recovery – Exchange of electronic forms
MARE	FIDES3	TAXUD	SEED
MARKT	IMI	TAXUD	SSTS
MARKT	SOLVIT	TAXUD	Taxes in Europe Data Base
MARKT	Your Europe	TAXUD	TIN
MOVE	ERRU	TAXUD	TOS
MOVE	RESPER	TAXUD	ToS
MOVE	Tachonet	TAXUD	TSS
OLAF	AFIS	TAXUD	VAT exchange of eforms
		TAXUD	VAT refund
		TAXUD	VIES
		TAXUD	VoeS

## 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, Publication Office, DG MARKT

### 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.

### 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 in the Spanish experience shall also be taken into account, together with experiences from other Member States.

## 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.
1.1 Promoting semantic interoperability	Action 1.1. will provide input for the study.

SPOCS <sup>47</sup> 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.

### 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 1<sup>st</sup> 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 definition of templates of interoperability agreements specifically oriented towards electronic documents and electronic files.

<sup>47</sup> <http://www.eu-spocs.eu>

## 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
	<b>Total</b>	100			

### 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			
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 test and then roll-out a method to assess the ICT implications of new legislation. The method has been developed under IDABC. It takes into account both cross border and cross-sectoral implications of proposed EU legislation.

The legislative process in the European Commission includes an Impact Assessment to better evaluate the options for future legislation and to judge what type of an impact the potential legislation could have. It looks into the potential economic, social, and environmental consequences of the proposed legislation. It is now being evaluated the possibility to expand the Impact Assessment to include an assessment of implications of legislation on ICT. Once this possibility is confirmed, assistance will be offered to DGs to incorporate the method in their Impact Assessments and thereby be able to analyse the potential implications of legislation for ICT. 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 sectors of 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	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.
Member States' Public Administrations	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.

### 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 Services	European Commission Units in charge of development of information systems to support new legislation

#### 3.1.7.2 Communication plan

Following the completion of the pilot phase, a communication campaign aimed towards the European Commission units in charge of drafting new legislation will be organised. The campaign foresees organisation of information seminars focusing on explanation of the methodology and giving guidelines for its application in practice.

#### 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

#### 2010-2014 First Phase

A pre-requisite for the success of this action is the incorporation in the Impact Assessment procedure, of the evaluation of which ICT implications of new legislation. Once this principle is accepted, its implementation modalities will have to be established based on the method that has been previously defined. Assistance will be given to DGs when using this method. Starting with a pre-assessment, the group will decide if a light, medium or full assessment of the legislation is needed. At the end of the pilot, participating DGs should have received a sound assessment of the ICT implications of their legislation. The method will be further refined with the experiences collected during the pilots.

#### 2014-2015

Roll-out of the ICT implication assessment method to all participating DGs through training and support with a view to ensuring that the assessment becomes an integral part of the impact assessment process in the European Commission in the long run.

### 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	Refinement of method and elaboration of tools and 3 Pilots (initial assistance to DGs to incorporate the method in their Impact assessments)	692	ISA	Q03/2010	Q1/2014
Study	5-10 assessments with different Commission Services	400	ISA	Q2/2014	Q4/2015
	<b>Total</b>	1092			

#### 3.1.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)

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2010	Study	150	42
2011	Study	400	0 <sup>48</sup>
2012	Study	300	0
2013	Study	200	
2014	Study	200	
2015	Study	200	

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<sup>48</sup> 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 will cover 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

N/A

#### 4.1.1.7 ORGANISATIONAL APPROACH

##### 4.1.1.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
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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

#### 4.1.1.7.2 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.

#### 4.1.1.7.3 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.

#### 4.1.1.8 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 will run continuously for 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 communication strategies and plans, which will continuously be updated and revised to cater for changing needs. They will 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.

