ISA² WORK PROGRAMME

2017

DETAILED ACTION DESCRIPTIONS – PART 2

7. EU POLICIES – SUPPORTING INSTRUMENTS

7.1 CISE - DEVELOPMENT OF THE INFORMATION SHARING ENVIRONMENT FOR THE SURVEILLANCE OF THE EU MARITIME DOMAIN (2016.13) – *FUNDING SUSPENDED*

7.1.1 IDENTIFICATION OF THE ACTION

Type of Activity	Reusable generic tools
Service in charge	DG MARE D1
Associated Services	JRC/IPSC G4 – DIGIT B4 – DG MOVE D1 & D2 & D4 – DG HOME B4 & C1 – DG CNECT H4 – DG TAXUD A1, A3 & A5 – GROW F3 & H3 – ECHO B1 – ENV D2 – JUST B3

7.1.2 EXECUTIVE SUMMARY

The development of a Common Information Sharing Environment for the EU maritime domain was launched in 2009 (Commission Communication (2009)538 final) and is supported by several Council Conclusions[1].

The last Commission Communication provides for CISE[2] to be a "*voluntary collaborative process in the European Union seeking to further enhance and promote relevant information sharing between authorities involved in maritime surveillance. Its ultimate aim is to increase the efficiency, quality, responsiveness and coordination of surveillance operations in the EU maritime domain and to promote innovation, for the prosperity and security of the EU and its citizens*".

The cornerstone of maritime CISE is that, through an improved interoperability, information collected by a maritime authority for a specific purpose can prove to be useful to other maritime authorities performing different missions[3]. The gap analysis carried out in 2012 has shown that only 30% of the data currently collected and relevant to other authorities is actually shared with those authorities.

The ISA2 programme is expected to support a set of actions undertaken by the Commission to support and exploit the results of the current pre-operational phase, as well as the actions needed to reach relevant operational solutions. These actions could inter alia cover the following areas:

- Identify relevant IT interoperability endeavours/solutions for information sharing in third countries/ maritime regions to assess potential improvements of CISE solutions
- Explore CISE IT and operational governance solutions, taking into account current solutions and lessons learnt from existing EU information-exchange solutions (e.g. IMI, EESI, EURES, CCN/CSI).
- Whenever needed and depending on the shortcomings/gaps identified during the testing phase, further develop the CISE data model, service model, gateway, registry of authorities and services to deliver fully functional solutions/ building blocks matching CISE high-level requirements

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[1] http://ec.europa.eu/maritimeaffairs/pdf/external_relations_council_conclusions_17112009_en.pdf
http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/EN/genaff/122177.pdf
http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/genaff/115166.pdf
http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/gena/104617.pdf
[2] Commission Communication of 8th July 2014, COM (2014)451 final.
[3] Maritime surveillance encompass seven sectors: border control, maritime safety and security, fisheries control, customs, marine environment protection, general law enforcement and defence.

- Assess the contribution of CISE to the EU standardisation process[4] in order to facilitate the definition of a technical reference architecture for public services by end 2017[5] (in line with the European Interoperability Reference Architecture)
- Promote the CISE final interoperability solutions among national authorities and support the conclusion of agreements on data sharing.
- Promote the adoption, reuse and continuous improvement of existing and future reusable building blocks and solutions such as the CEF DSIs and results of existing ISA actions and future ISA[2] actions.

7.1.3 OBJECTIVES

The overarching objective of CISE is to enhance awareness of what is happening at sea and thus ensure safer, more secure and cleaner seas. In line with the ISA objectives, this requires to set up and implement a multilayer interoperability enabling trusted cross-sector and cross border data exchange between national public administrations. The ISA[2] programme is expected to bring into maturity and further develop CISE towards a set of operational and full-fledged interoperability solutions by end 2020.

7.1.4 SCOPE

Over 300 national authorities belonging to the seven functions (see note n°3) are covered by CISE, either as data providers and end-users (i.e. data consumers). The project entails the establishment of common specifications and generic reusable tools to achieve interoperability between systems and authorities.

The project does not aim to build up a new maritime surveillance system, to create new information sources or to set up new man-to-machine interfaces.

7.1.5 ACTION PRIORITY

7.1.5.1 Contribution to the interoperability landscape

The contribution of the action to the interoperability landscape, measured by the importance and necessity of the action to complete the interoperability landscape across the Union

Question	Answer
Does the proposal directly contribute to implementing the European Interoperability Strategy, the European Interoperability Framework, or other EU policies with interoperability requirements, or needed cross-border or cross-sector	Yes, the action contributes to the following EU policies: **1. Integrated Maritime Policy.** The Common Information Sharing Environment for the EU maritime domain (CISE) has been supporting the development of the Integrated Maritime

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[4] ICT standardisation Regulation (EU) No 1025/2012
[5] Commission Communication of 8th July 2014, COM (2014)451 final

interoperability initiatives? If yes, please indicate the EU initiative / policy and the nature of contribution.	Policy (IMP) since its inception by being the flagship initiative of the Integrated Maritime Surveillance pillar.
	Promoting interoperability across sectors and borders, CISE contributes to maintaining safe, secure and clean seas, the fundaments of Blue Growth. CISE is in particular linked to the Blue Growth cross-sectoral policies instruments such as marine data and knowledge, maritime spatial planning and maritime security.
	2. **Maritime sectorial policies.** The seven user communities to be interconnected through an enhanced interoperability (CISE): maritime transport safety and security, marine environment preparedness and response to pollution, fisheries control, border control, general 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.
	3. **Security related policies.** Through enabling enhanced information exchange for the surveillance of the maritime domain through an improved interoperability amongst systems and authorities, CISE supports an important number of security-related policies developed at the EU level such as EU Maritime Security Strategy, European Agenda for Security, European Migration Policy, Common Security and Defence Policy (CSDP).
	4. **Digital Agenda for Europe.** CISE is directly relevant to the Digital Agenda, especially as it develops in line and contributes to following pillars:
	I. Digital Single Market (DSM), CISE contributes to the objectives of the DSM, in particular to the development of digital networks and services, and the enhancement of industrial competitiveness through promoting solutions which match the pace of technology and support improvement of data

	exchange.
	II. Enhancing interoperability and standards: CISE is developing technical, semantic and organisational interoperability EU solutions aiming to improve the cross-border and cross-sectoral interlink between national maritime authorities, based on common specifications and standards;
	V. Research and innovation: CISE fosters investment in R&D technologies for maritime surveillance and security
	VII. ICT-enabled benefits for EU society: CISE will allow for the optimization of data exploitation to support maritime surveillance, ultimately leading to safer, more secure and better environmental protection of the maritime domain.
	5. **ISA2 actions**. CISE is hence developing in strong connection with a number of ISA2 actions such as the Semantic interoperability, European interoperability architecture, Trusted Exchange Platform, etc.
	7. **The Connecting Europe Facility (CEF)**. The CEF building blocks are a set of highly reusable tools and services that have been mainly developed and piloted by the Member States in different large scale pilots. As CISE is approaching its implementation phase, the linkage with the CEF is being fully explored. Particularly, CISE pre-operational validation project ('EUCISE 2020') is assessing the possible reuse of CEF building blocks.
	8. **European eGovernment Action Plan.** CISE is in line with the objectives of the e Gaverment Action plan aiming to help national and European policy instruments to work together, supporting the transition of eGovernment into a new generation of open, flexible and collaborative seamless services at local, regional, national and European level.
	9. **EU Standardisation WP.** CISE is part of the EU work programme for standardisation and closely follows the developments within the

	industrial standardisation domain, since the development of interoperability solutions may only benefit from the standardisation of certain components. In addition, CISE is in the process of being included in the 2017 Rolling Plan for ICT Standardisation.
Does the proposal fulfil an interoperability need for which no other alternative solution is available?	Alternative solutions have been developed at the EU level trough systems such as SafeSeeNet and EUROSUR. They enable a good level of interoperability through a number of services developed and exchanged among concerned authorities. However, they do not cover the entire spectrum of sectors and authorities. These interoperability solutions remain too sector specific and cannot be reuse for cross sector exchange. Nevertheless CISE interoperability solution took into account all the existing standards in the maritime domain to ensure a maximum compatibility with the existing systems.

7.1.5.2 Cross-sector

The scope of the action, measured by its horizontal impact, once completed, across the sectors concerned

Question	Answer
*Will the proposal, **once completed** be useful, from the interoperability point of view, and utilised in two (2) or more EU policy areas? If yes, which are those?*	CISE should ultimately improve interoperability between the systems of 7 different sectors in each MS, in which specific sectorial solutions have already been put in place to exchange information. Civil-military exchanges are prioritised. The action is therefore developing interoperability solutions which can be used across sectors. This will not affect exchanges within sectors which will continue to use their specific sectoral solutions/ systems
*For proposals or their parts **already in operational phase**: have they been utilised in two (2) or more EU*	n/a

policy areas? Which are they?

7.1.5.3 Cross-border

The geographical reach of the action, measured by the number of Member States and of European public administrations involved.

Question	Answer
*Will the proposal, **once completed** be useful, from the interoperability point of view, and used by public administrations of three (3) or more EU Members States?*	Once completed the action will provide tailored solutions which could support an enhanced flow of information between member states, with a specific focus on civilian –military exchanges (hence supporting maritime security). In that context the inclusion of existing trans-European systems between public administrations is seen as an opportunity and a necessary basis for CISE structured development. The level of commitment has been tested in several projects and in particular in the ongoing EUCISE 2020 POV project which involves authorities' representatives from around 15 MS. The commitment of MS will be further enhanced through dedicated implementation projects and future work for developing CISE
*For proposals or their parts **already in operational phase**: have they been utilised by public administrations of three (3) or more EU Members States?*	n/a

7.1.5.4 Urgency

The urgency of the action, measured by its potential impact, taking into account the lack of other funding sources

Question	Answer
Is your action urgent? Is its implementation foreseen in an EU policy as priority, or in EU legislation?	There is a relative urgency in the implementation of the action as he Maritime CISE should become operational by 2020[6] The –EU Maritime Security Strategy (EUMSS) adopted by the European Council in June 2014, and its Action Plan , adopted by the Council in December 2014, reinforce the recommendation to implement the CISE as a meta-project by 2020[7].
Does the ISA[2] scope and financial capacity better fit for the implementation of the proposal as opposed to other identified and currently available sources?	In the EUMSS Action Plan, one of the action is to "Develop measures to ensure the interoperability between sectoral information exchange systems at national and EU level (based upon the principles of collaboration and cooperation and by establishing protocols, authorizations and protections), in line with the European Interoperability Reference Architecture developed under the ISA programme of the Digital Agenda of Europe." ISA² *scope and financial capacity* fits therefore perfectly the purpose of CISE to improve interoperability cross sector and cross border. Nevertheless, CISE development and implementation is also financed through the European Maritime and Fishery Fund.

7.1.5.5   Reusability of action outputs

The re-usability of the action, measured by the extent to which its results can be re-used

Name of reusable solution	Data model
Description	The CISE data model provides a common European cross-sector format to share data across countries and sectors. It represents the most useful data for all maritime surveillance

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[6] Commission Communication of 8th July 2014, COM (2014)451 final
[7] European Union Maritime Security Strategy (EUMSS) - Action Plan, 17002/14, 16 December 2014

	authorities, as identified and validated by a representative group of national experts representing all relevant maritime surveillance sectors at EU and national level (Cooperation project, 2013).
Reference	
Target release date / Status	An initial version has been released in 2015 . This version will be now tested, fine-tuned an enriched by the CISE pre-operational validation project by end 2017. Release of version 2: 2018.
Critical part of target user base	The total number of authorities involved in the Maritime Surveillance is more than 300. It represents the maximum number of participant and system connected to CISE, as several authorities can also access CISE behind a single node. The minimum number of participants to allow for significant results at the EU level should be 20. The CISE pre-operational validation project involves 16 Member States. The data model will be tested by authorities from 15 MS in a first step.
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	n/a

Name of reusable solution	Service model
Description	The CISE service model defines the specifications of the services offered by an information provider, including the behaviour of the service and the input and output data expected by/from the service to ensure the expected behaviour For each data entity defined the CISE data model (i.e., each information type: Vessel, Cargo, Person, etc.), the CISE Service Model defines a service and specific operations that support the exchange of that specific data entity using the four known communication patterns.
Reference	
Target release date / Status	An initial version has been released in 2014. This version will be tested, fine-tuned an enriched by the CISE pre-operational validation project by end 2017.

	Release of version 2: 2018.
Critical part of target user base	The total number of authorities involved in the Maritime Surveillance is more than 300. It represents the maximum number of participant and system connected to CISE, as several authorities can also access CISE behind a single node. The minimum number of participants to allow for significant results at the EU level should be 20. The CISE pre-operational validation project involves 16 Member States. The service model will be tested by authorities from 15 MS in a first step.
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	n/a

Name of reusable solution	Governance model
Description	The CISE governance model defines a framework to structure and describe the governance elements and relationships including candidate organisational structures, processes, roles and responsibilities for the governance and management of an operational CISE environment
Reference	
Target release date / Status	Initial version released in 2014. This version will be tested, fine-tuned an enriched by the CISE pre-operational validation project by end 2017. Release of version 2: 2018.
Critical part of target user base	The total number of authorities involved in the Maritime Surveillance is more than 300. It represents the maximum number of participant and system connected to CISE, as several authorities can also access CISE behind a single node. The minimum number of participants to allow for significant results at the EU level should be 20. The CISE pre-operational validation project involves 16 Member States. The governance model will be tested by authorities from 15 MS in a first step.
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	n/a

Name of reusable solution	Security model
Description	The CISE security model defines a framework for CISE security and describes the elements and concepts which apply at different layers of CISE security, ranging from security governance and management to service, data and infrastructure security.
Reference	
Target release date / Status	Initial version released in 2014 . This version will be tested, fine-tuned an enriched by the CISE pre-operational validation project by end 2017.

Release of version 2: 2018. |
| Critical part of target user base | The total number of authorities involved in the Maritime Surveillance is more than 300. It represents the maximum number of participant and system connected to CISE, as several authorities can also access CISE behind a single node. The minimum number of participants to allow for significant results at the EU level should be 20.
The CISE pre-operational validation project involves 16 Member States. The governance model will be tested by authorities from 15 MS in a first step. |
| For solutions already in operational phase - actual reuse level (as compared to the defined critical part) | |

Name of reusable solution	Registry of authorities and services
Description	This registry is a software tool that will provide information about the authorities, their systems and the information they make available within CISE.
Once fully implemented, the registry will support the governance, development and the operating phases of CISE fulfilling the operational (e.g., search for information, operational contacts, automatic service discovery) and the technical needs of the participants (e.g., technical IT support contacts).
Reference	

Target release date / Status	First specifications available end 2015 First implementation by the CISE pre-operational validation project by end 2017. Release of version 2 of the registry software: 2018 Release of version 3 of the registry software: before 2020
Critical part of target user base	The total number of authorities involved in the Maritime Surveillance is more than 300. It represents the maximum number of participant and system connected to CISE, as several authorities can also access CISE behind a single node. The minimum number of participants to allow for significant results at the EU level should be 20. The CISE pre-operational validation project involves 16 Member States. The registry will be tested by authorities from 15 MS in a first step.
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	n/a

Name of reusable solution	CISE gateways
Description	Interface among legacy systems enabling the exchange of information between participant, using the data and service model. The Gateway is also connected to the Registry to allow automatic discovery of services.
Reference	
Target release date / Status	First specifications available: end 2015 Development of version 1 and testing by the CISE pre-operational validation project by end 2017 Release of version 2: 2018 Release of version 3: before 2020
Critical part of target user base	The total number of authorities involved in the Maritime Surveillance is more than 300. It represents the maximum number of participant and system connected to CISE, as several authorities can also access CISE behind a single node. The minimum number of participants to allow for significant results at the EU level should be 20. The CISE pre-operational validation project involves 16 Member States. The gateway will be tested by authorities from 15 MS in a first step.

For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	

7.1.5.6 Level of reuse by the proposal

Question	Answer
Does the proposal intend to make use of any ISA[2], ISA or other relevant interoperability solution(s)? Which ones?	CISE programme in general and the CISE pre-operational validation project ('EUCISE 2020') in particular, consider the possible reuse of the solutions developed by CEF and the e-SENS building blocks: e-Delivery, e-Signature, e-ID, e-Document, etc. In addition, the process of developing and implementing CISE will require further investigations to find suitable re-usable components (e.g. assessing solutions in the Joinup Catalogue of interoperability solutions)
For proposals or their parts already in operational phase: has the action reused existing interoperability solutions? If yes, which ones?	n/a

7.1.5.7 Interlinked

Question	Answer
Does the proposal directly contribute to at least one of the Union's high political priorities such as the DSM? If yes, which ones? What is the level of contribution?	1. Integrated Maritime Policy. 2. Communication on "A Digital Single Market Strategy for Europe" COM(2015)192 (DSM) 3. European eGovernment Action Plan 2016-2020 4. ICT standardisation Regulation (EU) No 1025/2012

	The level of contribution is described at points 1.1.5.1.

7.1.6 PROBLEM STATEMENT

Due to the organisational complexity and the diversity of legacy systems at national level and across the EU, the automatic exchange of data among national authorities remains limited in the field of maritime surveillance. Today, only a fraction of data is or can be exchanged, mostly in the same sector and seldom cross-border. The development of common semantic, technical and organisational interoperability specifications/solutions allowing seamless data exchange among legacy systems is a key-enabler to enhance cross-border and cross-sector data sharing.

7.1.7 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
EU institutions and agencies	Enrichment of available data enabling a better implementation and enforcement of EU legislation in the fields of maritime safety and security, border control and fisheries control, customs and environment. Development and implementation of EU re-usable interoperability solutions enabling seamless data flows across sectors and borders. Improved interoperability between maritime authorities and systems will also allow an increased interaction and cooperation between administrations, citizens and businesses across Europe.
National authorities in the EU/EEA with a remit at sea	Enhanced interoperability in this domain which will enable better cross-border and cross-sectorial interaction among national authorities as well as an improved civil-military cooperation. (Ref. Impact Assessment SWD(2014)225 final) Enhanced maritime situational awareness enabling more effective and efficient surveillance, thus improving the overall safety, security and environmental protection of the EU maritime domain. Reduction of data collection cost and better use of surveillance assets (radars, satellites, patrol vessels, aircrafts) allowing savings and/or the reallocation of resources.
Citizens in the EU/EEA	Safer, more secure and environmentally protected seas enabling the EU/EEA citizens to take full advantage of the social, economic and leisure potential of the seas.
European industry	The development of common interoperability specifications and standards

	opens up new markets opportunities in the field of legacy systems interconnection as well as in the provision of digital information services to support maritime surveillance (e.g. weather and oceanic data, data mining tools, etc.).
	Improved interoperability between maritime authorities and systems will also allow an increased interaction and beneficial cooperation at industry level.
	Stimulate the research for the development of innovative technologies / solutions to increase interoperability and cover operational needs (e.g. for environment of federation of systems, cross-border and classified environment, collaboration activities, etc.)
	Development and implementation of improved information/ business models or web-services in this field.
	Solutions for interchangeability of different data formats, for standard compatibility, for data stream correlation, for user definable, customizable and transferable workspace, with intuitive use.

7.1.8 EXPECTED MAJOR OUTPUTS

Output name	CISE Handbook
Description	The CISE handbook delivers concrete guidance to national authorities on how to participate in Maritime CISE in order to exchange data in a secure and reliable way. It will be drafted and continuously reviewed by a dedicated expert group using transparent collaborative tools. The site will be open to public (not the collaborative editing).
Reference	https://ec.europa.eu/cise (not active yet)
Target release date / Status	A first draft version of the website is planned to be ready end of 2016 , The Handbook will be further drafted and updated with the results of the different actions related to CISE.

7.1.9 ORGANISATIONAL APPROACH

7.1.9.1 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

Member States	National authorities carrying out maritime surveillance tasks in the seven sectors identified above. The number of national authorities to be involved in CISE amounts to over 300. National authorities are represented at EU level in the steering and management of the CISE development in two ways: - The technical advisory group (TAG) involves technical and operational experts representing the seven maritime surveillance sectors, together with EU agencies representatives - The Member States experts sub-group on the integration of maritime surveillance (MSEsG) is composed of one representative per Member-States speaking on behalf of all national maritime authorities of the said state.
Industry	Industrial developers in the area of maritime surveillance

7.1.9.2 Identified user groups

The stakeholders presented above will also be the possible users of the results of this action.

7.1.9.3 Communication plan

The communication plan on CISE is threefold:
- Internal communication within COM and EU agencies

The inter-service Group on Integrated Maritime Surveillance involves all European Commission services concerned by integrated maritime surveillance. It meets on average 3 times per year.

- Communication with MS

Communication with MS is based on three different groups:
- o The Friends of Presidency group in the Council with foreign affairs attachés (4 meetings/year)
- o The Member States experts sub-group on the integration of maritime surveillance (MSEsG) with representatives from national maritime administrations(3 meetings/year)
- o The technical advisory group (TAG) with technical and operational experts from national authorities and EU agencies (3 meetings/year)

- Communication with the general public

A set of communication tools was developed in 2014. General communication on CISE is made during events/seminars on maritime issues, including the European maritime day held each year.

7.1.9.4 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) n°SI2.691869 from 3rd December 2014 between the two Commission services or any amendment/extension thereof. Six persons (3 from DG MARE and 3 from the JRC) will be responsible for the implementation of the action.

Additionally, DG MARE is assisted in developing this action by DG DIGIT under the provisions of the Memorandum of Understanding (MoU), n° DIGIT - 00364-00, from 16 August 2012 and its amendments.

There are already established bodies/groups ensuring stakeholders' involvement and coordination at all levels:
(a) the seven user communities, including the EU Agencies, participate to the Technical Advisory Group (TAG) bringing in the necessary expertise from their sectoral policy and related actions,
(b) an Interservice group consisting of representatives of all associated DGs ensures coordination at Commission level
and
(c) the Member States Experts sub-group (MSESG) which is the principal actor for the implementation of the CISE Roadmap will be kept updated regularly on the development of the project.

7.1.10 TECHNICAL APPROACH AND CURRENT STATUS

Actions carried out previously since the launch of CISE in 2009 until 2014 have focused on the following primary preparatory areas:

- Landscaping of existing governmental information-exchange systems in the maritime field
- Analysis of data gaps and needs
- Definition of CISE high-level requirements and architectural options
- Development of CISE data and service model

CISE has entered in 2015 a pre-operational testing phase of its interoperability solutions which will be carried out by the FP7 funded and MS-led project 'EUCISE 2020' until end 2017. This project is closely supported by the COM. This testing phase will pave the way towards the establishment of full-fledged interoperability solutions by end 2020.

The ISA^2 programme is expected to support a set of actions undertaken by the COM to support and exploit the results of this pre-operational phase, as well as the actions needed to reach relevant operational solutions. These actions could inter alia cover the following areas:

- Identify relevant IT interoperability endeavours/solutions for information sharing in third countries/ maritime regions to assess potential improvements of CISE solutions
- Explore CISE IT and operational governance solutions, taking into account current solutions and lessons learnt from existing EU information-exchange solutions (e.g. IMI, EESI, EURES, CCN/CSI).
- Whenever needed and depending on the shortcomings/gaps identified during the testing phase, further develop the CISE data model, service model, gateway, registry of authorities and services to deliver fully functional solutions/ building blocks matching CISE high-level requirements
- Assess the contribution of CISE to the EU standardisation process[8] in order to facilitate the definition of a technical reference architecture for public services by end 2017[9] (in line with the European Interoperability Reference Architecture)

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[8] ICT standardisation Regulation (EU) No 1025/2012

[9] Commission Communication of 8th July 2014, COM (2014)451 final

- Promote the CISE final interoperability solutions among national authorities and support the conclusion of agreements on data sharing. Support the transition to the production phase, including the integration of the solution at Member States' level
- Promote the adoption, reuse and continuous improvement of existing and future reusable building blocks and solutions such as the CEF DSIs and results of existing ISA and future ISA[2] actions.

7.1.11 COSTS AND MILESTONES

7.1.11.1 Breakdown of anticipated costs and related milestones

Phase: Initiation Planning Execution Closing/Final evaluation	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	Large scale pre-operational testing 'EUCISE 2020'	17 000	13 000 HOME-FP7 4 000 MS	Q4/2014	Q3/2017
Execution	Follow-up and technical support to 'EUCISE 2020', set up of the registry of authorities and services, web tool for the CISE handbook, secretariat of the TAG, maintenance of data and service model	2 340	MARE, delegated to JRC	Q4/2014	Q4/2017
Execution	Identify relevant IT interoperability endeavours/achievements enabling information sharing in third countries/ maritime regions to assess their potential to support CISE development.	200	ISA[2]	Q4/2016	Q4/2017
Execution	Assess and promote CISE interoperability solutions (e.g. Data & Service Models) within the EU standardisation framework.	200	ISA[2]	Q3/2017	Q4/2018

Execution	Explore and define models for CISE IT and operational governance	250	ISA[2]	Q1/2018	Q4/2019
Execution	Support the transition from the Pre-operational to the operational phase of CISE interoperability building blocks/ solutions.	400	ISA[2]	Q1/2018	Q4/2019
Operational	Support implementation/ adoption of CISE (re-usable) building blocks/ solutions.	400	ISA[2]	Q1/2019	Q4/2020
	Total	1450	ISA[2]		

7.1.11.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2016	Execution	100	
2017	Execution	0	
2018	Execution	0	
2019	Execution	0	
2020	Execution	0	

7.1.12 ANNEX AND REFERENCES

Description	Reference link
EU Maritime Security Strategy and its Action Plan	http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1395676070971&uri=CELEX:52014JC0009 http://ec.europa.eu/maritimeaffairs/policy/maritime-security/doc/20141216-action-plan_en.pdf
Commission Communication: Next steps within the Common Information Sharing Environment for the EU maritime domain	http://ec.europa.eu/maritimeaffairs/policy/integrated_maritime_surveillance/documents/com_2014_451_en.pdf
Commission Staff working document Impact Assessment accompanying the Communication (above)	http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52014SC0225

Description	Reference link
CoopP final report	http://www.raja.fi/facts/news_from_the_border_guard/1/0/the_final_report_of_the_cooperation_project_has_been_published_and_is_available_on_the_project_website_52764
Commission Communication: CISE Guiding principles	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0538:FIN:EN:PDF
Commission Communication: Draft Roadmap towards the CISE	http://ec.europa.eu/maritimeaffairs/pdf/maritime_policy_action/com_2010_584_en.pdf
Council conclusions Nov 2009	http://ec.europa.eu/maritimeaffairs/pdf/external_relations_council_conclusions_17112009_en.pdf
Council conclusions May 2011	http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/EN/genaff/122177.pdf
Council conclusions June 2010 (para 11)	http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/genaff/115166.pdf
Council conclusions Dec 2008 (para 5, page 45)	http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/gena/104617.pdf
European Parliament resolution on Integrated Maritime Policy (paras 31-36)	http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P7-TA-2010-0386+0+DOC+XML+V0//en
ECOSOC opinion, July 2010	http://www.eesc.europa.eu/?i=portal.en.ten-opinions.16088
Technical Advisory Group: Terms of reference, meeting minutes, progress reports	https://webgate.ec.europa.eu/maritimeforum/frontpage?tid_2=519
Council conclusions Jun 2013	http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/agricult/137604.pdf
Limassol Declaration, Oct 2012	http://www.cy2012.eu/index.php/el/file/TphGtH7COdr2nxXo9+AUZw==/
Parliament report on the maritime dimension of the Common Security and Defence Policy (2012/2318(INI)) - Committee on Foreign Affairs	http://www.europarl.europa.eu/oeil/popups/ficheprocedure.do?reference=2012/2318%28INI%29&l=en
Commission Communication: Towards a more competitive and efficient defence and security sector	http://ec.europa.eu/internal_market/publicprocurement/docs/defence/130724_communication_en.pdf

7.2 EUROPEAN CITIZENS' INITIATIVES AND EUROPEAN PARLIAMENT ELECTIONS (2016.14)

7.2.1 IDENTIFICATION OF THE ACTION

Service in charge	DIGIT B.2
Associated Services	SG C.4
	JUST C.2

7.2.2 EXECUTIVE SUMMARY

This action is carried out in the context of the European Citizens' Initiative (ECI), a right given by the European Union Lisbon Treaty, Art 11.4 and European Parliament Elections.

The objectives of this ISA² action are to continue the efforts for improving the already provided tools; and to propose, study, assess and develop new solutions in order to improve the whole process.

Under the first ISA programme action 1.12, several goals have been achieved including:

- The Online Collection Software (OCS) was developed. The tool helps the ECI organisers collect online statements of support necessary to submit the initiative to the European Commission.
- A Validation Tool, a re-usable tool helping Member States to validate the signatures collected by ECI organisers was further developed by the Commission based on the original prototype provided by Germany.
- Tools to improve the mechanism preventing double voting in European Parliament elections (Directive 93/109/EC - participation of EU citizens in EP elections) were developed and offered to Member States
- A helpdesk for assisting the users of these tools was established.

In the scope of the ISA² programme, subject to the outcome of an ongoing study, in 2017 the action aims at enhancing the above tools in the following areas:

- Improvements for European citizens, users of the Online Collection Software (e.g. OCS for mobile devices, better user interface, accessibility improvements)
- Improvements for ECI Organisers (e.g. ISO 27K compliance, OCS Administration Interface improvements, better analytical and statistical tools, more integration with social media platforms, more support)
- Interoperability improvements (better interconnection between the ECI Register, OCS and the Validation Tool)
- Technical advice in relation to development of legislative framework (studies, risk analysis, impact assessment)

7.2.3 OBJECTIVES

The high level objective is to improve the ECI and EP elections processes by enhancing the already provided tools, research and develop new solutions.

As the ECI instrument is currently subject to a review, the outcome of this process may require an adaptation of the objectives in the course of the action.

7.2.4 SCOPE

The scope of this action covers the study, analysis, assessment and supply of tools and documentation directly related to the European Citizens' Initiative and European Parliament Elections software (Online Collection Software, Crypto Tool) and their interoperability with tools directly related to them.
This action does not cover the development of a campaigning platform/websites for the ECI organisers.
This action does not cover the development of the ECI Register legal content and administration interface.

7.2.5 ACTION PRIORITY

7.2.5.1 Contribution to the interoperability landscape

The contribution of the action to the interoperability landscape, measured by the importance and necessity of the action to complete the interoperability landscape across the Union

Question	Answer
Does the proposal directly contribute to implementing the European Interoperability Strategy, the European Interoperability Framework, or other EU policies with interoperability requirements, or needed cross-border or cross-sector interoperability initiatives? If yes, please indicate the EU initiative / policy and the nature of contribution.	Yes, *1) EU initiative / policy:* European citizens' initiative. *Nature of the contribution:* Regulation (EU) No 211/2011 of the European Parliament and of the Council of 16 February 2011 on the citizens' initiative (ECI Regulation): Article 6(2): *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. The software shall be made available free of charge.* The action will maintain and further develop OCS to comply with this legal obligation. The cross border interoperability is implemented in this software as it has to comply with the data requirements as defined for all Member States, and set out in annex III to the ECI Regulation. 2) *EU initiative / policy:* EU Treaty – Elections to European

	parliament *Nature of the contribution:* Council Directive 93/109/EC of 6 December 1993 *Article 13* *Member States shall exchange information required for the implementation of Article 4 (…)* 3) *EU initiative / policy:* Recommendation on EP elections *Nature of the contribution:* Recommendation 2013/142/EU on enhancing the democratic and efficient conduct of the elections to the European Parliament: *"Technical means for safe and efficient transmission of data* *8. For exchanging the data as provided in Article 13 of Directive 93/109/EC the Member States should use a uniform and secure electronic means, as set out in the Annex ..."* *"ANNEX* *1. For exchanging the data as provided in Article 13 of Directive 93/109/EC the Member States should use files following the Extensible Markup Language format ("XML"). These XML files should be transmitted exclusively via electronic means in a secure way. [...]* *3. The Member States should use the W3C XML Encryption Syntax and Processing recommendation, [...]"*
Does the proposal fulfil an interoperability need for which no other alternative solution is available?	No other alternatives have been identified

7.2.5.2   Cross-sector

The scope of the action, measured by its horizontal impact, once completed, across the sectors concerned

Question	Answer
*Will the proposal, **once completed** be useful, from the interoperability point of view, and utilised in two (2) or more EU policy areas? If yes, which are those?*	Yes: *For the ECI/OCS system*, Regulation (EU) No 211/2011 of the European Parliament and of the Council of 16 February 2011 on the citizens' initiative & ISA action 1.12 *For the European Parliament crypto tool :*the

	Council Directive 93/109/EC of 6 December 1993 & Recommendation 2013/142/EU on enhancing the democratic and efficient conduct of the elections to the European Parliament: The crypto tool module is used in both areas: ECI Online Collection Software and EP elections.
*For proposals or their parts **already in operational phase**: have they been utilised in two (2) or more EU policy areas? Which are they?*	Yes, same as above.

7.2.5.3   Cross-border

The geographical reach of the action, measured by the number of Member States and of European public administrations involved.

Question	Answer
*Will the proposal, **once completed** be useful, from the interoperability point of view, and used by public administrations of three (3) or more EU Members States?*	Yes, ECI-OCS is useful by the citizens of all the Member States. Regarding the European Parliament Crypto tool, it is useful to the public administrations of all the Member States
*For proposals or their parts **already in operational phase**: have they been utilised by public administrations of three (3) or more EU Members States?*	Yes, same as above

7.2.5.4   Urgency

The urgency of the action, measured by its potential impact, taking into account the lack of other funding sources

Question	Answer
Is your action urgent? Is its implementation foreseen in an EU policy as priority, or in EU legislation?	Yes, The ECI/OCS is actively used by the European Citizens and the Crypto tool is critical for MS administrations and must be operational well in advance of the 2019 European Elections. Refer to 1.1.5.1 for the legislation from which these actions derive. As regards the ECI Online Collection Software the special urgency is required for the adaptations due to the modifications of the legal framework (especially annex III of the ECI Regulation), and the security related ones. Refer to 1.1.5.1 for the legislation from which these actions derive.
Does the ISA² scope and financial capacity better fit for the implementation of the proposal as opposed to other identified and currently available sources?	While the ECI Online Collection Software requires at this stage continuous update and improvement (because of changes on legislation and feedback received from citizens, organisations and other institutions), the ISA Programme offers stability by the continuous financial framework therefore. Although in 2016 EU budget a new separate budget line has been for the first time created specifically for the implementation of the ECI, this source of financing is not meant to cover the necessary developments of the ECI Online Collection Software. Moreover, it cannot be confirmed at this stage whether in 2017 it will be possible to obtain any financing from this source (the budgetary line at issue was created in 2016 as an empty "pro memoria" one).

7.2.5.5   Reusability of action outputs

The re-usability of the action, measured by the extent to which its results can be re-used

Can the results of the proposal be re-used by a critical part of their target user base, as identified by the proposal maker? For proposals or their parts already in operational phase: have they been re-used by a critical part of their target user base?

Name of reusable solution	Online Collection Software
Description	Software for collecting Statement of Supports. It can be reused by an organisers' committee of any European citizens' initiative.
Reference	
Target release date / Status	Twice per year approach(Q2 and Q4)
Critical part of target user base	The Online Collection Software can be used by the unlimited number of citizens' initiatives. To date (since 2012) 26 initiatives have collected the statements of support using this software
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	To date (since 2012) 26 initiatives have collected the statements of support using the Online Collection Software.

Name of reusable solution	Crypto Tool
Description	Tool to encrypt xml files exchanged by Member State at every European Parliament election.
Reference	
Target release date / Status	Q3 2017
Critical part of target user base	27
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	27 Member States National Administrations

Moreover, it has to be emphasised that the crypto tool module developed originally in the area of the ECI Online Collection Software is now being reused for the purpose of the EP elections.

7.2.5.6   Level of reuse by the proposal

The re-use by the action of existing common frameworks and elements of interoperability solutions.

Question	Answer
Does the proposal intend to make use of any ISA[2], ISA or other relevant interoperability solution(s)? Which ones?	Yes, a) The Online Collection Software and the Crypto Tool will be published on JoinUp with its source code and documentation freely available. b) If possible, a common solution will be defined between the OCS and ECAS software for the graphical and audio Captcha solutions c) the crypto tool module will continue to be used in both areas: ECI Online Collection Software and EP elections
For proposals or their parts already in operational phase: has the action reused existing interoperability solutions? If yes, which ones?	Yes, the year 2016 releases of the Collection Software and the Crypto Tool have been published on JoinUp. Moreover, the crypto tool module developed originally in the area of the ECI Online Collection Software is now being reused for the purpose of the EP elections.

7.2.5.7 Interlinked

The link of the action with Union initiatives to be measured by the collaboration and contribution level of the action to Union initiatives such as the DSM.

Question	Answer
Does the proposal directly contribute to at least one of the Union's high political priorities such as the DSM? If yes, which ones? What is the level of contribution?	Yes, refer to above chapter Contribution to the interoperability landscape

7.2.6 PROBLEM STATEMENT

7.2.6.1 European Citizens Initiatives

The European Citizens' Initiative instrument enables one million citizens who are nationals of a significant number of Member States to take the initiative of inviting the Commission to submit any appropriate proposal on matters where citizens consider that a legal act of the Union is required for the purpose of implementing the Treaties.

If the organisers of an ECI wish to collect statements of support for their initiative online, they must build an online collection system complying with the rules set out in the ECI Regulation. This means, in particular, that ECI organisers need to choose online collection software incorporating the relevant technical and security features and to find a hosting provider ensuring that the data collected can be stored in the territory of a Member State.

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[10] (Article 6(2)) requires that the Commission develops and maintains an open source software for online collection (the OCS) which would satisfy the requirements of the regulation and could be freely downloaded by anyone

7.2.6.2 European Parliament Elections

In the 2010 EU citizenship report the Commission announced that it would 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). Recommendations for this purpose were addressed to the Member States in 2013[11], including recommendations for using common IT tools when implementing the data exchange mechanism. A Crypto Tool was developed by the Commission to help Member States in implementing this recommendation.

It was highlighted in the Report on the 2014 European Parliament elections12 that the vast majority of Member States welcomed the recommendations and reported that the measures had a significant positive impact in terms of cutting red tape. The report concluded that the Commission will continue, together with the Member States, to explore ways of further improving the efficiency of the mechanisms preventing double voting.

This ISA² action will focus mainly in addressing the above needs, in order to the preparation of the election of the European Parliament for 2019.

7.2.7 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Regulation (EU) No 211/2011 of the European Parliament and of the Council on the citizens' initiative, OJ L 301/3, 18.11.2011[10]

[11] Recommendation 2013/142/EU on enhancing the democratic and efficient conduct of the elections to the European Parliament.

[12] COM(2015) 206 final.

Beneficiaries	Anticipated benefits
Signatories of citizens' initiatives	Improvements in the Commission provided software (OCS) will help the signatories supporting more easily the European Citizens' Initiatives.
Organisers of citizens' initiatives	The enhanced OCS will help organisers (users of the OCS) to build their online collection systems and ease the online collection system certification process. As the OCS is offered free of charge, they will financially benefit as they don't have to invest into an alternative, potentially costly, software (see also study on OCS).
Member States competent authorities	Easier and quicker processes for verifying Online Collection Software instances and validate the signatures collected by the OCS
Member States' Electoral authorities	More efficient, standard and secure process to exchange data on EU voters and candidates participating in European Parliament elections.

7.2.8 ORGANISATIONAL APPROACH

7.2.8.1 Expected stakeholders and their representatives

Stakeholders	Representatives
Member States	ISA Coordination Group
Member States competent authorities	Expert group on the citizens' initiative
SG – Secretariat-General of the European Commission	SG.C.4. – Work Programme and Stakeholder Consultation
DIGIT – Directorate General of Informatics of the European Commission	DIGIT.B.2. – Corporate Knowledge and Decision making Solutions
JUST – Directorate Justice and Consumers	JUST C.2. – Union citizenship rights and Free movement
Member States' competent authorities	Expert group on electoral matters

7.2.8.2   Identified user groups

Citizens interested in the Online Collection System platform and Member States administration are interested in the Crypto tool are represented by respectively by expert groups on the Citizens' Initiative and Electoral Matters. As it is published as open source, it can also be adapted for other purposes.

7.2.8.3   Communication plan

European Citizens' Initiatives:
The representatives of SG and DIGIT will meet twice per year to agree on the mid- and long-term developments and, on working level, on a weekly basis to discuss short- and mid-term developments.
The expert group on the citizens' initiative meets twice per year in the European Commission premises. The members of the expert group can also be contacted or discuss topics in an online forum.
European Parliament elections:
*Ex*pert group on electoral matters meets yearly (or more often if required) in the European Commission premises. The members of the expert group can also be contacted or share information on an online forum. DG JUST and DIGIT will meet regularly, according to the actual needs.

