

CATALOGUE OF SERVICES (2016.29)

IDENTIFICATION OF THE ACTION

Type of Activity	Common frameworks
Service in charge	DG DIGIT.B6
Associated Services	DG GROW.R4 E3 and R3

EXECUTIVE SUMMARY

A large number of public administration portals have been/ are being implemented throughout Europe with no harmonisation among them in terms of the description of public services and associated information. This lack of harmonisation makes it difficult to link or federate them. Furthermore, public services are often not organised in a user-centric perspective making it more difficult to search and to integrate services around business or life events.

This action will deliver a set of specifications and solutions to achieve a certain level of interoperability among national and European public service descriptions as well as to facilitate the federation of public services and the creation of national and European catalogues. These instruments will contribute to the "Single Digital Gateway" action established in the Digital Single Market Strategy.

Under the ISA programme, in collaboration with the representatives of the Point of Single Contacts of the Services Directive in several Member States, a Core Public Service Vocabulary Application Profile was defined as an extension of the ISA Core Public Service Vocabulary in order to model in more detailed public services information and to link them to business events.

The Core Public Service Vocabulary Application Profile (CPSV-AP) has been extended to cover all types of public services in order to support also life events.

Under ISA, the action has carefully analysed the needs of different stakeholders to make the CPSV-AP applicable to public service descriptions in other domains outside the Services Directive (e.g. public services for citizens, other public services for businesses) and how this action can contribute to the "Single Digital Gateway" action identified in the DSM strategy action plan.

Some software tools answering the requirements identified in previous phases for the creation, validation, mapping and harvesting/ federation of public service descriptions have been implemented as prototypes for potential re-use and as supporting tools for the use of the CPSV-AP.

In addition, a number of interested Member States and European portals have been engaged in order to launch a series of real life pilots in order to test and prove the benefits of adopting the CPSV-AP and the software tools as means to: harmonise the descriptions of public services at national PSCs (Points of Single Contact) and the Single Digital Gateway; federate public services at the national portals and also at the European level; and create ultimately harmonised catalogues of public services

In parallel, and as a result of the pilots, the data model for public service descriptions has been updated.

The data model specification for describing public services (CPSV-AP) will be further maintained and improved by adding multi-lingual controlled vocabularies and investigating the description of catalogues of public service description. The same will be done for the software tools. It will be explored the possibility of organising these tools in a testing facility.

Technical support like testing use cases will continue to be provided to EU MSs and EUIs (for instance DG GROW in the context of the Digital Single Gateway and YourEurope portal) in order to assist them in creating a catalogue of public services around life and business events, and use the CPSV-AP and/or the tools.

New pilots with some portal owners will be launched to promote the creation of public services catalogues at national level as well as across-borders and improve the user's experience.

Finally, a dissemination plan aligned with that of SEMIC will be launched in order to promote the use of the tools and technical specifications created in this action and raise the awareness of policy makers, developers and other interested parties.

The action will disseminate information material which will provide information on the how catalogues of services can be created and used to rationalise public services and organised in a more effective way at the one-stop-shop portals; they will also demonstrate the potential benefits and cost savings for public administrations, portal owners and end-users, like:

- Development of guidelines and best practices on how to create and maintain a catalogue of public services;
- Development of case studies of real-life implementations of the CPSV-AP, pilots and reuse of test implementations of the tools;

OBJECTIVES

The main objective of the action is to achieve interoperability around national and European service descriptions that would help European public administrations build national as well as cross-border harmonised catalogues of public services.

The action will work towards the fulfilment of these objectives:

- implement interoperability specifications that will help European public administrations to describe public services a group them under life and business events
- implement solutions to enable the link and federation of national and European public service into a Single Digital Gateway in order to foster them as one-stop-shops;
- test in real life how those solutions can provide the expected benefits and based on the practical results improve them
- promote the creation of public services catalogues and improve the user's experience at public services portals
- Promote the federation and in some cases aggregation of the public services offered by the various levels of public administrations into national Single Digital Gateways or one-stop-shops. This would lead at a later stage to the creation of a European catalogue of public services in various domains;

SCOPE

The objective of the present action will be served through implementing interoperability solutions and running pilots to link the Catalogues of public services existing throughout the EU. Initially the scope was limited to the Services Directive but under ISA² it will be extended to other cross-domains as well.

The main target audience are public administrations, in particular the entities in public administrations that are responsible for the implementation and provisioning of public services and the owners of the public service portals acting as one-stop-shops.

The action will deliver a set of specifications and solutions to achieve a certain level of interoperability around national and European public services descriptions as well as to facilitate the federation of public services and the creation of catalogues. This will help European public administrations to improve the discovery and the provisioning of national and cross-border services.