A number of activities have been implemented in the meantime, e.g. the ISA website, presentations of ISA and its actions at some 30+ events and videos interviews with policy makers and stakeholders. Factsheets for all ISA actions have been created and distributed at events. Creative clips on ISA and some of its actions have been created and disseminated through websites and at events.

A new contractor will be in place as of November 2012 to take over the communication activities of the programme. One of the first steps will be a review of the communication strategy of the programme and of the communications plans of individual actions..

#### 4.1.1.9 COSTS AND MILESTONES

##### 4.1.1.9.1 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 (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	5.693,2	ISA	Q3/2010	Q4/2015
	<b>Total</b>	<b>5.750</b>			

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#### 4.1.1.9.2 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	1.000	
2015	Execution	1.000	

## 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 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).

First, a study will investigate what has been done in the field of interoperability maturity models from national and international perspectives, focusing specially in those models that have been successfully applied in practice. The action may propose a set of best practices and use cases of such a series of models.

Building on the previous effort, the action will also propose a European Interoperability Maturity Model that will be 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.

#### 4.1.2.7 COSTS AND MILESTONES

##### 4.1.2.7.1 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)
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

	<b>Total</b>	<b>500</b>			
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#### 4.1.2.7.2 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.

#### **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	<ul style="list-style-type: none"> <li>○ 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.</li> </ul>
eGovernment Action Plan	<ul style="list-style-type: none"> <li>○ 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.</li> <li>○ 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”.</li> </ul>
1.7 e-Prior action	<ul style="list-style-type: none"> <li>○ Joinup acts as a platform to support the building of a user community around the e-Prior tool.</li> </ul>
1.8 Trusted information exchange platform (eTrustEx) action	<ul style="list-style-type: none"> <li>○ Joinup acts as a platform to support the building of a user community around the e-TrustEx tool.</li> </ul>

1.12 European Citizens Initiative action	<ul style="list-style-type: none"> <li>○ Joinup acts as a platform to support the building of a user community around the ECI software.</li> </ul>
1.1 Promoting semantic interoperability... action	<ul style="list-style-type: none"> <li>○ Joinup acts as a platform to support the objectives of action 1.1</li> </ul>
2.8 Machine translation action	<ul style="list-style-type: none"> <li>○ The Joinup platform will make use of the services of the machine translation platform, once it is operational (foreseen in 2013) to provide automatically translated descriptions of software, semantic assets, documentation and other content.</li> </ul>

#### 4.2.1.7 ORGANISATIONAL APPROACH

##### 4.2.1.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
Member States' public administrations	<ul style="list-style-type: none"> <li>○ ISA Committee</li> <li>○ ISA Coordination Group</li> <li>○ ISA expert group</li> <li>○ Representatives of national repositories</li> </ul>
European Commission DIGIT	Service provider for hosting/house 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

##### 4.2.1.7.2 Communication plan

Event	Representatives	Frequency of meetings / Absolute dates of meetings?
	ISA Exchange of best practice	1-2 times per year.

	expert group	
Survey on future improvements	Users of the platform, national repositories	1-2 times 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.

#### 4.2.1.7.3 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.

#### 4.2.1.8 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) and the EFIR action (4.2.4)

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 is currently finishing the Execution phase with the delivery of the final platform in Q4 2011.

The migration of the content from SEMIC.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 are foreseen

- the development of needed technical features and services for the NIFO (4.2.3) and the Interoperability Maturity Model (4.1.2) actions
- enhanced and structured dissemination of interoperable assets (see action European Federated Interoperability Repository);
- 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

#### 4.2.1.9 COSTS AND MILESTONES

##### 4.2.1.9.1 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)
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
Operational	Provision of the common service	800	ISA	Q2/2012	Q4/2015
Operational	Maintenance and Improvement of the tool	907	ISA	Q3/2011	Q4/2015
Operational	Support of the current platforms (OSOR.eu and SEMIC.eu)	400	ISA	Q3/2010	Q4/2011
	<b>Total</b>	<b>2.657</b>			

#### 4.2.1.9.2 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)	132	
2014	Operational (provision)	200	
2015	Operational (maintenance and development)	132	
2015	Operational (provision)	200	

## 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 interoperability related matters for European Public Administrations.

