

## Minutes of Meeting – ISA on-site visit to Sweden

<b>Project:</b>	ISA Action 1.1 Improving semantic interoperability in European eGovernment systems	<b>Meeting Date/Time:</b>	26/05/2014 – 27/05/2014
<b>Meeting Type:</b>	On-site visit to Member State	<b>Meeting Location:</b>	Garnisonen Konferens, Karlavagen 100, Stockholm
<b>Meeting Coordinator:</b>	Viktoria Hagelstedt	<b>Issue Date:</b>	16/06/2014

Attendee Name ( <i>present</i> )	Initials	Organisation / Email
Björn Hagström	BH	eGovernment delegation / open data
Anneli Hagdahl	AH	Ministry of Enterprise, Energy and Communications
Cecilia Bredenwall	CB	eGovernment delegation
Ulrika Domellöf Mattsson	UM	Swedish Environmental Protection Agency
Johan Westman	JW	Swedish Environmental Protection Agency
Jan Sjösten	JS	eGovernment delegation / Workgroup digital collaboration
Anders Rydén	AR	Lantmäteriet / workgroup digital collaboration
Mattias Ekham	ME	Swedish companies registration office
Gunnel Modin	GM	Swedish companies registration office
Monica Ljungmark-Afeldt	ML	Swedish companies registration office
Viktoria Hagelstedt	VH	eGovernment delegation
Kurt Helenlund	KH	eGovernment delegation
Mikael Skyman	MS	Förskringskassan
Odd Sivertzen	OS	eGovernment delegation
Athanasios Karalopoulos	AK	ISA Programme, DIGIT.B2, European Commission
Miguel Alvarez	MA	ISA Programme, DIGIT.B2, European Commission
Vassilios Peristeras	VP	ISA Programme, DIGIT.B2, European Commission
Niklaos Loutas	NL	PwC EU Services
Gerben Hoogeboom	GH	PwC EU Services

Excused Attendees	Initials	Organisation / Email
Alexander Alvsilver	AA	Vinnova
Erik Borälv	EB	Vinnova
Magnus Lingström	MLi	Transportstyrelsen

### Summary of Meeting Objectives

Overall goal of the meeting:

- Demonstrating the re-usability and/or easy adaptation of ready-to use ISA solutions.
- Indicating the savings that can be made with the ready-to use ISA solutions.
- Exploring ways for applying the ISA Core Vocabularies, ADMS, DCAT-AP and other ISA work on the field of semantic interoperability in the Swedish national policy.
- Explaining the future work with regard to implementing a Catalogue of public services in the context of the Service Directive.
- Share knowledge and experiences.
- Explain the Swedish approach to digital collaboration (including process, information, services, support, catalogues, architecture) and open data.

