5.1 EUROPEAN PUBLIC PROCUREMENT INTEROPERABILITY INITIATIVE (2016.05)

5.1.1 IDENTIFICATION OF THE ACTION

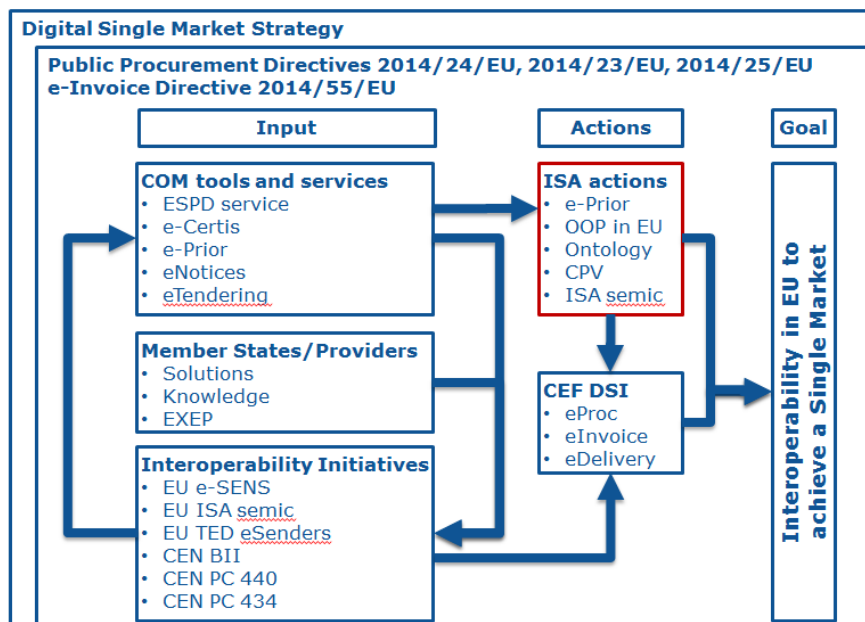| Type of Activity	Reusable generic tools, common frameworks
Service in charge	DIGIT B4/ GROW G4 / OP C
Associated Services	CNECT.H3, DIGIT B6, GROW F3

5.1.2 EXECUTIVE SUMMARY

The window of opportunity to achieve a true digital single market in Europe for public procurement within the next few years is within reach. By combining the different elements contributing to electronic public procurement a strong basis is formed to reach this goal:

- The Digital Single Market Strategy (DSM) recognizes that Information and Communications Technology (ICT) is the foundation of modern economic systems and that public procurement plays an important role in promoting standards and interoperability.

- The new public procurement Directives 2014/23/EU, 2014/24/EU and 2014/25/EU specifically mention that tools and devices used for communicating electronically should be non-discriminatory, generally available, and interoperable. One of the consequences deriving from the directives is that e-Procurement will gradually become mandatory in the EU. From April 2016 eNotification and electronic access to tender documents will be mandatory. From April 2017 eSubmission will also be mandatory for Central Purchase Bodies and from October 2018 for all contracting authorities. In addition e-Certis (a mapping tool for evidences) and the European Single Procurement Document will become mandatory from April 2016 on. The eInvoice Directive 2014/55/EU makes the reception and processing of electronic invoices mandatory by 2020.

- There are several interoperability/standardisation initiatives in Europe that have been working in the area of public procurement for several years, such as CEN BII. Due to their long history and experience their results are reaching a high level of maturity, especially in the area of post award. An important interoperability pilot on connecting eTendering[42] systems throughout Europe is currently ongoing through the EU large scale pilot e-SENS.

- In some Member States a high degree of IT implementation has been reached in public procurement, where a lot of knowledge and solutions have been provided by both public and private service providers. These service providers generally participate in interoperability initiatives to share their knowledge and ensure that interoperability can be achieved. The services in charge of this action also participate in these initiatives.

- The European Commission provides tools and services for public procurement. The Publications Office is mandated to publish notices about procurement procedures above the thresholds mentioned in the Directives. The eTendering application of the Publications Office publishes tendering documents from the Commission and the European Institutions and

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[42] The eTendering sytems may cover any combination of the different parts of the procurement chain   and should not to be confused with the eTendering application of the Publications Office; which provides access to tender documents.

bodies. e-Certis and the ESPD developed by DG GROWTH will be a cornerstone to achieve the once-only principle in Europe. e-Prior, a procurement tool, covering Pre Award (from eSubmission) and Post Award business processes developed by DG DIGIT uses standards coming from for example CEN BII and is an important potential asset to improve and support interoperability on a European scale.

- The Connecting European Facility (CEF) is an important financial instrument to support public and private entities to help them make their solutions interoperable in the area of public procurement and other domains. CEF will help to implement the European standard on eInvoices, exploit the ESPD and ensure eTendering solutions become interoperable. CEF will be fed by the results from the ISA^2 programme and through interoperability initiatives.

- ISA^2 itself will not only help to update existing tools like e-Prior or e-Certis but it will also foster interoperability through a common public procurement ontology and will support the implementation of the once-only principle in Europe. Commission tools, solutions and services will play an important role in role ensuring maturity is reached within eProcurement as they form a natural counterpart to standards within the domain. The figure below shows the overall relationship of the ISA^2 actions in relation with the other points mentioned above.

Combining the legal backing, the technical experience and financial instruments we have the possibility to implement interoperability in the EU to achieve a single market. We will work closely together with the expert group on eProcurement (EXEP) not only to disseminate the results but also to identify gaps that we need to address in the context of the ISA^2 programme. The ISA^2 programme and CEF will go on until 2020, the public procurement Directives will have to be fully implemented by 2018 and the eInvoice directive has to be implemented by 2020. Therefore action has to be taken fast to make full use of this window of opportunity.

5.1.3 OBJECTIVES

5.1.3.1 Context

CEF

The Connecting Europe Facility (CEF) Programme is part of a complex ecosystem where the interplay with Standard Development Organisations (SDOs), other EU programmes, the market and other stakeholders is crucial.

The CEF Telecom Guidelines specify that DSIs must:
- Have sufficient maturity to be deployed (both technically and operationally);
- Contribute to the Union's policies and activities in support of the internal market;
- Become sustainable in the long term with a defined strategy and plan;
- Comply with international and/or European standards or open specifications and orientations for interoperability.

The CEF Work Programme includes already 2 DSIs that are related to e-Procurement, e-Invoicing and e-Certis. Starting from 2017 the e-SENS services related to e-Procurement will be included in the CEF work programme, some of these services are related to e-Procurement (e.g.: Virtual Company Dossier and eTendering).

Digital Single Market

The support of standards is essential for the adoption of the e-Procurement solutions by Member States and fully in line with the Digital Agenda for Europe, one of the seven flagship initiatives of the *Europe 2020 Strategy.* The latter defines how wider deployment and more effective use of ICT will enable the delivery of the social and economic benefits Europe 2020 aims for. The **digital single market**[43] is one of the seven main topics of improvement defined in the digital agenda. In the political guidelines for the new European Commission, president Juncker also defines a connected digital single market as one of the 10 priorities. The guidelines state that a fully functioning digital single market could contribute as much as 250 billion additional EU GDP Growth in the course of the mandate of the new Commission.

Public Procurement Directives

The new directives 2014/23/EC 2014/24/EU, 2014/25/EU entered into force in April 2014. The Member States have until April 2016 to transpose the new rules into their national law (except with regard to e-procurement, where the deadline for implementation is **October 2018**).