This action aims to increase the interaction between members via the online communities by building communities in the areas of open source and interoperability, fostering active discussions, and providing the space for sharing and re-use of good practices, semantic assets and IT solutions for public administrations 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. As a result, it will not only focus on the building of new communities but also of maintaining already existing ones. New communities resulting from other interoperability measures will also be supported. These communities will not be enclosed for collaboration within the EU but opportunities for outside the EU collaboration will be supported.

This action will cover the following domains:

- Interoperability, Open Specifications and eGovernment in General;
- OSS in public administrations;

- Semantic interoperability (see also action Methodologies for the development of semantic assets);
- eSignature / eID;
- National Interoperability Frameworks Observatory (NIFO).

#### **4.2.2.4 PROBLEM/OPPORTUNITY STATEMENT**

European public administrations, who are the main target group of this ISA action, have progressed substantially in the area of interoperability and open source and most of them already have advanced national portals/platforms as repositories for the sharing of their common solutions.

The world of social networks like Facebook and LinkedIn is also growing in popularity as a means of community building and is 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 Interoperability and open source. 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"> <li>• Better knowledge about developments / best practices elsewhere;</li> <li>• Opportunity to share their knowledge / solutions with others or to re-use others solutions;</li> <li>• Opportunities to work together with others on common problems;</li> <li>• Better, more effective and efficient public services via sharing, re-use and collaboration.</li> </ul>

#### 4.2.2.6 Related EU actions / policies

Action / Policy	Description of relation
ISA Action 1.1 – Promoting semantic interoperability among EU Member states	Hosts and manages the communities for this action.
ISA Action 4.2.3 – NIFO	Hosts and manages the communities for this action.
ISA Action – European Citizen's Initiative	Hosts and manages the communities for this action.
ISA ACTION 4.2.1 – ISA Integrated collaboration platform	The Integrated collaboration platform offers is technical place to host the activities of the Community Building action.

#### 4.2.2.7 ORGANISATIONAL APPROACH

##### 4.2.2.7.1 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.

#### 4.2.2.7.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
Exchange of Best Practice Working Group	MS Experts	Bi-annual April and October 2013

#### 4.2.2.7.3 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 will have a more active role in community building so that they will not remain content publishing pages but turn into a full collaborative environment. In order to be able to do this, the Commission shall have a more involving role and be present in 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 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.

Community facilitators are key to the success of community building and the Commission will be focusing on 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.

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

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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.

Furthermore this action will be used to support a community around electronic signatures and communities of certain ISA actions including the National Interoperability Framework Observatory (NIFO), the European Citizen's Initiative (ECI) and the Management and Development model for Open Specifications. The latter community aims to share and publish guidelines and best practices (such as the Dutch BOMOS2i and BOMOS2 guidelines) related to the implementation of open specifications in national governments with the possibility for re-use by other public administrations.

- Sharing of best practice

The Commission will be responsible for the content generation on Open Source, Semantic methodology and Interoperability at large. It will not only provide such content, but support users to submit their own content in terms of news, events, cases and documents.

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;
- *Promoting semantic interoperability among EU Member States* 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.

#### 4.2.2.8 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](http://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.
- Manage a Joinup.eu committee with all stakeholders to discuss and prioritize issues to be implemented on Joinup.eu to facilitate community building.
- Monitor the implementation process for new developments and improvements on the joinup.eu platform.
- 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 EURL 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 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.

