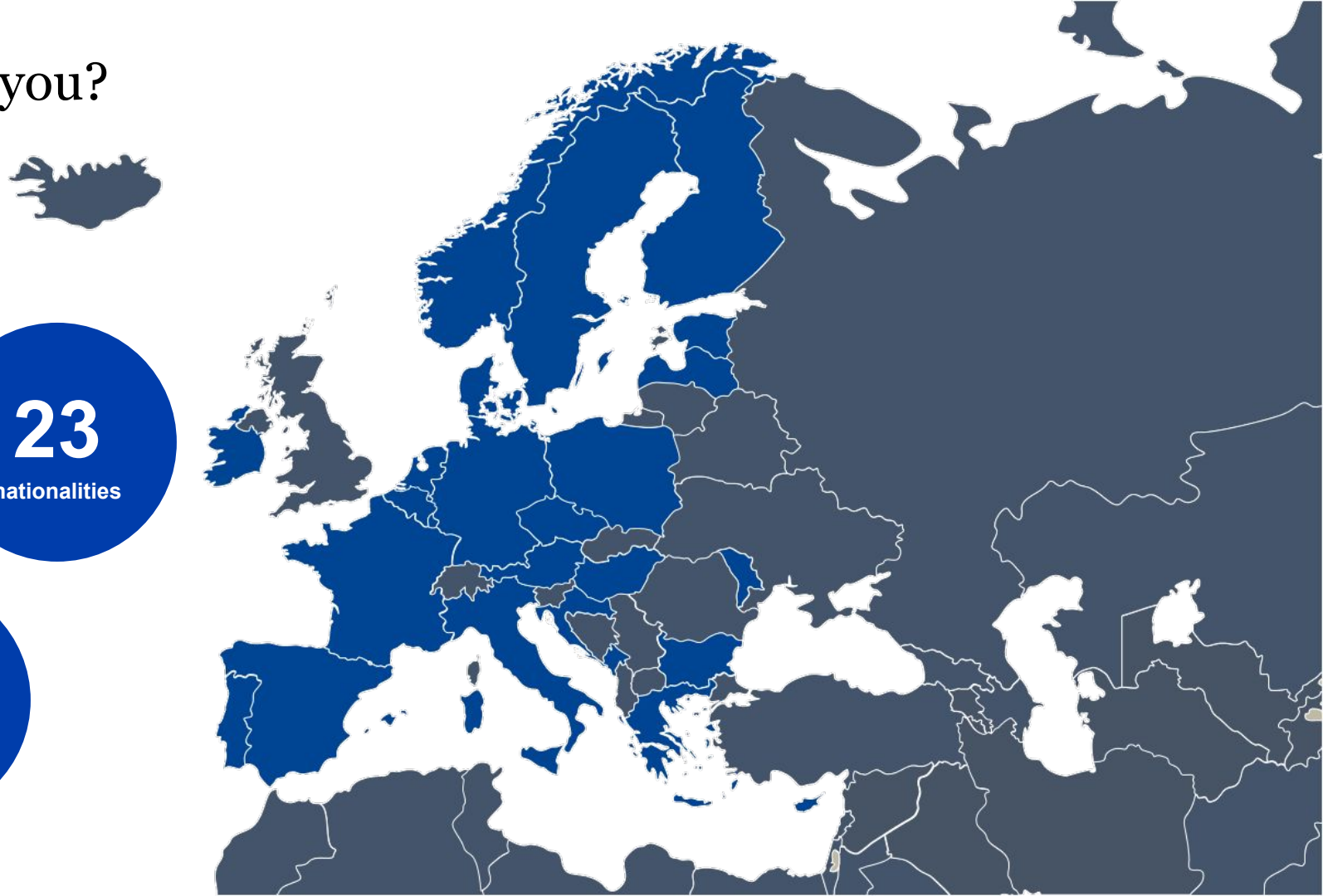
European Commission
Workshop on the SDG Data Model

February 21 2019

Who are you?

23
nationalities

50
participants



- **Discuss** the **business case** of the model and the **tools**
- **Align** on what should be **core** and what should be **extended** for the data model
- Discuss the **content** of the SDG Data Model
- Brainstorm on the **next steps** of the Catalogue of Services team

Who are we?
The ISA² Catalogue of Services team

Our mission:

Enhance the interoperability and the exchange of information about public services within and across EU countries and at the European level.

Community building

Who are we?
The ISA² Catalogue of Services team

100
Working Group members

Technical WORKSHOP on the Catalogue of Services vis-à-vis the SDG implementation

60 participants

70 participants

WEBINAR on the interoperability data layer for the SDG

WEBINAR on the tools and the CPSV-AP maintenance

90 participants

70 participants

WEBINAR on the SDG Data Model

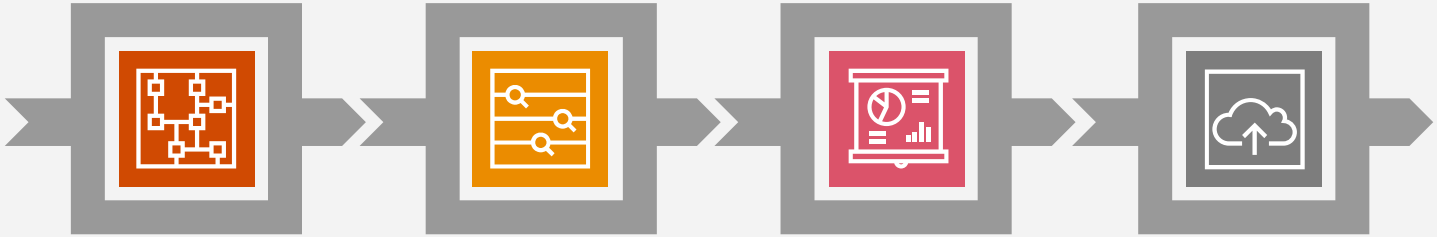
WORKSHOP on the SDG Data Model

50 participants

200
Working Group members

Modelling

Who are we?
The ISA² Catalogue of Services team



Data Modelling

CPSV-AP

SDG Data Model

Research & Analysis

Existing data models and classifications

Legal documents

Business case

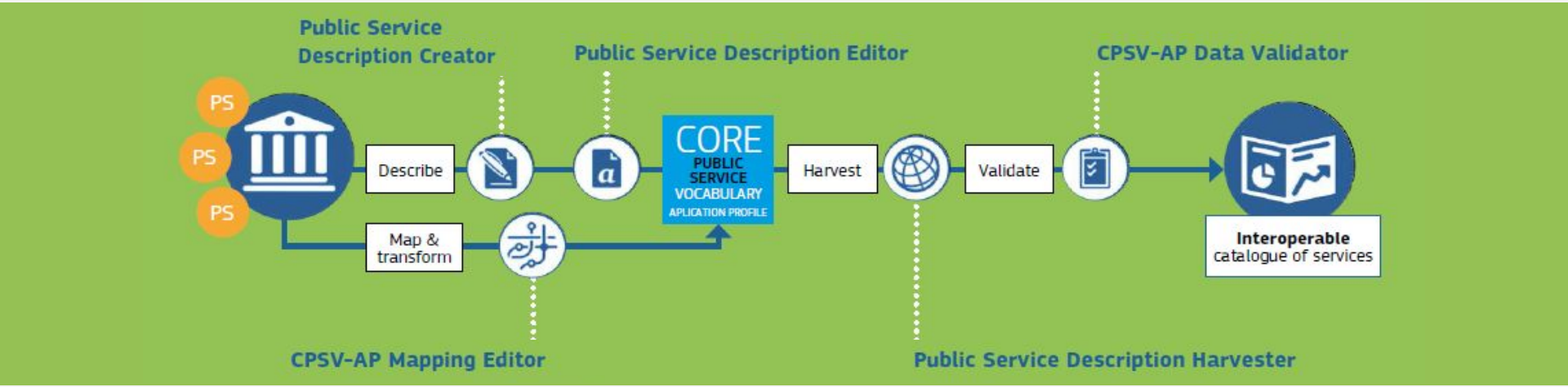
Making the link between the technical and the business world

Publishing

Creating, reusing and publishing controlled vocabularies

Tools

Who are we?
The ISA² Catalogue of Services team



Technical support

Who are we?
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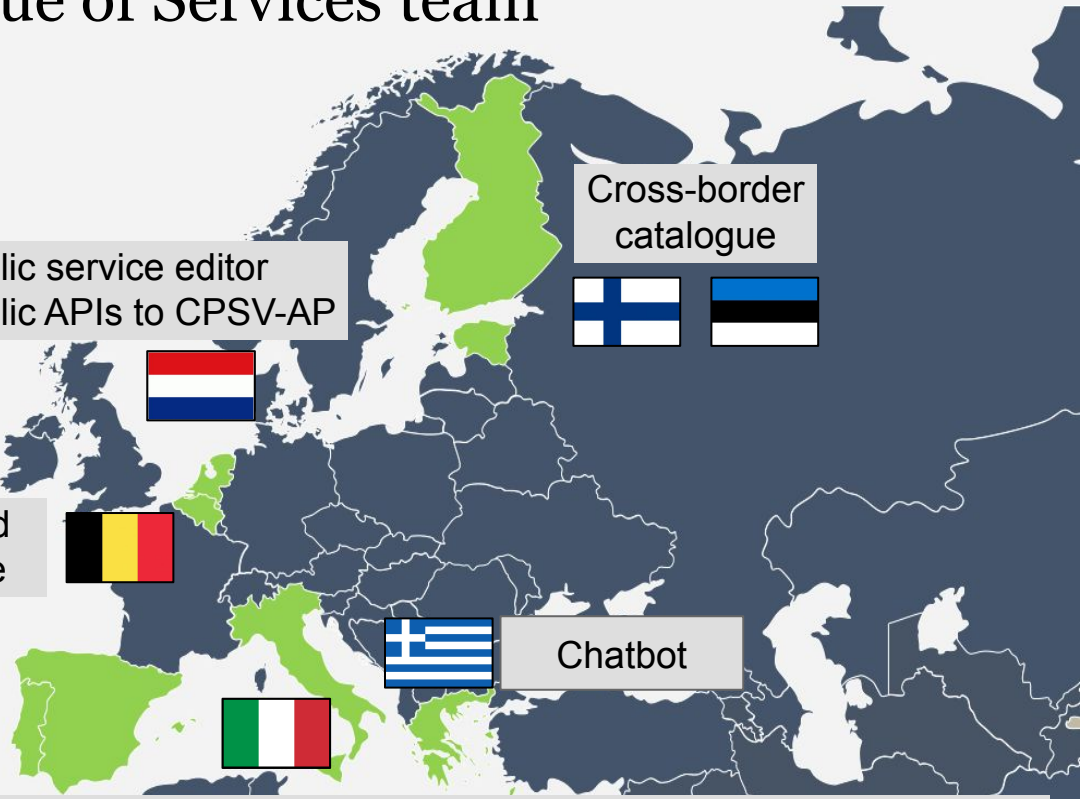

Cross-border catalogue

- Tailored tool - Public service editor
- Standardizing public APIs to CPSV-AP

Federated catalogue

Chatbot

Display common public services on a user-friendly interface

- Tailored tool - CPSV-AP_IT validator
- Publishing public services according to CPSV-AP (Provincia Autonoma di Trento)

Additional activities

Who are we?
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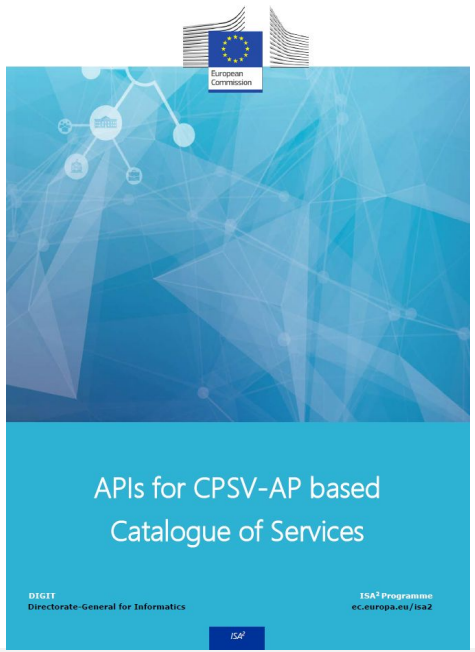
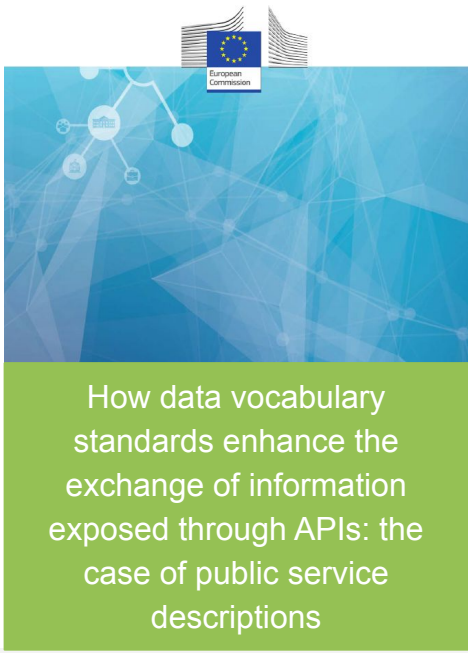




https://joinup.ec.europa.eu/collection/semantic-interoperability-community-semic/news/api-chatbot-taxonomy-study

Presentation @ ICEGOV
April 2020 in Greece

Agenda: morning

9:00	Welcome & coffee
9:30	Introduction and workshop dynamic by Miguel Alvarez-Rodriguez and Michiel De Keyzer
9:45	What are we going to discuss today? • Catalogue of Services: overview of the action and its latest activities • Today's agenda
10:00	Single Digital Gateway Model: Business perspective
10:30	Break
10:50	SDG Data Model - Part 1 • Practical exercise using the model • Discussion on the issues raised
12:05	SDG Data Model Plenary Reflections on the discussions
12:20	Lunch

Agenda: afternoon

13:35	**SDG Data Model – Part 2** • Discussion on the issues • Classifications (Tentative)
14:20	**SDG Data Model** Plenary Reflections on the SDG Data Model and identified next steps
14:45	**Break**
15:05	**Demo** As a public administration, how can I create a catalogue of services?
15:20	**Parallel Sessions:** • Tools for catalogues of services and how they would work in the SDGR context • What would you see next for the Catalogues of Services action in the context SDG implementation?
16:00	**Outcomes of the parallel sessions**
16:15	**Wrap-up and closing**

1

Single Digital Gateway Model: Business Perspective

Benefits of the Single Digital Gateway

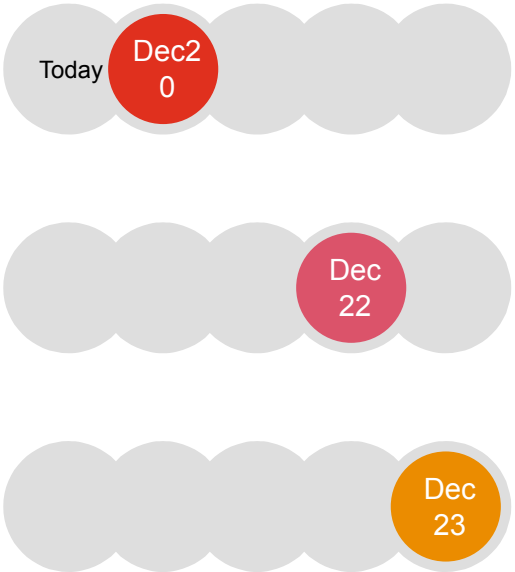
1. **Search** and **find** information in a user-centric way
2. Access the content on a **single point of access**
3. Collect **statistics** for back office
4. Collect the **feedback** from the end-users
5. **Digitalising** procedures, reduce paperwork
6. Use the **Once-Only Principle**: users should not have to submit to public administration data already held by another public administration

Those benefits are directly based on the regulation

Objectives	From the regulation	Challenges
Findability of information on the single market in user-centric approach	Article 2.2: The gateway shall give access to information on online and offline procedures and links to online procedures, including procedures covered by Annex II	Information quality and structure, exchange, maintenance
	Article 10: [users] have access to a sufficiently comprehensive, clear and user-friendly explanation of the following elements [...] Article 18: Common user interface Article 21.1: Search engine for the SDG	Data quality, data structure, user friendliness
Transforming all procedures to be **online available** cross-border	Article 6: Each Member State shall ensure that users can access and complete any of the procedures listed in Annex II fully online, provided that the relevant procedure has been established in the Member State concerned. Article 13.2 users are able to access the instructions for completing the procedure in an official language of the Union	Naming conventions, granularity, translation, OOP, common representation of the instructions, integration of the different service requirements for digital procedures (eID, eSignature, evidence, payments etc.)
Human intervention in **updating links** of public services	Paragraph 55: To minimise human intervention in the updating of the links to be used by the common user interface, a direct connection between the relevant technical systems of the Member States and the repository for links should, where technically possible, be established.	Data exchange, machine-readability
...	...	...

What is the timeline?

Entry into force (article 39)



December 2020

Information on rights, obligations, rules, procedures, assistance and problem-solving services

Information in Annexes I, II and III

December 2022

Delay for municipalities

December 2023

Fully online *procedures* (Art. 6, 13)

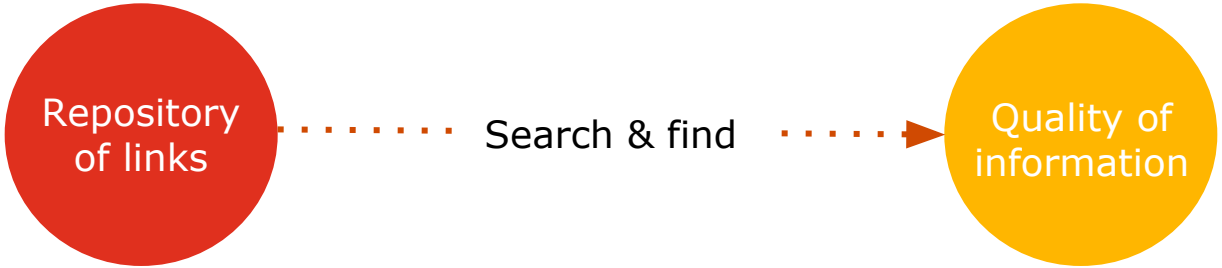
Once-only principle (Art. 14, 15)

What is required from us concerning the closest deadline?

December 2020

Information on rights, obligations, rules, procedures, assistance and problem-solving services

Information in Annexes I, II and III



Art. 19
establish and **maintain** an electronic repository for links to the information, procedures and assistance and problem-solving services, allowing the connection between such services and the common user interface.

Art. 19
[Information] **accessible** on the **webpages** managed by competent authorities, or by private or semi-private entities as referred to in Article 7(3)

Art. 9 and 10
Quality of information on **rights, obligations and rules**

Quality of information on **procedures**

What about the latest deadline?

December 2023

Fully online *procedures* (Art. 6, 13)

Once-only principle (Art. 14, 15)

Provide fully online procedures according to OOP

Art. 6
Procedures to be offered **fully online**

Art. 13
Cross-border access to online procedures

Art. 14
Technical system for the cross-border **automated exchange of evidence** and application of the **'once-only' principle**

Art. 15
Verification of evidence between Member States

Overview & prioritisation of the use cases

Use Case 1

Feeding the Repository of Links using your own data model

Use Case 2

Using the SDG Data Model for feeding National/EU Portals

Use Case 3

Exchanging information

Why do we need a common data model for implementing the SDGR?