## Summary of Meeting

### Day 1

Topic	Summary
<p>Introduction By <i>Viktoria Hagelstedt</i></p>	<p><b>Viktoria Hagelstedt gives and introduction to the Swedish eGovernment delegation.</b></p> <p>In 2009 the e-Delegation was started. Twice a year a progress report is given to the government. The goal is to try to make life easier for business and citizens.</p> <p>The e-Delegation develops a strategy for interoperability, guidelines, service catalogue, information catalogue and a framework. Different sectors in Sweden have their own strategy such as e-health and education. There are also links with the European Interoperability strategy and Framework. The e-Delegation assists the government in international works. There are a number of general directions which have working committees, such as:</p> <ul style="list-style-type: none"> <li>• Digital collaboration;</li> <li>• Open Data; and</li> <li>• Security.</li> </ul>
<p>Introductory Swedish presentation by <i>Anders Rydén and Jan Sjösten</i></p>	<p><b>Introductory presentation by Anders Rydén and Jan Sjösten on digital collaboration.</b></p> <p>The presentation focuses on the digitalisation effort, the development of strategies and principles. The main topics for digitalization are:</p> <ul style="list-style-type: none"> <li>• Citizen focus;</li> <li>• Open linked data; and</li> <li>• Reuse of legacy mainframe systems.</li> </ul> <p>All the work done is not enforced on the agencies. The agencies have a lot of autonomy; they decide for themselves what happens.</p> <p>Changeability is key. e-Delegation is looking for a way to decrease internal complexity due to the involvement of many different stakeholders, but still have many players involved.</p> <p>There are 3 levels of cooperation, enterprise, partnership, federation. Federation has the most complex situation; in Sweden they will have all levels. For the most complex situation there will be a federation model, but not everyone will be at this level. Sometimes it is just communication between two agencies which means less complexity.</p> <p>When development first started, there was a focus on technology, but later the focus shifted to the business area to increase interoperability. The application and technology layers in architecture only increase the complexity; therefore they are left out of scope. The focus is on business and information and services. However, AR mentioned that there is still a need for good descriptions of applications at business and information level.</p> <p>Key in development are always the following three aspects:</p> <ul style="list-style-type: none"> <li>• What's in it for me;</li> <li>• Financial situation; and</li> <li>• Legacy systems.</li> </ul> <p>The E-Delegation talks about processes, information and services. Everything is service oriented.</p> <p>There has been development of</p> <ul style="list-style-type: none"> <li>• A catalogue of services, i.e. a list of descriptions of business services - not web services. In the service catalogue services are grouped/linked together. To find for instance multiple services for childcare.</li> <li>• The information catalogue contains a collection of information exchange models, e.g. definitions of concepts and data models, used in in the processes.</li> <li>• The information catalogue is linked to business modelling and life events.</li> </ul>



<p>Introduction: The ISA programme: What's in it for you? General presentation on semantics (ADMS, Core Vocabularies, Open data, DCAT-AP). What is the scope of this visit? <i>by Vassilios Peristeras</i></p>	<p><b>General ISA Presentation by Vassilios Peristeras.</b></p> <ul style="list-style-type: none"> <li>VP explains the focus of ISA Action 1.1 is on semantic interoperability and explains how different countries work in the same area but use different words. The purpose of this visit is to communicate about the work that is being done by ISA on (semantic) interoperability. The purpose of the visit is also to learn from the e-Delegation, ISA is very interested in what is being developed on a national level.</li> </ul> <p>VP proceeds with the semantic interoperability presentation</p> <ul style="list-style-type: none"> <li>VP introduces the Core Vocabularies and other semantic standards developed by ISA.</li> <li>VP explains that the Core Vocabularies follow the modelling by extension paradigm.</li> <li>BH asks where all are the Core Vocabularies stored? VP explains that they are all on Joinup, which will be presented on the second day. BH indicates that he does not know where to look on Joinup. NL explains that there is a tab, where you can find all the solutions.</li> <li>VH asks how the Multi Stakeholder Platform (MSP) is connected? VP: there are a lot of connections that will be described during the CAMSS presentation.</li> </ul>
<p>Swedish activities with regard to semantics <i>by Viktoria Hagelstedt and Gunnel Modin</i></p>	<p>The following goals are stated:</p> <ul style="list-style-type: none"> <li>A simpler model for business and citizens.</li> <li>Have open government supporting innovation and participation.</li> <li>Higher quality and efficiency.</li> <li>Make it simpler for public administrations to exchange information.</li> </ul> <p>The focus is on information models (instead of data models) in order to be closer to the business side.</p> <p><b>From life events to information exchange.</b></p> <p>Life events are important stages in the life time of a person or a business. For instance, you work, you get fired, you are unemployed. In order to fulfil a life event, a citizen/business needs to interact with the government, i.e. what does the citizen needs to do with several public administrations to realize this life event?</p> <p>The idea behind life events is to look at public service provision from the customer's point of view, i.e. how to deliver value to the customer, not the interest of a public administration.</p> <p>The e-Delegation has developed collaborative processes. These collaborative processes give an answer to the question, what information can be exchanged directly between public administrations during a life event instead of asking the citizens? VH indicates that the business case on the reuse of semantic interoperability solutions as expressed in the presentation by VP is very interesting. There is an interest to research what it would cost if Sweden does not standardise.</p> <p>The most important principles for the e-Delegation are focusing on exchanging information that is understood by the actors (agencies) and on sharing the development of semantic interoperability solutions between agencies.</p> <p>In it is hard for non-technical people to understand the meaning of data as a term. That is why e-Delegation talks about information. A concept is understood as well. The e-Delegation uses concepts from their own background (at the agencies they work for) as a way of communicating</p>