#### 4.2.2.9 COSTS AND MILESTONES

##### 4.2.2.9.1 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)
Operational	Content provision, Moderation of online discussions, supporting online communities and support for existing communities, showcasing of best	4.036	ISA	Q4/2010	Q4/2015

	practices.				
Operational	Provision of the ISA integrated collaborative platform (providing the platform as a common service)	414	ISA	Q1/2011	Q1/2012
	<b>Total</b>	<b>4.450</b>			

#### 4.2.2.9.2 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	600
2013	Operational	600	591
2014	Operational	600	
2015	Operational	600	

## 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 ServicesL	

#### 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. For public administrations, this collaboration means 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 to create an observatory of what each country is doing and where it is heading in interoperability. In this respect, the NIFO aims to:

- 1) Have a continuous communication with the Member States in order to provide timely and updated information within the observatory. This will also produce factsheets for all countries in scope.
- 2) Offer support to the 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) Provide a detailed analysis of the general current state of play of interoperability within the EU. The information from public administrations will be analysed to give the Commission and Member States alike a clear picture of the current state of play in Interoperability in Europe. This will of course highlight area for further collaboration between the Member States themselves and the Commission, whilst highlighting options on how the NIFs can provide input to the revision of the EIF.

These three objectives will be supported by the online NIFO Community on [www.Joinup.eu](http://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.

#### 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.. The EU Commission, on its part has contributed substantially to support this momentum via the ISA work programme<sup>49</sup>, which has been a key player in this field, through its various actions. The Digital Agenda also makes reference to the NIFO action when recommending an alignment between the NIFs and the EIF by 2013.

The European Interoperability picture is somehow unclear due to the fact that there is no analysis of the complete scenario and trends within the Member States. This is quite complex as 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 with 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.

<sup>49</sup> <http://ec.europa.eu/isa/>

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 – Promoting semantic interoperability among EU Member states	As semantic Interoperability is one of the components in the National interoperability Frameworks, the two actions will collaborate closely together to provide feedback to each other accordingly.

#### 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 / 2013
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 from the public administrations, especially in the coming years as they will be required to input the data accordingly. The main communication between the stakeholders will be done via the online NIFO Community on [www.joinup.eu](http://www.joinup.eu). This will provide interoperability news updates and events from across the EU, latest developments on NIFs and discussions permitting the sharing of experiences and best practices.

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.

#### 4.2.3.8 TECHNICAL APPROACH

The NIFO action will have close ties to the EIF, and reflect any changes and reviews done to the EIF during the lifetime of the ISA programme.

The online presence of the NIFO will be through [www.Joinup.eu](http://www.Joinup.eu)<sup>50</sup> which will include all the necessary information like the factsheets and analytical model..

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.

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 highlight the differences. This gap analysis is useful to the EU public administrations to understand the actions to be taken. The results of this analysis will also

<sup>50</sup> See Action 4.2.1 ISA Integrated Collaborative Platform

be used as an input to another action of the ISA work programme, the Interoperability Maturity Model<sup>51</sup>.

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.

#### 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
Operational	Maintenance of the NIFO process including the update of the eGovernment 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 factsheets.	500	ISA	Q3/2013	Q4/2015
	<b>Total</b>	<b>950</b>			

<sup>51</sup> 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

**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	175	
2015	Operational	150	

## 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	Reusable generic tools
Service in charge	DG DIGIT
Associated Services	-

#### 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 a European Federated Interoperability Repository (EFIR) containing important interoperability assets of the Member States.

- *Repository*: The Action provides a reusable tool (a software system), which allows the Member States and the European Commission to document their interoperability assets, building blocks as well as their information systems related to EU policies and to share these assets.
- *Interoperability assets and information systems for EU policies*: The repository will be populated with a set of interoperability assets, building blocks and descriptions of information systems related to the implementation of EU policies coupled with the identification of challenges, conflict areas and opportunities for alignment amongst interoperability assets across Europe.

EFIR concentrates on content (interoperability assets and information systems) rather than on collaboration. It will be implemented as an extension to the existing Joinup repository.