SDG Search Facility

Citizen

Business

Administration

QUICK SEARCH

Registering a child

Search

Country

Netherlands

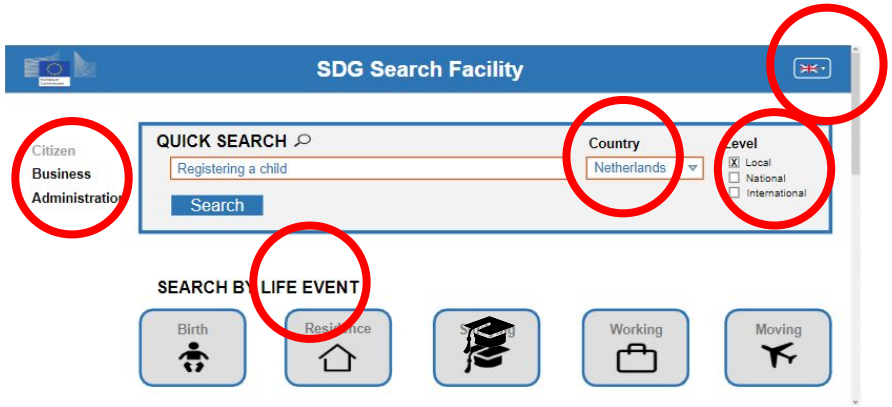
Level

- [X] Local
- [ ] National
- [ ] International

SEARCH BY LIFE EVENT

- Birth
- Residence
- Studying
- Working
- Moving

If we want to give users a positive experience, there is a need to **structure** the information.



Service

Title	Country	Geographic level	Event	Competent authority	Language
Registering a child	The Netherlands	Local	Having a child	Municipality of Utrecht	English, Dutch

Event

Name	Description	Output
Having a child	This life event groups public services related to becoming a caretaker for a child, for instance in case of giving birth, adopting, receiving a foster child…	Proof of registration of birth or birth certificate

Public organisation

Official name	Preferred label	Geographic coverage	Contact
Municipality of Utrecht	Expat Center Utrecht	Local	Expat Center Utrecht, Stadsplateau 1, 3521 AZ Utrecht Tel. 030 286 00 00

This would enable users to **search** and **find information** easily.

But what if each public administration in Europe has a **different way** of structuring, naming and describing the same information?

Public administration 1

Service

Title	Country	Geographic level	Owner	Language
Providing proof of registration of birth	Spain	Local	Municipality of Madrid	English, Spanish

Public administration 2

Procedure

Name	Country	Spatial	Authority	Language
Declare birth	España	41°24'12.2"N 2°10'26.5"E	Municipality of Madrid	EN

Public administration 3

Requesting proof of registration of birth

Geographic level

Municipality

Country

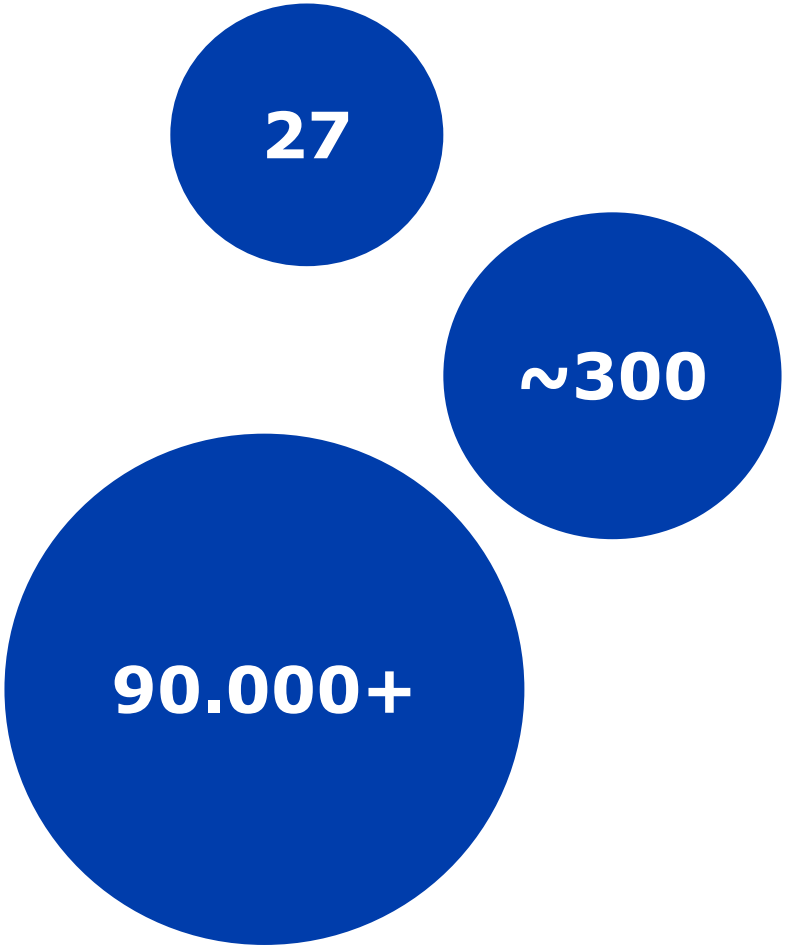
Italy

Organisation

Firenze

English

Yes X No

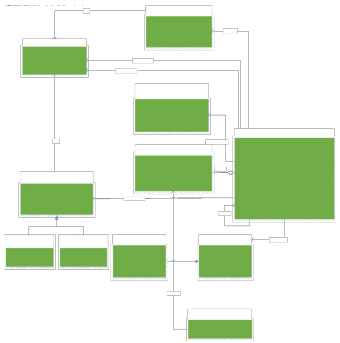


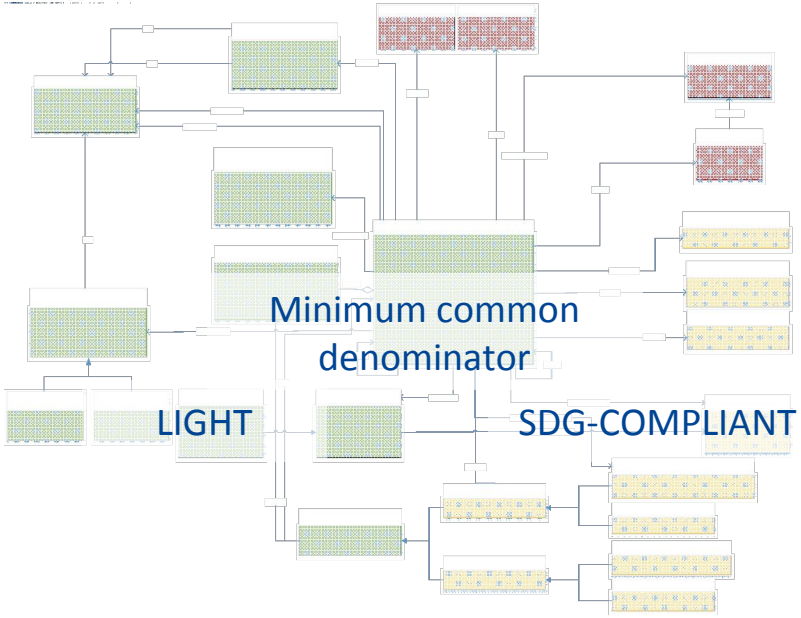
When **centralising the information**, we would obtain thousands of different descriptions for similar services, events or public organisations.

Reconciling the descriptions after they are collected, would consume a **lot of time and resources** and would have to be repeated **manually** for any change in the descriptions later on.

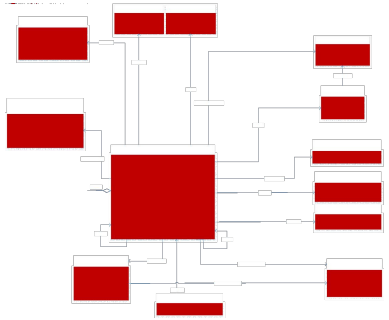
For Member States with existing models defined or information following a clear structure, the best balance means to identify the minimum common denominator:

Model 1

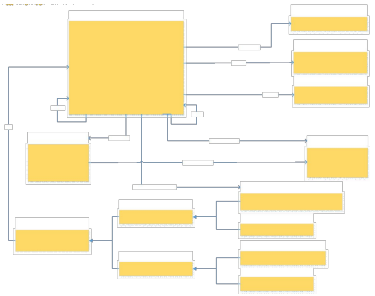




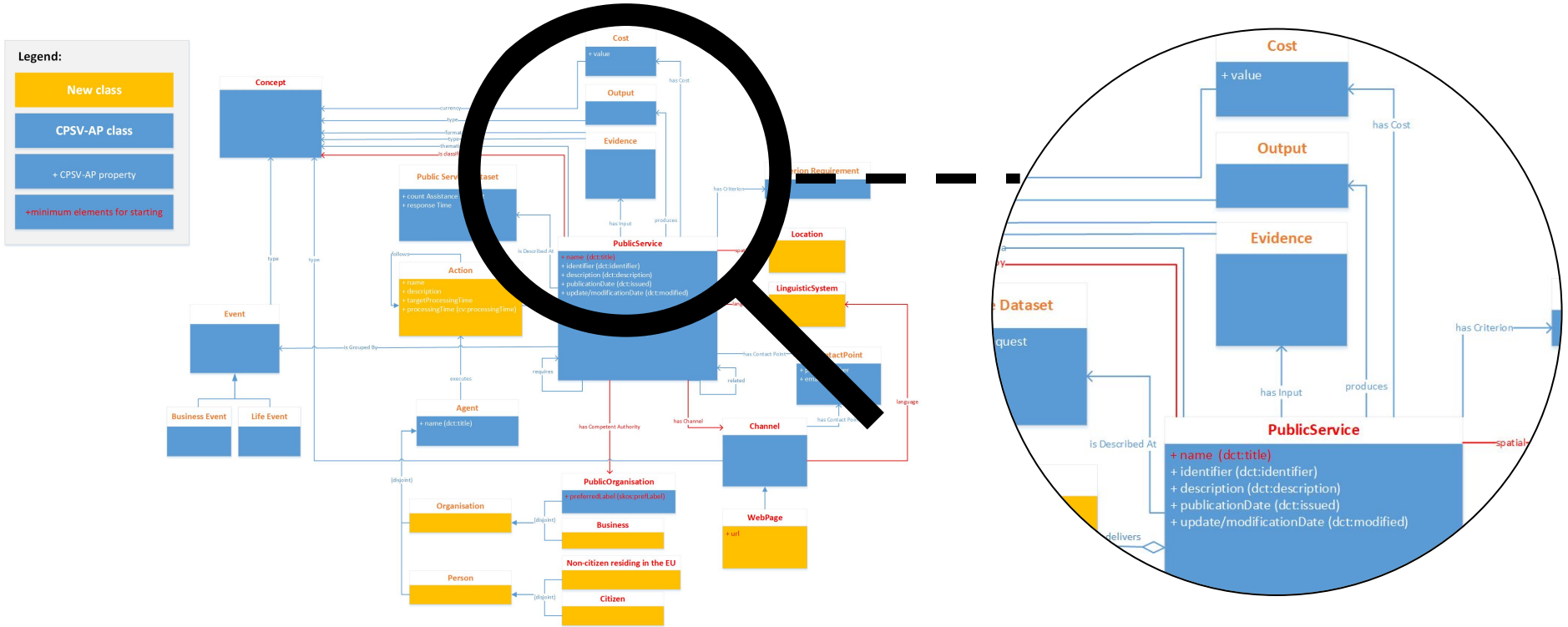
Model 3



Model 2



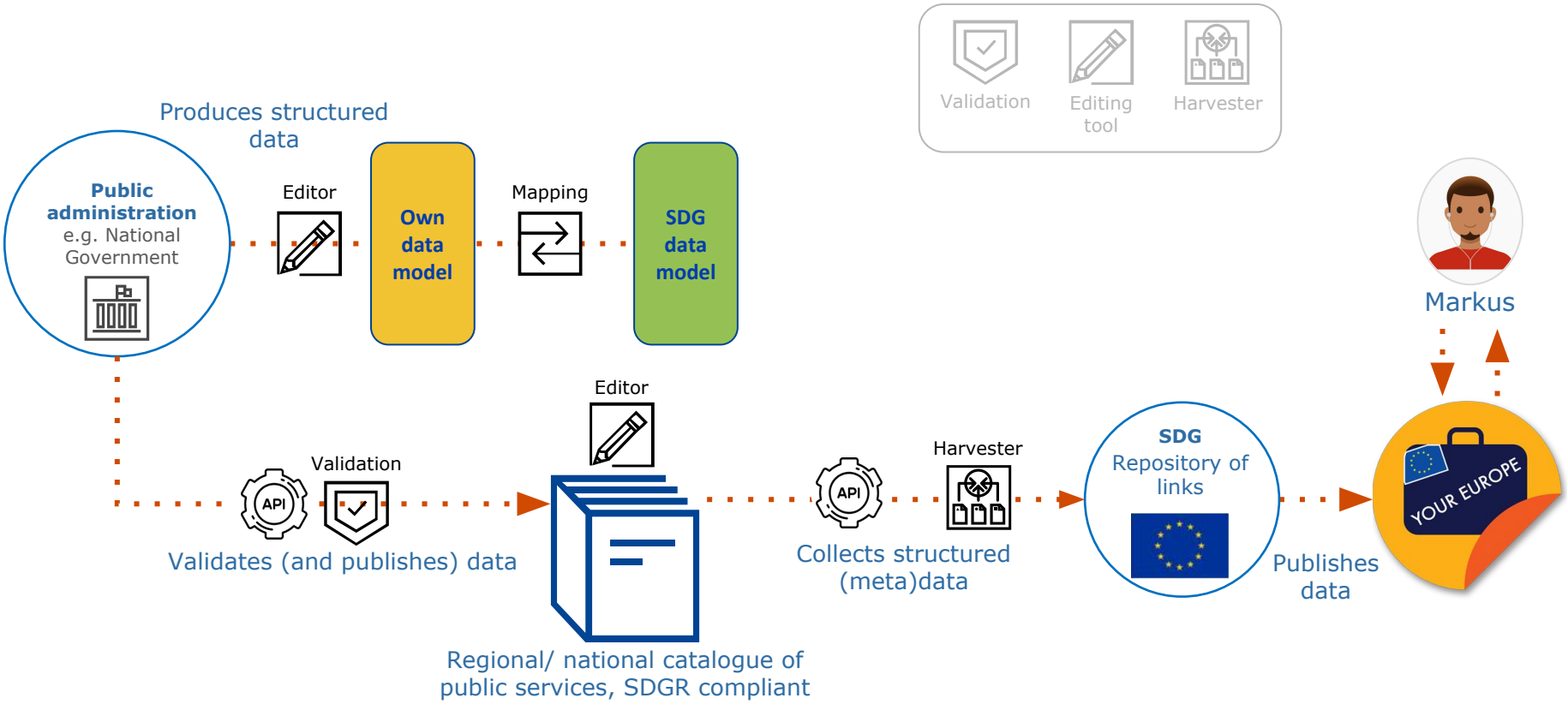
The SDG Data Model proposed an **initial common denominator** for you to look at and comment:



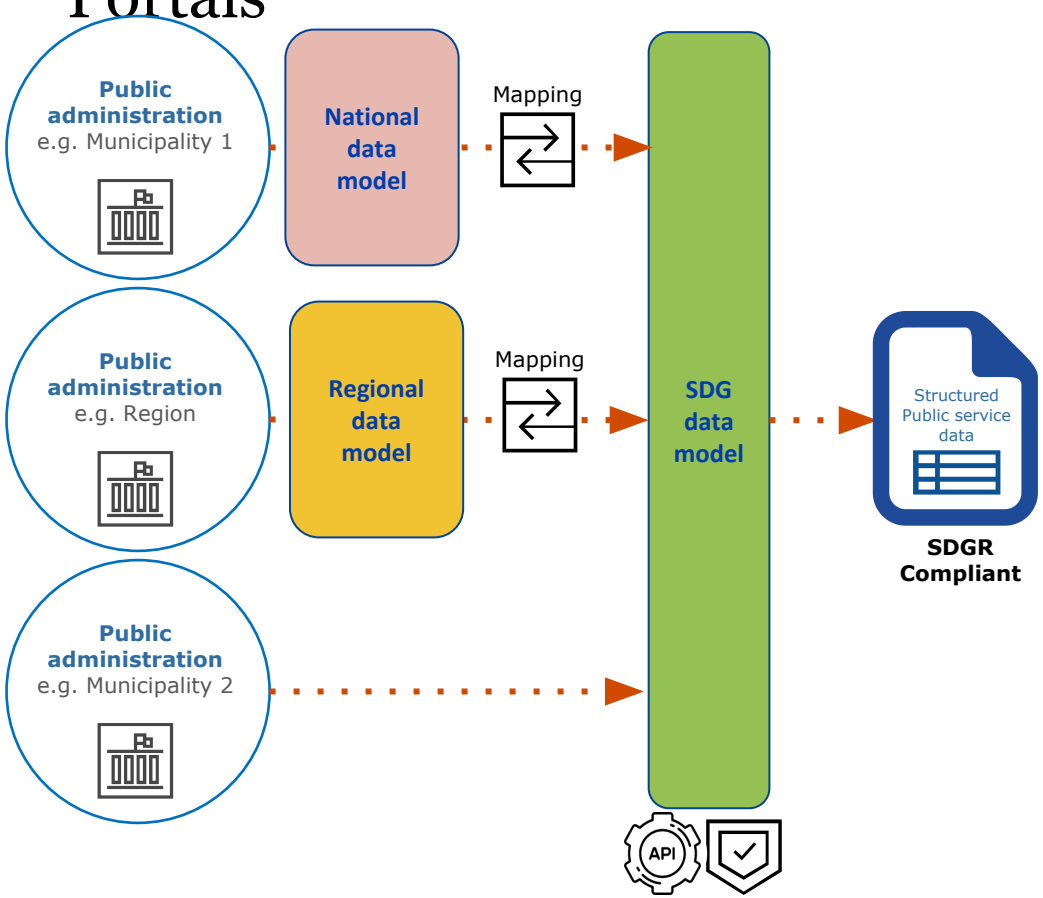
But independently from the needs of the end-users, what are the **options for sharing information** as part of the SDG?

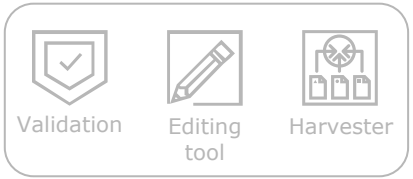
Owner vs Publisher	Describe	Exchange	Model owner
National Government	File format	API	Own data model
Municipality	Editing tool		SDG data model

Option 1: As a national authority, I would like to feed the repository of links with the information I produced using my own data model.