7.2.8.4   Governance approach

The project steering committee, comprised of the head of units of the concerned services, meets twice per year to provide overall guidance and steer the direction of the project. The working level representatives of the services meet weekly to organise and manage the daily work.
The expert groups on the Citizens' Initiative and Electoral Matters provide expert knowledge. With regard to the ECI, this will cover and especially on questions of interoperability and concepts of e-Identification and e-signatures, during the expert group meetings and online and, if appropriate, in workshops. With regard to EP elections, this will cover especially questions related to the management of electoral rolls by the national authorities.

7.2.9   TECHNICAL APPROACH AND CURRENT STATUS

The software components developed under this action will be implemented based on an agile, efficient and pragmatic technical approach. This approach will combine established and emerging standards, industry best practices and state of the art technologies to empower the delivery of high quality and reusable software components.

The delivery of the new or improved functionalities will be grouped in bi-annual releases. The scope and timing of the releases will be defined based on the priority and value of the proposed implementations as agreed with the main stakeholders, and can evolve depending on the impact of possible legislative changes. If needed due to legal or technical constraints the releases can be further split or combined. When needed, a feasibility study will be conducted to assess the value of the different implementation options prior to committing the actual

implementation. For urgent changes to the software components, two patches (or mini-release) can be added on top of the standard bi-annual releases.

In the scope of this ISA² programme the action aims to enhance in particular the following aspects of the tools concerned. For 2017 the priorities are the following:

- Improvements for European citizens, users of the Online Collection Software
  - o OCS for mobile (smartphone, tablets, …)
  - o OCS: Better user interface for classic / desktop version of the User Interface
  - o OCS: Accessibility improvements, example: Audio Captcha in all the European Union languages as an alternative of the text Captcha for the blind and visually impaired people
  - o OCS: Integration of the e-signature and/or e-ID solutions
  - o ECI Register: Enhancements for the citizens to have a better "user experience"
- Improvements for ECI Organisers
  - o Facilitate the OCS instance ISO 27K compliance
  - o OCS Administration Interface improvements
    - ▪ Web analytics
    - ▪ Statistics, reports
  - o OCS: Tracking of successful/failed visits (visits transformed or not into a signature) in order to try to identify the reasons behind
  - o OCS: More integration with social media platforms
  - o ECI Register: Improvements of the Organisers' Account user interface
- Interoperability improvements
  - o More integration between the ECI Register, OCS and the Validation Tool
  - o Enhancements of the Crypto Tool and the Live DVD
- Technical advice in relation to development of legislative framework (risk analysis, studies, ICT impacts assessment)
- Improvements of the tools for the national electoral authorities, to enhance the efficiency of the data exchange mechanism under Directive 93/109/EC – EP elections, and alleviate the burden on these authorities.
- Improvements of the tools on overall, and in particular, to cover candidates standing in EP elections , given that the tools currently only cover EU voters.
- Technical advice in relation to the implementation and the use of the IT tools developed under this project to exchange data under Directive 93/109/EC.

The list above is non-exhaustive and may evolve depending on the outcome of the ongoing ECI review process and the assessment of the value of each of the proposed implementations and the decisions taken by the steering committee.

European Citizens' Initiatives
Steps of the process and IT systems
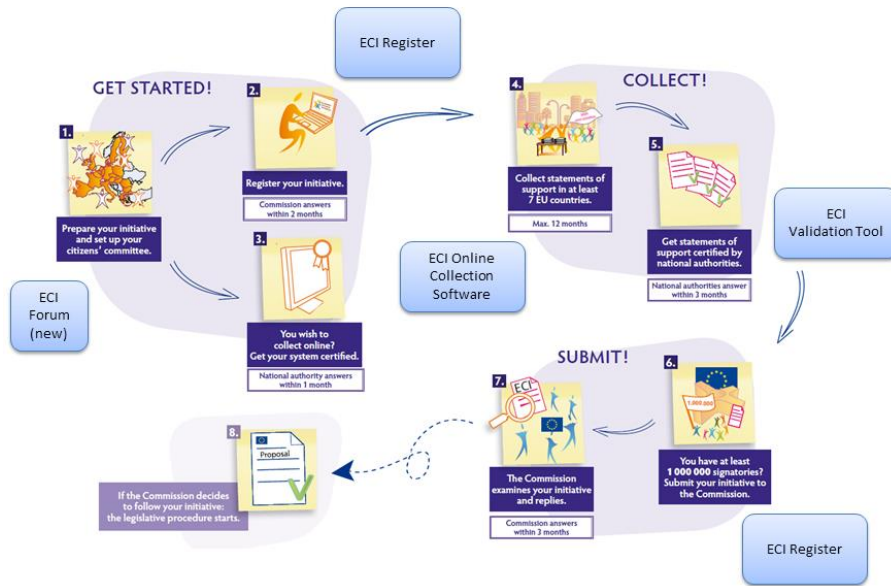
7.2.10 COSTS AND MILESTONES

7.2.10.1 Breakdown of anticipated costs and related milestones

Phase: Initiation Planning Execution Closing/Final evaluation	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Initiation	Studies/Impact assessments	200	ISA	Q3/2016	Q4/2016
Execution	Release December 2016	300	ISA	Q3/2016	Q4/2016
Execution	Release June 2017	241	ISA	Q1/2017	Q2/2017
Execution	Release December 2017	200	ISA	Q3/2017	Q4/2017
Execution	Release June 2018	250	ISA	Q1/2018	Q2/2018
Execution	Release December 2018	250	ISA	Q3/2018	Q4/2018
Execution	Release June 2019	250	ISA	Q1/2019	Q2/2019
Execution	Release December 2019	250	ISA	Q3/2019	Q4/2019
Operation	Support	360	ISA	Q3/2016	Q4/2019

7.2.10.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2016	Initiation + execution + support	500	
2017	Execution + support	561	
2018	Execution + support	620	
2019	Execution + support	620	

7.2.11 ANNEX AND REFERENCES

Description	Reference link	Attached document
Regulation (EU) No 211/2011 of the European Parliament and of the Council of 16 February 2011 on the citizens' initiative	http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02011R0211-20131008&from=EN	
Commission Implementing Regulation (EU) No 1179/2011 of 17 November 2011 laying down technical specifications for online collection systems pursuant to Regulation (EU) No 211/2011 of the European Parliament and of the Council on the citizens' initiative	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:301:0003:0009:EN:PDF	
Minutes of the meeting of the ECI Expert Group held on 15th June 2015	http://ec.europa.eu/citizens-initiative/public/legislative-framework	
Directive 93/109/EC – Participation of EU citizens in EP elections	http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:31993L0109	
Recommendation 2013/142/EU on enhancing the democratic and efficient conduct of the elections to the European Parliament	http://ec.europa.eu/justice/citizen/document/files/c_2013_1303_en.pdf	

Minutes of the meeting of the Electoral Expert Group held on 12th June 2015	https://circabc.europa.eu/ Interest group: European Parliament Election Data exchange (category: Justice and Consumers).	

7.3 ABCDE - ADMINISTRATION, BUSINESS AND CITIZENS' DATA EXCHANGES IN THE DOMAIN OF CASE MANAGEMENT (2016.24)

7.3.1 IDENTIFICATION OF THE ACTION

Type of Activity	Common Services
Service in charge	DG COMP
Associated Services	DG DIGIT
	DG MARE
	DG AGRI

7.3.2 EXECUTIVE SUMMARY

The ISA[2] Action "**ABCDE - Administration, Business and Citizens' Data Exchange in the domain of Case Management**" aims at providing interoperable solutions to support data exchanges between the European Commission, Member States' administrations, business and citizens in the domain of Case Management.

Case Management in the context of this ISA[2] Action comprises Competition policy in the European Union, that is to say the enforcement of the Antitrust / Cartel rules, Merger control as well as State aid control[13].

Data exchange processes in Case Management are <u>cross-border</u>: they rest upon intense co-operation between the European Commission and the Member States[14], where information systems are prone to reusability at European and international level[15]. Data exchanges cover various entities, such as Member States administrations and undertakings (including law firms) located within the EU or even outside the EU.

Data exchange processes in Case Management are <u>cross-sector</u>, covering: Fisheries, Agriculture, Energy and Environment, Information, Communication and Media, Financial services, Basic Industries and Manufacturing, Pharma and Health services, Transport and Post among other services.

ABCDE has three packages:

i. **Operation and improvement of existing common services**
   Operation and improvement of existing cross-border or cross-sector common services (established under ISA or IDABC), serving EU interests and under the umbrella of ABCDE, namely:
   a. <u>GENIS</u> (suite of common services for State aid).
   b. <u>ECN2</u>.

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[13] Potentially extensible to any sector and policy area carrying out dossier-centric and data exchange-intensive administrative services or investigations.

[14] In Antitrust, the European Commission and the National Competition Authorities (NCAs) enforce the same rules of law and coordinate their action through the European Competition Network (ECN). In Merger Control, the European Commission and the NCAs may refer cases to one another. In State aid control, enforcing the rules has become a shared responsibility between the European Commission and Member States following the State aid modernisation.

[15] This stems from the fact that (i) European and National authorities enforce the same or similar rules of law, and (ii) the business processes involved are similar.

    c.   <u>COMP eTrustEx</u>.

    d.   <u>eQuestionnaire</u>.

ii.   **Development and operation of new ABCDE common services**

Development and operation of new cross-border or cross-sector common services serving EU interests, namely:

    a.   <u>eRFI</u>[16]. Common service to support requests for information, sector inquiries and market investigations, to replace the ageing eQuestionnaire[17]. One National Competition Authority has already manifested their interest in reusing this common service. The European Competition Network could be used to promote its reuse among other authorities.

    b.   <u>eLeniency</u>. Common service to support the European Commission's immunity and leniency programme in Cartel investigations. As eRFI, eLeniency is potentially reusable by National Competition Authorities of the Member States to support their national immunity and leniency programmes.

    c.   <u>eConfidentiality</u>. Common service to support confidentiality negotiation of case files with the investigated undertakings.

iii.   **Establishment of a common ABCDE architecture / framework**

The subproject CESA (Competition Enterprise and System Architecture) will define and setup a <u>common ABCDE architecture / framework</u> that will ensure the long-term sustainability of the ABCDE interoperable solutions by maximising synergies and economies of scale, reducing operation, improvement, change and development costs.

7.3.3 OBJECTIVES

The mission of ABCDE is to contribute to a better functioning of the internal market in the benefit of consumers, businesses and the European economy as a whole, thus endorsing European Union's political priorities such as the Digital Single Market, the Energy Union or a stable Financial Services sector.

In the context of scarce resources in public administrations, the main objective of ABCDE is to reduce costs and gain efficiency and efficacy in the enforcement of Competition policy by the European Commission and the Member States' administrations, while ensuring good governance. This will be achieved at different levels:

- ABCDE will help reducing costs by implementing and operating common e-services used by the European Commission and the Member States' administrations to jointly enforce European and National competition law, thus avoiding disparate IT investments by the EU Member States' administrations. The common services are: SANI2, ECN2, SARI, State Aid Transparency Data Collection, State Aid Recovery Interest Calculator and State Aid Collaboration Platform Pilot.

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[16] During the preliminary analysis of eRFI, we analysed EUSurvey as a potential candidate. Given the wider scope of eRFI requirements which includes: knowledge base management, security constraints (e.g. Non-Repudiation), integration with Case Management back-ends, strong analytics capabilities, the preferred option was to develop eRFI. However we intent to leverage the existing know-how of EUSurvey, by observing its implementation approach (as 'lessons learned').

[17] The scope of eQuestionnaire was recently extended to cover not only Merger but also Antitrust and State Aid policy instruments. As a critical application it will be maintained and evolved until the release in Production of eRFI in 2020.

- ABCDE will make data exchanges in Case Management faster, more effective and cost-efficient, by implementing and operating efficient interoperable e-services benefiting both the main users and key stakeholders (European Commission services, Member States' administrations, business and citizens).

- ABCDE will promote the use and exchange of semantically consistent and highly qualitative data across European information systems in the Competition policy domain, fostering cross-sector and European-level interoperability.

- ABCDE will reduce costs by implementing a common architecture / framework aiming at maximising synergies and economies of scale and reducing operation, improvement and development costs, ensuring the long-term sustainability of the ABCDE common services.

- ABCDE shall further help reducing costs by implementing and operating common services that can be reused by Member States' administrations (confirmed interest in re-using eRFI by already one NCA, potential of reusability of eLeniency). The ABCDE common architecture / framework (partially or as a whole) has also a high potential of reuse by Member States' administrations.

7.3.4 SCOPE

ABCDE covers the cross-border and cross-sector data exchange processes with or among EU and Member States' administrations, business and citizens in the domain of Case Management, which are not covered by the CASE@EC[18] project. Case Management in the context of the ISA^2 Action comprises the Competition policy of the European Union as well as State aid control in all sectors including Fisheries and Agriculture. Case Management is potentially extensible to any policy area carrying out dossier-centric and data exchange-intensive administrative services or investigations. Commission's backend processes and internal exchanges (i.e. between Commission's departments and services) are out of scope of ABCDE.

The overall scope of the ISA^2 Action ABCDE is visualised in the diagram below.

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[18] The CASE@EC project focuses on backend case management processes: document and record management; case handling and orchestration; case portfolio management; case team collaboration; e-discovery and evidence management etc. European Commission Services participating to the CASE@EC project are: DG COMP, DG TRADE, DG AGRI, DG MARE, DG BUDG and OLAF.
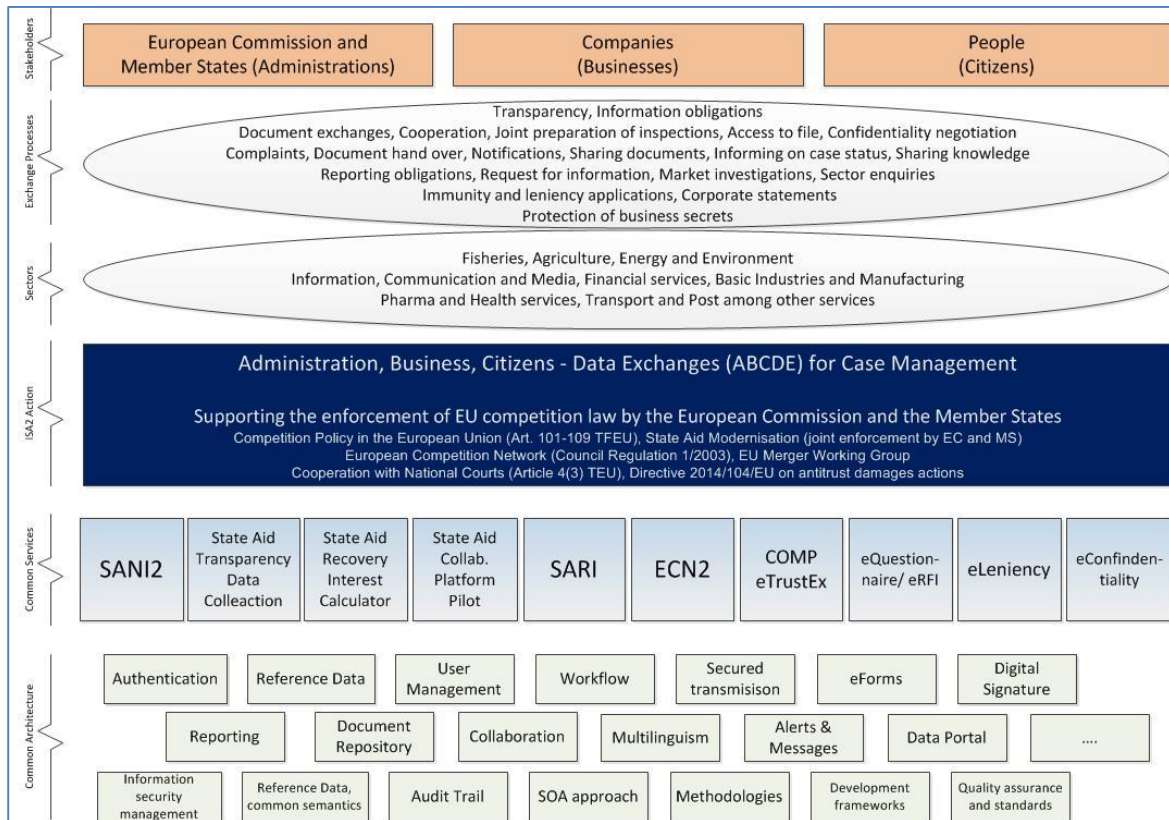
The scope is defined in three packages:

Package I) Operation and improvement of existing common services
In scope:
Operation and improvement of existing cross-border or cross-sector common services established under ISA or IDABC, serving EU interests, namely: GENIS (ISA Action 1.11) common services: SANI2, SARI, State Aid Transparency Data Collection, State Aid Recovery Interest Calculator, State Aid Collaboration Platform Pilot, used by DG COMP, DG AGRI, DG MARE and the Member States' administrations of the 28 Member States to support the implementation of EU State Aid rules (Art.107 to 109, Treaty on the Functioning of the European Union (TFEU)). ECN2 (ISA Action 2.9 - COMP Pilot) common service to support the European Competition Network (ECN), formed by DG COMP and the National Competition Authorities of the 28 Member States to share case information and case documents, supporting the implementation of Competition policy of the EU in particular Antitrust/Cartels investigations and Mergers control (Art. 101 to 106, TFEU and Merger Regulation 139/2004). ECN2 also supports exchanges between ECN and administrations of EFTA[19] countries. ECN2 improvements will support document sharing and collaboration between the European

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[19] The European Free Trade Association (EFTA) is an intergovernmental organisation set up for the promotion of free trade and economic integration to the benefit of its four Member States: Iceland, Liechtenstein, Norway, and Switzerland.

Commission and the National Courts of EU28, will support the implementation of the Damages Directive[20], will offer e-signature capabilities and adapt to any updates in the ECN legislation expected in the medium term.

COMP eTrustEx[21] (ISA Action 1.8 - COMP Pilot) common service used by DG COMP, businesses (companies, law firms) and Member States' administrations to exchange large volume of sensitive documents in a secure way. COMP eTrustEx greatly supports the implementation of Competition policy of the EU.

eQuestionnaire (IDABC Action) common service used by DG COMP and businesses (companies, law firms) to request and provide structured information (requests for information, sector inquiries, market investigations) for case investigations. This tool is used cross-sector in Mergers control, Antitrust/Cartel investigations and State aid control.

Package II) Development and operation of new ABCDE common services

In scope:

Development and operation of new cross-border or cross-sector common services serving EU interests and in the scope of ABCDE, namely:

eRFI. Common service to support requests for information, sector inquiries and market investigations. eRFI will replace the ageing eQuestionnaire (developed under IDABC and in Production since 2009).

eLeniency. Common service to support the European Commission's leniency programme in Cartel investigations. Currently, the exchange process with businesses that is submitting leniency applications to the Commission is not IT-supported; hence it is human resources-consuming. eLeniency would be reusable by National Competition Authorities of the Member States to support their national leniency programmes.

eConfidentiality. Common service to support the confidentiality negotiation of case files with the investigated undertakings (businesses). Currently, this exchange process with businesses is not IT-supported, hence it is human resources-consuming.

Package III) Establishment of a common ABCDE architecture / framework

In scope:

The common ABCDE architecture / framework will ensure the long-term sustainability of the ABCDE interoperable solutions by maximising synergies and economies of scale and reducing operation, improvement, change and development costs. The common ABCDE architecture / framework will focus on:

- Common information security management.

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[20] Directive 2014/104/EU on antitrust damages actions.

[21] Covers the evolution and maintenance of the modules specially developed and used by DG COMP (GUI, adapter, COMP back-end interoperability layer). Maintenance of DIGIT's eTrustExchange platform itself is out of the scope of this action and will be financed by another ISA[2] action.

- Common business and Service Oriented Architecture (SOA) approach.
- Common interoperability: Common technical approach, common semantics, common specifications and standard exchange formats, common security implementation.
- Common methodological approach: PM2[22], development methodologies.
- Common development frameworks and stacks.
- Common quality assurance approach and standards.

The common ABCDE architecture will operate and improve the reusable building blocks developed under ISA 1.11 GENIS and under ISA 2.9 DRS / ECN2 Pilot. The common ABCDE architecture / framework will be aligned to EIRA and EIC[23], being potentially reusable in any similar context (sector, policy area, national administration) dealing with a large set of complex data exchange processes with external stakeholders that have to interoperate with both backend systems and external systems. ABCDE re-usable components will be published on EIC.

7.3.5 ACTION PRIORITY

7.3.5.1 Contribution to the interoperability landscape

Question	Answer
Does the proposal directly contribute to implementing the European Interoperability Strategy, the European Interoperability Framework, or other EU policies with interoperability requirements, or needed cross-border or cross-sector interoperability initiatives? If yes, please indicate the EU initiative / policy and the nature of contribution.	**Yes.** ABCDE common services follow and implement several of the EIF principles as user-centricity, transparency, preservation of information, technological reusability and adaptability. The action builds on the legal and organisational interoperability that exists in the European market oversight domain, and implements secure data exchange and secure communications management for several cross-sector services.
Does the proposal fulfil an interoperability need for which no other alternative solution is available?	**Yes.** ABCDE action implements services that fulfil user needs and support business process between administrations and businesses, where no satisfactory interoperable solution is available. Some samples of processes to be fulfilled with ABCDE interoperable solutions are: - State Aid Notification. - State Aid Expenditure Reporting. - State Aid Award Submission and Publication. - Antitrust Case Submission.

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[22] PM2 is the project management methodology of the European Commission.
[23] European Interoperability Reference Architecture (EIRA) and European Interoperability Cartography (EIC).

	- Coordination EC/MS in Antitrust enforcement and Merger control. - Leniency application. - Confidentiality negotiations. - Request for Information.

7.3.5.2 Cross-sector

Question	Answer
*Will the proposal, **once completed** be useful, from the interoperability point of view, and utilised in two (2) or more EU policy areas? If yes, which are those?*	**Yes**. All ABCDE common services will be supporting Competition policy, which is by definition a cross-sector policy and an instrument to guarantee well-functioning markets across different sectors of the economy such as Fisheries, Agriculture, Energy and Environment, Information, Communication and Media, Financial services, Basic Industries and Manufacturing, Pharma and Health services, Transport and Post among other sectors. Moreover, GENIS common services cover the needs of three DGs: MARE, AGRI and COMP.
*For proposals or their parts **already in operational phase**: have they been utilised in two (2) or more EU policy areas? Which are they?*	**Yes.** What explained above applies in particular for all common services in Package I that are **already operational**: SANI2, State Aid Transparency Data Collection, State Aid Recovery Interest Calculator, State Aid Collaboration Platform Pilot, SARI, COMP eTrustEx and eQuestionnaire.

7.3.5.3 Cross-border

Question	Answer
*Will the proposal, **once completed** be useful, from the interoperability point of view, and used by public administrations of three (3) or more EU Members States?*	**Yes**. Additionally to the Package I solutions already operational, and in use by all Member States described below, the new solutions to be implemented under Package II, as eRFI or eLeniency, will be made available for economic operators from all Member States to download and re-use. eRFI will also be used to communicate with Member States in the context of State Aid sector inquiries and market investigations.

*For proposals or their parts **already in operational phase**: have they been utilised by public administrations of three (3) or more EU Members States?*	**Yes.** Most of the ABCDE common services included in Package I are **already operational** and being used by public administrations of the 28 Member States and the European Commission. This is the case of the GENIS State Aid Common Services (SANI2, SARI, State Aid Transparency Data Collection, etc.) and ECN2. Additionally, GENIS building blocks are available in JoinUp for download and re-use by Member States.

7.3.5.4 Urgency

Question	Answer
Is your action urgent? Is its implementation foreseen in an EU policy as priority, or in EU legislation?	**Yes.** ABCDE as enabler of competition policy contributes to the implementation of several EU policy priorities as the Jobs, Growth and Investment agenda, the Digital Single Market and the Energy Union. ABCDE common services support the implementation of EU legislation such as: • Antitrust/Cartels investigations (Art. 101 and 102 of the TFEU), • Council Regulation (EC) No 139/2004 on control of concentrations between undertakings (the EC Merger Regulation), • EU State Aid rules (Art.107 to 109 of the TFEU). • State Aid Modernisation (SAM) and transparency requirements. • Directive 2014/104/EU on antitrust damages actions, • Leniency and immunity policy.
Does the ISA^2 scope and financial capacity better fit for the implementation of the proposal as opposed to other identified and currently available sources?	**Yes.** No other sources of financing are available to finance this action as DG COMP doesn´t have an operational budget line. Additionally, ABCDE action fits right into the ISA^2 scope, as ABCDE common services aim to facilitate exchanges between public administrations and between them and businesses and citizens. These exchanges are cross-sector and cross-border. Moreover, ABCDE common services are developed following the principles of re-usability and interoperability.

7.3.5.5   Reusability of action outputs

Name of reusable solution	State aid common services (developed under ISA Action 1.11 – GENIS): • SANI2 • SARI (originally developed under IDABC) • State Aid Transparency Data Collection • State Aid Recovery Interest Calculator • State Aid Collaboration Platform
Description	These common services are used by the European Commission (DGs COMP, AGRI, and MARE) and the Member States' administrations to jointly implement State aid rules (Articles 107-109 TFEU) and the State Aid Modernisation.
References	https://webgate.ec.europa.eu/competition/sani2 https://webgate.ec.europa.eu/competition/sani/sari https://webgate.ec.europa.eu/competition/transparency https://webgate.ec.europa.eu/competition/aidcalculator https://webgate.ec.europa.eu/fpfis/wikis/display/StateAid/Homepage
Target release date / Status	All State Aid common services are available in production and being used by the European Commission (DGs AGRI, MARE and COMP) and the Member States administrations.
Critical part of target user base	
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	SANI2: **3191** users. SARI: **3092** users. State Aid Transparency Data Collection: **73** users. State Aid Collaboration Platform Pilot: **755** users.

Name of reusable solution	ECN2: common service developed under ISA Action 2.9 – DRS (ECN Pilot).
Description	ECN2[24] will be used by the European Competition Network (European Commission and the National Competition Authorities) to jointly implement Antitrust/Cartels rules (Articles 101-102 TFEU): inform each other about the status of Antitrust cases, share related documents and prepare inspections. ECN2 is also used by the EU Merger Working Group as an efficient and secure means to exchange documents in Merger cases. Finally, ECN2 is used as secure document sharing platform between European Commission and Member States' administrations to support the application of Antitrust/Cartel law by National Courts as well as the

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[24] ECN2 will replace the ageing systems ECN-I and ECN-ET currently used by the European Commission and all Member States' National Competition Authorities.

	Directive 2014/104/EU on antitrust damages actions.
Reference	URL will be made public when ECN2 enters in production.
Target release date / Status	It is planned to release ECN2 in production in September 2016.
Critical part of target user base	Target user base is 1500 users and 100 national administrations.

Name of reusable solution	New ABCDE common services with a potential of re-use by Member States administrations: • eRFI • eLeniency
Description	Requests for information (incl. market investigations and sector inquiries) is a process equally applied by the European Commission and the National Competition Authorities in Competition law enforcement. Therefore there is a high potential of re-use of the eRFI common service. At least one National Competition Authority has expressed their intention to reuse the eRFI solution rather than developing their own solution. Immunity/leniency programmes are effective weapons in the fight against Cartels. They are implemented at European and National level. Therefore there is a high potential of re-use of the eLeniency common service.
Reference	URLs will be made public when common services enter in production.
Target release date / Status	• eRFI target date for production is Q2 2019. • eLeniency target date for production is Q4 2018.
Critical part of target user base	To be defined during Initiating phases of the projects.

Name of reusable solution	Building Blocks developed under ISA Action 1.11 – GENIS: • Multilingual • eForms • Reference Data • Audit Trail
Description	• Multilingual: manages sets of translations in all European Commission languages in a central repository and offers these translations to different clients embedded in the user applications. • Reference Data: building block used for the management of reference data with special consideration for system performance and reusability. • eForms: generic forms easily defined and maintained. • Audit Trail: reusable building block to provide audit trail support of

	the operations carried out in the common services with a harmonised approach. These modules are completely decoupled as generic building blocks and are published for re-use.
Reference	https://joinup.ec.europa.eu/asset/multilingual/home https://joinup.ec.europa.eu/asset/rd https://joinup.ec.europa.eu/asset/forms/home
Target release date / Status	Already in production and re-used by several common services.
Critical part of target user base	Not defined.
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	Since they were uploaded to JoinUp, GENIS building blocks accumulate a total of 241 downloads. GENIS Reference Data building block has a rating of 4 stars out of 5.

Name of reusable solution	Building Blocks developed under ISA Action 2.9 – DRS (ECN2 Pilot). • Messaging
Description	• Messaging: implements communications between users via messaging operations (send message, reply, archiving and content encryption). This module could be decoupled as generic building blocks and published in JoinUp for re-use.
Reference	Publication in JoinUp would follow.
Target release date / Status	Currently in acceptance, re-used by ECN2 (target release date in production is September 2016).
Critical part of target user base	Not defined.

Name of reusable solution	Document Repository Services[25]
Description	This building block provides full support to document management operations by implementing a full set of document management services that can be integrated with a client application. As mentioned, the service is offered as a back-end solution in form of a Web Services layer.
Reference	https://joinup.ec.europa.eu/software/drs
Target release date / Status	Already operational and available for download in JoinUP.

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[25] This re-usable component was developed by DG DIGIT in the context of ISA Action 2.9 Document Repository Services. Currently its maintenance is financed by ABCDE action, and the budget sub-delegated to DG DIGIT for its maintenance and evolution.

Critical part of target user base	12 downloads

7.3.5.6 Level of reuse by the proposal

Question	Answer
Does the proposal intend to make use of any ISA[2], ISA or other relevant interoperability solution(s)? Which ones?	**Yes.** Additionally to the interoperability solutions already re-used by ABCDE that are described below, ABCDE will identify candidate re-usable solutions to provide blocks of functionality in the implementation of new systems and the evolution of the existing. Some candidate building blocks that will be evaluated are: - eSSI (for e-signature), - eUI (for graphical user interface), - Activiti or Compass (for workflow), - Enterprise Search (for content search), - Corporate Notification Services (CNS) (for notifications).
For proposals or their parts already in operational phase: has the action reused existing interoperability solutions? If yes, which ones?	**Yes.** ABCDE common services are already re-using existing solutions implemented by ISA[2] and ISA programs as e-TrustEx (ISA[2] 2016.19) and Document Repository Services (ISA 2.9). Additionally the different building blocks implemented under ISA Action 1.11 GENIS, are re-used inside ABCDE by other common services as State Aid Transparency Data Collection, State Aid Recovery Interest Calculator, ECN2, etc. ABCDE also re-uses other interoperable solutions developed by the European Commission as ECAS or Machine Translation.

7.3.5.7 Interlinked

Question	Answer
Does the proposal directly contribute to at least one of the Union's high political priorities such as the DSM? If yes, which ones? What is the level of contribution?	**Yes.** Mobilising competition policy tools will be key to the success of the Jobs and Growth agenda, including priority policies such as the Digital Single Market (DSM), energy policy, financial services, industrial policy and the fight against tax evasion[26].

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[26] See President Jean-Claude Juncker's Mission Letter to Commissioner Margrethe Vestager, https://ec.europa.eu/commission/.../commissioner_mission_letters/vestager_en.pdf

	The mission of ABCDE action is to contribute to a better functioning of competition policy and therefore of the internal market to the benefit of consumers, businesses and the European economy as a whole, while endorsing European Union's political priorities.

7.3.6 PROBLEM STATEMENT

Problems and needs addressed by   **Package I) Operation and improvement of existing common services**
Problems: • IT solutions supporting EU legislation could be either implemented in each of the 28 Member States or with one common service used by all. The former would imply disparate expenditures by Member States multiplying IT solutions' developments and operations, as well as a number of disparate systems hardly interoperating with each other. The use of common services is the de-facto approach in the ABCDE context, being significantly more cost-efficient and more effective (interoperability, use/reuse and exchange of data).   • Data exchanges –typically ruled by tight legal deadlines– are often carried out in an inefficient and time-consuming way (e.g. delivery of documents by e-mail or in (encrypted) DVDs or paper documents delivered by mail service).   • Ongoing legislation changes requiring adaptations to underlying IT solutions.
Resulting needs: • Need to operate existing cross-sector interoperable common services used by the European Commission and the administrations of the 28 Member States to jointly implement EU legislation: SANI2, ECN2, SARI, State Aid Recovery Interest Calculator, State Aid Transparency Data Collection and the State Aid Collaboration Platform Pilot.   • Need to operate existing cross-sector interoperable common services used by the EC, the administrations, the business and citizens to further support secured and efficient data exchanges required by EU legislation: eTrustEx and eQuestionnaire.   • Need to improve/adapt, e.g. upon legislation change, existing cross-sector interoperable common services in the interest of the EU.

Problems and needs addressed by   **Package II) Development and operation of new ABCDE common services**
Problems: • Recurrent and critical data exchange processes are currently carried out without IT support, being very resources-intensive. This is unbearable in the current situation of limited staff and resources in public administrations in the EU.

- Data exchanges –often ruled by tight legal deadlines– are often carried out in an unsecured, inefficient and time-consuming way (e.g. delivery of paper documents by mail service). Developing common services addressing this problem is in the benefit of the European Commission, the Member States administrations, the businesses and citizens.
- The European Commission and the Member States enforce, at different levels, similar legislation in the ABCDE context. IT solutions supporting similar data exchange processes at EU and national level could lead to disparate expenditures by Member States multiplying IT solutions' developments and operations.

Resulting needs:

- Need to provide state-of-the-art IT solutions to support recurrent and critical data exchange processes in a more effective and cost-efficient way: "do more with less". This is the case for eLeniency and eConfidentiality.
- Need to develop and operate new cross-sector interoperable common services used by the EC, the administrations in the Member States, the business and citizens to support secured and efficient data exchanges required by EU legislation: eLeniency, eConfidentiality and eRFI.
- Need to develop IT solutions supporting data exchanges for Case Management that are prone to reusability at European and national level. One National Competition Authority has already expressed his interest in reusing the eRFI solution, rather than developing their own solution. The European Competition Network could be used as a platform to present this solution to other National Competition Authorities.

Problems and needs addressed by Package III) Establishment of a common ABCDE architecture / framework

Problems:

- Lacking a well-defined common architecture / framework would lead to different projects being implemented conform to ISA[2] each, however architecturally different. This would result in increasing costs over time, eventually resulting in the unsustainability of maintenance and operation of the ABCDE domain's common services.
- A distinct information security management by project (i.e. not having a global security strategy and implementation common for the ABCDE domain) would be not only expensive but would also imply a high risk of incoherence in the security implementation of interoperability, resulting inevitably in security vulnerabilities.
- Insufficient usage of standard exchange formats in the context of data exchanges in Case Management in the EU, resulting in reduced interoperability and higher costs for data exchanges.

Resulting needs:

- Need of a common ABCDE architecture / framework, aligned with EIRA and EIC, focusing on common SOA approach (business architecture, interoperability), common semantics, common specifications and standard exchange formats, common security implementation, aiming at

maximising synergies and economies of scale and reducing operation, improvement, change and development costs.

- Need for a common, global information security management covering all data exchanges in Case Management.

- Need for identifying existing or defining new standard data exchange formats in the context of data exchanges in Case Management in the European Union.

7.3.7 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits

European Union as a whole: Institutions, Member States, businesses and citizens	**Effective enforcement of EU competition law (Art. 101-109 TFEU)**
	
	• State-of-the-art common e-services for efficient data exchanges in Case Management will result in a more effective enforcement of EU competition law by the European Commission and the Member States, leading to:
	    o A better functioning of the European Single Market.
	    o Better services and products, more choices, and better prices for European consumers.
	    o More competitive European business better placed in the global economy.
	• The quantified customer benefits resulting from antitrust (including cartels) and merger decisions in 2015 were estimated above €2.0 billion[27]. In 2015, the European Commission imposed €365 million in fines related to antitrust and cartel decisions, and imposed recoveries estimated on €1.8 billion of illegal State aid. Revenues from antitrust and cartel fines reduce the Member States' contributions to the EU budget.
	• At national level, the successful enforcement of Competition law brings similar benefits.

European Commission, Member States and businesses	**Concrete cost savings derived from the common use (by the Commission and Member State administrations) of common ABCDE e-services**
	
	• ABCDE common services are used by the European Commission and Member States' administrations to jointly implement EU legislation: SANI2, ECN2, SARI, State Aid Transparency Data Collection and the State Aid Collaboration Platform Pilot.
	• The provision and operation of central e-services jointly used by Member States and the European Commission translates in concrete cost savings, since Member States do not need to engage in significant investments to develop, operate and evolve their own information systems.
	    o Example: with the implementation of the State Aid Transparency Data Collection, each Member State did not have to develop an information system on their own in order to comply with the Transparency provisions in State aid legislation that entered into force on 1st July 2016. A conservative estimation of €250.000 costs to develop such a system at national level result in savings of more than €6 million, to which operation, maintenance and evolution costs have not been counted.
	    o Similarly, the savings of providing and operating ECN2, a common service used by the European Competition Network (ECN) to jointly enforce Antitrust/Cartels rules can be estimated as high as €15 million[28].
	• The provision and operation of central e-services (versus many disparate systems) will also significantly reduce the implementation costs of interoperability and foster cross-sector and European-level interoperability.

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[27] http://ec.europa.eu/atwork/synthesis/aar/doc/comp_aar_2015.pdf
[28] Based on 28 x €550.000 costs of development of ECN2 v1.0.

European Commission, Member States	**Concrete cost savings derived from a common ABCDE architecture / framework** • Implementing common functionality in re-usable components and following a coherent architecture / framework common to all ABCDE common services shall significantly reduce development and operation costs. E.g. the savings on the State Aid Transparency Data Collection by re-using GENIS components can be estimated in at least €0.5 million[29]. This estimation can be extrapolated to future systems as eRFI, eLeniency and eConfidentiality. • The common ABCDE architecture / framework will foster cross-sector and European-level interoperability by establishing and spreading common domain semantics, specifications and standard exchange formats. • The common ABCDE architecture / framework could be potentially reused in any similar context (sector, policy area, national administration) dealing with a large set of complex data exchange processes with external stakeholders that have to interoperate with both backend systems and external systems.
Member States	**Potential cost savings resulting from the re-use of ABCDE common services by Member States' administrations** Similar exchange processes take place both at European and national level. Implementing e-services that can be re-used by Member States translates in potential cost savings. Some examples: • Requests for Information are carried-out both by the European Commission and the National Competition Authorities. The cost of implementation of eRFI as e-service supporting this process is estimated in €0.75 million (see section 1.1.12). Following high-level estimations, each potential re-use of this common service by a national administration could result in savings of approximately €1 million[30]; • Member States also implement leniency programs in Cartels investigations, making the eLeniency common service potentially re-usable. Following similar estimation calculations, each potential reuse of this common service by a national administration could result in savings of approximately €0.7 million[31];
European Commission, Member States and businesses	**Cost savings derived from automation of exchange processes** • Several data and document exchange processes in Case Management (foremost the negotiation of confidentiality) still imply heavy manual intervention by European administrations and businesses' staff (e.g., case support and the Registries) as well as the use of costly postal services (e.g. DHL). Automating these processes will reduce the cost and manpower required to carry them. Concrete savings to be estimated. • Member State representatives for the European Competition Network come to Brussels several times a year (more than 20 in 2015) to participate in ECN Advisory Committees and sign the Advisory Committee Opinion document. The implementation of electronic

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[29] The cost of analysis and implementation of GENIS re-usable components (User Management, Reference Data, Multilingual, Forms and Audit Trail) was estimated in €1.1 Million in ISA Work Programme 2015 (approximately €220k per component). The savings link to reusing four of these components in State Aid Transparency Data Collection can be estimated in at least €0.5 million (220k per component multiplied by 4 minus integration costs).

[30] The implementation cost of eRFI is estimated in €0.6 million (see section 1.1.12). This amount doesn´t include the cost of implementation of the different components that it will be reusing (estimating 4 components with an individual cost of €220k). Adding these amounts, the implementation of a similar system from scratch by a Member State could reach €1.48 million. If we estimate that tailoring eRFI for the Member State could cost 33% of the total amount (€0.49 million), the reusability of the solution for one Member State could mean almost €1 million savings.