	<p>with agencies what is meant by concepts, models and re-using.</p> <p>Concept definition: the concept is what you use to communicate; the information exchange is the detail of it.</p> <p>An information exchange object can contain multiple concepts.</p> <p><b>Information exchange catalogue</b></p> <ol style="list-style-type: none"> <li>1 Information exchange catalogue to link description and services that is where the interest for ADMS comes up. This work has not started yet.</li> <li>2 The information exchange catalogue lists descriptions of information exchanges, in terms of metadata and data model, the main purpose is reuse.</li> <li>3 The information exchange catalogue allows for traceability between services and information exchanges</li> </ol> <p>VP do you have a meta-model of what you call a concept, attribute etc. and how they are related? VH and GM indicate that this is not yet available. VP asks how the e-Delegation communicates what a concept is? This is a topic to be discussed further on the 2<sup>nd</sup> day. VH and GM show a picture of the relationship between process catalogue, information exchange catalogue and the service catalogue. The ISA team finds this very interesting to discuss during the workshop.</p>
<p>Swedish activities with regard to open data by Björn Hagström</p>	<p>The National guidelines on Open Government Data include two recommendations for reuse:</p> <ol style="list-style-type: none"> <li>1. Open up data for reuse that is free of charge and without hindering licenses.</li> <li>2. Upon request, share information digitally.</li> </ol> <p>The e-Delegation has developed a checklist to get started:</p> <ol style="list-style-type: none"> <li>1. describe how you share information</li> <li>2. check your information (law requirements)</li> <li>3. publish information</li> <li>4. describe conditions for reuse. The Creative Commons license is recommended.</li> </ol> <p>There are several developments on Open Data and PSI.</p> <ul style="list-style-type: none"> <li>• PSI data check developed with Vinnova.</li> <li>• PSI-datakollen is also meant to draw attention and get people started. Organisations are encouraged to use this.</li> <li>• National guidelines are published. First as pdf, but this has been translated to a website, each guideline is now directly linked.</li> <li>• There is also a Facebook page on Open Data (<a href="https://www.facebook.com/pages/Opengovse/113484555356406">https://www.facebook.com/pages/Opengovse/113484555356406</a>) , but this is not started by the e-Delegationen.</li> <li>• There is a twitter account to promote open data and reuse.</li> <li>• There is a forum on Open Data: Involved parties are the e-Delegation, Vinnova, SKL (Swedish association of local authorities and regions) regions and municipalities, Ministry of enterprise. This is Organized 2 or 3 times a year. It draws about 80 people and more via webcast.</li> <li>• The Swedish open data portal is available at <a href="http://opnadata.se">opnadata.se</a></li> </ul> <p>There is a Government assignment to Vinnova for the period of 2012-2015 to build and maintain a site for the publishing of public sector information. There is an ongoing discussion on how to do this. The following development progress has been made:</p> <ul style="list-style-type: none"> <li>• First Vinnova had a fat server, then a thin server with manual entry of datasets.</li> <li>• Now they have a thin server, auto harvest work by OKFN, this uses DCAT-AP.</li> </ul>

The current challenge is that everything has to be published according to the DCAT-AP. The DCAT-AP is not yet tested in practice. Furthermore Eurovoc is not easy to apply and use. There is still a lot of use of the CKAN model for describing datasets.

- PwC will organise a meeting with the Publications Office and e-Delegation, where challenges related to the application of Eurovoc in Sweden will be discussed.
- PwC is already creating mappings to from national dataset models to Eurovoc in the context of the Open Data Support project. VP indicates that it would be good to share this experience with Vinnova and e-Delegation.

VP asks if there is a centralisation model for Open Data? BH indicates that it will be a federated model, because there is no added value to create one central file. VP indicates that DG Connect is following a similar pattern for the pan-European data portal. VP explains that Germany has a similar approach, because they have a federated model. NL: Germany is not using the DCAT-AP, there is a model from German speaking countries, which is fairly aligned to the DCAT-AP.