The main expected improvements deriving from the transposition of the directives are:

- Simpler and more flexible procurement procedures.
- Strategic use of public procurement in response to new challenges[44]
- Higher participation of small and medium enterprises in public procurement and thus easier
- Sound procedures
- Governance

The new Directives specifically mention that **tools and devices used for communicating electronically should be non-discriminatory, generally available, and interoperable.**

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[43] http://ec.europa.eu/priorities/digital-single-market/docs/dsm-communication_en.pdf

[44] e.g.: environmental protection, social responsibility, innovation, combatting climate change, employment, public health

One of the consequences deriving from directive 2014/24/EU is that **E-procurement will gradually become mandatory in the EU.** Practically this means that:

Deadlines	Description
April 2016	electronic notification and electronic access to tender documents (e-Access) will become mandatory for all contracting authorities
April 2017	electronic submission of offers (e-submission) will become mandatory for Central Purchasing Bodies;
October 2018	Adoption of electronic submission of offers (e-submission) will become mandatory for all contracting authorities

The **European Single Procurement Document (ESPD)**[45], a standard self-declaration form will facilitate this. The ESPD will be the document to ask economic operators information for the exclusion and selection criteria.

From **2018**, contracting authorities will have to ask primarily for certificates and other documents listed in **e-Certis**, which will become a sort of clearing house for these documents.

5.1.3.2   List of Objectives

This action has the following objectives:
1.	Contribute to definition of standards for interoperability and support interoperability initiatives like eSens to bring software components to the level of maturity required by the CEF, to include them in the CEF eProcurement DSI and the CEF eInvoice DSI (alignment to the **European Interoperability Strategy,** the **Digital Single Market Strategy).**
2.	Facilitate the implementation of eProcurement for European Public Administrations by building further on the results of the action 1.7 of the ISA programme to provide an open source software solution that is in line with the new Directive 2014/24/EU and with standards, in particular with interoperability standards issued by the CEN BII workshop, TC 434, TC 440 and eSens (alignment to the **European Interoperability Strategy,** the **Digital Single Market** and the **EU Procurement Legislation**).
3.	Reduce the administrative burden and simplify procedures for buyers and suppliers to encourage cross border public procurement procedures. The implementation and introduction of the once-only principle (OOP) will allow a tenderer from a specific Member State to have an easier understanding, access of the required evidence of a foreign contracting authority and therefore the tenderer to provide the evidences through the respective e-Procurement system, and ultimately via full automation of this data exchange, when participating in a tender announced in another Member State,
4.	Provide better means to enhance not only interoperability but also to improve the overall data quality and reusability in view of the European interoperability strategy and the **Digital Single Market strategy** good data quality plays a crucial role in reaping the full benefits for public procurement and helping economic operators find the right opportunities more easily

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[45] Art 59 of 2014/24/EU Directive

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

5.1.4 SCOPE

Following the defined objectives, the scope of this project is divided in activities grouped in 3 sub-actions:

Activity ID	Activity	Related Objectives	Sub-action
Act-010	Alignment of Pre-Award solution produced by ISA action 1.7 to Directive 2014/24/EU.	**Objective 1** **Objective 2**	*e-Proc-01 (DIGIT B4)*
Act-020	Pilots and operations	**Objective 1** **Objective 2**	
Act-030	Provide an alternative Open Source software solution	**Objective 2**	
Act-040	Develop interoperable services to be included then in CEF DSIs	**Objective 1**	
Act-050	Alignment of solution produced by ISA action 1.7 to standards evolution	**Objective 1** **Objective 2**	
Act-060	Contribution to standards evolution	**Objective 1**	
Act-070	Support of European Single Procurement Document (ESPD) in Pre-Award solution	**Objective 2**	
Act-080	Assess e-SENS components and, if needed, complete them	**Objective 1**	
Act-090	Migrate Commission eSourcing application to Open Source	**Objective 2**	
Act-100	Instantiation of Procurement Open Data from e-PRIOR transactions	**Objective 1**	
Act-110	Connecting e-Certis, the exchange model based on the ESPD service and services of aggregators	**Objective 3**	*e-Proc-02 (GROW G4)*
Act-120	Update and Maintenance of e-Certis and the ESPD service.	**Objective 3**	
Act-130	Development of a public procurement ontology	**Objective 4**	*e-Proc-03 (OP C)*
Act-140	Modernisation of the CPV	**Objective 4**	
Act-150	Harmonized code lists in in eProcurement system	**Objective 4**	

Activity Description	
Act-010	Align the deliverables of ISA action 1.7 (Pre-Award solution) to the new Directive 2014/24/EU and extend them. Major points to be considered: **Central Purchasing bodies**[46] Related functionalities are *the execution of Framework agreements*[47]. See entry about *Act-090* in this table) and *Joint procurement* **New and revamped procedures**:

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[46] Article 37 of 2014/24/EU Directive: Centralised purchasing activities and central purchasing bodies

[47] Article 33 of of 2014/24/EU Directive: Framework agreements

	Some procurement procedures have been reviewed by the directive (e.g.: simplification of *Dynamic Purchasing Systems*, greater freedom to use *Competitive Dialogue* and *Competitive Procedures with Negotiation*) or even new procedures types have been introduced ("*Innovation Partnership*"). However, due to the approval delays of the Directive, building blocks/architectural elements, essential to build the full support of some procurement procedures types, have been developed more than the full support for procedures (their rules were not stable and nor yet reflected in the transposition of the real Financial Regulation[48]). **Labels[49]** The new Directive introduces selection criteria related to social / labour / environmental obligations that might require certification via labels. **Easier access to the market for SMEs** Apart the simplifications deriving from the introduction to the ESPD[50] (see Act-070), splitting contracts into **lots[51]** becomes now the rule. Some improvements to the support of lots are candidate to be developed.
Act-020	Set an example, promote cross-border e-Procurement in Europe and at the same time assess the validity and maturity of the developed components in a significant cross-border context.
Act-030	Provide e-Prior as an alternative open source solution through Joinup, the helpdesk and through exhibitions. As stated in the scoping paper for the CEF eInvoice DSI: "The CEF will not support the development of new solutions. Member State administrations should, where possible, avoid developing new e-invoicing platforms and instead use an e-invoice solution existing in the market which fits their needs. The e-PRIOR platform could be an option if no suitable platform is found." This applies to the pre-award solution as well.
Act-040	Put the grounds for the sustainability and evolution of the core interoperability enablers defined by CEN BII both in the Pre Award and Post-Award e-Procurement business chain. Once a sufficient level of maturity is reached, some services are candidate to be included in a CEF DSI.
Act-050	**UBL and other formats:** In the same line as Peppol BII, upgrade to latest UBL XML specification (currently 2.1) and support the other formats, which will be adopted by the CEN TC 434 CEN Project Committee on "**Electronic Invoicing**". **CEN BII Profiles/ TC440[52]:** The alignment to new CEN BII profiles is key for the adoption of e-Procurement solutions by Member States and for interoperability, in particular in a cross-border context. CEN BII Profiles, documented and published as CEN Workshop Agreements (CWAs), are designed to facilitate interoperability and effective public e-procurement based on a modular approach for implementation. The on-going CEN WS/BII3 focuses on improving the specifications, including additional business requirements and ensuring wider adoption. Some of new / updated CEN BII Profiles for Pre-Award are: *BII11/BII49 Qualification, BII53 Tender Withdrawal, BII50 Tender Clarifications, BII58 Notify Awarding, BII59 Contracting, BII56- Virtual Company Dossier, BII41-ESPD, BII37 and 39 Open and Restricted procedures.*

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[48] eg: the EU Financial Regulation is still under review at the time this document is being drafted

[49] Article 43 of 2014/24/EU Directive

[50] Article 59 of 2014/24/EU Directive

[51] Article 46 of 2014/24/EU Directive

[52] " that will build upon CEN BII3 deliverables.