[31] For eLeniency the cost of implementation €370k and estimating that the service will reuse 3 common components.

	signature in ECN2 would allow the Advisory Committee Opinion document to be signed remotely facilitating Advisory Committee meetings to be hold per videoconference. This would result in minimising delays in the procedure and will reduce travel and accommodation costs. Concrete savings to be estimated.
European Commission, Member States and businesses	**Efficiency gains derived from automation of exchange processes** • eRFI will give respondents to market investigation the ability to delegate and collaborate in answering to the Requests for Information (e.g. involving different actors: legal department, departments, CEO, etc.) that will save companies and citizens valuable time, increasing response rates to European Commission's market investigations. European administrations make extensive use of Requests for Information (RFIs) every year. In 2015, only in DG COMP, 28.819 RFIs were sent out in the context of 100 competition cases. • eConfidentiality will make the confidentiality negotiation process (the most time consuming activity in the processes for parties' access to file and publication of final decisions) more resource-efficient and in a shorter delay by significantly speeding up the exchanges and facilitating the number of validation checks, allowing a faster registration, et cetera. • eLeniency will make the leniency request process more resource-efficient and in a shorter delay, by reducing administrative tasks and streamlining the process for external businesses. Taking into account that currently one Case Assistant handles almost 200 oral corporate statements each year, the automation of this process will significantly reduce the time needed for the administration to complete corporate statements and help decreasing the overall case duration freeing resources of the European Commission to carry out more Cartel and antitrust investigations.
European Commission and businesses	**Enhanced security in the manipulation, transmission and storage of sensitive information.** The European Commission has an obligation of professional secrecy to protect confidential data of the business that it receives in its investigations. • By substituting the usage of non-automated means (fax, mail post, etc.) inadvertent document disclosures will be minimised. • The common ABCDE architecture / framework will comprise a common, coherent information security management and technical implementation for all ABCDE common services. This will significantly improve the security of data exchanges in this domain.
European Commission, Member States, businesses and citizens	**More transparency toward EU citizens** • Consumers and companies in the EU will benefit from having more accessible and easily comparable information on support granted by national authorities to beneficiaries of State aid, thus increasing the awareness of the business and Member States on aid measures. • Improving collaboration between the European Commission and EU28 National Courts will allow a better overview of sectorial trends/focus on infringements cases at national level and increase transparency across the EU on competition cases both for business and for the administration.

7.3.8 EXPECTED MAJOR OUTPUTS

Output name	eConfidentiality
Description	The eConfidentiality project will automate and support the confidentiality negotiations process, allowing significant resource savings, reducing the time delays and improving the security of the process. The system will host and orchestrate the confidentiality negotiations in a secure workspace, linked to the case management application. The tool will also support the publication of decisions and access to documents.
Reference	Reference will be published after release in production.
Target release date / Status	Q4 2019.

7.3.9 ORGANISATIONAL APPROACH

7.3.9.1 Expected stakeholders and their representatives

Stakeholders	Representatives
Package I) Operation and improvement of existing ABCDE common services	
GENIS State aid common services (SANI2, State Aid Transparency Data Collection, State Aid Recovery Interest Calculator, SARI, State Aid Collaboration Platform Pilot)	
Project Owner (PO)	Gert-Jan Koopman (COMP Deputy DG for State Aids)
Business Manager (BM)	Nicola Pesaresi (HoU COMP.A.3), Koen Van de Casteele (HoU COMP.0.3) Wolfgang Mederer (HoU COMP.H.4).
Solution Provider (SP)	Manuel Pérez Espín (HoU COMP.R.3)
Project Manager (PM)	Raül Romero Valls (COMP.R.3)
DG AGRI User Representatives	Ludmila Hamtcheva, Maria Elisabete Dias Costa, Linas Visomirskis (AGRI.DDG4.I2)
DG MARE User Representatives	Cécile Ducatez (MARE.F.4)
Member States User Representatives	Member State representatives attending the State Aid Working Group, chaired by COMP.0.3. and the Transparency Module Steering Group, chaired by COMP.A.3
ECN2	
Project Owner (PO)	Eddy de Smitjer (HoU COMP.A.4)
Business Manager (BM)	Petra Krenz (COMP.A.4)
Solution Provider (SP)	Manuel Pérez Espín (HoU COMP.R.3)
Project Manager (PM)	Radu Tudose (COMP.R.3)

Member States User Representatives	Member State representatives attending the European Competition Network Plenary meetings, chaired by COMP.A.4
Other Stakeholders	DIGIT.B.2
COMP eTrustEx	
Project Owner (PO)	Sari Suurnakki (HoU COMP.R.1)
Business Manager (BM)	Vincent Maes (COMP.R.1)
Solution Provider (SP)	Manuel Pérez Espín (HoU COMP.R.3)
Project Manager (PM)	Radu Tudose (COMP.R.3)
Other Stakeholders	DIGIT.B.2, DIGIT.B.4
eQuestionnaire	
Project Owner (PO)	Julia Brockhoff (DHoU COMP.A.2)
Business Manager (BM)	Christos Tsoumanis (COMP.A.2)
Solution Provider (SP)	Manuel Perez Espín (HoU COMP.R.3)
Project Manager (PM)	Sonia Tafaro (COMP.R.3)
Package II) Development and operation of new ABCDE common services	
eLeniency	
Project Owner (PO)	Eric Van Ginderachter (Director COMP.G)
Business Manager (BM)	Corinne Dussart-Lefret (COMP.G.5)
Solution Provider (SP)	Manuel Pérez Espín (HoU COMP.R.3)
Project Manager (PM)	Thomas Luyckx (COMP.R.3)
eConfidentiality	
Project Owner (PO)	Kris Dekeyser (Director COMP.A)
Business Manager (BM)	Corinne Dussart-Lefret (COMP.G.5)
Solution Provider (SP)	Manuel Pérez Espín (HoU COMP.R.3)
Project Manager (PM)	Thomas Luyckx (COMP.R.3)
eRFI	
Project Owner (PO)	Julia Brockhoff (DHoU COMP.A.2)
Business Manager (BM)	Christos Tsoumanis (COMP.A.2)
Solution Provider (SP)	Manuel Pérez Espín (HoU COMP.R.3)
Project Manager (PM)	Sonia Tafaro (COMP.R.3)
Member States User Representatives	Member State representatives from the Merger Working Group (MWG).
Package III) Establishment of a common ABCDE architecture / framework - CESA	
Competition Enterprise and System Architecture (CESA)	
Project Owner (PO)	Manuel Pérez Espín (HoU COMP.R.3)
Business Manager (BM)	Daniel Julian Jiménez Krause (COMP.R.3) Javier Vázquez Fernández (COMP.R.3)
Solution Provider (SP)	Manuel Pérez Espín (HoU COMP.R.3)
Project Manager (PM)	Radu Tudose (COMP.R.3)
Other Stakeholders	DIGIT.B.1, DIGIT.B.6

7.3.9.2   Communication plan

Services under the ISA[2] Action ABCDE will implement the communication management process following the PM2 methodology and will participate to the different ISA[2] communication channels, working groups and events as appropriate. Some of the meetings taking place will be:

- **Project follow-up and review meetings**. Chaired by the Project Manager and attended by the Business Manager and the Project Core Team, the project follow-up and review meetings aim to discuss the project progress, the identification of new risks and issues, the status of current and future deliverable and/or the testing progress among others. Depending of the project size they will be held on a monthly basis. The Project Progress Report shall support the meeting. Minutes of the meeting will be distributed by e-mail.

- **Project Steering Committee meetings**. Chaired by the Project Owner, and attended by the Business Manager, Solution Provider and Project Manager, the project steering committee meetings aim at discussing key points meriting management attention (e.g. problems encountered and actions taken, evaluation of the project status with respect to the scope, plan and budget). The frequency of the PSC will be defined by the Project Owner, depending on the nature and phase of the project. The Project Progress Report shall support the meeting. Minutes of the meeting will be distributed by e-mail.

- **DIT[32] meetings**. Chaired by a business Director and attended by project owners, business managers, IT and document management specialists. The DIT operates as DG COMP's IT Steering Committee and assures that the investments in IT are aligned with business needs and generate business value. The DIT coordinates the overall execution of the IT strategy and set priorities where necessary. DIT meetings are held monthly. Minutes of the meetings are distributed by e-mail.

- **Working groups and participatory meetings with Member States representatives**. For the common services used by the Member States' administrations, the European Commission holds several meetings per year to ensure the alignment of the common services with Member States' needs. IT trainings and Questions & Answers sessions are organised in this context. Some samples of these meetings are the ECN Plenary meeting, EU Merger Working Group or the Transparency Module Steering Group. Appropriate channels of communication will be established with those Member State administrations interested in the reuse of common services.

- **ABCDE – CASE@EC Coordination meetings** will bring together representatives from the ABCDE action and CASE@EC project, with the participation of DIGIT.B1 (Architecture Office). The purpose of these meetings will be to ensure architecture alignment and coherent SOA/interoperability approach between the two projects.

- **ABCDE - ISA[2] Coordination meetings** will bring together representatives from the ABCDE common architecture framework and ABCDE common services, with the participation of DIGIT.B6 (ISA Unit).

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[32] DIT stands for Document handling and IT systems Group.

The purpose of these meetings will be to ensure the alignment of the common ABCDE architecture framework with the European Interoperability Reference Architecture (EIRA).

7.3.9.3 Governance approach

The governance of ISA^2 Action ABCDE will have two dimensions: global governance of the action as a whole and governance of each common service under the umbrella of ABCDE. The governance model will be aligned with the European Commission IT governance and will follow recommended standards and methodologies.

The ABCDE global governance will follow the ISA^2 governance structures and reporting to ensure ISA^2 alignment of the project. The ABCDE action will also be steered and monitored by the DIT (see section X.1.10.2), to ensure its business alignment.

The architecture alignment of ABCDE with the CASE@EC project and the European Interoperability Reference Architecture (EIRA) will be ensured by the Competition Enterprise and System Architecture sub-project (CESA) which will define the ABCDE common architecture/framework.

Each ABCDE common service will implement a governance model based on PM2 methodology. The roles and responsibilities of the Project Owner and the Business Manager will be defined and each project will be steered by its Project Steering Committee (see table under section X.1.10.1). Each Project Steering Committees will bring together the different project stakeholders, and it will guide, promote, monitor and evaluate the successful execution of the project. The individual Project Steering Committees will report to the DIT.

7.3.10 TECHNICAL APPROACH AND CURRENT STATUS

Package I) Operation and improvement of existing ABCDE common services.
The common services under Package I will be in operation phase throughout the duration of ISA^2 programme. The operation phases will comprise the improvements of these common services. The improvements will have two lines:
- improvements derived from new business request and legislation changes,
- step-wise alignment with the ABCDE common architecture / framework.

Current status: all GENIS State Aid common services (SANI2, State Aid Transparency Data Collection, State Aid Recovery Interest Calculator, State Aid Collaboration Platform Pilot and SARI), COMP eTrustEx and eQuestionnaire are in production. ECN2 is planned to enter in production in September 2016.

Package II) Development and operation of new ABCDE common services.
The common services under Package II will be implemented following PM2 and RUP@EC or Agile@EC methodologies[33]. The initiating and planning phases of the different sub-projects will go hand-in-hand with the implementation of the common ABCDE architecture proposed by CESA project. The executing phases will benefit from the common architecture by re-using common artefacts and technologies. In order to make the

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[33] PM2 is the project management/lifecycle methodology of the European Commission.
   RUP@EC and Agile@EC are software development methodologies of the European Commission.

executing phases more efficient, the initiating and planning phases of new common services could cover not only the definition of the Business Case and the Project Charter, but also the specification of the System Business Requirements and/or the implementation of an architectural Proof of Concept (PoC) if required.

Current status: all sub-projects (eRFI, eLeniency, eConfidentiality) are currently in Initiating phase.

Package III) Establishment of a common ABCDE architecture / framework – Competition Entreprise and System Architecture (CESA) Project.

The implementation of the common ABCDE architecture will take input from architectural analysis of the common services under Package I, and from the architectural analysis carried out during initiating and planning phases of the common services under Package II. Defining a common architecture in an holistic and coordinate approach will avoid the repeated efforts and costs derived from each common service carrying out their own analysis about the appropriate re-usability of components, will provide a common guideline to implement interoperability and provide sustainability for all ABCDE common services. The ABCDE common architecture will also coordinate the maintenance and evolution of the different common building blocks re-used by the common services (User Management, Reference Data, Multilingual, Audit Trail, etc.).

Current status: CESA project is currently in initiating phase.

<u>**Services – Management, coordination, QA, testing, support and hosting**</u>

In order to gain efficiency and save costs, several non-development activities will be centralised as a horizontal service (see S.2) supporting all the ABCDE common services. This service will cover the implementation of quality assurance and quality control independently from the development teams, will provide 2nd level user support to administrations and business and will support all development teams for configuration and deployment management.

Following the same approach, Project Support Office (PSO) activities and Quality Management activities will also be centralised in an horizontal cell (see S.1) in order to give support to the different project managers, enforce coordination and harmonization among all the ABCDE common services, stablish common standards on project management and software development methodologies aligned with PM2, RUP@EC and Agile@EC, draft qualitative reporting for the central governance and ISA[2] bodies, and ensure communication with the ISA[2] Working Group.

Current status: testing and support services are already operational and providing services to all sub-projects in Package I and II. Project Support Office and Quality Management activities are to be setup before the end of the 2016.

7.3.11 COSTS AND MILESTONES

7.3.11.1 Breakdown of anticipated costs and related milestones

Phase: Initiating	Description of milestones reached	Anticipated	Budget line ISA[2]/ others	Start date (QX/YYYY)	End date (QX/YYYY)

Planning Executing Closing/Final evaluation	or to be reached	Allocations (KEUR)	(specify)		
Package I - Operation and improvement of existing ABCDE common services					
GEN-Operation	GENIS (State Aid common services)	3040	ISA^2	Q2/2016	Q4/2020
ECN-Operation	ECN2	1435	ISA^2	Q2/2016	Q4/2020
ETX-Operation	COMP eTrustEx	500	ISA^2	Q2/2016	Q4/2020
EQU-Operation	eQuestionnaire	400	ISA^2	Q2/2016	Q3/2020
Package II – Development and operation of new ABCDE common services					
ERF-Initiating	eRFI	100	ISA^2	Q2/2016	Q42016
ERF-Planning	eRFI	60	ISA^2	Q1/2017	Q2/2017
ERF-Executing	eRFI	740	ISA^2	Q2/2017	Q4/2018
ERF-Closing	eRFI	130	ISA^2	Q1/2019	Q2/2019
ERF-Operation	eRFI	390	ISA^2	Q3/2019	Q4/2020
ELE-Initiating	eLeniency	50	ISA^2	Q3/2016	Q4/2016
ELE-Planning	eLeniency	70	ISA^2	Q4/2016	Q1/2017
ELE-Executing	eLeniency	300	ISA^2	Q1/2017	Q2/2018
ELE-Closing	eLeniency	50	ISA^2	Q3/2018	Q4/2018
ELE-Operation	eLeniency	100	ISA^2	Q1/2019	Q4/2020
ECO-Initiating	eConfidentiality	70	ISA^2	Q3/2016	Q4/2016
ECO-Planning	eConfidentiality	100	ISA^2	Q4/2016	Q1/2017
ECO-Executing	eConfidentiality.	300	ISA^2	Q2/2017	Q3/2018
ECO-Closing	eConfidentiality	100	ISA^2	Q3/2018	Q4/2018
ECO-Operation	eConfidentiality.	200	ISA^2	Q1/2019	Q4/2020
Package III – Establishment of a common ABCDE architecture / framework					
CES-Initiating	CESA	35	ISA^2	Q2/2016	Q3/2016
CES-Planning	CESA	70	ISA^2	Q3/2016	Q4/2016
CES-Executing	CESA	350	ISA^2	Q1/2016	Q2/2018
CES-Closing	CESA	60	ISA^2	Q3/2018	Q4/2018
CES-Operation	CESA	1775	ISA^2	Q2/2016	Q4/2020
DRS-Operation	DRS operation	600	ISA^2	Q2/2016	Q4/2020
Services – Management, coordination, QA, testing, support and hosting for ISA^2 Action ABCDE					
PMO-Operation	Overall project management and support, PMO, ISA^2 reporting, communication	870	ISA^2	Q2/2016	Q4/2020

SUP-Operation	User support, QA, testing pool, etc.	1559	ISA^2	Q2/2016	Q4/2020
HOS-Operation	Hosting DIGIT Data Center	920	ISA^2	Q2/2016	Q4/2020
	TOTAL	14374	ISA^2		

7.3.11.2 Breakdown of ISA^2 funding per budget year

Budget Year	Budget allocation
2016	2335
2017	3019
2018	3320
2019	2920
2020	2780
Grand Total	**14374**

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2016	GEN-Operation	480	
2016	ECN-Operation	255	
2016	ETX-Operation	100	
2016	EQU-Operation	80	
2016	ERF-Initiating	100	
2016	ELE-Initiating	50	
2016	ELE-Planning	70	
2016	ECO-Initiating	70	
2016	ECO-Planning	50	
2016	CES-Initiating	35	
2016	CES-Planning	70	
2016	CES-Executing	80	
2016	CES-Operation	225	
2016	DRS-Operation	120	
2016	PMO-Operation	110	
2016	SUP-Operation	240	
2016	HOS-Operation	200	
2017	GEN-Operation	640	
2017	ECN-Operation	300	

2017	ETX-Operation	100	
2017	EQU-Operation	80	
2017	ERF-Planning	60	
2017	ERF-Executing	340	
2017	ELE-Executing	250	
2017	ECO-Planning	50	
2017	ECO-Executing	200	
2017	CES-Executing	220	
2017	CES-Operation	230	
2017	DRS-Operation	120	
2017	PMO-Operation	100	
2017	SUP-Operation	209	
2017	HOS-Operation	120	
2018	GEN-Operation	640	
2018	ECN-Operation	340	
2018	ETX-Operation	100	
2018	EQU-Operation	80	
2018	ERF-Executing	400	
2018	ELE-Executing	50	
2018	ELE-Closing	50	
2018	ECO-Executing	100	
2018	ECO-Closing	100	
2018	CES-Executing	50	
2018	CES-Closing	60	
2018	CES-Operation	440	
2018	DRS-Operation	120	
2018	PMO-Operation	220	
2018	SUP-Operation	370	
2018	HOS-Operation	200	
2019	GEN-Operation	640	
2019	ECN-Operation	340	
2019	ETX-Operation	100	
2019	EQU-Operation	80	
2019	ERF-Closing	130	
2019	ERF-Operation	130	
2019	ELE-Operation	50	
2019	ECO-Operation	100	
2019	CES-Operation	440	
2019	DRS-Operation	120	
2019	PMO-Operation	220	
2019	SUP-Operation	370	
2019	HOS-Operation	200	

2020	GEN-Operation	640	
2020	ECN-Operation	200	
2020	ETX-Operation	100	
2020	EQU-Operation	80	
2020	ERF-Operation	260	
2020	ELE-Operation	50	
2020	ECO-Operation	100	
2020	CES-Operation	440	
2020	DRS-Operation	120	
2020	PMO-Operation	220	
2020	SUP-Operation	370	
2020	HOS-Operation	200	
	TOTAL	14374	

8. SUPPORTING INSTRUMENTS FOR PUBLIC ADMINISTRATIONS

8.1 EUROPEAN INTEROPERABILITY ARCHITECTURE (EIA) (2016.32)

8.1.1 IDENTIFICATION OF THE ACTION

Type of Activity	Common frameworks
Service in charge	DG DIGIT.B6
Associated Services	DG JRC, DG CONNECT, DG TAXUD, DG SANCO

8.1.2 EXECUTIVE SUMMARY

Coordination between EU and Member States' public administrations is highly important to avoid digital barriers between administrators, businesses and citizens and increase public administration efficiency.

EIRA (European Interoperability Reference Architecture) plays a crucial in the realisation of such coordination as it provides **a reference model** that describes in a common way digital European public services, making it possible for you to search, share and reuse digital solutions.

EIRA provides a **common terminology** that architects, portfolio managers, and business analysts can use when performing the following tasks:
1. **Design interoperable E-government solutions**
2. **Assess solutions in different areas and identify focal points for convergence and reuse**
3. **Document and Share prominent interoperability solutions**
4. **Discover and reuse solutions through the European Interoperability Cartography**

Developed through an open and inclusive change management process, the EIRA applies the principles of Service-Oriented Architecture (SOA) as an architectural style..

After a public consultation, EIRA version 1.0.0 was released in March 2016. Since then, it has been downloaded more than 1100 times. The cartography tool, CarTool v1.0.0, based in EIRA v1.0.0, it is expected to be released in September 2016 along several Solution Architecture Templates. In 2016 there have been pilots in Czch Republic, EFSA and it is expected a pilot in Spain.

In 2017, the focus will be to enrich EIRA with interoperability specifications. It is expected to be released EIRA 2.0.0 by December 2017. Intensive efforts will be deployed promoting adoption of EIRA in the Member States, including the implementation of pilot applications, and the Commission.

8.1.3 OBJECTIVES

The objective of this action is to establish, operate, maintain, improve, apply and promote a European Interoperability Reference Architecture (EIRA) for European Public services.

8.1.4 SCOPE

Any possible digital public service is in scope, as far as it concerns its representation of the EIRA action. This includes also Trans European Systems (TES) developed by the Commission and/or the Member States.

More particularly the following activities fall under the action in question:

- Ensure that a mature version of EIRA is well documented, linked with pertinent ISA[2] and other EU programme solutions (European Interoperability Catalogue, Joinup, Trans-European Systems, European Catalogue of Standards, etc.) and well communicated to its potential users;

- Support the use of EIRA, through pilots and an ad-hoc helpdesk, as an enterprise architecture paradigm for systems such as the TES, solutions developed by other Commission initiatives such as eSENS and CEF and other key digital solutions in the MS public sector;

- Improve the EIRA through planned enrichments (i.e. definition of specific interoperability specifications and methodology of applying them on the described solutions) and through feedback received from its application to tangible solutions;

- Ensure alignment between EIRA and other Reference Architectures applied in administrations throughout EU.

8.1.5 ACTION PRIORITY

8.1.5.1 Contribution to the interoperability landscape

Question	Answer
Does the proposal directly contribute to implementing the European Interoperability Strategy, the European Interoperability Framework, or other EU policies with interoperability requirements, or needed cross-border or cross-sector interoperability initiatives? If yes, please indicate the EU initiative / policy and the nature of contribution.	Yes. Furthermore EIRA, one of the products of EIA is a cornerstone in the implementation of EIF as captured in the ISA[2] text and in the next communication regarding EIF, EIS and EIRA.
Does the proposal fulfil an interoperability need for which no other alternative solution is available?	Yes. There is no other European reference addressing architecture aspects of interoperability

8.1.5.2 Cross-sector

Question	Answer
*Will the proposal, **once completed** be useful, from the interoperability point of view, and utilised in two (2) or more EU policy areas? If yes, which are those?*	Yes. EIRA and the CarTool are policy neutral
*For proposals or their parts **already in operational phase**: have they been utilised in two (2) or more EU policy areas? Which are they?*	Yes. EIRA v1.0.0 was released in March 2016. Since then, it has been used documenting 76 TES systems supporting Agriculture, Competition, Employment, Energy, Environment, Justice, Regio, Research and Move

8.1.5.3 Cross-border

Question	Answer
*Will the proposal, **once completed** be useful, from the interoperability point of view, and used by public administrations of three (3) or more EU Members States?*	Yes.
*For proposals or their parts **already in operational phase**: have they been utilised by public administrations of three (3) or more EU Members States?*	Yes. Denmark, The Netherlands, Estonia, Czeck Republic and (in near future) Spain

8.1.5.4 Urgency

Question	Answer
Is your action urgent? Is its implementation foreseen in an EU policy as priority, or in EU legislation?	Yes. It is captured in the ISA[2] text

Does the ISA² scope and financial capacity better fit for the implementation of the proposal as opposed to other identified and currently available sources?	Yes. Interoperability is in the core of the EIRA

8.1.5.5   Reusability of action outputs

Can the results of the proposal be re-used by a critical part of their target user base, as identified by the proposal maker? For proposals or their parts already in operational phase: have they been re-used by a critical part of their target user base?

Name of reusable solution	EIRA
Description	European Interoperability Architecture
Reference	V2.0.0
Target release date / Status	December 2017
Critical part of target user base	Solution architects, business analysts, IT portfolio managers
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	+1100 downloads since March 2016

Name of reusable solution	CarTool
Description	Carography Tool
Reference	V2.0.0
Target release date / Status	December 2017
Critical part of target user base	Solution architects, business analysts, IT portfolio managers
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	

Name of reusable solution	Solution Architecture Templates for generic needs (e.g. case management)
Description	most salient building blocks of the EIRA and additional building blocks focusing on the needs to build an interoperable solution addressing a particular interoperability challenge.

Reference	
Target release date / Status	December 2017
Critical part of target user base	
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	

8.1.5.6 Level of reuse by the proposal

Question	Answer
Does the proposal intend to make use of any ISA[2], ISA or other relevant interoperability solution(s)? Which ones?	Yes. Synergies and reuse is expected with SEMIC (core vocabularies and interoperability specifications), TesBed, Base Registres, EFIR and Joinup, ABCDE (case mgmt. SAT), CEF (eID SAT, eDelivery) and CEN e-Procurement SAT
For proposals or their parts already in operational phase: has the action reused existing interoperability solutions? If yes, which ones?	SEMIC (core vocabularies and interoperability specifications)

8.1.5.7 Interlinked

The link of the action with Union initiatives to be measured by the collaboration and contribution level of the action to Union initiatives such as the DSM.

Question	Answer
Does the proposal directly contribute to at least one of the Union's high political priorities such as the DSM? If yes, which ones? What is the level of contribution?	Supporting cross-border public services is key for the once-only principle.

8.1.6 PROBLEM STATEMENT

This action addresses the lacking a coherent approach at EU level for elements such as:

- 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

This affects Member States and Commission responsible services (architects, portfolio managers, ICT decision makers, etc.) in their endeavour to put in place interoperable digital services.

The impact of the problem includes the duplication of effort in the development of solutions at EU and national level due to difficulties in identifying reusable elements and interfacing with existing solutions in an interoperable manner. This in turn results in higher cost and longer development time with no guarantee of openness and interoperability.

8.1.7 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

8.1.8 ORGANISATIONAL APPROACH

8.1.8.1 Expected stakeholders and their representatives

Stakeholders	Representatives
Member States	The ISA2 Committee/Coordination/working Groups
European 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 of ICT industry, SMEs, …
Local and regional	Representatives from standardisation organisation for a and consortia

public administrations	

8.1.8.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
ISA^2 Committee/Coordination/work group meetings	Member States representatives	At least yearly.
EIRA web page conferences	DIGIT	As needed
Monitoring & Evaluation updates	DIGIT	Monthly

8.1.8.3 Governance approach

The action will be managed by DIGIT with the support of an external contractor and in close collaboration with the EIRA Specialist Working Group and with the concerned Commission services.

8.1.9 TECHNICAL APPROACH AND CURRENT STATUS

In 2013 the EIRA described a common architectural view based on a service-oriented reference architecture to cover cross-border cross-sectorial interoperability needs at European level. This first beta version of the European Interoperability Reference Architecture (EIRA) was delivered along with the European Union Cartography (EUCart) which was the result of mapping existing Trans-European Solutions (TES) contained in the Commission's systems portfolio onto the EIRA. The mapping exercise was implemented in a proof-of-concept, the Cartography Tool (CarTool).

On the 12th of June 2014, the ISA coordination group endorsed the current versions of the EIRA and CarTool stating that they are mature enough to go to public consultation and to be used in pilots. In 2015 the EIRA action has produced a final beta version of the EIRA and validated it in pilots with some Members States and Commission DGs.

On the 2nd of June 2015 the results were presented to the ISA Coordination Group obtaining endorsement for i) a public consultation and, after implementing potential updates, ii) the release of version 1.0 by December 2015.

On 2016 were conducted pilots with the Members States (i.e. Czech Republic) and agencies (i.e. EFSA). EIRA v1.0.0 was release in March 2016 and presented to the ISA^2 in June. The CarTool v1.0.0 will be released in September 2016.

Next steps include:
- Pilots with the Members States
- Intensive deployment in the Commission

- The creation of Solution Architecture Templates for generic needs like case management and eProcurement
- The definition of precise interoperability specifications to facilitate solutions' mapping to EIRA building blocks and of an overall methodology of applying those specifications on mapped solutions;
- Improvements to the EIRA and definition/follow-up of a change management process for the governance of new releases of EIRA;

8.1.10 COSTS AND MILESTONES

8.1.10.1 Breakdown of anticipated costs and related milestones

Phase: Initiation Planning Execution Closing/Final evaluation	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
	• EIRA pilots in the Member States and the Commission DGs • EIRA pilots on Solution Architecture Templates • Definition of interoperability specifications and of the accompanied methodology of applying them • Enhancements to the EIRA	595	ISA^2	Q2/2016	Q1/2018
	Total	595			

8.1.10.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2016		300	
2017		295	

8.2 INTEROPERABILITY MATURITY MODEL (2016.37)

8.2.1 IDENTIFICATION OF THE ACTION

Service in charge	DIGIT.B6
Associated Services	

8.2.2 EXECUTIVE SUMMARY

The Digital Agenda for Europe has identified the lack of interoperability as a major obstacle for growth. Also, the recently published Digital Single Market strategy promotes interoperability and standards as important enablers for the digital single market. Although EU Member States have accomplished significant work in this domain, it has proven difficult to assess the progress made so far by the different public administrations to reach higher levels of Interoperability (IOP). The Interoperability Maturity Model (IMM) helps verify the IOP-related maturity level of public services, based on the vision laid out in the European Interoperability Strategy (EIS) and European Interoperability Framework (EIF). The developed self-assessment IOP Maturity Tool (and an IOP checklist) measures how well a public service is able to interact with other organizations to realise mutually beneficial and agreed common goals through the exchange of information and reuse of services. The purpose for using IMM can be: a) descriptive, i.e. to describe the as-is interoperability maturity level of a public service, b) prescriptive, i.e. to provide guidance to improve interoperability through recommendations built from the long standing experience of the European Commission and benchmark participants, and c) comparative, i.e. to allow a benchmark based comparison amongst peers. IMM comes in two versions: a) IMM Full which provides deeper insight in the interoperability maturity of a public service by assessing each digitally consumed service on a case by case basis and b) IMM Lite, a more compact and highly user-friendly version of the model, offered as a service via an online tool. Moreover, a methodology for configuring the model to country and/or domain specific context has been drafted which allows IMM users to obtain a more accurate and relevant assessment of their interoperability maturity. The proposed configuration methodology will be piloted further aiming to provide to Public Administrations a more concrete step-wise approach for applying and leveraging IMM in a specific context. IMM is in alignment with and has incorporated interoperability aspects and definitions stemming from other ISA and ISA[2] Actions. Up to now, more than 50 public services, at European and national government levels, have been benchmarked. According to the feedback collected during those 'real-life' applications of the model, the self-assessment nature of the IMM can be further increased via the development of a supporting ecosystem that will facilitate the execution of the model and enhance its prescriptive nature by identifying and developing additional elements/modules. In that context, a training module will be created and promoted which will not only further simplify the real-life application of the model by professionals who are involved in the design and maintenance of public services but it will also contribute to the uniform understanding of concepts and issues related with interoperability maturity, based on the European Interoperability Framework and the model itself. Moreover, IMM will be updated by reusing and adopting the change and release management process published by the ISA[2] Action on semantic interoperability (SEMIC). The main focus of the revision will be the alignment with the revised European Interoperability Framework and other experience/recommendations from various stakeholders. In parallel, the

Action will provide continuous support to benchmark participants and analyse the collected results for identifying common patterns, correlations, pitfalls and best practices in the area of interoperability.

8.2.3 OBJECTIVES

The objective of this action is:

a) To put in place a model that can measure the interoperability maturity level of public services.

b) To maintain and revise the Interoperability Maturity Model (IMM) and the accompanying tools based on a stable change and release management process;

c) To strengthen the self-assessment and prescriptive nature of the model;

d) To develop a configuration methodology for applying IMM in a country and/or domain specific context.

e) To promote and support the application of the IMM at European and/or national level;

f) To draft conclusions for the best practices, bottlenecks, and challenges in achieving high levels of interoperability maturity; and

g) To exploit IMM for identifying common patterns of interoperability-related problems.

8.2.4 SCOPE

Every European public service is in scope of this Action. More precisely, the Action will examine possible updates and extensions of the model to cover additional requirements, coming from different sources such as: a) the performed assessments and the received feedback, b) progress in other ISA[2] Actions (e.g. EIRA, SEMIC, Base registries, Catalogue of services etc.), c) relationship with other similar models developed elsewhere and d) the revised European Interoperability Framework. The revision process of the IMM will be based on the change and release management process published by the ISA[2] Action on semantic interoperability (SEMIC).

To strengthen the self-assessment nature of the model, a training module will be developed and promoted, which will be addressed to professionals coming from Central or Local Administration agencies who are involved in designing and maintaining public services. The training module, together with a new set of supporting tools (online tool, guidance documents, examples, recommendations and configuration opportunities tailored to specific country/domain needs etc.), will facilitate the execution of the model from user's perspective and also it will enhance its prescriptive nature.

The configuration methodology which allows IMM users to obtain a more accurate and relevant assessment of the interoperability maturity of country and/or domain specific public services will be piloted and fine-tuned. The configuration options, opportunities and combinations will be applied in a selected number of Member States and domain in order to provide a tool and an assessment roadmap that reflects the context, enablers, maturity and improvement recommendations for their specific IOP initiatives.

8.2.5 ACTION PRIORITY

8.2.5.1   Contribution to the interoperability landscape

The contribution of the action to the interoperability landscape, measured by the importance and necessity of the action to complete the interoperability landscape across the Union

Question	Answer
Does the proposal directly contribute to implementing the European Interoperability Strategy, the European Interoperability Framework, or other EU policies with interoperability requirements, or needed cross-border or cross-sector interoperability initiatives? If yes, please indicate the EU initiative / policy and the nature of contribution.	The proposal contributes directly to the implementation of the European Interoperability Strategy, European Interoperability Framework, Digital Single Market Strategy and Digital Agenda for Europe. Interoperability Maturity Model is an instrument to assess the progress made so far by different public administrations to reach greater interoperability of their public services. Based on the IMM, public administrations can measure how well a public service is able to interact with other organizations to realise mutually beneficial and agreed common goals through the exchange of information and reuse of services. In addition to its descriptive nature, the Interoperability Maturity Model provides guidance through recommendations to public service owners to improve the interoperability maturity of their services and also can be used as a benchmarking tool that allows a quantitative and qualitative comparison amongst peers.
Does the proposal fulfil an interoperability need for which no other alternative solution is available?	There is no published assessment methodology at European level for measuring the interoperability maturity of a public service. Interoperability Maturity Model is the first instrument that assesses interoperability based on the principles and recommendations derived from the European Interoperability Strategy and European Interoperability Framework.

8.2.5.2   Cross-sector

The scope of the action, measured by its horizontal impact, once completed, across the sectors concerned

Question	Answer
*Will the proposal, **once completed** be useful, from the interoperability point of view, and utilised in two (2) or more EU policy areas? If yes, which are those?*	Interoperability Maturity Model is useful and can be utilised in any EU policy area. Interoperability Maturity Model is a generic and domain-agnostic instrument that allows public services of any type, domain or policy area to obtain insight into generically defined interoperability enablers, manifestations, opportunities for reusing or providing services and key improvement recommendations. Moreover, Interoperability Maturity Model is accompanied with specific configuration guidelines that allow any EU policy area to obtain a more accurate and relevant interoperability assessment of policy-specific public services than with the generic version of the model.
*For proposals or their parts **already in operational phase**: have they been utilised in two (2) or more EU policy areas? Which are they?*	Interoperability Maturity Model has been already utilised for the assessment of more than 50 operational public services at various levels (local, national, European) and from various policy areas such as: • Procurement • Invoicing • Justice • Environment • Employment • Food safety • Taxation • Health • Transport

8.2.5.3   Cross-border

The geographical reach of the action, measured by the number of Member States and of European public administrations involved.

Question	Answer

*Will the proposal, **once completed** be useful, from the interoperability point of view, and used by public administrations of three (3) or more EU Members States?*	Interoperability Maturity Model is useful and can be utilised by public administrations of any EU Member State. Interoperability Maturity Model is a generic and institutional level-agnostic instrument that allows public services at any level (national, regional, provincial, municipal or national) to obtain insight into generically defined interoperability enablers, manifestations, opportunities for reusing or providing services and key improvement recommendations. Moreover, Interoperability Maturity Model is accompanied with specific configuration guidelines that allow its configuration specifically to single country, region, province or municipality.
*For proposals or their parts **already in operational phase**: have they been utilised by public administrations of three (3) or more EU Members States?*	Interoperability Maturity Model has been already utilised for the assessment of more than 50 operational public services at various levels (local, national, European) and from EU Member States such as: • Netherlands • Greece • Spain • Sweden

8.2.5.4   Urgency

The urgency of the action, measured by its potential impact, taking into account the lack of other funding sources

Question	Answer
Is your action urgent? Is its implementation foreseen in an EU policy as priority, or in EU legislation?	European Interoperability Strategy foresees as an accompanying measure the development of a self-assessment tool/model for public administrations to assess their interoperability maturity level. In addition, the revised European Interoperability Framework (Draft version of 6 April 2016 submitted for open public

	consultation) refers to the Interoperability Maturity Model as an instrument that promotes the idea of interoperability-by-design, which means that for European public services to be interoperable, they should be designed in accordance with the proposed model and with certain interoperability and reusability requirements in mind. Moreover, it contributes in putting in place mechanisms for involving the users in the analysis, design, assessment and evolution of European public services (Recommendation no 12).
Does the ISA² scope and financial capacity better fit for the implementation of the proposal as opposed to other identified and currently available sources?	The ISA[2] scope and financial capacity fit for the implementation of the Interoperability Maturity Model since: • It contributes to a common understanding of interoperability through the European interoperability Framework and its implementation in Member States' administrations by providing an assessment methodology/model based on criteria derived from the interoperability layers, principles and recommendations of the European interoperability Framework and European Interoperability Strategy. • It can be utilised as an instrument to monitor at which level the principles and recommendations of the European Interoperability Framework are applied in designing and operating European Public Services. • It is an interoperability solution that supports the implementation of EU policies and activities such as: European Interoperability Strategy, Digital Single Market Strategy and Digital Agenda for Europe. • Facilitates and promotes the re-use of interoperability solutions by European public administrations since the notion of reusability is at the heart of the model. The model assesses if and how a public services, operational or under design,

	automatically consumes other services and how efficiently it provides services to the external world. • It contributes to the development of a more effective, simplified and user-friendly e-administration at the national, regional and local levels of public administration.

8.2.5.5   Reusability of action outputs

The re-usability of the action, measured by the extent to which its results can be re-used

Can the results of the proposal be re-used by a critical part of their target user base, as identified by the proposal maker? For proposals or their parts already in operational phase: have they been re-used by a critical part of their target user base?

Name of reusable solution	Interoperability Maturity Model (Full version) – Questionnaire & Recommendations
Description	Interoperability Maturity Model (Full version) can be used for assessing and improving the interoperability maturity of a Public Service. It provides deeper insight by assessing each digitally consumed service on a case by case basis.
Reference	https://joinup.ec.europa.eu/elibrary/document/interoperability-maturity-model
Target release date / Status	2013 (first release) with annual revisions / next revision 2017
Critical part of target user base	Professionals who have participated or are involved in the design and development of e-services, or support institutionally, operationally and/or technically, e-services provided by public bodies to citizens, businesses or other public bodies.
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	Interoperability Maturity Model (Full version) has been used for assessing approx. 40 public services (European, national and local ones).

Name of reusable solution	Interoperability Maturity Model (Lite version) – Questionnaire & Recommendations
Description	Interoperability Maturity Model (Lite version) can be used for assessing and improving the interoperability maturity of a Public Service. It is a compact and highly user-friendly version of the model.

Reference	https://ec.europa.eu/eusurvey/runner/IMMSurvey
Target release date / Status	2016 (first release) / next revision 2017
Critical part of target user base	Professionals who have participated or are involved in the design and development of e-services, or support institutionally, operationally and/or technically, e-services provided by public bodies to citizens, businesses or other public bodies.
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	Interoperability Maturity Model (Lite version) has been used for assessing approx. 10 public services (European, national and local ones).

Name of reusable solution	Interoperability Maturity Model Checklist
Description	The purpose of Interoperability Maturity Model Checklist is to raise awareness as to how to design the Public Service in an interoperable way.
Reference	https://ec.europa.eu/eusurvey/runner/IMMSurvey
Target release date / Status	2016 (first release) / next revision 2017
Critical part of target user base	IMM Checklist is intended for those involved in designing a Public Service.
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	Interoperability Maturity Model Checklist has been used for assessing approx. 5 European public services.
Name of reusable solution	Interoperability Maturity Model – Training module
Description	Definition of a training course and training material that aims to contribute to: • The uniform understanding of concepts and issues related with the interoperability maturity of eGovernment services. • The methodological evaluation of interoperability of eGovernment services based on the Interoperability Maturity Model and European Interoperability Framework. • Highlight the areas of improvement for interoperability in the eGovernment services. • Improve the assessment methodology and the corresponding model for evaluating the interoperability maturity of eGovernment services.
Reference	

Target release date / Status	2017
Critical part of target user base	It is addressed at Central Administration or Local Administration agencies supplying electronic public services to citizens, businesses and other public bodies, reusing information and data available to other public or private entities. Specifically, it aims at professionals who have participated or are involved in the design and development of e-services, or support institutionally, operationally and/or technically, e-services provided by public bodies to citizens, businesses or other public bodies. Managers/heads of units having the responsibility of operating and upgrading provided e-services at institutional, operational and/or technical level could also benefit and achieve improved quality of service while reducing related costs through the identification of actions that promote interoperability.
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	

8.2.5.6 Level of reuse by the proposal

The re-use by the action of existing common frameworks and elements of interoperability solutions.