ACTION PRIORITY

According to the EIF, MS need to put in place catalogues of public services, interoperability solutions and use common models for describing them. To support the ability to find reusable resources (like public services) relevant catalogues are needed. This component allows publishers to document and make available resources with the potential to be reused by others. Commonly agreed descriptions of services and interoperable solutions published by catalogues are fundamental, to enable interoperability amongst different catalogues. This action aims at defining a technical specification (data model) and at implementing tools to facilitate the creation of catalogue of public services, one of the interoperability enablers for integrated public services according to the conceptual model defined by the EIF.

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
<i>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.</i>	This action aims at defining a technical specification (data model) and at implementing tools to facilitate the creation of catalogue of public services, one of the interoperability enablers for integrated public services according to the conceptual model defined by the EIF.
<i>Does the proposal fulfil an interoperability need for which no other alternative solution is available?</i>	There is not a data model at EU level to harmonise the description of public services and the creation of catalogues of public services

Cross-sector

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

Question	Answer
<i>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?</i>	This action aims at defining a technical specification (data model) and at implementing tools to facilitate the creation of catalogues of public services in cross-cutting policies areas like the Services Directive or the "Digital Single Gateway" that is part of Communication on "A Digital Single Market Strategy for Europe", COM(2015)192.
<i>For proposals or their parts already in operational phase: have they been utilised in two (2) or more EU policy areas? Which are they?</i>	

Cross-border

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

Question	Answer
<i>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?</i>	This action aims at defining a technical specification (data model) and at implementing tools to facilitate the creation of catalogue of public services at national and European level in areas like the Services Directive or the "Digital Single Gateway" that is part of Communication on "A Digital Single Market Strategy for Europe", COM(2015)192.
<i>For proposals or their parts already in operational phase: have they been utilised by public administrations of three (3) or more EU Members States?</i>	

Urgency

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

Question	Answer
<i>Is your action urgent? Is its implementation foreseen in an EU policy as priority, or in EU legislation?</i>	<p>The action facilitates the creation of a one-stop-shop catalogue of public services thus contributing to the implementation of the "Digital Single Gateway" that is part of Communication on "A Digital Single Market Strategy for Europe", COM(2015)192.</p> <p>The Services Directive establishes a single market for services within the EU and obliges MS to create Point of Single Contacts with all the information and the electronic access to the formalities to set-up a business. These portals can make use of the tools and solutions of this action for the harmonisation of the descriptions and the federation of public services, in order to foster the PSCs as one-stop-shops.</p>
<i>Does the ISA² scope and financial capacity better fit for the implementation of the proposal as opposed to other identified and currently available sources?</i>	<p>Yes, since interoperability is fundamental in the implementation of solutions in this action. In addition to that, the scope of this action falls under the development, establishment, bringing to maturity, operation and re-use of new cross-border or cross-sector interoperability solutions and common frameworks; once of the principles of the ISA2 scope.</p>

Reusability of action outputs

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

Output name	Core Public Service Vocabulary Application Profile (CPSV-AP)
Description	Data model to facilitate the creation of catalogue of public services and the interoperability of machine readable descriptions of any type of public service; the model will also allow for the modelling of public service descriptions around life and business events.

Reference	https://joinup.ec.europa.eu/asset/cpsv-ap/home
Target release date / Status	The extended version also counting for life events will be released for public consultation in autumn 2016 and the consolidated version will be available by the end of 2016
Critical part of target user base	Some portals acting as one-stop-shops for public services (PSCs; eGovernment portals; Digital Single Gateways)
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	Reused by Italy and Estonia to create national catalogues of public services

Output name	Tools for the creation of Catalogues of Public Services
Description	<p>Tools for the automated federation of public service descriptions and for the creation of catalogue of public services at national and cross-border level.</p> <p>The tools will provide the following functionalities: CPSV-AP mappings, public service description editor, public service description harvester, CPSV-AP validator.</p> <p>It will be analysed how to organise and maintain the existing pilots and tools to facilitate the use and adoption of them by PAs through test cases in a testing facility.</p>
Reference	
Target release date / Status	<p>The pilot implementations of the tools have been released in summer 2016</p> <p>Fully production releases expected in 2017</p>
Critical part of target user base	Some portals acting as one-stop-shops for public services (PSCs; eGovernment portals)
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	In piloting phase, some MS are reusing the pilot implementation of the tools.