BH indicates that one of the problems is the publishing of open data on a local level and their description with the DCAT-AP as municipalities just use lists (descriptions of Open Data) generated from their CMS and the CKAN model. BH indicates that two CMS's in Sweden have about 90% of the market for municipalities, hence automating this would be feasible and would scale.

VP asks if a generic tool to generate DCAT-AP compliant descriptions would help? The tool should integrate the existing methods and be able to publish and update everything at once. BH is interested and would be willing to participate to give input from Sweden.

BH indicates that Vinnova will present their experience in September at the next meeting of the open data subgroup of DG CONNECT.

VP asks if there is a documented approach. BH indicates that this is not available. Guidelines from e-Delegation have a heavy focus on Legal implications, and a little bit to get you started in form of a checklist etc. They are planning to create more guidelines to include in the national guideline; this is currently under development.

VP informed BH that a call for tenders on the pan-European data portal is about to be launched. Input from Member States to the tender specifications is welcome so that their real needs are reflected. UM recommends discussing the tender also with the European Environmental Agency.

#### **Open Data business model**

The Swedish problem concerning publishing open data is that a lot of base registers / companies are funded via fees/selling their data. Although there is interest in open data, if they were to make it open data they would need to overhaul their financial model. VP mentioned that DG CONNECT will create principles on how to publish data. This could be of interest for Sweden.

Sweden is heavily influenced by the Norwegian model, they started out with a price model and the reuse was minimal. Then the price was lowered and the reuse increased. Eventually data was made freely available and the most reuse appeared.

PwC to share with BH the link to the survey on Sharing & Reuse strategy action and a link to the study on Linked Open Government Data business models.

For example, BH indicates that the mapping agency has really good API, but they ask a fee for it. It is mostly a licensing and fees issue. The aim is to eventually get most / all PSI to open data.

VP talks about the Danish model, all basic data will become available for free. The question is

	<p>how they will do this (legal, privacy etc.). How far along are they? BH indicates that they will be on the open data conference at the 27<sup>th</sup> of May, BH will provide more information after this conference.</p>
<p><b>End of day 1</b></p>	
<p><b>Day 2</b></p>	
<p>Presentation on Joinup by Nikolaos Loutas</p>	<p>NL gives a presentation on the use of Joinup and the benefits, focusing on the catalogue of Interoperability Solutions.</p> <ul style="list-style-type: none"> <li>• It is asked if national solutions can also be posted on Joinup, even though it is just of use for the national solution? Yes, for example Oslo.</li> <li>• BH indicates that there are not a lot of places to look for existing models. There is schema.org and now Joinup. So Joinup is a welcome addition to look for solutions.</li> <li>• The e-Delegation now uses facebook, but it is not really a platform for collaboration or for storing data.</li> <li>• BH asked how does ISA coordinate what is published on Joinup? How do you avoid conflicts when you only publish the description?</li> <li>• VP explains that in Germany a special agency was established to maintain a central library of metadata description. It has a federal mandate to maintain everything. It is meant to: <ul style="list-style-type: none"> <li>○ Maintain the core model;</li> <li>○ Allow users to develop their own models;</li> <li>○ Users can publish their models; and</li> <li>○ Then communities will come to existence. NIEM is another example.</li> </ul> </li> </ul> <p>VH indicates that the e-Delegation has thought of that, but that they are not there yet.</p> <ul style="list-style-type: none"> <li>• VH indicates that there are lots of models and services, but there is no conceptual model (for context). Today these are being developed, both top down and bottom up. Now it is time to discuss the conceptual model. VH indicates that there had to be internal consensus first, that's why they deviated from the Core Person Vocabulary. Now that the model is finished, there can be a discussion again on aligning with the Core Person Vocabulary. So far there is no implementation yet, administrations need to be encouraged.</li> <li>• AK asks what the plans are for promoting the models that the e-Delegation has created. Will this be a central organisation? VH explains that the e-Delegation just has the mandate to suggest solutions to the government, but the mandate for deciding is only on Ministry level. There are development agencies that are responsible for some areas. The mandate is to vague The Swedish tax agency is now responsible for person. The Companies registration office is responsible for business. Further then that there is no mandate.</li> <li>• VP advises to try implementing them in new systems first. Do not change existing systems; rather provide formal mappings to the core models to make them interoperable.</li> <li>• VP asks what the standards will be for the concept model and the information model. For the data model it will likely be an xml schema, but what other standards are used? VH explains that this has not yet been decided. VP recommends that for the information model this would be a UML diagram because both humans and machines can read it and UML standardizing is preferred, because it can have different technical implementations.</li> </ul>

