

Webinar

ISA Action: Catalogue of public services

23/01/2020

Project officer: Miguel Alvarez-Rodriguez

PwC: Florian Barthélemy



Agenda



- 1 Introduction and objectives
- 2 Context and presentation from Finland
- 3 Update of the CPSV-AP tools
- 4 CPSV-AP specification maintenance
- 5 Upcoming activities and events

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Overview of the activities and objectives of this webinar

Cantributions

Activities	Contributions
CPSV-AP maintenance and scan of the controlled vocabularies	GitHub
SDG data model and classification	GitHub Public Review Workshop
Tools: upgrade of the Description Editor and Harvester	Survey Webinar
Support activities to the Member States	Contact us

A ativities

Focus of this webinar

- Understand the activities required for creating an interoperable catalogue of services
- Identify the existing tools supporting this creation and your needs in such tools
- Decide on the next actions for updating CPSV-AP



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What are your options for creating an interoperable catalogue of services





Exchange

Model owner

All options require tools



Local



Regional



National



File format



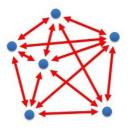
Editing tool

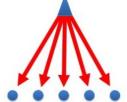
















Data validation









How is the Catalogue of Services Action supporting you throughout those options?

ISA² Programme and the action of 'Catalogue of Public Services':

Providing a data standard to enhance the interoperability and exchange across the Member States

Result:

Data standard CPSV-AP:

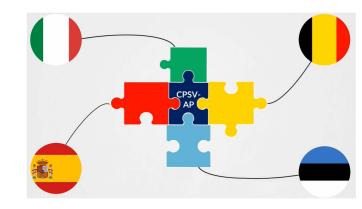
Core Public Service Vocabulary Application Profile

CPSV-AP can be used:

- 1. As a data model from scratch for describing public services
- 2. As the link between different data models where each model is mapped to CPSV-AP



- 1. Description Editor
- 2. Harvester





How is the Catalogue of Services Action supporting you throughout those options?



describing...

services,







Suomi.fi and Finnish Service Catalogue

suomi.fi for publishing public services

Finto (Finnish ontology Service) for meta data and CPSV 23.1.2020



Finnish Service Catalogue

Definitions

Service

- Answers to clients need to resolve a problem
- Service has a predefined process

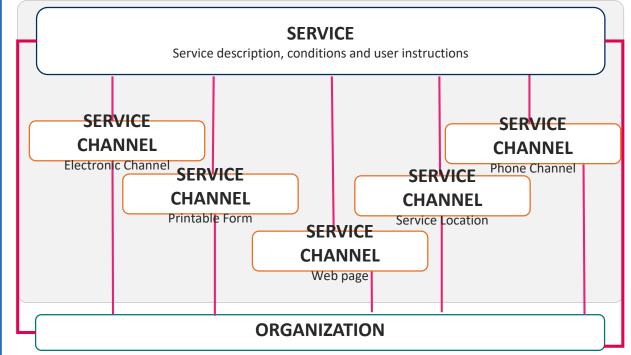
Service Channel

 A medium to get the service or start service process

Meta data

Classifies services







Finnish service catalogue

Open source

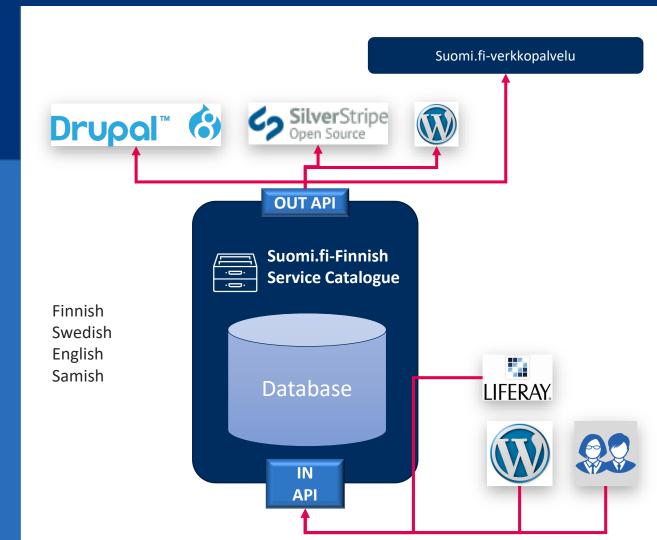
Supports multilingual data, UI in three languages