	Remark: ISA action 1.7 is developing some of the exchange types between Contracting Authority and Economic Operators (Evaluation and Awarding modules of e-PRIOR Pre Award) but, since BII3 conclusions were not yet fully available when the development started, a simplified message exchange mechanism was adopted. As a consequence a "migration" towards the official new CEN BII Profiles is required. **Evolution of client-side technology for e-Submission solution** The new version of the HTML standard delivered in Oct 2014 (HTML 5) includes APIs that allow enriching the browsers with features (e.g.: "end-to-end") that, in the past, needed the use of Applet technology to be executed on a client workstation.
Act-060	ISA action 1.7 has continually fed the successive CEN.BII workshops with first-hand experience and improvement opportunities. It has been seen by the CEN.BII representatives as one of the few crucial initiatives for the success of their workshops. The aim of this activity is to pursue this successful collaboration. The CEN BII Profiles should support the exchange needs identified by the Business Process analysis and the requirements deriving from the new Directive. In particular at the moment when this document is being written, CEN BII profiles do not yet fully reflect some of the changes introduced by the Directive[53]. This action will then foresee analysis aiming at contributing, via the active participation to CEN BII workshops, to the alignment of CEN BII profiles and its follower PC440 to the new Directive requirements.
Act-070	The proposed activity consists in supporting the e-Submission module of e-PRIOR to interoperate with the ESPD (see Act-110), either via the "central" service currently under development by DG GROW, or via variants developed by Service Providers whilst using the e-Certis services. Even if the point about ESPD support is actually part of activity Act-010, it deserves a specific activity due to the importance of this new element introduced by the Directive and aiming at simplifying the submission process of Economic Operators, of SMEs in particular. ***Links:*** *This activity has a link (dependency) with **Act-110** and **Act-120** (part of GROW G4 sub-action).*
Act-080	The CEF Work Plan for 2016 will include services developed in the context of the e-Procurement activities of the e-SENS pilot. The level of maturity of some of these services might need an analysis and assessment phase. The conclusions might be that some of these services need further development before being included in a CEF DSI.
Act 090	DIGIT has invested in putting in place a Commission eSourcing solution to manage the implementation of framework agreements (Sourcing for re-opening competition and cascade) and implementation of low value contracts. This successful experience can be shared by creating an open source version of it.
Act-100	**Instantiation of Procurement Open Data from e-PRIOR transactions** Based on the CEN BII recommendations and guidelines on the Procurement Open Data, it is proposed • To identify e-Prior data that qualifies to be published as Open Data. • To transform this data using data standards and vocabularies coming from the

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[53] eg: support of criteria allowing to verify the respect of social / labour / environmental obligations – see Articles 43, 44, 70 of 2014/24/EU Directive

	eProcurement Ontology ISA Action, and suitable formats and best practices (e.g. RDF, Linked Open Dataset (LOD[1]). The final produced datasets should be published as open data and registered into the EU Open Data Portal and/or other Open Data Portals (e.g. the Pan-European Open Data Portal) using the experience from similar projects e.g. the EU Budget vocabulary. • To demonstrate the feasibility of consuming and visualising the Open Data with data analytics and visualisation tool based on results of other relevant ISA and ISA[2]Actions. LOD is part of the more general Open Data initiatives to publish data from institutions and other bodies of the European Union (EU). The European Union Open Data Portal[2] provides Linked Data[3] from various sources which allows computer systems to gather and analyse this data. The importance of Open Data for innovation, competition and competitiveness has been highlighted in the Communication 882[4] of 2011 from the Commission on Open Data. Open data as a basis for data analytics tools like red flag systems can also be important for the fight against corruption. *Links: This activity has a link (dependency) **Act-130** (part of OP C sub-action).*
Act-110	**Connecting e-Certis, the exchange model based on the ESPD service and services of aggregators.** The primary aim of this activity is to achieve OOP in public procurement by connecting the mapping service e-Certis, the exchange model based on the European Single Procurement Document (ESPD) service and services of aggregators based on services such as the Virtual Company Dossier, and piloting the connection in a selected number of Member States. The ISA-supported services provided by the European Commission such as e-Certis and the ESPD service will be updated and maintained. The main deliverables will be specifications on how to achieve the interoperability between the stakeholders for the bidding and "winning tenderer only" phase. Those two phases are relevant for the communication between suppliers and buyers in a public procurement procedure for dealing with the ESPD and evidences. This will have a direct spill over effect by demonstrating the possibility for all Member States to connect their systems to the framework developed within this action. *Links: **Act-070** (part of DIGIT B4 sub-action) has a dependency link with this activity.*
Act-120	**Update and Maintenance of e-Certis and the ESPD service will be updated and maintained**. The ESPD service and its artefacts were developed under the ISA programme (Action 2.16). The service and artefacts will be maintained and extended as part of this action. E-Certis, which was also developed under the ISA programme (action 2.17), will be maintained and extended as part of this action. *Links: **Act-070** (part of DIGIT B4 sub-action) has a dependency link with this activity.*

[1] http://open-data.europa.eu/en/linked-data
[2] http://open-data.europa.eu/en/about
[3] http://open-data.europa.eu/en/linked-data
[4] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0882:FIN:EN:PDF

Act-130	**Development of a public procurement ontology**
	This ontology will enable the rationalisation and interoperability within the public procurement workflow for the various actors concerned and thus will facilitate the creation, exchange, dissemination and reuse of the resulting data. It will cover both pre- and post-award. The ontology will ensure transparency and accountability. It will help to provide defined data in graphs allowing for better economic analysis, market research, business intelligence and therefore greater accuracy when reusing information.
	The basis for the ontology represented in the Web Ontology Language (OWL) will be a conceptual model which is part of this action. The OWL ontology will include specifications on how to use it in current systems and trainings or webinars are envisaged to disseminate its use.
	Links: Act-100 *(part of DIGIT B4 sub-action) has a dependency link with this activity.*
Act-140	**Improvement of the CPV**
	The CPV system will be modernised and provided through a Regulation. The modernisation of the current Common Procurement Vocabulary (CPV) will facilitate contracting authorities when initiating procedures to help economic operators to find the right opportunities more easily.
Act-150	**Harmonisation of code lists**
	During the exercise of developing the ontology (*Act-130*) and updating the CPV (*Act-140*) a side initiative will be providing harmonized code lists used within in the procurement chain and systems. The aim is to harmonise the code lists with other initiatives such as CEN BII and UBL and to make them publically available on the metadata registry.[54]

OUT OF SCOPE:

(1) Infrastructure elements/services (e.g.: communication services are provided by eTrustEx and/or e-Delivery, e-Signature services are provided by external services)

(2) In particular with reference to Act-110 and Act-120:

- o Financial support for public and private entities (aggregators, service providers).
- o Assistance to Member States with non-existing or insufficiently interconnected national registers or with non-existing aggregators

CEF will be used to support aggregators, service providers and national registers in integration of the specification

5.1.5 PROBLEM STATEMENT

- The **Connecting Europe Facility (CEF)** Programme includes 2 DSIs that are related to e-Procurement. Starting from 2016 the e-SENS services related to e-Procurement will be included in the CEF work programme; some of these services are related to e-Procurement. Since CEF DSIs

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[54] The Metadata Registry registers and maintains definition data (metadata elements, named authority lists, schemas, etc.) used by the different European Institutions involved in the legal decision making process gathered in the Interinstitutional Metadata Maintenance Committee (IMMC) and by the Publications Office of the EU in its production and dissemination process.

must have sufficient maturity to be deployed, some e-Procurement software components still need to reach the level of maturity required by the CEF. This action will aim at bringing them to be included in CEF DSIs.