	<ul style="list-style-type: none"> <li>• JW refers to VP's explanation of the Core Vocabularies and how it serves as a thin layer, but what is the level of detail? How thin is the top layer, what is to be standardized, what is mandatory? How do you determine how thin it is. What is the experience from that kind of work?</li> <li>• VP explains that this depends on the level. On a European level it should be very thin, on a national level it can be a bit broader, on the local level it should be biggest. DCAT-AP and core vocabularies are on the top level. VP recommends looking at LOLA for local authorities agreements on OSLO.</li> </ul>
<p>Presentation on eGovernment strategy / life events by Mikael Skyman and Kurt Helenelund</p>	<ul style="list-style-type: none"> <li>• There is a vision document for 2020 on the eGovernment strategy.</li> <li>• The customer should be the central focus of public services; all services should be based on that. The customer's entire life is mapped to life aspects like health employment and education. Life aspects are different for companies and persons, so there are separate sets. Customer behaviour is mapped to social services (from a citizen point of view) to tailor the service.</li> <li>• What is a collaborative process? The process that the government should perform to service the client, the actions should also be included. The service that is modelled should be in the service catalogue, the description should be in the information catalogue. The service catalogue refers to the information catalogue. The basic building blocks are not clearly defined yet.</li> <li>• Right now the customer is coordinating everything. This needs to change so that the government is coordinating for the customer.</li> <li>• The development is to come from disjointed processes and cooperative processes to collaborative processes, a strategy for gradual maturity.</li> <li>• By modelling the collaborative process, the individual problems in the process stream can be defined and can be tackled one-by-one.</li> <li>• VP asks if there is a template for the way that the e-Delegation is describing a process? MS indicates that this is still under development.</li> <li>• VP this is a good connection with the core public service vocabulary. What in this presentation is called a process, ISA models with the Core Public Service Vocabulary.</li> <li>• VP asks if there is a list of all processes that have been specified. This is being developed at the moment. It would also be useful to publish this on Joinup. The Core Public Service Vocabulary could certainly be reused.</li> <li>• VP explains about Public Services Portfolio Management. The e-Delegation asks if this is based on the life events? VP explains that this is not the case in Estonia, but the Life Events layer is one layer above the Estonian solution. If you have a repository that has all the services collected and linked, then on top of that there could be a Life Event layer that links the services to the life events. The life events layer could be different per country. An example of this from Sweden would be very useful. Also this allows countries to compare the services and improve or get ideas and of course to find services. This method creates a direct link from Life Events to services that are offered by the public administrations. It is a sort of guidance, if this could be automated then we have an automatic execution of the life events.</li> <li>• In Estonia the main building block to build on is a core model; this model is based on the Core Public Services Vocabulary. It would be very useful to bring Sweden in contact with the Estonian colleagues to talk about the model in Estonia.</li> </ul>