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?	<p>The CPSV-AP is based on the Core Public Service Vocabulary.</p> <p>DCAT-AP specification will be reused to create</p>

	<p>at the CPSV-AP a container of public service descriptions like a catalogue.</p> <p>Solutions to be developed by the action are mapped to the building blocks of the European Reference Interoperability Architecture (EIRA) as the first step for their inclusion in the EUCart;</p> <p>The tools to federate public service descriptions and use of the CPSV-AP will make use of the test bed action as much as possible to create practical use cases for the users and a testing facility.</p>
<p>For proposals or their parts already in operational phase: has the action reused existing interoperability solutions? If yes, which ones?</p>	

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
<p>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?</p>	<p>The action facilitates the creation of a one-stop-shop catalogue of public services thus contributing to the implementation of the "Digital Single Gateway" that is part of Communication on "A Digital Single Market Strategy for Europe", COM(2015)192.</p> <p>The Services Directive establishes a single market for services within the EU and obliges MS to create Point of Single Contacts with all the information and the electronic access to the formalities to set-up a business. These portals can make use of the tools and solutions of this action for the harmonisation of the descriptions and the federation of public services, in order to foster the PSCs as one-stop-shops.</p>

PROBLEM STATEMENT

Member State public administrations provide various types of public services to their citizens and businesses but in very few cases there is a national/ regional catalogue listing all of them. Different types of approaches are being adopted towards the building of public services and their catalogues. There is usually no standard way of describing and documenting these services. The understanding of services and service implementations are different and even the basic definition of what constitutes a public service differs. Furthermore, there is a lack of an overview of what types of services already exist, often resulting in redundant work and inefficiencies.

The above makes the identification of European public services hard or impossible and creates barriers in the interoperable delivery of public services to end users, citizens and businesses resulting to loss of time and underuse of already available public services.

Some MS have defined their own semantic models to define and describe public services. These semantic models are then followed by competent authorities resulting in a higher level of integration of the various public service portals.

This structured approach should be adopted at EU level in order to create Catalogue of Services, ultimately interconnected and federated to each other. It will further make possible the federation of European Catalogues as one-stop-shops of public services to boost the discovery and re/use of cross-border European public services.

EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
National and European public portals and one-stop-shops providing information about public services for citizens and businesses (Point of Single Contacts of the Service Directive; eGovernment portals; other business portals)	For relevant European national authorities or agencies: the ability to federate public service descriptions from various sources and the creation of one-stop-shops; the efficient re-use of information available in other Member States and the creation of national and European catalogue of public services. Easier provision of national and cross-border public services following a user centric approach.
DG Grow	Your Europe portal and the future Single Digital Gateway can use the output of the action in order to harmonise the public service descriptions around

	life and business events and also federate the services at the various portals.
Citizens and businesses	Easier discovery and understanding of the available public services related to business or life events. This is materialised in time savings.

EXPECTED MAJOR OUTPUTS

Output name	Consolidated technical specification of the Core Public Service Vocabulary Application Profile
Description	Data model to facilitate the creation of catalogue of public service; interoperable machine readable descriptions of any type of public service and grouping of them around life and business events.
Reference	https://joinup.ec.europa.eu/asset/cpsv-ap/home
Target release date / Status	The extended version also counting for life events will be released for public consultation in autumn 2016 and the consolidated version will be available by the end of 2016.

Output name	Tools for the automated creation of Catalogues of Public Services
Description	<p>Release of tools for the automated federation of public service descriptions and for the creation of catalogue of public services at national and cross-border level.</p> <p>The tools will provide the following functionalities: CPSV-AP mappings, public service description editor, public service description harvester, CPSV-AP validator.</p> <p>It will be analysed how to organise and maintain the existing tools to facilitate the use and adoption of them by PAs through test cases in a testing facility.</p>
Reference	
Target release date / Status	The pilot implementations have been released in summer 2016 Fully production releases expected in 2017

ORGANISATIONAL APPROACH

Expected stakeholders and their representatives

Stakeholders	Representatives
Member States	ISA ² representatives from the various working groups and committees.

Member States	Points of Single Contact (EUGO Network) owners; other public service portals and national catalogues at Member State Level
DG GROW	Representatives of the EUGO Network; DG Grow services responsible for the Digital Single Gateway implementation and for YourEurope portal.

Communication plan

The progress of this action will be communicated on a regular basis to ISA² representatives from the various working groups and committees.

The current technical working group composed of several PSCs owners has been extended to other portal owners. Several webinars have been held. A distribution list was created to communicate and exchange working documents and other information with the various participants in the working group. All the deliverables and related info to the action will be available in a workspace set-up on Joinup.

Some dissemination and communication material will be produced to raise awareness on the works carried out in this action and in order to engage all interested public administrations.

A dissemination plan aligned with that of SEMIC will be launched in order to promote the use of the tools and technical specifications created in this action and raise the awareness of policy makers, developers and other interested parties. Some communication material will be elaborated to show how catalogues of services can be created and used.