- **The new Directives adopted in 2014** have introduced changes about procurement procedures (new procedures, changes for some existing procedures) and introduced some measures to make access to the market easier. Moreover the consequences deriving from Directive 2014/24/EU is that e-procurement will gradually become mandatory in the EU and a series of deadlines have been established on the use of e-solution for some specific business processes (e.g.: e-submission). This requires an alignment of the solutions already implemented via the e-PRIOR action in the ISA programme and the new CEN WS/BII 3 profiles ePrior will first align with the profiles already existing in the ePrior PreAward solution and then introduce solutions for those profiles which still need to be covered.

- For the moment, **cross-border bidding** is difficult due to the fact that national procurement systems and national registers are not sufficiently integrated, interoperable and supportive of the once-only submission of data by the tenderers. This leads for example to the **problem of mutual recognition of evidences used in different Member States**. That a buyer in one Member State will access a database of another country to retrieve evidences that are not in his language will lead to defensiveness. An important success factor is the cooperation with aggregators of data evidences in Member States and standardization initiatives like CEN/PC 440. Aggregators like ROLECE in Spain, e-Attestations in France, DIHK in Germany or ANKÖ in Austria play an important expert role in the process of implementation of OOP in public procurement, given that they will provide further support services for provision of evidences to their clients - potential tenderers. Inclusion of aggregators from various Member States will enable implementation of the OOP on a cross-border basis.

- Although pre-award and post-award information are openly available on **Tenders Electronic Daily:**

  o the information only covers procurement procedures above the European thresholds, therefore information below the thresholds is not necessarily comparable unless the same concepts have been used;
  o the relations between the different concepts in the procurement chain and data flow are not fully documented, therefore data and data relationships cannot be reused directly in a flexible and comparable manner;
  o much of the data available has inherited formats from its paper origins leading to illogical business processes and incorrect conceptual models;
  o taxonomies like CPV are often not correctly used which creates severe problems like making it very difficult for SMEs to find correct business opportunities.

5.1.6 EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States' Public Administrations - implementers of Public Services	• Free-to-use open source tool, e-PRIOR, for implementing electronic public services for both pre- and post-award e-Procurement. This system includes out-of-the-box functionality – the e-Delivery Connector – to connect to the e-Delivery infrastructure; • Free-to-use open standards for data and processes (CEN/ISSS WS/BII 3) that have been tested in a real-life environment ; • Shared experience in and support for setting up pre- and post-award e-Procurement; • Large cost savings and efficiency improvements, with reduced investment; • Provide example of a real-life implementation of the European Interoperability Framework (EIF); • Provide solutions in line with the new Directive 2014/24/EU
Stakeholders of the CEF Programme	This action will contribute to develop services that, once reached a sufficient level of maturity, can be included in the eProcurement DSI.
Companies, System Providers, System Integrators	The adoption by Public Administrators of services and component in line with open standards for data and processes will make easier the work of Companies having their system interacting with Public Authority procurement platforms and of System Providers and System Integrators.
Suppliers/SMEs	Suppliers and in particular small and medium enterprises will be the main beneficiaries of this action. It will cut the administrative burden related with provision of evidences for each public procurement procedure close to zero. As well it will be easier for them to find opportunities.
Contracting authorities	Contracting authorities will benefit from the discontinuation of any paper evidences and simplification of the evaluation procedures.
Aggregators	Aggregators will play a key role in reaping full benefits of the Once-Only principle by providing much better tools and services for buyers and suppliers. They will be supported financially via the Connecting European Facility. **NOTE** A European Commission study on eGovernment and the reduction of administrative burden (see here) projected in 2014 that implementation of the OOP is likely to generate annual net savings of 5 BEUR at EU28 level by 2017 (p. VI). As the new public procurement Directive 2014/24/EU fosters the use of the mapping service e-Certis and the ESPD this is a good opportunity to take aggregators of evidences on board to achieve implementation of the "Once-Only Principle" in the public procurement procedures conducted in the EU

National registers	The results of the Once-Only principle action will provide a very good basis for national registers on how to exchange information with aggregators or other entities.
Standardisation initiatives	The output of this action will be defined in collaboration with standardisation initiatives such as e-SENS, CEN BII and its successor CEN PC 440 as well as ISA. This will help to harmonize/standardize the exchange models for transaction in the domain of public procurement as well.
Government	The data will be more readily exploitable for both dissemination and reuse in a flexible manner. Thus the data will be transparent, open and reusable leading to much better policy making
Governmental Economists	Can access and analyse data easily on public spending
Information brokers	Business intelligence can be gathered more precisely
Journalists and researchers	Can reuse the data they want directly without needing to export all the data contained in all notices and then search on this information for the required data.

5.1.7 RELATED EU ACTIONS / POLICIES

Action / Policy	Description of relation, inputs / outputs
Directives 2014/23/EU, 2014/24/EU and 2014/25/EU	The DSM Strategy and this is supported by the new public procurement Directives, which mandates the use of e-Certis and ESPD. e-PRIOR is seen as an important action to support e-Procurement in Europe http://ec.europa.eu/growth/single-market/public-procurement/modernising-rules/reform-proposals/index_en.htm
Directive on e-Invoicing (DG GROW)	The European Commission is leading by example by implementing e-Invoicing for its own public procurement purposes, through e-PRIOR.
Digital Single Market	The Digital Single Market Strategy for Europe provides the overall framework for this action: boosting competiveness through interoperability and standardisation is explicitly mentioned in the communication "A Digital Single Market Strategy for Europe"
e-SENS	The e-SENS project is organising pilots in different business domains, including e-Procurement. They are mainly putting the e-Delivery layer to the test. As well, at the moment within e-SENS, an eTendering pilot among several Member States is ongoing. The main goal of this pilot is to achieve interoperability among eTendering solutions so that economic operators are able to use their favourite bidding tools to communicate with solutions all over Europe. Some building blocks within e-SENS such as eDelivery,

	eSignature and eID are candidate to be re-used for pilots. In particular e-SENS will support the definition of ESPD data exchange model and will integrate this model in their Virtual Company Dossier (VCD) reference implementation.
CEF	Connecting Europe Facility. There is an e-Invoicing Digital Service Infrastructure, related to the e-invoicing directive and standardisation initiative, which will bring changes to the way an e-invoicing platform can be compliant. In 2015 a new DSI for eProcurement was included in the Work Programme and consisting of the e-Certis services to allow third parties to access the information electronically. e-Certis will be followed in 2016 by other actions to complete the eProcurement DSI. Mature results from the e-SENS eTendering pilot are expected in 2015 so that this will be one of the next elements in the CEF eProcurement DSI. Other services that may be considered for 2016 are the European Single Procurement Document (ESPD) and eOrdering. The CEF will be used to support to support aggregators, service providers and national registers in integration of the specifications via calls for grants
eIDAS	Regulation on electronic identification and trust services for electronic transactions adopted at end of 2014 which will further foster interoperability and will reduce barriers in the internal market. http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2014.257.01.0073.01.ENG
CEN BII, TC 434 and TC 440 workshops	The BII Workshop is a standardisation initiative within CEN (European Committee for Standardisation). It provides a framework for interoperability in pan-European electronic transactions expressed as a set of technical specifications. The BII specifications have been implemented in several institutions, including the European Commission, and government agencies in Norway, Sweden, Italy, Netherlands, Iceland, etc. http://www.cenbii.eu/ Following the adoption of Directive 2014/55/EU on e-invoicing in public procurement and in accordance with the provisions of Article 3 within, the Commission issued standardisation request to the European standardisation organisations in December 2014. The work is being carried out by the CEN Project Committee on Electronic Invoicing (CEN/TC 434). CEN TC 440 will build upon CEN BII3.
See also **ISA actions** mentioned in section *5.1.8 REUSE OF SOLUTIONS DEVELOPED BY ISA, ISA2 OR OTHER EU / NATIONAL INITIATIVES*	

