INTEROPERABILITY AGREEMENTS ON ELECTRONIC DOCUMENT AND ELECTRONIC FILE (2016.26)

IDENTIFICATION OF THE ACTION

Type of Activity	Common Frameworks
Service in charge	DIGIT B6
Associated Services	DG GROW, SG, DIGIT.B2, EU Publications Office, DG CONNECT

EXECUTIVE SUMMARY

Administrative activity is distinguished by its documentary character, in the sense that the administrative documents are evidences of their activity and the external form of such acts.

The need to exchange the above documents and files in an electronic format make necessary the establishment of interoperability guidelines about their exchange. Special consideration should be given to the context in which the object of exchange is the electronic document and not just the data it carries.

Preliminary work has been done under the ISA programme, to explore what Member State administrations try to achieve when using electronic documents and how they do it.

This will, under the ISA^2 programme, be extended to get a full overview and serve as the basis for the categorisation of requirements, possible solutions and interoperability issues related to these solutions, with the goal to identify areas where interoperability agreements would be useful, and consequently establish such agreements.

OBJECTIVES

The objective of the action is the definition of common specifications (interoperability agreements) in relation to the electronic documents and the electronic files:

- An interoperability agreement for electronic documents would define a common approach describing e-documents, including contents, e-signatures, and minimum required metadata;
- An interoperability agreement for e-files would define a common approach to the structure of e-files (being a collection of electronic documents grouped into a common context, e.g. a case), including e-documents, e-indexes, e-signatures, and minimum required metadata, and specifications on how to send and make them available.

The action aims to first establish a complete picture of solutions and standards for electronic documents and electronics files, covering the whole lifecycle of e-electronic documents and electronic files, including bundling (containers), exchange (e-Safe and others) and archiving.

This picture should be at EU and national level and in various domains (e.g. social security, taxation and maritime affairs), taking into account security, privacy and data protection and the citizen's right to data preservation. It will then serve to identify the needs / requirements and best practices, and eventually propose interoperability agreements to fulfil these requirements.

SCOPE

Building on the reference architecture for electronic documents that was developed under the ISA programme, the action will consider various aspects related to e-documents and identify interoperability issues where further action is needed. Different types of solutions to similar problems will be compared and their advantages and disadvantages elaborated. Where common specifications are lacking, the action will draft such specifications, building as much as possible on existing standards, and aiming at a wide range of consensus.

ACTION PRIORITY

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 EIF calls for the establishment of interoperability agreements. The action aims at establishing such agreements for electronic documents and electronic files.
Does the proposal fulfil an interoperability need for which no other alternative solution is available?	The landscape of existing solutions and their cross-border / cross-sector interoperability is little known; it is one of the goals of the action to get a better understanding of the solutions that fulfil this interoperability need.

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*	Not applicable for action outputs that are reports. Cross-sector applicability of e-

Question	Answer
(2) or more EU policy areas? If yes, which are those?	documents solutions is one of the aspects that the action examines.
	The e-documents reference architecture is certainly applicable across sectors, but specific intentions to use it are not (yet) known. Interoperability agreements that relate to the content of electronic are often sector-specific; where they relate to the generic aspects of documents they often remain very high-level (related to s-delivery and security)
For proposals or their parts **already in operational phase**: have they been utilised in two (2) or more EU policy areas? Which are they?	

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 purpose of the action is to facilitate the cross-border exchange and mutual recognition of electronic documents and electronic files. It is impossible at this point to say how many Member States will actually implement interoperability agreements. Alignment with the Danish eDocs reference architecture is planned.
For proposals or their parts **already in operational phase**: have they been utilised by public administrations of three (3) or more EU Members States?	

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?	Electronic documents and their mutual recognition play a role in many policy areas (e.g. Services directive, Justice)
Does the ISA² scope and financial capacity better fit for the implementation of the proposal as opposed to other identified and currently available sources?	Since a large portion of the work consists in an analysis of the as-is-situation and a gap analysis, it fits well into the scope of the ISA programme. Elaboration of interoperability specifications is closely linked to other ISA actions (SEMIC, EIRA)

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	Updated study on state of the art of e-Document and eSafe solutions in Europe
Description	The inventory and analysis of what exists in this area in terms of existing standards and solutions actually in use in Member States and at EU level will be extended to cover eSafe solutions in Europe, too.
Reference	To be published on Joinup
Target release date / Status	2016

Output name	Updated and extended Reference Architecture for e-Documents
Description	Under the ISA programme, the e-Documents action has produced a reference architecture for electronic documents, based on the European interoperability Reference Architecture (EIRA). Under ISA², this will be finished and maintained. It is meant to enable public administrations to make informed architecture decisions when building e-document solutions.
Reference	To be published on Joinup

Target release date / Status	2016 / Status: first version published in 2015

Output name	Interoperability agreements (context dependent) for the exchange of electronic documents and electronic files.
Description	Interoperability agreements can occur on all EIF layers: organisational (e.g. agreement about mutual acceptance), semantic (e.g. minimal set of document metadata, or content schemas, technical (e.g. signature formats and containers). The format will vary accordingly.
Reference	To be published on Joinup
Target release date / Status	Q2 2017 / Status: not started