Data is published via API

Suomi.fi publishes whole database

Local websites and portals publish organization or service specific data

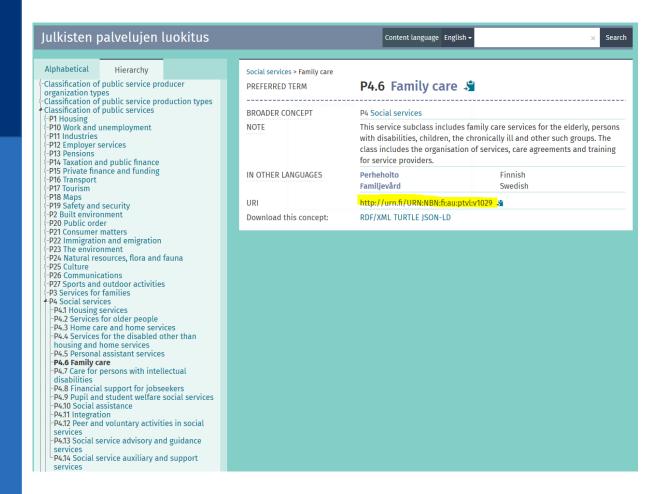
Data can be uppdated via IN api or via UI





Classification of public services

- A public url: http://finto.fi/ptvl/en/
- 27 main categories
- Almost 180 sub categories
- A unique uri is stored to Finnish Service Catalogue





Finto Ontology – common vocabulary

KOKO Ontology

- Terms in three languages: English, Finnish and Swedish
- Over 55 000 preferred terms with almost 22 000 alternate terms in Finnish
- Almost 40 000 preffered terms in English and 36 000 in Swedish
- Each term has a unique uri

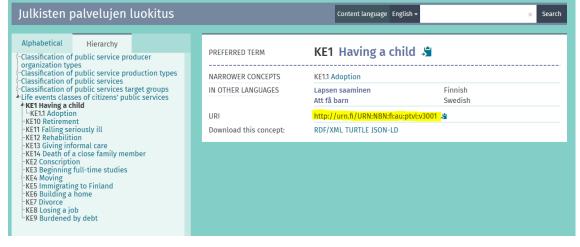
KORO Officiology		sn ₹ × Search		
Alphabetical Hierarchy events and action revents periods of time -breaks -delay (technology) -duration of action	objects > periods of time > socie events and action > periods of t	s of time > societal periods of time > family leaves > maternity leave societal periods of time > family leaves > maternity leave s of time > employment-related time period > family leave > maternity leave employment-related time period > family leave > maternity leave maternity leave		
remployment-related time period family leave maternity leavespecial maternity leave fursing leavehartial child-care leave	ТҮРЕ	JUHO Concept LIITO Concept TSR Concept YSO Concept		
temporary child-care leave parental leave paternity leave	BROADER CONCEPT	family leave family leaves		
holiday	NARROWER CONCEPTS	special maternity leave		
-job alternation leave -rest period -retirement age	RELATED CONCEPTS	parental leave paternity leave		
-sabbatical leave -study leave -trial period -wage payment month	SOURCE	TEM Työsuojelurahasto ysa		
-haudan hallinta-aika -käyttöönottovuosi -past -period of time related to calendar -period of time related to public financing -period of time related to trade -periods of time in natural sciences -response time -societal periods of time	IN OTHER LANGUAGES	ältiysvapaa synnytysloma äitiysloma moderskapsledighet barnbördsledighet förlossningsledighet mammaledighet	Finnish Swedish	
time period related to taxation time period related to the regulation of	URI	http://www.yso.fi/onto/koko/p4085 🔏		
operations time period related to the state of the society	Download this concept:	RDF/XML TURTLE JSON-LD		
-vuodenvaihde (ajanjaksot) -phenomena -hierarkian ulkopuoliset (fi) -objects	CLOSELY MATCHING CONCEPTS	Maternity leave	Library of Congress Subject Headings	
-abstract objects -periods of time -phenomena -physical objects -physical whole -place -properties -systems	EXACTLY MATCHING CONCEPTS	äitiysloma (fi) äitiysvapaa (fi) maternity leave maternity leave maternity leave moderskapsledighet (sv)	TSR ontology YSA - General Finnish thesaurus JUHO - Julkishallinnon ontologia LIITO - Liliketoimintaontologia YSO - General Finnish ontology Allärs - General thesaurus in Swedish	



Target group and life event

- Target group meta data has three main categories and 14 sub categories
- Main target groups are Citizens, Businesses and Authorities
- Life Events meta data has 14 main categories
- Life event is an optional information







Suomi.fi

classification

Target group,

Service class,

Life Event

Information and services for citizens



Living together and having a family

- > Living together
- > Having children
- Difficulties and crises in the family
- > Death of a close family member



Social security

- Services for people with disabilities
- > Services for the elderly
- > Income support
- > Guardianship



Health and medical care

- Staying healthy
- > Falling ill
- > Nutrition and food
- > Rehabilitation
- Substance abuse and mental health



Teaching and education

- > Pre-primary education and schooling
- > Studying
- Livelihood and social assistance of students
- > Science and research