Use Case 2: Using the SDG Data Model for feeding National Portals





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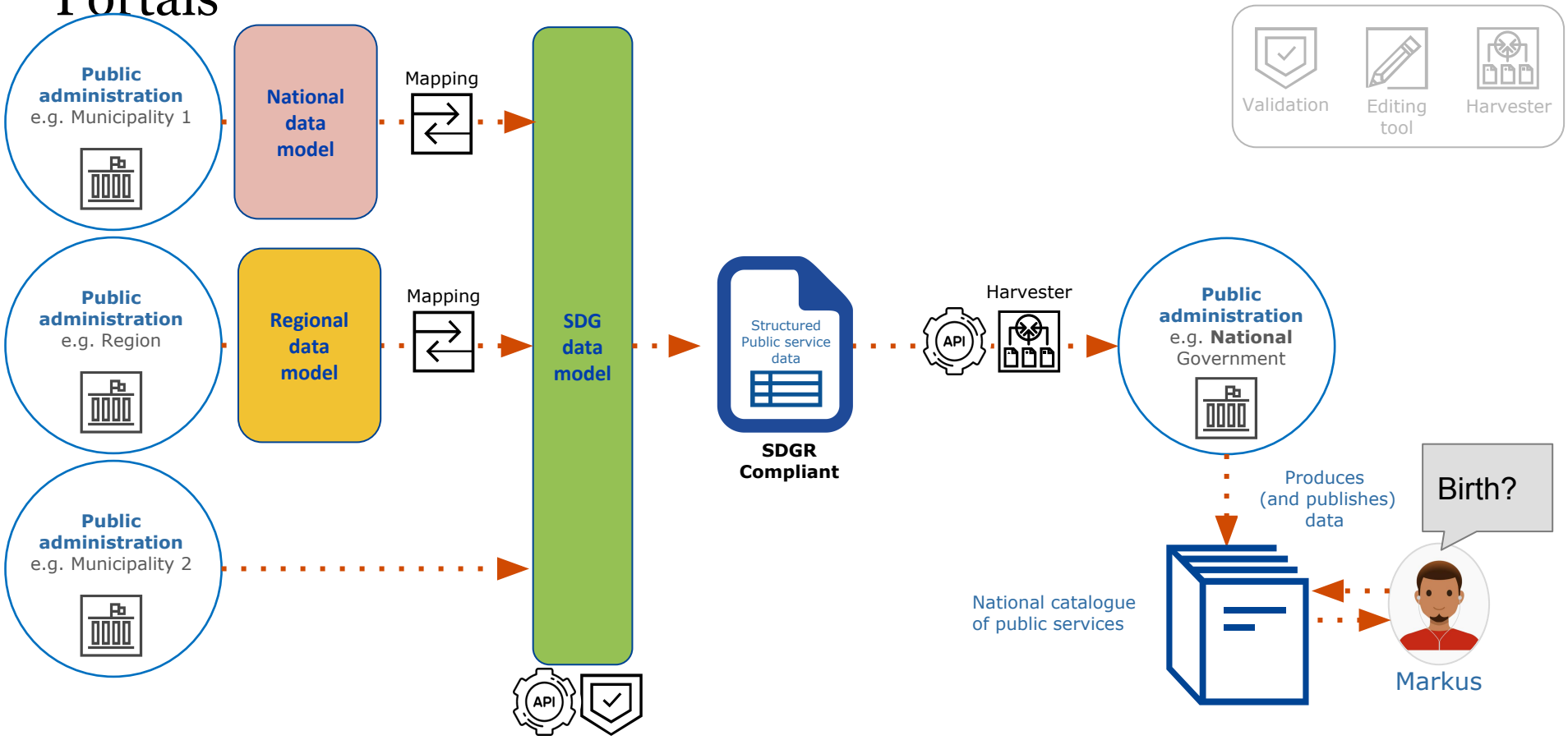
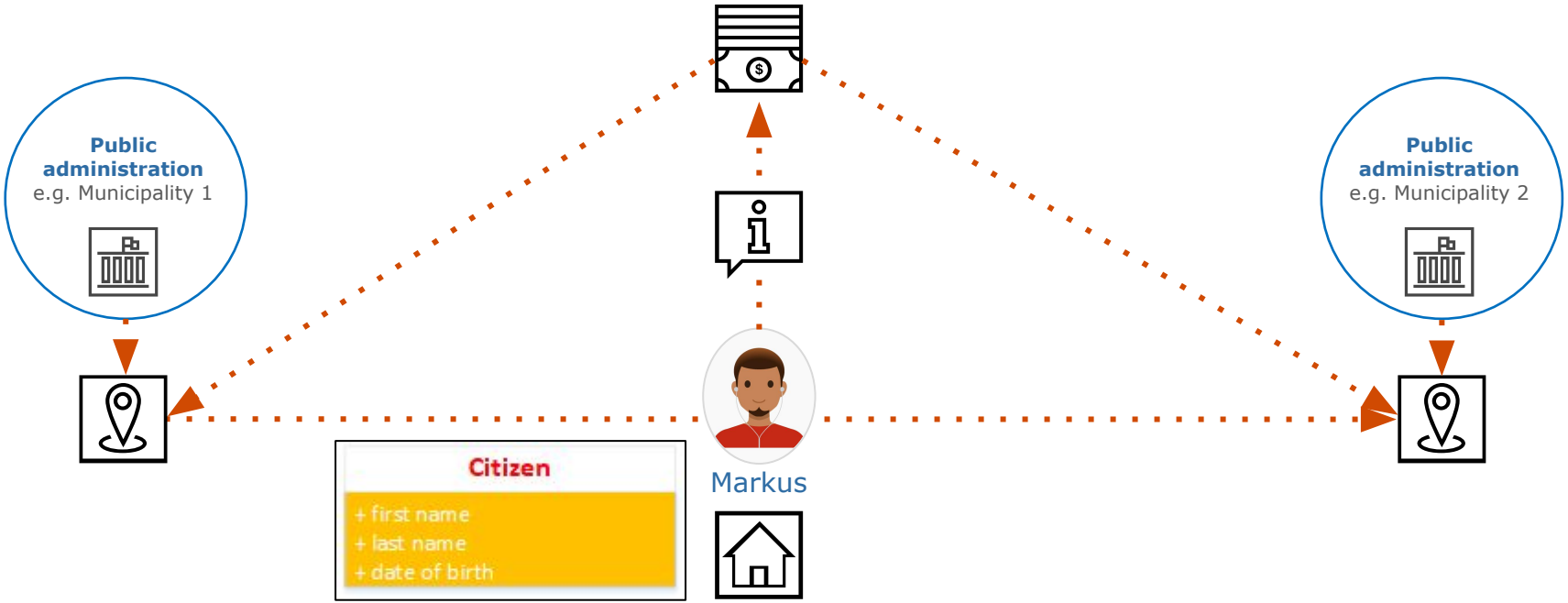


Use Case 3: Exchanging information

"How much does it cost to move from municipality 1 to 2?"

E.g. building a house permit

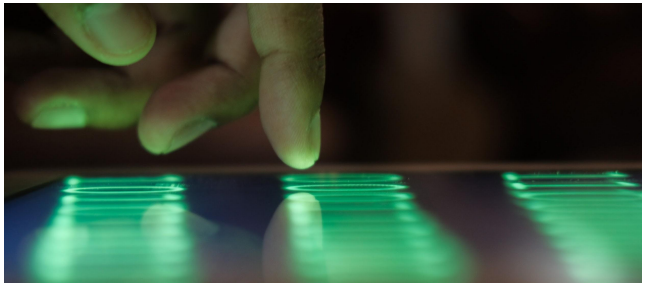


A recap: from needs to execution

Overview & prioritisation of the use cases

Use Case 1

Feeding the Repository of Links using your MS Data Model



Use Case 2: Using the SDG Data Model for feeding National Portals

Use Case 3: Exchanging information

Other

Overview & prioritisation of the use cases

Use Case 1

Feeding the Repository of Links using your own data model

Use Case 2

Using the SDG Data Model for feeding National/EU Portals

Use Case 3

Exchanging information

Other use cases

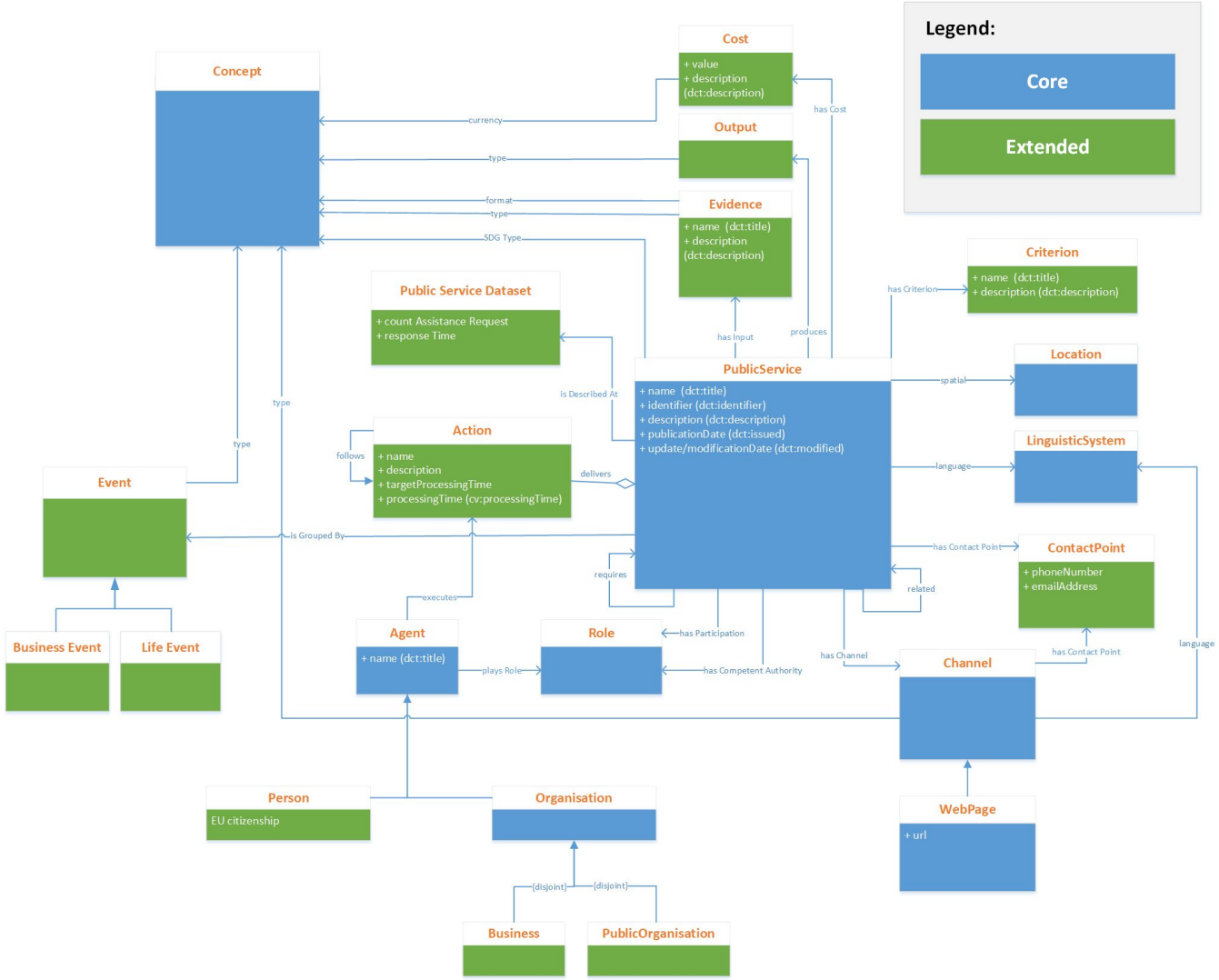
Poll: What kind of use cases are the most important to you?

https://poll.ly/#/G47dgZ7r

Coffee Break!

2

SDG Data Model - Part 1


Legend:
Core
Extended
Concept
Cost
+ value
+ description
(dct:description)
Output
Evidence
+ name (dct:title)
+ description
(dct:description)
currency
has Cost
type
format
type
SDG Type
Criterion
+ name (dct:title)
+ description (dct:description)
has Criterion
Public Service Dataset
+ count Assistance Request
+ response Time
has Input
produces
Location
PublicService
+ name (dct:title)
+ identifier (dct:identifier)
+ description (dct:description)
+ publicationDate (dct:issued)
+ update/modificationDate (dct:modified)
spatial
is Described At
type
Action
+ name
+ description
+ targetProcessingTime
+ processingTime (cv:processingTime)
follows
delivers
LinguisticSystem
language
type
Event
Is Grouped By
has Contact Point
ContactPoint
+ phoneNumber
+ emailAddress
requires
related
executes
Agent
+ name (dct:title)
Role
has Participation
has Channel
has Contact Point
language
Channel
plays Role
has Competent Authority
Business Event
Life Event
Person
EU citizenship
Organisation
WebPage
+ url
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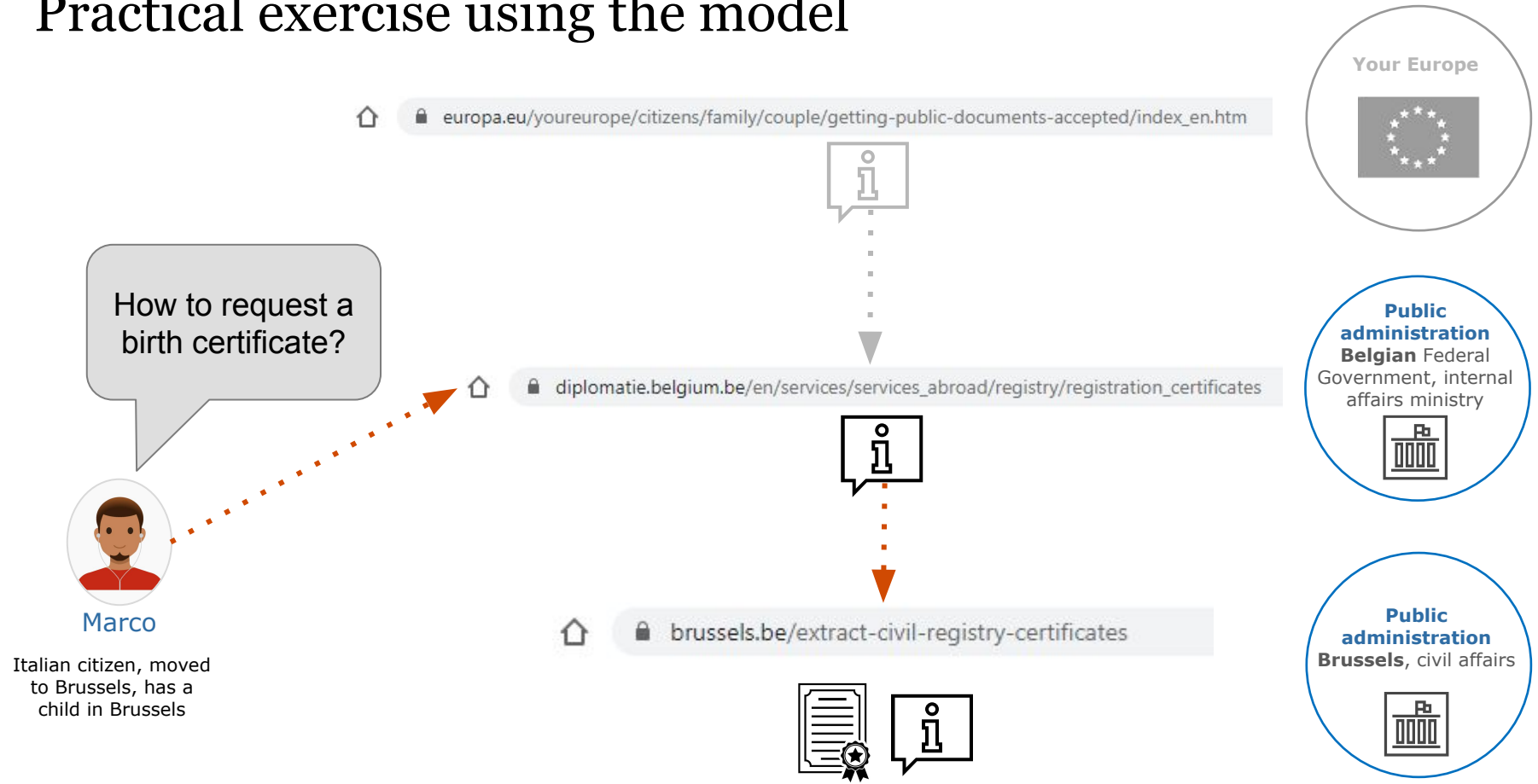
Business
PublicOrganisation

Practical exercise using the model:

Requesting/ Delivering a birth certificate

Practical exercise using the model



Practical exercise using the model: Your turn (in groups of 3)

What do you have?

Birth certificate
public service description

Proposed
SDG data model

Knowledge about
your member state's
national, regional or local level

How to do the exercise?

You have complete **freedom** to fill the model in.
Multiple solutions are possible.

If you need more elements,
you can **draw** them on the model
(e.g. two types of evidence).

If you need to link classes to each other
(e.g. to link a specific agent with an action),
you could use **colored** pens.

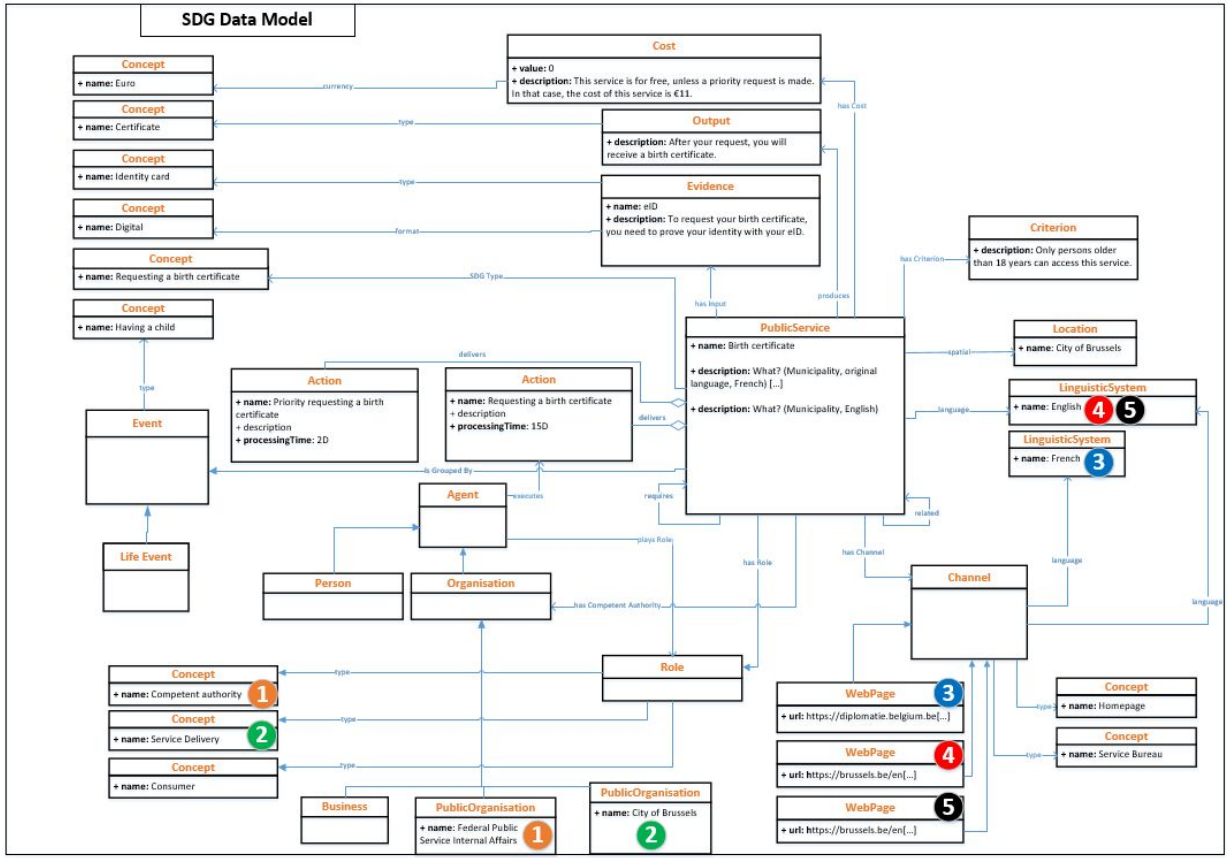
What is the goal?