The EIFR is on one side a common (central) service run by the European Commission and on the other side a re-usable generic tool, downloadable and usable by national public administrations as part of the Joinup platform (see action 4.2.1). The information hosted on the repository facilitates development of common services.

#### 4.2.4.3 SCOPE

The EFIR should document and make available information about interoperability assets and information systems 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 assets we mean methods, techniques, guidelines, standards, specifications and software artefacts but a concrete definition and taxonomy of different types of IOP assets is foreseen as part of this work. By information systems (ISs) related to EU policies we mean all types of systems that support the implementation of EU legislation, regardless whether they are centralised or

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decentralised. The listed assets will be clearly organised according to the four level of EIF, including technical and semantic interoperability assets (e.g. standards, metadata schemata), organisational interoperability assets (e.g. business processes) and legal interoperability assets (e.g. guidelines on how to achieve legal interoperability, decisions, laws). The ISs 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 ISs 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 asset 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 together with the definition of the process for updating its content 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 assets of the Member States. At the same time, no global cartography exists on the different ISs that have been implemented in different business domains to support EU policies. For example, although some of the interoperability assets are already listed in EU portals, these portals concentrate either on a specific EIS 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 assets and ISs 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 assets and ISs.

In cases where there are already repositories with IOP assets, 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](http://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 assets that can be re-used in their NIF. They could also obtain access to an overview of the different ISs that exists to support EU policies. Assets 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. The set of all these elements and the ISs will constitute an EU Cartography. Since EFIR is a federated repository, Member States can seamlessly exchange interoperability assets with EFIR and their local installations of the platform. A light-weight federation with non-EFIR repositories will become 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 assets 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 ISs and their interrelationships, possible overlaps, complementarities, needs for interoperability, etc. Since the repository focuses on content rather than on collaboration, more detailed analysis and comparisons of the NIFs could be made and, hence, the conclusions from that analysis would be more substantial.</p>
European Software Industry	<p>The access to 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.</p>

Beneficiaries	Anticipated benefits
European Industry (excluding Software Industry)	Publishing communication protocols, guidelines and standards freely and on a central portal would help for the European industry 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 assets of all levels and all member states is, therefore, a big 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.
NIFO	The NIFO project collects and publishes the Member States' efforts to implement national interoperability frameworks. Having implemented the proposed project 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.
e-Practice.eu	e-Practice.eu is mainly an information and collaboration portal but it focuses more on information about events and best-practice cases than on interoperability assets.
Joinup	Joinup is a portal which lists many important standards for information exchange. The work conducted in Action 1.1 for the definition of the Asset Description Metadata Schema will be reused and extended to cover IOP assets from other EIF layers. Last the Joinup platform will host EFIR and provide the necessary user interface and querying mechanism.
CAMSS Action	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

Action / Policy	Description of relation
	should become interoperability assets, which should be stored on the platform.
EIA Action	EFIR will become the main infrastructure to keep the EU interoperability cartography covering both documented IOP assets, building blocks and ISs. EIA will define its governance and may support in the long run the maintenance process of the cartography.
Assessment of trans-European systems supporting EU policies	Action 2.14 Assessment of trans-European systems supporting EU policies will create the first "snapshot" of the ISs cartography to be documented in EFIR. As such it will define the methodological approach related to the documentation of the ISs.

#### 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.
Newsletter on	Interested public	Once every 3 months

the project's website reporting the status of the project.		
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 will be led by the European Commission reporting to the European Interoperability Architecture Working Group. It is strongly recommended that Member States specify their requirements for such a system and the systems they would like to connect the envisioned platform with. In addition, selected Member States will be invited to participate in the pilot test 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 within WP2012**

- Phase 1: provides the state of the art in existing repositories and platforms, which already host interoperability assets, including the Joinup platform.
- Phase 2: The functionalities of each platform will be analysed to gather requirements. By the end of this phase the additional requirements needed should be identified and this should lead to functional specifications for possible extensions of the Joinup repository in order to cover all types of assets. This phase will also identify member states for the pilot phase.
- Phase 3: An extension and/or instantiation of the ADMS specification will be 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 will be 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 within WP2013**