Question	Answer
Does the proposal intend to make use of any ISA[2], ISA or other relevant interoperability solution(s)? Which ones?	Interoperability Maturity Model constantly analyse interrelations with existing ISA & ISA[2] Actions and other relevant solutions in order to incorporate and align with interoperability-related criteria, principles, outcomes and definitions derived and promoted by them.
For proposals or their parts already in operational phase: has the action reused existing interoperability solutions? If yes, which ones?	All IMM definitions and interoperability attributes were refined based on their interrelations with other ISA and ISA[2] Actions – including among others: 'Promoting semantic interoperability amongst European Public Administrations', 'Access to Base Registries', 'Catalogue of Services', 'European Interoperability Architecture', 'Common

	Assessment Method for Standards and Specifications', 'Assessment of Trans-European Systems supporting EU policies', 'National Interoperability Framework Observatory', 'Sharing and Reuse' 'Assessment of ICT implications of EU legislation'.

8.2.5.7   Interlinked

The link of the action with Union initiatives to be measured by the collaboration and contribution level of the action to Union initiatives such as the DSM.

Question	Answer
Does the proposal directly contribute to at least one of the Union's high political priorities such as the DSM? If yes, which ones? What is the level of contribution?	The model contributes to the eProcurement implementing acts as an assessment method of every step in the eprocurement chain. Interoperability Maturity Model contributes directly to the Digital Single Market Strategy since interoperability and standardisation are among its highest priorities. It can help EU Public Administrations to assess the progress made so far and support them in reaching higher levels of Interoperability.

8.2.6   PROBLEM STATEMENT

The Digital Single Market strategy sees interoperability as a basic enabler for the single market. Although Member States have significantly worked in this domain, it is difficult to assess the progress made so far by each public administration.

An interoperability maturity model helps towards 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.

8.2.7 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. Use the model as a guide to develop interoperable services by design.
European Commission Services and MSs administrations	Assess the interoperability maturity of existing or new Trans European Systems owned by the EC and systems that are being used inside the EC in order to cover any internal business or operational needs. Use the model as a guide to develop interoperable services by design.
Member States' Vocational Training Services	Use the IMM-based training module and material to build capacity around interoperability and how Central or Local Administration agencies supplying electronic public services to citizens, businesses and other public bodies can develop and maintain interoperable Public Services.

8.2.8 EXPECTED MAJOR OUTPUTS

Output name	Updated Interoperability Maturity Model (Full and Lite version)
Description	Alignment of the model with the revised European Interoperability Strategy and European Interoperability Framework and the design and implementation of new modules in order to incorporate new interoperability aspects.
Reference	https://joinup.ec.europa.eu/elibrary/document/interoperability-maturity-model
Target release date / Status	2017

Output name	IMM as a service
Description	The development of the tool will continue during the ISA[2] Work Programme 2017, allowing a more wide and intense dissemination of the IMM and more systematic processing of the results. The web-tool will be accompanied by an ecosystem of several supporting tools (e.g. electronic user guide, wiki, communication of how other public service owners have used IMM and their experiences etc.) which will further simplify the execution of the model from user's perspective.
Reference	https://joinup.ec.europa.eu/elibrary/document/interoperability-maturity-model

Target release date / Status	2017

Output name	Updated IMM Checklist
Description	Intended for those involved in designing a Public Service, the purpose of the IMM Checklist is to raise awareness on how to design a public service in an interoperable way. The IMM Checklist will be updated according to the update of the Interoperability Maturity Model.
Reference	https://joinup.ec.europa.eu/elibrary/document/interoperability-maturity-model
Target release date / Status	2017

Output name	IMM Training Module
Description	Definition of a training course and training material that aims to contribute to: • The uniform understanding of concepts and issues related with the interoperability maturity of eGovernment services. • The methodological evaluation of interoperability of eGovernment services based on the Interoperability Maturity Model and European Interoperability Framework. • Highlight the areas of improvement for interoperability in the eGovernment services. • Improve the assessment methodology and the corresponding model for evaluating the interoperability maturity of eGovernment services.
Reference	
Target release date / Status	2017

8.2.9 ORGANISATIONAL APPROACH

8.2.9.1 Expected stakeholders and their representatives

Stakeholders	Representatives
Member States	ISA[2] Coordination Group or ISA CG equivalent
Member States' public administrations	Providers of public services, who used or are willing to use IMM in order to assess the interoperability maturity of their services
European	Providers of existing or new Trans-European services that are being used

Commission Services and MSs administrations	inside the Commission., who used or are willing to use IMM in order to assess the interoperability maturity of their services
Member States' Vocational Training Services	Configure, use and promote the IMM training module and material.

8.2.9.2   Identified user groups

User group	Description	Usage
Service Owners	Responsible for setting up and maintaining a public service	Usage the IMM as a tool to further improve the interoperability and quality aspects of public services delivered to administrations, businesses and citizens. For setting up a new public service, Service Owners can use the IMM Checklist to ensure they address the required interoperability aspects.
Architects	Responsible for ensuring the created (IT) solution fits foreseen architecture and requirements of the organization	Usage of the IMM to: a) further align technical / semantical standards with the internal and external environment of the organization and b) analyse the suitability of multiple technical solutions and/or business scenario's, including the value of reuse.
Project Managers	Responsible for a delivering a cost effective public service with the help of a program / project	Usage of the IMM to evaluate the costs and benefits of reusing existing services instead of developing new ones.
Business Analysts	Responsible for gathering and managing the requirements of a public service	Usage of the IMM and IMM Checklist to help in identifying requirements in the area of interoperability.
Academia	Responsible for the further development of knowledge and theories in the domain of Interoperability	Usage of the entire IMM toolkit to test hypothesis and further improve and expand knowledge in the area of Interoperability
Policy Makers	Responsible for setting and maintaining	Usage of the IMM and described

	policies within the public domain	concepts in the IMM Guidelines to create new policies in the public domain to promote interoperability and general improvement of public services.

8.2.9.3   Communication plan

The IMM structure together with the conclusions from real-life assessments have been presented to Member State representatives during various meetings of the ISA and ISA[2] Coordination Group.

The main communication channel is the Joinup collaborative platform where all supporting IMM documentation has been uploaded, including the IMM questionnaire, the IMM guidelines and the IMM recommendations for both versions of the model (Full and Lite). A Wikipedia page was created with similar content and many relevant news items have been published on the ISA[2] website as well.

Due to the significant role that Member States' Training Centers could have in promoting and implementing training courses and material based on the IMM training module, the model will be presented in National Vocational Training Agencies aiming to use them as a channel to raise awareness about IMM. Also, using the network of National Vocational Training Agencies, we will facilitate our effort to reach all different types of professionals at Central or Local Administrations who are involved in the design and maintenance of public services (incl. service architects, developers, owners, sponsors, users etc.).

In the context of the overall ISA[2] communication activities, IMM is and will be presented in several events and conferences. The development of the web-based assessment tool and the analysis of the collected results are factors which allow putting emphasis on promotional activities. These activities can include organization of workshops and/or promotion of the IMM to European or national public service owners.

8.2.9.4   Governance approach

The organisational approach includes:
a) The ISA[2] Coordination Group which sets the general strategic directions of the Action and ensures that all initiatives are coordinated and aligned with relevant actions at European and /or national level; and
b) The ISA[2] Programme Management Team (DG DIGIT B6) that identifies the priorities, organises the activities, safeguards the proper execution of the IMM development and communication plan and reports the progress and the results of the Action to the ISA[2] Coordination Group.

8.2.10 TECHNICAL APPROACH AND CURRENT STATUS

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).

Under the ISA programme, a study has been conducted in the field of interoperability maturity models from national and international perspectives, focusing specially in those models that have been successfully applied in practice. While analysing a number of use cases and benchmarks, this action has validated the ease of use, relevance and completeness of a proposed maturity model.

This has led to the first version of the IMM that measures how well a public service is able to interact with other services to realise mutually beneficial and agreed common goals through the exchange of information and reuse of services. The proposed model, as a self-assessment method, has been made available after several refinements through a toolkit that is structured around: a) the IMM report explaining the methodology, how IMM was developed and how it can be used, b) the guidelines designed to help people filling in the questionnaire and c) an interoperability questionnaire.

A number of European Public Services, covering different domains and provided by different Trans European Systems, together with a significant number of national public services, were assessed during the last two years using the IMM model and based on the results gathered from these evaluations important recurring interoperability challenges and best practises in the provisioning of European public services were identified and the proposed model was fine-tuned.

IMM is being refined in an annual basis in order to align with results from other ISA and ISA^2 Actions and recommendations provided by users who have used the model to assess real-life public services. Currently, there are two IMM versions: a) IMM Full which provides deeper insight in the interoperability maturity of a public service by assessing each digitally consumed service on a case by case basis and b) IMM Lite, a more compact and highly user-friendly version of the model, offered as a service via an online tool. In addition, an interoperability checklist was published intended for those involved in designing a public service in order to raise awareness on how to design it by default in an interoperable way. A methodology for configuring the model to country and/or domain specific context is also available, allowing IMM users to obtain a more accurate and relevant assessment of their interoperability maturity.

Aiming to strengthen the self-assessment nature of the IMM, the development of a web-tool was initiated in order to a) facilitate the public service owners to apply the model and b) support the statistical analysis of the collected data.

The foreseen activities for the ISA^2 Work Programme 2017 include the update of the model based on the revised European Interoperability Framework and other experience/recommendations from various stakeholders. The revision process of the IMM will be based on the change and release management process published by the ISA^2 Action on semantic interoperability (SEMIC). The proposed configuration methodology will be piloted further, aiming to provide to Public Administrations a more concrete step-wise approach for applying and leveraging IMM in a specific context. That will allow the identification of new possible ways for the exploitation of the collected assessment data and the identification of common patterns regarding interoperability-related problems. Directions for developing new IMM modules will be further investigated in order to extend the usefulness of the model in the European interoperability landscape. The development of the web-tool will continue and it is expected to pave the way for a more wide and intense dissemination of the IMM, allowing at the same time a more systematic processing of the results. The web-tool will be accompanied

by an ecosystem of several supporting tools (e.g. guidance documents, examples, recommendations and configuration opportunities tailored to specific country/domain needs etc.) which will further simplify the execution of the model from user's perspective.

8.2.11 COSTS AND MILESTONES

8.2.11.1 Breakdown of anticipated costs and related milestones

Phase: Initiation Planning Execution Closing/Final evaluation	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 4	a) Development of an ecosystem for supporting the self-assessment nature of the model, b) alignment with the revised EIS and EIF, c) usage of the model in order to identify common patterns of interoperability-related problems and challenges among public services and, d) implementation of new IMM modules and/or configurations based on needs identified in all previous phases.	200	ISA[2]	Q2/2016	Q1/2017
Phase 5	a) Revision of the model based on the revised Europe Interoperability Framework and the performed assessments and the collected feedback, b) configuration of the	98	ISA[2]	Q2/2016	Q1/2017

	published change & release management process, c) pilot and fine-tune the IMM configuration methodology in country and/or domain specific context, d) development and promotion of an EIF and IMM based training module and e) enhancement of the prescriptive nature of the model by producing guidance documents, examples, recommendations and configuration opportunities tailored to specific country/domain needs.				
	Total	298			

8.2.11.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2016		200	200
2017		98	
2018			
2019			
2020			

8.2.12 ANNEX AND REFERENCES

Description	Reference link	Attached document

| IMM documentation | https://joinup.ec.europa.eu/elibrary/document/interoperability-maturity-model | |

8.3 NATIONAL INTEROPERABILITY FRAMEWORK OBSERVATORY (2016.21)

8.3.1 IDENTIFICATION OF THE ACTION

Type of Activity	Common Framework
Service in charge	DIGIT.B6
Associated Services	CNECT

8.3.2 EXECUTIVE SUMMARY

Following the adoption of the EIF (European Interoperability Framework) in 2010, the Commission through the previous programme ISA has been supporting interoperability actions that contribute to the implementation of EIF recommendations and monitoring the State of Play of interoperability in the Member States through the establishment of mechanisms such as the National Interoperability Framework Observatory (NIFO).

Under the ISA programme, NIFO achieved a regular monitoring of interoperability activities and of eGovernment state of play in Member States and associated countries.

In May 2015, the Digital Single Market (DSM) Strategy was launched and calls for boosting the competitiveness through interoperability and standards. The DSM requires the Commission to revise and extend the EIF and also the EIS (European Interoperability Strategy) by 2016. The NIFO will be kept as the monitoring mechanism.

Under the ISA² programme, NIFO will pursue and reinforce its support and monitoring by measuring the implementation in the Member States of the revised EIF recommendations and the achievement of the roadmap of actions proposed in the revised EIS at national level. Therefore a new mechanism of data collection, analysis and delivery of information with the highest possible quality of data will be established in 2017. NIFO will also continue to provide an overview of the eGovernment activities in European countries.

Also, the observatory needs to be strengthened in its role of a respected and authoritative source of information **on the state of play of interoperability and digital public services in Europe.** This way, the observatory can be linked with initiatives contributing to the public sector modernisation like (not exhaustive) the DSM, the MS's national digital strategies, the European semester, the eGovernment action plan 2016-2020, etc.

To this aim, a comprehensive blueprint will be established in 2017 to describe the activities in order to design and implement the consolidated observatory on Joinup. The IMM will be used as an interoperability maturity model of digital public sectors complementing the IOP model.

8.3.3 OBJECTIVES

- Provide a consolidated observatory designed in a user-friendly way that will:

  o Gather all interoperability results contributing to the modernisation of European public administrations and to priority of the DSM and other initiatives such as the eGovernment action plan, the European semester, etc.

  o Serve the purpose of having a better understanding of the situation in each national public administration in terms of public sector modernisation; by giving insight into European countries' approach to interoperability and by maintaining a comprehensive snapshot of the eGovernment activities in the countries in scope.

  o Provide a useful input to the European Semester exercise in particular in what concerns the Administrative capacity building and the coherence of Member states programmes in this area with national strategies and European initiatives.

  o Act as the monitoring mechanism of the revised EIF and EIS implementation.

The results of the observatory are intended to be consulted and reused mainly by the European public administrations and the European Institutions.

The observatory will continue to enable sharing best practices on interoperability in Europe and communicate them.

8.3.4 SCOPE

EU Institutions and all EU public administrations, EFTA countries and Candidate Countries with whom a Memorandum of Understanding or Agreement regarding their participation in the ISA[2] programme has entered into force, are in scope of the action.

8.3.5 ACTION PRIORITY

NIFO action strongly contributes to the interoperability landscape as the European Interoperability Framework (EIF) is at the hearth of its activities. The EIF contributes towards a coherent European interoperable environment, and acts a facilitator of the delivery of digital services that work together, within and across organisations/domains.

8.3.5.1 Contribution to the interoperability landscape

The contribution of the action to the interoperability landscape, measured by the importance and necessity of the action to complete the interoperability landscape across the Union

Question	Answer
Does the proposal directly contribute to implementing the European Interoperability Strategy, the European Interoperability Framework, or other EU policies with interoperability requirements, or needed cross-border or cross-sector interoperability initiatives? If yes, please indicate the EU initiative / policy and the nature of contribution.	Yes. The observatory will monitor the implementation of the EIF recommendations by Member States and the achievement of the roadmap of actions proposed in the EIS. The NIFO action contributes to all EU policies related to modernisation of public administration, as NIFO contributes to the fact that interoperability aspects are taken into account in the EU legislation.
Does the proposal fulfil an interoperability need for which no other alternative solution is available?	Yes, EIF and EIS foster interoperability. Monitoring their implementation is essential and contributes to the DSM. NIFO is the instrument used for this monitoring.

8.3.5.2   Cross-sector

The scope of the action, measured by its horizontal impact, once completed, across the sectors concerned

Question	Answer
*Will the proposal, **once completed** be useful, from the interoperability point of view, and utilised in two (2) or more EU policy areas? If yes, which are those?*	Yes
*For proposals or their parts **already in operational phase**: have they been utilised in two (2) or more EU policy areas? Which are they?*	Yes

8.3.5.3   Cross-border

The geographical reach of the action, measured by the number of Member States and of European public administrations involved.

Question	Answer
*Will the proposal, **once completed** be useful, from the interoperability point of view, and used by public administrations of three (3) or more EU Members States?*	Yes, by offering a comprehensive picture of the interoperability activities in the countries in scope. By assisting its stakeholders through the collection, analysis and dissemination of european-comparable interoperability indicators that inform policies and monitor their outcomes. All stakeholders in scope are expected to make usage of NIFO results
*For proposals or their parts **already in operational phase**: have they been utilised by public administrations of three (3) or more EU Members States?*	Yes, the outputs of NIFO have already been reused by various Member States. The eGovernment factsheets are considered as a reference. The state of play reports on interoperability in Europe and the NIFO factsheets served as a source of input in the revision of the EIF and EIS.

8.3.5.4   Urgency

The urgency of the action, measured by its potential impact, taking into account the lack of other funding sources

Question	Answer
Is your action urgent? Is its implementation foreseen in an EU policy as priority, or in EU legislation?	It aims to continue the efforts undertaken in the context of ISA² action 2016.21 in 2016. It should cover the needs of monitoring the revised EIF and EIS. This action cannot be discontinued.
Does the ISA² scope and financial capacity better fit for the implementation of the proposal as opposed to other identified and currently available sources?	Yes as there is no other instrument or funding mechanism that could support the observatory.

8.3.5.5   Reusability of action outputs

The re-usability of the action, measured by the extent to which its results can be re-used

Can the results of the proposal be re-used by a critical part of their target user base, as identified by the proposal maker? For proposals or their parts already in operational phase: have they been re-used by a critical part of their target user base?

Name of reusable solution	NIFO factsheets
Description	Factsheets presenting the degree of alignment/implementation/monitoring of NIFs or similar instruments/initiatives/approaches in the MS with the EIF
Reference	https://joinup.ec.europa.eu/community/nifo/og_page/nifo-factsheets
Target release date / Status	Available / Yearly update
Critical part of target user base	PAs
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	

Name of reusable solution	EGovernment factsheets
Description	Factsheets presenting the situation in the MS in relation to eGovernment
Reference	https://joinup.ec.europa.eu/community/nifo/og_page/egovernment-factsheets
Target release date / Status	Available / Yearly update
Critical part of target user base	PAs
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	

Name of reusable solution	State of play of interoperability in Europe
Description	A yearly report that presents the state of play in the area of interoperability at EU, along with main trends, main challenges and best practices.
Reference	http://ec.europa.eu/isa/documents/publications/2014-report-

	on-state-of-play-of-interoperability.pdf (2014 report)
Target release date / Status	Periodical update
Critical part of target user base	PAs
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	

8.3.5.6 Level of reuse by the proposal

The re-use by the action of existing common frameworks and elements of interoperability solutions.

Question	Answer
Does the proposal intend to make use of any ISA[2], ISA or other relevant interoperability solution(s)? Which ones?	NIFO is a monitoring tool of interoperability. In that sense, it will monitor the results of all of them. IMM will be used as a an interoperability maturity model of digital public sectors
For proposals or their parts already in operational phase: has the action reused existing interoperability solutions? If yes, which ones?	The Joinup platform is used to host the community and NIFO outputs. CIRCABc is used to host the NIFO deliverables and as document exchange platform.EU survey is used for measuring the satisfaction of users

8.3.5.7 Interlinked

The link of the action with Union initiatives to be measured by the collaboration and contribution level of the action to Union initiatives such as the DSM.

Question	Answer
Does the proposal directly contribute to at least one of the Union's high political priorities such as the	The DSM roadmap makes a clear reference to the European Interoperability Framework

DSM? If yes, which ones? What is the level of contribution?	(EIF). Following revision of the EIF and EIS, the NIFO will remain the action to monitor their implementation in the MS and contribute to priority of DSM. NIFO results also contribute to other initiatives such as the eGovernment action plan, the European semester, etc.

8.3.6 PROBLEM STATEMENT

The consolidated observatory comes in response to the need of establishing NIFO as a unique entry point to interoperability results.

Once the revised method is in place, NIFO will monitor the implementation of the *revised* European Interoperability Strategy (EIS) and of the *revised* European Interoperability Framework (EIF).

8.3.7 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
EU public administrations	The NIFO action will foster interoperability by monitoring the implementation of the EIF and EIS, by offering a view on the interoperability results, and by providing a "virtual" place to share best practices and experiences.
National Experts and Policy Officers	NIFO will act as an input to decision-making processes for national developments and MS policy officers.
EU Commission	Policy-makers that require information about the current state of modernisation of the public administration in order to develop European-wide policies.
ICT Industry	Organisations that are involved in the realization of e-Government solutions like service integrators and software vendors.

8.3.8 EXPECTED MAJOR OUTPUTS

Output name	Blueprint of the interoperability observatory

Description	comprehensive blueprint describing the activities in order to design and implement a consolidated observatory on Joinup
Reference	
Target release date / Status	Q2 2017

Output name	Design of the consolidated observatory on Joinup
Description	
Reference	
Target release date / Status	Q3 2017

8.3.9 ORGANISATIONAL APPROACH

8.3.9.1 Expected stakeholders and their representatives

Stakeholders	Representatives
Member States	- National experts and national policy officers - ISA[2] Committee - ISA[2] Coordination Group
European Commission	DG officials and ISA[2] action owners
EU Publications Office	The unit responsible for the EU Open Data portal
Non-European public administrations	National representatives
ICT Industry	Industry associations

8.3.9.2 Identified user groups

Public Administrations in Member States, associated countries and non-european countries;

European Commission;

EU Publication Office;

Citizens and businesses;
Academia

8.3.9.3   Communication plan

Promote and share the results on NIFO community on Joinup. The communication strategy involves publishing of material, news, cases and promotional activities.

8.3.9.4   Governance approach

The action will be managed by DIGIT with the support of an external contractor.

8.3.10 TECHNICAL APPROACH AND CURRENT STATUS

8.3.11 TECHNICAL APPROACH

The NIFO is presented in different sections of Joinup. The observatory has a continuous maintenance process which makes sure that information is timely and accurate.
Desk research is done prior to data collection from the Member States experts. The input is then processed and sent back to the respective country for validation before it is published. In the context of NIFO, the different outputs are prepared in collaboration with external consultancy companies.

In 2017, after the revised instruments (EIF and EIS) are in place, NIFO will monitor their implementation in the Member States during the lifetime of the ISA² programme. At the time of this writing, the new method of collecting data is in definition as well as the the design of the future observatory.
A prerequisite for the success of this action is the direct involvement of the EU public administrations and therefore the participation of the latter is done via the online community on Joinup.eu

Concerning the future observatory, a preliminary assessment will take place (identification of existing observatories, sources of information, official statistics available, and consultation with other DGs) that will permit to identify the needs and gaps as regards data sources and to elaborate a list of indicators to be monitored through the new observatory. The possibility of creating an index will be examined. These assessments will fed the elaboration of the blueprint of the observatory.

8.3.12 COSTS AND MILESTONES

8.3.12.1 Breakdown of anticipated costs and related milestones

Phase: Initiation Planning Execution Closing/Final evaluation	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
	Operational maintenance of the NIFO process including the update of the eGovernment and interoperability factsheets and the analysis for the state of play report	393	ISA	Q2/2016	Q1/2019
	Implement/update/maintain the method needed to provide an accurate monitoring of the revised EIF/EIS actions implementation and continue the operational monitoring of the factsheets on interoperabilitly and eGovernment	600	ISA[2]	Q1/2017	Q1/2019
	Formulate the blueprint of the consolidated observatory and the technical specifications for the consolidated observatory on Joinup Platform	120	ISA²	Q2/2017	Q1/2018
	Total	1113			

8.3.12.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2016		450	
2017		443	

2018		220	

8.4 CAMSS - COMMON ASSESSMENT METHOD FOR STANDARDS AND SPECIFICATIONS (2016.27) – *ACTION CONCLUDED, RESULTS MAINTAINED IN ACTION 2016.20*

8.4.1 IDENTIFICATION OF THE ACTION

Service in charge	DIGIT B6
Associated Services	DG CONNECT, DG GROW

8.4.2 EXECUTIVE SUMMARY

Standardisation is key to achieve interoperability and to avoid vendor lock-in when developing digital public services. Several Member States have published lists of recommended or mandatory standards. The Common Assessment Method for Standards and Specifications (CAMSS) was developed under the IDABC and ISA programmes, in order to ensure that public administrations can assess and select in a transparent and trusted manner the most relevant interoperability standards for their needs. It is based on the methods used in Member States, provides neutrality and transparency for the assessment process and enables the reuse of assessments.

The main objectives of the CAMSS action are:

- 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.

In 2016, ISA^2 funding is foreseen for the maintenance and extension of the existing tools and the standards list. For the tools, this includes greater flexibility (user-defined scenarios) and improvements in the user interface (including search functionalities). For the standards list, it concerns both the update of the content and the functionalities; where the latter regards primarily the alignment with other Joinup catalogues (EIC catalogue, European Catalogue of Standards).

8.4.3 OBJECTIVES

The specific purpose of the CAMSS Action under the ISA^2 work programme is:

- To maintain and extend the method itself, the library of existing assessments, the tools and the list of standards selected in Member States;

- To implement a lightweight but consistent and transparent governance process and to continuously update the method;
- To closely cooperate with and support other standardisation-related commission activities such as the Multi-Stakeholder Platform on European Standardisation and the foreseen European Catalogue of ICT-Standards as well as other relevant organisations, e.g. standardisation bodies;
- To create an active user community around the assessment and adoption as well as the development and maintenance of standards and/or liaise with existing standardisation fora, to raise awareness of the different methods used in Member States, aligning them where possible, and building upon existing knowledge about best practices.

8.4.4 SCOPE

The CAMSS action does not itself select or recommend standards; it is meant to support public administrations in Member States that make such selections. Member States are free to use the method as-is or to build their own methods based on it; and they are encouraged to contribute requests to the development of CAMSS in order to make it suitable to their needs.

Primarily, the CAMSS action will secure the sustainability of the assessment method and the related components. Beyond the assessment and selection of existing standards, methods for the development and maintenance of standards are also within the scope of the CAMSS action.

8.4.5 ACTION PRIORITY

8.4.5.1 Contribution to the interoperability landscape

The contribution of the action to the interoperability landscape, measured by the importance and necessity of the action to complete the interoperability landscape across the Union

Question	Answer
Does the proposal directly contribute to implementing the European Interoperability Strategy, the European Interoperability Framework, or other EU policies with interoperability requirements, or needed cross-border or cross-sector interoperability initiatives? If yes, please indicate the EU initiative / policy and the nature of contribution.	The revised EIF (draft version) recommends to "Use a structured, transparent, objective and common approach in assessing and selecting standards and specifications" and mentions explicitly CAMSS as an example.
Does the proposal fulfil an interoperability need for which no other alternative solution is available?	CAMSS is based on the methods and best practices used in several Member States.

8.4.5.2   Cross-sector

The scope of the action, measured by its horizontal impact, once completed, across the sectors concerned

Question	Answer
*Will the proposal, **once completed** be useful, from the interoperability point of view, and utilised in two (2) or more EU policy areas? If yes, which are those?*	
*For proposals or their parts **already in operational phase**: have they been utilised in two (2) or more EU policy areas? Which are they?*	Published CAMSS assessments are mostly sector-neutral (https://joinup.ec.europa.eu/community/camss/og_page/camss-assessments). There are some known assessments in the e-Health sector (to be published).

8.4.5.3   Cross-border

The geographical reach of the action, measured by the number of Member States and of European public administrations involved.

Question	Answer
*Will the proposal, **once completed** be useful, from the interoperability point of view, and used by public administrations of three (3) or more EU Members States?*	
*For proposals or their parts **already in operational phase**: have they been utilised by public administrations of three (3) or more EU Members States?*	Known uses of CAMSS in the Netherlands, in UK and Denmark

8.4.5.4   Urgency

The urgency of the action, measured by its potential impact, taking into account the lack of other funding sources

Question	Answer
Is your action urgent? Is its implementation foreseen in an EU policy as priority, or in EU legislation?	Not directly, but several instruments mention the selection of standards (EIF, Regulation 1025/2012 on standardisation, Rolling Plan on ICT Standardisation, Communication: ICT Standardisation Priorities for the Digital Single Market)
Does the ISA² scope and financial capacity better fit for the implementation of the proposal as opposed to other identified and currently available sources?	No alternative currently available sources known.

8.4.5.5 Reusability of action outputs

The re-usability of the action, measured by the extent to which its results can be re-used

Can the results of the proposal be re-used by a critical part of their target user base, as identified by the proposal maker? For proposals or their parts already in operational phase: have they been re-used by a critical part of their target user base?

Name of reusable solution	CAMSS method and tools
Description	The core of CAMSS a set of selection criteria which is instantiated as a set of offline tools (spreadsheet version) and online tools (web based, on Joinup). These tools have been developed in previous phases of the action but continue to be maintained and extended in a controlled change management process. Additional tools planned (e.g.) creation of formatted assessment reports
Reference	https://joinup.ec.europa.eu/community/camss/og_page/camss-tools
Target release date / Status	available on Joinup
Critical part of target user base	Majority of MS administrations selecting standards and specifications
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	Small number of known users (published assessments exist form UK, NL, unpublished in DK, partial reuse and extension in e-SENS, MSP submission form aligned).

Name of reusable solution	CAMSS library
Description	The CAMSS library of existing assessments is available on Joinup and will be extended in 2016 and 2017. Each assessment is reusable partially or as a whole.
Reference	https://joinup.ec.europa.eu/community/camss/og_page/camss-assessments
Target release date / Status	available on Joinup
Critical part of target user base	Majority of MS administrations selecting standards and specifications
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	Actual reuse of existing assessments is difficult to measure, assessments are sometimes not shared since results are deemed controversial.

8.4.5.6   Level of reuse by the proposal

The re-use by the action of existing common frameworks and elements of interoperability solutions.

Question	Answer
Does the proposal intend to make use of any ISA[2], ISA or other relevant interoperability solution(s)? Which ones?	
For proposals or their parts already in operational phase: has the action reused existing interoperability solutions? If yes, which ones?	Online CAMSS tools implemented on Joinup; spreadsheet tools, list of standards and CAMSS library also available on Joinup.

8.4.5.7   Interlinked

The link of the action with Union initiatives to be measured by the collaboration and contribution level of the action to Union initiatives such as the DSM.

Question	Answer
Does the proposal directly contribute to at least one of the Union's high political priorities such as the	This action is a supporting instrument – its contribution is therefore indirect.

DSM? If yes, which ones? What is the level of contribution?	

8.4.6 PROBLEM 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 can be made easier.

CAMSS provides guidance on the assessment of ICT standards and specifications and ensures transparency and openness of the process.

8.4.7 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States' Public Administrations, Standardisation Bodies and ICT Services Industry	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. Using CAMSS offers the following main benefits: • A clear guideline that allows the assessments of formalised specifications to be made consistently and in high quality by applying neutral, unbiased and transparent criteria. • Helps Member States to make interoperability agreements based on formal specifications, by providing a common assessment method for these needs. • Helps Member States to assess formalised specifications in public procurement. • Re-use of assessments, in whole or in part. Avoids duplication of effort, for the already finalised assessments of formalised specifications can be shared via the library to be available on Joinup. • The assessed formalised specifications will contribute to the interoperability of systems implementing these specifications. • The possibility of more efficient use of public funds, because of easier and faster assessments and a CAMSS library to reuse formalised specifications meant for similar business needs. • Improvement of the expertise of civil servants working with formalised specifications. • Offers a complimentary tool to support the European Interoperability Framework (EIF) and the European Interoperability Reference Architecture (EIRA) in the evaluation of European or national interoperability standards and specifications.

8.4.8 EXPECTED MAJOR OUTPUTS

Output name	List of Standards
Description	Catalogue of standards that are recommended or mandatory in Member States (on Joinup)
Reference	https://joinup.ec.europa.eu/community/camss/og_page/list-standards
Target release date / Status	available on Joinup

8.4.9 ORGANISATIONAL APPROACH

8.4.9.1 Expected stakeholders and their representatives

Stakeholders	Representatives
Bodies in MS administrations that assess and select standards	ISA^2 Coordination Group or ISA CG equivalent
Public procurers in Member States	ISA^2 Coordination Group or ISA CG equivalent
Multistakeholder Platform on European Standardisation	DG CNECT project officer
Standardisation units in DG GROW and CNECT	Project officers
Standardisation fora	Individual contacts, secretariats

8.4.9.2 Identified user groups

CAMSS users are organisations (on European level or in Member States) that access and select standards. They either use the CAMSS method as-is, modify/tailor it or adapt its concepts for the development of their own models.

8.4.9.3 Communication plan

The benefits resulting from a common method and from the reuse of assessments can only be realised when the method is widely used and Member States not only continuously align their methods with CAMSS but also contribute changes made in their national methods back to the common one.

This requires an active community, which will be built starting with the known users of the early CAMSS versions, engaging them in a dialog with the goal to re-align where assessment methods have over time

diverged, and encouraging active participation in the decision-making for the common method. Duplication of fora will be avoided through a close liaison with other groups such as the Multistakeholder Platform on European Standardisation and the Commission services in charge of the future European Catalogue of standards.

Further Member States (with a priority on those that already publish lists of recommended or mandatory standards) will be actively invited to participate in the governance of CAMSS, and align their own methods with it.

The availability of the online version of the CAMSS tools (from autumn 2015) is expected to make its use even more attractive to users, and result in an automatic contribution of assessments to the CAMSS library.

8.4.9.4   Governance approach

The Commission coordinates consensus building around CAMSS, and all relevant stakeholders will be consulted. Alignment between CAMSS and related EU actions and policies will be ensured by close interdepartmental collaboration inside the Commission. The proposal for the governance of CAMSS that has been developed under the ISA programme will be further refined, aligned with the governance mechanisms of other actions, and implemented. The action is managed by the DG DIGIT ISA unit and a contractor will help in the implementation of the action. The Commission will also assess cooperation opportunities with standardisation bodies.

Maintenance and sustainability of the CAMSS tools, the assessment library and the list of recommended or mandatory standards from Member States will be planned In the course of the action.

8.4.10 TECHNICAL APPROACH AND CURRENT STATUS

The first version of CAMSS was developed by the Commission and Member States under the IDABC programme, the predecessor of the ISA and ISA[2] programmes. It revised in 2011-2013 in in 2014 aligned with the submission form of the Multi-Stakeholder Platform on European Standardisation. The documentation of the   present   CAMSS   is   publicly   available   online   at   the   following   address: https://joinup.ec.europa.eu/community/camss/home

The current version of CAMSS comprises 1) a process, 2) a set of criteria and 3) an assessment library. The CAMSS process describes how to complete an assessment utilising the CAMSS criteria. Assessments from Member States have already been identified and published in the Joinup platform.

The technical approach as from 2016 includes:

- to continue populating the assessment library, supporting the Member States to run or map to CAMSS assessments of standards, and animate the Joinup CAMSS community;
- to maintain and update the CAMMS method and CAMSS tools;

8.4.11 COSTS AND MILESTONES

8.4.11.1 Breakdown of anticipated costs and related milestones

In 2016, budget is foreseen for the maintenance and extension of the existing tools and the standards list. For the tools, this includes greater flexibility (user-defined scenarios) and improvements in the user interface (including search functionalities). For the standards list, it concerns both the update of the content and the functionalities; where the latter regards primarily the alignment with other Joinup catalogues (European Interoperability Carthography, European Catalogue of Standards).

Phase: Initiation Planning Execution Closing/Final evaluation	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 - Operation	• Governance of the CAMSS action • Functional specification for extension of tools and standards-list, testing and Implementation on Joinup	175	ISA²	Q2/2016	Q1/2017
	Total	175			

8.4.11.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2016		175	175

8.4.12 ANNEX AND REFERENCES

Description	Reference link	Attached document
Regulation 1025/2012 on standardisation	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:316:0012:0033:EN:PDF	
Rolling Plan on ICT Standardisation	http://ec.europa.eu/growth/single-market/european-standards/policy/benefits/index_en.htm http://ec.europa.eu/DocsRoom/documents/8972/attachments/1/translations/en/renditions/native	
Priority ICT Standardisation Plan	To be published end 2015	

8.5 EUROPEAN INTEROPERABILITY STRATEGY (EIS) GOVERNANCE SUPPORT (2016.33)

8.5.1 IDENTIFICATION OF THE ACTION

Service in charge	DG DIGIT.B6
Associated Services	All Commission services

8.5.2 EXECUTIVE SUMMARY

A European Interoperability Strategy[34] (EIS) was adopted in 2010 as part of the Communication "Towards interoperability for European public services"[35].

After two years of implementation, the Commission conducted a review of the EIS implementation in 2012. The result of this study clearly showed that the great majority of interviewed EU Member States considered interoperability as a critical success factor for fulfilling the need to increase the efficiency and effectiveness in the delivery of public services, as well as to increase the transparency and quality of public administrations and that interoperability is an enabler of "cooperation improvement" among public administrations. Ten major recommendations were made to ensure the continued success of the EIS implementation, including the need to improve coordination through the Commission IT Governance, to spread a common vision on interoperability, to spend more effort on the organisational dimension of interoperability and to communicate the benefits of interoperability.

Following the EIS review, a new draft strategy was created following last years' development in interoperability, especially the Digital Single Market strategy that calls for interoperability as a major enabler for digital integration in Europe. The new European Interoperability Strategy (EIS) was a subject to an Impact Assessment process that started in 2015 and finished in Q2/2016. In parallel with the revision of EIS the European Interoperabiltity Framework (EIF) was revised too under the same procedure and with the same impact assessment.

The new EIS will provide organisational, financial and operational directions to implement the revised EIF recommendations. The EIS defines a set of focus areas and an Action Plan that should guide Member States and European Institutions in the period 2016-2020. EIS is to serve as a practical tool where interoperability priorities are linked to a set of high added-value actions with measurable results in selected areas until 2020. Emphasis will be put on interoperability layers that can now be further developed such as organisational interoperability.

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[34] COM(2010) 744 final: Annex 1 to the Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of Regions Towards interoperability for European public services, Brussels, 16.12.2010

[35] COM (2010) 744 final: Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of Regions Towards interoperability for European public services, Brussels, 16.12.2010

8.5.3 OBJECTIVES

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[2] programme should be based on the experience gained from the ISA, IDA and IDABC predecessor programmes. The conclusions drawn from the final evaluations of the ISA and IDABC programmes, which address aspects such as relevance, efficiency, effectiveness, utility and coherence, should also be taken into account.

The objectives of this action are:

- To define a high-level strategy at EU level in the area of interoperability as well as an implementation roadmap of concrete actions to support the realisation of this strategy;
- to identify and assess relevant governance structures and organisational models in the Member States public administrations and evaluate their efficiency and effectiveness vis-à-vis the multi-layered interoperability model,
- to identify and assess the legal solutions used in the Member States and at EU level to ensure that EIS is in compliance with the EU context,
- to follow up on the implementation of the strategy and review it as needed

Through this approach the Commission will provide a reference model for governance and organisational interoperability structures that will be in accordance with the different structures and models within the EU and could aid the Member States in their national interoperability activities. Furthermore, EIS stays aligned with the EU political agenda and with the priorities and initiatives of the Member States regarding European Public Services and interoperability activities.

8.5.4 SCOPE

Any interoperability initiative in the EU, in any policy domain, is in scope of the action.

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

Moreover this action will investigate the direct relation between the EIS governance and the organisational structures that facilitate interoperability in the public administrations. The aim in this respect will be the identification and assessment of the organisational interoperability models that exist at EU level and their evaluation.

The core organisational tasks of this EIS Governance action encompass the whole implementation of the EIS as well as ensuring the alignment of the long term vision with short term actions and their related objectives.

The action will have a permanent activity on screening which changes at EU and Member State level might have an impact on the EIS implementation and on the EIS itself.

8.5.5 PROBLEM STATEMENT

The problem of	Not having a common and constantly updated strategic approach to interoperability at European level
affects	the Members States and the EU bodies as well as the European citizens and businesses benefitting from European public services
the impact of which is	Strategic misalignment of interoperability actions amongst the MS, diverging approaches in the delivery of public services, possible duplication of effort, risk that interoperability is not seriously considered. All above entail the risk of creating new e-barriers in EU to the detriment of the DSM.
a successful solution would be	To define a high level strategy at EU level and have it apply through concrete interoperability actions.

8.5.6 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 and understanding of EU interoperability related activities.
European Commission	Strategic alignment between interoperability activities and EU policies, coherence of interoperability actions within the Commission

8.5.7 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation
Communication on "A Digital Single Market Strategy for Europe", COM(2015)192	The DSM roadmap makes a clear reference to the need of updating the European Interoperability Framework (EIF). Implicitly this means that the strategy that the framework relies on should also be updated.