Working life and unemployment

- Applying for work and career planning
- > Starting a business
- > Unemployment
- > Rules of working life



Housing and construction

- > Purchasing a home
- > Construction and properties
- Migration and population information



Rights and obligations

- Fundamental rights and civic activity
- > Legislation and legal protection
- Court proceedings and criminal matters
- > Security and public order
- Digital support and administrative services



Personal finances

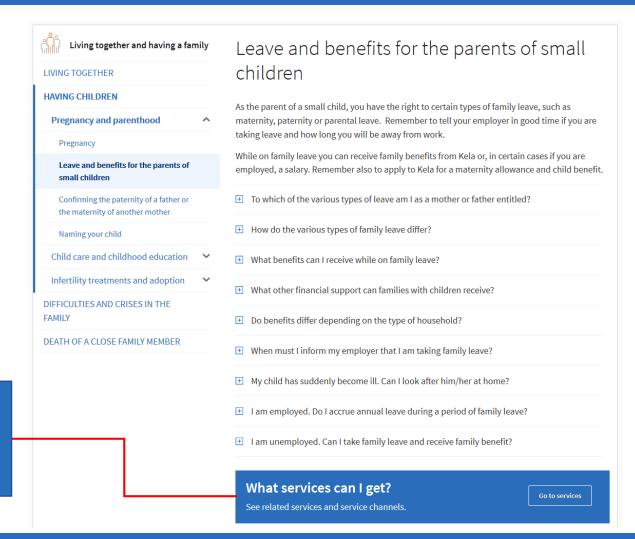
- Managing your personal finances
- > Retiring
- > Taxation and public finances
- > Consumer protection



Moving and travelling

- > Moving to Finland
- Moving from Finland and living abroad
- > Travel and transport





Service Class & Ontology Terms



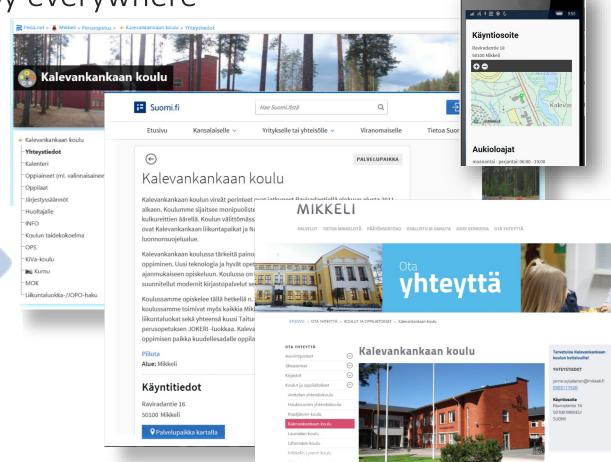
Enter once – deploy everywhere

Finnish Service Catalogue



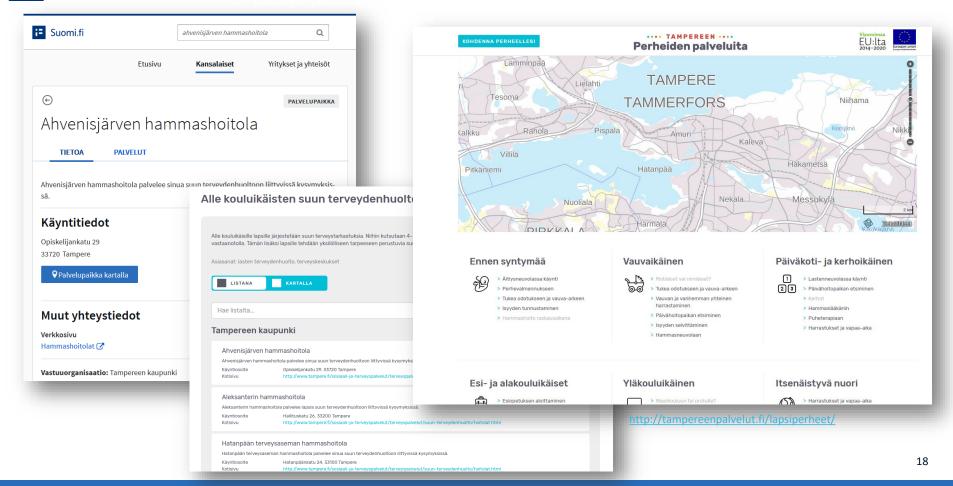


Open API





Enter once – deploy everywhere







Thank you!