Get to **know** the model

Try-out **solutions**

Find out where there could be **issues**

Practical exercise using the model: Requesting/Providing a birth certificate (proposed resolution)

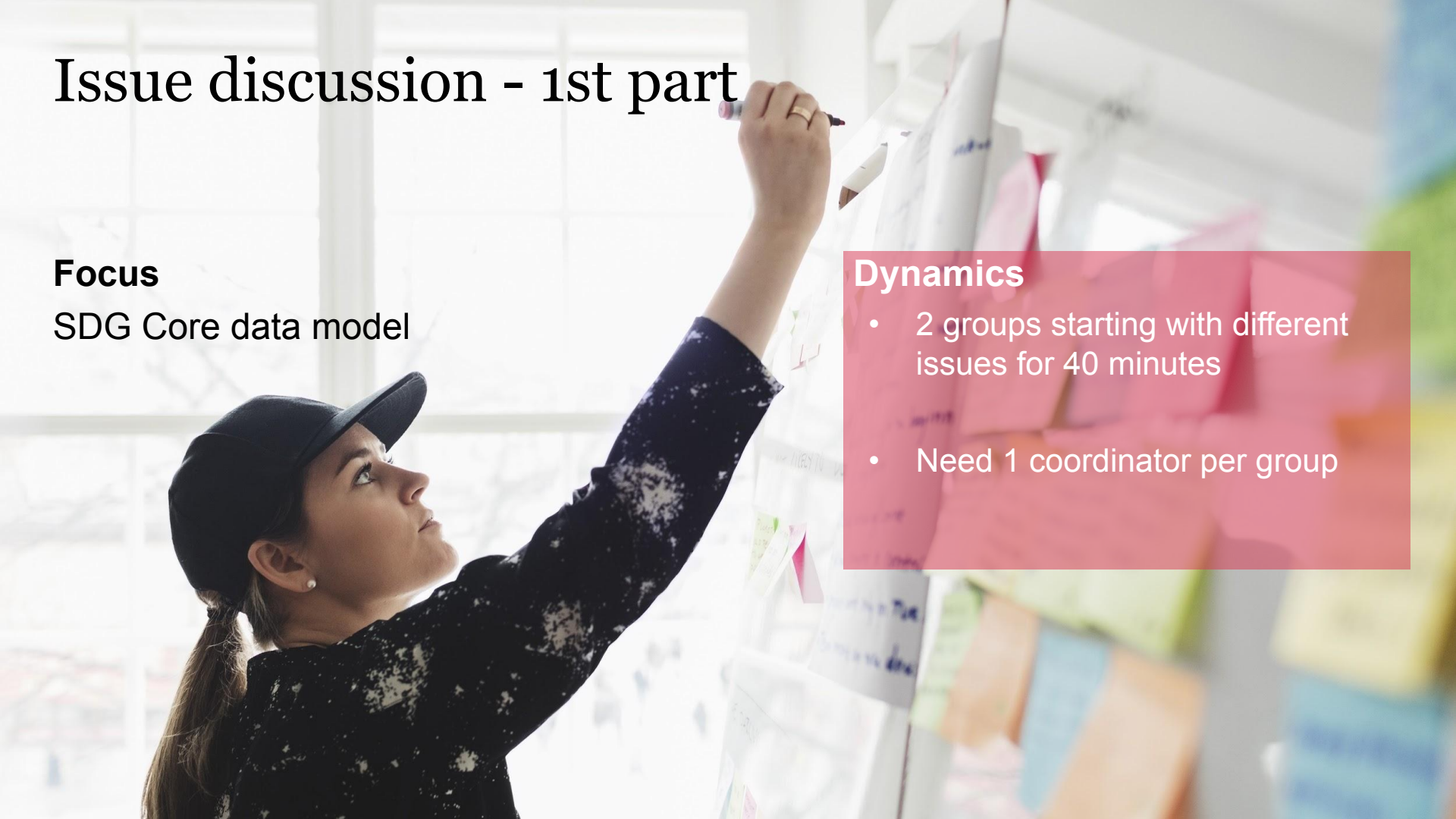


Visio

Issue discussion - 1st part

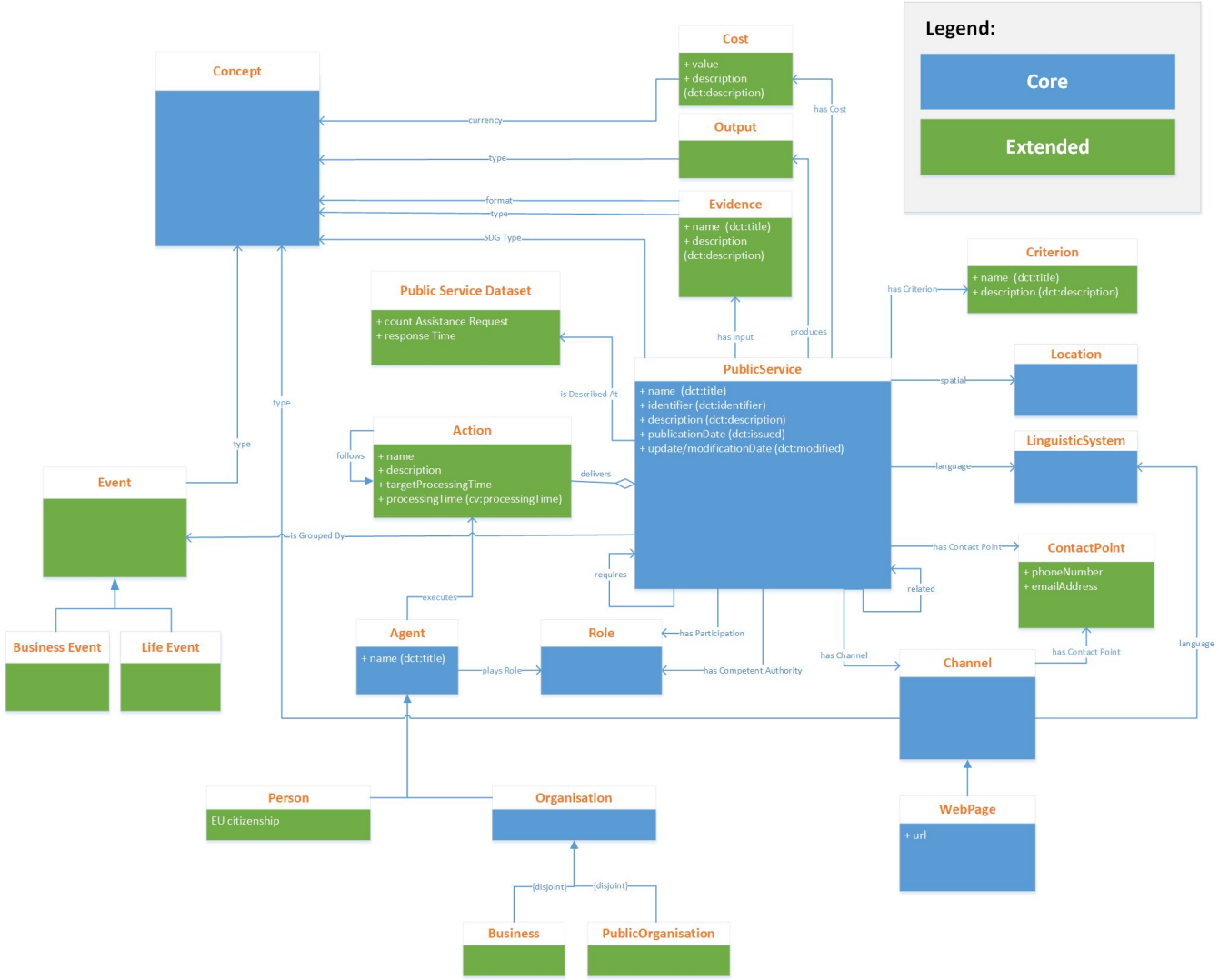
Focus

SDG Core data model



Dynamics

- 2 groups starting with different issues for 40 minutes
- Need 1 coordinator per group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+ description
(dct:description)
currency
has Cost
type
format
type
SDG Type
Criterion
+ name (dct:title)
+ description (dct:description)
has Criterion
Public Service Dataset
+ count Assistance Request
+ response Time
has Input
produces
Location
PublicService
+ name (dct:title)
+ identifier (dct:identifier)
+ description (dct:description)
+ publicationDate (dct:issued)
+ update/modificationDate (dct:modified)
spatial
is Described At
type
Action
+ name
+ description
+ targetProcessingTime
+ processingTime (cv:processingTime)
follows
delivers
LinguisticSystem
language
type
Event
Is Grouped By
has Contact Point
ContactPoint
+ phoneNumber
+ emailAddress
requires
related
executes
Agent
+ name (dct:title)
Role
has Participation
has Channel
has Contact Point
language
Channel
plays Role
has Competent Authority
Business Event
Life Event
Person
EU citizenship
Organisation
WebPage
+ url
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{disjoint}
Business
PublicOrganisation

Group 1

1. CPSV-AP, SDG Core, SDG Extended

   How to differentiate the models?

2. How to model a 'Phase' or a 'Step' in a public service? (SDGR, art. 6 & 10)

   How to model the Action class?

3. Clarification on the "hasCompetentAuthority" property

   How to model the classes Role and Organisation?

4. Cost is too restrictive

   Should it be part of the Core model? How to tackle it?

CPSV-AP, SDG Core, SDG Extended

Description

During the webinar we voted on whether we should make a distinction between **three models**:

- **CPSV-AP** (**full model** for public service descriptions)
- **SDG Extended** (just the **SDG requirements**)
- **SDG Core** (just the requirements for filling the **SDG link repository**)

As such, I would suggest leaving Business/Life Events and required/related relations out of the SDG Data Models since they are not required by the SDGR.

Proposed resolution

- Include the **minimum concepts and classifications** that are mentioned or proposed in the regulation for the **core SDG Data Model**, i.e. focusing on the **repository of links** only (information used for describing public service).
- **Concepts and classifications** for **sharing information** required by the SDG besides the repository of links in the **extended model**.
- **Concepts and classifications** for providing the **online procedures** required by SDGR should be part of **OOP model**.
- **Other concepts and classifications** for **enriching** the descriptions but that are not directly required by the SDGR should be part of the **CPSV-AP**.

Rationale

CPSV-AP, SDG Core, SDG Extended: missing SDGR concepts

Description

Not all SDGR concepts are present in the SDG Model. Concepts such as the ones in the table are missing:

Proposed resolution

- Compared to the first model proposed, the latest proposition is making a clear distinction between the core and extended concepts. The missing concepts listed were not integrated yet in any model but will be subject to a proposition.
- *Where would you see the following concepts being modelled?.*

Examples of missing concepts
Means of redress
Means of appeal
Rules applicable to non-reactivity
Delays
Exceptions (to procedural steps)
Authentication/identification/signatures
Payment methods

How to model a 'Phase' or a 'Step' in a public service? (SDGR, art. 6 & 10)

Description

The way it is modeled now (loose **actions** that can '**follow**' each other) is **too limited**.

Procedure steps (the term used in the SDGR) **are not always sequential**. There may be optional steps that can be skipped, there may be conditional steps based on the situation, etc.

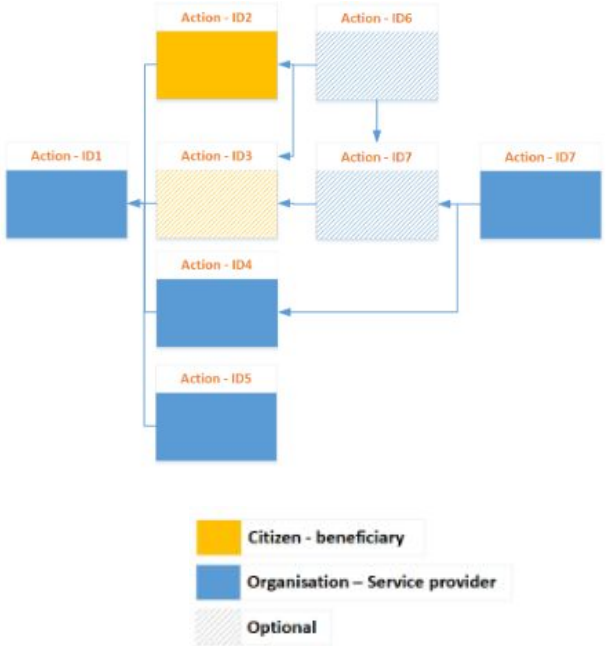
How to model a 'Phase' or a 'Step' in a public service? (SDGR, art. 6 & 10)

Proposed resolution

The class Action was foreseen as a generic approach which could fit the different cases pointed out above:

- **Optional vs required**: we could add an optional property to capture this.
- **Unconditional vs conditional**: we could add an optional property to capture this.
- **Executed** by a Person in the role of a citizen, by an Organisation in the role of the Service provider or any other Agent and/or Role combination

With the relation “follows” and its cardinality, we leave it **up to the public administrations** to decide if they would like to detail extensively in separated actions the execution of the service or if a single action is sufficient to describe from a high level the execution of the service. This is the **flexibility** provided by the property *description* with a free text field (in this case, this would include all activities in one description for the so-called above “procedural steps”).
Regarding the sequence, the following visual shows how the relation “follows” could work for different cases together with the optional and conditional properties and the relation executes pointing to an agent:



Rationale

Clarification on the "hasCompetentAuthority" property

Description

Reading the definition of the "Competent Authority" it seems that not only public organizations may be involved. "....professional bodies, and those professional associations or other professional organisations...".

Is there a specific reason to **connect "Competent Authority"** to only **Public Organisation** and not to the broader new class "**Organisation**" that has been introduced?

Proposed resolution

In general, the main challenge concerns the possibility for an organisation or a person to play different roles in a public service. To overcome this challenge, we would introduce the class Participation (which could be renamed "Role" for better clarity) together with the class org:Organisation to open the delivery of public services to different types of organisations. However, each public service needs to have one single competent authority identified. As a consequence, we would propose to see the term competent authority as an instance relation between the Role class and the Public Service class. In the specification, we will clearly indicate that this relation must exist for one single Organisation (having the role of Competent Authority).

As an alternative, it would also be possible to mention in the specification that the Competent Authority must be a Public Organisation.

Rationale

Cost is too restrictive

Description

Reading the definition of the "Competent Authority" it seems that not only public organizations may be involved. "....professional bodies, and those professional associations or other professional organisations...".

Is there a specific reason to **connect "Competent Authority"** to only **Public Organisation** and not to the broader new class "**Organisation**" that has been introduced?

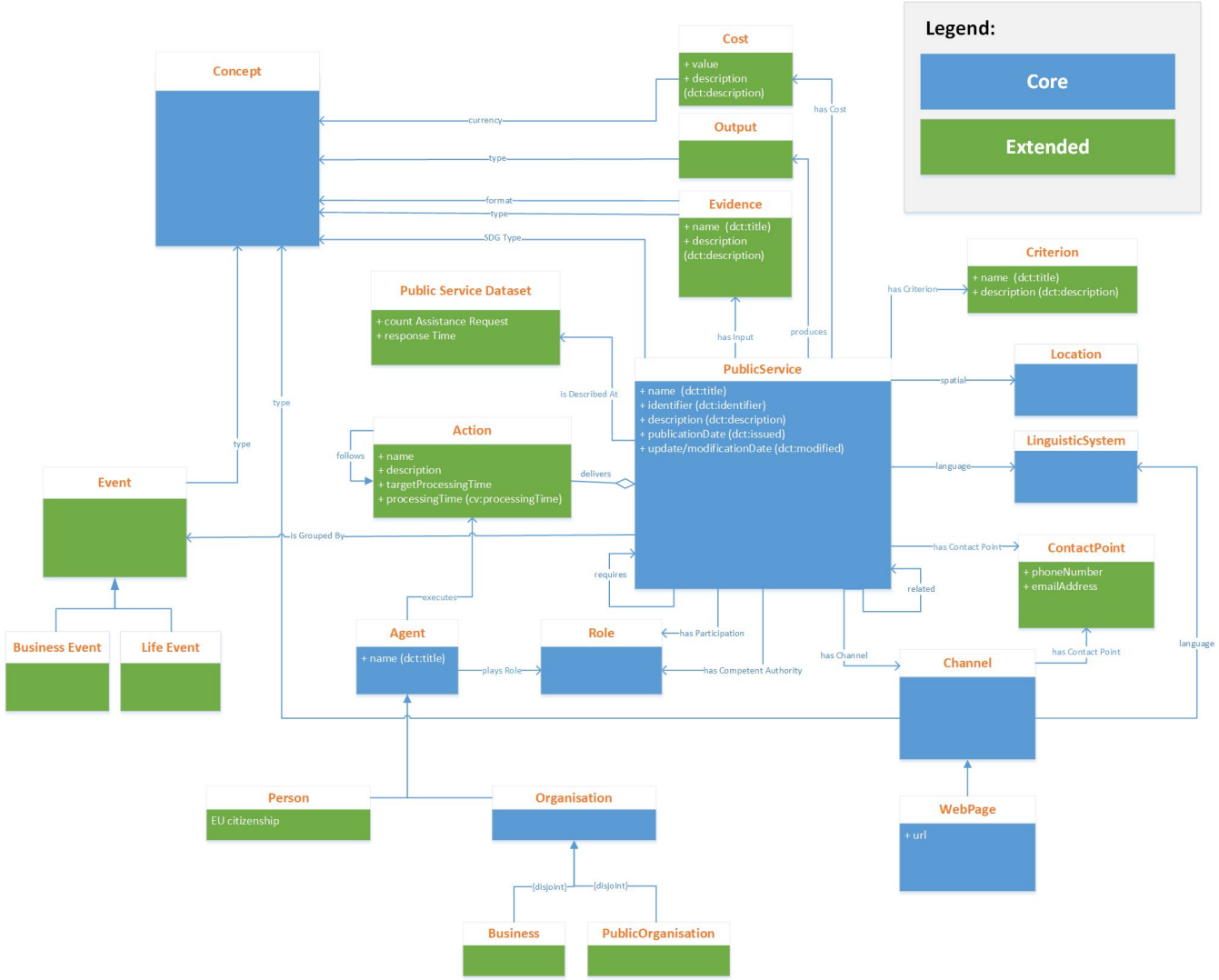
Proposed resolution

We understand that the current proposition is too strict to cover all cases faced by Member States without going into a complex model.

- For the **core model**, we would propose to **remove the Cost class**.
- For the **extended model**, we would propose to relax the constraint by proposing alternatively to have a **description as a free text** where the pricing model could be indicated.
- For the **operational model** (to be further aligned with TOOP, CCCEV etc.) from your examples, we observe a need to relate the cost calculation to specific criteria. For example, if the age is under or above 18 years, the cost is adapted. This is something we will further investigate in collaboration with CCCEV and TOOP.

Please note that this does not cover the information about the online methods of payment, which could also impact the way we model cost in general.

Rationale


Legend:
Core
Extended
Concept
Cost
+ value
+ description
(dct:description)
Output
Evidence
+ name (dct:title)
+ description
(dct:description)
currency
has Cost
type
format
type
SDG Type
Criterion
+ name (dct:title)
+ description (dct:description)
has Criterion
Public Service Dataset
+ count Assistance Request
+ response Time
has Input
produces
Location
PublicService
+ name (dct:title)
+ identifier (dct:identifier)
+ description (dct:description)
+ publicationDate (dct:issued)
+ update/modificationDate (dct:modified)
spatial
is Described At
type
Action
+ name
+ description
+ targetProcessingTime
+ processingTime (cv:processingTime)
follows
delivers
LinguisticSystem
language
type
Event
Is Grouped By
has Contact Point
ContactPoint
+ phoneNumber
+ emailAddress
requires
related
executes
Agent
+ name (dct:title)
Role
has Participation
has Channel
has Contact Point
language
Channel
plays Role
has Competent Authority
Business Event
Life Event
Person
EU citizenship
Organisation
WebPage
+ url
{disjoint}
{disjoint}
Business
PublicOrganisation

Group 2

1. CPSV-AP, SDG Core, SDG Extended

   How to differentiate the models?

2. Service descriptions only or operational data as well?

   What should be part of the SDG information model and the SDG TOOP model?

3. Values for Evidence

   What should be part of the core model? How to model it?

4. Multilingual text properties and Language questions

   How to model languages in textual descriptions and as a tag?

5. Example of the Concept class

   Should it be part of the Core model? How to tackle it?

CPSV-AP, SDG Core, SDG Extended

Description

During the webinar we voted on whether we should make a distinction between **three models**:

- **CPSV-AP** (**full model** for public service descriptions)
- **SDG Extended** (just the **SDG requirements**)
- **SDG Core** (just the requirements for filling the **SDG link repository**)

As such, I would suggest leaving Business/Life Events and required/related relations out of the SDG Data Models since they are not required by the SDGR.

Proposed resolution

- Include the **minimum concepts and classifications** that are mentioned or proposed in the regulation for the **core SDG Data Model**, i.e. focusing on the **repository of links** only (information used for describing public service).
- **Concepts and classifications** for **sharing information** required by the SDG besides the repository of links in the **extended model**.
- **Concepts and classifications** for providing the **online procedures** required by SDGR should be part of **OOP model**.
- **Other concepts and classifications** for **enriching** the descriptions but that are not directly required by the SDGR should be part of the **CPSV-AP**.

Rationale

CPSV-AP, SDG Core, SDG Extended: missing SDGR concepts

Description

Not all SDGR concepts are present in the SDG Model. Concepts such as the ones in the table are missing:

Proposed resolution

- Compared to the first model proposed, the latest proposition is making a clear distinction between the core and extended concepts. The missing concepts listed were not integrated yet in any model but will be subject to a proposition.
- *Where would you see the following concepts being modelled?.*

Examples of missing concepts
Means of redress
Means of appeal
Rules applicable to non-reactivity
Delays
Exceptions (to procedural steps)
Authentication/identification/signatures
Payment methods

Service descriptions only or operational data as well?