Action / Policy	Description of relation
Communication "Towards interoperability for European public services"	A Communication on Interoperability that includes as Annexes the EIS and the EIF. this communication will be updated within 2016 and will also include EIS and EIF as annexes. A thorough consultation with the MS and concerned stakeholders, notably businesses and citizens already took place and the finalisation of the file is expcted in Q4/2016.

8.5.8 REUSE OF SOLUTIONS DEVELOPED BY ISA, ISA[2] OR OTHER EU / NATIONAL INITIATIVES

The EIS maintains a strong link with the EIF being its implementing framework and with the action that monitors the status of interoperability in Europe, the NIFO. However given the overarching role of the strategy, it is hard to say that there are ISA[2] actions that are not concerned or will not contribute to it.
Other related Commission initiatives may also be included in the EIS action plan.

8.5.9 EXPECTED RE-USABLE OUTPUTS (solutions and instruments)

Output name	European Interoperability Strategy
Description	An overall strategy on Interoperability at EU level through a Commission communication.
Reference	
Target release date / Status	Q4/2016

Output name	Orientations for ISA[2] to implement new objectives
Description	Analysis of ISA[2] programme and establishment of future orientations to implement new EIS based objectives. Includes definition of new action on "user centricity/ engagement approaches"
Reference	
Target release date / Status	Q2/2017

Output name	Organisational interoperability orientations
Description	Instrument to measure and increase organisational interoperability
Reference	

Target release date / Status	Q2/2017

8.5.10 ORGANISATIONAL APPROACH

8.5.10.1 Expected stakeholders and their representatives

Stakeholders	Representatives
European Commission services	The Secretary General and any Commission DG concerned about the update of the strategy.
Member States	MS representations to the ISA[2] Committee and Coordination group (or its equivalent) and through them MS public administration authorities involved in interoperability initiatives.
ICT Industry	Representatives of ICT industry, SMEs, …
Standardisation bodies	Representatives from standardisation organisation fora 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, …

8.5.10.2 Communication plan

The communication plan includes:

- Promotion with stakeholders and users for the dissemination and take up and of the revised EIS and EIF;
- Communication with the MS representatives through the regular ISA[2] management meetings and through webinars and dedicated workshops;

8.5.10.3 Governance approach

The action will be managed by DIGIT with the support of an external contractor. Whenever major deliverables are to be published, the validation of the MS representatives will be sought.

8.5.11 TECHNICAL APPROACH

In 2012, the EIS implementation was reviewed. The review identified the barriers that still existed in implementing interoperability in the EU. It also laid down an overview of the interoperability landscape in Member States as well as in the Commission. Review findings revealed the need for more coordination, and that the lack of organisational interoperability is one of the major interoperability barriers throughout EU.

In 2013 work focused on understanding the critical success factors for proper governance of interoperability solutions at European level.

In 2014 the action performed evaluations on the interoperability governance of selected MS and other countries.

During 2013-2014 effort was put to achieving synergies with other EU initiatives in different policy areas, for example the European Semester.

During 2015 the new ISA^2 Programme was adopted and set the basis for the implementation of interoperability in the Union until 2020. Late 2015 and within 2016 the revision of EIS took place through a long consultation process with Commission services and Member States including an open public consultation. The final draft that will be annexed to the Commission Communication was made.

In 2016 the EIS governance action has identified the governance and organisation interoperability models in the Union and analysed them to investigate whether an overall European model can be proposed. This work will continue in 2017 aiming to an endorsement by stakeholders of the organisational interoperability model fro the Union.

8.5.12 COSTS AND MILESTONES

8.5.12.1 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^2 / others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
	Update the EIS	308	ISA^2	Q2/2016	Q4/2017
	Total	308			

8.5.12.2 Breakdown of ISA[2] funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2016		210	
2017		98	

8.5.13 ANNEX AND REFERENCES

Description	Reference link	Attached document
The European Interoperability Strategy	http://ec.europa.eu/isa/documents/isa_annex_i_eis_en.pdf	

8.6 CIRCABC (2016.34)

8.6.1 IDENTIFICATION OF THE ACTION

Service in charge	DIGIT A3
Associated Services	DIGIT C

8.6.2 EXECUTIVE SUMMARY

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 (176.000+ users) is in majority (80%) from member states.

This document provides an overview of the current project situation and expresses needs for its evolution:

- Service sustainability
- Improve the User eXperience
- Increase the interoperability capabilities

Key CIRCABC 2015 figures are (delta's versus 2014 figures are presented between quotes):

- **3800+ active groups (+5%)**
- In July 2016, around 1000 Service Help-Desk calls for CIRCABC, **-30%** vs July 2015 (1525)
- **176.000+ users** (+7%) and **2.600.000+** (+6%) published **documents** (4.2TB+ of data)

CIRCABC is used by:

Based on the execution of the ISA work Programme 2010-1015, the feedback of the CIRCABC Perceived Quality Survey and the evolution of document management systems/collaborative needs in general, the challenges of CIRCABC now are mostly building further upon the groundwork done so far:

- Use the new User Interface to develop new functionalities
- Use the new Architecture to improve the responsiveness and robustness of the service
- Take advantage of the new technology to be more reactive in implementing user requests (Agile methodologies)
- Offer a professional, dynamic support with modern training materials

The yearly operational costs for CIRCABC remained constant despite an increase in activity.

8.6.3 OBJECTIVES

CIRCABC (Communication and Information Resource Centre for Administrations, Businesses and Citizens) is deployed both in Member States and as a central service, at the European Commission.
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 to the end-users, including support and documentation
- Treat current and coming business needs (functional requests from external parties)
- Offer new services in the area of Interconnectivity, User eXperience, Reporting and Archiving

8.6.4 SCOPE

CIRCABC enables widespread collaborative groups to share information and resources in private workspaces.

It is an open-source multilingual application offering publication, distribution and management of documents in any format, with fined grained security. It includes version control, management of translations, multilingual search, forums and is widely accessible to users with disabilities.

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 EIIS 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**.

8.6.5 ACTION PRIORITY

8.6.5.1 Contribution to the interoperability landscape

The contribution of the action to the interoperability landscape, measured by the importance and necessity of the action to complete the interoperability landscape across the Union

Question	Answer
Does the proposal directly contribute to implementing the European Interoperability Strategy, the European Interoperability Framework, or other EU policies with interoperability requirements, or needed cross-border or cross-sector interoperability initiatives? If yes, please indicate the EU initiative / policy and the nature of contribution.	CIRCABC enables widespread collaborative groups to communicate, share information and resources in private workspaces. By design, CIRCABC is a real driver for communication, integration and interoperation between various, heterogeneous types of stakeholders like other IT tools/services, administrations, public services, businesses, citizens, associations, private initiatives etc. It offers the technical (Web Services, SOA architecture, Interfaces) and functional (organized in Building Blocks) means for all those entities to be able to interact. Additionally it includes a number of open/public services based on recognized IT standard protocols for communication and information exchange.
Does the proposal fulfil an interoperability need for which no other alternative solution is available?	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. The EUPL license enables its reuse as an interoperable building block for other solutions. It can be deployed as a standalone

	alternative or consumed as a service.

8.6.5.2 Cross-sector

The scope of the action, measured by its horizontal impact, once completed, across the sectors concerned

Question	Answer
*Will the proposal, **once completed** be useful, from the interoperability point of view, and utilised in two (2) or more EU policy areas? If yes, which are those?*	The collaborative nature of CIRCABC makes it cross-sector by definition. It is re-used in many sectors and its objectives are to facilitate the communication and integration of entities belonging to different ones.
*For proposals or their parts **already in operational phase**: have they been utilised in two (2) or more EU policy areas? Which are they?*	CIRCABC is used in the majority of EU policy areas in order, for example for expert groups to collaborate on initial draft 'legislation' before it goes through the decisional process. CIRCABC covers from agriculture to statistics, trade, joint initiatives-researches, health, justice and many others.

8.6.5.3 Cross-border

The geographical reach of the action, measured by the number of Member States and of European public administrations involved.

Question	Answer
*Will the proposal, **once completed** be useful, from the interoperability point of view, and used by public administrations of three (3) or more EU Members States?*	Yes. A majority of the European Union institutions & bodies are using CIRCABC. There are also a few public administrations, businesses and associations consuming CIRCABC either as a service or as a reused brick in their own Information System.
*For proposals or their parts **already in operational phase**: have they been utilised by public*	CIRCABC is used in most (if not all) European Union Countries and beyond.

administrations of three (3) or more EU Members States?	Examples of CIRCABC Open Sources instances:
	- **Germany**:
	Bundesnetzagentur, Land Nordrhein-Westfalen, Bundesverwaltungsamt BVA, Brandenburgischer IT-Dienstleister ZIT-BB, Bundesagentur für Verbaucherschutz und Lebensmittelsicherheit, Land Sachsen.
	- **Austria**: Umweltbundesamt Österreich
	- **Spain**: Universidad Rey Juan Carlos, Generalitat Valenciana, Spanish Government.
	- **Greece**: Government: Inter-service Consultations
	- **Finland**: European CHemical Agency (ECHA) deployed Secure-CIRCABC
	Number of geographically spread users in the system: 140.000+ out of 170.000+ are external.

8.6.5.4   Urgency

The urgency of the action, measured by its potential impact, taking into account the lack of other funding sources

Question	Answer
Is your action urgent? Is its implementation foreseen in an EU policy as priority, or in EU legislation?	CIRCABC fulfils each point mentioned as objective of the ISA² programme. It acts as a mean for modernising the public sector; it implements standards in terms of communication and information exchange protocols in order to be easily interoperable (integration capabilities/interfaces via web services); it facilitates cross-border and cross-sector collaboration amongst a large variety of stakeholders (including Member States); it is fully reusable as a complete standalone open source tool or some building blocks of the tool

	could be reused (EUPL licensing model) or as a service.
	It is widely used by the European Union institutions & bodies, administrations, businesses and policy makers who have to be more and more agile and responsive towards 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 automated productivity tools should enable them to concentrate on core business activities. CIRCABC is critical for these organizations to continue their mission to serve citizens from the member states, and it is therefore **critical to sustain this service** and continue to distribute up-to-date OSS versions.
Does the ISA² scope and financial capacity better fit for the implementation of the proposal as opposed to other identified and currently available sources?	The ISA² programme fits this proposal perfectly, as the objective is to consolidate, promote and expand the previous activities performed on CIRCABC under the ISA programme.

8.6.5.5 Reusability of action outputs

The re-usability of the action, measured by the extent to which its results can be re-used

Can the results of the proposal be re-used by a critical part of their target user base, as identified by the proposal maker? For proposals or their parts already in operational phase: have they been re-used by a critical part of their target user base?

Name of reusable solution	CIRCABC
Description	CIRCABC is distributed as Open Source Software. It is reusable on its own as a full package. Building blocks inside CIRCABC may be re-used as well but first need to be isolated.
Reference	https://joinup.ec.europa.eu/software/circabc/home

Target release date / Status	Released – v3.6 in 2014 v3.7 in 2015 v3.8 in 2016 v3.9 in 2017
Critical part of target user base	Any entity in need of a document sharing and collaborating system
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	Number of open source instances in contact CIRCABC Support Team: 14

Name of reusable solution	CIRCABC as an external repository
Description	The services offered by CIRCABC also allow its usage as a simple external repository. It features multiple ways of interacting with the repository through services: - Web Services - FTP – File Transfer Protocol - WebDAV - CMIS
Reference	https://joinup.ec.europa.eu/software/circabc/home
Target release date / Status	Released – Web Services/FTP/WebDAV since 2012 and in constant evolution (implementing more and more services/possibilities to ease and complete the offer CMIS in 2016. Integration possibilities with other repositories (Sharepoint and Documentum)
Critical part of target user base	Any entity in need of a document repository service
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	Examples: Webservices: Integration with IAM – Manage memberships (RTD) ; Publish document in external repository (ARES, HERMES), Integration of automatic translation tools (MT@EC, Google Translate, Microsoft Translate) CMIS: Synchronization of a Sharepoint instance with a CIRCABC Interest Group FTP/WebDAV: A few groups manage their files via FTP (use of automatic uploads) or WebDAV

Name of reusable solution	CIRCABC as a service
Description	An instance of CIRCABC is hosted at the European Commission Data Centre and can be used by any European citizen or entity.

Reference	https://circabc.europa.eu
Target release date / Status	Released Constant upgrades (approx. each 6 months)
Critical part of target user base	Any entity in need of a document sharing and collaborating system hosted in a trusted EC environment.
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	The European Commission is also using it with 3.800+ active groups (cross-sector and cross-border) Figures: 3800+ active groups (+5%) 176.000+ users (+7%) 25.000+ different entities (administrations, companies, businesses)

8.6.5.6   Level of reuse by the proposal

The re-use by the action of existing common frameworks and elements of interoperability solutions.

Question	Answer
Does the proposal intend to make use of any ISA[2], ISA or other relevant interoperability solution(s)? Which ones?	ISA 1.4 ECAS-Stork integration used to provide another user authentication mechanism (national e-ID) ISA 2.8 Machine Translation: consumed to offer automatic machine translation of working documents ISA 2.9 Document Repository Services: Integration with the Hermes Repository Services in order to offer the possibility to publish directly from CIRCABC to another external repository. Here Hermes. ISA² 20 – Joinup – Sharing IT Solutions: Consumed to publish and communicate around the action. ISA² 35 - EUSurvey Online Consultations
For proposals or their parts already in operational phase: has the action reused existing interoperability solutions? If yes, which ones?	Yes, all of the above.

8.6.5.7 Interlinked

The link of the action with Union initiatives to be measured by the collaboration and contribution level of the action to Union initiatives such as the DSM.

Question	Answer
Does the proposal directly contribute to at least one of the Union's high political priorities such as the DSM? If yes, which ones? What is the level of contribution?	By offering a support of information and documentation exchanges between heterogeneous parties, the action facilitates considerably the communication of expert groups for any of the Union's priorities. For example a Brexit Interest Group or one for the Greece Task Force were created.

8.6.6 PROBLEM STATEMENT

There is a need for a general-purpose communication and document management solution, managed by a public European body (such as the Commission), which Member States and Citizens can trust.

8.6.6.1 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.
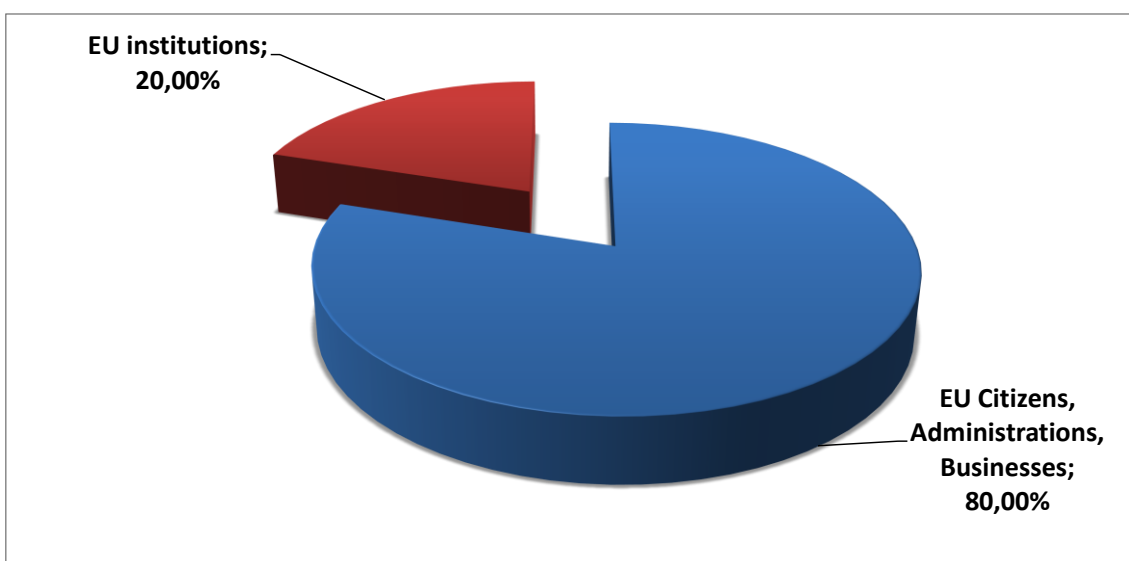
CIRCABC is critical for these organizations to continue their mission to serve citizens from the member states, and it is therefore **critical to sustain this service** and continue to distribute up-to-date OSS versions.

The European Commission, administrations, businesses and policy makers have to be **more and more agile and responsive** towards 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 automated productivity tools should enable them to concentrate on core business activities.

8.6.6.2   New challenges

During the course of the 2010-2015 Programme, CIRCABC has been continuously improved.

One of the major achievements was the successful migration of CIRCA to CIRCABC. This migration significantly increased the exchange and use of information.

As a result, important efforts were provided in improving the application performance, functional capabilities and handling of new customer requirements.

A few examples:

- Backward compatibilities and new features
- Improvements in stability and responsiveness
- Management of interest groups
- Internal reporting and administration tools

CIRCABC aligns to the evolution of the versions of Alfresco, in order to stay up to date in terms of performance and security.

During the year 2015, CIRCABC was upgraded with:

- A New Architecture (further decoupling the user interface from upgrades of Alfresco versions)
- A New User Experience has been defined and is currently under development
- Better performance characteristics due to dedicated document and indexing processing servers

Based upon both the feedback received from the CIRCABC Perceived Quality Survey and via the evolution of document management systems/collaborative needs, the following high level requirements have emerged:

Service Pack

- [**User eXperience**] Take advantage of the new UI to provide new features and facilitate the use of CIRCABC. The priorities are defined according to user feedback.

- o **A 'Smart CIRCABC' package** related to a Notification mechanism, UI interactivity, Interest Groups customization and to improvements in the activity reporting service.

  Taking advantage of the fast evolution of web technologies, this package offers new practical features (ergonomical), as well as facilitating the work of the CIRCABC users.

- o **A Mobile application & Responsive User Interface** (i.e. a mobile ready website)

  *Access your document; make comments etc. from a mobile device. As mobile devices are taking a more and more important role in the digital world (~39% of all web traffic is caused by mobile devices), it will become **inevitable** to adapt and optimize our User Interface to interact with different **mobile platforms***

- o **New features**: **Workflows & tasks**, Access Control List, 'Rich' Interest Group templates, In-App Messaging, **Automatic Translation Module**

  Our customers are regularly asking for new features. The CIRCABC's capabilities in term of document management are quite advanced, but some key features could help the users, even more.

  This package focuses on community & organisational features.

- o **Archiving**

  Some groups use the tool as an active publication system, whereas others are asking for an archiving system, to simply store and freeze documents' versions, Interest Groups Status.

- **[Interoperability]** More and more requests to integrate with CIRCABC through different means

  - o **'Social' package** to analyze and enable the integration possibilities with social networks (twitter, google, …)

    In order to improve the community aspect of CIRCABC, the major social network should be integrated within the application to extend its communication channels.

  - o **'EC applications',** to analyze the integration possibilities with the e-**Signature action** (1.9 Supporting tools for TSL (Trust-service Status Lists) and e-signature creation/verification), with printable document format generation, and with the EU-Survey tool (action 2.6).

    Take advantage of the satellite services that the EC is currently offering. (CIRCABC could use the electronic signature system or another network tool already used by the EC staff)

Performance Pack

- [**Hardware**] Regularly upgrading the architecture in order to cope with the increasing use

  - o **Database clustering, Indexation, a separate Archiving & Business Intelligence/Monitoring server**

    The application usage is quite active and growing. In order to cope with the constant growth of the traffic and to provide a good quality of service, a new management tool has to be set up. This will help maintain a highly efficient service.

  - o **Horizontal scaling**

Adding new nodes to the current system to keep/increase the service's performance.

- [**Software**] Regular software upgrades from the building blocks

  o Migrate to a better-performing search engine (**SOLR instead of Lucene**)

  A new index engine (vs Lucene) will be more accurate, efficient and flexible e.g. with regards to searches in an Interest Group.

  o Alfresco upgrades

  Follows our constant effort the keep the tool in sync with the latest features and security updates delivered by Alfresco.

8.6.7 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
European Institutions & bodies	The 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 who can decide to deploy the **OSS version** in their services.

8.6.8 EXPECTED MAJOR OUTPUTS

Output name	Updated CIRCABC
Description	CIRCABC is distributed as Open Source Software. It is reusable on its own as a full package. Building blocks inside CIRCABC may be re-used as well but first need to be isolated.
Reference	2016-2017-2018
Target release date / Status	Released

8.6.9 ORGANISATIONAL APPROACH

8.6.9.1 Expected stakeholders and their representatives

Stakeholders	Representatives
ISA programme management	DIGIT.B6 (Margarida ABECASIS)
European Institutions, Member State Administrations and businesses	ISA management committee, ISA working group
DIGIT A	Philippe VAN DAMME (Acting Director), Roberto BARCELLAN, Henri PUTSEYS , Olivier HOCHE, Benoît ORIGAS
DIGIT C	Philippe VAN DAMME

8.6.9.2 Identified user groups

8.6.9.3 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
User Group Conference	Olivier HOCHE, Benoît ORIGAS, Margot FASSIAN	Once a year
ISA events	Olivier HOCHE, Benoît ORIGAS, Margot FASSIAN	Presentation to specific key stakeholders from Member States (dates to be determined)

8.6.9.4 Governance approach

The approach and governance of the project is structured around 3 groups: the ISA Coordination Group, the Project Management Group and the Users Group.

- The **ISA Coordination Group** assists the Commission in translating priorities into actions and ensures continuity and consistency in their implementation.
  The ISA Coordination Group will meet each month (?) to ensure coordination and involvement of services in the project coordination group and ISA.

- The **Project Management Group** (DIGIT A3) will be used to bridge the perspectives between the internal stakeholders.

  Regular project review meetings (review of project progress), alternating with team meetings (review of the individual tasks) will be held to ensure timely delivery of the project.

  DIGIT A contracts external resources for service management, development, maintenance, community management, trainings and help-desk support.

  DIGIT A provides a Service/Project and Communication Manager.

- The '**Users Group':** Based on actual needs and to bridge better the technical and the business aspects, a 'Users Group' has been set up.

  It is used to consult the users, when additional information and clarification is required, to provide the opportunity to submit **enhancement requests**, exchange opinions and best practices.

  Meetings of the 'Users Group' will take place on an as needed frequency.

8.6.10 TECHNICAL APPROACH AND CURRENT STATUS

The technical approach is following an adapted **Agile version of the RUP@EC** methodology and is based on a three-step workflow: Inception, Execution and Operational. Those three steps are cycling as often as required to meet the expressed user needs.

The primary concern of the Team is the continuous improvement of the products maintained. The improvement of the products is done by deploying new revisions, called product versions, at regular intervals. Individual tasks, to be implemented within a product version, are combined into work packages called Sprints.

A Sprint usually takes 4 weeks and covers the time required to conduct the following tasks:

1. Implement specified behavior
2. Test the implementation
3. Deploy the result of the implementation.

The mentioned time is usually spent on the following tasks:

- Development of a set of tasks − 3 weeks, including :
    - Requesting and integrating label translations
    - Development of automated tests
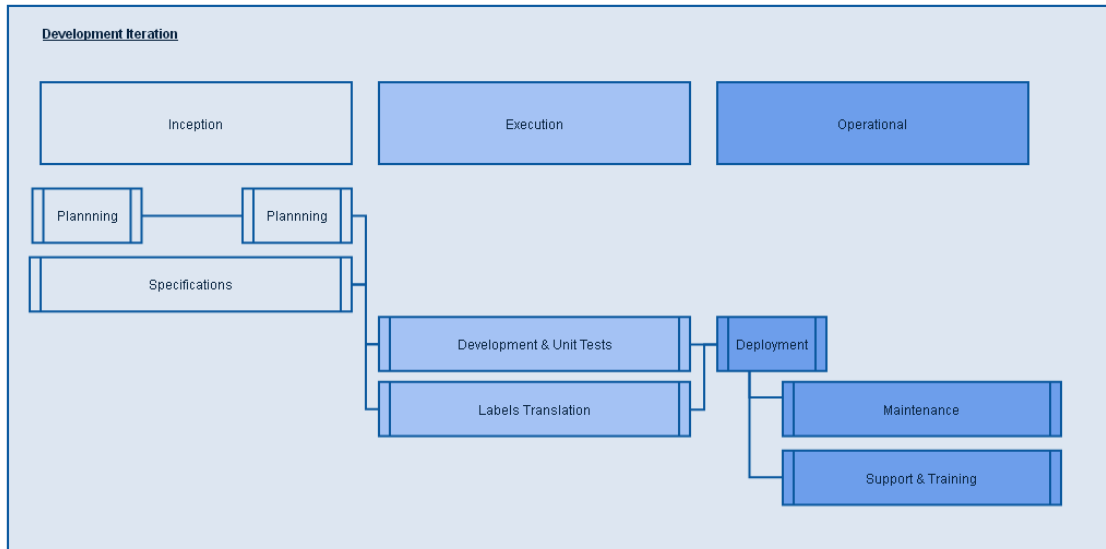- Functional and acceptance testing (Testing) – 1 week

Figure 2: Development cycle

CIRCABC is also delivered as an OSS package via Joinup, the Forge made available by ISA.

The OSS community has the possibility to actively contribute to the source code.

8.6.11 COSTS AND MILESTONES

8.6.11.1 Breakdown of anticipated costs and related milestones

Phase: Initiation Planning Execution Closing/Final evaluation	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	Continuation of current CIRCABC Service	250	ISA^2	Q1/2016	Q4/2016
Inception Execution	Service Pack	100	ISA²	Q1/2016	Q4/2016
Inception Execution	Performance Pack	50	ISA²	Q1/2016	Q4/2016
Execution	Communication & Trainings	50	ISA²	Q1/2016	Q4/2016
Operational	Continuation of current CIRCABC Service	180	ISA²	Q1/2017	Q4/2017
Inception	Service Pack	70	ISA²	Q1/2017	Q4/2017

Execution					
Inception Execution	Performance Pack	45	ISA²	Q1/2017	Q4/2017
Execution	Communication & Trainings	50	ISA²	Q1/2017	Q4/2017
Operational*	Continuation of current CIRCABC Service	350	ISA²	Q1/2018	Q4/2018
Inception Execution*	Service Pack	100	ISA²	Q1/2018	Q4/2018
Inception Execution*	Performance Pack	50	ISA²	Q1/2018	Q4/2018
Execution*	Communication & Trainings	50	ISA²	Q1/2018	Q4/2018
Operational*	Continuation of current CIRCABC Service	350	ISA²	Q1/2019	Q4/2019
Inception Execution*	Service Pack	50	ISA²	Q1/2019	Q4/2019
Inception Execution*	Performance Pack	50	ISA²	Q1/2019	Q4/2019
Execution*	Communication & Trainings	50	ISA²	Q1/2019	Q4/2019
Operational*	Continuation of current CIRCABC Service	350	ISA²	Q1/2020	Q4/2020
Inception Execution*	Service Pack	50	ISA²	Q1/2020	Q4/2020
Inception Execution*	Performance Pack	50	ISA²	Q1/2020	Q4/2020
Execution*	Communication & Trainings	50	ISA²	Q1/2020	Q4/2020

8.6.11.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2016	Inception	75	
2016	Operational	250	
2016	Execution	125	
2017	Inception		
2017	Operational	295	
2017	Execution		

8.7 EUSURVEY (2016.35)

8.7.1 IDENTIFICATION OF THE ACTION

Type of Activity	Common Services – Communication with citizens Reusable Generic Tool
Service in charge	DIGIT.A3
Associated Services	DIGIT.C, DGT.R3, DG EAC, EUROSTAT.B5, SG.A1

8.7.2 EXECUTIVE SUMMARY

EUSurvey is a multilingual online survey management system built for the creation and publication of surveys and public consultations.

It covers all steps of a survey life cycle, from the design and launch of the survey to the analysis and publication of results. It offers different types of multiple-choice questions, free text fields, as well as more complex elements like editable tables and gallery elements.

Results can be displayed as histograms, percentages or in full detail and can be exported to different formats.

All the submitted answers (or a sub-set) can be published automatically on a dedicated webpage within the application.

Access to EUSurvey is secured by ECAS (now EU Login, as from 6 October), the European Commission's Authentication Service.

The tool offers a wide variety of features to meet different survey needs, including:
- Customisable forms
- Scheduled publishing
- High level security
- Customisable look and feel
- Offline answering
- Uploading of supporting files
- Result analysis & publication
- Invitations sent directly from the application

The EUSurvey statistics count **4.478 surveys created in 2015 (already 3.000+ in 08/2016) and managed by 2.800+ form managers**, **1.600.000+ contributions in 2015** (1.000.000+ as of 08/2016).

This document provides an overview of the current project situation and expresses the needs for its evolution:

- Service sustainability
- Provide new features and services
- Increase the interoperability capabilities

- Extend the service for mobile devices
- Integrate EU Survey with the Better Regulation Portal
- Increase EU Survey capacity to automatically analyse the content of numerous feedback

Taking into account the feedback received during the ISA work Programme 2010-1015, the results of the EUSurvey Perceived Quality Survey and the evolution of 'form/survey' tools needs in general, the challenge for EU-Survey now lies in building further upon the 'ground work' done so far:

- Use the new User Interface to develop further additional functionality, suited for mobile access
- Use the new architecture to improve the responsiveness and robustness (horizontal scaling) of the solution
- Take advantage of the new technologies to be more agile in implementing user requests
- Offer professional, dynamic support with modern training materials

EUSurvey has quickly become an efficient and appreciated tool to conduct mixed typed of survey activities.

The yearly operational costs for EUSurvey remained constant despite an increase in activity.

8.7.3 OBJECTIVES

EU Survey was introduced in 2013 to replace IPM (Interactive Policy Making). The service, deployed by DIGIT, is widely used by the Institutions and in Member States. It enables to collect easily the opinion of the citizen, key information for decision-making processes and implementation of cross-border and cross-sector activities.

The objective is:

- To sustain the service provision, guarantying a reliable and effective service including support to end-users.
- To analyse and treat the current business requests and coming needs.
- To offer new services in the area of Interconnectivity, User eXperience, Mobile, Reporting and Archiving.
- To integrate EU Survey to the Better Regulation Portal, in order to achieve the Portal's objective to become the one-stop-shop for all Commission's consultations towards the citizens and other stakeholders.
- To become interoperable with other software enabling automatic translation of feedback, automatic content analysis or any other IT tool minimising human intervention when it comes to handling numerous feedback, as is often the case for public consultations.

8.7.4 SCOPE

EUSurvey enables the creation of surveys amongst European businesses, administrations and citizens, and the collection of answers via a web based user interface. It is an open-source **multilingual** application which is

widely accessible and provides support for either identification or anonymity, depending on the survey requirements.

EUSurvey is the ideal tool for quickly and reliably poll opinions from a widespread community, guiding them throughout the contribution process. It supports the implementation of many EU priority sectors and also various other types of surveys and forms.

EUSURVEY is used for very large scale consultations aimed at European populations down to citizens such as:

- Public consultation as part of the Fitness Check of the EU nature legislation (Birds and Habitats Directives) (550.000+ contributions)
- Erasmus Programme - Student Mobility (240.000+ contributions)
- Participant Report Form – Learning Mobility of Individuals (126.000+ contributions)
- A common approach to reducing the harm caused by criminal use of firearms in the EU (85.000+ contributions)
- Public consultation on the possible revision of the Tobacco Products Directive 2001/37/EC (70.000+ contributions)

Because EUSurvey is available, under the EUPL license, from an open source software forge (joinup.eu), it can also be installed anywhere as a standalone application or reused as a component of another Information System.

Some EUSURVEY key figures (as of 08/2016):

- **3.000+** (**+15%** vs 2015) **surveys** since the beginning of 2016
- **2.600+ form managers** (**+60%** vs 2015)
- **1.100+** Service Help-Desk calls (**+8%**)
- Already **1.000.000+** survey contributions by 08/2016
- **Used by most of the Member States**

The scope of the project includes:

- Maintain the quality of the current service and support
- Ensure the interoperability of EUSurvey with the newly developed Better Regulation Portal, to manage Commission's consultations towards EU citizens and other stakeholders, analyse their received answers and visualise the survey results
- Increase the EUSurvey interoperability and reusability towards other national & EUI information systems
- Develop new features and improvements following user's requests
- Mobile access to EUSurvey (contribute to a survey via mobile devices)
- develop back-end integration with the Commission's Data Analysis Service (DORIS)

8.7.5 ACTION PRIORITY

8.7.5.1 Contribution to the interoperability landscape

The contribution of the action to the interoperability landscape, measured by the importance and necessity of the action to complete the interoperability landscape across the Union

Question	Answer
Does the proposal directly contribute to implementing the European Interoperability Strategy, the European Interoperability Framework, or other EU policies with interoperability requirements, or needed cross-border or cross-sector interoperability initiatives? If yes, please indicate the EU initiative / policy and the nature of contribution.	EUSurvey is widely used by the European institutions and in Member States for consulting citizens and businesses and collecting key information needed amongst others for the European decision-making process. The integration of EUSurvey with the Better Regulation Portal will be a real example of interoperability between existing systems, across policy areas. The geographical reach of the action covers the whole Europe and beyond, as feedback are already received in the current Better regulation Portal from stakeholders outside Europe.
Does the proposal fulfil an interoperability need for which no other alternative solution is available?	EUSurvey 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 data collection, opinion collection tool. A study conducted in 2014-2015 showed the clear advantages and financial benefits of having a custom developed tool to fulfil this need. The EUPL license enables its reuse as an interoperable building block for other solutions. It can be deployed as a standalone alternative or consumed as a service.

8.7.5.2 Cross-sector

The scope of the action, measured by its horizontal impact, once completed, across the sectors concerned

Question	Answer
*Will the proposal, **once completed** be useful, from the interoperability point of view, and utilised in two (2) or more EU policy areas? If yes, which are those?*	The nature of EUSurvey, collecting opinions in order to help in the better law making process of the European Union clearly shows the cross-sector aspect of it. It is used and will be used in most of the EU policy areas and others.
*For proposals or their parts **already in operational phase**: have they been utilised in two (2) or more EU policy areas? Which are they?*	EUSurvey is used in the majority of EU policy areas in order, for example, Education and Culture in the scope of the Erasmus exchanges, used as a support tool for organizing Public Consultation on various topics, policy areas. The Better Regulation Portal has already been used for getting feedback on draft acts in domains as varied as Climate, Health, Internal Market, Agriculture, Migration and Home affairs, Taxation, Environment, etc..

8.7.5.3 Cross-border

The geographical reach of the action, measured by the number of Member States and of European public administrations involved.

Question	Answer
*Will the proposal, **once completed** be useful, from the interoperability point of view, and used by public administrations of three (3) or more EU Members States?*	Yes. A majority of the European Union Institutions are using EUSurvey. There are also a few public administrations, businesses and associations consuming EUSurvey either as a service or as a reused brick in their own Information System.
*For proposals or their parts **already in operational phase**: have they been utilised by public*	EUSurvey is used in most (if not all) European Union Countries and beyond.

administrations of three (3) or more EU Members States?	Examples of EUSurvey Open Source instances: - **Germany:** DIaLOGIKa Gesellschaft für Informatik mbH - **Belgium:** Flemish Government - **Sweden:** Public Health Agency of Sweden - **Netherland:** Europol 3.000+ (+15% vs 2015) surveys since the beginning of 2016 2.600+ form managers (+60% vs 2015) 1.000.000+ survey contributions by 08/2016 Used by most of the Member States, 450+ different entities (administrations, companies, businesses, citizens) having organized surveys using EUSurvey. The feedback mechanism of the Better Regulation Portal currently in production, is also used by public administrations of EU Member States and beyond (e.g; Norway).

8.7.5.4   Urgency

The urgency of the action, measured by its potential impact, taking into account the lack of other funding sources

Question	Answer
Is your action urgent? Is its implementation foreseen in an EU policy as priority, or in EU legislation?	Yes, the Better Regulation Portal, as the one-stop-shop for all Commission's consultations, therefore integrating EUSurvey, is immediately linked with one of the Commission ten priorities, namely *Democratic Change*. Increased transparency over the decision-making process and facilitating stakeholder participation in the policy-making process are elements of this strategic objective.

	Its implementation is foreseen in the Better Regulation communication[36] adopted by the Commission on 19 May 2015
	EUSurvey fulfils each point mentioned as objective of the ISA² programme.
	It acts as a mean for modernising the public sector; it considerably facilitate cross-border and cross-sector (not only policy making) data collection amongst a large variety of stakeholders (including Member States);
	It is fully reusable as a complete standalone open source tool or some building blocks of the tool could be reused (EUPL licensing model) or as a service.
	Businesses and policy makers react in a more and more agile way and need to gather reliable information easily while their stakeholders are contributing from all over the world.
	These contributors require intuitive, reliable and modern tools suited to the strict data collection rules they are confronted with and need automated productivity tools enabling them effortlessly to answer surveys while concentrating on their core business activities. EUSurvey plays an important operational role for these bodies to support their mission and it is therefore **critical to sustain this service** and continue to deliver updated OSS application code.
Does the ISA² scope and financial capacity better fit for the implementation of the proposal as opposed to other identified and currently available sources?	The ISA² programme fits this proposal perfectly, as the objective is to consolidate, promote and expand the previous crossborder and cross-sector activities performed on EUSurvey under the ISA programme.

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[36]   See COM(2015) 215 – *Better regulation for better results - An EU agenda.*

8.7.5.5   Reusability of action outputs

The re-usability of the action, measured by the extent to which its results can be re-used

Can the results of the proposal be re-used by a critical part of their target user base, as identified by the proposal maker? For proposals or their parts already in operational phase: have they been re-used by a critical part of their target user base?

Name of reusable solution	EUSurvey
Description	EUSurvey – as a flexible and widely accessible solution for: • Collecting the opinions of stakeholders on a specific issue, • Rapidly consulting businesses, citizens or other interested parties, • Conducting user satisfaction surveys, • Preparing conference registrations, • Creating multi-lingual surveys, • Publishing results over the web
Reference	https://joinup.ec.europa.eu/software/eusurvey/description
Target release date / Status	Released – v1.3.2 – 08/08/2016 Each 3-4 months
Critical part of target user base	Any entity in need of a data/opinion collection tool
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	Number of open source instances in contact with EUSurvey Support Team: 5

Name of reusable solution	EUSurvey as a service
Description	An instance of EUSurvey is hosted at the European Commission Data Centre and can be used by any European Citizen or entity.
Reference	https://ec.europa.eu/eusurvey
Target release date / Status	Released- v1.3.2 31/05/2016 Approximately each 3-4 months
Critical part of target user base	Any entity in need of a data/opinion collection tool without having to host it
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	The European Commission is also using it with 2.600+ active form managers (cross-sector and cross-border) Figures (as of 08/2016): **3.000+** (**+15%** vs 2015) **surveys** since the beginning of 2016 **2.600+ form managers** (**+60%** vs 2015)

	Already **1.000.000+** survey contributions by 08/2016 **Used by most of the Member States**

Name of reusable solution	Better Regulation Portal
Description	The action output will be its integration with EUSurvey in order to be able to manage surveys (current status, opening, closing, publication) and its answers (moderation for publication, automatic translation, data analytics, reporting, document management – archiving).
Reference	https://ec.europa.eu/info/strategy/better-regulation-why-and-how_en
Target release date / Status	Q4 2017
Critical part of target user base	
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	N.A.

Name of reusable solution	DORIS
Description	Data Analytics components (dashboard, algorithms,…) to: • Cluster stakeholder feedback • Identify key topics, relevant sentences, named entities (people, organisations,..), keywords, as well as stakeholder sentiment. • Summarise stakeholder contributions
Reference	This output shall be made available through the Joinup platform.
Target release date / Status	Q3 2017/DORIS integrated within the back end of EUSurvey
Critical part of target user base	Any entity in need of a data/opinion collection tool
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	

8.7.5.6   Level of reuse by the proposal

The re-use by the action of existing common frameworks and elements of interoperability solutions.

Question	Answer
Does the proposal intend to make use of any ISA[2], ISA or other relevant interoperability solution(s)? Which ones?	ISA 1.4 ECAS-Stork integration used to provide another user authentication mechanism (national e-ID) ISA 2.8 Machine Translation: consumed to offer automatic machine translation of working documents ISA² 20 – Joinup – Sharing IT Solutions: Consumed to publish and communicate around the action. ISA² 36 – CIRCABC – Collaborative workspaces EAC programmes Mobility actions: At the end of Erasmus exchanges, students and other participants are asked to fill in a satisfaction questionnaire, designed with EU Survey. A future web service integration, aiming at collecting and consolidating feedback on Erasmus+ Mobility actions, will store the data in a repository at DG EAC EUSurvey will also integrate the Commission's Data Analytics Service (DORIS) as a backend.
For proposals or their parts already in operational phase: has the action reused existing interoperability solutions? If yes, which ones?	Yes, all of the above

8.7.5.7 Interlinked

The link of the action with Union initiatives to be measured by the collaboration and contribution level of the action to Union initiatives such as the DSM.