Contact: ptv-tuki@dvv.fi

https://palveluhallinta.suomi.fi/fi/sivut/palvelutietovaranto/esittely

Agenda



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- 2 Context and presentation from Finland
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Update of the CPSVAP tools : overview

- 1. CPSV-AP Toolbox
- 2. Roadmap for the update of the tools: Description Editor and Harvester
- 3. Survey results
- 4. Requirements and options
- 5. Next steps
- 6. Data Validator





CPSV-AP Toolbox

Input:

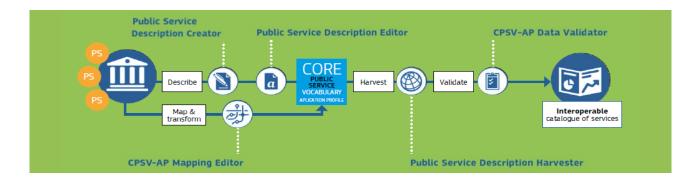
Member State data model

Tools:

- Description Creator
- Mapping Editor
- Description Editor
- Description Harvester
- Data Validator

Output:

Common data model used for building an interoperable catalogue of services



Current development by ISA²

Analysis done: most interest in **Description Editor** and **Harvester**

Data validator: replaced by ISA² Interoperability Testbed





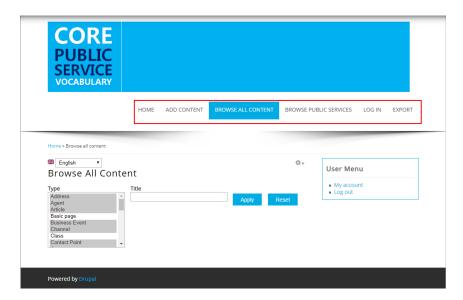
Description Editor

Description:

Describing and editing public service descriptions

Functionalities:

- Create and manage CPSV-AP descriptions of public services.
- **Visualize** description readable by humans.
- **Export** in machine readable format.





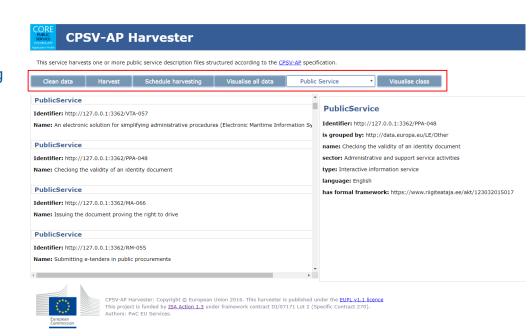
Harvester

Description:

Harvesting CPSV-AP compliant data: gathering data from different sources to a central point.

Functionalities:

- Clean data
- 2. Harvest
- 3. Schedule harvesting
- 4. Visualize all data/visualize class





Roadmap for the update of these tools

Oct - Nov	Survey sent out to Member States for the requirements for updating the tools.
Nov - Dec	Analysis of the survey for business and technical requirements.
23 Jan 2020	Presentation of the proposed updates to be done for the tools and additional feedback from you.
Jan - Feb	Technical implementation of the updates for the CPSV-AP Description Editor and Harvester.
21 Feb 2020	Workshop on the Catalogue of Public Services, SDG data model, classifications and tools.
April	Release of the updated tools on GitHub and Joinup.



Survey statistics:

Description Editor and Harvester



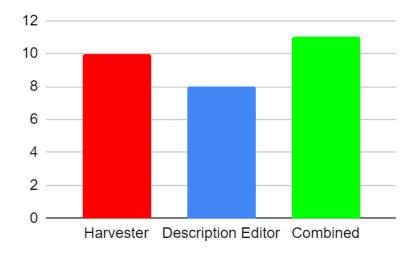
Respondents Survey

#unique country respondents

Harvester: 10 countries

Description Editor: 8 countries

Total: 11 countries

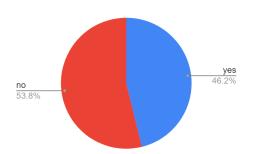




Survey statistics - Awareness of the tools

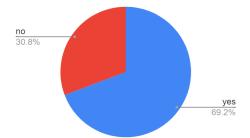
Respondents heard about the Harvester

46,2%



Respondents heard about the Description Editor

69,2%

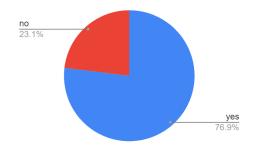




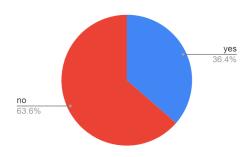
Survey statistics - Awareness of the tools

Respondents interested in receiving support

76,9%



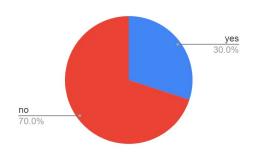
Usage of CPSV-AP **36,4%**



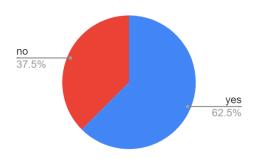


Survey statistics - Awareness of the tools

Interest in Harvester 30%



Question in online survey: Would you consider using the CPSV-AP Harvester with your own tools? Interest in Description Editor 62,5%



Question in online survey: Would you be interested in using the Description Editor?