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

Solution	Description

ISA action 1.1	*SEMIC (Semantic interoperability):*
	Work carried out under Action 1.1 of ISA covering the pilot of TED as LOD, use cases and information requirements will be used as initial input for the ontology. In addition other existing public procurement and more general ontologies will be evaluated. *SEMIC* will support the definition of the core evidence and criteria vocabulary needed for the once-only principle sub action.
	Relevant activities in this action (see section *5.1.4 SCOPE*):
	Act -130 (OP C sub-action) and Act-100 (DIGIT B4 Sub-action)
ISA action 2.16	*ESPD*
	The ESPD is defined in Article 59 and e-Certis in Article 60 of Directive 2014/24/EU. The ESPD service and its artefacts were developed in alignment with the ISA SEMIC Action. The service and artefacts will be maintained and extended as part of this action led by DG GROW.
	ESPD has an influence on the pre-award process: less information required at submission time, the rest being required at a later stage. ESPD services are candidate to be included in the eProcurement DSI in 2016.
	- [Note for the file (DG GROW – 11/02/2015)](#)
	- [ISA action on ESPD](#)
	The e-PRIOR related activities will allow supporting in e-Submission the possibility to interoperate with the ESPD system, either the "central" one currently under development by DG GROW, or variants developed by Service Providers and using the e-Certis services.
	Relevant activities in this action (see section *5.1.4 SCOPE*):
	Act -110 + Act-120 (GROW G4 sub-action) and Act-070 (DIGIT B4 Sub-action)
ISA action 2.17	*e-Certis*,
	e-Certis is defined in Article 60 of Directive 2014/24/EU. It was also developed under the ISA programme, will be maintained and extended as part of this action.
	e-Certis will expose services in order to improve interoperability, with an influence on how the attestation process is organized.
	e-Certis is a free, on-line source of information designed to help economic operators and Contracting Authorities to compare and interpret different forms of documentary evidence required for cross-border tenders for public contracts. It covers evidentiary documents requested in the EU, Turkey, Iceland, and Norway (http://ec.europa.eu/markt/e-Certis/login.do).
	Relevant activities in this action (see section *5.1.4 SCOPE*):
	Act -110 + Act-120 (GROW G4 sub-action)
ISA action 1.7	*e-PRIOR:*
	The proposed action builds further on the results of the e-PRIOR action 1.7 of the ISA programme
	Relevant activities in this action (see section *5.1.4 SCOPE*):
	Act-010 + Act-020 + Act-030 +Act-040 + Act-050 + Act-060+ Act-070+ Act-090 + Act-100 (DIGIT B4 Sub-action)
ISA action 1.8	*e-TrustEx*
	The e-PRIOR related activities of this action re-use services developed by the

	e-TrustEx ISA action 1.8 in order to implement communication profiles allowing transmitting business messages/documents between the Economic Operators and Contracting Authorities both for the Pre-Award (e.g.: tenders) and Post-Award (e.g.: e-Invoices, e-Orders etc.) business chains. The e-TrustEx platform in fact originated from the generalisation of services that e-PRIOR initially developed for eProcurement exchanges. **Relevant activities in this action (see section *5.1.4 SCOPE)*:** *Act-010 + Act-020 + Act-030 +Act-040 + Act-060+ Act-090 (DIGIT B4 Sub-action)*
ISA action 1.22	*Big data and Open Knowledge for Public Administrations:* For the Open Data related activity in ePrior (see Act-100 in "*1.1.4 Scope*" section) ISA action 1.22 could provide the necessary Open Source tools to consume and visualise the Procurement Open Data. **Relevant activities in this action (see section *5.1.4 SCOPE)*:** *Act-100 (DIGIT B4 Sub-action)*
ISA action 1.6 – 1.19	*"CIPA - Common Infrastructure for Public Administrations Sustainability"* e-PRIOR has, via eTrustEx, an access point to the CIPA network: it can therefore be connected to the communication infrastructure developed by the CIPA action which implement cross-border public services over a common pan-European infrastructure **Relevant activities in this action (see section *5.1.4 SCOPE)*:** *Act-010 + Act-020 + Act-040 + Act-060 (DIGIT B4 Sub-action)*
ISA action 1.9	*"TSL and eSignature creation/verification tools"* The e-PRIOR Pre-Award solution allows the Contracting Authority to validate e-Signatures applied to tenders by Economic Operators. In its Open Source version e-PRIOR can "plug" the DSS libraries developed in the context of ISA action 1.9. **Relevant activities in this action (see section *5.1.4 SCOPE)*:** *Act-010 + Act-020 + Act-030 + Act-050 + Act-060 + Act-070 (DIGIT B4 Sub-action) and Act-120 (GROW G4 sub-action)*
Study on CPV	The work on the CPV's are based on the Review of the Functioning of the CPV Codes/System carried out for the European Commission http://ec.europa.eu/internal_market/publicprocurement/docs/rules/cpv/121219_report-review-cpv-codes-functioning_en.pdf **Relevant activities in this action (see section *5.1.4 SCOPE)*:** *Act-010 (OP C sub-action)*

5.1.9 EXPECTED RE-USABLE OUTPUTS (solutions and instruments)

The expected re-usable outputs of this action are presented as grouped around the objectives of the action presented in section *5.1.3.2 List of Objectives.*

5.1.9.1 Related to Objective 1

Output name	**Preparation of CEF e-Procurement DSI**
Description	Selected e-Sens software components will be brought to the level of maturity required by the Connecting Europe Facility (CEF) Programme.
Reference	CEF Building blocks site https://joinup.ec.europa.eu/community/cef/og_page/catalogue-building-blocks
Target release date / Status	Progressive activity to be detailed at the end of Stage 0 (assessment of the e-SENS components related to e-Procurement)

5.1.9.2 Related to Objective 2

Output name	**Software - Open e-PRIOR** downloadable package
Description	The downloadable package allows installing and configuring the e-PRIOR exchange platform implementing web services to exchange procurement documents. This allows setting-up, after tailoring and adaptations to the specific target environment (e.g.: interfaces with back-office systems of the Contracting Authorities), a node playing the role of intermediary between the back-office applications of the public administration and system connected to the CIPA network or between the back-office applications of the public administration and Economic Operators/Service Providers systems. **For the Post Award solution**: The e-PRIOR package includes also a web portal allowing suppliers, such as SME and individuals, to manually encode their invoices via a web form. **About the Pre Award solution**: It will contain also • the Front Office component • the Back Office component The Front Office is implemented by the "Supplier Portal" via which the Economic Operator can communicate with the Contracting Authority. It includes an applet allowing the Economic Operator to interact with the e-Prior platform, compose the tender and then submit it. The received tenders are routed to the Back Office via the e-PRIOR intermediary exchange platform. The Back-Office implements interfaces with the OP eTendering application (in charge of the publication of the Calls For Tenders) to get the Call For Tenders definition. It allows the Contracting Authority to execute the Opening Session for the tenders via the Front Office and enter the results of the Evaluation and Awarding steps (including the exchanges with the Economic Operators during these steps).
Reference	https://joinup.ec.europa.eu/software/openeprior/home

Target release date / Status	New versions of e-Prior progressively available thanks to ISA² funding starting from **Q1/2017** (results of sub-action eProc-01 STAGE 1). Updates available by **Q1/2018** (results of sub-action eProc-01 STAGE 2) and **Q2/2019** (results of sub-action eProc-01 STAGE 3).

