Practical example of a public service described using the SDG metadata model

This document describes an example of the description of a public service proposed in Finland and mapped to the SDG metadata model. The example illustrated below is an application for licensing/a protected occupational title. As a person, you would like to work in Finland as a general doctor. You know that you need to obtain a recognized access to the profession. In order to do so, you access the website of the public organisation responsible for delivering this recognition and you find a Web page describing the information you are looking for. Apparently, the first step consists in filling and submitting a form.

The two main sources of information are the form, available online¹ and showed in Figure 1 and the main Web page². For each section of the form, we present how it can be mapped to the model proposed with a visual representation of the relevant part of the model.

The objective of this example is to give you a quick overview of how the model can be used for sharing relevant information for the SDGR between administrations³. In a few cases, we also describe how the model is flexible and can be extended to your own needs.

1

https://www.valvira.fi/documents/18508/3651383/Hakemus_toimia_laillistettuna_nimike suojattuna_terveydenhuollon_ammattihenkilona_en.pdf/1b2dbab4-25bd-9be0-cee0-3c0b6365ac4d

https://www.valvira.fi/web/en/healthcare/professional_practice_rights/qualified_in_eu_e ea_member_state/protected_occupational_titles

³ This means that not all information provided in the form or Web page will be used.

Figure 1 – Example of a public service (application form for licensing / a protected occupational title)



APPLICATION I hereby apply for licensing / a protected occupational title

1 (2)

	To be filled in by the authority			
		D no.		
Licensed profession / profession with a protected	occupational title			
Degree / training		Date of graduation		
Educational institution		·		
Surname (also previous ones)		First names		
Identity number, or date of birth if not yet having	a Finnish identity number			
☐ I agr	ee to inform Valvira of m	ny Finnish identity number as soon as I have received one.		
Nationality				
Native language		I would like to have the decision (only one alternative)		
		in Swedish in Finnish		
Home address				
Postal code	Post office			
Domicile (municipality / country)	Telephone			
E-mail address				
I give my consent to having req	uests for supplementary	information sent to me by e-mail.		
Date and place				
Florestone		Print name		
Signature		Print name		
<u></u>		/ training is completed in Finland		
an official certificate of identity, or an officially certified copy of a passport or an identity card a copy of the diploma, certified by the educational institution in question, or officially certified by a Finnish register office				
Depending on the profession, other a	ppendices might be requ	ired (e.g. psychotherapist profession). For further information,		
please see the Valvira web pages www	v.valvira.fi			
Appendices to the application	n, if the education	/ training is completed outside Finland		
a document that certifies nation	ality, e.g. a copy of a pas	ssport or an identity card, officially certified by a Finnish register		
office, or abroad by an official representative of Finland				
 a copy of the diploma with appendices, officially certified by a Finnish register office, or abroad by an official representative of Finland 				

SDG metadata model

2 (2)

The application is sent to:	National Supervisory Authority for Welfare and Health Valvira P.O.Box 43 FI-00521 Helsinki				
Giving false or misleading information is an offence and can lead to prosecution under the Finnish criminal code (39/1889) 16 chapter 5 § or 7-8 §.					
Valvira will not return any documents or originals.					
An incomplete application and/or incomplete appendices will delay the handling of the application.					
Based on the application and appendices, a decision is made / a certificate is given, both of which are chargeable. The fee to be charged is determined according to the Finnish decree (asetus sosiaali- ja terveysalan lupa- ja valvontaviraston maksullisista suoritteista).					
countries in question.	lvira can verify my education / training by sending inquiries to the educational institutions or the				
Also other appendices (e.g. attestations of professional competence or other certificates) can be required depending on the country where the education / training was completed in (Nordic countries, EU/EEA-countries or outside EU/EEA-area). For further instructions, please see the Valvira web pages www.valvira.fi.					

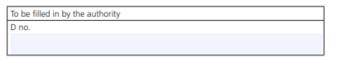
1. HIGH-LEVEL MAPPINGTOP OF THE FORM

Figure 2 - Example of a public service, top of the form



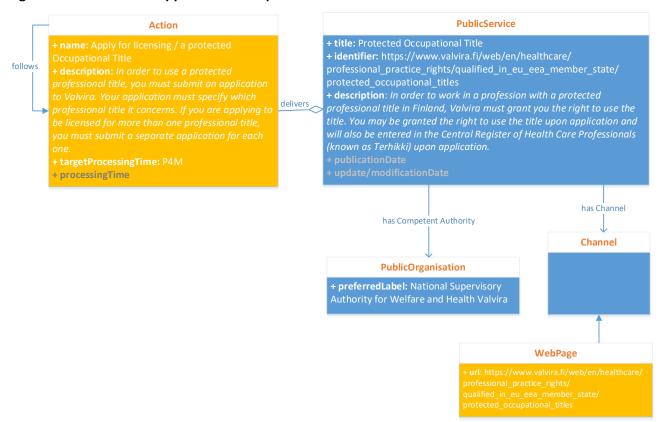
APPLICATION I hereby apply for licensing / a protected occupational title

1 (2



Starting with the upper part of the form, we can quickly identify the name of the public organisation, the title of the public service and the related action undertaken here via the form. If we add to this the descriptions provided directly on the Web page of the service, we obtain the following elements⁴:

Figure 3 - Elements mapped for the top of the form



⁴ The background colors are not important as part of this example. It only distinguishes elements aligned with CPSV-AP (in blue) from new elements not present in CPSV-AP (yellow).