Description

The model appears to describe not just public services and their properties, but also operational, instance-level data such as individual applications and individual users (citizen/business with their details such as first name/last name). From how I understand things, the SDG is about describing public services, period.

Proposed resolution

We would propose to also make a **distinction** between **information about the service** from the **data needed to deliver or receive the service**. While the first is the focus of the core and extended models for the deadlines of 2020 and 2022, the later should be structured according to the semantic architecture proposed by TOOP (or another initiative) for the deadline of 2023.

However, the extended model and the OOP semantic architecture should be aligned.

Values for Evidence

Description

Criterion/evidence can be quite broad. For instance, in the example of applying for licensing/protected title, we see only one situation (a master's degree in medicine/a certificate is required). However, such a service is meant for a much broader spectrum of occupations, not just medicine. If we apply this model in the way shown in the example, it would be required to exhaustively list all possible degrees and certificates. I wonder if this is feasible. Wouldn't it be better to stick here to a plain-text description of 'the requirements' for the service as opposed to having CA's list every specific requirement individually?

The list used in the SDG TOOP project seems to have a more practical level

Proposed resolution

For now in the SDG extended model, we would propose to have the **class “Evidence”** with **two free text properties for the name and description**, a **format property** where we would recommend the use of a controlled vocabulary and finally a **type property** using a controlled vocabulary/classification such as the one you indicated from SDG TOOP. We would also propose the **Criterion class** with **two free text properties for the name and description**. This would give the public administrations the possibility to link evidence and criterion together.

Rationale

Multilingual text properties and Language questions

Description

[...] we need to distinguish two layers:

1. text properties that describe the service, action, and any other element in the model. They should be multilingual, therefore with cardinality 0..n so that to allow one to specify more than 1 instance of the text property, one per each language
2. the language related to the content of the public service. A public service can be provided in English, Italian, Dutch. In addition I may want to say that with the web site channel the public service is provided in English and Dutch, and with the phone channel in Italian and Dutch only.

I agree with the last comment to clarify better this aspect of multilingualism

Proposed resolution

We need to differentiate between the language of the content provided by the public administrations from the available languages mentioned for a channel.

- To enable public administrations to provide any pieces of information in multiple languages, we agree with the proposition: each text property from the model could be duplicated using the most appropriate language.
- To give the opportunity to indicate that a certain service or its existing channels are available in certain languages, we propose to keep the current property language (dct:language) with range LinguisticSystem.

Rationale

Example of the Concept class

Description

The use of the Concept class is not clear to me. [...] it seems to be used for categorising public services into either information areas, procedures or assistance.

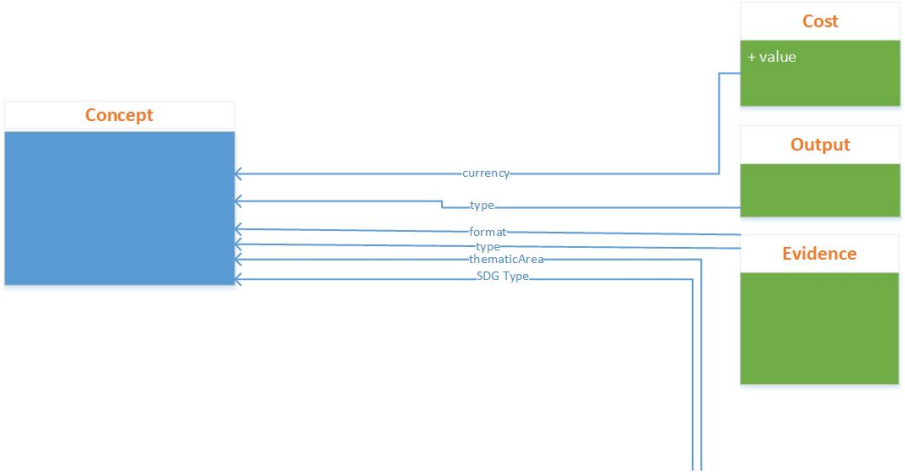
Proposed resolution

The concept class is meant to be used for classifications or reference data. Such class can then be used by different classes in the SDG model requiring classification (e.g. type of public service) so that there will be different types of classifications (e.g type of events, etc.).

This needs to be differentiated from the way classifications (or controlled vocabularies) are structured.

...

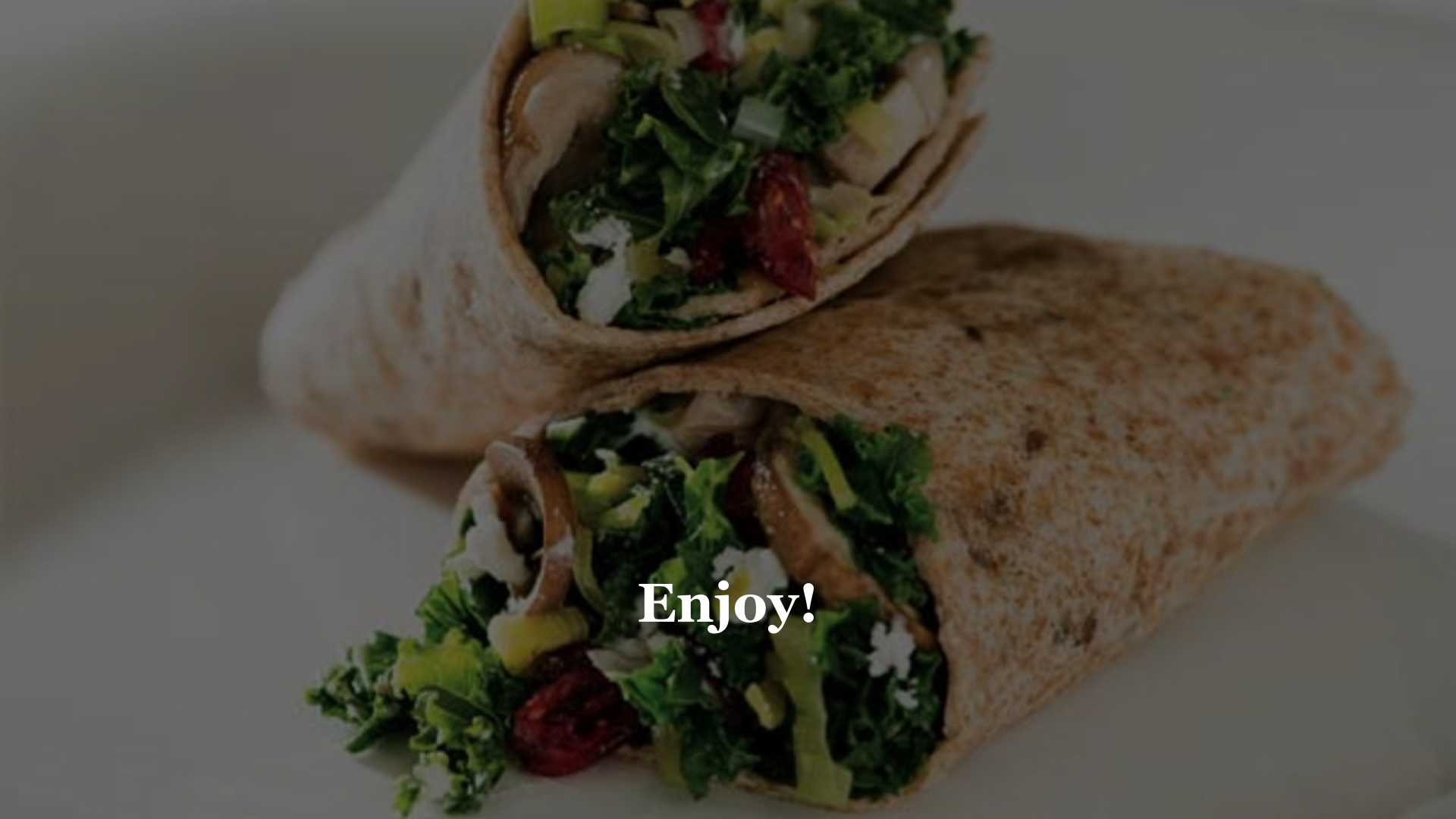
Rationale



Report out

The floor is yours

5’ per group


Enjoy!

3

SDG Data Model - Part 2

Group 1

1. Attributes and Annex II of SDG

   Classification - SDG procedures from Annex II

2. Clarification on Processing Time

   How to model processing Time? In which model?

3. Variants of procedures

   How to model a service/procedure which can be provided by different administrations at different levels?

4. Clarification on "Count Assistance Request" and "Response time"

   How to model statistics such as count assistance request or response time?

5. Business and life events as classes and classifiers within CPSV-AP

   Classifications

6. Remove related/required relations to Public Service class from SDG Data Model

   Do we need those properties?

7. Relationship between the SDG information areas and other classifications

   Classifications

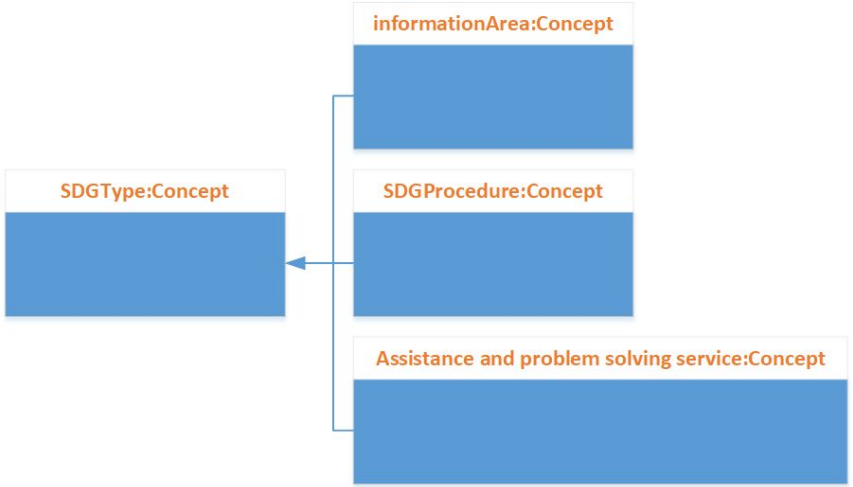
Attributes and Annex II of SDG

Description

Is there any attribute regarding the deadline of 12th December 2020 which is used solely for procedures of Annex II? We would like to know if there is such attribute.

Proposed resolution

The Annex II listing the different SDG procedures is currently modelled as an instance of the class Concept pointing to the list from the Annex II.



Procedures
Requesting proof of registration of birth
Requesting proof of residence
Applying for a tertiary education study financing, such as study grants and loans from a public body or institution
Submitting an initial application for admission to public tertiary education institution
Requesting academic recognition of diplomas, certificates or other proof of studies or courses
Request for determination of applicable legislation in accordance with Title II of Regulation (EC) No 883/2004 (1)
Notifying changes in the personal or professional circumstances of the person receiving social security benefits, relevant for such benefits
Application for a European Health Insurance Card (EHIC)
Submitting an income tax declaration
Registering a change of address

Clarification on Processing Time

Description

1. We use the same URI for meaning two different things; namely targetProcessingTime and processingTime?

2. the specifications, in section 3.3.4, state "The value of this property is the official time needed for executing a Public Service". This property is in the domain of the new class Action, correct? If so, which is the relationship with the property processingTime defined in CPSV-AP 2.2.1 for the class Public Service itself? The definition seems more oriented to the already foreseen processingTime for Public Service; however, in the model it seems characterizing the brand-new Action class. Could you please clarify better this part?

Variants of procedures

Description

How to deal with variants of procedures in the catalogue?

In the Czech Republic we have procedures which could be consumed in different situations in different offices.

For example for new ID card citizen could apply at municipality or at the Ministry of the Interior, but at the ministry could be applied only for express issue.

Clarification on "Count Assistance Request" and "Response time"

Description

It is not very clear the meaning of these two properties and why they are properties of the Public Service Dataset class. Could you clarify? Which competency questions do they target?

3.7.1. Count Assistance Request

This property refers to the number of requests for assistance and problem-solving services.

3.7.2. Response time

This property refers to the average response time for different requests for assistance and problem-solving services.

Art. 24

The competent authorities, the providers of assistance or problem-solving services and the Commission will collect and exchange, in an aggregated way, the number, the origin and the subject matter of requests for assistance and problem-solving services and their response times.

Business and life events as classes and classifiers within CPSV-AP

Description

[...] leaving Business/Life Events out of the SDG models since they are not required by the SDGR.

Proposed resolution

Keep the business and life events classes and classifications while making sure that the list provided as part of Annex II is integrated within existing lists of life events already used by public administrations.

Rationale

In the Annex II, the services are classified by life events.

Also, users need to find descriptions based on what they know, typically the life events. The same approach can be applied to the business events.

ANNEX II

Procedures referred to in Article 6(1)

Life events	Procedures	Expected output subject to an assessment of the application by the competent authority in accordance with national law, where relevant
Birth	Requesting proof of registration of birth	Proof of registration of birth or birth certificate
Residence	Requesting proof of residence	Confirmation of registration at the current address

Remove related/required relations to Public Service class from SDG Data Model

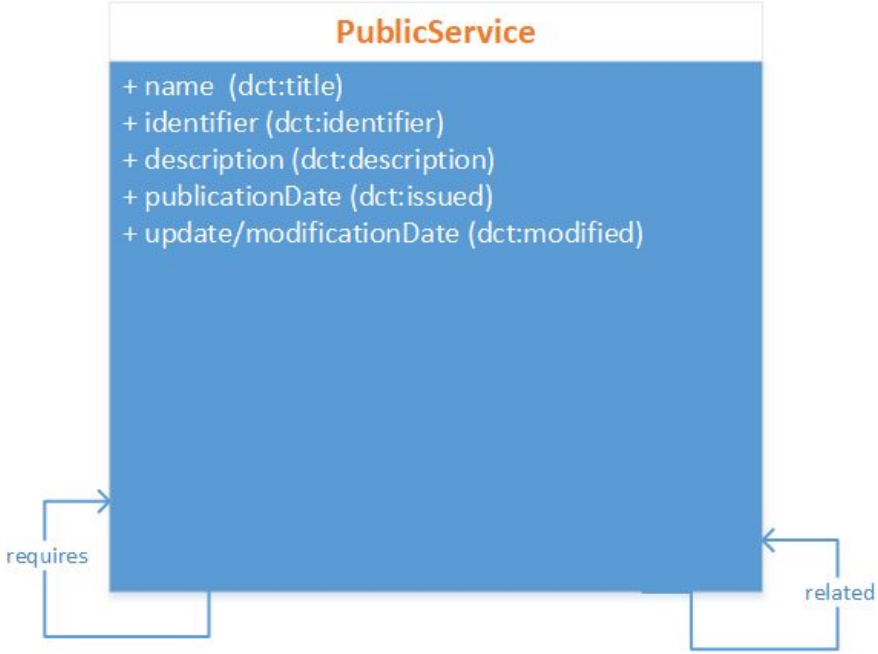
Description

The properties related and requires are not in scope of the SDG

Proposed solution

Those properties are not mandatory within the model. However, some public administrations may have sub-services required or related to a service needed by the SDGR. In such a case, they may need to describe those sub-services. While doing so, it would be better if all public administrations use a similar approach and if we can easily retrieve which services are related or required by other services. We therefore propose to keep the two properties.

Discussion



Relationship between the SDG information areas and other classifications

Description

What is the relationship between the SDG information areas, thematicArea, LifeEvent Type and BusinessEvent Type (see SDG Classifications v0.02.xlsx)?

Proposed resolution

- SDG information areas (themes, Annex I)
- thematicArea (themes, CPSV-AP)
- LifeEvent Type (CPSV-AP, Annex II)
- BusinessEvent Type (CPSV-AP, implicit Annex II)

Group 2

1. Attributes and Annex II of SDG

   Classification - SDG procedures from Annex II

2. Business and life events as classes and classifiers within CPSV-AP

   Classifications

3. Typo in section 3.12.2

   How to model channel and its accessibility restrictions, input and variable cost?

4. Clarification on Non-Citizen and Citizen

   Should it be differentiated? How? In which model?

5. controlled vocabularies for authority and spatial

   Classifications

6. Relationship between the SDG information areas and other classifications

   Classifications

7. Deviation between Your Europe-categories and SDG Data Model-categories

   Classifications

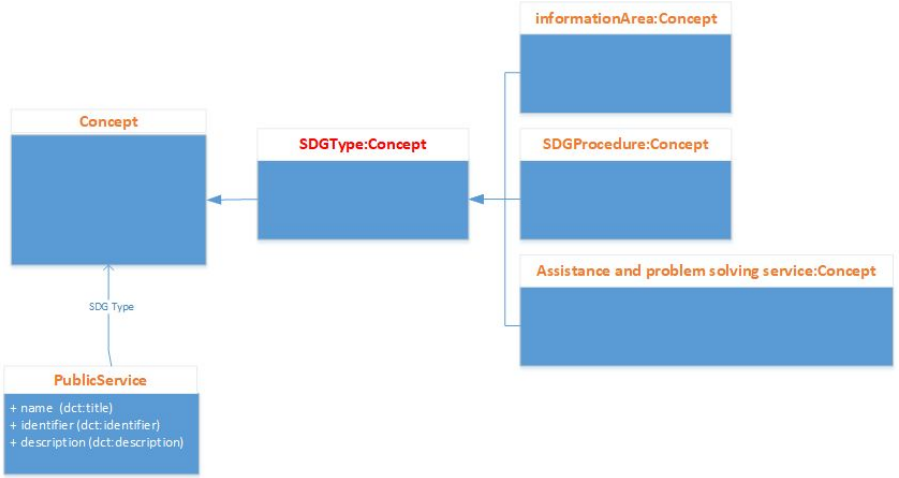
Attributes and Annex II of SDG

Description

Is there any attribute regarding the deadline of 12th December 2020 which is used solely for procedures of Annex II? We would like to know if there is such attribute.

Proposed resolution

The Annex II listing the different SDG procedures is currently modelled as an instance of the class Concept pointing to the list from the Annex II.



Procedures
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Requesting proof of residence
Applying for a tertiary education study financing, such as study grants and loans from a public body or institution
Submitting an initial application for admission to public tertiary education institution
Requesting academic recognition of diplomas, certificates or other proof of studies or courses
Request for determination of applicable legislation in accordance with Title II of Regulation (EC) No 883/2004 (1)
Notifying changes in the personal or professional circumstances of the person receiving social security benefits, relevant for such benefits
Application for a European Health Insurance Card (EHIC)
Submitting an income tax declaration
Registering a change of address

Business and life events as classes and classifiers within CPSV-AP

Description

[...] leaving Business/Life Events out of the SDG models since they are not required by the SDGR.

Proposed resolution

Keep the business and life events classes and classifications while making sure that the list provided as part of Annex II is integrated within existing lists of life events already used by public administrations.

Rationale

In the Annex II, the services are classified by life events.

Also, users need to find descriptions based on what they know, typically the life events. The same approach can be applied to the business events.

ANNEX II

Procedures referred to in Article 6(1)

Life events	Procedures	Expected output subject to an assessment of the application by the competent authority in accordance with national law, where relevant
Birth	Requesting proof of registration of birth	Proof of registration of birth or birth certificate
Residence	Requesting proof of residence	Confirmation of registration at the current address

Typo in section 3.12.2

Description

The title of the section is "Has contact point" but the text refers to "has input".

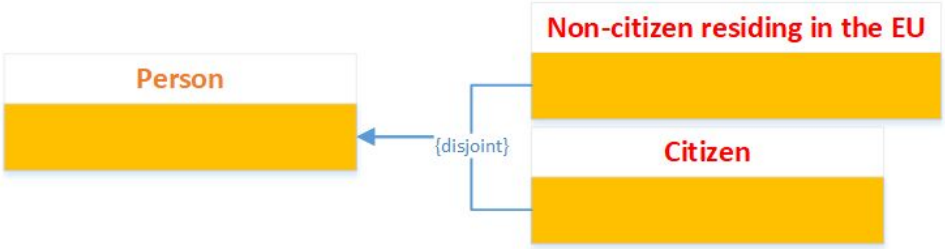
In the diagram I did not see any "has input" for the channel class whereas there is "has contact point" property.