Requirements for the update of the tools

- Requirements identified from Member States that filled in the survey
- Requirements identified ourselves for the improved basic functionality of the tools
- Next steps



Requirements:

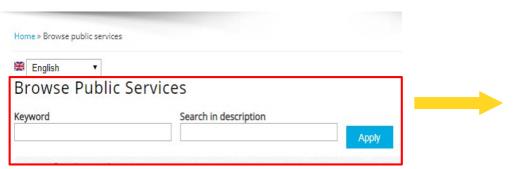
Description Editor

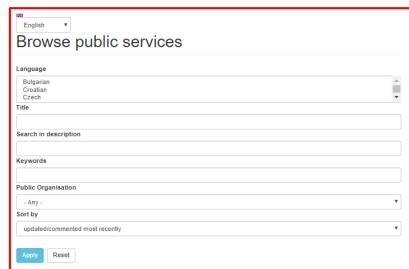
Link:



Requirement Improve the search functionalities in the tool

Details More search and filter options in browsing





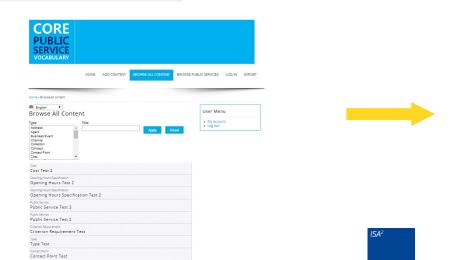


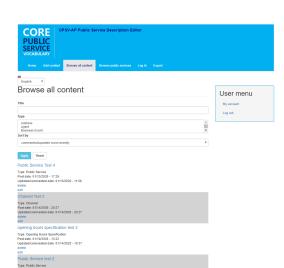
Requirement

Improve the layout of the Description Editor

Details

Better readability (filters one column, alternating colours output result, more information from the results), more mobile friendly





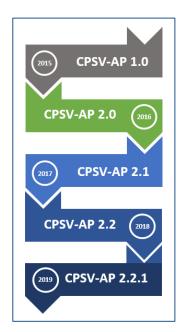


Requirement

Update to the latest CPSV-AP release (2.2.1)

Details

Complement the current CPSV-AP model with the updates of the latest release.



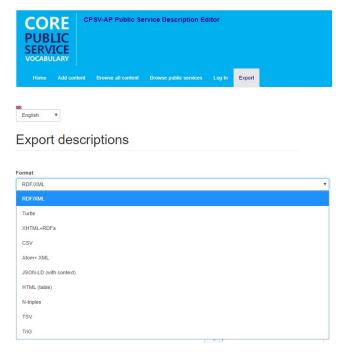


Requirement Export part of the content

Currently all content needs to be exported at once. Export part of the data based on a filter applied.

Requirement Support of additional data formats

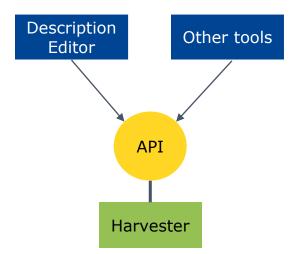
Atom+ XML, CSV, HTML table, JSON-LD, N-triples, RDF/XML, Trig, TSV, Turtle, XHTML + RDFa





Requirements - Description Editor

Requirement	Import data from other sources
Details	Connect to the CPSV-AP Harvester. The Description Editor can access the data harvested and edit this data.





Requirements:

Harvester

Link:

http://cpsv-ap.semic.eu/cpsvap harvester/cpsv-harvester.html



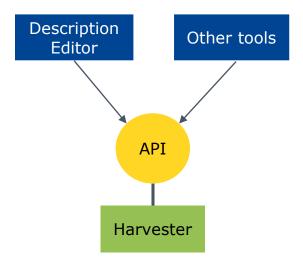
Requirements - Harvester

Requirement

Add an API such that external tools can connect

The Description Editor can be considered as one tool together with the Harvester. Other tools can connect to Harvester.

Discussion Would you connect your tools to the Harvester?





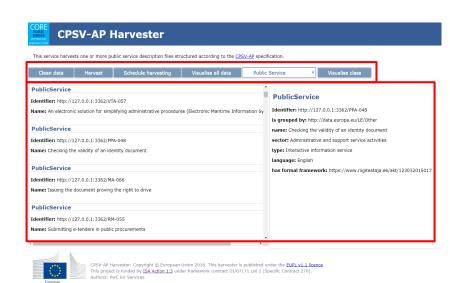
Requirements - Harvester

Requirement Improve the guidance through the application, more user-friendly

Details Create dynamic buttons with descriptions and information.