Question	Answer
Does the proposal directly contribute to at least one of the Union's high political priorities such as the DSM? If yes, which ones? What is the level of contribution?	The Better Regulation Portal implements one of the ten priorities of the Juncker Commission, namely "democratic change". Increased transparency over the decision-making process and facilitating stakeholder participation in the

	policy-making process are elements of this strategic objective. The achievement of the overall objective of the Better Regulation Portal to become the one-stop-shop for all public consultations by the integration with EUSurvey will greatly facilitate the participation of EU citizens and other stakeholders, including institutional ones.
	By offering an easy mean of collecting opinions and information between heterogeneous parties, EUSurvey facilitates considerably the organisation and consolidation of any types of 'feedback based' decision (Public Consultation included).

8.7.6   PROBLEM STATEMENT

8.7.6.1   Service sustainability

The EUSurvey service and the EUSurvey OSS version, disseminated via Joinup, are in widespread use by many Institutions, administrations and businesses. EUSurvey plays an important operational role for these bodies to support their mission and it is therefore **critical to sustain this service** and continue to deliver updated OSS application code.

Businesses and policy makers react in a more and more agile way and need to gather reliable information easily while their stakeholders are contributing from all over the world.

These contributors require intuitive, reliable and modern tools suited to the strict data collection rules they are confronted with and need automated productivity tools enabling them effortlessly to answer surveys while concentrating on their core business activities.

8.7.6.2   New challenges

Performance Pack

- **[Hardware] Scaling the infrastructure of EUSurvey**
  *The continuously growing number of users and consultation audiences, demands a solidly built infrastructure to ensure a **reliable service**. Therefore it is crucial to analyse and deploy **an improved server-database and application-server infrastructure** in order to cope with the **increasing needs and requirements** of our users.*

Service Pack

Based both on the operational feedback about EUSurvey, the results of the perceived quality survey and the evolution of data collection needs in general, the following high level requirements have emerged:

- Integration with other services & information systems, leading to
  - **Embedded surveys**

    *Allowing users to **embed** EUSurvey questionnaires within their own webpages in order to **make our service more attractive** to a larger peer group.*

  - Extend the offer of w**ebservices** (auto-filling of surveys, compatibility with translation information systems)

    *Including the possibility to automatically **pre-fill surveys** with information and an **improved compatibility** with **Poetry translation management tool.***

  - Export formats compatible with **statistical tools**

    *To ease an **extended exploration** of answer contributions for end-users, i.e. adapting the exports to be compatible with professional Analytics tools*

- **Rich typed surveys**

  Creation of specific features, built-ins, to improve the provision of different survey types such as:
  - **e-Voting**

    With a possible re-use of the e-Signature tool from ISA Action 1.9..

  - **Quiz-Surveys**

    *In order to increase the **applicability** of EUSurvey; this will require the analysis and development of **new question types** and an **improved user feedback** within the User Interface.*

  - **Events-Oriented** Surveys

    *A significant part of our users, use EUSurvey to **plan events** and **organize the registration** of their participants. To completely fit their requirements, additional analysis and development of **new features** will be **necessary**.*

- **Mobile application**
  - Implementation of a **responsive User Interface** to enable users to contribute from mobile devices.

    *As mobile devices are taking a more and more important role in the digital world (~39% of all web traffic is caused by mobile devices), it will become **inevitable** to adapt and optimize our User Interface to interact with different **mobile platforms.***

  - Analyze the possibility of using "**voice based**" contributions, i.e. "**dictating**" and "**recording**" features.

    *Such a feature would improve the **accessibility** by letting the user contribute via **voice recognition.***

Integration with the Better Regulation Portal

Following the adoption of the Better Regulation communication on 19 May 2015, the Commission has established a Better Regulation Portal to offer an easy access to EU law-making and to facilitate consultation and dialogue with both the stakeholders and the general public. This Better Regulation Regulation will become the one-stop-shop for all Commission's consultations. As EUSurvey offers services to prepare, execute and exploit public consultations, bridges must be built between the two applications. Therefore developments must be done to integrate the EUSurvey system (e.g. through webservices) with the Better Regulation Portal, backend for its administration and frontend for the publication of the consultations and their results.

8.7.7 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
European Institutions & bodies	The common EUSurvey service is readily available to Institutions for the creation of surveys, forms and the management, collection and publication of answers in policy making or any other context. They have the possibility as well to do local deployments. **Improved management of public consultations** Commission services will use the Better Regulation Portal to manage the consultations in EUSurvey and the publication of the answers received, as well as better analyse the resulting data to enrich the decision-making process of the Commission.
Member States' public administrations and other, non EU administrations	Administrations can also benefit from the EUSurvey service either for answering surveys within the EU policy context or for other purposes. They can as well decide to deploy the OSS version within their environment.
Stakeholders and the general public	Increased transparency The integration of public consultations into the Better Regulation Portal, further replacing the current Your Voice in Europe page, will ensure a better visibility to the consultations proposed by the Commission.

8.7.8 EXPECTED MAJOR OUTPUTS

Output name	Updated EUSurvey
Description	See section "New challenges" for a complete lists of new features
Reference	https://joinup.ec.europa.eu/software/eusurvey/description

Target release date / Status	2017 – Each 3-4 months approximately

8.7.9 ORGANISATIONAL APPROACH

8.7.9.1 Expected stakeholders and their representatives

Stakeholders	Representatives
ISA^2 programme management	DIGIT.B6 (Margarida ABECASIS)
European Institutions, Member State Administrations and businesses	ISA^2 management committee, dedicated ISA^2 working group
DIGIT A	Philippe VAN DAMME (Acting Director), Roberto BARCELLAN, Henri PUTSEYS , Olivier HOCHE, Benoît ORIGAS
DIGIT C	Philippe VAN DAMME
SG A1	Martine DEPREZ (system owner of the Better Regulation Portal) will represent the various stakeholders for the BRP-EUSurvey integration

8.7.9.2 Identified user groups

Relevant networks of DG users (e.g. legislative coordinators, consultations specialists) for the management of public consultations in the Commission,

8.7.9.3 Communication plan

BRP-EUSurvey integration

Dedicated trainings will be organized in the Commission targeting the main user groups. In terms of external communication, the necessary communication strategy will be put in place, involving a press release, launch statements on social media, communication via the representations in the Member States.

Event	Representatives	Frequency of meetings / absolute dates of meetings?
User Group Conference	Olivier HOCHE, Benoît ORIGAS, Margot FASSIAN	Once a year
ISA Events	Olivier HOCHE, Benoît ORIGAS, Margot FASSIAN	TBD

Launch BRP/Integration EUSurvey	Martine DEPREZ	TBD

8.7.9.4 Governance approach

The approach and governance of the project is structured around 3 groups: the ISA[2] Coordination Group (or ISA CG equivalent), the Project Management Group and the Users Group.

The **ISA[2] Coordination Group** assists the Commission in translating priorities into actions and ensures continuity and consistency in their implementation.

The **Project Management Group** (DIGIT A3) will be used to bridge the perspectives among the internal stakeholders.

Regular project review meetings (review of project progress), alternating with team meetings (review of the individual tasks) will be held inside each of the involved entities to ensure timely delivery of the project.

DIGIT A contracts external resources for service management, development, maintenance, community management, trainings and help-desk support.

DIGIT A provides a Service/Project and Communication Manager.

A specific Memorandum of Understanding between SG and DIGIT will be defined to cover the BRP-EUSurvey integration. .

The '**Users Group'**: Based on actual needs and to better bridge technical and business aspects, a 'Users Group' has been set up.

It is used to consult the users, when additional information and clarification is required, to provide the opportunity to submit **enhancement requests** and to exchange opinions and best practices.

Meetings of the 'Users Group' will take place only when needed.

8.7.10 TECHNICAL APPROACH AND CURRENT STATUS

The technical approach is following an adapted **agile version of RUP@EC** methodology and is based on a three steps workflow: Inception, Execution and Operational. Those three steps are cycling as often as needed by the expressed user's needs.

The primary concern is the continuous improvement of the maintained products which is done by deploying new revisions in regular intervals, called product versions.

Individual tasks, to be implemented within a product version, are combined into work packages called sprints.

A sprint usually takes 4 weeks and covers the time required to conduct the following tasks:

Implement specified behavior

Test the implementation

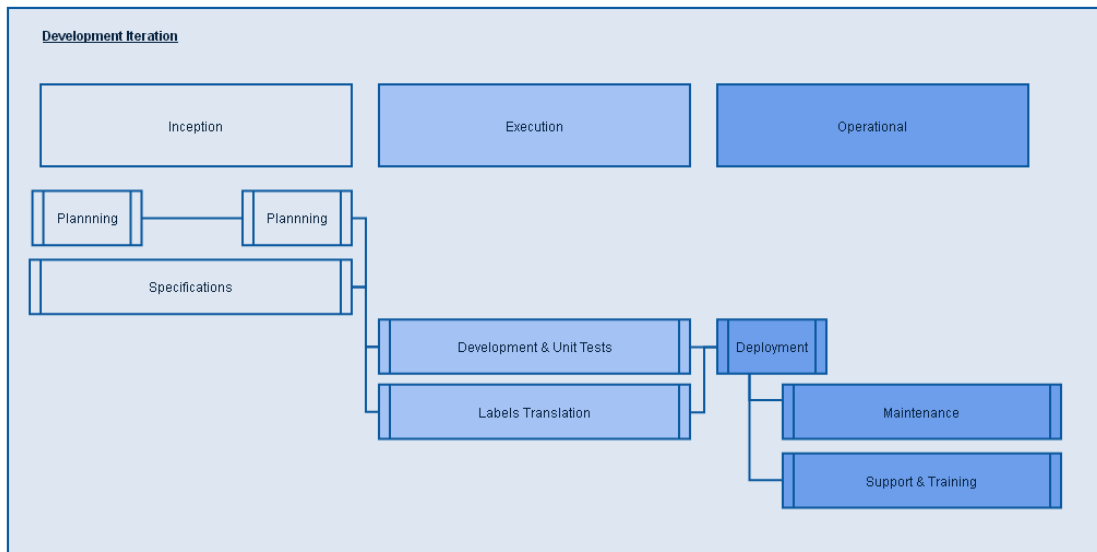Deploy the result of the implementation.

Figure 1: Development cycle

EU Survey is delivered as an OSS project via Joinup.eu, the Forge made available by ISA.

The OSS community will have the possibility to actively contribute at the source code level. Support is also provided to the community.

The exact extent of the integration of EUSurvey with the Better Regulation Portal will be further defined in the functional & technical specifications. It is likely to take the form of the development of web (REST) services in EUSurvey to allow the Better Regulation Portal to get and modify data in EUSurvey and make them available in the backend, for their administration, and in the frontend (Next Europa) for the citizens and stakeholders.

8.7.11 COSTS AND MILESTONES

8.7.11.1 Breakdown of anticipated costs and related milestones

Phase: Initiation Planning Execution Closing/Final evaluation	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA²/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Inception	Performance Pack	25	ISA^2	Q1/2016	Q4/2016
Inception	Service Pack	25	ISA^2	Q1/2016	Q4/2016
Operational	EUSurvey Service	250	ISA^2	Q1/2016	Q4/2016

Operational	Training – e-learning	50	ISA[2]	Q1/2016	Q4/2016
Execution	Service Pack	100	ISA[2]	Q1/2016	Q4/2016
Inception	Service Pack	25	ISA[2]	Q1/2017	Q4/2017
Operational	EUSurvey Service	210	ISA[2]	Q1/2017	Q4/2017
Operational	Training – e-learning	30	ISA[2]	Q1/2017	Q4/2017
Execution	Performance Pack	30	ISA[2]	Q1/2017	Q4/2017
Execution	Service Pack	30	ISA[2]	Q1/2017	Q4/2017
Inception	Service Pack	25	ISA[2]	Q1/2018	Q4/2018
Operational	EUSurvey Service	300	ISA[2]	Q1/2018	Q4/2018
Operational	Training – e-learning	50	ISA[2]	Q1/2018	Q4/2018
Execution	Service Pack	100	ISA[2]	Q1/2018	Q4/2018
Inception	Service Pack	25	ISA[2]	Q1/2019	Q4/2019
Operational	EUSurvey Service	300	ISA[2]	Q1/2019	Q4/2019
Operational	Training – e-learning	50	ISA[2]	Q1/2019	Q4/2019
Execution	Service Pack	100	ISA[2]	Q1/2019	Q4/2019
Inception	Service Pack	25	ISA[2]	Q1/2020	Q4/2020
Operational	EUSurvey Service	300	ISA[2]	Q1/2020	Q4/2020
Operational	Training – e-learning	50	ISA[2]	Q1/2020	Q4/2020
Execution	Service Pack	100	ISA[2]	Q1/2020	Q4/2020
	Total		2.300		

Better Regulation Portal

Phase: Initiation Planning	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 Closing/Final evaluation					
Initiation	MoU – Project Charter	25	ISA²	Q2/2017	Q2/2017
Planning	All project plans	50	ISA²	Q2/2017	Q3/2017
Execution	EU Survey Integration implemented	150	ISA²	Q3/2017	Q4/2017
Closing	Project end report	22	ISA²	Q4/2017	Q4/2017
	Total	247			

8.7.11.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2016	Inception	50	
2016	Operational	300	
2016	Execution	100	
2017	Inception		
2017	Operational	297	
2017	Execution		
2017	Initiation (Better Regulation Portal)		
2017	Planning (Better Regulation Portal)	247	
2017	Execution (Better Regulation Portal)		
2017	Closing (Better Regulation Portal)		
2018	Inception	25	
2018	Operational	350	
2018	Execution	100	
2019	Inception	25	
2019	Operational	350	
2019	Execution	100	
2020	Inception	25	
2020	Operational	350	
2020	Execution	100	

8.7.12 ANNEX AND REFERENCES

Description	Reference link	Attached document
EUSURVEY OSS project on joinup.eu	https://joinup.ec.europa.eu/software/ipm/home	
What is EUSURVEY on Europa	http://ec.europa.eu/yourvoice/ipm/	
EUSURVEY service	http://ec.europa.eu/yourvoice/ipm/forms/html/index.html	
Joinup.eu	http://joinup.ec.europa.eu/	

8.8 INTEROPERABILITY TEST BED (ITB) (2016.25)

8.8.1 IDENTIFICATION OF THE ACTION

Service in charge	DIGIT B6
Associated Services	

8.8.2 EXECUTIVE SUMMARY

The ISA/ISA[2] programmes and other EU initiatives fund the development of several IT solutions. Before connecting new components to these systems (e.g. new partners to a communication network or new clients to a service), extensive testing is necessary, to avoid compromising an already operational system. Usually these tests require connecting the system to an instance of the service or the communication partner; consequently there is a need for a *reference implementation* of this service that is separate from the production instance. In a situation where the compatibility of different systems relies on conformance to a standard or specification, this conformance can also be assured through testing – either simply by connecting to the reference implementation (which is assumed to implement the specification correctly) or, more reliably, through the execution of detailed test cases to separately test each clause of the specification, or both.

The "Interoperability test bed" action was conceived under the ISA programme to provide an environment where reference implementations of different systems/services could be hosted – studies conducted during previous phases showed that a dedicated test bed software can support this by providing a user interface, a standardised way to execute tests and access test results, and some test automation. In addition, the use of a test bed also enables formal conformance testing against a specification.

The scope of the action has therefore been enlarged to encompass both hosting of reference implementations and provision of a test bed. Under the ISA programme some case studies / pilots were executed to demonstrate this with the help of a test bed software that was developed in the context of the CEN GITB workshop[37].

Under the ISA[2] programme, this would be extended into an operational service. In addition, the action will work on the sharing and reuse of test assets (through a dedicated Test Registry and Repository on Joinup, and a community of test bed owners and testers).

In view of the existing notion of Interoperability Agreements in the European Interoperability Framework (EIF), and the long-term perspective for the European Interoperability Reference Architecture (EIRA) to put forward interoperability specifications for all building blocks, testing the conformance of systems to such interoperability agreements and interoperability specifications will become crucial.

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[37] http://www.cen.eu/news/workshops/Pages/WS-2015-008.aspx, accessed on 31/08/2015

8.8.3 OBJECTIVES

ITB's (Interoperable Test Bed) primary objective is to provide a platform for hosting reference implementations of cross-border services, coupled to a test bed that provides a user interface as well as some degree of automation.

This platform would enable Member States' public administrations and their potential vendors to test existing systems or products against a neutral, reliable and responsive test environment of reference.

The long-term vision is for ITB to become a test centre that deploys reference implementations on demand, cooperating with other test centres. Previous studies have shown that using a test bed conforming to the GITB specifications supports this cooperation well, both for the exchange of test artefacts and for the joint execution of tests.

8.8.4 SCOPE

With the hosting of reference implementations, ITB addresses both interoperability and conformance testing. Systems connecting to it demonstrate their interoperability with the test bed and with each other as well as with other systems of different type connected to the test bed. At the same time they deliver proof of their conformance to underlying standards (IOP agreements). The test bed that exposes these services can execute additional tests for more detailed conformance statements.

In addition to the testing service, the action will also facilitate the maintenance and operation of the test registry and repository (TRR) on Joinup, which was conceived by the GITB workshop and realised on the Joinup platform under the ISA programme.

8.8.5 ACTION PRIORITY

8.8.5.1   Contribution to the interoperability landscape

The contribution of the action to the interoperability landscape, measured by the importance and necessity of the action to complete the interoperability landscape across the Union

Question	Answer
Does the proposal directly contribute to implementing the European Interoperability Strategy, the European Interoperability Framework, or other EU policies with interoperability requirements, or needed cross-border or cross-sector interoperability initiatives? If yes, please indicate the EU initiative / policy and the nature of contribution.	The action offers testing services to various policy domains; and more general work is being undertaken to explore the testability of interoperability specifications.
Does the proposal fulfil an interoperability need for which no other alternative solution is available?	Some other initiatives run their own testing services, but there is no other **generic** test bed available for interoperability initiatives.

8.8.5.2 Cross-sector

The scope of the action, measured by its horizontal impact, once completed, across the sectors concerned

Question	Answer
*Will the proposal, **once completed** be useful, from the interoperability point of view, and utilised in two (2) or more EU policy areas? If yes, which are those?*	The test bed can be used in any policy area – it is itself domain-neutral, though individual testing services are domain-specific. Which domains will request testing services is not known at this time. There are new requests already from e-procurement initiatives; another candidate is e.g. justice. GITB-compliance and interoperability between different test beds can play an important role in cross-domain testing – a pilot was executed with the Gazelle test bed used in eHealth.
*For proposals or their parts **already in operational phase**: have they been utilised in two (2) or more EU policy areas? Which are they?*	Though the operational phase starts in 2017, the test bed is already used by two different initiatives in e-procurement.

8.8.5.3 Cross-border

The geographical reach of the action, measured by the number of Member States and of European public administrations involved.

Question	Answer
*Will the proposal, **once completed** be useful, from the interoperability point of view, and used by public administrations of three (3) or more EU Members States?*	The test suites planned for the e-SENS project are going to be used by all MS participating in the e-Tendering pilot. Testing for the European Single Procurement Document (ESPD) is expected to cover a large number of

	MS.
*For proposals or their parts **already in operational phase**: have they been utilised by public administrations of three (3) or more EU Members States?*	The test scenarios already implemented for e-Procurement (with the CEF e-Invoicing DSI and CEN) are meant to be used by parties in many member states, though the current numbers of users is still small (operational phase starts in 2017).

8.8.5.4   Urgency

The urgency of the action, measured by its potential impact, taking into account the lack of other funding sources

Question	Answer
Is your action urgent? Is its implementation foreseen in an EU policy as priority, or in EU legislation?	Not directly, but since the e-Invoicing directive requires Member States to have technical solutions in place, an urgent need for testing these solutions is anticipated.
Does the ISA[2] scope and financial capacity better fit for the implementation of the proposal as opposed to other identified and currently available sources?	Consistent with the agreement between ISA and the CEF programme, some of the testing services are developed by ISA and later handed over to CEF for operations.

8.8.5.5   Reusability of action outputs

The re-usability of the action, measured by the extent to which its results can be re-used

Can the results of the proposal be re-used by a critical part of their target user base, as identified by the proposal maker? For proposals or their parts already in operational phase: have they been re-used by a critical part of their target user base?

Output name	Operational test bed service
Description	The test bed and some reference implementations of specifications/services will be deployed in the DIGIT data centre and/or in other computing centres (e.g. test centres in the Member States). Testing services will be made available to service owners and

	users (public administrations and other stakeholders) - subject to conditions that will be laid down based on a preliminary examination conducted under the ISA programme.
Reference	*Not yet available*
Target release date / Status	Q2 2016, depending on the availability of cloud services in the DIGIT data centre or alternative hosting facilities in Member States.

Output name	Test Registry and Repository (TRR)
Description	The Test Registry and Repository was created, based on specifications coming from the CEN GITB project, and integrated into Joinup under the ISA programme. It is a repository that can hold various types of assets related to testing, e.g. test beds, test cases, assertions, validation schemas etc. Under the ISA^2 programme it will have to maintained, promoted and new test artefacts added to it.
Reference	
Target release date / Status	First version released October 2015, to be continuously maintained

Name of reusable solution	Test bed installation package
Description	The test bed software used by ISA, which was originally developed by the GITB project, with all additions and improvements developed by the ISA team, is made available as an easy-to-install Docker image.
Reference	
Target release date / Status	First version released in 2016, will be continuously updated
Critical part of target user base	Since the test bed is also made available as a service (see section **Error! Reference source not found.**), the majority of sers will be using this service instead of installing the software. However, the ease of deployment in a virtual machine becomes crucial when testing services are handed over to the respective communities to be operated by themselves.
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	The testbed running the CEF e-Invoicing tests is currently shared between CEF an ISA. When ISA's test bed service is migrated to a separate hosting space, the CEF service will be the first independent instance of the test bed software.

Name of reusable solution	Various test cases
Description	All test cases developed in the context of the action, with their related test artefacts (e.g. assertions, validation schemas etc.) will be made available for reuse in the test registry and repository (TRR) on Joinup
Reference	
Target release date / Status	continuously released since Q2 2016
Critical part of target user base	
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	

8.8.5.6 Level of reuse by the proposal

The re-use by the action of existing common frameworks and elements of interoperability solutions.

Question	Answer
Does the proposal intend to make use of any ISA[2], ISA or other relevant interoperability solution(s)? Which ones?	
For proposals or their parts already in operational phase: has the action reused existing interoperability solutions? If yes, which ones?	Test bed software from the CEN GITB workshop agreement. Current test cases are based on validation schemas, schematron rules and process descriptions developed by PEPPOL, CEN and e-SENS. CEF e-Delivery software is being used as a reference implementation of the AS4 protocol.

8.8.5.7 Interlinked

The link of the action with Union initiatives to be measured by the collaboration and contribution level of the action to Union initiatives such as the DSM.

Question	Answer
Does the proposal directly contribute to at least one of the Union's high political priorities such as the DSM? If yes, which ones? What is the level of contribution?	This action is a supporting instrument – its contribution is therefore indirect.

8.8.6 PROBLEM STATEMENT

A considerable number of building blocks for cross-border services have been developed in publicly (EU and MS) funded projects. The connection of new components to a distributed, system requires thorough testing of these components, to avoid compromising the productive system. The absence of test facilities can impede technical implementation and adoption of solutions by Member States. By providing organizational and technical resources, ITB was conceived to provide reference systems for tests and development.

8.8.7 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States' Public Administrations	European national authorities and agencies tend to shy away from 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 production 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. In addition, it provides an opportunity to test and eventually certify products against the requirements.

8.8.8 ORGANISATIONAL APPROACH

8.8.8.1 Expected stakeholders and their representatives

Stakeholders	Representatives
European Commission Services	Project Managers
Member States' public administrations	ISA Coordination Group
CEN GITB Workshop and potential successors	Project officer in DG GROW, CEN secretariat
DIGIT data centre and other potential hosting providers (Test centres in Member States)	Cloud hosting services
Test centres in Member states	Various contact persons, facilitated through the ISA Coordination group
Service owners, e.g. ISA action owners or CEF DSI owners, funded projects	Project officers

8.8.8.2 Identified user groups

- Users of the test bed service are the owners of systems to be tested. Typically they are the members of a community where new digitized processes are introduced (centralized or peer-to-peer). For example the e-Invoicing/e-Procurement test cases are being used by the owners of e-Procurement systems (public administrations and private companies/service providers).
- Users of the test bed software and other deliverables from the action (requirements, service delivery model etc.) can also be other test centres that want to provide similar services to their customers.

- Users of the Test Registry and repository are, again, other test centres and communities, or test bed owners, that want to either retrieve reusable testing assets (test beds, test assertions/test cases, validation artefacts) or publish and distribute their own resources.

8.8.8.3 Communication plan

Already under the ISA programme, contacts have between established with a number of system owner that might want to test their products/services. These contacts will be maintained and extended mainly through the respective project officers in the Commission. Demos and presentations to these and other potential users are foreseen.

The contact with several open source test bed software providers (including GITB) will be maintained through participation in their events and web meetings and through reviews of software and specifications.

Setting up the Terms of Reference for hosting is foreseen to be conducted still under the ISA programme, but might extend into ISA^2. At the same time, contacts with test centres in the Member States (established through the ISA coordination group) will be maintained and extended, through targeted phone calls, web meetings and potentially face-to-face meetings. These test centres could in the long run either become hosting providers (of the ISA^2 test bed or of a separate independent instance) or become partners in a network of test centres that develop and run tests together and share test artefacts.

8.8.8.4 Governance approach

The action will be managed by DIGIT with the support of an external contractor. Whenever major deliverables are to be published, the validation of the MS representatives will be sought.

While the test bed will physically be run in a data centre (likely at DIGIT), the deployment of new reference implementations, the development of test cases and other artefacts, the management of user demands for testing facilities (both from owners of specifications and services and from owners of systems claiming conformance to these specifications and from users of the service) will remain in the hands of the ITB action.

A rough frame for this has already been established in deliverables produced under the ISA programme (e.g. hosting requirements, eligibility criteria for users of testing services – see documents referenced in section **Error! Reference source not found.**) and will be further refined.

8.8.9 TECHNICAL APPROACH AND CURRENT STATUS

The approach that was originally proposed 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.

Under the ISA programme, testing requirements of existing systems have been analysed, showing that there is a need for hosting facilities to run test systems on demand, but that it would also beneficial to provide additional functionalities through a test bed (see figure below). The intention is to provide such hosting, preferably as a cloud service, with the proof-of-concept software from the CEN GITB WS as a first candidate for the implementation of the test bed.
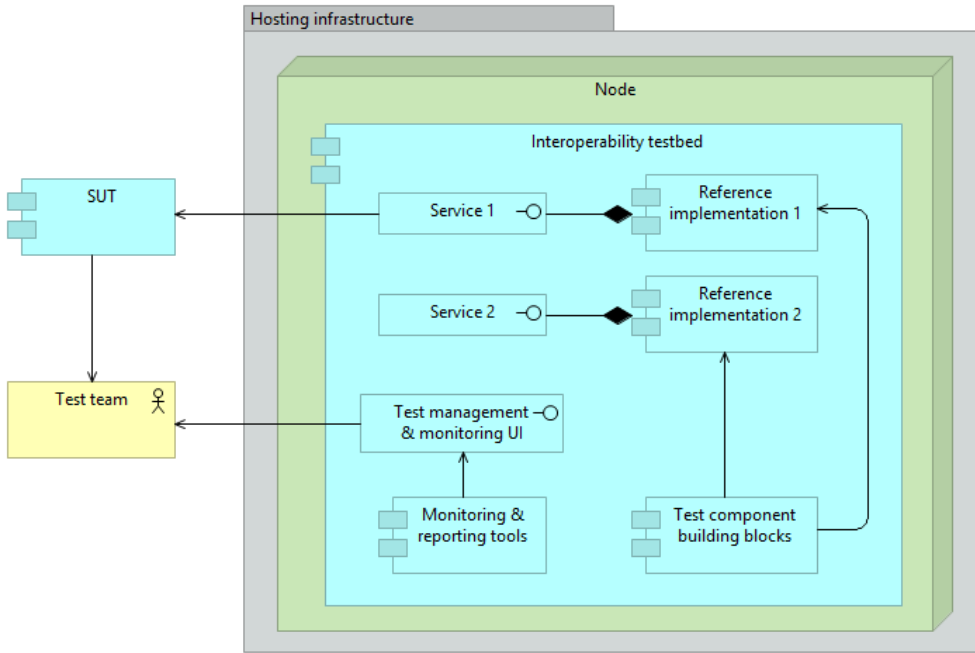
Figure Testing using a test bed

Over time, new reference implementations will be added to provide additional test services, and test cases developed for the automation of simple interconnection tests as well as conformance tests against standards and specification.

8.8.10 COSTS AND MILESTONES

8.8.10.1 Breakdown of anticipated costs and related milestones

Phase: Initiation Planning Execution Closing/Final evaluation	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 (continuing from ISA programme)	• Establish hosting of test bed	150	ISA²	Q2/2016	Q3/2016
Execution	• Set up governance • Deploy reference implementations • Develop conformance	200	ISA²	Q3/2016	Q2/2017

	tests				
Operation	• Governance of Operation • Operational Hosting • Test development	246	ISA²	Q1 2017	Q4 2017
	Total	**596**			

8.8.10.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2016	Execution /Operation	250	250
2017	Execution /Operation	246	
2018			
2019			
2020			

8.8.10.3 Planning for the tendering procedures to be launched for the action

Call for tenders foreseen Global amount in KEUR	Call for Tenders Duration in years	Indicative planning of publication (QX/YYYY)

8.8.11 ANNEX AND REFERENCES

Description	Reference link	Attached document
CEN GITB specification	Global eBusiness Interoperability Test Bed (GITB) Phase 3: Implementation Specifications and Proof-of-Concept	
Hosting requirements, deliverable from previous contract under the ISA programme	"Hosting requirements" (report to be published)	
Eligibility criteria for test services, deliverable from previous contract under	"Eligibility criteria for systems to request testing facilities" (report to be published)	

the ISA programme		

8.9 JOINUP – EUROPEAN COLLABORATIVE PLATFORM AND CATALOGUE (2016.20)

8.9.1 IDENTIFICATION OF THE ACTION

Type of Activity	Common services
Service in charge	DIGIT.B6
Associated Services	GROW.F3, CONNECT.H3 CONNECT.F2 DIGIT.B1

8.9.2 EXECUTIVE SUMMARY

Information related to interoperability solutions and -initiatives were scattered across Europe in numerous public repositories and governmental websites making it hard for policy makers, IT experts and other interested parties get information on the current status of interoperability in Europe, or to re-use already available solutions in the public sector.

Joinup answers to these problems, by establishing a common platform which combines three services in order to reach the objectives stated above:

1. Observatory functionalities enable different communities, such as National Interoperability Framework Observatory (NIFO), the Open Source Observatory (OSOR) and the Semantic Interoperability Centre (SEMIC) to inform their respective users of new events, news, best practices related to a specific domain;

2. Collaborative features allow setting up separate spaces for different collections to cooperatively develop their solutions, or to exchange best practice of a specific sector or domain;

3. Finally the Joinup catalogue provides a central, federated place for interoperability solutions, which are used and which can be re-used in the public sector across Europe.

The above features allow different initiatives to focus on their core objectives without having to deal with setting up individual websites with similar functionalities to communicate to the public. Joinup not only saves considerable resources compared to setting up individual spaces for specific projects, but also helps these projects gain more visibility and reach their target audience more easily. The Catalogue helps public administrations search for, find and re-use proven solutions from a central place.

Joinup has been available since 2012, while the catalogue of interoperability solutions have been launched in 2013. Currently the platform is visited around 40.000 times a month, has a catalogue of more than 2.000 reusable IT solutions, and provides a platform to numerous communities to exchange information and knowledge in various domains. Based on the experience with their usage, the Commission already has launched a major revamping exercise (funded under the ISA programme, which includes both the update of the Joinup platform and also the re-scoping of the catalogue of solutions.

In 2017, the action will focus on the following areas:

- Collect feedback from the end-users on the new platform to see if we reached to goal to provide better user experience and act accordingly.
- Maintain the catalogue of solutions –Joinup will further focus on promoting the highest quality, most documented solutions, while also allowing other high quality, and well documented ones to be part of the catalogue.
- Maintain and promote the European Interoperability Cartography within Joinup, which aims at providing a highly structured (according to the EIRA) set of building blocks and solutions to support administrations in providing interoperable public services
- Implement the European Catalogue of ICT Standards for Public Procurement on Joinup (DG Grow initiative)
- Maintain the CAMSS method, tools and library, and the CAMSS list of standarrds until it is replaces by or merged with the European Catalogue of ICT Standards for Public Procurement
- Further promote the Joinup platform as authentic source of information around eGovernment and ICT in the public sector in the EU, and a one stop shop for sharing and re-using IT solutions for public administrations in EU.

8.9.3 OBJECTIVES

The objective of the action is to help public administrations deliver high quality, interoperable services faster and cheaper by providing them a platform, where they can exchange good practices, and high quality interoperability solutions in the context of public services.

8.9.4 SCOPE

To develop and provide a common technical platform offering a set of services supporting public administrations exchange interoperability solutions and good practices:

1. To develop and maintain the technical Joinup platform
2. To operate the Joinup platform and to provide technical and user helpdesk. To moderate user created content.
3. To develop and manage the catalogue of interoperability solutions and the European Interoperability Cartography on Joinup.
4. To host and promote the European Interoperability Catalogue (EIC)
5. To host the European Catalogue of ICT Standards for Public Procurement
6. Increase awareness about the new platform and gather user feedback

The catalogue documents and makes available information about interoperability solutions related to EU policies of the Member States and the European Commission, with the possibility to host relevant information from other International Organizations, including standardisation activities and bodies. By interoperability solutions we mean methods, techniques, guidelines, standards, specifications, service descriptions and software artefacts. The listed solutions are organised in multiple dimensions including the four levels of EIF,

including technical and semantic interoperability solutions (e.g. standards, metadata schemata), organisational interoperability solutions (e.g. business processes) and legal interoperability solutions (e.g. guidelines on how to achieve legal interoperability, decisions, laws). The catalogue will also include a subset of solutions which meet certain criteria to be included in the European Interoperability Cartography.

Out of scope:

- Content creation is not in scope for the Joinup action, but is managed by other actions (mainly the Community building action).
- Governance of the European Catalogue of ICT Standards for Public Procurement.

8.9.5 ACTION PRIORITY

Information related to interoperability solutions, interoperability initiatives were scattered across Europe in numerous public repositories and governmental websites making it hard for policy makers, IT experts and other interested parties to be informed on the current status of interoperability in Europe, or to re-use already available solutions in the public sector.

Joinup answers to these problems, by establishing a common platform which combines three services in order to reach the objectives stated above:

1. Observatory functionalities enable different communities, such as NIFO to inform their respective users of new events, news, best practices related to a specific domain
2. Collaborative features allow setting up separate spaces for different communities to cooperatively develop their solutions, or to exchange best practice of a specific sector.
3. Finally the catalogue provides a central, federated place for interoperability -usable solutions, which are used and which can be re-used in the public sector across Europe.

The above features allow different initiatives to focus on their core objectives and not having to deal with setting up individual websites with the above functionalities to communicate with their public. Joinup not only saves considerable re-sources compared to setting up individual spaces for specific projects, but also helps these projects gain more visibility and reach their target audience more easily.

8.9.5.1   Contribution to the interoperability landscape

The contribution of the action to the interoperability landscape, measured by the importance and necessity of the action to complete the interoperability landscape across the Union

Question	Answer
Does the proposal directly contribute to implementing the European Interoperability	Yes, it facilitates the sharing and re-use of solutions for public administration and

Strategy, the European Interoperability Framework, or other EU policies with interoperability requirements, or needed cross-border or cross-sector interoperability initiatives? If yes, please indicate the EU initiative / policy and the nature of contribution.	provides the stakeholders with the means to collaborate.
Does the proposal fulfil an interoperability need for which no other alternative solution is available?	Yes, the observatory functionalities provide a unique access to interoperability information across the EU

8.9.5.2 Cross-sector

The scope of the action, measured by its horizontal impact, once completed, across the sectors concerned

Question	Answer
*Will the proposal, **once completed** be useful, from the interoperability point of view, and utilised in two (2) or more EU policy areas? If yes, which are those?*	
*For proposals or their parts **already in operational phase**: have they been utilised in two (2) or more EU policy areas? Which are they?*	Joinup communities and repositories cover multiple policy areas, such as eProcurement, geospatial, eHealth, etc.

8.9.5.3 Cross-border

The geographical reach of the action, measured by the number of Member States and of European public administrations involved.

Question	Answer
*Will the proposal, **once completed** be useful, from the interoperability point of view, and used by public administrations of three (3) or more EU Members States?*	
*For proposals or their parts **already in operational**	Our end-users are indeed from different

phase: *have they been utilised by public administrations of three (3) or more EU Members States?*	European countries, such as Poland, Norway, Germany, France, China, UK, Netherlands, Italy, Ukraine, Spain, etc... and also outside EU (USA, Canada, New-Zeeland, China). Joinup is visited more than 30.000 times a month

8.9.5.4   Urgency

The urgency of the action, measured by its potential impact, taking into account the lack of other funding sources

Question	Answer
Is your action urgent? Is its implementation foreseen in an EU policy as priority, or in EU legislation?	In DECISION (EU) 2015/2240 Article 3 (i) it is listed as one of the activities the ISA[2] programme should focus on: the maintenance and publication of a platform allowing access to, and collaboration with regard to, best practices, functioning as a means of raising awareness and disseminating available solutions, including security and safety frameworks, and helping to avoid duplication of efforts while encouraging the re-usability of solutions and standards
Does the ISA[2] scope and financial capacity better fit for the implementation of the proposal as opposed to other identified and currently available sources?	Yes, it's part of the legal base

8.9.5.5   Reusability of action outputs

Name of reusable solution	Updated Joinup reusable platform
Description	The Joinup platform is available for re-use under an open source licence. The Drupal 6 version of the platform is already re-used by the Australian and New Zealander administrations. The new version will be available in 2017, and we can be re-used as a whole, or could be used to co-develop new features that could benefit the community.

Reference	www.joinup.eu
Target release date / Status	Q1 2017 (drupal 8 version)
Critical part of target user base	
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	2 known implementations: New Zeeland and Vietnam

8.9.5.6 Level of reuse by the proposal

Question	Answer
Does the proposal intend to make use of any ISA[2], ISA or other relevant interoperability solution(s)? Which ones?	• Technical platform: the Joinup platform is based on open source, highly re-usable components (Drupal 8.0, Mailman, etc, with some customisation for specific features). • ADMS, ADMS.AP: this semantic specification was developed under the ISA action 1.1. to describe in a standardised manner any interoperability solution. All interoperability solutions in the catalogue of solutions are described using this specification. In addition, the specification is also used to federate interoperability solutions from other national and international repositories. • EIRA: the European Interoperability Architecture will be used to organise solutions which are part of the future European Interoperability Cartography (a subset of Joinup catalogue) on Joinup.
For proposals or their parts already in operational	Yes, the current Drupal 6 version of Joinup is

Question	Answer
phase: has the action reused existing interoperability solutions? If yes, which ones?	also using ADMP, ADMS.AP.

8.9.5.7 Interlinked

Question	Answer
Does the proposal directly contribute to at least one of the Union's high political priorities such as the DSM? If yes, which ones? What is the level of contribution?	In the DSM priorities, the Commission has communicated it will concentrate on standards and interoperability, critical areas to the Digital Single Market. With the implementation of the European Catalogue of ICT Standards for Public Procurement and the interoperability catalogue of re-usable solutions in Joinup, we are at the heart of the DSM priority.

8.9.6 PROBLEM STATEMENT

Information related to interoperability solutions, interoperability initiatives were scattered across Europe in numerous public repositories and governmental websites making it hard for policy makers, IT experts and other interested parties to be informed on the current status of interoperability in Europe, or to re-use already available solutions in the public sector.

Joinup answers to these problems, by establishing a common platform which combines three services in order to reach the objectives stated above:

1. Observatory functionalities enable different communities, such as NIFO to inform their respective users of new events, news, best practices related to a specific domain
2. Collaborative features allow setting up separate spaces for different communities to cooperatively develop their solutions, or to exchange best practice of a specific sector.
3. Finally the catalogue provides a central, federated place for interoperability -usable solutions, which are used and which can be re-used in the public sector across Europe.

The above features allow different initiatives to focus on their core objectives and not having to deal with setting up individual websites with the above functionalities to communicate with their public. Joinup not only saves considerable re-sources compared to setting up individual spaces for specific projects, but also helps these projects gain more visibility and reach their target audience more easily.

To put even more focus on the best and most re-usable solutions (a subset of the Joinup catalogue), the EIC (European Union Interoperability Cartography) will be populated on Joinup. To increase discoverablity, the solutions and building blocks in the EIC will be structured using the EIRA.

8.9.7 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.