- 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 cartography provided by action 2.14 (Assessment of trans-European systems supporting EU policies)
- 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**

- 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 as provided by the European Interoperability Architecture action.. Special emphasis will be given in the analysis of the assets 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	70	ISA	Q4/2012	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)
	existing interoperability portals				
Inception	(2) Requirements elicitation, analysis and prioritization	30	ISA	Q1/2013	Q2/2013
Inception	(3) Extension and/or instantiation of the ADMS	20	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)	250	ISA	Q4/2014	Q3/2015
	<b>Total</b>	<b>700</b>			

**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	250	
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	All concerned Commission 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 .... 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
1.1 promoting semantic interoperability	The action will provide input during the implementation of the 1.1 action
2.1 Elaboration of a common vision for an European Interoperability Architecture	Both ways relations between the two actions
4.2.1 Integrated Collaborative platform (Joinup)	The action will provide input during the implementation of the 4.2.1 action
4.2.2 Community building	The action will provide input during the implementation of the 4.2.2 action
4.2.3 NIFO	The national interoperability framework observatory action will provide input for the action with the help of collected analysis of best practices in national legislations
4.2.4 EFIR	The action will provide input during the implementation of the EFIR action

#### 4.2.5.7 ORGANISATIONAL APPROACH

##### 4.2.5.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
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Stakeholders	Representatives
Member States' public administrations	ISA Working Group experts
The European Commission	DG Informatics, 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 will be prepared, which public administrations can use during procuring services. Clauses shall be 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 will 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 will also be covered when applicable.
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		<b>200</b>	ISA	Q4/2013	Q2/2014
	<b>Total</b>	<b>350</b>			

### 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 <sup>52</sup>
2013		200	
2014		0	
2015		0	

<sup>52</sup> 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	SANCO, EMPL, MARKT, 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.
Industry	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. Furthermore, the design and development of ITB will be carried out in close cooperation with industrial stakeholders from all application domains concerned.
European Community as a whole	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..

#### 4.2.6.6 Related EU actions / policies

Action / Policy	Description of relation
Digital Agenda	ITB shall support dissemination and adoption of EU wide standards by national administrations based on results of individual publicly funded projects and activities. 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.
eHealth Network / eHGI	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.
epSOS	Test bed for Large Scale Pilot epSOS
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

#### 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

#### 4.2.6.8 Governance approach

To be defined

#### 4.2.6.9 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 launching of an 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 is expected to start in Q4 2013.

1. Analysis of technical, legal requirements
2. Launching of call for tenders
3. Provisioning of service

#### 4.2.6.10 COSTS AND MILESTONES

##### 4.2.6.10.1 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		Q2 2013	Q3 2013
	Launching	0		tbd	tbd
	Service provision	tbd		Q4 2014	
	<b>Total</b>	50			

##### 4.2.6.10.2 Breakdown of ISA funding per budget year

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Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2010			
2011			
2012			
2013		50	
2014			
2015			

## 5. PROGRAMME MANAGEMENT

### 5.1 MONITORING AND EVALUATION (FUNDING CONCLUDED)

#### 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

The objective of the action is the measurement and evaluation of the ISA work-programme, which will contribute to its effectiveness (i.e. meeting the objectives of the ISA Decision and the EIS) as well as to its efficiency (i.e. improving the internal management processes of the ISA work-programme).

Art. 13 of the ISA decision requires the monitoring and evaluation of the progress and in particular the relevance, effectiveness, efficiency, utility, sustainability and coherence of the actions of the programme.