Requirement Search and filter function

Details Search and filter through the data which is harvested.





Requirements - Harvester

Requirement	Import from spreadsheet
Details	Import data from a spreadsheet into the Harvester, as a spreadsheet is commonly used for describing public services.
Discussion	Who is using a spreadsheet for their public services and why?



Tools: next steps

- Implementation of the tools during January/February
- Updated tools are available online
 - Description Editor: http://cpsv-ap.semic.eu/cpsv-ap-editor/
 - Harvester: http://cpsv-ap.semic.eu/cpsv-ap harvester/cpsv-harvester.html
- Issues can be raised on GitHub
 - o Description Editor: https://github.com/catalogue-of-services-isa/cpsv-ap-editor
 - Harvester: https://github.com/catalogue-of-services-isa/cpsv-ap-harvester

Discussion

Which tool would be interesting for you regarding the Single Digital Gateway and why?



Tools: further possible updates

Description Editor

- More complete translation of the website in the different languages of the Member States
- Offer linked data fragment API
- Put the Description Editor in a container for easy usage as a software package
- Security

Harvester

- Parse from HTML+RDFa pages
- Specify configuration from the web interface to choose the data to import instead of using the configuration files itself
- Visualize the data harvested as a linked data graph
- Improve the logging of harvesting and visualizing the data
- Security





CPSVAP validation services Interoperability Test Bed

ISA² Action 2016.25

Project Officer: Peter Burian





EUROPEAN COMMISSION

Directorate-General for Informatics (DIGIT)



The ISA² Interoperability Test Bed

An online, intuitive and self-service platform to realise conformance testing of IT systems against semantic and technical specifications

Test Bed value proposition (https://www.itb.ec.europa.eu/docs/guides/latest/valueProposition/)



Powered by DIGIT ISA² Action 2016.25



Based on the GITB CEN Workshop Agreement



CPSV-AP validation services

Standalone validator

- ✓ Public, anonymous and stateless
- ✓ <u>REST/SOAP</u> API, <u>web UI</u>, <u>offline tool</u>



ISA² Test Bed

- ✓ User-based self-service testing
- ✓ Conformance testing scenarios
- ✓ Rich monitoring and reporting



¹ Usage instructions in the Test Bed's <u>RDF validation guide</u>



Demo 1: CPSV-AP validator

- ✓ Validation of CPSV-AP content via user interface and REST API
- ✓ Demonstrates validator as a tool available to the community

Demo 2: Test Bed integration

- ✓ Aggregation of Member State public service data in CPSV-AP
- ✓ EU portal harvests and aggregates data from EE and FI
- ✓ Demonstrates reuse of the validator in complex test scenarios



Find out more



ISA² Test Bed on Joinup

<u>Information</u> - <u>news</u> - <u>releases</u>

Online documentation

<u>Value proposition</u> - <u>tutorials</u> - <u>developer</u> guides

Try it yourself



Go to https://www.itb.ec.europa.eu/itb and click "Try out our demos"

Contact us



Send your questions, requests and feedback to DIGIT-ITB@ec.europa.eu



ISA² programme

You click, we link.

Stay in touch

ec.europa.eu/isa2





isa@ec.europa.eu

Run by the Interoperability Unit at DIGIT (European Commission) with 131€M budget, the ISA² programme provides public administrations, businesses and citizens with specifications and standards, software and services to reduce administrative burdens.

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CPSVAP specification maintenance

- 1. Status of the publication of the Controlled Vocabularies
 - a. NACE
 - b. NUTS
 - c. Taxonomy
 - d. Other
- 1. Open CPSV-AP issues per category (No SDG issues)
- 1. Discussion on the issues (No SDG issues)





Status of the publication of the controlled vocabularies (classifications) (1/2)

NACE (Link)

The Publication's Office (OP) and Eurostat are working together to publish NACE as RDF In progress:

- Definition of URIs
- Application profile (special properties and other Eurostat properties)

Tentative timeline:

- 18 March: Test publication
- 24 June: Publication

NUTS (Link)

Should be online in the coming week(s). We will follow-up with OP. We will include a link in the next general communication.



Status of the publication of the controlled vocabularies (classifications) (2/2)

Taxonomy of public services (themes and patterns)

- Ready for publication
- Discussions ongoing on governance and maintenance

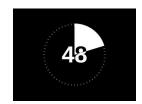
Other recommended controlled vocabularies created by the CoS Working Group

BusinessEvent Type | LifeEvent Type | Output Type | Channel Type

Your opinion counts:

What Controlled Vocabularies would you prefer to be published?