5.1.9.3 Related to Objective 3

Output name	e-Certis
Description	e-Certis will be provided by the European Commission as a central service to Member States. The service provides a web service which can be accessed from solutions to offer added value for end users.
Reference	To be published on Joinup
Target release date / Status	Q1 2016

Output name	ESPD service
Description	The ESPD service will be provided by the European Commission. The source code will be made available under the European Union Public License v 1.1. Additional artefacts like the exchange data model or the results developed under Action 1.1 will be made available as well.
Reference	To be published on Joinup
Target release date / Status	Q1 2016

Output name	Specifications for the Once-Only principle in European Public Procurement (OOEPP)
Description	All information and specifications on how to achieve the OOEPP.
Reference	To be published on Joinup
Target release date / Status	Q4 2017

5.1.9.4 Related to Objective 4

Output name	Public procurement conceptual data model
Description	The conceptual data model will illustrate all data relations from pre-award to post-award. This model would provide a backbone of information when conceptualising platforms, systems and data exchange.
Reference	Not available so far
Target release	Q3 2017

date / Status	

Output name	Formalised public procurement ontology and vocabularies and codes in OWL
Description	The public procurement ontology and codes will be the basis of creating linked data for the public procurement domain. It is envisaged to use this ontology for diffusing the data available on TED and could also be implemented across Europe by tendering platforms and governments with the support of CEF.
Reference	Not available so far
Target release date / Status	Q4 2017

5.1.9.5 Related to Objective 4

Output name	Updated and modernised Common Procurement Vocabulary codes and dissemination in the Metadata registry
Description	The CPV establishes a single classification system for public procurement aimed at standardising the references used by contracting authorities and entities to describe the subject of the procurement contracts. It is foreseen to integrate the CPV in the metadata registry which in turn will provide the reusable access to the vocabulary for tendering platforms and indeed any system that wants to integrate the codes.
Reference	Not available so far
Target release date / Status	Q4 2016

5.1.10 ORGANISATIONAL APPROACH

This action is actually composed of **three sub-actions** executing activities contributing to the objectives listed in section *5.1.3.2 List of Objectives.* All sub-actions will be carried out in parallel by three distinct Services (DIGIT B4, GROW G4, and OP C) with mutual consultation.

5.1.10.1 Expected stakeholders and their representatives

Stakeholders	Representatives
ISA²	ISA² Committee/ Coordination Group
Member States	EXEP (Multi-stakeholder Expert Group on eProcurement), e-Certis editorial team, ISA^2 expert group (or ISA equivalent) European Public Administrations
Aggregators	Established aggregators in several Member States
Standardisation initiatives	CEN BII, CEN TC 440, CEN TC 434, ISA Team
End users	End users
European projects	e-SENS, CEF
EU institutions	DG DIGIT, DG CONNECT, DG BUDG, OP, DG GROW, JRC
Service Providers and other procurement data users	EUPLAT: European Association of public eTendering providers Organisations identified in the TED LOD project eSenders
ERP Software Vendors	
CEF	CEF Telekom Committee
Economic Operators	For example through EXEP
European Multi-Stakeholder Forum on eInvoicing (EMSFEI)	The European Multi-stakeholder Forum on e-Invoicing takes the lead on all aspects of e-invoicing, and addresses actively the most closely related steps in the e-procurement post-award processes ranging from purchase orders to e-payments and e-archiving. The EMSFEI works in close cooperation with the EXEP and can contribute to work on any other element of e-procurement.
Multi-Stakeholders Expert Group on eProcurement (EXEP)	The EXEP is to take the overall holistic view and the responsibility regarding end-to-end e-procurement. Its work will take place in the context of the legislation in the domain of e-procurement, including the Directive on e-invoicing in public procurement'. With a view to further promoting the uptake of end-to-end eProcurement across the EU, including in the post-award phase, EXEP liaises closely with the European Multi-Stakeholder Forum on eInvoicing (EMSFEI) and with national forums.

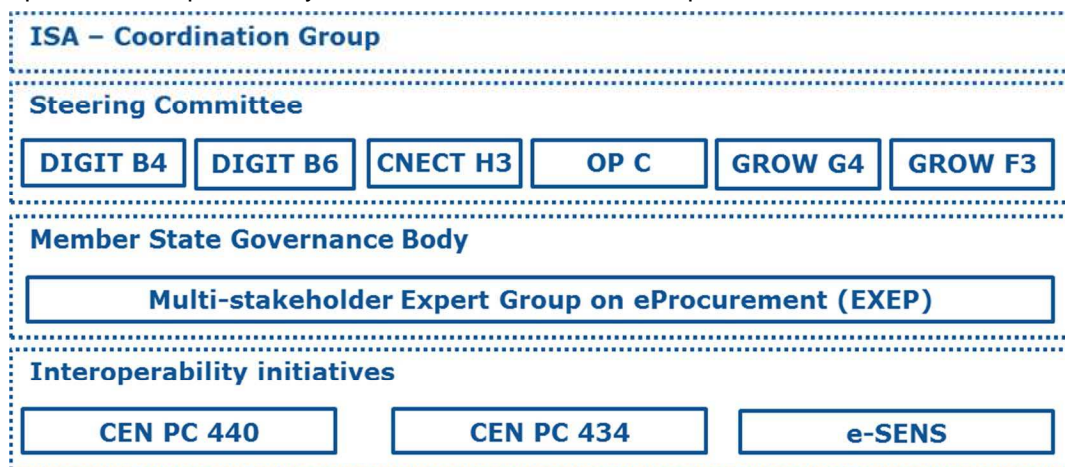|	The group is responsible for ensuring the coherence between the recommendations arising from the EMSFEI and broader policies on end-to-end eProcurement. It is composed of representatives of Member States' competent authorities. It also includes the key stakeholders in the area of eProcurement, e.g. representatives of European and international standardisation initiatives and European associations of users and providers.

5.1.10.2 Communication plan

Event	Representatives	Frequency of meetings / absolute dates of meetings?
Multi-stakeholder forum on e-Procurement (EXEP)	Member States representatives, Standardisation initiatives, Associations	3 times a year
General events	For all stakeholders	Constantly
e-Certis Meeting	e-Certis editorial team	2 times a year
e-Certis Meeting	e-Certis service providers	3 times a year
eSender meetings	eSenders	Min 1 a year
ISA^2 expert group	Meeting	2 times a year
e-SENS	Meeting	3 times a year
TC 440	Member States representatives	2 times a year
TC 434	Member States representatives	2 times a year
Workshops	Service Providers, Standardisation initiatives, EC	As necessary
EC Multi-Stakeholder Forum on e-Invoicing	DIGIT B.4 team members	Quarterly
Conferences on e-Procurement, e-Invoicing or e-Government	DIGIT B.4 team member	+/- Monthly
Websites of DG DIGIT, DG GROW, OP	For all stakeholders	Online
eProc Wiki	For all stakeholders	Online

e-Practice	For all stakeholders	Online
Joinup	For all stakeholders	Online
LinkedIn e-PRIOR Group	For all stakeholders	Online

5.1.10.3 Governance approach

A steering committee with members from DG DIGIT, OP, DG GROW and DG CNECT, will steer all ISA[2] and CEF eProcurement actions to make sure that the objectives are met. The main Member State governance body who will provide advice to the Commission will be the Multi-stakeholder Expert group on eProcurement (EXEP). We will work closely with the relevant interoperability initiatives to assure coherence. In addition, the communication and development of this project will be done in an open and transparent way with all stakeholders and at all possible events.