And this is not so clear in general. In CSPV-AP 2.2.1 a channel has input, may have accessibility restrictions, and it may be connected with cost since costs for services may vary according to the different types of channels.

Clarification on Non-Citizen and Citizen

Description

The distinction of the two classes is only on the citizenship. One is resident in the European Union (lives in one Member State) and has the European citizenship and the other is a person currently resident in the European Union but with no European citizenship. The classes are disjoint.



Proposed solution(s)

Remove the existing classes and add a property EU citizenship within the class Person.

controlled vocabularies for authority and spatial

Description

Which controlled vocabularies should be used for location and competent authority?

Proposed resolution

The current solutions given in the later message by @giorgialodi are indeed something that we propose to apply. Namely:

spatial

- Align with DCAT-AP pointing to EU NAL for countries and places. The NAL for continents is perceived as not required as part of the SDGR.
- For locations not in a proposed NAL, the use of geonames URIs would be recommended.

Competent authority

- We propose in #6 to have a class Role for covering the different responsibilities, participations or roles an Agent has in the execution of Action(s). This class would include the Competent Authority.
- This being said, the specific lists of competent authorities will be left to the national/regional/local organisations.

Relationship between the SDG information areas and other classifications

Description

What is the relationship between the SDG information areas, thematicArea, LifeEvent Type and BusinessEvent Type (see SDG Classifications v0.02.xlsx)?

Proposed resolution

- SDG information areas (themes, Annex I)
- thematicArea (themes, CPSV-AP)
- LifeEvent Type (CPSV-AP, Annex II)
- BusinessEvent Type (CPSV-AP, implicit Annex II)

Deviation between Your Europe-categories and SDG Data Model-categories

Description

Will the categories and sub-categories which are used on Your Europe be changed according to the information areas and life/business events used in the SDG Model?

E. g. the category "Human Resources" with sub-category "Employment contracts", "Working hours, holiday and leave" is categorized differently on Your Europe than in the excel-sheet with the proposed classifications (uploaded document "SDG Classifications v0.02")

Additional issues

Clarification on dct:identifier for Public Service Class

typo in section 3.3.2

Clarification on LinguisticSystem

Clarification on Location

Organisation is a subclass of a Person?

Objection

More complex example

RDF example

Property Description of Action error in the specification

Action -> Public Service: relation Delivers not specified

Validate CoS Model against SDG information requirements

Web Page definition (Review the definition of Web Page)

Plenary reflections

Coffee Break!

4

Demo

CPSV-AP tools: use cases

Use case 1

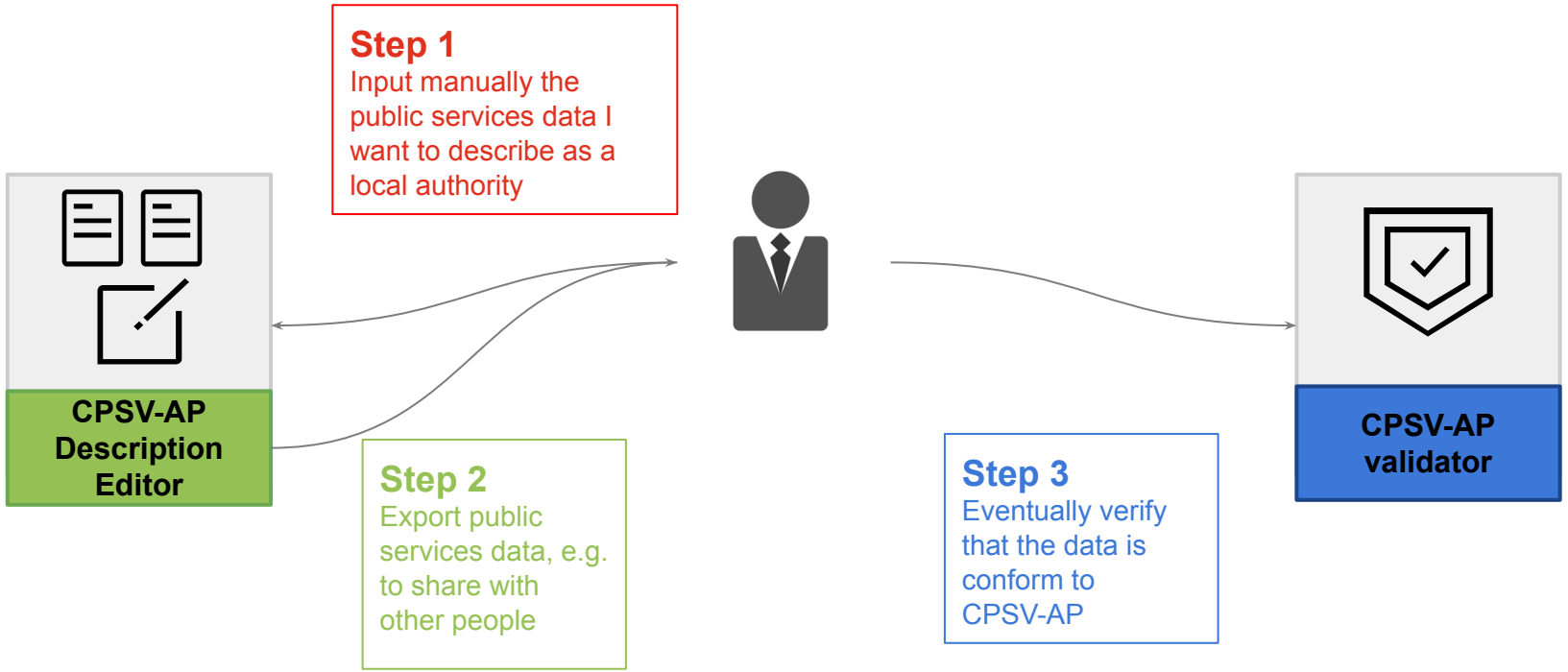
'I am a local authority, describing public services manually in an editor tool.'

Use case 2

'I am a national authority, collecting public services data from several local regions / municipalities.'

Use case 1

'I am a local authority, describing public services manually in an editor tool.'

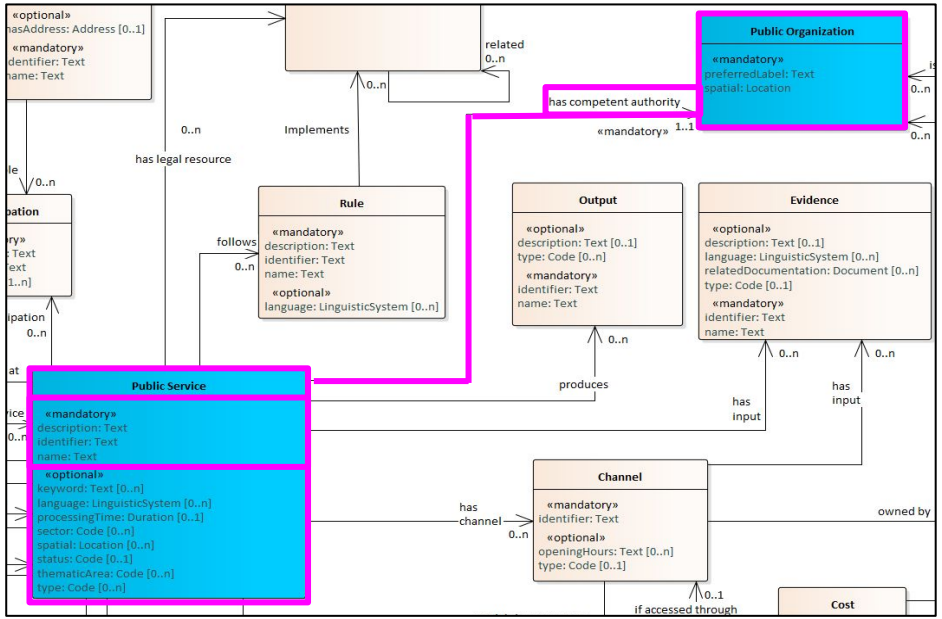


Demo objective use case 1: describe public services

Example: Public service **Start-up grant** in public organisation **Enterprise Estonia**.

CPSV-AP 2.2.1 data model

EE (Enterprise Estonia)

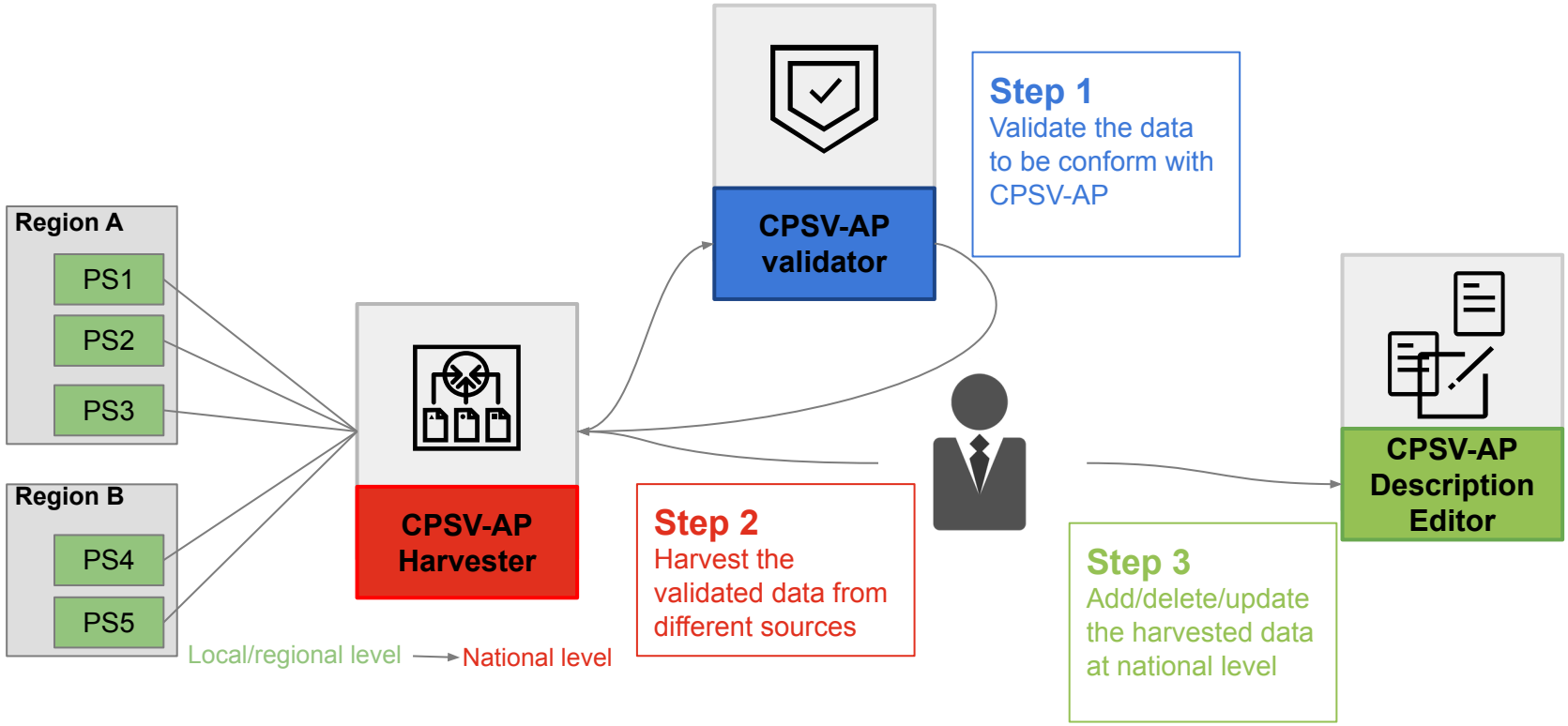


Start-up grant

CPSV-AP Description Editor

Use case 2

'I am a national authority, collecting public services data from several local regions / municipalities.'

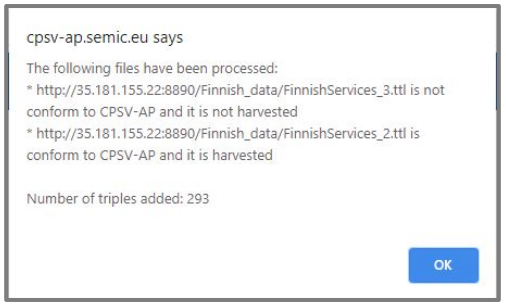


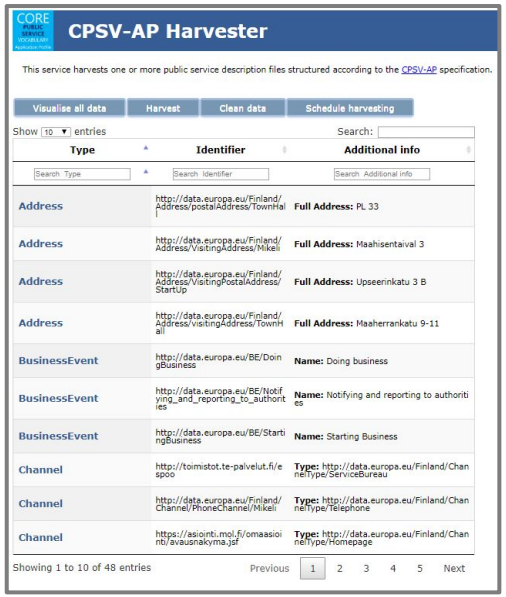
Demo objective use case 2

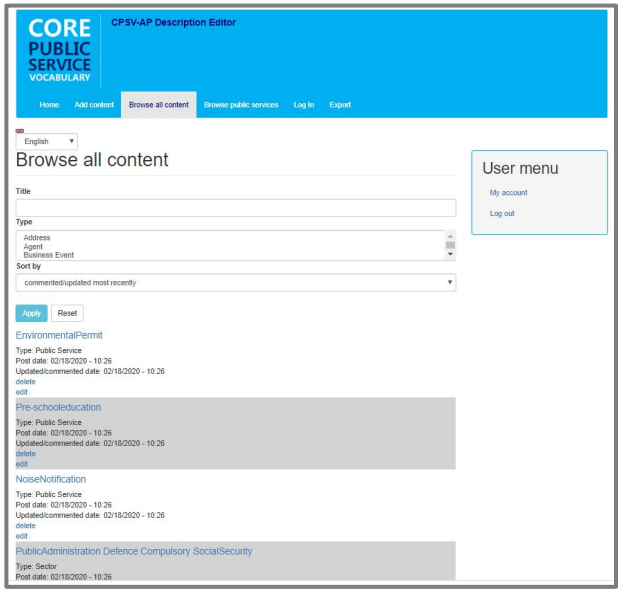
Step 1
Validate the Finnish data against CPSV-AP 2.2.1

Step 2
Harvest the Finnish data

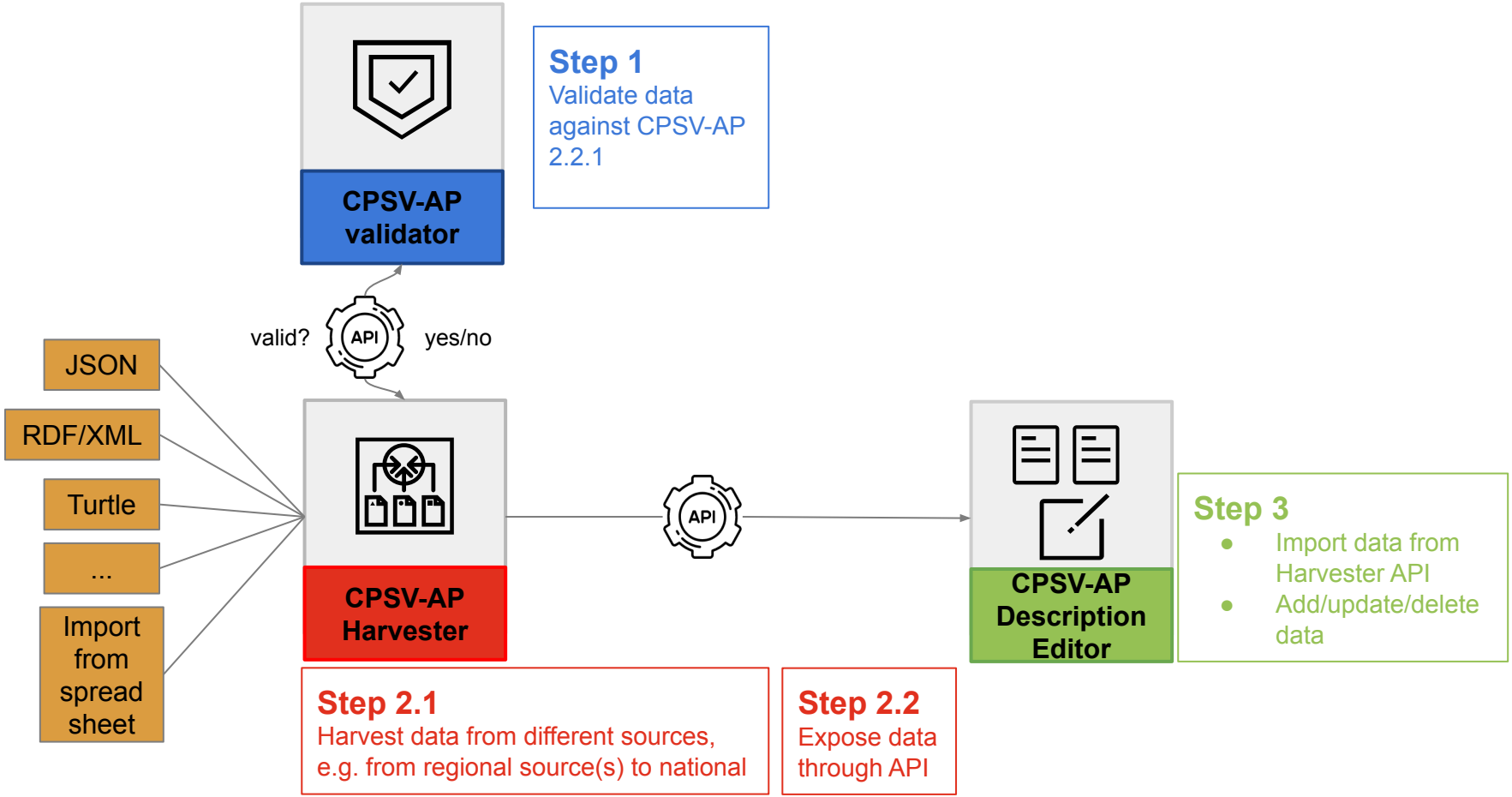
Step 3
Add/update/delete the harvested data at national level







Overview of the tools



Poll question

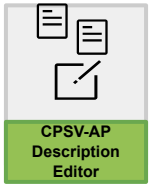
Poll: Which of the use cases applies to you? (multiple answers possible)

Link: https://poll.ly/#/Gxr6gMxk

- ‘I am a local authority, describing public services manually in an editor tool.’
- ‘I am a national authority, collecting public services data from several local/regional sources.’
- ...

