A decorative graphic on the left side of the page consisting of several parallel, curved lines in a light purple color, sweeping from the bottom left towards the top right.

Common guidelines, good practices and lessons learned related to the management and governance of data standards

Case study template

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1 INTRODUCTION

This is a template for describing a case study documenting a data standard initiative in a specific country.

The case study will document practices and lessons learned related to the management and governance of data standards, i.e. their creation, maintenance, harmonisation, publishing and use.

Case studies will be developed by the members of the Community of Practice with the help of the editorial team (ISA Programme).

The collection of case studies will be the basis for deriving common guidelines, good practices, and lessons learned concerning the management and governance of data standards, or more general, concerning information management in the public sector.

In the context of this document, a “data standard” is defined by the European Interoperability Reference Architecture¹ as “a structural metadata specification that describes or defines other data [ISO/IEC 111179]². Structural metadata indicates how compound objects are put together [NISO]³. It can consist of among others data models, reference data, and identifier schemes.”

The template is already completed with information about the ISA Core Vocabularies, as an example of the kind of information that should be provided. Before documenting a different case study, the information about the ISA Core Vocabularies must be deleted.

2 OBJECTIVES

The objective of this work is to:

1. Share knowledge with the members of the Community of Practice.
2. Support new and on-going initiatives on data standards in public administrations by providing common guidelines, good practices and lessons learned concerning the management of data standards.
3. Identify alignment opportunities amongst the various initiatives.

3 SCOPE

A case study is considered within the scope of the current project if it meets one or more of the following criteria:

1. It relates directly to the management and governance of data standards.

¹ https://joinup.ec.europa.eu/site/eia/EIRA/EIRA_beta_dev/HTML/model.html

² <http://metadata-standards.org/11179/>

³ <http://www.niso.org/publications/press/UnderstandingMetadata.pdf>


2. It is about data standards targeting the implementation of IT systems having regional, national or cross-border coverage, or concerns the exchange of information between systems within or across borders.
3. It relates to data standards covering one or more policy areas⁴.

⁴ http://ec.europa.eu/yourvoice/consultations/links/index_en.htm

4 TEMPLATE FOR CASE STUDIES FOR THE DEVELOPMENT OF COMMON GUIDELINES, GOOD PRACTICES AND LESSONS LEARNED RELATED TO DATA STANDARDS

1. General information	
1.1. Title of the case study <i>(What is the title of the initiative described by this case study?)</i>	
Description	Service catalogue (based on CPSV-AP)
1.2. Policy domain(s) ⁵ <i>(What are the horizontal policy domains or domain-specific policies which are covered by this case study?)</i>	
Description	The service catalogue is applicable horizontally to all public services and has no specific policy domain.
1.3. Contact details <i>(Please provide the contact details of a person who could provide further details about this case study)</i>	
Description	riigiteenused@mkm.ee / risto.hinno@mkm.ee
1.4. References <i>(Please provide references to information resources about this case study)</i>	
Description	https://www.mkm.ee/en/objectives-activities/information-society/information-society-services https://www.mkm.ee/sites/default/files/the_analysis_and_suggestions_for_determining_the_owners_of_public_services.pdf
2. Business model	
2.1. Problem & challenges <i>(What are the problems which your data standards help to solve and how did you realise those? E.g. system integration, consistency, redundancy, integrity, cost reduction, quality of data, transfer of information between multiple IT systems, etc.)</i>	
Description	A service catalogue that is based on the CPSV-AP helps to create harmonized, machine-readable and semantically interoperable descriptions of Estonia's public services. Today, in Estonia there are many problems and challenges in the public sector. Using uniform data standards could be one solution that could help to solve these challenges:

⁵ http://ec.europa.eu/yourvoice/consultations/links/index_en.htm

	<p>-By using the service catalogue, it is easier to outline the problems that occur across public sector when offering public service and sets the basis for offering central solutions to these problems.</p> <p>- There is a lack of central view on the provision of services, and cooperation between ministries, also at regional level. Different registers with similar or even the same contents are created in different administrative areas. On the one hand, it requires resources to maintain such registers, and on the other, it forces people to submit the same data to different authorities. The service catalogue would be the first step towards re-evaluating the need for multiple registers and information systems.</p> <p>-The catalogue sets the basis for mapping cross-sector and cross-border services and initiate cooperation, enabling efficient and effective interaction between various public administrations (within nation and across borders) borders through the seamless exchange of data.</p> <p>- The service catalogue enables to evaluate and measure centrally the quality of the services across the public sector. It puts in place minimum requirements on national level for describing public services. Today, we do not have these standards in place.</p>
2.2. Targeted audience <i>(Describe your targeted audience in terms of direct and indirect beneficiaries.)</i>	
Description	<p>The targeted audience for the implementation of the service catalogue will be the citizens, businesses, authorities (national and across borders), e-Residents and foreigners who wish to seek information about Estonia's public services.</p> <p>The target audience will also be the public institutions that must describe public services in a standardized form.</p>
2.3. Solution <i>(Describe your data standards: what are the main entities modelled, which formats you use and whether they are accessible via the web to third parties)</i>	
Description	<p>Our service catalogue is based on CPSV-AP that we have adapted according to our needs. We have not developed our own data standards. The service catalogue is scalable, one module that can be put up on Government institution's webpages. It is accessible for everybody. Service description files are in JSON format.</p> <p>Machine readable format: https://www.riigiteenused.ee/api/en/all Service catalogue: https://www.mkm.ee/en/teenuste-otsing Data model:</p> <div style="text-align: center;">  Estonia service model ENG.xlsx </div>
2.4. Value proposition <i>(What value do your data standards bring to businesses, citizens, and public administrations?)</i>	

<p><i>Relevant questions that could be answered: Is the value for those who implement data standards? Or for the final users of the systems implementing your data standards? Or for both categories? For example, can your data standards lead to cost reductions for the implementation of certain IT systems or maybe faster to response of public administrations to requests from businesses and citizens?)</i></p>	
Description	<p>The value it brings to businesses, citizens and public administrators is as follows:</p> <ul style="list-style-type: none"> - The service catalogue enables a uniform presentation of the descriptions of public services on one platform. - The Government will have an overview about the services it offers. This sets the basis for enhancing the coordination of the public services development. - The service catalogue is a prerequisite for implementing the once-only principle, which ensures that citizens and businesses supply certain standard information only once, because public administration offices take action to internally share this data, so that no additional burden falls on citizens and businesses in due respect of data protection rules. The service catalogue enables the mapping of cross-sector public services that are gathered around one activity and that could co-operate without burdening the citizens or businesses. - The service catalogue also sets the basis for mapping cross-border services and helping to make cross-border transaction procedures quicker, simpler and cheaper for all parties.
<p>2.5. Cost structure <i>(What are the cost elements to deliver your value proposition? Please consider both fixed and recurring costs. Were your initial cost estimations accurate?)</i></p>	
Description	<p>For the implementer of the service catalogue (Ministry of Economic Affairs and Communications in Estonia) the costs have been:</p> <ul style="list-style-type: none"> -The analysis, development of the prototype and real catalogue of the service catalogue - cost €40 000. - The cost of follow-up developments of the existing service catalogue (improvements). Yet unknown. <p>For authorities the costs will be approx. €30 000</p> <ul style="list-style-type: none"> -The cost of mapping services within institution [the cost of mapping services: 2 hours (time for describing one service in the service catalogue) x number of services (around 2000) x €6.48 (average gross salary per hour in public sector⁶)] <p>There are no additional recurring costs.</p>
<p>2.6. Revenue streams</p>	