The public service "Protected occupational title" has a competent authority, named "National Supervisory Authority for Welfare and Health Valvira". The most general action required in order to *deliver* this public service is to apply for licensing / a protected occupational title. The maximal estimated time for providing this delivering this action is four months (cfr. Web page) or in the notation used in the model, "P4M" (Period of 4 Months).

However, different choices could be made by the owner of this description while using the SDG model:

- The name of the public organisation could differentiate the official full name ("National Supervisory Authority for Welfare and Health") from the preferred label ("Valvira"). In this case, we have decided to use only one name.
- We did not find the publication date and last modified date of the public service description. As a consequence, we decided to leave those elements empty (in grey).
- The processing time differs from the target processing time. The former is an
 official period of time while the later is an estimated period of time. We
 understood in this case that the period given on the website is estimated
 based on the experience of Valvira's employees.
- There was no specific identifier mentioned in the form or the Web page of Valvira for uniquely identifying the public service. Therefore, we decided to use the URL from the Web page of this service. We did not ask Valvira whether this URL was persistent nor used in practice as identifier. Ideally, public administrations should use persistent identifiers (or persistent URIs).
- In the visual above, only one action is described, covering the whole period estimated for delivering the public service. This can be done differently and we encourage public administrations to use this element to its optimal potential. We could for instance imagine that going through this service requires multiple actions from the requestor and Valvira such as:
 - o [Requestor] Filling in the form and collecting the evidence/appendices,
 - o [Requestor] Sending the form completed and its appendices,
 - o [Valvira] Verifying if the appendices are issued by authoritative sources,
 - o [Valvira] Contacting the sources to attest the validity of the information or getting more information,
 - o [Valvira] Decide upon the recognition of the professional qualifications,
 - o [Valvira] Notify the requestor of the output of the service.
 - o ...

Each action which is part of this sequence could be described separately with an estimated time or an official processing time. The administration describing this service could also decide to insert an additional element for easily selecting whether the action should be conducted by the requestor or a public administration.

2. BODY OF THE FORM (1)

Figure 4 - Example of a public service, body of the form

	Licensed profession / profession with a protected occupational title		
ĺ	Degree / training	Date of graduation	
Ì	Educational institution		

This part of the form asks the requestor to clearly identify the title he or she would like to protect or obtain a licence for. Depending on the answer provided, the requirements and appendices can differ. From a modelling perspective, it means that we should be able to link the specific licensed profession requested with detailed requirements. Let's assume for instance that the licensed profession required is "general doctor/practitioner". This profession would require specific criteria such as:

- A Masters Degree in Medicine is needed
- A certificate of a licence to practice your profession is required (cfr Web page)

Each criterion requirement will need to be confirmed with evidence. In our case, the "degree" is the name of the evidence, with the educational institute and the "date of graduation" as specific elements of this evidence. This is illustrated in Figure 7. We will come back to the provision of evidence in section 1.5.

Figure 5 – Elements mapped for the body of the form (1st part)



3. BODY OF THE FORM (2)

The second half of the body mainly asks the person to provide personal information before asking for his or her consent and signature of the document. Within the SDG model, we focus only for now on the personal information even though the elements to be described and how they are described is entirely left to the appreciation of the responsible public administration.

Figure 6 – Example of a public service, body of the form (2)

Surname (also previous ones)		First names			
dentity number, or date of birth if not yet having a Finnish identity number					
☐ I agree to	☐ I agree to inform Valvira of my Finnish identity number as soon as I have received one.				
Nationality					
Native language		I would like to have the decision (only one alternative)			
		in Swedish in Finnish			
Home address					
Postal code	Post office				
Domicile (municipality / country)	Telephone				
E-mail address					
☐ I give my consent to having requests for supplementary information sent to me by e-mail.					
Date and place					
Signature		Print name			

In our example, we took the option of a Finnish citizen applying for this service. However, as indicated in the form, if the person does not possess a Finnish identity number, a date of birth will be required instead. The SDG regulation also requires to indicate whether the service is entitled to business, non-citizens residing in the EU or citizens. This is the reason why a boolean value is used to identify the user of the service.