Reduced communication and development costs for projects, resulting from not having to set up individual websites and repositories to publish their solutions to the public. |
| Member States | Member states obtain access to a set of interoperability solutions that can be re-used in their NIF. They could also obtain access to an overview of the different TES that exists to support EU policies. Solutions which could be re-used are not only software systems or parts thereof but also guidelines, methods and techniques, organisational and legal regulations and formal specifications. A selected set of all these elements which could qualify as best-in-class will constitute an EU Cartography. Since the Joinup catalogue is a federated repository, Member States can seamlessly exchange interoperability solutions with the catalogue and their local installations of the platform. A light-weight federation with external repositories became available via the ADMS extended specification for describing any type of interoperability solutions. |

European Commission	The Commission uses 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.
	The European Commission is expected to use the platform to document also its own interoperability solutions and the information systems which have been implemented to support EU policies.
	The Commission will also acquire a more precise view on the current landscape of different solutions and their interrelationships, possible overlaps, complementarities, needs for interoperability, etc.
European Industry	The access to interoperability solutions like business processes, communication protocols, guidelines and techniques allows the European software industry to develop products, which fit the needs of European public administrations more closely. Therefore, the proposed repository fosters the creation of an innovative European software market offering interoperable products.

8.9.8 EXPECTED MAJOR OUTPUTS

Output name	European Interoperability Catalogue
Description	The 'European Interoperability Cartography (EIC) is a repository of interoperability solutions for European public administrations provided by Union institutions and Member States, presented in a common format and complying with specific reusability and interoperability criteria that can be represented on the European Interoperability Reference Architecture (EIRA). The EIC contains interoperability solutions that have been identified to be reusable and interoperable in the context of the implementing an EU public policy.
Reference	
Target release date / Status	Q1 2017

Output name	European Catalogue of ICT Standards for Public Procurement
Description	The aim of the European Catalogue initiative is to foster the referencing of existing ICT standards and technical specifications by public procurers through • The creation of a centralised repository of reference standards and technical specifications • a coordination and convergence process for the

	development of MS' strategies to adopt ICT standards (including national catalogues when they exist).
	• better information on existing standards and technical specifications
	• guidance on the way to use them
	• an adequate policy to encourage their use
	• the adoption of best practices
	It also intends to increase transparency for the vendors on the public procurement market needs, requirements, and opportunities.
Reference	
Target release date / Status	Q2 2017

8.9.9 ORGANISATIONAL APPROACH

8.9.9.1   Expected stakeholders and their representatives

Stakeholders	Representatives
Member States' public administrations	o ISA^2 Committee o ISA^2 Coordination Group (or ISA CG equivalent) o Dedicated ISA^2 expert group o Representatives of national repositories
European Commission DIGIT	Service provider for hosting/house services and project evolution
European Commission DIGIT	Action owner of "Community building" action
European Commission DIGIT	Action owner of National Interoperability Framework Observatory (NIFO) action
European Commission DIGIT	Action owner of "Promoting semantic interoperability" action
European Commission JRC	Action owner of the ELISA action
European Commission CNECT	Owner of the CEF programme.
European Commission GROW	Owner of the European Catalogue of ICT Standards for Public Procurement project.

8.9.9.2   Identified user groups

8.9.9.3   Communication plan

Event	Representatives	Frequency of meetings / Absolute dates of meetings?
	Dedicated ISA^2 expert group	1-2 times per year.
Survey on future improvements	Users of the platform, national repositories	Once per year.
Workshops	Owners of national, international federated repositories	Once per year

8.9.9.4   Governance approach

The project is managed by the Commission (DIGIT.B6, DIGIT.A3 and DIGIT.C).

The strategic decisions with regards to the direction of further developments are influenced by evaluating the use of the platform and by surveying the end-users and other stakeholders of the platform. A Joinup Steering Committee (quarterly meetings) has been set up (consisting representatives of the above actions) to support the decision making process.

8.9.10 TECHNICAL APPROACH AND CURRENT STATUS

The development of Joinup started in 2010, while the platform was launched in 2011. In 2013, Joinup launched an integrated repository of interoperability solutions, which included not only open source software, but also technical and semantic specifications aimed at increasing interoperability among public services. Over the last years, Joinup has become collaborative home to hundreds of Commission and other EU software initiatives and provides a catalogue of thousands of federated interoperability solutions, guidelines, documents and frameworks.

It also provides the technical means to publish several ISA and ISA^2 initiatives, such as the National Interoperability Framework Observatory (NIFO), CAMSS, IMM, ePrior, eTrustex, etc.

Being such a rich and diverse information source has had its challenges. Users found it hard to find relevant information among the plethora of content Joinup provides and to navigate through the dozens of different services.

To address these issues, the Commission has launched 2 parallel projects in 2015. One aims at updating the platform itself using modern technologies (full support of mobile devices, better user interface, streamlined workflows), while the other is working on streamlining the catalogue of interoperability solutions.

In Q1 2017, the first version of the new Joinup platform will be launched.

Work on the catalogue has already started in 2015. First, a new scoping criteria along with a stricter quality check have been defined, which will result in a significant reduction of the catalogue. This will make it easier to promote high quality, well documented solutions and important specifications for public administrations.

In parallel, the action overtook the implementation and operation of the EIC (European Union Interoperability Cartography) from the ISA action 2.2 European Interoperability Architecture.

As a first step (2015) a new scope and eligibility criteria along with a governance model were defined for the catalogue. Based on these criteria, a pilot was done in 2016, and in 2017 the EIC will be implemented and operated.

In summary, the following activities are planned for 2017:

- Go-Live of the new Joinup version
- Operation of the new Joinup platform, which includes hosting, technical maintenance, the provision of technical and user helpdesk.
- Implementation of additional features in the new Joinup platform based on user demand.
- Moderation of user created content (activity overtaken from ISA2 action 2016.22 *Community building*. Editorial works related to the Joinup platform.
- Operating the catalogue of interoperability solutions on Joinup, which includes the federation of new repositories, the assessment of federated and hosted solutions against the new scope and eligibility criteria, the promotion of high quality solutions and other promotion activities.
- Implementation and operating the EIC
- Taking over the limited maintenance of the CAMSS method and support of assessments from the CAMSS action which is concluded in 2017.
- Implementation of the European Catalogue of ICT Standards for Public Procurement on Joinup

8.9.11 COSTS AND MILESTONES

8.9.11.1 Breakdown of anticipated costs and related milestones

Phase: Initiation Planning Execution Closing/Final evaluation	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	Joinup2 hosting,technical maintenance and provision of technical 2nd line helpdesk. Moderation of user content and editorial work	477	ISA^2	Q3 2016	Q2 2018
Execution	Joinup 2 improvements and new developments	400	ISA^2	Q2 2016	Q2 2018
Execution	Provision of the common service, catalogue of solutions, EIC and the CAMSS catalogue on Joinup	1000	ISA^2	Q2 2016	Q2 2018
	Total	**1877**			

8.9.11.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2016		1060	
2017		817	
2018			
2019			
2020			

8.10   COMMUNITY BUILDING AND EFFECTIVE USE OF COLLABORATIVE PLATFORMS (2016.22) – *FUNDING CONCLUDED*

8.10.1 IDENTIFICATION OF THE ACTION

Type of Activity	Accompanying measure
Service in charge	DG DIGIT.B6
Associated Services	DG CNECT

8.10.2 EXECUTIVE SUMMARY

Funding for this action has been concluded.

Task related to creation of original content and promotional, disseminational activities will be uptaken by ISA2 action 2016.30 "Raising interoperability awareness".

Tasks related to the operation of the Open Source Observatory and faciliating the use of open source software among public adminsitrations are overtaken by ISA2 action 2016.31 Sharing and reuse.

Tasks related to the supporting of different communtiies which use the Joinup platform are overtaken by ISA2 action 2016.20 Joinup.

The Community Building action is at the core of the Joinup platform. It facilitates collaboration through the platform, supporting and enhancing the activities of hosted communities. Community-building activities will continue under ISA² programme.

Promoting the exchange of good practices is a good way to ensure spreading them across Europe. Member States can replicate useful approaches and solutions to deliver electronic services minimising effort and time.

In this context, the implementation and promotion of best practice online as well as the facilitation of offline sharing are key. They help to ensure a wider deployment across the EU to the benefit of Public Administrations, businesses and citizens.

The ISA² communication strategy to be developed in 2016 will consider also the activities performed under the Community building action.

8.10.3 OBJECTIVES

The main objective of this action is to facilitate the exchange of best practises in the area of interoperability and e-Government, notably by the set-up and operation of pertinent user communities.

8.10.4 SCOPE

Any community interested in interoperability and e-Government is in scope of the action. These communities are open to all stakeholders as long as they are not used for commercial purposes and clearly demonstrate that they represent the interest of the public service.

This action covers one of the priority areas of the European Interoperability Strategy which is the sharing of best practices and common solutions among public administrations. It covers also some priorities of the Digital Single Market. As a result, it will continue building new and maintaining existing communities (within and outside the EU borders).

8.10.5 PROBLEM STATEMENT

European public administrations, who are the main target group of this ISA[2] action, have progressed a lot in the area of interoperability and most of them already have advanced national portals/platforms as repositories for the sharing of their common solutions. These reside within the national borders, and therefore are often more appealing to national users than the pan-European ones. However, national platforms are not always known or accessible (e.g. due to linguistic issues) to all EU citizens and concerned communities are in national isolation without the broadest possible visibility.

The creation of a single place, i.e. Joinup, where relevant communities can be hosted, supported and maintained is a solution to the above problem. It should be noted that Joinup should not be perceived as a competitor to other local sites but rather as their complement at EU level. Joinup software itself can be downloadable by stakeholders wishing to have their own collaborative space.

Joinup.eu covers content from all across the EU and beyond and therefore it can also support public administrations when adopting a European perspective in interoperability rather than focusing at national level only. The full re-use and benefits 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.

8.10.6 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
European Public administrations, business and citizens	- Knowledge/solutions sharing and reuse; - Co-working on issues of common interest; - Better, more effective and efficient public services via sharing, re-use and collaboration.

8.10.7 EXPECTED RE-USABLE OUTPUTS (solutions and instruments)

Output name	news items, cases studies around eGovernment and OSS in public sector
Description	A set of news items, case studies around eGovernment and OSS in the public sector.
Reference	http://joinup.ec.europa.eu
Target release date / Status	regularly published throughout 2016,

Output name	OSS highlights
Description	A publication highlighting the most important initiatives, good practices around using OSS in the public sector in 2016
Reference	http://joinup.ec.europa.eu
Target release date / Status	Q1 2017

8.10.8 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation, inputs / outputs
ISA Action 1.1 – Methodologies for the development of semantic assets	ISA Action 4.2.2 hosts and manages the SEMIC and CESAR communities of the ISA Action 1.1.
ISA Action 1.12 – European Citizen's Initiative	ISA Action 4.2.2 hosts and manages communities.
ISA Action 4.2.1 – ISA Integrated collaboration platform	Joinup offers the technical place to host the activities of the Community Building action.
ISA Action 1.6 – PEPPOL Sustainability (CIPA)	ISA Action 4.2.2 hosts the user community around CIPA e-Delivery building block.
ISA Action 1.7 – e-Prior action	ISA Action 4.2.2 hosts the user community around the e-Prior tool.
ISA Action 4.2.3 NIFO	ISA Action 4.2.2 hosts the user community of NIFO. NIFO through the delivery of factsheets and interoperability reports at EU level can be a reference point for many of the communities.

8.10.9 ORGANISATIONAL APPROACH

8.10.9.1 Expected stakeholders and their representatives

Stakeholders	Representatives
Member States	Member State Experts
Communities of Practice	ELANET
European Public Administrations	Public Administrations from National, Regional and Local levels together with all EU Institutions and Agencies.

8.10.9.2 Communication plan

Communication activities are ensures through constant contacts with the existing and potential stakeholders and through presentations to the ISA² management bodies.

8.10.9.3 Governance approach

The action will be managed by DIGIT with the support of an external contractor.

8.10.10 TECHNICAL APPROACH

The action consists of two parts:

- Community building

The Commission provides answers to all questions, comments and suggestions community members might have, be it on open source, interoperability or of technical nature.
The Commission will ensure that communities are active and will support their facilitator to create content and stipulate discussions between the members.

In 2016, the service will continue and further enriched as Joinup functionalities will be extended due to migration to a newer Drupal version. Support to communities will be intensified, also through providing better content, statistics to facilitators so as to identify new trends needing discussion, running awareness campaigns, etc.

- Sharing of best practice

The Commission will be responsible for the content generation on Interoperability and eGovernment and also support users to submit their own content in terms of news, events, cases and documents.

This action sustains most of the actions within the ISA^2 programme, as it is able to support their communities on Joinup.eu.

In 2016, social media will be better integrated to allow for success stories and best practises to be easily captured and communicated. Real-life events (workshops, conferences) will be organised to support communities in a variety of themes.

Generally, through this action the Commission is taking a pro-active role in the area of collaboration. Also, he Commission shall search for similar initiatives in the EU public administrations and identify possibilities for collaboration.

8.10.11 COSTS AND MILESTONES

8.10.11.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA²/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Operational	Content provision, moderation of online discussions, support to online communities, showcasing of best practices organising workshops.	500	ISA^2	Q2/2016	Q1/2107
	Total	**500**			

8.10.11.2 Breakdown of ISA^2 funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2016	Operational	500	
2017	Operational		
2018	Operational		
2019	Operational		
2020	Operational		

8.11   ASSESSMENT OF TRANS-EUROPEAN SYSTEMS SUPPORTING EU POLICIES (2016.36)

8.11.1 IDENTIFICATION OF THE ACTION

Type of Activity	Common frameworks
Service in charge	DG DIGIT.B6
Associated Services	CONNECT.H.3, DIGIT.01, DIGIT.B, GROW.B.1 and TAXUD.C5

8.11.2 EXECUTIVE SUMMARY

The European Commission is determined to improve the efficiency on its ICT portfolio management, especially for solutions of trans-European nature having direct impact on the implementation of EU policies.

On the one hand the Commission ITT Governance should rationalise existing IT systems by identifying and eliminating overlaps through reusability.

On the other hand the policy makers i.e. in the context of the recently launched Digital Single Market strategy should make good use of technology in EU legislation, by referring to an updated repository of IT solutions linked with legal and business needs and technically sound.

For the above to happen, the identification, collection, documentation and assessment of Trans European Systems (TES) managed by the Commission on behalf of/jointly with the Member States is needed. TES should be put into a Cartography (TESCart) which means that they all have to be described in a common way using a reference architecture. This reference architecture has been chosen to be the EIRA. The scope of this action includes:

- ➢ the creation of a TESCart based on EIRA that will allow the identification of reusable and interoperable IT solutions to the benefit of the ICT portfolio management of the Commission and in support of the makers of the EU policy-makers.
- ➢ The assessment of the reusability and interoperability levels of the building blocks of each TES

So far, more than 76 TES have been put into the current version of the TESCart and can be easily queried and organised via the CarTool.

Next steps include the update and extension of the TESCart to the entire TES base in the EC and the application and assessment of reusability and interoperability criteria that will increase the reusability potential of TES..

8.11.3 OBJECTIVES

The objectives of this action are:

- To rationalise the portfolio of the Trans European Systems managed by the Commission, through the identification and elimination of overlaps and through maximizing reusability to the benefit of those using these systems, public administrations included;
- To assess/produce/validate reusability and interoperability guidelines that could be used to allow solutions entering the European Interoperability Cartography;
- To allow policy-makers benefit from reusing TES or their parts when preparing EU legislation.

8.11.4 SCOPE

All Trans European Systems developed by the Commission on behalf of/jointly with the Member States and contained in the ICT portfolio of the Commission are in scope. In 2016 the TES base in the EC has been sized in 141 solutions. Member State systems identified by NIFO are also potential targets for inclusion in the Cartography.

More particularly, the following activities fall under the action in question:

- Identify, collect and document using EIRA all concerned TES in a Cartography (TESCart);
- Analyse and identify overlaps, missing modules and reusability possibilities;
- Identify TES that could be included into the European Interoperability Cartography (EIC) when this is ready and/or on the Joinup, as needed;
- Feed back to the Commission's IT Governance to ensure proper decision making in relation to (on-going) rationalisation.

8.11.5 ACTION PRIORITY

8.11.5.1 Contribution to the interoperability landscape

Question	Answer
Does the proposal directly contribute to implementing the European Interoperability Strategy, the European Interoperability Framework, or other EU policies with interoperability requirements, or needed cross-border or cross-sector interoperability initiatives? If yes, please indicate the EU initiative / policy and the nature of contribution.	Yes. Furthermore the TESCart, one of the products of this action is a cornerstone in the implementation of EIF as captured in the ISA[2] text and in the next communication regarding EIF, EIS and EIRA.
Does the proposal fulfil an interoperability need for which no other alternative solution is available?	Yes. There is no cartography in the EC

8.11.5.2 Cross-sector

Question	Answer
*Will the proposal, **once completed** be useful, from the interoperability point of view, and utilised in two (2) or more EU policy areas? If yes, which are those?*	Yes. The TESCart is policy neutral
*For proposals or their parts **already in operational phase**: have they been utilised in two (2) or more EU policy areas? Which are they?*	

8.11.5.3 Cross-border

Question	Answer
*Will the proposal, **once completed** be useful, from the interoperability point of view, and used by public administrations of three (3) or more EU Members States?*	Yes.
*For proposals or their parts **already in operational phase**: have they been utilised by public administrations of three (3) or more EU Members States?*	

8.11.5.4 Urgency

Question	Answer
Is your action urgent? Is its implementation foreseen in an EU policy as priority, or in EU legislation?	Yes. It is captured in the ISA[2] text
Does the ISA[2] scope and financial capacity better fit for the implementation of the proposal as opposed to other identified and currently available sources?	Yes. Reusability and interoperability is in the core of the TESCart

8.11.5.5 Reusability of action outputs

Name of reusable solution	TESCart
Description	TES cartography in the EC
Reference	
Target release date / Status	July 2017
Critical part of target user base	Solution architects, business analysts, IT portfolio managers
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	

Name of reusable solution	Rationalization proposals
Description	Study
Reference	
Target release date / Status	September 2017
Critical part of target user base	Solution architects, business analysts, IT portfolio managers
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	

Name of reusable solution	Interoperability Quick Assessment Tookit
Description	Common guidelines, tool, methodology and criteria for solution owners to assess the level of interoperability of a solution
Reference	
Target release date / Status	October 2016
Critical part of target user base	Solution architects, business analysts, IT portfolio managers
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	

Name of reusable solution	Reusability Assessment Toolkit
Description	Common guidelines, tool, methodology and criteria for solution owners to assess the level of interoperability of a solution
Reference	
Target release date / Status	December 2017
Critical part of target user base	Solution architects, business analysts, IT portfolio managers
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	

Name of reusable solution	RUS&IOP service published in DIGIT catalogue of services
Description	The Reusability and interoperability assessment service will target one solution in production or a solution proposal. The outcomes will be documented in a service report including 1) recommendations to increase the RUS level of the solution, 2) recommendations to increase the IOP level of the solution and 3) identify its full potential for reuse by creating a map of the complete addressable target of policy areas of the Commission where it could be reused. This service will be delivered/tested with IMI and two other solutions and up to two Member states
Reference	
Target release date / Status	December 2017
Critical part of target user base	Solution architects, business analysts, IT portfolio managers
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	

Name of reusable solution	DOC service published in DIGIT catalogue of services
Description	The documentation service will target one solution in production, development or proposal phase. The outcomes will be documented in a service report including 1) the EIRA conformance documentation of the solution using the CarTool 2) The assessments of DQ, RUS and IOP, 3) the inclusion of the documentation on the cartography and 4) map of the full

	addressable target of policy areas where the solution could potentially be reused. This service will be delivered/tested with 2 selected out of the 53 TES in task 4 and in three member states. These tests in three Member States will overlap the up to two tests of the RUS&IOP service in Member States
Reference	
Target release date / Status	December 2017
Critical part of target user base	Solution architects, business analysts, IT portfolio managers
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	

Name of reusable solution	TESCart service published in DIGIT catalogue of services
Description	The TESCart access service will target any ad-hoc request concerning solutions that could be (partially) answered via queries to the TESCart. The outcomes will be documented in a service report including 1) the formulated queries and their answers using the CarTool 2) An interpretation of the results including references to the observed DQ, RUS and IOP levels, 3) findings/conclusions and 4) recommendations. This service will be delivered/tested with the deliverables of task 5 and, if they arrive, up to 3 ad-hoc requests.
Reference	
Target release date / Status	December 2017
Critical part of target user base	Solution architects, business analysts, IT portfolio managers
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	

Name of reusable solution	Rationalisation benchmarking service published in DIGIT catalogue of services
Description	The rationalisation benchmarking service will target two solutions in production. The outcomes will be documented in a service report including 1) benchmark analysis from the rationalisation perspective including DQ, RUS and IOP assessments 2) rationalisation scenarios and 3) recommendations. This service will be delivered/tested with

	two solutions
Reference	
Target release date / Status	December 2017
Critical part of target user base	Solution architects, business analysts, IT portfolio managers
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	

8.11.5.6 Level of reuse by the proposal

Question	Answer
Does the proposal intend to make use of any ISA[2], ISA or other relevant interoperability solution(s)? Which ones?	Yes. Synergies and reuse is expected with EIA (EIRA), Base Registres, EFIR and Joinup
For proposals or their parts already in operational phase: has the action reused existing interoperability solutions? If yes, which ones?	+76 TES has been already documented in the TESCart The rationalisations proposals produced had taken the TESCart as the main source of input

8.11.5.7 Interlinked

Question	Answer
Does the proposal directly contribute to at least one of the Union's high political priorities such as the DSM? If yes, which ones? What is the level of contribution?	Supporting cross-border public services is key for the once-only principle.

8.11.6 PROBLEM STATEMENT

This action addresses the lacking of a cartography in the EC and therefore the risk of development roadmaps in silos. This affects the Commission responsible services (policy-makers, ICT decision-makers, portfolio managers, etc.) in their endeavour to rationalise its ICT portfolio and properly reuse ICT solutions in the preparation of EU legislation.

The impact of the problem includes inefficient decision-making and possible duplication of effort in the development of ICT solutions due to difficulties in identifying reusable elements. This in turn results into higher cost and longer development time with no guarantee of openness and interoperability.

8.11.7 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States' Public Administrations	• More streamlined interfacing/integration with less EU systems; • Reduced training efforts as a fewer IT tools are used; • Shorter time to obtain IT tools for new areas; • Boost for e-government policies.
Commission Services	• Reduced IT development and maintenance costs; • Reduced training, helpdesk and awareness raising costs ; • Shorter time to deliver IT solutions for new areas; • Better quality due to reusing existing (proved) solutions and/or their modules.
(Indirectly) EU citizens and businesses	• Better digital services delivered by public authorities

8.11.8 ORGANISATIONAL APPROACH

8.11.8.1 Expected stakeholders and their representatives

Stakeholders	Representatives
European Commission Services	Policy units in the DGs, responsible for the setup of EU systems supporting exchanges between Member states and with EU institutions
IT Governance of the Commission	DG representatives
Member States Public	Relevant departments responsible for the information systems connected to

Administrations	or using the TES

8.11.8.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
ISA[2] Committee/Coordination/work group meetings	Member States representatives	At least yearly.
Internal dedicated Commission meetings	Policy DGs	Ad-hoc

8.11.8.3 Governance approach

The action will be managed by DIGIT as well as CONNECT, GROW and SANCO as associated DGs with the support of an external contractor and in close collaboration with the Commission DGs owners of the concerned TES.

8.11.9 TECHNICAL APPROACH AND CURRENT STATUS

Up until 2013 the TESCart included 58 TES and provided a set of rationalization recommendations to the IT Governance of the Commission.

In 2015 the EUCart was updated with the latest version of the EIRA, started using the CarTool as the technical means for its organisation/presentation and extended to more than 75 solutions including 9 base registries. The EUCart is meant to feed into the European Interoperability Cartography (EIC). It is the playground to practise/validate outputs coming from relevant action, i.e. reusability criteria, EIRA, base registers, etc.

In 2016 The TESCart was migrated from the PoC to a free of charge solution accessible via the CarTool. Additionally, an Interoperability Quick Assessment Toolkit will be released in October 2017 allowing solution owners to perform a quick assessment of the interoperability level of their solutions.

Briefly, in 2017 the action will:

- Gradually replace questionnaires by the CarTool in the data collection of the remaining TES until achieve the entire 141 base of solutions in the EC
- Assess the RUS and IOP levels of all TES and their components
- Promote user awareness of the TESCart in the EC
- Develop and publish service in the DIGIT catalogue of services to promote the exploitation on demand of the TESCart
- Start promoting the EC lessons learned on the TESCart in the Members States supporting their implementation of national cartographies via pilots

8.11.10 COSTS AND MILESTONES

8.11.10.1 Breakdown of anticipated costs and related milestones

Phase: Initiation Planning Execution Closing/Final evaluation	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
	• Constantly maintain/extend the TESCart • Test reusability and interoperability criteria on TES • Deploy services in DIGIT catalogue of services	397	ISA^2	Q2/2016	Q1/2017
	Total	397			

8.11.10.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2016		200	200
2017		197	

8.12 SHARING AND RE-USE (2016.31)

8.12.1 IDENTIFICATION OF THE ACTION

Type of Activity	Common Frameworks
Service in charge	DIGIT.B6
Associated Services	

8.12.2 EXECUTIVE SUMMARY

The economic crisis requires EU public administrations to do the same or even more with much less. In this context, sharing and reuse of the IT solutions used for the provision of digital public services has the potential to bring the much needed savings.

At the same time, reuse of solutions will contribute to a greater harmonisation and improved coherence of services across EU and will make it easier for public administrations to interact and interoperate.

Member States and the Commission have already taken various steps towards this direction. Under the ISA programme, the "Sharing and re-use" action has already produced a number of tools which can help public administrations to develop common and reusable solutions.

Under the 2016 ISA² work-programme, the following activities took take place:

- Publish a re-use and sharing framework: The common framework on cross-border sharing and re-use of solutions (developed under ISA) were put in public review so as to become a core reference for EU and national sharing and re-use initiatives; The framework will be published in december 2016.

- Development of training materials to be used in the context of the Sharing and reuse framework.

In 2017, the following activities are planned:

- Conference about sharing and re-use of IT solutions in the public sector focusing on best practices (cases, solutions, governance and business models) – Q1 2017;

- Support to national and regional projects bearing chances for a cross-border re-use;

- Award successful IT projects having a potential for cross-border expansion. The aim is to use the prizes as financial incentives and communication tools to have a positive effect on the cross-border re-use of IT solutions (e.g. open source software solutions or services). Q1 2017

- Open.PM² is an initiative taken by the Commission to bring the PM² Methodology and its benefits closer to stakeholders and user-groups beyond the original target group of European Commission Project Managers. These user groups include all European Institutions, Public Administrations of Member States, Contractors and EU Citizens.

- Facilitating the use of open source solutions in the public sector (taking over the OSS community building activity from ISA[2] action 2016.22.)

8.12.3 OBJECTIVES

The action shall support public administrations in sharing and re-using IT solutions and best practices in order to facilitate the development of interoperable, high-quality and efficient public services.

8.12.4 SCOPE

All EU public administration providing public services are in scope of the action, which aims to develop and promote instruments to help administrations share and re-use their IT solutions. Within this scope, the action has already developed and will publish in 2016 a common Sharing and Re-use Framework, has already developed a set of guidelines and templates and will organise a conference to disseminate these instruments and information on best practices in Europe.

In 2017, it will also take over the managing of the OSOR (Open Source Observatory) community on joinup. In addition the action will support the Open.PM² initiative is to provide open access to the PM² Project Management Methodology to all European Union Institutions, Contractors and the broader EU stakeholder groups. This will enable increased effectiveness in the management and communication of project work serving the objectives of the European Union and needs of Member States and EU citizens.

8.12.5 ACTION PRIORITY

8.12.5.1 Contribution to the interoperability landscape

The contribution of the action to the interoperability landscape, measured by the importance and necessity of the action to complete the interoperability landscape across the Union

Question	Answer
Does the proposal directly contribute to implementing the European Interoperability Strategy, the European Interoperability Framework, or other EU policies with interoperability requirements, or needed cross-border or cross-sector interoperability initiatives? If yes, please indicate the EU initiative / policy and the nature of contribution.	Regulation (EC) No 1049/2001 of the European Parliament and of the Council of 30 May 2001 regarding public access to European Parliament, Council and Commission documents (OJ L 145 of 31.5.2001). Aligned with European Commission decision of 12 December 2011 (2011/833/EU) on the "reuse of Commission documents to promote accessibility

	and reuse."
Does the proposal fulfil an interoperability need for which no other alternative solution is available?	There are currently no common (EU wide) processes, governance structures, and document templates to manage IT/IS or/and Business Projects/Programmes. PM² is a proven methodology, accepted by the PM Community and external contractors. Making PM² available to the broader community will help establish the desired common framework for managing Projects within the EU.

8.12.5.2 Cross-sector

The scope of the action, measured by its horizontal impact, once completed, across the sectors concerned

Question	Answer
*Will the proposal, **once completed** be useful, from the interoperability point of view, and utilised in two (2) or more EU policy areas? If yes, which are those?*	• EU Grants Management • Member States Grants Management • Management of the development of Information Systems
*For proposals or their parts **already in operational phase**: have they been utilised in two (2) or more EU policy areas? Which are they?*	

8.12.5.3 Cross-border

The geographical reach of the action, measured by the number of Member States and of European public administrations involved.

Question	Answer
*Will the proposal, **once completed** be useful, from*	Yes.

the interoperability point of view, and used by public administrations of three (3) or more EU Members States?	
*For proposals or their parts **already in operational phase**: have they been utilised by public administrations of three (3) or more EU Members States?*	

8.12.5.4 Urgency

The urgency of the action, measured by its potential impact, taking into account the lack of other funding sources

Question	Answer
Is your action urgent? Is its implementation foreseen in an EU policy as priority, or in EU legislation?	Regulation (EC) No 1049/2001 of the European Parliament and of the Council of 30 May 2001 regarding public access to European Parliament, Council and Commission documents (OJ L 145 of 31.5.2001). Aligned with the promotion of projectised organisational structure (announced by the President of the European Commission (IP/14/984 and SPEECH/14/585)).
Does the ISA^2 scope and financial capacity better fit for the implementation of the proposal as opposed to other identified and currently available sources?	yes

8.12.5.5 Reusability of action outputs

The re-usability of the action, measured by the extent to which its results can be re-used

Name of reusable solution	Sharing and reuse of IT solutions Framework

Description	The framework provides a set of recommendations for public administrations in Europe to support them in sharing their IT solutions with each other. It also describes supporting measures which can be taken on board by 'central bodies' to support their administrations in better sharing and reusing each others' solutions. Finally, it describes a number of supporting instruments, i.e. services, guidelines, and best practices in the area of sharing and reuse.
Reference	
Target release date / Status	December 2016
Critical part of target user base	• European Institutions • Public Administrations of Member States • Contractors
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	

Name of reusable solution	Sharing and reuse of IT solutions Framework – training materials
Description	The training materials will provide practical guidance to using the recommendations of the Framework.
Reference	
Target release date / Status	December 2016
Critical part of target user base	• European Institutions • Public Administrations of Member States • Contractors
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	

Name of reusable solution	Open PM² - Open Project Management Methodology
Description	PM² is a Project Management Methodology developed and sponsored by the European Commission. PM² is a light and easy to implement methodology suitable for any type of project. It incorporates elements from a wide range of

	globally accepted best practices as well as operational experience from various EU Institutions. It provides: • a project governance model • a lifecycle • a set of management processes • a set of templates and • a set of effective mindsets.
Reference	
Target release date / Status	December 2016
Critical part of target user base	• European Institutions • Public Administrations of Member States • Contractors and • EU Citizens
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	

8.12.5.6 Level of reuse by the proposal

The re-use by the action of existing common frameworks and elements of interoperability solutions.

Question	Answer
Does the proposal intend to make use of any ISA[2], ISA or other relevant interoperability solution(s)? Which ones?	
For proposals or their parts already in operational phase: has the action reused existing interoperability solutions? If yes, which ones?	

8.12.5.7 Interlinked

The link of the action with Union initiatives to be measured by the collaboration and contribution level of the action to Union initiatives such as the DSM.

Question	Answer
Does the proposal directly contribute to at least one of the Union's high political priorities such as the DSM? If yes, which ones? What is the level of contribution?	• Regulation (EC) No 1049/2001 of the European Parliament and of the Council of 30 May 2001 regarding public access to European Parliament, Council and Commission documents (OJ L 145 of 31.5.2001). • Aligned with European Commission decision of 12 December 2011 (2011/833/EU) on the "reuse of Commission documents to promote accessibility and reuse." • Aligned with the promotion of projectised organisational structure (announced by the President of the European Commission (IP/14/984 and SPEECH/14/585)).

8.12.6 PROBLEM STATEMENT

The problem of	budget limitation although there is a need for better public services at national level and more cross-borders cooperation
affects	the EU public administrations (at all levels, national, regional and local), their users (other administrations, citizens and businesses) as well as the EU bodies responsible for cross-border and/or cross-sector policies
the impact of which is	digital isolation within the national borders, moderate ICT implementation quality, at higher cost, lack of interoperability and lack of coherence in the implementation of EU law.
a successful solution would be	to design a framework on sharing and re-use accompanied by measures (communication, awards, support to sharing and re-use initiatives, etc.) that can support its

	implementation in Europe.

8.12.7 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
EU bodies	EU initiatives can be better implemented and their impact is maximised if digital services in Europe are developed on the basis of sharing and re-use of existing solutions
Citizens and businesses	Being the end-users of digital public services, they benefit from services of better quality, more interoperable and accessible. Reusability often entails less time for the end-users to engage themselves in using the service due to previous knowledge and makes the concerned service more attractive.

8.12.8 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation, inputs / outputs
ISA Action 1.3 – Catalogue of services	The criteria developed by the action will be used by the Catalogue of services.
ISA Action 1.17 – Reusable Inspire Reference Platform	ARE3NA will benefit from the sharing and reuse strategy for the better organisation of assets and work related to open data initiatives, in line with the ARE3NA's objectives.
ISA Action 2.1 – European Interoperability Architecture	Sharing and re-use criteria will be considered within EIRA's endeavour to define interoperability specifications.
ISA Action 2.14 – Assessment of Trans-European networks supporting EU policies	The action will provide input to the EU cartography, by defining reusability criteria upon which the TES will be classified. Further on, it will also be used by the European Interoperability Cartography (EIC) as the necessary "sharing and re-use" for the introduction of an interoperable solution.
ISA Action 4.2.1 – Integrated Collaborative platform (Joinup)	Sharing and re-use criteria are used by Joinup for the federation and the registration of new solutions.

8.12.9 REUSE OF SOLUTIONS DEVELOPED BY ISA, ISA[2] OR OTHER EU / NATIONAL INITIATIVES

The action used many sources to develop the common EU sharing and re-use framework, such as the sharing and re-use framework developed by DG TAXUD (for the taxation domain) and a study on the identified barriers to sharing (developed by DG DIGIT). For other instruments, such as the meta-guideline for public procurement, the action used several studies developed by DG CNECT and DIGIT (under the IDABC and ISA programmes).

8.12.10 EXPECTED RE-USABLE OUTPUTS (solutions and instruments)

Output name	Sharing and re-use Framework
Description	The framework consists of a set of recommendations for public administrations, on the one hand to help them create shareable solutions and on the other hand to reduce development and operation costs by re-using already available solutions.
Reference	
Target release date / Status	Q2/2016

8.12.11 ORGANISATIONAL APPROACH

8.12.11.1 Expected stakeholders and their representatives

Stakeholders	Representatives
Member States' public administrations	Dedicated ISA² Working Group experts
The European Commission	DIGIT, IT governance of the Commission as well as ICT services of other directorate generals

8.12.11.2 Communication plan

Event	Representatives	Frequency of meetings / Absolute dates of meetings?
Sharing and re-use conference		Q1/2017
Sharing and re-use		Q1/2017

Event	Representatives	Frequency of meetings / Absolute dates of meetings?
reward event		

8.12.11.3 Governance approach

The action will be managed by DIGIT with the support of an external contractor. Whenever major deliverables are to be published, the validation of the MS representatives will be sought.

8.12.12 TECHNICAL APPROACH

A common framework on cross-border sharing and re-use of solutions (developed under ISA) were put in public review in Q1/2016 so as to become a core reference for EU and national sharing and re-use initiatives. Its implementation will be supported by a series of activities, such as conferences about sharing and re-use of IT solutions in the public sector and support to national and regional projects bearing chances for a cross-border re-use.

An interesting new approach in promoting sharing and re-use is awarding successful IT projects having a potential for cross-border expansion. The methodology developed under ISA action 4.2.2 Community building will be used for the transparent selection and evaluation of candidate projects. All European public administrations are eligible. The precise context, along with the evaluation and selection criteria were published by Q1 2016.

In 2017, the action will

- overtake the management of the OSOR Community (Open Source Observatory) from ISA2 action 2016.22 *Community Building*. Within this context, the action will create original content in the context of OSS use in the public sector in Europe and promote the use of OSS, by disseminating good practices on different platforms, events, workshops and conferences.
- organise in 2017 Q1 the Sharing and reuse conference and give out awards of best case of sharing and reusing IT solutions in the public sector.
- publish the open PM^2 as a freely reusably project management methodology available for public administrations in Europe. Establish the OPM^2 Support network and community.
- create an online version of the Sharing and reuse framework with additional supporting instruments, good practices, reuse cases, etc.
- provide trainings for civil servants on the recommendations of the the Sharing and Reuse Framework

8.12.13   COSTS AND MILESTONES

8.12.13.1 Breakdown of anticipated costs and related milestones

Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA² / others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Operational	Sharing and re-use conference and award event	50	ISA²		
	Promotion of sharing and re-use framework	195	ISA²	Q2/2016	Q2/2018
	Funds for financial awards	100	ISA²	Q2/2016	Q2/2017
	Publish the OPM2 methodology and supporting measures	360		Q4/2016	Q4/2020
	OSS Community building	200	ISA²	Q2/2017	Q2/2018
	Total (2016-2017)	**525**			

8.12.13.2 Breakdown of ISA² funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2016	Execution	180	
2017	Execution – main	65	
	Execution – OSS community building	200	
	Execution – OPM2	80	
2018			
2019			
2020			

8.13   STANDARD-BASED ARCHIVAL DATA MANAGEMENT, EXCHANGE AND PUBLICATION (2017.01)

### 8.13.1 IDENTIFICATION OF THE ACTION

Service in charge	OIB.OS.1.002
Associated Services	DIGIT.B2 and SG.B1

8.13.2 EXECUTIVE SUMMARY

Open Data (making available machine-readable information, especially by governments to third parties) is expected to increase economic growth and enhance both collaboration between administrations and citizen participation and engagement. In line with the revised Archives Regulation (*Regulation (EEC, Euratom) No 354/83, as amended by Council Regulation 1700/2003 and Regulation 496/2015*), the European Commission, as well as the other institutions of the European Union have to offer, via the University Institute of Florence, a single, authoritative, multilingual, accessible "*go-to*" online platform for exploring the archives of the Institutions, thus stimulating research into the history of European integration and the European Institutions. This online platform should offer access to both digitised and born-digital content, as well as information regarding the paper holdings and contextual background material. Ideally the archives should be made available to the public in a way that fits the public of the 21st century, following Open Data principles, so they can be re-used by other administrations and citizens and/or exchanged with other existing platforms and initiatives that make documents and archives of the institution available, such as Europeana, Archives Portal Europe (the hub grouping the European national, regional and local archives), the Open Data portal, the European Data portal and the Public Register of Commission documents, among others.

To achieve this main goal, the European Commission has to implement services and tools that will enable the multilingual description of its archives content and the exchange of multilingual content and metadata with European archive-related initiatives (like the European University Institute and other initiatives that enhance transparency and accountability of the Institutions). These services and tools should follow best practices and established standards in the domain of archives management. Therefore, the Commission needs information on what internationally accepted specific business domain standards exist in the area of management of archives and whether IT services and tools, being them open source, commercial or developed by public administrations, already exist at regional, national or European level that support these standards and could be re-used. Also, an understanding of the interoperability requirements to exchange archival information between the Commission and the different archive-related initiatives is needed in order to fully support the archival data exchange among all of them.