⁶ <http://www.stat.ee/>

<i>(How does the owner of the data standards fund the design and operational costs, e.g. sources of revenue and pricing model?)</i>		
Description	Public funding. Every authority itself will need to put in resources (time, money) to map services in the service catalogue.	
2.7. Key metrics <i>(What are the key metrics (or indicators) to assess the success of your data standards solution? Describe how you measure the success of your solution from the point of view of those who implement data standards).</i>		
Description	By 1 March 2016 overviews of all the public e-services offered under the ministries' governance areas and their quality assessments if possible (the reliability of the services, the end-user's administrative burden and satisfaction with the service, and the institution's development and administrative costs for providing service) must be published on their websites. The implementation of the service catalogue has been successful if all 11 ministries have published overviews of their e-services. The implementation of the service catalogue will also be considered successful if in public institutions there will develop a permanent role of a person responsible for the quality of services. With Google Analytics we are able to monitor the use of the service catalogue.	
2.8. Key activities <i>(Describe the necessary activities to generate the value proposition described above)</i>		
	2.8.1. Governance <i>(Provide information related to the governance, such as governance structure, enforcement policy, quality controls)</i>	
	Descript ion	The implementation of the service catalogue has been assigned by the Estonian Government. In the Ministry of Economic Affairs and Communications (Estonia), the Department of Information Society Services Development (hereafter DoISSD) will : - ensure the continuity and consistency of the implementation of the service catalogue in the public sector (Steering Committee) , - establishes the service owners' cooperation network (Working Groups) that will include the institutions' representatives that have been assigned as service owners and organizes its regular meetings. The meetings will ensure a continuous flow of information about the administration and measurement of services offered through e-channels and the assembly of instruction materials.

		<ul style="list-style-type: none"> - gathers feedback from the ministries about the implementation process (Operational Team), - notifies the various stakeholders about any changes in the process, - does the quality control.
	2.8.2. Management <i>(Describe how you cover the following management activities: design, change management including maintenance activities, harmonisation, publication, deployment and retirement.)</i>	
	Description	<p>The design of the service catalogue received input from a study about the portfolio management of public services ⁷(conducted in 2014). Models were developed within the framework of this study. Also, a prototype for describing and displaying public services on the institution's websites was made. The catalogue has been created in JSON format.</p> <p>The change management process is triggered by the Digital Agenda 2020 for Estonia⁸, sub-objective 5.3 Smarter Governance and Public Administration, measure 1 Development of better public services by using ICT, where amongst other activities, the focus is also on making the development of public services more efficient through developing a catalogue of services in order to get an overview of where, which, how many and at which level the local authorities and state agencies provide public services. In order to ensure the implementation of this activity across the public sector, the Estonian Government has approved 30.06.2015 the concept of service owners⁹ which requires that authorities appoint an accountable person who takes responsibility for the quality of services offered to the end user within his/her governance area.</p> <p>The harmonisation is done through the catalogue. By using the tool provided by DoISSD, an overview of the current state of public services will be realized which sets the basis for making decisions on further directions of public service development in Estonia.</p> <p>Publication – The service catalogue will be published on all 11 ministries' websites.</p>

⁷https://www.mkm.ee/sites/default/files/avalike_teenuste_uhtne_portfellijuhtimine_-_kokkuvote_tolkeks_ed.pdf

⁸ https://www.mkm.ee/sites/default/files/digital_agenda_2020_estonia_engf.pdf

⁹ https://www.mkm.ee/sites/default/files/the_analysis_and_suggestions_for_determining_the_owners_of_public_services.pdf