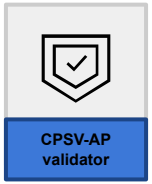
Access to the tools

1. CPSV-AP Description Editor
   http://cpsv-ap.semic.eu/cpsv-ap_editor/



2. CPSV-AP Harvester
   http://cpsv-ap.semic.eu/cpsv-ap_harvester/cpsv-harvester.html

3. CPSV-AP validator
   https://www.itb.ec.europa.eu/shacl/cpsv-ap/upload

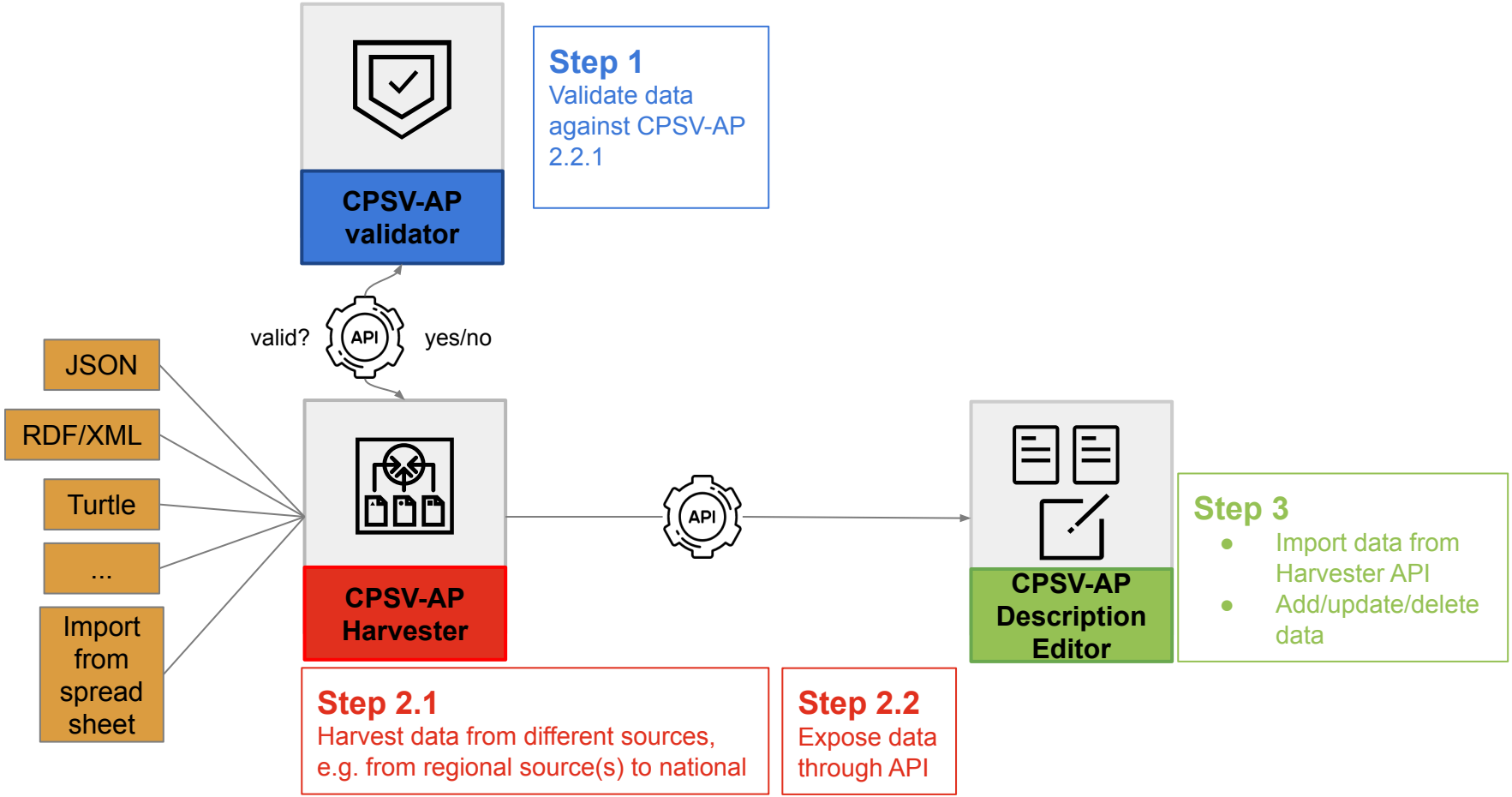


Parallel sessions

Parallel session 1:

Tools for building a catalogue of services and how they would work in a SDGR context

Overview of the tools



Approaches for the tools

1. Customization from a **data model** perspective
   Description Editor: creating new classes for the SDG

2. Customization from an **integration** perspective
   How the tools can be integrated into the SDG and your tools

1. Customization from a data model perspective

The tools could be reused for the SDG data model. Example with the Description Editor:

Reusing CPSV-AP + new classes

Description Editor demo:

Action -> delivers -> Public Service

Add a new class, properties and a relation

Class: **Action**

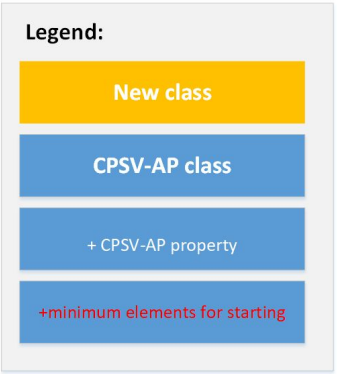
Mandatory properties: **name**, **description**

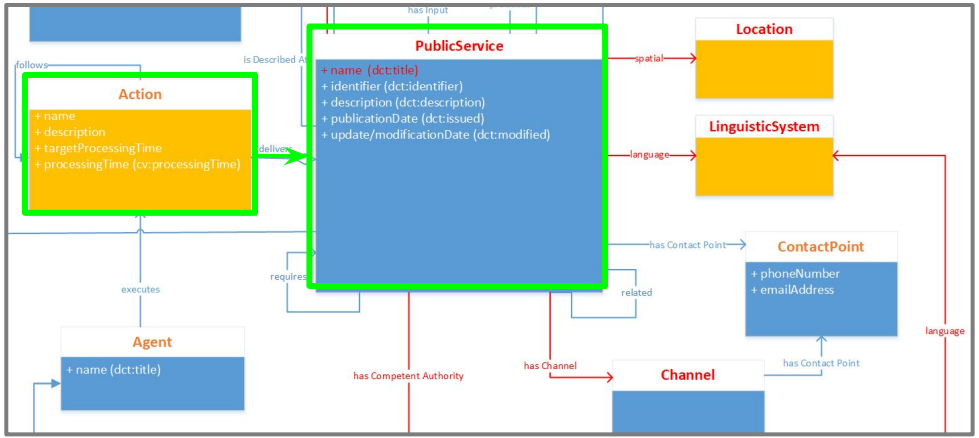
Optional properties: targetProcessingTime, processingTime

Optional relation: **delivers**

(bold: content we will add in the demo in next slide)

Previous SDG data model





1. Demo

Step 1:

Add content type “Action”

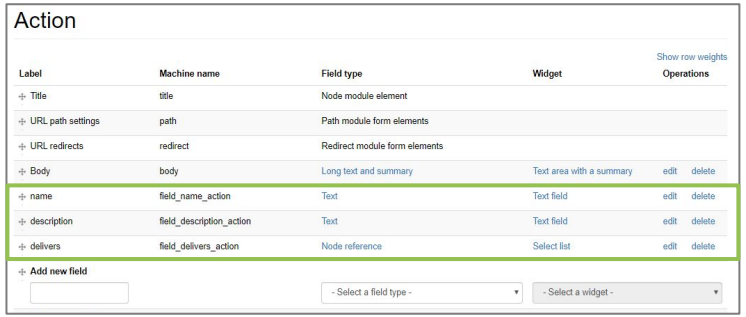
Step 2:

Add the mandatory properties

- name
- description

Add the optional relation to Public Service

- delivers

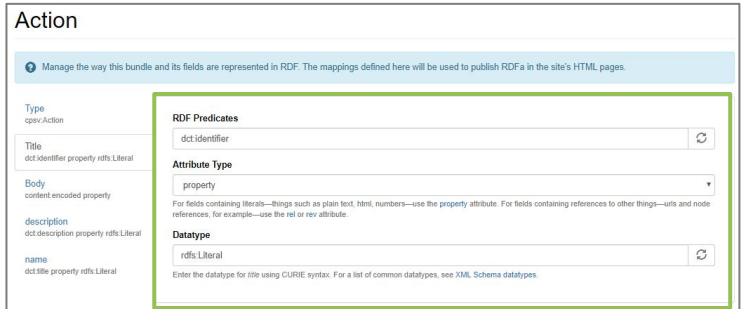


Step 3:

Set the RDF mappings

e.g. name:

- RDF:Predicates: dct:identifier
- Attribute Type: property
- Datatype: rdfs:Literal



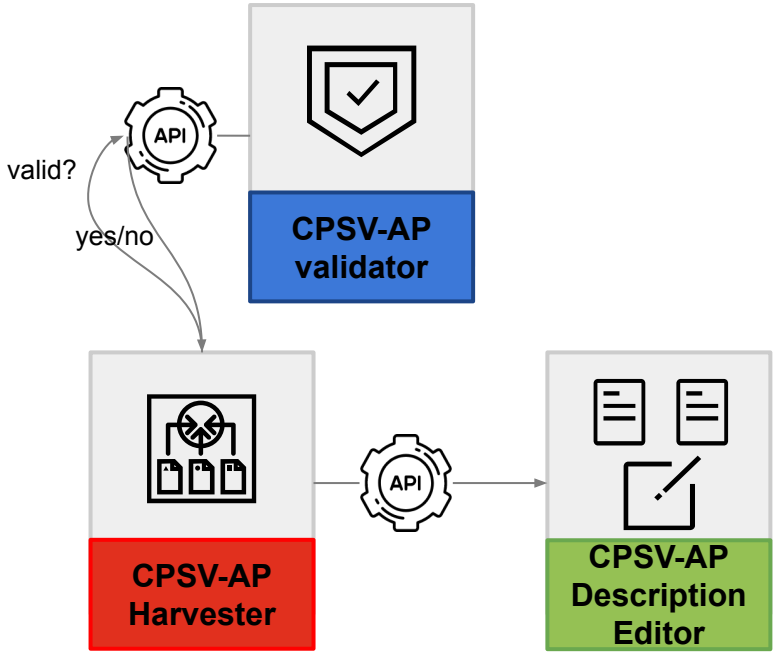
2. Customization from an integration perspective

CPSV-AP Tools: API usage

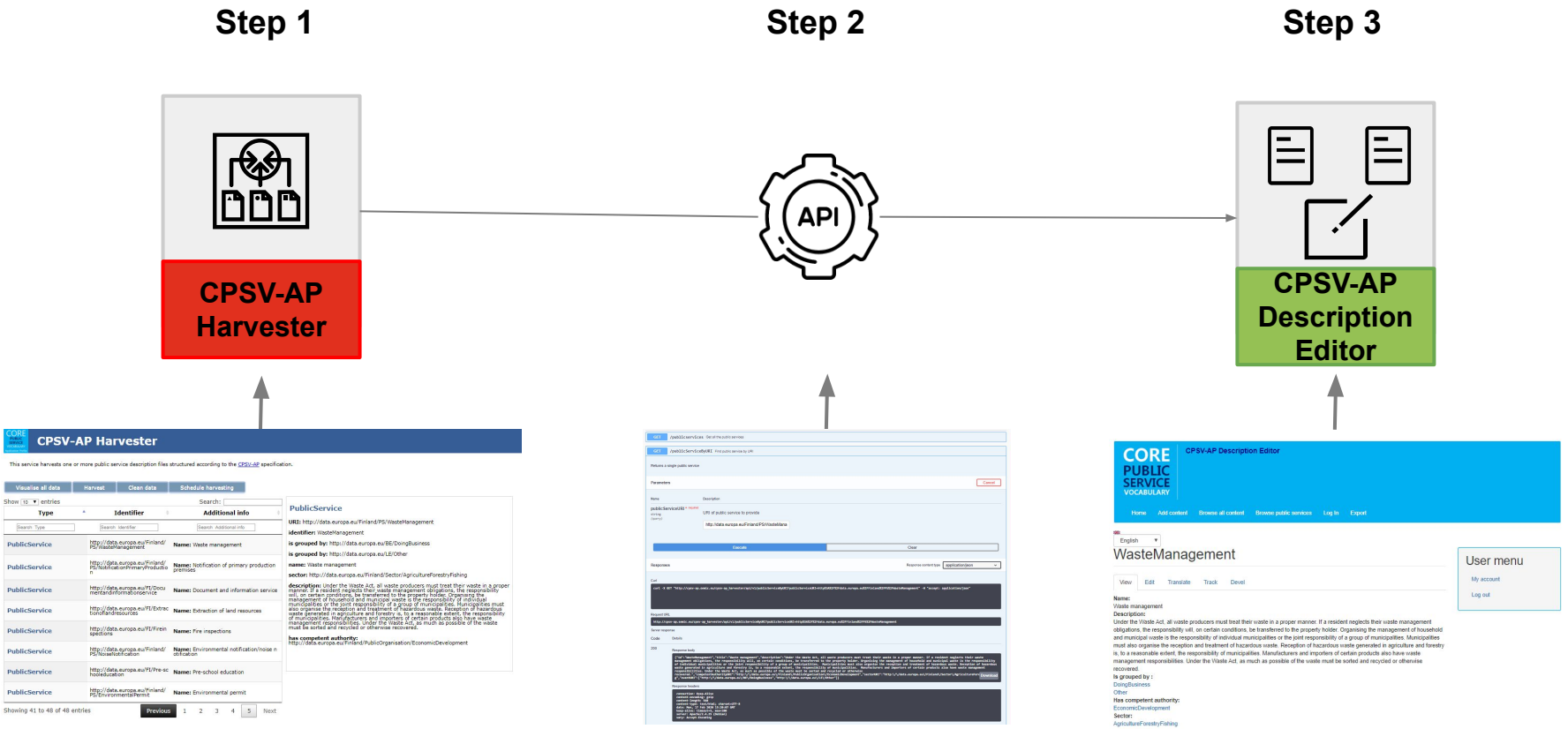
CPSV-AP Harvester
The harvester harvests data from different sources. It sends the URLs to the CPSV-AP validator by contacting through its API.

CPSV-AP validator
The validator checks the correctness of the data and provides back the conformance results to the Harvester. The API is based on REST API and the documentation can be accessed online.

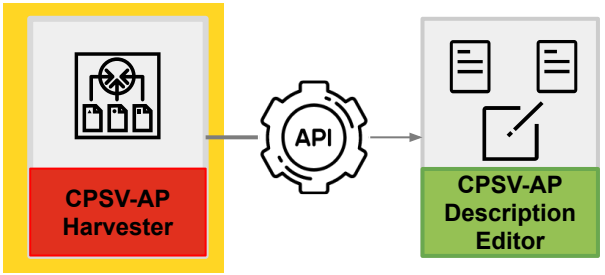
CPSV-AP Description Editor
The Description Editor connects to the Harvester through the custom build API. The API is based on REST API and the documentation can be accessed online.



2. Demo

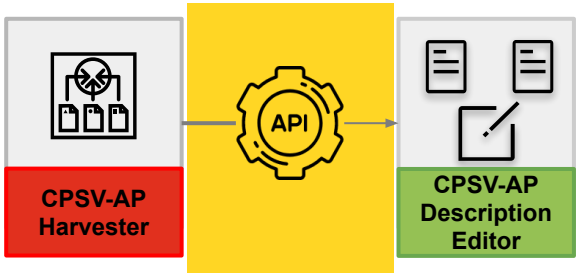

Step 1
Step 2
Step 3
CPSV-AP Harvester
API
CPSV-AP Description Editor
CPSV-AP Harvester
This service harvests one or more public service description files structured according to the CPSV-AP specification.
Visualise all data
Harvest
Clean data
Schedule harvesting
Show 10 entries
Search:
Type
Identifier
Additional info
PublicService
http://data.europa.eu/Finland/PSI/WasteManagement
Name: Waste management
PublicService
http://data.europa.eu/Finland/PSI/NotificationPrimaryProduction
Name: Notification of primary production premises
PublicService
http://data.europa.eu/FI/Documentandinformationservice
Name: Document and information service
PublicService
http://data.europa.eu/FI/Extractionofandresources
Name: Extraction of land resources
PublicService
http://data.europa.eu/FI/Fireinspections
Name: Fire inspections
PublicService
http://data.europa.eu/Finland/PSI/Noisenotification
Name: Environmental notification/noise notification
PublicService
http://data.europa.eu/FI/Pre-schoolseducation
Name: Pre-school education
PublicService
http://data.europa.eu/Finland/PSI/EnvironmentalPermit
Name: Environmental permit
Showing 41 to 48 of 48 entries
Previous
1
2
3
4
5
Next
PublicService
URI: http://data.europa.eu/Finland/PSI/WasteManagement
identifier: WasteManagement
is grouped by: http://data.europa.eu/BE/DoingBusiness
is grouped by: http://data.europa.eu/LE/Other
name: Waste management
sector: http://data.europa.eu/Finland/Sector/AgricultureForestryFishing
description: Under the Waste Act, all waste producers must treat their waste in a proper manner. If a resident neglects their waste management obligations, the responsibility will, on certain conditions, be transferred to the property holder. Organising the management of household and municipal waste is the responsibility of individual municipalities or the joint responsibility of a group of municipalities. Municipalities must also organise the reception and treatment of hazardous waste. Reception of hazardous waste generated in agriculture and forestry is, to a reasonable extent, the responsibility of municipalities. Manufacturers and importers of certain products also have waste management responsibilities. Under the Waste Act, as much as possible of the waste must be sorted and recycled or otherwise recovered.
has competent authority:
http://data.europa.eu/Finland/PublicOrganisation/EconomicDevelopment
CPSV-AP Description Editor
Home
Add content
Browse all content
Browse public services
Log In
Export
English
WasteManagement
View
Edit
Translate
Track
Devel
Name:
Waste management
Description:
Under the Waste Act, all waste producers must treat their waste in a proper manner. If a resident neglects their waste management obligations, the responsibility will, on certain conditions, be transferred to the property holder. Organising the management of household and municipal waste is the responsibility of individual municipalities or the joint responsibility of a group of municipalities. Municipalities must also organise the reception and treatment of hazardous waste. Reception of hazardous waste generated in agriculture and forestry is, to a reasonable extent, the responsibility of municipalities. Under the Waste Act, as much as possible of the waste must be sorted and recycled or otherwise recovered.
is grouped by :
DoingBusiness
Other
Has competent authority:
EconomicDevelopment
Sector:
AgricultureForestryFishing
User menu
My account
Log out

2. Demo - step 1: CPSV-AP Harvester



Public service: Waste management of Finland

2. Demo - step 2: Harvester API

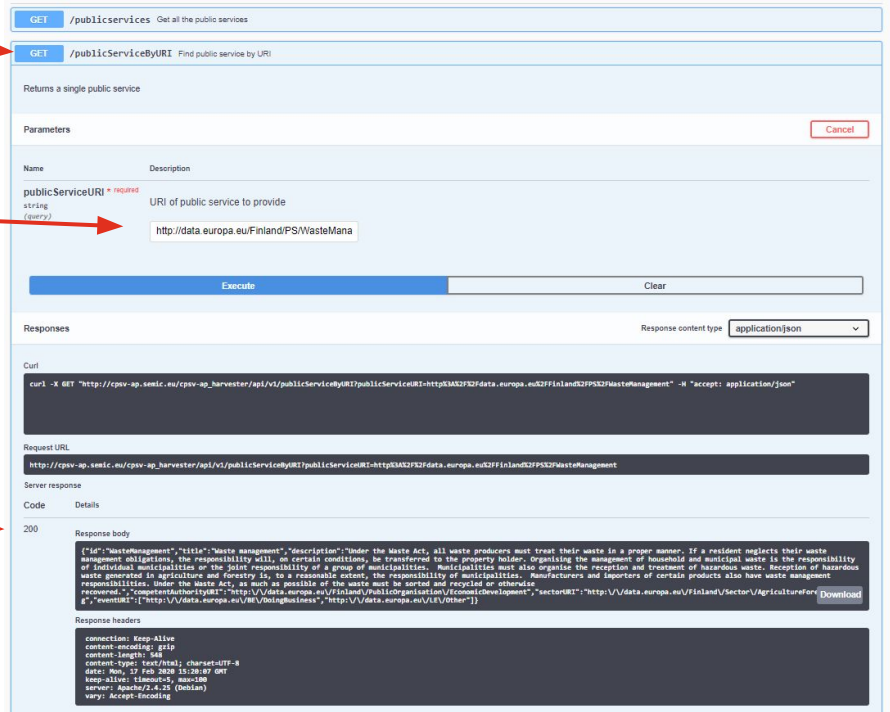


Public service: Waste management of Finland

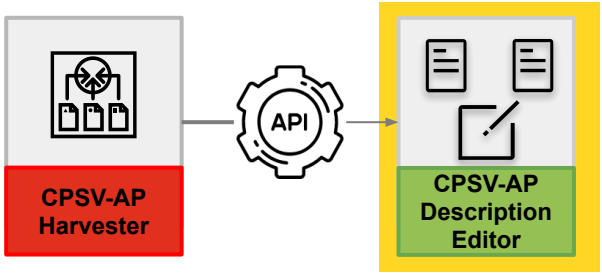
getPublicServiceByURI

Insert URI

Response



2. Demo - step 3: Description Editor



Public service: Waste management of Finland

CORE PUBLIC SERVICE VOCABULARY

CPSV-AP Description Editor

Home | Add content | Browse all content | Browse public services | Log In | Export

English

WasteManagement

View | Edit | Translate | Track | Devel

Name:
Waste management
Description:
Under the Waste Act, all waste producers must treat their waste in a proper manner. If a resident neglects their waste management obligations, the responsibility will, on certain conditions, be transferred to the property holder. Organising the management of household and municipal waste is the responsibility of individual municipalities or the joint responsibility of a group of municipalities. Municipalities must also organise the reception and treatment of hazardous waste. Reception of hazardous waste generated in agriculture and forestry is, to a reasonable extent, the responsibility of municipalities. Manufacturers and importers of certain products also have waste management responsibilities. Under the Waste Act, as much as possible of the waste must be sorted and recycled or otherwise recovered.
Is grouped by :
DoingBusiness
Other
Has competent authority:
EconomicDevelopment
Sector:
AgricultureForestryFishing

User menu

My account

Log out

Poll question

Poll: How would you realize the integration with the SDG with your own tools for describing, editing and harvesting public services?