Open discussion on the service catalogue, information exchange catalogue

- VH explains what is meant by the service catalogue in Sweden. The intended users are the Swedish public administrations or municipalities that want to use machine readable services. There is a list of services and which organization has made it. On the site you can order yearly reports, find out if it is in use, keywords, how you can use it, where to login, the URI.
- The service catalogue is a way to publish the services and let administrations know what to find where. Today the service catalogue is mixed up, machine-to-machine (crf. Nationell Tjanstekatalog), but also towards citizens (public services). For instance, 'my messages' is a sort of shared services solution. At the moment you can't actually see the information that is available in the service; the next step should be the link to life events.
- The information exchange catalogue is something like a national collection of semantic assets and the core models. Including also descriptions of information exchanges (data models, definitions of concepts). An information exchange does not need to be electronic, it can also be manual the electronic part of it is supported by a service.
- Life events need to be described in a catalogue, the same goes for information, processes and services, these should not be separate solutions, but as of now it is unknown how this will be integrated. At this moment the service catalogue is being rebuilt. Questions are, do we need core models? How will that be handled? Will this be in the information exchange model? can we link this to Life Events? What about traceability?
- On the concept side there is a process catalogue, but it is not clear yet what will happen with this. The process layer is the link to all the catalogues. In Sweden the problem is that their definition and conceptualisation of service does not relate to Life Events]. It would be interesting to establish a link between Sweden and Estonia (and keep PwC in the loop). The e-Delegation is working on a meta-model that links all the catalogues together. ISA is very interested in this model and would like it to be shared.
- VP leads a discussion to try to define the catalogues and the links between them.
  - The service catalogue lists all technical services that are available; these are linked to descriptions in the information catalogue.
  - The information catalogue is for the information exchange models, not only models but also descriptions. It is a data model with descriptions. Each entry is a conceptual model that links to the service catalogue.
  - The process catalogue is a collection of life events (close to how ISA understands and scopes the catalogue of public services). A life event is seen as a container that contains processes. Which process is triggered depends on the actions. The Life Events are meant to scope the right set of processes. One-to-many relationships between Life Events and actions and services can exist (alternatives).
- Collaborative processes are modelled as an action. The granularity needs to be clearly defined. The reason for modelling life events is to find all the relations (between processes) that are involved. In the presentation by MS it was expressed that 'rules' are a black-box, this was done to reduce complexity. The concern is that unless you see the rules, it is impossible to know what questions to ask the citizen. VP and NL however emphasised the importance of modelling rules in order to be able to personalise the Life Event, which is a point on Sweden's agenda when it comes to future work.



- The overall Swedish solution will be presented in a guideline which they are still working on. This will explain the bigger picture. An interesting addition to the guideline can be the use of Integrated Public Services Portfolio Management (like the example from Estonia).

End of day 2

Action Nr	Related Task	Action description	Target Resolution Date	Action Owner
01		Organise a new meeting with the Swedish e-Delegation to discuss the use of Core Vocabularies	2014-06-27	AK
02		Organise a new meeting / coordinate Open Data. From the e-Delegation BH, UM and JW should be involved. Vinnova should also be included.	2014-06-27	AK
03		The e-Delegation to contact ISA as soon as they have prepared a first set of ADMS descriptions of Open Data. ISA can then support this effort with the experience already on hand and ADMS descriptions could be published on Joinup.	TBD	GM / ME / ML
04		e-Delegation to share guidelines that they will produce these coming weeks. The main topic of interest is the information exchange catalogue	TBD	GM / ME / ML
05		Bring the e-Delegation in contact with Estonia to talk about Public Services Portfolio Management. After this contact exchange views and ideas. ISA should be involved in the discussions.	2014-06-27	NL / GH
06		e-Delegation to share work on life events that is currently under development. MS will serve as primary contact	2014-06-27	MS / KH
07		e-Delegation to share guidelines and meta-model on process repository, information exchange catalogue and service catalogue, when it becomes available. ISA is also very interested to see how the idea of Swedish life events and information exchange catalogue could be integrated with Public Services Portfolio Management.	2014-06-27	VH / AH
08		e-Delegation and PwC to plan a meeting on the mapping of ISA Core Vocabularies to the Swedish Companies registrations model.	2014-06-20	GH
10		PwC to share with BH the link to the survey on Sharing & Reuse strategy action and a link to the study on Linked	2014-05-27	NL
11		BH to provide more information on the Danish model after the open data conference at the 27th of May.	2014-06-20	BH / AK
12		UM to send contact information of the contact person at the European Environmental Agency so that the tool they are developing can be discussed. The tool is to publish DCAT-AP descriptive metadata.	2014-06-27	UM / VP / NL
13		PwC to create account for ME and GM on Joinup. There are problems with creating accounts.	2014-06-20	GH