ISA – Coordination Group

Steering Committee
| DIGIT B4 | DIGIT B6 | CNECT H3 | OP C | GROW G4 | GROW F3 |

Member State Governance Body
| Multi-stakeholder Expert Group on eProcurement (EXEP) |

Interoperability initiatives
| CEN PC 440 | CEN PC 434 | e-SENS |

5.1.11   TECHNICAL APPROACH

This action is actually composed of **three sub-actions** executing activities contributing to the objectives listed in section *5.1.3.2 List of Objectives.* All sub-actions will be carried out in parallel by three distinct Services (DIGIT B4, GROW G4, and OP C) with mutual consultation.

5.1.11.1 Sub-action e-Proc-01 - DIGIT B.4

This sub-action **contributes to Objectives 1 and 2** will be realized in stages: a high-level project plan, provided in the section "5.1.12 COSTS AND MILESTONES" currently covers the first three years but it will be extended via a future proposal update.
The kick-off of the action will be the Inception phase whereby a *project charter* will be set up to define in more detail the activities within the scope of this project (see section 1.1.4) and their sequence.
Following the project charter phase (Stage 0), the project will then be executed in several separate stages including development and analysis activities.

The initial series of stages follows hereafter:

STAGE 0:

It covers the production of the Project Charter and the assessment of the e-SENS components related to e-Procurement (see Activity Type *Act-080*). This assessment will allow identifying e-SENS components ready to be included in a CEF DSI and other ones to be re-worked / adapted / enhanced, according a phased roadmap, in order to reach the adequate level of maturity required by CEF DSIs.

The Project Charter will identify activities that have to be tackled with the highest priority taking into account in particular Directive deadlines and of pending external dependencies (e.g.: readiness of CEN BII deliverables, readiness of Forms for Contract Notice, readiness of linked external systems / services). In light of this prioritisation, "iterations" will be identified in order to cover in the early stage(s) the most important functions and to enhance or complete them in the subsequent stages of the action.

STAGE 1:

TRACK A

It will focus on activities related to Standards and CEF:

Activity Type	Activity Details
Act-080	Continue (see *STAGE 0*) assessment of **e-SENS** components related to e-Procurement to identify which ones are ready to be included in a CEF DSI and which ones need to be re-worked / adapted / enhanced,
Act-040	Upgrade of highest priority **e-SENS** components to take them to the required level of maturity to be included in a **CEF** DSI (related to Act-080, see also *STAGE 0* description).
Act-060	Contribution to align **standards** (**CEN BII** and **CEN PC 440** Project Committee on "Electronic Public Procurement".) and **new Standard Forms** (e.g.: changes related to selection criteria concerning social / labour / environmental obligations, support of **Central Purchasing Bodies**)
Act-050	Alignment to the TC 434 Norm on **eInvoicing** **Alignment to technical standards** that are most critical for the adoption of the solution (candidate points: alignment to UBL 2.1, possible replacement of Applet technology for e-Submission client, support of HTML 5 standard). **Security management** based on use of PKI for public and private encryption keys.

TRACK B

It will focus on aligning the e-PRIOR solution delivered by ISA action 1.7 to the Directive 2014/24/EU (**Open Procedures** and **Restricted Procedures**) so that e-PRIOR can offer an Open Source solution by the deadline of April 2017 established by the Directive.

Activity Type	Activity Details
Act-010	Update of the **interface with the e-Tendering application** to support the **new Standard Forms** deriving from the new Directive (e.g.: changes in code list values, new selection criteria introduced by the Directive). Support in GUI and in data exchanges (Back Office, Front Office, e-PRIOR exchange platform) the **new Standard Forms** (e.g.: GUI impacts, code lists).
Act-070	High priority adaptations identified by Project Charter for **ESPD** support and **Central Purchasing Bodies.**
Act-030	Make then **Opening Session** in e-Submission module more automated.
Act-020	**Pilot Deployment** of the upgraded Pre Award solution.

STAGE 2:

It will focus on extending the scope of STAGE 1:

TRACK A

Activity Type	Activity Details
Act-040	Further actions deriving from the assessment of e-SENS (see STAGE 0 and STAGE 1): to take additional e-SENS components to the required level of maturity to be included in a **CEF** DSI.
Act-060	Continue contribution to **CEN BII / CEN PC 440 standards**
Act-050	Continue **alignment to standards** (candidate points: Support of **additional and updated "profiles"** delivered by **CEN BII 3** such as Tender Withdrawal, Tender Cancellation, Qualification, activities deriving from our contribution to standards in STAGE 1)

TRACK B

Activity Type	Activity Details
Act-070	**ESPD support – Iteration 2 (**extension of STAGE 1 activity: smoother integration of ESPD into e-Submission)
Act-030	Support additional procedures based on the "Short List Management" building block developed in action 1.7 of ISA – **Call for Expressions of Interest, Vendors List**, **Dynamic Purchase System**
Act-090	Support of **Central Purchasing Bodies**: Migration of the Commission eSourcing application to open source
Act-100	Instantiation of Procurement Open Data – Iteration 1

Dependencies on activities executed in other sub-actions: Act-100 depends on results of Act-130 (part of OP C sub-action)

STAGE 3:

Even if it is not the only objective, it aims at respecting the alignment to deadline of October 2018 of the New Directive

TRACK A:

Activity Type	Activity Details
Act-040	Further actions deriving from the assessment of e-SENS (see STAGE 0, 1 and 2): to take additional e-SENS components to the required level of maturity to be included in a **CEF** DSI
Act-060	Continue contribution to **CEN BII / CEN PC 440 standards**
Act-050	Continue **alignment to standards** (e.g.: activities deriving from our contribution to standards in STAGE 1 and 2, replace use of simplified profiles with "official" CEN BII profiles like BII50 Tender Clarifications, BII56 Virtual Company Dossier, BII58 Notify Awarding, BII59 Contracting, BII37 and 39 Open and Restricted procedures)

TRACK B:

Activity Type	Activity Details
Act-010	Support of "**innovation**" aspects of the new Procurement Directive: **iteration 1** - tenders with variants[55] Further **Improved support of Lots, e.g.**: - Lifecycle at LOT level and not at CfT level, - Cancellation at LOT level granularity - Support distinct Opening Session per Lot - Distinct Evaluation of Tenders for Lots of the same CfT (1 or 2 step in two steps procedures) - Allow activating Step 2 for LOTx independently from LOTy within the same CfT.
Act-100	Instantiation of Procurement Open Data – Iteration 2

Dependencies on activities executed in other sub-actions: Act-100 depends on results of Act-130 (part of OP C sub-action)

FURTHER STAGES: To be detailed in the text of a future proposal update.

Candidate topics are:
- Support of pre-registration of Tenderers
- Support of "**innovation**" aspects of the new Procurement Directive - **iteration 2**: New procedure "**innovation partnership**",
- Support of **cross-border joint procurement**
- Support of **competitive dialogue**
- Support of **competitive procedure with negotiation**
- Support of **Negotiated procedure without prior publication'**
- Support of **Contracts between Contracting Authorities**.

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[55] Articles 45 of 2014/24/EU Directive

- Support compatibility for **e-SENS** profiles.
- Further iterations on Generation of **Procurement Open Data** (depending on progress of **Act 130** – see sub-action managed by OP C)
- **ESPD support – further** extension of STAGE 1 and 2 activities: smoother integration of ESPD into e-Submission based on availability of results of sub-action focusing on the OOP (Once Only Principle – sub-action managed by GROW G4).