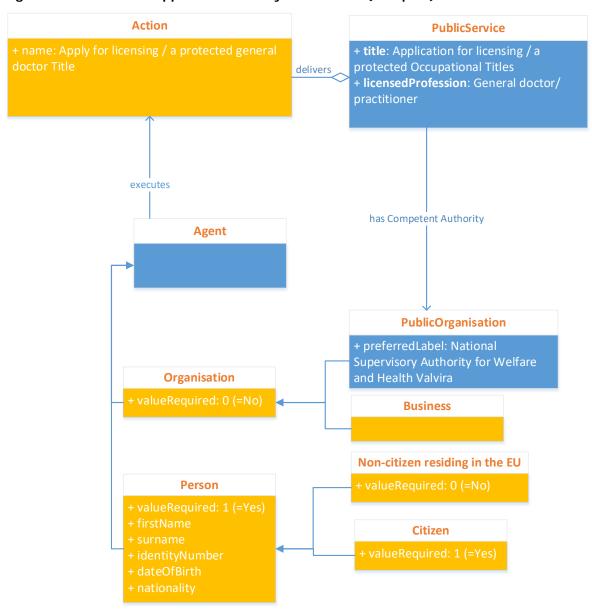


Figure 7 – Elements mapped for the body of the form (2nd part)

4. EVIDENCE

Diving deeper into the evidence required, we observe two types of evidence requested independently from the citizenship as shown in Figure 10:

- The proof of identity
- A copy of the diploma

Figure 8 – Example of a public service, evidence

Appendices to the application, if the education / training is completed in Finland an official certificate of identity, or an officially certified copy of a passport or an identity card a copy of the diploma, certified by the educational institution in question, or officially certified by a Finnish register office Depending on the profession, other appendices might be required (e.g. psychotherapist profession). For further information, please see the Valvira web pages www.valvira.fi Appendices to the application, if the education / training is completed outside Finland a document that certifies nationality, e.g. a copy of a passport or an identity card, officially certified by a Finnish register office, or abroad by an official representative of Finland a copy of the diploma with appendices, officially certified by a Finnish register office, or abroad by an official representative of Finland

When mapping this to the model, each initial criterion requirement asking for an evidence will also specify a format in which the evidence must be provided. Within the model, the format will be documented under a specific element named "Concept". This element regroups all classifications used, such as the formats in which a document or evidence must be provided.

In the Figure 11, we give two concrete examples for proving the identity and providing a copy of a diploma. The same mechanism can be applied to the second criterion requirement described before ("A certificate of a licence to practice your profession is required").

Please also note that a classification could be used for detailing the type of evidence. This classification was not used in this example and is consequently shown below in grey.

Concept {3} Evidence {3} + name: An official certificate of identity, or an officially certified copy of a passport or identity card Concept {1} **Criterion Requirement {1}** + format: pdf has Input -has Criterio Evidence {1} + name: Masters Degree in Medicine + graduationDate: 1999-09-23 + educationalInstitute: University of Helsinki **Criterion Requirement {2}** + description: Certificate of a licence to practice your has Input you have been licensed to practice your profession in a country other than Finland. This certificate must be no more than three months old and it must indicate **PublicService** that the licence is valid and not subject to any restrictions. If you have been licensed to practice your + licensedProfession: General doctor/ profession in more than one country, you must submit the certificates from all those countries in either the **Criterion Requirement {3}** has Criterion

Figure 9 - Example of a public service, evidence

5. END OF THE FORM

The end of the form gives some additional information about the fee that can be charged, the postal address to which a physical signed copy of the form can be sent or about the decision process in general.

Figure 10 - Example of a public service, end of the form

Based on the application and appendices, a decision is made / a certificate is given, both of which are chargeable. The fee to be charged is determined according to the Finnish decree (asetus sosiaali- ja terveysalan lupa- ja valvontaviraston maksullisista suoritteista).

An incomplete application and/or incomplete appendices will delay the handling of the application.

Valvira will not return any documents or originals.

Giving false or misleading information is an offence and can lead to prosecution under the Finnish criminal code (39/1889) 16 chapter 5 § or 7-8 §.

The application is sent to: National Supervisory Authority for Welfare and Health Valvira
P.O. Box 43

P.O.Box 43 FI-00521 Helsinki

Save as Print Empty

When mapping those additional information to the model, we obtain the Figure 13 where:

- Two extra actions are identified: the action of sending the application form and its appendices and the action of taking a decision whether the requestor could receive a licence or not.
- In our example, we decided to propose a cost which could be charged for receiving this service. This makes use of the element "Cost" described in the model. This element can also use a classification for the currency used for this cost.
- Once the decision is taken, an output can be produced to deliver (or not) the licence. Note that the notification itself could also be modelled as a specific action following the decision.
- The postal address to which the requestor can send the application form. This is captured by the contact point identified for Valvira for one communication channel (in this case "postal"). We could imagine that multiple channels are proposed for providing this form or even that some channels have an entire list of recognized contact points. Having both channel and contact point elements distinct enables this flexibility.
- The form refers to the Finnish criminal code and to the fact that giving false
 or misleading information is an offence and can lead to prosecution. This is
 not directly modelled in the SDG model we are proposing but could easily be
 added following for example the elements used in CPSV-AP: the legal
 resources and the rules followed by the service.