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 e-documents engineering method put forward in the first phase of the action was developed in cooperation with the ISA action 1.1 (SEMIC). Any future work on standardised formats will have to take into account the instruments created by the SEMIC action. Core Vocabularies in particular can play a role in the definition of e-document formats (side by side with international standards such as Dublin Core, SBDH, UN/CEFACT and UBL). Specifications developed in the Member States and coming from other funded projects (e.g. LSPs), as well as the analysis done in the context of the Services Directive will serve as input for any draft interoperability agreements.
For proposals or their parts already in operational phase: has the action reused existing interoperability solutions? If yes, which ones?	

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?	Mutual recognition of electronic documents and efficient exchange between administrations are certainly key elements for the free movement of citizens and goods and establishing the once-only principle.

PROBLEM STATEMENT

Administrative activity is distinguished by its documentary character, in the sense that the administrative documents are evidences of their activity and the external form of such acts.

The need to establish some guidelines for interoperability in the exchange of electronic documents and electronic files is assumed, well known, and a key for interoperability. Special consideration needs to be given to a context in which frequently the object of exchange is the electronic document (with its documentary character preserved) and not just the data it carries.

Lessons learned from existing experience in establishing relevant specifications shall be taken into account.

EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Commission Services	Better European Public Services especially those which are document-based.
Public Administrations	Reduction of administrative burden. Electronic documents allow for shorter processing, fewer errors, reduced printing and postage costs and, most importantly, fully integrated processing.
Business and citizens	Reduction of administrative burdens, improved users' satisfaction

ORGANISATIONAL APPROACH

Expected stakeholders and their representatives

Stakeholders	Representatives
Member States	ISA^2 Committee, ISA^2 Coordination group (or ISA CG equivalent) and working groups
Commission Services	A representative from each concerned Commission service.
ICT	Representatives of ICT industry, SMEs
Standardisation bodies	Representatives from standardisation organisation fora and consortia.

Identified user groups

The reports produced by the action are meant to be used by

- Policy makers in the Member States that want to know what kind of solutions are in place in other MS
- Policy makers at European level that want to know what kind of solutions are in place in the Member States, to what extend they can be used across borders and sectors and where there are potential gaps to be filled
- IT architects in the Member States that want to know the typical components of solutions for electronic document and how to make them interoperable

Actual interoperability agreements are meant to be used by IT architects and implementers when designing systems for the exchange of electronic documents across organisational and political borders.

Communication plan

Under the ISA programme, MS solutions for electronic documents and electronic files were examined. This inventory will continue under ISA^2 – targeted communication with experts takes place through e-mail and telephone interviews, so as to achieve a complete picture of the situation in Member States. The reference architecture for electronic documents that was also created under the ISA programme will be finalised and then further disseminated, through presentations and webinars. Draft interoperability agreements will be created with the help of a working group and be subject to a public consultation – an effort will be made to engage here specifically the owners of standards and specifications for electronic documents in Member States.

Already while drafting these interoperability agreements, the action will actively search for cooperation partners to identify specific pilots according to the recognised needs. This will help to pinpoint obstacles on the organisational layer early on.

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.

This action will be run in close collaboration with the relevant ISA[2] working group and with the concerned Commission services. Once interoperability agreements are established, they will require a more formal governance – this will be created in a later stage of the action, depending on the nature of the agreements (based on existing work for similar types of interoperability agreements, e.g. SEMIC), and taking into account the participation of relevant stakeholders.

TECHNICAL APPROACH AND CURRENT STATUS

During the inception phase, the inventory and analysis of what exists in the Member States (started under the ISA programme) will be completed as a basis to scope the next steps towards, for example, the identification of overlaps and gaps and the needs/requirements.

The e-documents reference architecture that has been created in parallel will enable identification of requirements on the different interoperability layers, including in particular aspects that are relevant to the documentary character of electronic communications, like integrity, confidentiality, non-repudiation etc.

This work will then be used to identify where definition and agreements on common templates of interoperability agreements (specifically oriented towards electronic documents and electronic files) could contribute to increase interoperability amongst EU systems.

Once some clarity about the need for agreements on the different interoperability layers has been achieved, a working group will be stablished to draft these agreements. The planning of pilots will begin in parallel, to ensure real-life relevance of this work.

COSTS AND MILESTONES

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)
Inception	Definition of scope for interoperability agreements	100	ISA²	Q2 2016	Q3 2016
Execution- 1	Draft interoperability agreements	150	ISA²	Q4 2016	Q2 2017
Execution-2	Pilots	197	ISA²	Q3 2017	Q4 2017
	Total	447			

Breakdown of ISA^2 funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2016	Inception Execution-1	250	
2017	Execution-2	197	

ANNEX AND REFERENCES

Description	Reference link
Updated Reference Architecture for e-Documents	http://joinup.ec.europa.eu/site/isa_edocuments/edocuments/ (to be updated)