		For now (October 2015) the catalogue is viewable on Ministry of Economic Affairs and Communications in Estonia website.
	2.8.3. Tools <i>(Describe the tools that you use to support the aforementioned management processes)</i>	
	Descript ion	www.riigiteenused.ee is a platform created to describe public services. It allows to create a uniform overview of the public services. (Only accessible with password)
	2.8.4. Standards <i>(What are the industry standards which your development process complies with or directly reuses? E.g. standards endorsed by organisations such as ISO, CEN, W3C, OASIS, UN-CEFACT, OpenGroup, OGC etc.)</i>	
	Descript ion	We take point of departure from TOGAF®, an Open Group Standard.
2.9. Strengths <i>(What are the proven strengths of your data standards? Please base your description on facts as much as possible, to provide an objective overview)</i>		
Description	<ul style="list-style-type: none"> - The service catalogue is based on CPSV-AP. Thus, we are not developing our own data standards but taking in use already develop standards. This sets the basis for international scalability. - By basing our catalogue on one standard it allows to create a uniform picture of the current state of public services. 	
2.10. Weaknesses <i>(What are the weak points of your data standards, or limitations? Please base your description on facts as much as possible, to provide an objective overview)</i>		
Description	<ul style="list-style-type: none"> - There is little motivation amongst the authorities to use the service catalogue as many of them see it as an extra burden on top of their daily tasks. It requires extra resources (time, money) and there is no immediate benefits for the authority. - The service catalogue does not ensure that authorities will start making executive decisions based on the statistical view offered by the catalogue. - The service catalogue also does not ensure that citizens will use it when looking for information about public services. 	
3. Implementation experience		
3.1. Known implementations <i>Please list at least one practical implementation of your data standards (and specify if it is about country specific or cross-border implementations, pilot projects, or real life implementations), and any indication of their potential</i>		

<p>success. If you want to describe more implementations, please copy the section 3.1.1. below, paste it before section 3.2., and renumber it to 3.1.2.</p>			
3.1.1. Implementation			
<p>3.1.1.1. Description</p> <p><i>(Please include in your description also information about the implementer, such as: who is the implementer? When was the implementation done? What was the main reason to implement your data standards?)</i></p>			
		Description	<p>The service catalogue was first made as a prototype by the Ministry of Economic Affairs and Communications in Estonia and now has been implemented in real life. It has been in use since June 2015. The service catalogue sets the basis for providing information on public services in a user-centric way, helps to improve the Points of Single Contact and gives the State an overview of the public services it offers, the end-user's satisfaction with the offered services and the cost of providing it. Currently all the public services under the Ministry of Economic Affairs and Communications governance area are described in the service catalogue.</p>
<p>3.1.1.2. Contact details</p> <p><i>(Please provide contact details of a person who can provide further details about this implementation of you data standards)</i></p>			
		Description	<p>Risto Hinno</p> <p>risto.hinno@mkm.ee</p>
<p>3.1.1.3. References</p> <p><i>(Please provide references to information resources about the implementation of your data standards)</i></p>			
		Description	<p>https://www.mkm.ee/sites/default/files/the_analysis_and_suggestions_for_determining_the_owners_of_public_services.pdf</p>
<p>3.1.1.4. Success of implementation</p> <p><i>(How successful is the implementation of your data standards? If possible, provide any measured benefits that can demonstrate the success.)</i></p>			
		Description	<p>The service catalogue is useable. It has been used to describe the public services under the Ministry of Economic Affairs and Communications governance area (the</p>

			governance area is wide and includes very different types of services).
		3.1.1.5. Extensions <i>(Was there any extension of your data standards necessary for this implementation?)</i>	
		Description	The attributes of the service catalogue need to be improved. However, currently (October 2015) the details of what needs to be extended has not yet surfaced.
		3.1.1.6. Implementation support <i>(Was there any support requested from the development team who implemented your data standards?)</i>	
		Description	The service catalogue has been implemented by the DoISSD within the Ministry of Economic Affairs and Communications in Estonia. There is cooperation with a developer.
		3.1.1.7. Implementation challenges <i>(What were the challenges encountered during the implementation of your data standards?)</i>	
		Description	<p>1) Low motivation to use the service catalogue by the authorities:</p> <ul style="list-style-type: none"> - There are no direct, immediate benefits for the authorities. - Mapping public services through the catalogue is an additional time cost that requires resources that authorities have not taken into account. <p>2) The maturity level of various public authorities varies. Before reaching the level where institutions are able to implement different metrics and make decisions based on that, the level of maturity amongst public institutions needs to be more harmonized.</p> <p>3) There is no clear and uniform understanding of « public service » definition. Due to various interpretations it is difficult for authorities to map their services and describe them in the catalogue.</p>