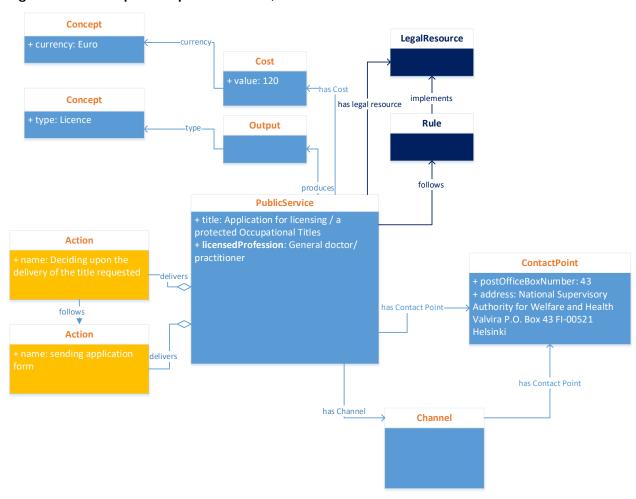


Figure 11 – Example of a public service, end of the form

6. CONTACT DETAILS

Figure 12 – Example of a public service, contact details

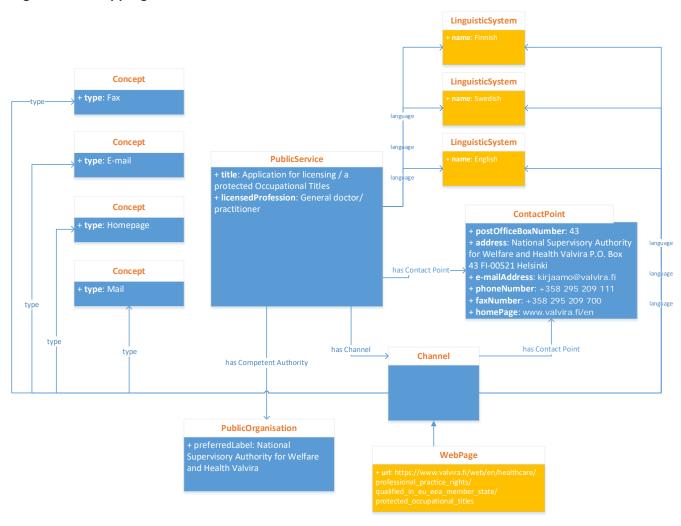
 Valvira
 PO Box 43
 Ratapihantie 9, 00520 Helsinki
 Switchboard: +358 295 209 111
 Record office kirjaamo@valvira.fi

 the National Supervisory
 Fi-00521 Helsinki, Finland
 Koskenranta 3, 96100 Rovaniemi
 Fax number: +358 295 209 700
 Home page www.valvira.fi/en

 Authority for Welfare and Health
 Home page www.valvira.fi/en

The different contact details provided at the bottom of the form can directly translated in elements in the SDG model. To the contact details, we can add the languages specified in the Web page in which the service is provided: English, Finnish and Swedish.

Figure 13 - Mapping of the contact details



7. TANGIBLE RESULTS OF STRUCTURING THE INFORMATION ABOUT THIS PUBLIC SERVICE

Throughout this example, we have seen how existing information from a public service currently used can be mapped and structured according to the SDG metadata model. If there is definitely a need to understand the definitions and relations between the elements, this example showed how flexible this model can be. Additional elements were added when needed, no consequent adaptations to the values were made to be able to structure the information. However, by looking at the same elements in a similar way, public administrations create bridges between each other for the information to flow easily and with high quality. It avoids for example that a country creates one classification for the type of channel and another country start using another one.

The core model that we are presenting in the next chapter represents the elements with which every public administration should start in order to share the right information for the repository of links. On top of this core, we have added other elements. All elements are coming from the regulation or are required in order to make correct links between concepts coming from the regulation.

Public administrations have more and more access to an enormous amount of information. Structuring that information is the first (big) step to create benefits for citizens, businesses and public administrations.

8. GRAPHICAL REPRESENTATION OF THE SDG METADATA MODEL

All the elements proposed in the graphical representations throughout the example are part of the SDG metadata model. We present the full model in a graphical representation below. The full specification gives all the technical details together with the context and approach as well as the example described here.

Figure 14 - Graphical representation of the relationships between the classes and properties of the proposed SDG metadata model