(Possible to add your own propositions)





2. GitHub issues overview per category

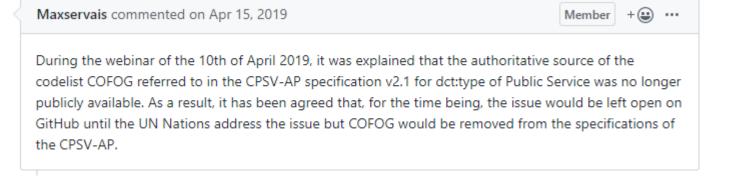
- 1. Old open issues
 - a. Public Service Type authoritative source of the codelist COFOG is not accessible for now #9 (Link)
 - b. spatial use of the Administrative Territorial Units by local public authorities #11 (Link)
 - c. Definition of Participation class is unclear #22 (Link)
- 1. Proposed additions
 - a. Link public service to UN 2030 Sustainable Development Goals #32 (Link)
 - b. Link to the policy objectives of a service #44 (Link)
 - c. Add a relation from Public Service Dataset to Public Service #35 (Link)
- 1. Proposed changes
 - a. UML class diagram
 - b. RDF Schema
 - c. Definition of a property is no longer up-to-date
 - d. Agent: Alignment with DCAT-AP and CCCEV #36 (Link)
 - e. Relation with Core Criterion #37 (Link)



GitHub issues: old open issues

Public Service - Type - authoritative source of the codelist COFOG is not accessible for now #9 (Link)

Description



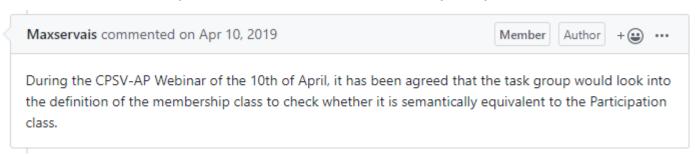


GitHub issues: old open issues

spatial - use of the Administrative Territorial Units by local public authorities #11 (Link)

NUTS will be published soon

Definition of Participation class is unclear #22 (Link)





GitHub issues: proposed additions

Linking a public service to policy objectives (UN 2030 Sustainable Development Goals) #32 #44

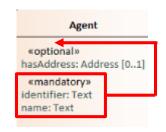
- UN Vocabulary (<u>Link</u>)
- Scotland National Performance Framework (<u>Link</u>)
- Proposed solution:
 - Recommend the UN vocabulary in the CPSV-AP pdf specification
 - 'policyObjective'

Add a relation from Public Service Dataset to Public Service #35

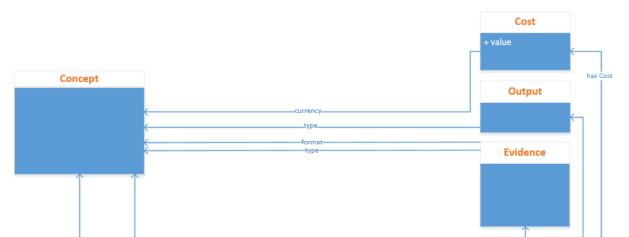
- Pilot NL
- Proposed solution:
 - Add relationship dct:hasPart



UML class diagram: moving mandatory properties before optionals #33 (Link)



UML class diagram: make links to SKOS concepts explicit #34 (Link)





Agent: Alignment with DCAT-AP and CCCEV #36 (Link)

Description

- DCAT-AP uses foaf:Agent
- CCCEV uses foaf:Agent
- CPSV-AP uses dct:Agent
- CPOV has Organization which is a subclass of org:Organization, which in turn is a subclass of foaf:Agent
- Dublin Core says "A resource that acts or has the power to act.", we say "things that do stuff". As nobody has provided a counter-example of something fitting one definition but not the other, we say here that foaf:Agent stands in an 'equivalent class' relationship to dct:Agent (and viceversa)."

Proposed resolution

To align with DCAT-AP, CCCEV and CPOV, change dct:Agent to foaf:Agent





Relation with Core Criterion #37 (Link)

Description (1)

- CCCEV Criterion 'isDefinedIn' CPSV-AP
- CCCEV **Criterion**: The Criterion class represents the rule or principle used to judge, evaluate or assess something.
 - Example: 'Entitlement to enter [the cinema]'
- CCCEV **CriterionRequirement**: A Criterion can be expressed as a set of requirements where every requirement must be valid. A Criterion requirement is an atomic requirement.
 - Example: 'Hold a cinema ticket'
 - Example: 'Has to be over over 18'
- CPSV-AP hasCriterion: Links a Public Service to a class that describes the criteria for needing or using the service, such as residency in a given location, being over a certain age etc. The Criterion class is defined in the Core Criterion and Core Evidence Vocabulary.