Link: https://poll.ly/#/LeymKmEy

- ❏ REST API
- ❏ ...

Interactive session

How do you see the integration of your tools with the SDG?

Exercise: Create your own structure with pen and paper how your tools would be integrated with the SDG.

Components to use:

Harvester

validator

Description Editor

API

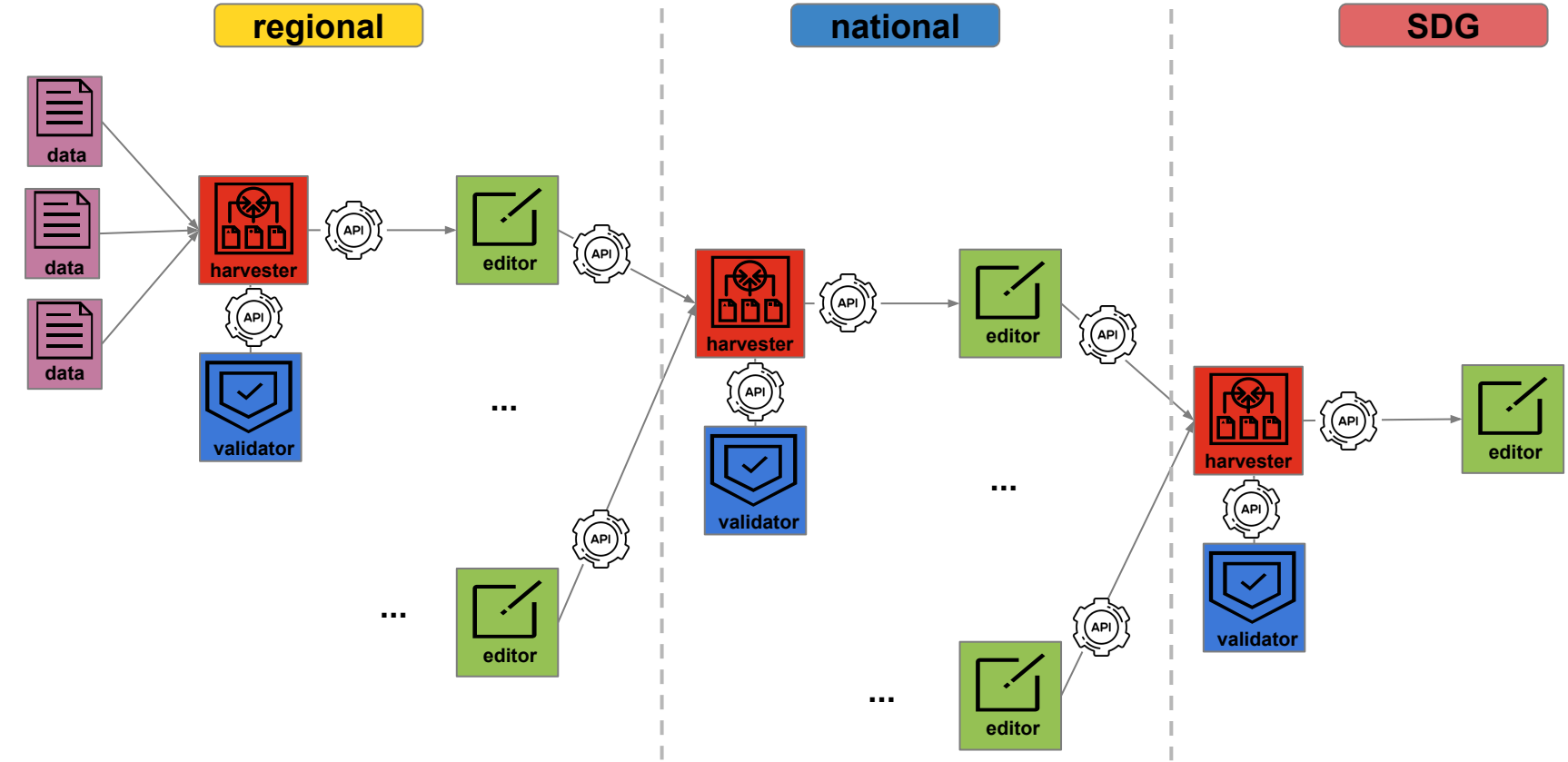
Public service data

Custom block

Levels to focus on:

Regional **National** **European**

Example of an application architecture for the repository of links - SDG



Conclusion

Parallel session 2:

What should the Catalogue of Services action do next to support you? In particular in the context of the SDG implementation?

Parallel session 2:

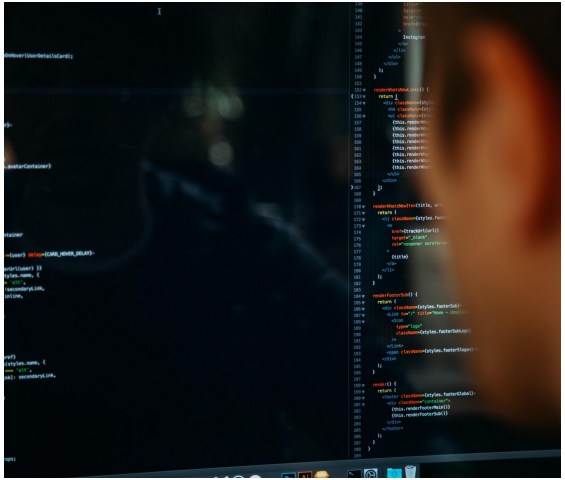
What should the Catalogue of Services action do next to support you? In particular in the context of the SDG implementation?

- SDG Data Model: core and extended
- Tools
- Technical support
- Provide governance and technical guidelines
- Marketing
- Other?

Deep Dive:
SDG Data Model

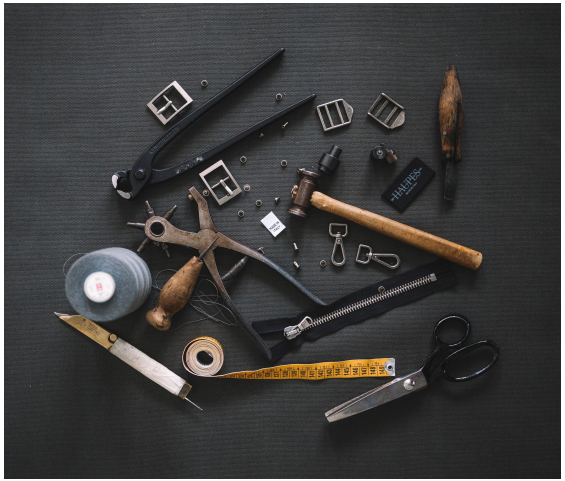
Organise webinars to improve the model or specific guided tours for a Member State.

Organise a workshop to improve the model.



Publish classifications as controlled vocabularies such as taxonomies of life/ business events

Deep Dive:
Tools

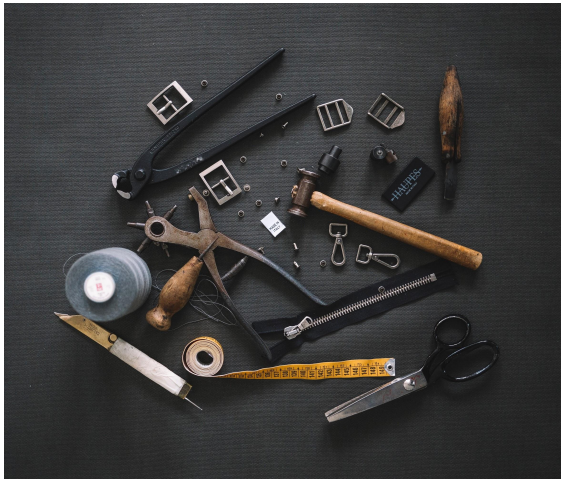


Additional tools

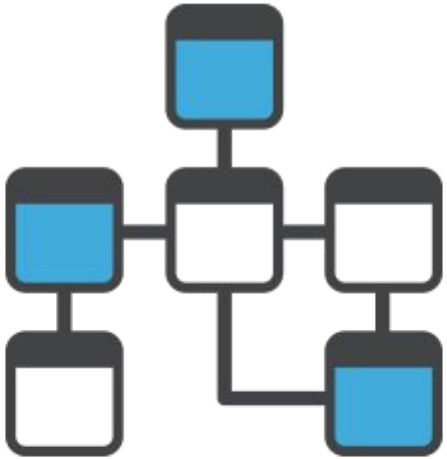
Improve the API’s between tools

Improving security of the tools

Deep Dive:
Technical support



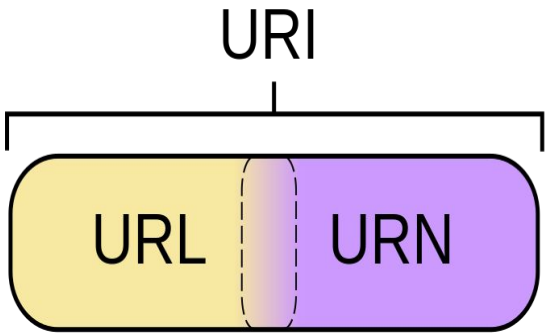
Integrating the tools with your systems (e.g. APIs)



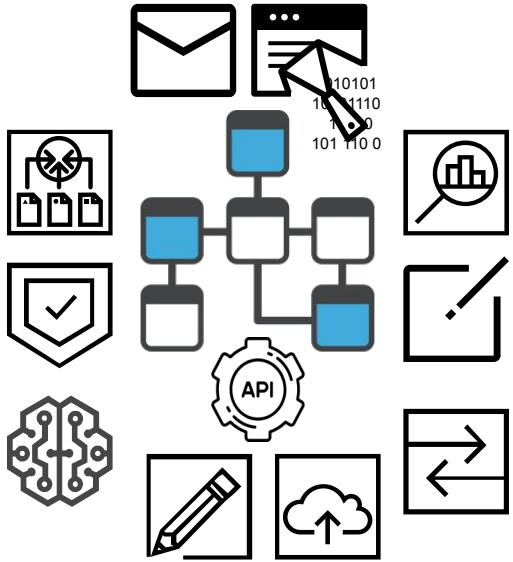
Support with mapping your data model with the SDG Data Model

Supporting the publicationof your public services in conformance with the SDG Data Model

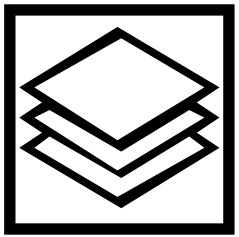
Deep Dive:
Governance and technical guidelines



Report on a European public service URI strategy



Report on the SDG Data Model ecosystem and comparison with current practices (comparison in cost, efficiency, etc.)



Help create and review IT/application architecture(s) for the data exchange as part of the SDG implementation

Deep Dive: Marketing

Convincing business people within MS to use and invest in (the SDG) data model(s) on national, regional or local levels

...

Conclusion

Report out

The floor is yours

5’ per group

6

Wrap-up

Topics to get inspired

Catalogue of Services - ISA²

Single Digital Gateway - DG GROW

European Commission

Annex

In annex you can find a short explanation on how a data model is created.

ISA²

How is a data model built?

Starting from the regulation and having in mind typical structures of information such as the previous tables, we identify the important information or classes:

Service

Title	Country	Geographic level	Event	Owner	Language
Providing proof of registration of birth	Spain	Local	Having a child	Municipality of Madrid	English, Spanish
Providing proof of residence	The Netherlands	Local	Moving to/from the country	Municipality of Utrecht	Dutch, English

Starting from the regulation and having in mind typical structures of information such as the previous tables, we identify the important information or classes:

Event

Name	Description	Output
Having a child	This life event groups public services related to becoming a caretaker for a child, for instance in case of giving birth, adopting, receiving a foster child…	Proof of registration of birth or birth certificate
Moving to/from the country	This life event groups public services that relate to when someone moves from one country to another.	Confirmation of registration at the current address
Starting education	This life event groups any public service related to education, for example pre-school education, elementary school, higher education and university…	Decision on the application for financing or acknowledgement of receipt
Looking for a new job	This life event groups public services for when someone looks for a new job or starts a new job.	
Driving a vehicle	This life event groups public services related to driving a vehicle, for instance car, motorcycle… Some example public services are getting your driver license, following driving lessons, registering your car…	

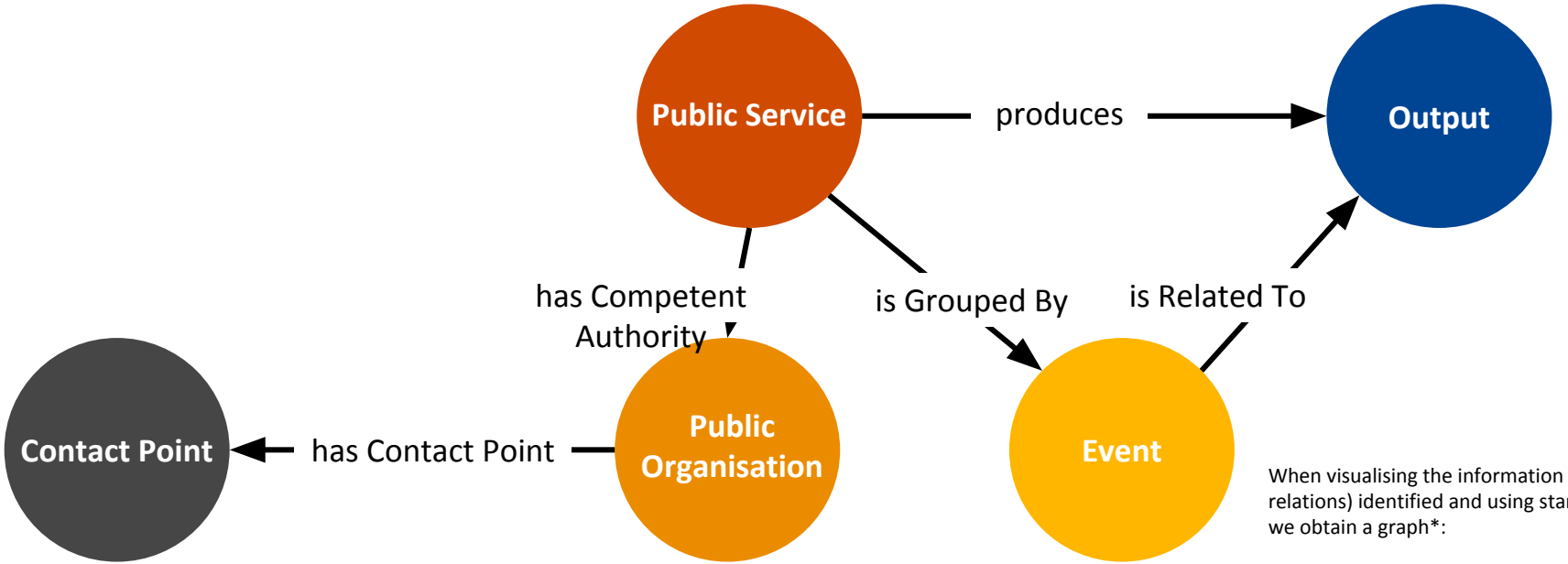
Public organisation

Official name	Preferred label	Geographic coverage	Contact
Municipality of Utrecht	Expat Center Utrecht	Local	Expat Center Utrecht, Stadsplateau 1, 3521 AZ Utrecht Tel. 030 286 00 00
Municipality of Madrid	Registro Civil	Local	Registro Civil, Calle de Pradillo, 66, 28002 Madrid, Spain Phone. +34 914 93 66 30

From the classes identified, we continue identifying the information used to detail further the classes and the relations between those classes:

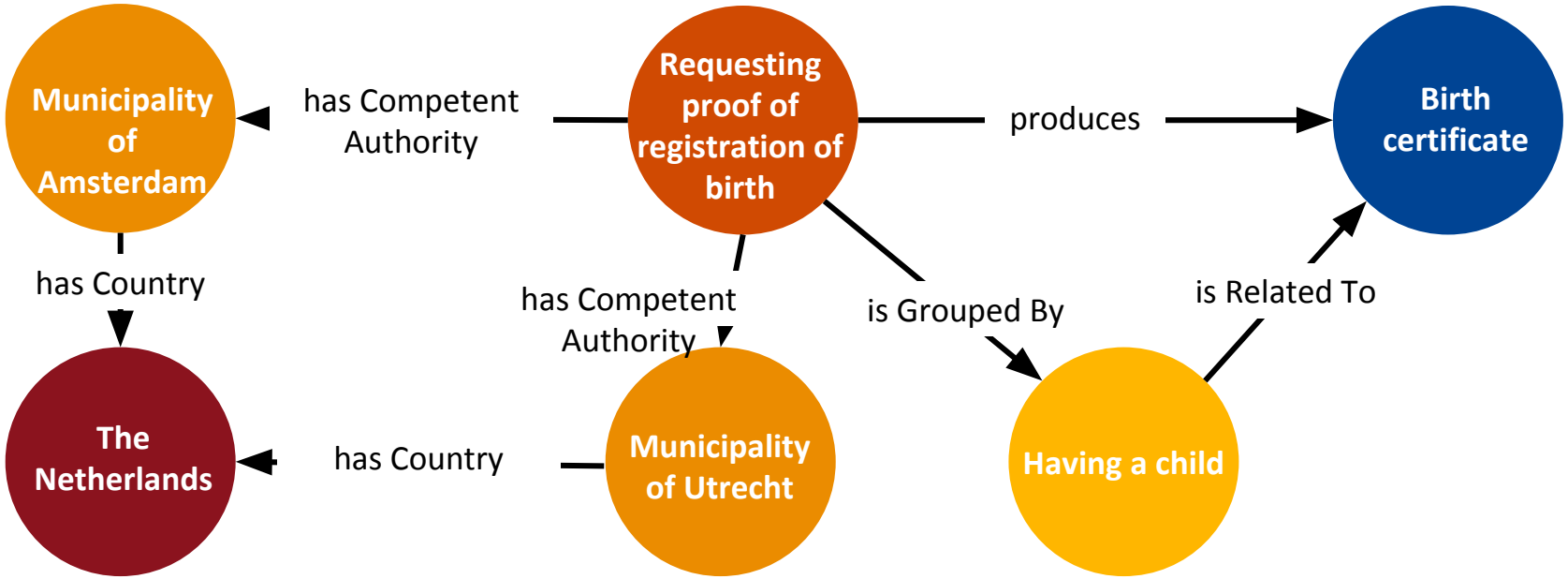
- Services have public organisations responsible for it
- Services produce outputs
- Services can be grouped by events
- Public organisations have contact point(s)
- Events are related to outputs
- …

When visualising the information (classes and relations) identified and using standard notations, we obtain a graph*:



When visualising the information (classes and relations) identified and using standard notations, we obtain a graph*:

A graph acquires knowledge once public administrations start using it with actual descriptions (data):



The power of a graph is that you can easily retrieve information based on simple queries.

And the more you add information, the more you create new connections you had not perceived before, enriching the search and quality of results the end-users obtain.

This is not only useful for the end-users.

A graph is a Web-based technology. It means that, once securely connected, your information can flow from one administration to another at the frequency of your choice.

And the owner of the descriptions will have only one place where the information needs to be maintained, at the level of his or her choice.