Governance approach

The action is 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.

The current technical working group composed of several Member States from the EUGO Network has been extended in order to hold the technical discussions and build consensus related to the implementation and the piloting of interoperability solutions. This group is counting on relevant European and Member States' stakeholders responsible for the provisioning of one-stop-shops of public services and for the creation of national catalogue of public services.

TECHNICAL APPROACH

The technical approach will build upon the previous phases carried under Action 1.3., namely:

- Study on the feasibility of building a European Catalogue of Public Services and the potential federating of national catalogues at European level;
- Analysis on existing key business events used across the PSCs of the 28 MS and proposal for a list of first level business events that can be used for harmonisation across-borders;
- Definition of a data model, the core Public Service Vocabulary Application Profile (CPSV-AP) that can be reused by all PSC to model and federate public service descriptions under business events: Those services are offered by different competent authorities and the federation of the information at public portals will ease the search of info by the end users on the procedures to undergo to request a service.

- An analysis and proposal for a harmonised list of key business, life events and main service output that can be used across the PSCs to group public services and facilitate the discovery and execution of them.
- Identification of what are the technical solutions used by the PSCs of the participating Member States to facilitate the federation of public services and what others that are missing could be implemented;
- Analysis of public service portfolio management methodologies and ways for modelling and representing them;
- Functional requirements for the implementation of some software applications, open source tools, to facilitate the federation of public services and the creation of catalogues at the national public service portals (mapping; editing; harvesting tools).

This way, it has been analysed carefully what are the needs of different stakeholders to make the CPSV-AP applicable to public service descriptions in other domains outside the Services Directive (e.g. public services for citizens, other public services for businesses) and how this action can contribute to the "Single Digital Gateway" action identified in the DSM strategy action plan (what other steps and interoperability solutions could be implemented).

All of this has been discussed in the context of an extended CPSV-AP Working Group composed of relevant Member States' stakeholders responsible for the provisioning of one-stop-shops of electronic services and for the creation of national catalogues of public services.

Some software tools answering the requirements identified in previous phases for the creation, validation, mapping and harvesting/ federation of public service descriptions have been implemented as prototypes for potential re-use and as supporting tools for the use of the CPSV-AP.

In addition to this, a number of interested Member States and European portals has been engaged in order to launch a series of real life pilots in order to test and prove the benefits of adopting the CPSV-AP and the software tools as means to: harmonise the descriptions of public services at national PSCs (Points of Single Contact) and the Single Digital Gateway; federate public services at the national portals and also at the European level; and create ultimately harmonised catalogues of public services

In parallel, and as a result of the pilots, the data model for public service descriptions has been updated.

The data model specification for describing public services (CPSV-AP) will be further maintained and improved by adding multi-lingual controlled vocabularies and investigating the description of catalogues of public service description. The same will be done for the software tools. It will be explored the possibility of organising these tools in a testing facility.

Technical support like testing use cases will continue to be provided to EU MSs and EUIs (for instance DG GROW in the context of the Digital Single Gateway and YourEurope portal) in order to assist them in creating a catalogue of public services around life and business events, and use the CPSV-AP and/or the tools.

New pilots with some portal owners will be launched to promote the creation of public services catalogues at national level as well as across-borders and improve the user's experience.

Finally, a dissemination plan aligned with that of SEMIC will be launched in order to promote the use of the tools and technical specifications created in this action and raise the awareness of policy makers, developers and other interested parties.

Some communication material will be elaborated to show how catalogues of services can be created and used to rationalise public services and organise them in a more effective way at the one-stop-shop portals; also the potential benefits and cost savings for public administrations, portal owners and end-users, like:

- Development of guidelines and best practices on how to create and maintain a catalogue of public services;
- Development of case studies of real-life implementations of the CPSV-AP, pilots and reuse of test implementations of the tools;

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 ISA, ISA ² / others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
Inception/ execution	Analysis of the current situation and ways to contribute to the Digital Single Gateway action of the DSM strategy. Extension of the public services data model. Implementation, test and pilot of solutions for the federation of public services descriptions.	250	ISA ²	Q2/2016	Q3/2017
Operation	Pilot operation with some national and European portals	147	ISA ²	Q3/2016	Q2/2017
	Total	397			

Breakdown of ISA funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2016	Inception, Execution, Operation	200	
2017	Execution, Operation	197	

ANNEX AND REFERENCES

Description	Reference link	Attached document
CPSV-AP	https://joinup.ec.europa.eu/asset/cpsv-ap/home	First release of the Core Public Service Vocabulary application profile