The Operational sub-phase will include the deployment of the solution to pilot it, the publication on Joinup of the Open Source version (part of Activity Type *Act-030*) and the support. In principle the same development tools and methodologies used for the *ISA action 1.7* will be used (RUP@EC for software development and ITIL for service management). The results of each development phase will be documented by an execution report.

5.1.11.2 Sub-action e-Proc-02 - DG GROW G.4

This sub-action contributes to Objective 3. The specifications will be developed together with standardisation initiatives (CEN PC 440), e-Certis aggregators and reported to the Member States (through the EXEP) and e-Certis editors.

In 2016, the first step will be to develop an overall concept on how the OOP can work in the domain of Public Procurement by connecting e-Certis, the ESPD and aggregators. There will be a consultation of the concept with the EXEP and the e-Certis editors group. On the foundation of the concept the specifications will be developed together with stakeholders including a limited number of aggregators. The specifications will be based on this concept and improved in an iterative approach. This approach combined with the implementation by the community will help to improve the system during the time frame of this ISA[2] action. We will as well provide support for pre-qualification systems in MS to check ESPD compliance and interoperability. By mid-2018 a stable set of specifications are to be expected which will be disseminated through a communication strategy (including a campaign, webinars, trainings etc.). Current versions of e-Certis and ESPD service will be maintained and operated during the whole life span of the action including providing support. It is planned that CEF will be used to support aggregators, service providers and national registers in integration of the specifications.

Activity Type	Activity Details
Act-110	- Develop overall Concept of OOP - Development of Specifications based on the developed Concept - Implementation by the community - Dissemination through a communication strategy (including a campaign, webinars, trainings etc.).
Act-120	Maintenance of e-Certis and ESPD service

Links with activities executed in other sub-actions: Act-070 (DIGIT B4 sub-action) depends on progress and results of Act-110 and Act-120

5.1.11.3 Sub-action e-Proc-03 - OP C

This sub-action contributes to Objectives 4 and 5. As much work as possible will be carried out in parallel, for example the work on the CPV codes could be carried out at the same time as work on the conceptual data model and integrated into the model at a later stage. However, only work will be carried out in parallel which does not hamper the holistic approach covering the whole spectrum of public procurement.

Given the volume of data relations, the number of stakeholders, the various information inputs available and the different external usages of the ontologies a methodology on how best to meet the constraints will first have to be developed. A guideline to help on this aspect is the document on "Process and methodology for developing semantic agreements"

https://joinup.ec.europa.eu/sites/default/files/Process%20and%20methodology%20for%20developing%20semantic%20agreements.pdf .

The Inception Phase will define the methodology to be used and collect and analyse the different information available, such as user requirements data models, ontologies. A **Project Charter** will be produced with the detailed planning and description of the identified activities of the sub-action.
The requirements of the **ontology** along with its informal design will be produced taking into consideration the findings in the inception phase. The requirements will be documented, a conceptual model produced and vocabularies and **code lists** defined and where necessary created or adapted.

It is foreseen that the different code lists, the **CPV**, the conceptual data model and the OWL ontology will be made available on the metadata registry at the Publications Office for reuse of all stakeholders.

Activity Type	Activity Details
Act-130	**Ontology:** • Definition of the methodology to be used, and collection and analysis of the different information available, such as user requirements data models, ontologies • Conceptual data model • Requirements management and design. • Definition; and where necessary, creation or adaptation of vocabularies and code lists • Presentation of the ontology in OWL covering the conceptual data model, the vocabularies and codes to be used.
Act-140	**CPV:** Review and modernise CPV codes based on the study and in discussion with stakeholders
Act-150	**Code Lists:** Provision of harmonized code lists used in eProcurement systems within the metadata registry

Links with activities executed in other sub-actions: Act-100 (DIGIT B4 sub-action) depends on progress and results of Act-130.

5.1.12   COSTS AND MILESTONES

5.1.12.1 Breakdown of anticipated costs and related milestones

Sub-action **e-Proc-01** (Objectives 1 and 2) – DIGIT B4					
Phase: Inception Execution Operational	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Stage 0: Inception	Project charter and eSENS assessment report	150	ISA²	Q2/2016	Q2/2016
Stage 1: Execution	TRACK A and TRACK B Execution report	1100	ISA²	Q2/2016	Q4/2016
Operational	• Support • Pilot Deployment • Publication in Joinup • Possible hand-over to CEF of some eSENS components	250	ISA²	Q2/2016	Q1/2017
Stage 2 Execution	TRACK A and TRACK B Execution report	1100	ISA²	Q1/2017	Q4/2017
Operational	• Support • Pilot Deployment Publication in Joinup • Possible hand-over to CEF of some eSENS components	250	ISA²	Q2/2017	Q1/2018
Stage 3: Execution	TRACK A and TRACK B Execution report	1000	ISA²	Q1/2018	Q4/2018
Operational	• Support • Pilot Deployment Publication in Joinup • Hand-over to CEF of additional eSENS components	200	ISA²	Q2/2018	Q1/2019
	TOTAL	4050			
Further Stages to be described in future updated Proposal					

Sub-action **e-Proc-02** (Objective 3) – GROW G4					
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	Operation and support of e-Certis and ESPD service	1000	ISA^2	Q1/2016	Q4/2018
Operational	Support for pre-qualification systems in MS to check ESPD compliance and interoperability	300	ISA^2	Q1/2016	Q4/2017
Inception	OOP in PP • Project initiation • Assessment of solutions in MS • Drafting concept • Alignment with CEF eProc DSI	300	ISA^2	Q1/2016	Q4/2016
Execution	OOP development and implementation • Drafting specifications • Alignment with CEF eProc DSI • Technical support for interoperability/ interconnection between national systems and to EU systems • Implementation of results in e-Certis and in ESPD service • Dissemination and communication	800	ISA^2	Q1/2017	Q4/2018
	Total	2400			

Sub-action **e-Proc-03** (Objective 4) – OP C					
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/ planning phase	• Definition of the methodology • Analysis of available information • Project Charter	100	ISA2	Q2/2016	Q3/2016
Execution	**Ontology:** • Requirements and design. • Conceptual model • Definition / creation/ adaptation of vocabularies and code lists	150	ISA2	Q4/2016	Q3/2017
Execution	**CPV:** Updating the CPV codes	300	ISA2	Q3/2016	Q2/2017
Execution	**Ontology:** Presentation in OWL.	200	ISA2	Q4/2016	Q4/2017
	Total	750			

5.1.12.2 Breakdown of ISA^2 funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2016	Inception eProc-01	150	
	Execution eProc-01	1100	
	Operational eProc-01	250	
	Inception eProc-02	300	
	Operational eProc-02	350	
	Inception eProc-03	100	
	Execution eProc-03	150	
2017			
	Execution eProc-01	1100	
	OperationaleProc-01	250	
	Execution eProc-02	400	

	Operational eProc-02	550	
	Execution eProc-03	500	
2018			
	Execution eProc-01	1000	
	Operational eProc-01	200	
	Execution eProc-02	400	
	Operational eProc-02	400	
TOTAL		**7200**	

5.1.13   ANNEX AND REFERENCES

description	Reference link
Directive 2014/24/EC	http://ec.europa.eu/growth/single-market/public-procurement/modernising-rules/reform-proposals/index_en.htm
eIDAS Regulation	http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2014.257.01.0073.01.ENG
Digital Single Market	http://ec.europa.eu/priorities/digital-single-market/docs/dsm-communication_en.pdf
Digital Agenda	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0245:FIN:EN:PDF
CEF	https://ec.europa.eu/digital-agenda/en/connecting-europe-facility