#### 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 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?
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ISA Governance Meetings	ISA Coordination Members	Twice a year
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### 5.1.7.3 Governance approach

- 1) Establish the measurement and related management processes;
- 2) Implement the above mentioned processes in the adequate set of tools (including project and portfolio management and customer relationship management software);
- 3) Execution of the measurement programme (monthly, quarterly, semester and yearly).

In each period the relevant metrics will be gathered, grouped, analysed and distributed to all stakeholders (including EU citizens when privacy and business secrecy concerns are met). The metrics will be grouped in 3 categories: a) process metrics (e.g. cost, risk, time), 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) and content-specific metrics (that will be different for each action).

These tasks will be completed by the project managers of the different actions of the ISA work-programme and DIGIT with the aid of external contractors.

## 5.1.8 TECHNICAL APPROACH

The implementation will be based on commercial, off the shelf applications:

- The business needs will be implemented by management processes supported in a new Portfolio and project Management System (PPMS). The PPMS will help in decision-making, act as the common repository of all the actions of the ISA programme and provide a reporting tool for the different stakeholders (CIOs, DIGIT hierarchy, Programme managers, etc.).
- Other systems may be included for Customer Relationship Management and tracking web use.

## 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

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)
	2011 WP monitoring	550	ISA	Q2/2011	Q1/2012
	2012 WP monitoring	550	ISA	Q1/2012	Q1/2013
	<b>Total</b>	<b>1.550</b>			

#### 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

## 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 support the EIS governance and the implementation of governance guidelines, review the EIS governance, to help ensuring regular maintenance and evolution of the strategy so that:

- the 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;
- on-going EU and national interoperability activities bring the expected value to the EIS interoperability vision.

### 5.2.3 SCOPE

This action will help instituting EIS governance and the related decision making processes and activities for implementing, monitoring and keeping up to date the European Interoperability Strategy (EIS).

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 will be revised. This revision will probably have an impact on the ISA Work Programme and on other EU initiatives and may lead to an update of the European

Interoperability Framework. Also the EIS implementation review conducted in 2012 will lay down an overview of the interoperability landscape and current actions in Member States as well as the Commission services. The review will provide input to assist in keeping the EIS up-to-date and will be conducted regularly.

#### 5.2.4 PROBLEM/OPPORTUNITY STATEMENT

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 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
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Digital Agenda	The digital agenda promote interoperability through the adoption of the European Interoperability Strategy.
eGov action plan	The eGov action plan refers to the implementation of the EIS via the ISA programme during the period of 2011-2015.

## 5.2.7 ORGANISATIONAL APPROACH

### 5.2.7.1 Expected stakeholders and their representatives

Stakeholders	Representatives
Member States	The ISA committee and the eGov 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
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 EIS steering group 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 EIS steering group 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 aiming at:

- 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;
- ensuring the well-functioning of the portfolio management activities 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 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.

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)
		1.200	ISA	Q3/2010	Q4/2015
	<b>Total</b>	1.200			

### 5.2.9.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
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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	<a href="http://ec.europa.eu/isa/documents/isa_annex_i_eis_en.pdf">http://ec.europa.eu/isa/documents/isa_annex_i_eis_en.pdf</a>	

## 6. LIST OF ABBREVIATIONS AND ACRONYMS

Ares	tool under the e-Domec policy for the registration and filing of documents
BB	Building block. Software component, and technical specifications, that can be combined with other building blocks to facilitate cross-border and cross-sector information exchange
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"> <li>○ 1. Common messaging services;</li> <li>○ 2. Dynamic discovery and addressing of entities (Service Metadata Publisher/Service Metadata Locator – based on DNS);</li> </ul>

- 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"> <li>▪ 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;</li> </ul>
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

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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 ( <a href="http://www.osor.eu">www.osor.eu</a> ). The platform was migrated into the Joinup.eu platform
PEPPOL	Pan-European Public Procurement Online PEPPOL is a LSP which aims 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 ( <a href="http://www.semic.eu">www.semic.eu</a> ). 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 is a LSP which aims to build 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