Based on the foregoing, the business case for this action will start with a study aiming at identifying existing data standards in archival information management and exploring IT tools and services supporting those. The results of this analysis will also allow determining how these standards are applied in different contexts and how they can be used in the context of European Commission born-digital files. The second part of the business case will deal with the analysis of the interoperability requirements among Archives Portal Europe, Europeana, and the Historical Archives of the European Union (run by European University Institute), on one hand, and the Historical Archives of the European Commission on the other. Finally, the business case will analyse available options to publish the relevant part of the content of EU archives in an Open Data format, through the different available platforms (like the Open Data and the European Data portals) allowing Member States, citizens and researches to interoperate with them and reuse them in different contexts. The following picture tries to depict the interoperability scenario to be covered by this action:

European archive-related initiatives

European Open Data initiatives
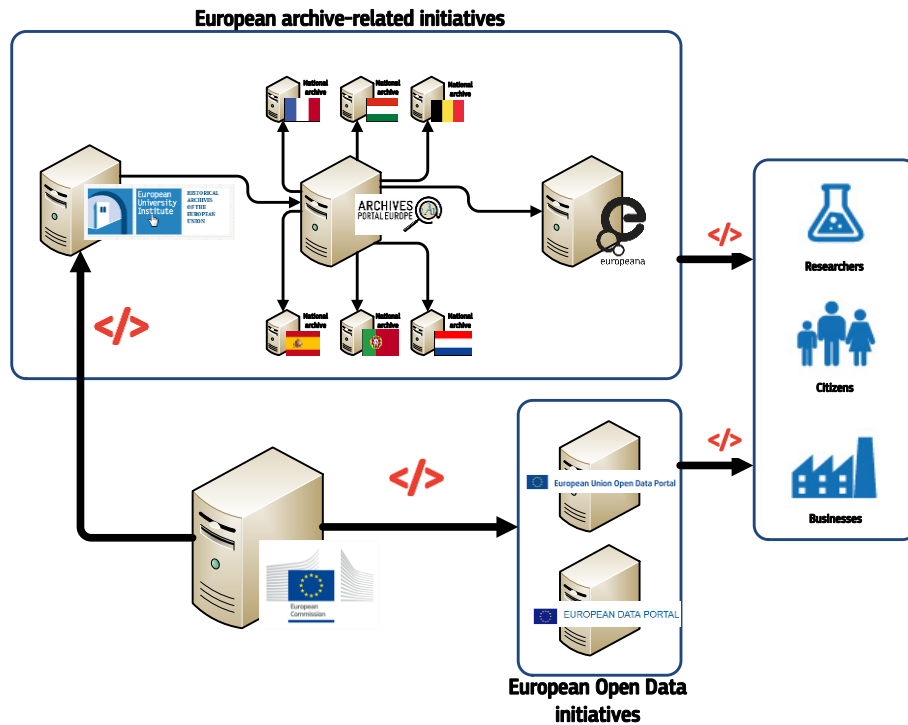
8.13.3 OBJECTIVES

This action has the goal of ensuring that the Commission archived born-digital documents and files are managed, exchanged and opened to the public based on standards, with the following detailed objectives:

- **Facilitate cross-border interactions between Commission archives and the main European archiving initiatives** by identifying standards regarding description of information on records/archives, including its multilingual aspect, and eliciting the requirements related to their exchange.
- **Enhance cross-sector and cross-border interactions between Commission archives and businesses and citizens**, by providing the grounds to develop a multilingual catalogue allowing to access and re-use the records of the European Institutions based on Open Data.

8.13.4 SCOPE

It includes the study of digital archive management standards and IT solutions supporting them, with the goal of allowing **standard-based archival information management.** It will also analyse the **interoperability requirements** to exchange information between Commission archives and European archiving initiatives, and will study how this information can be made **available to the public in Open Data formats, focusing on user-centric solutions.** Detailed activities are:

- Assessment of standards relevant to digital and mixed archives management and identification of IT solutions supporting them.

- Assessment of interoperability requirements to exchange Commission archival information with EUI and Archives Portal Europe.

- Assessment on making available Commission archives to the public using Open Data.

8.13.5 ACTION PRIORITY

8.13.5.1 Contribution to the interoperability landscape

Question	Answer
Does the proposal directly contribute to implementing the European Interoperability Strategy, the European Interoperability Framework, or other EU policies with interoperability requirements, or needed cross-border or cross-sector interoperability initiatives? If yes, please indicate the EU initiative / policy and the nature of contribution.	- **Regarding the EIS**, our proposal fall in the scope of the cluster "*Trusted Information Exchange*", contributing in particular to the field of opening up base registries, in this case the Commission digital archives. - **Regarding the EIF**, our action promotes the following principles: *user-centricity, multilingualism, transparency, preservation of information, openness* and *reusability* and supports scenarios of *semantic* and *technical* interoperability to exchange information between the Commission and other European (Europeana, the European University Institute) or national (through Archives Portal Europe) stakeholders; and between EU administration and the general public. - Finally, **regarding other EU policies**, by making available government archives to the general public in Open Data formats, as stated by the Directive 2013/37/EU of the European Parliament and of the Council, which stresses that public sector bodies should, where possible and appropriate, make documents available through open and machine-readable formats, together with their metadata, at the best level of precision and granularity, in a format that ensures interoperability, re-use and accessibility.
Does the proposal fulfil an interoperability need for which no other alternative solution is available?	Yes, in two main ways: - As the proposal aims to identify the interoperability requirements in the field of Commission digital archival data exchange, it will support an **interoperability need of European Institutions**, in order to support exchange of public archives related information between them and the existing European archive-related initiatives. - As the proposal intends to define the best way to offer the Commission archival information to the general public in an Open Data format, it **will support an interoperability need of citizens and business**, allowing them to easily access and reuse archival information.

8.13.5.2 Cross-sector

Question	Answer
*Will the proposal, **once completed** be useful, from the interoperability point of view, and utilised in two (2) or more EU policy areas? If yes, which are those?*	Yes, at least our proposal will be useful for the implementation of the following EU policy areas: - **Digital economy and society policy:** (*Digital Single Market strategy*) by supporting technical standards and their implementation, and better access to digital goods and services. - **Culture policy:** (*art. 3 of EU treaty*) by ensuring the long term preservation and safeguard of the European cultural heritage, making it also accessible to the general public and allowing its reuse by creative industries and the digital industry. - **Human rights policy:** (*art. 6 of EU treaty*) by fostering openness and transparency towards citizens. - **Multilingualism policy:** As the EU has to provide general information about its policies in all its official languages. More specialised content is provided in the most widely spoken EU languages. - **EU citizenship policy:** (*EU treaty, part II, art. 20 and Charter of fundamental rights of the European Union art. 41 Right to good administration, art. 42 Right to access to documents*) - **Institutional affairs policy:** (*EU treaty art 15 on the Functioning of the European Union and art 16 on Transparency and data protection*)
*For proposals or their parts **already in operational phase**: have they been utilised in two (2) or more EU policy areas? Which are they?*	N/A

8.13.5.3 Cross-border

Question	Answer
*Will the proposal, **once completed** be useful, from the interoperability point of view, and used by public administrations of three*	Yes, in three main ways: - As the proposed action will allow the identification of existing standards for digital archives description and management (like the ISO standards or the ones of the International Council for Archives (ICA)) and clarify its application and use, **it will be potentially useful**

(3) or more EU Members States?	**for any of the national public archives of all the 28 EU Member States**, as they will be able to re-use the conclusions of the study and apply them for the management of their own born-digital files. - Also the market survey on IT tools supporting the identified standards will be re-usable, as it intends to analyse existing solutions in the market (commercial, open source and custom-developed by public administrations). The national archives of the Member States could potentially benefit from the results of this survey by applying its conclusions directly to their own projects thus implementing robust, standards-based and cost-efficient interoperable archive management solutions. - As the proposed action will study current interoperability requirements between the different European archive-related initiatives (like Archives Portal Europe, Europeana, the Historical Archives of the European Union) and the Historical Archives Service of EC, it will help born-digital Commission archives to be made available to **potentially any of the national public archives of all the 28 EU Member States**, through the existing European archive-related initiatives (like Archives Portal Europe)
*For proposals or their parts **already in operational phase**: have they been utilised by public administrations of three (3) or more EU Members States?*	N/A

8.13.5.4 Urgency

Question	Answer
Is your action urgent? Is its implementation foreseen in an EU policy as priority, or in EU legislation?	Yes, as the EU legislation foresees provisions on preservation, management and distribution of archival information, in particular the one of the European institutions, more precisely by its regulations related to archives: - **Council Regulation (EEC, Euratom) 354/83**: Whereas the processing and critical analysis of Community archives is not only of value to historical research in general but can at the same time facilitate the activities of bodies involved in Community affairs and thereby contribute to the better attainment of all the Communities' objectives.

	- **Council Regulation (EU) 2015/496** Wherever possible, the institutions shall make their archives available to the public by electronic means, including digitised and born-digital archives, and facilitate their consultation on the internet. They shall also conserve documents which are available in forms meeting special needs.

Does the ISA² scope and financial capacity better fit for the implementation of the proposal as opposed to other identified and currently available sources?	Yes, as our proposal fulfil all the four ISA² eligibility criteria:
	
	- Its **objectives are within the ISA² objectives**, in particular:
	    ○ *Facilitate cross-border interaction between European public administrations*, which will be done by clarifying interoperability requirements between European archive-related initiatives, in the one hand, and the Commission services in charge of archives, in the other hand.
	    ○ *Facilitate cross-border and cross-sector interactions between European public administrations and business and citizens*, by analysing ways of offering the Commission archival information to the public in Open Data formats
	- Its **activities fall under the ISA² activities**, in particular:
	    ○ *The assessment, updating and promotion of existing common specification and standards*, by analysing the current "state-of-play" in the digital archive management domain and by identifying tools supporting them.
	- Its **principles are according the ISA² general principles**, in particular:
	    ○ *User-centricity, multilingualism, transparency, preservation of information, openness* and *reusability*
	- It **fulfils the financing conditions laid down by ISA²**

8.13.5.5 Reusability of action outputs

Name of reusable solution	Analysis of current standards for management of archival data and its application and use.
Description	This analysis will try to **identify existing standards** for born-digital archive management. As an initial task, the analysis will identify **business requirements** for digital archival data management, defining a set of high level business needs and requirements. Based on the identified business requirements, the analysis will select existing **standards supporting the different business needs**, with **recommendations on applying them**. It will also identify **how the different standards are used and applied**, in order to understand how they can be utilized in the particular scope of the action.

	This analysis can be reused by any of the existing public and private archives in the different Member States, and also be a basis to promote standardisation in the archive management domain.
Reference	
Target release date / Status	June 2017
Critical part of target user base	- Public archives from Member States - Archives of the EU institutions - Private archives from Member States
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	N/A

Name of reusable solution	Market study on IT tools for archives management supporting the relevant business domain standards
Description	Based on the results of the previous analysis of the "*state-of-play*" regarding standards (including the definition of business needs and the identification of applicable standards) a **market analysis will be performed evaluating existing tools** (either commercial, open source or developed "in-house" by public administrations). The analysis should **assess the support to the different recommended archive management standards**, archive management tasks and be **based on a comparative assessment template**. The work should enable the target user base to define minimal requirements for archive management systems, identify the possible implementation alternatives and tools and estimate the associated costs. This would result in and costs in order to use certain archive management tools, promoting technical best practices and networking supporting and strengthening the interoperability community around archives as a result. To do so, among the deliverables will be a template that includes: - **definition of an assessment model**, - list of business needs, - assessment criteria with weighting of each criterion - a **"checklist" to help archives with setting up a "*Proof of Concept*"** (PoC) system in order to assess in practice solution alternatives, covering business and user needs, objectives, conditions and expected deliverables of this PoC. Again, this output will be of interest to all Member States public archives, as they can reuse it to set up their own PoC based on one of the proposed IT solutions.

Reference	
Target release date / Status	August 2017
Critical part of target user base	- Public archives from Member States - Archives of the EU institutions
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	N/A

Name of reusable solution	Analysis of the interoperability requirements to exchange Commission archival management data with the European archiving initiatives
Description	This analysis will identify the **current semantic and technical interoperability requirements** established by the different European archiving institutions (Historical Archives of the European Union) and initiatives (Archives Portal Europe, Europeana) **for digital-born archives data exchange**, and what the possible options are to technically implement them. The analysis will include assessment of elements like the **used and required standards; required metadata and existing gaps; metadata transformation, etc**. It will also provide conclusions on **recommended options to implement those requirements**, taking into account the conclusions of the market survey on standard-based IT tools and services for archives management. This study will be of interest of the European Institutions services in charge of archives as they would face the same interoperability needs that Commission is facing. As the study will cover making digital archives of the Commission available to the public, it will also be of the general interest for European businesses and citizens.
Reference	
Target release date / Status	October 2017
Critical part of target user base	- European citizens and businesses - Archives of the EU institutions
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	N/A

Name of reusable solution	Study on options to develop a multilingual Open Data catalogue providing access to EU archives
Description	This study will analyse, based on the identified standards and tools, **how the archived digital records of the Commission can be made available to the general public using Open Data** formats. It will analyse in details the feasibility of this task, will recommend technical standards and implementations, will analyse existing Open Data initiatives at EU level and describe how they should be applied to publish digital records. It will also relate with the conclusions of the analysis on interoperability requirements, exploring ways to reuse already existing archival data exchange standards. The results of the study can be seen as an example for other public archives when launching similar initiatives, with the Commission taking the lead in the openness and transparency field. Also the results will be of the general interest, as the publication of the historical information in Open Data format will allow researchers, citizens and business to reuse it in different and creative ways.
Reference	
Target release date / Status	December 2017
Critical part of target user base	- All European citizens and business - All public archives from the different 28 Member States - All archives of the EU institutions
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	N/A

8.13.5.6 Level of reuse by the proposal

Question	Answer
Does the proposal intend to make use of any ISA[2], ISA or other relevant interoperability solution(s)? Which ones?	After checking ISA portal no interoperability solution was found in the field of digital archives management. Nevertheless, the works to be done within the scope of this action will be aligned and take into account the conclusions and recommendations of the E-ARK project which is a multinational big data research project that aims to improve the methods and technologies of digital archiving, in order to achieve consistency on a Europe-wide scale. E-ARK is co-funded by the European Commission under its ICT Policy

	Support Programme (PSP) within its Competitiveness and Innovation Framework Programme (CIP) The study on Open Data will take into account and try to align its proposal to the main European Open Data initiatives, especially the Open Data portal and the European Open Data portal.
For proposals or their parts already in operational phase: has the action reused existing interoperability solutions? If yes, which ones?	N/A

8.13.5.7 Interlinked

Question	Answer

Does the proposal directly contribute to at least one of the Union's high political priorities such as the DSM? If yes, which ones? What is the level of contribution?	Yes, it will contribute to the following high level political priorities:
	
	- **_Digital Single Market_**, in two ways:
	  o By clarifying and supporting technical standards for archival management, it will ensure better access to digital goods and services.
	  o By providing access to Commission archives in Open Data format it will generate value, allowing the reuse of this information producing new products and services.

8.13.6 PROBLEM STATEMENT

Archives are a crucial element to support organization´s business continuity, maintain its memory and safeguard cultural heritage, being a main responsibility of the different European public administrations. Our initiative tries to ensure ways to properly manage Commission born-digital archives and its related archival activities, based on open and well-known standards, and aims to support the easy exchange of archival information between the Commission and the existing European archive-related initiatives, together with guarantying access to Commission archives to researchers, citizens and business in order to enhance transparency and accountability of the public institutions, allowing its reuse in new and creative ways.

8.13.7 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
- European citizens - European business - Researchers	The assessment on the feasibility of creating an Open Data based catalogue of Commission digital archives will increase the involvement of European citizens and business, resulting in: • Increase of Institutions transparency. • Maximum re-use of the information, including new business opportunities based on the historical data re-use. • Sharing of knowledge and possibility to network. • Easy clustering of the expertise of the users. In the particular case of researchers, it will also allow them to better perform their work, by providing a better view on the history and memory of the Institutions, resulting on increased and improved research results.
- EU institutions - Member States archives (national, regional, local levels)	The review on digital archival data management standards and on interoperability requirements between Commission and European archive-related initiatives will: • Ensure interoperability when managing information, fostering collaboration and information exchange. • Reduce interoperability costs, as open standards will facilitate information exchange The market analysis of the existing IT tools providing support to the identified standards will: • Save resources to the different archives provided a benchmarking of the available solutions. • Promote the reuse of potential standard-based existing solutions. • Ensure a coherent way to evaluate archive management tools. • Foster modernization of archive services to become to better address the expectations of their stakeholders.

8.13.8 ORGANISATIONAL APPROACH

8.13.8.1 Expected stakeholders and their representatives

Stakeholders	Representatives
Secretariat-General	Unit B1
DIGIT	Unit B2
OIB	Sector OS1 002 HAS
HAEU	EU Historical Archives in Florence

8.13.8.2 Identified user groups

Apart from the above indicated project stakeholders, we can identify the following interested user groups:

- Member states public archives at national, regional and local level.
- Researchers and Universities.
- European business working in the re-use of available Open Data.
- General public (lawyers, journalist)
- Other European Institutions.

8.13.8.3 Communication plan

As a main communication element, a project Wiki will be set, to ensure that all relevant project information is collected and shared among the different stakeholders. All of them will be granted access to it.

Together with the Wiki, elements like video-conferences (for remote meetings like the ones to happen with the EU historical archive in Florence), phone-conferences and emails will be the main communication tools.

If the opinion of different stakeholders (like other Institutions or Member States) is required, EU Survey will be used as tool to support the information gathering.

8.13.8.4 Governance approach

The action governance will be based on what PM^2 methodology proposes, as displayed in the following picture:
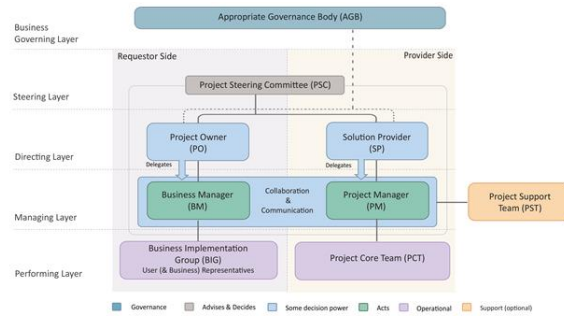
The main governance body will be a Project Steering Committee (PSC), at Head of Unit level, composed at least by the following Units:

- SG.B.1
- DIGIT.B.2
- OIB.OIS.1

The PSC will be chaired by OIB.OIS.1 and will meet on a regular basis (every three months approximately) to ensure the project is progressing satisfactorily and to take strategic decisions. In case any critical risk or issue is raised, the PSC may also meet, in order to decide on actions to be launched.

The Project Owner and Business Manager will be officers from OIB.OIS.1, being the Solution Provider and the Project Manager members of DIGIT.B.2. The Project Core Team will be composed by members of a consultancy firm in coordination with DIGIT.B.2's Project Manager. Project status meetings to review of the project progress will be held periodically between PM, BM and PCT entities of the project management team, to ensure the timely delivery of the project.

The proposed governance approach might be adapted depending on the project evolution.

8.13.9 TECHNICAL APPROACH AND CURRENT STATUS

Regarding the identified deliverables, they will be prepared in collaboration with external consultancy companies. In order to speed up the procurements, existing framework contracts will be used as much as possible. The definition of the technical architecture of the future solutions will be done later on, once the conclusions of the study are available.

The scope of the project will be divided in two different work packages: One dealing with standards clarification and IT tools assessment, and the second one tackling the identification of interoperability requirements and Open Data. The two work packages can run in parallel, producing their results independently.

8.13.10 COSTS AND MILESTONES

8.13.10.1 Breakdown of anticipated costs and related milestones

Phase: Initiation Planning Execution Closing/Final evaluation	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Planning	Definition of work packages and procurement procedure	N/A	ISA[2]	Q1 2017	Q1 2017
Execution	Study on archive management standards and supporting IT tools	70	ISA[2]	Q1 2017	Q3 2017
Execution	Analysis on interoperability requirements and Open Data publication feasibility	90	ISA[2]	Q1 2017	Q4 2017
Execution	Pilot on Open Data publication	93		2018	2018
Execution	Pilot on archive management data exchange	250		2018	2018
Execution	Implementation of Open Data publication based on pilot results	200		2019	

8.13.10.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2017	Execution: - Study on archive management standards	157	

	and supporting IT tools - Analysis on interoperability requirements and Open Data publication feasibility		
2018	Execution: - Pilot on Open Data publication - Pilot on archive management data exchange	350	
2019	Execution: - Implementation of Open Data publication based on pilot results	200	
2020			
2021			

8.13.11   ANNEX AND REFERENCES

Description	Reference link	Attached document
Hermes Preservation Services (HPS) Vision document	Ares(2009)270285 of 8/10/2009	🅰️Ares(2009)270285,
Business case HPS II-HPS III	Ares(2013)69564 21/01/2013	
Reg 2015/496 + Dec 47/2002 and 563/2004	http://eur-lex.europa.eu/eli/reg/2015/496/oj	
ISO OAIS Reference Model for an OAIS (Open Archival Information System). This reference model is defined by recommendation CCSDS 650.0-B-1 of the Consultative Committee for Space Data Systems (2012)	ISO 14721:2003 which is superseded by ISO 14721:2012. http://public.ccsds.org/publications/archive/650x0m2.pdf	

ISAD(G) General International Standard Archival Description approved by the International Council on Archives (ICA/CIA) as a standard to register archival documents produced by corporations, persons and families	ISAD(G): General International Standard Archival Description (PDF) (2 ed.), International Council on Archives Committee on Descriptive Standards, 2000	
ISAAR (CPF) International Standard Archival Authority Record for Corporate Bodies, Persons and Families	ISAAR (CPF): International Standard Archival Authority Record For Corporate Bodies, Persons and Families" (PDF). International Council on Archives. October 2003. Retrieved 2012-07-06.	
e-ARK	http://www.eark-project.com/	

9. ACCOMPANYING MEASURES

9.1 RAISING INTEROPERABILITY AWARENESS – COMMUNICATION ACTIVITIES (2016.30)

9.1.1 IDENTIFICATION OF THE ACTION

Type of Activity	Accompanying measure
Service in charge	DG DIGIT
Associated Services	

9.1.2 EXECUTIVE SUMMARY

The modernisation of Public administration is currently a need for Public administrations all across Europe. Shrinking public budgets require a greater efficiency and effectiveness of administrations. Digital technologies can increasingly help in this respect. However, in a connected world, it is getting of paramount importance that public administrations can exchange data between each other smoothly, seamlessly and securely through solutions that are interoperable with each other, both from a semantic, organisational, legal and technological point of view.

The ISA² programme of the European Commission will support public administrations in their efforts for modernisation through the development of interoperable solutions that fulfil the above requirements thus contributing to the completion of the Digital Single Market in Europe.

Communicating the solutions developed under ISA² is a prerequisite for achieving their widespread use. To this end, from the start of the programme on, a comprehensive communication strategy and campaign needs to be set up and maintained.

Under the new programme, in 2017, communication activities will include the implementation of the new communication strategy and plan, the firm establishment of the programme's website and social accounts and the organisation of two conferences (the sharing and reuse and the SEMIC conferences. One of the challenges will be the broadening of communication to the new ISA² target groups, namely businesses and citizens. Moreover, a stronger focus will be placed on increasing the take up of ISA² solutions on regional level. The Sharing and Reuse awards that will be handed out at the Sharing and Reuse conference in spring will play an instrumental role in this respect.

The action will from now on also cover the communication activities on the Joinup platform. Promoting the exchange of good practices will contribute to spreading them across Europe. Member States can replicate useful approaches and solutions to deliver electronic services minimising effort and time. Incorporating these activities into the communication action will thereby enhance synergy and the efficient use of funds.

In addition, the action will continue to organise workshops and participate in conferences in Member States to inform stakeholders -on European, national and regional level- about the re-usable instruments (to be) developed under the ISA² programme.

9.1.3 OBJECTIVES

The objectives of this action are:

- To promote the collaboration between programme's stakeholders and facilitate their interaction;

- To communicate the importance of interoperability for modern pubic administrations, to be taken into account in all development processes at the earliest possible moment

- To communicate the outcomes of ISA^2 actions and actively promote their take-up by programme's beneficiaries; in particular also towards the target groups new to ISA², businesses and citizens

- To identify initiatives other than ISA² that could contribute to / benefit from programme's developments and support diffusion/collaboration

- To facilitate the exchange of best practices in the area of interoperability and e-Government through communication activities on the Joinup platform.

9.1.4 SCOPE

All programme actions are in scope. The action spans the whole communication process which is being derived from the global ISA² communication strategy to maximise the "Interoperability Awareness" of the whole programme. Activities will be organised in different forms from digital to face-to-face communication in hosting of and actively participating in conferences and workshops to the publication of printed material.

9.1.5 ACTION PRIORITY

The priority of communicating the programme, its achievements and the need for interoperability in general has been stressed by the Member States many times during ISA/ISA² committee and ISA/ISA² coordination group meetings as well as in the Intermediate and Final Evaluation report of the ISA² programme. Without widespread communication of the results achieved and effective encouragement of take-up of the solutions developed, the programme will become obsolete.

9.1.5.1 Contribution to the interoperability landscape

The contribution of the action to the interoperability landscape, measured by the importance and necessity of the action to complete the interoperability landscape across the Union

Question	Answer
Does the proposal directly contribute to implementing the European Interoperability Strategy, the European Interoperability Framework, or other EU policies with interoperability requirements, or needed cross-border or cross-sector interoperability initiatives? If yes, please indicate the EU initiative / policy and the nature of contribution.	Yes. The action will communicate the results of the mentioned key papers and initiatives as well as the results of the actions that are based on said strategies and initiatives. The communication activities foreseen for the Joinup platform are linked with the EIS.
Does the proposal fulfil an interoperability need for which no other alternative solution is available?	Yes. Communication is irreplacable.

9.1.5.2   Cross-sector

The scope of the action, measured by its horizontal impact, once completed, across the sectors concerned

Question	Answer
*Will the proposal, **once completed** be useful, from the interoperability point of view, and utilised in two (2) or more EU policy areas? If yes, which are those?*	Policy areas: the need for interoperability is a cross-cutting topic that applies for all policy domains, e.g. Digital Single market, Growth and Jobs but also Justice, Health, Fisheries, Space and Transport etc.
*For proposals or their parts **already in operational phase**: have they been utilised in two (2) or more EU policy areas? Which are they?*	Digital Single market, Growth and Jobs

9.1.5.3   Cross-border

The geographical reach of the action, measured by the number of Member States and of European public administrations involved.

Question	Answer
*Will the proposal, **once completed** be useful, from*	Yes. Communication on the solutions

the interoperability point of view, and used by public administrations of three (3) or more EU Members States?	developed is to be done across the EU Member States and beyond, at International, European, National and regional level. ISA² has numerous use cases by Member States indicated on its solutions pages and on the Joinup portal http://ec.europa.eu/isa/ready-to-use-solutions/index_en.htm (See section: Who is already using this solution in each solutions description)
*For proposals or their parts **already in operational phase**: have they been utilised by public administrations of three (3) or more EU Members States?*	See above

9.1.5.4 Urgency

The urgency of the action, measured by its potential impact, taking into account the lack of other funding sources

Question	Answer
Is your action urgent? Is its implementation foreseen in an EU policy as priority, or in EU legislation?	Yes. Communication is required by the ISA² decision itself. *By 8 September 2016, the Commission shall develop a communication strategy, aiming to enhance information and increase awareness with regard to the ISA₂ programme and its benefits, targeting businesses, including SMEs, and citizens, and employing user-friendly means on the ISA₂ programme's website.*
Does the ISA² scope and financial capacity better fit for the implementation of the proposal as opposed to other identified and currently available sources?	Yes. The programme needs tailor made communication, based on close interaction with all programme managers and stakeholders. This need cannot be fulfilled by a central communication programme/unit/DG.

9.1.5.5   Reusability of action outputs

not applicable.

9.1.5.6   Level of reuse by the proposal

not applicable

9.1.5.7   Interlinked

The link of the action with Union initiatives to be measured by the collaboration and contribution level of the action to Union initiatives such as the DSM.

Question	Answer
Does the proposal directly contribute to at least one of the Union's high political priorities such as the DSM? If yes, which ones? What is the level of contribution?	Contribution to the DSM, the e-government action plan, the EIS and the EIF Communicating the priorities and the actions taken based on the above priorities.

9.1.6   EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

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^2 and EIS objectives. The supporting system will also act as an effective communication tool for decision-making.

Beneficiaries	Anticipated benefits
European Commission	Ensure the objectives of the ISA^2 Decision are met.
	Better programme management, as underperforming actions will be identified sooner.
	Increase transparency of the ISA^2 work-programme investments.
ISA^2 Committee	Better communication of the results of programme's actions.

	Improved information of the overall ISA^2 work programme.
	More transparency as to what the budget is used for.
European Public administrations, business and citizens	Better, more effective and efficient public services via sharing, re-use and collaboration.

9.1.7 EXPECTED MAJOR OUTPUTS

Output name	New ISA² website in Drupal, CMS based
Description	The website will be set-up in line with new Commission rules in a uniform style and programmed in Drupal in a unified style, as requested by DG Comm for the Next Generation Europa Website.
Reference	http://ec.europa.eu/isa/dashboard/
Target release date / Status	Updated version Q4/2016.
Output name	Updated dashboard
Description	The dashboard used to monitor the performance of actions is available under an open source licence for re-use.
Reference	http://ec.europa.eu/isa/dashboard/
Target release date / Status	Updated version expected Q1/2017.

9.1.8 ORGANISATIONAL APPROACH

9.1.8.1 Expected stakeholders and their representatives

Stakeholders	Representatives
ISA^2 actions	Action owners
Member States	Representatives in the ISA^2 bodies (Committee, coordination group or eqivalent, etc.)
Businesses	Business organisations
Citizens	NGOs, Regions

9.1.8.2 Identified user groups

Public administrations in Europe at all levels: European, national, regional, and also end-users (i.e. businesses and citizens)

9.1.8.3 Communication plan

Event	Representatives	Frequency of meetings / Absolute dates of meetings
ISA^2 Governance Meetings	ISA^2 Committee/ Coordination Group Members	Twice a year for each of these bodies

9.1.8.4 Governance approach

This action is managed by DIGIT B.6 with the support of external contractors. In order to allow the ISA^2 Committee Members follow closely the progress of the programme, measurements collected in the frame of this action will be made publicly available on the ISA^2 dashboard on a monthly, quarterly, semester and yearly basis.

This action has three main phases during which project officers are actively involved supported by the external contractor:

1) Definition of indicators and related management processes;
2) Implementation of the above mentioned processes;
3) Measurement and communication of the indicators on a regular basis (monthly, quarterly, semester and yearly).

9.1.9 TECHNICAL APPROACH AND CURRENT STATUS

The measurements gathered in the frame of this action for the old ISA programme are now available to all stakeholders (ISA^2 Programme management, ISA^2 project officers, Member States, citizens, etc.) on the ISA dashboard http://ec.europa.eu/isa/dashboard/ .

The use of this tool helps in decision making and ensures transparency towards all the ISA^2 programme stakeholders and will in the future also be used for the ISA² programme.

Before starting the monitoring of the ISA^2 programme, the existing approach has been re-evaluated and will be further improved, based on particularities of the ISA^2 decision.

9.1.10 COSTS AND MILESTONES

9.1.10.1 Breakdown of anticipated costs and related milestones

Phase: Initiation Planning Execution Closing/Final evaluation	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	Communication strategy for the new ISA² programme	Covered by administrative budget	ISA	Q1/2016	Q1/2016
Execution	Communication activities will have a recurrent annual nature and will consist of the following : • events and conferences (100KEUR) • ISA² stand in conferences organised by third parties (150KEUR) • Other communication activities at programme level (ISA² website, printed documents, audio-visual material, research of publications and events…) (150KEUR) • Communication for specific ISA² actions (200 KEUR)	600	ISA²	Q2/2016	Q1/2017
Execution	Communication of the ISA² programme and its individual actions	2810	ISA²	Q2/2017	Q1/2021
	Total	3410			

9.1.10.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2016	Implementation	680	
2017	Execution	630	
2018	Execution	700	
2019	Execution	700	
2020	Execution	700	

9.1.11 ANNEX AND REFERENCES

Description	Reference link	Attached document
ISA website	http://ec.europa.eu/isa/	
ISA² website	A separate ISA² website will be established as soon as the programme is officially adopted by the European Parliament and Council.	

9.2 MONITORING AND EVALUATION (2016.39)

9.2.1 IDENTIFICATION OF THE ACTION

Type of Activity	Monitoring and Evaluation (according to ISA^2 decision)
Service in charge	DG DIGIT.B6

9.2.2 EXECUTIVE SUMMARY

The Monitoring and Evaluation action needs to ensure administrative support for the following (but not limited to) legal and internal obligations:

- The Commission monitors and evaluates (M&E) the progress and in particular the relevance, effectiveness, efficiency, utility, sustainability and coherence of the actions of the programme to ensure that the requirements of the ISA^2 decisions are met;

- The Commission needs to report annually to the ISA^2 Committee on the implementation of the programme;

- The ISA^2 programme is subject to an interim and a final evaluation;

- One of the key outputs of the rolling work program is the monitoring activities.

In order to allow the ISA^2 Committee Members and the ISA^2 programme management to take decisions, measurements collected in the frame of this action will be communicated on a quarterly, semester and yearly basis.
This action will follow three main phases in which project officers will be actively involved supported by an external contractor:

- Definition of indicators and related management processes for each new action

- Provide traning and support to the project officers

- Measurement and communication of the indicators on a regular basis (quarterly, semester and yearly)

- Inform the communication action about upcoming milestones for possible news flashes

In each quarter the relevant metrics are gathered, grouped, analysed and communicated to all stakeholders (including EU citizens when privacy and business secrecy concerns are met).
The metrics are grouped in 3 categories:

- process metrics (e.g. cost, risk, time) – specifically related to efficiency;

- generic metrics (that will be the same for each type of action, including policy impact metrics);

- action specific metrics (that will vary amongst actions) – specifically related to effectiveness.

In 2017, the action will apply the method and instruments to monitor the actions funded by ISA^2 and to disseminate information.

9.2.3 OBJECTIVES

The objective of the action is to contribute to the efficient and effective use of ISA2 funds by providing relevant, reliable and up-to-date information about all funded actions.

To achieve this, the action will monitor and evaluate, on regular basis, five main criteria at action and when relevant programme level:

- Relevance: extent to which the action/the programme meets the objectives stated in the ISA2 legal Decision and of the EIS;

- Effectiveness: extent to which the action is meeting the strategic objectives of the ISA2 programme by reaching the expected outcome;

- Efficiency: extent to which the outputs planned to be produced in the frame of the action/the programme are produced within the time and budget given;

- Perceived Quality: extent to which the targeted users of the action/programme are satisfied of what has been developed and their expectations are met (potential improvements are also gathered in that frame);

- Perceived Utility: extent to which the action/programme answers the business needs defined upfront by its stakeholders.

9.2.4 SCOPE

The scope of the action is to gather, analyse and publish relevant information on all actions funded by the ISA2 programme.

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 ISA2 and EIS objectives. The supporting system will also act as an effective communication tool for decision-making.

9.2.5 ACTION PRIORITY

In order to satisfy the requirements of article 13 in the ISA2 decision, namely that The Commission shall regularly monitor the implementation and impact of the ISA2 programme for the purpose of assessing whether its actions continue to meet the identified needs, this action is   a continuous activity throughout the programme.

9.2.5.1   Contribution to the interoperability landscape

The contribution of the action to the interoperability landscape, measured by the importance and necessity of the action to complete the interoperability landscape across the Union

Question	Answer
Does the proposal directly contribute to implementing the European Interoperability Strategy, the European Interoperability Framework, or other EU policies with interoperability requirements, or needed cross-border or cross-sector interoperability initiatives? If yes, please indicate the EU	Yes, as this action is there to monitor and assess the implementation and impact of the different actions, and to determine if they continue to meet the identified needs. So indirectly, it contributes as it will keep the programme focussed.

initiative / policy and the nature of contribution.	
Does the proposal fulfil an interoperability need for which no other alternative solution is available?	no

9.2.5.2   Cross-sector

The scope of the action, measured by its horizontal impact, once completed, across the sectors concerned

Question	Answer
*Will the proposal, **once completed** be useful, from the interoperability point of view, and utilised in two (2) or more EU policy areas? If yes, which are those?*	Not applicable
*For proposals or their parts **already in operational phase**: have they been utilised in two (2) or more EU policy areas? Which are they?*	Not applicable

9.2.5.3   Cross-border

The geographical reach of the action, measured by the number of Member States and of European public administrations involved.

Question	Answer
*Will the proposal, **once completed** be useful, from the interoperability point of view, and used by public administrations of three (3) or more EU Members States?*	The ISA^2 dashboard is the web portal where all results of the ISA^2 programma will be published and will be made available to all member states

*For proposals or their parts **already in operational phase**: have they been utilised by public administrations of three (3) or more EU Members States?*	

9.2.5.4 Urgency

The urgency of the action, measured by its potential impact, taking into account the lack of other funding sources

Question	Answer
Is your action urgent? Is its implementation foreseen in an EU policy as priority, or in EU legislation?	Yes, article 13 of the ISA^2 decision (EU) 2015/2240
Does the ISA^2 scope and financial capacity better fit for the implementation of the proposal as opposed to other identified and currently available sources?	Not applicable

9.2.5.5 Reusability of action outputs

The re-usability of the action, measured by the extent to which its results can be re-used

Can the results of the proposal be re-used by a critical part of their target user base, as identified by the proposal maker? For proposals or their parts already in operational phase: have they been re-used by a critical part of their target user base?

Name of reusable solution	The ISA^2 Dashboard
Description	The dashboard used to monitor the performance of actions is available under an open source licence for re-use.
Reference	http://ec.europa.eu/isa2/dashboard/
Target release date / Status	Live already.
Critical part of target user base	
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	Under assessment

9.2.5.6   Level of reuse by the proposal

The re-use by the action of existing common frameworks and elements of interoperability solutions.

Question	Answer
Does the proposal intend to make use of any ISA^2, ISA or other relevant interoperability solution(s)? Which ones?	The ISA Dashboard
For proposals or their parts already in operational phase: has the action reused existing interoperability solutions? If yes, which ones?	The ISA Dashboard

9.2.5.7   Interlinked

The link of the action with Union initiatives to be measured by the collaboration and contribution level of the action to Union initiatives such as the DSM.

Question	Answer
Does the proposal directly contribute to at least one of the Union's high political priorities such as the DSM? If yes, which ones? What is the level of contribution?	The action shall examine the benefits of the actions to the Union for the advancement of common policies, identify potential overlaps and examine coherence with areas for improvement and verify synergies with other Union initiatives, in particular with the CEF.

9.2.6   PROBLEM 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 ISA2 and EIS objectives. The supporting system will also act as an effective communication tool for decision-making.

9.2.7 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
European Commission	Ensure the objectives of the ISA^2 Decision are met.
	Better programme management, as underperforming actions will be identified sooner.
	Increase transparency of the ISA^2 work-programme investments.
ISA^2 Committee	Better communication of the results of programme's actions.
	Improved information of the overall ISA^2 work programme.
	More transparency as to what the budget is used for.

9.2.8 EXPECTED MAJOR OUTPUTS

Output name	
Description	
Reference	
Target release date / Status	

9.2.9 ORGANISATIONAL APPROACH

9.2.9.1 Expected stakeholders and their representatives

Stakeholders	Representatives
ISA^2 actions	Action owners
Member States	Representatives in the ISA^2 bodies (Committee, coordination group or

eqivalent, etc.)

9.2.9.2 Identified user groups

Action owners
Representatives in the ISA[2] bodies (Committee, coordination group or eqivalent, etc.)

9.2.9.3 Communication plan

Event	Representatives	Frequency of meetings / Absolute dates of meetings?
ISA Governance Meetings	ISA Coordination Group Members	Twice a year

9.2.9.4 Governance approach

This action is managed by DIGIT B.6 with the support of an external contractor. In order to allow the ISA2 Committee Members follow closely the progress of the programme, measurements collected in the frame of this action will be made publicly available on the ISA2 dashboard on a , quarterly, semester and yearly basis.

This action has 4 main phases during which project officers are actively involved supported by the external contractor:

1) Definition of indicators and related management processes for new actions

2) Provide traning and support to the project officers

3) Measurement and communication of the indicators on a regular basis (quarterly, semester and yearly) via conference calls with the action responsible

4) Inform the communication action about upcoming milestones for possible news flashes

9.2.10 TECHNICAL APPROACH AND CURRENT STATUS

The measurements gathered in the frame of this action are available to all stakeholders (ISA2 Programme management, ISA2 project officers, Member States, citizens, etc.) on the ISA2 dashboard http://ec.europa.eu/isa2/dashboard/ .

The use of this tool helps in decision making and ensures transparency towards all the ISA2 programme stakeholders.

9.2.11 COSTS AND MILESTONES

9.2.11.1 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^2/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Operational	2016 WP monitoring ISA^2	230	ISA^2	Q2/2016	Q4/2016
	ISA^{2}Dashboard Operations, maintenance and technical support	200	ISA^2	Q1/2016	Q1/2018
	Design and implementation of new monitoring actions	100	ISA^2	Q3/2016	Q4/2016
	2017 WP monitoring ISA^2	480	ISA^2	Q4/2016	Q1/2018
	Total	1010K			

9.2.11.2 Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2016	Operational	680	
2017	Operational	100 (200 kEUR from administrative budget)	
2018			
2019			
2020			