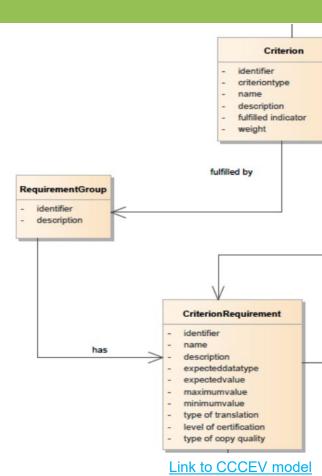
Relation with Core Criterion #37 (Link)

Description (2)

- Only in simple cases it is possible to refer to 'CriterionRequirement'
 - Example: You have to be 65+ [to enjoy a financial benefit]
- In complex cases this will not work
 - Example: You have to be less than 25 and have an income lower than 1500 euro per month or you have to be older than 65 and have an income lower than 1500 euro.

Proposed resolution

Change the relation 'Public Service' to 'CriterionRequirement' into 'Public Service' to 'Criterion'.





RDF Schema: add ISA Open Metadata license #38 (Link)

Description

- DCAT-AP uses CC BY 4.0
- COMMISSION DECISION of 22.2.2019 adopting Creative Commons as an open licence under the European Commission's reuse policy (<u>Link</u>)

Proposed resolution

Use CC BY 4.0 in alignment of DCAT-AP

RDF Schema: dct:status does not exist, adms:status yes #39 (Link)

Description

In the RDF schema there is indication of dct:status at ontology level while it should be adms: status

Proposition

Replace dct:status with adms:status





RDF Schema: add subclass relation for BusinessEvent and LifeEvent #40 (Link)

Description

In the UML class diagram BusinessEvent and LifeEvent are subclasses of Event but such relation is not in the RDF Schema.

Proposed resolution

Fix the RDF Schema by adding the subclass relations.

Definition of the property hasParticipation is no longer up-to-date #41 (<u>Link</u>) **Description**

The CPSV-AP defines the two basic roles of Competent Authority and Service Provider, but this simple model can be extended if required using the Has Participation property that links to the Participation class (see section 3.6).

Proposed resolution

The CPSV-AP defines one basic role of Competent Authority, but this simple model can be extended if required using the Has Participation property that links to the Participation class (see section 3.6).



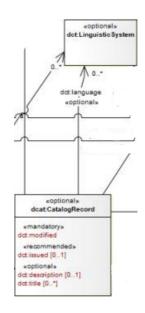
UML class diagram: make links to LinguisticSystem, Location, Document #45 (<u>Link</u>)

Description

Inside the UML class diagram LinguisticSystem, Location and Document are not explicitly shown, like in DCAT-AP.

Proposed resolution

Visualise the classes LinguisticSystem, Location and Document in the UML diagram.



Link to DCAT-AP model



Definition of the property "requires" is no longer up to date #46 (Link)

Description

One Public Service may require, or in some way make use of, the output of one or several other Public Services. In this case, for a Public Service to be executed, another Public Service must be executed beforehand. The nature of the requirement will be described in the associated Rule or Input.

Proposed resolution

One Public Service may require, or in some way make use of, the output of one or several other Public Services. In this case, for a Public Service to be executed, another Public Service must be executed beforehand. The nature of the requirement will be described in the associated Rule or Evidence.



CPSV-AP issues

Your input is valuable!

Please share it via GitHub:

https://github.com/catalogue-of-services-isa/CPSV-AP/issues

Agenda



- 1 Introduction and objectives
- 2 Context and presentation from Finland
- 3 Update of the CPSV-AP tools
- 4 CPSV-AP specification maintenance
- 5 Upcoming activities and events



Wrap-up

Our actions:

- Update the CPSV-AP specification
- Further develop the tools, make everything available online
- Release the SDG metadata model for public review

Contact us!

Email, GitHub, Joinup, ...



Upcoming events

SDG data model: First public review

Approx. 10 days for you to review in details what we propose based on our discussions and your input

SDG data model: second public review

End of the public review period before the SDG webinar Start of the second public review period

SDG data model: end public review

End of the second public review period.

23 Jan

23 Jan

31 Jan

5 Feb

14 Feb

21 Feb

Webinar

CPSV-AP / SDG Tools
CPSV-AP Maintenance

Webinar

SDG Data model and classifications Initial results of analysis and discussion

Full-day workshop

SDG Data Model Tools for creating catalogues of services

NOW





Project Officer

Miguel Alvarez-RodriguezMiguel.ALVAREZ RODRIGUEZ@ec.europa.eu

PwC

Florian Barthélemy barthelemy.florian@pwc.com

CPSVAP:

https://ec.europa.eu/isa2/solutions/ core-public-service-vocabularyapplication-profile-cpsv-ap_en

GitHub Repository CPSVAP:

https://github.com/catalogue -of-services-isa/CPSVAP

Single Digital Gateway:

https://ec.europa.eu/growth/single - market/single-digital-gateway_en