

Minutes of Meeting

Action 2016.07 – promoting semantic interoperability among EU Member States

Meeting Title:	Implementing ISA ² Core Vocabularies in JSON-LD	Meeting Date/Time:	26/01/2018 14:00 – 16:00
Meeting Type:	Webinar	Meeting Location:	Web conference
Meeting Coordinator:	Makx Dekkers	Issue Date:	31/01/2018

Attendee Name	Initials	Organisation / Email
Alessandro Celli	AC	Informatica Trentina
Andrea Piccinini	AP	Autorità Nazionale Anticorruzione
Bart Hanssens	BH	BOSA - Belgian Federal Public Service Policy and Support
Bert Van Nuffelen	BN	Tenforce
Brecht Van Vijveren	BV	Ghent University – IMEC
Emidio Stani	ES	PwC
eveline.vlassenroot	EV	Ghent University – IMEC
Fidel Santiago	FS	ISA ² Programme – European Commission
Giovanni Paolo Sellitto	GP	Informatica Trentina
Geert Thijs	GT	Informatie Vlaanderen
Jens Scheerlinck	JS	PwC
Marco Combetto	MC	Informatica Trentina
Makx Dekkers	MD	AMI Consult
Mirko Pianetti	MP	Informatica Trentina
Peter Burian	PB	European Commission
Raf Buyle	RF	Informatie Vlaanderen
Ziggy Vanlischout	ZV	Informatie Vlaanderen

Meeting Agenda

- 14:00-14:15 Opening and tour de table
- 14:15-15:15 Presentations by implementers
 - Raf Buyle, Ziggy Vanlischout – Informatie Vlaanderen
 - Marco Combetto/Gabriele Francescotto – Informatica Trentina Spa/Opencontent.it
 - Emidio Stani – PricewaterhouseCoopers
- 15:15-15:45 Discussion
- 15:45-16:00 Summary and conclusions

Summary of discussions

- In the current approach presented by Information Flanders, the RDF models are generated from a UML diagram in Enterprise Architect (not an open source tool). Will Information Flanders also invest time in a bottom up approach, where the RDF is edited directly and a diagram is generated based on that?
 - RB: UML diagrams provide more information than the pure RDF vocabularies, they are also the basis for other outputs such as the SHACL constraints. However, over the next year we are looking to invest in making our decisions and tooling more transparent and integrate members of the (RDF) community in that work.
 - GT: Enterprise Architect also serves as a central repository and the UML diagrams also form the basis for non-RDF implementations such as XML schemas.

- BH points out that BOSA, the Belgian Federal Public Service Policy and Support, is also looking into using SHACL for validation purposes and looking forward to developments in the open source RDF4J library.
- **What is the value of JSON-LD as opposed to other publication mechanisms?**
 - MC: it is better from a reuse point of view because it is lighter and more understandable than typical RDF syntaxes. It also gives more freedom, especially for data publishers.
 - RB: for developers, other mechanisms have a reputation of being more complex. As JSON is a format they are already familiar with it is easier to get semantics adopted by the developers in JSON-LD.
 - BH: it depends, personally I also like N-Triples (because it allows one to use standard Unix tools like grep). But web developers love JSON-LD, especially when it looks like common JSON, for which JSON-LD Framing helps. In our experience it also smoothens the conversion from Drupal to Linked Data.
 - Demo using JSON-LD Framing: <https://github.com/fedict/lod-query>
- **Should SEMIC publish reusable JSON-LD contexts?**
 - Attendees agree that this would be useful.
 - On the topic of multilingualism, the consensus is that this is certainly a topic of interest and should be discussed further. However, it is not a priority at the moment.
- **What tooling is available?**
 - For Flanders the toolchain was crucial to keep the semantics consistent at all levels, avoiding manual errors. The toolchain is bespoke, but has been created to be reusable by others and is open source: <https://github.com/informatievlaanderen>
 - An idea for a future webinar is to bring together people who build tooling for JSON-LD.
- **Are there existing JSON services that can be transformed to JSON-LD?**
 - BH: Developers are typically not too keen on writing RDF, we used JSON-LD Framing to use a less complex structure and make developers a bit happier. It can serve as a stepping stone towards a more RDF based information architecture.
- JSON-LD 1.0 vs. 1.1 specification
 - MD: New draft of 1.1 was published on 24/01/2018 (<https://json-ld.org/spec/latest/json-ld/>), so there are still some questions regarding the stability of the 1.1 specification.
 - RB: 1.1 offers improvements and functionality that is of interest, like the concept of a RDF dataset, but the specification is not stable yet and there is little community tooling.
 - MC: There is also the issue of change management. When switching from 1.0 to 1.1, it can take a while in a public sector environment. It is not desirable to invest to change every year, so stability is important. Also, if I implement 1.1, will I still need to support 1.0? It is important to make sure that implementations don't break down the line, backwards compatibility is important.
 - ES: Also for the context files that are referenced, change management and versioning is important, e.g. for the persistent URIs of these context files. People need to know which context they should point to.
- Discussion on change management and governance
 - RB: It is also important that these change management procedures (on the level of a centralised context file, for example hosted by ISA² for the core vocabularies) are known to implementers.
 - BH: Moreover, it is not just about the confusion, in operational services there are also contractual agreements that force you to keep old services up and running for legacy purposes.
 - RB: In terms of governance, private partners have been reluctant because they did not have the necessary commitment regarding change management from the government's side. Now, in Flanders, a steering committee for ICT standardisation has been set up, which helps with the sustainability of standards as they will be formally governed by the steering committee and ratified by the government.
 - RB: We have also seen a shift in our working groups, from a more technical audience at the beginning to a more business oriented focus. Therefore the tools should also focus not only on the technical level but also on transparency, the technology should be secondary to meeting the business needs.
 - MD: this is maturing in a way that the business becomes more involved. Talking about tooling we also need to see which tools can be provided or reused above the technical level.
 - RB: Feedback from the business would be mainly bug reports in the vocabularies, but could also be changes in the business or changes to for example legislation.

Summary of conclusions

- Not JSON-LD for the sake of it, but to provide services on a business or organisational level.
- Good governance over the developments is important. A formal endorsement can work in certain countries. In others an encouragement or comply or explain principle can work. It is important to see these developments in a stable and transparent environments
- Persistent URIs and commitments from the public sector are important for uptake.
- There is general favourability towards SEMIC publishing reusable contexts.
- JSON-LD is considered as a light-weight approach for adding semantics by developers and data re-users
- A first reusable context for DCAT-AP (a work in progress, no persistent URI yet) can be found on https://raw.githubusercontent.com/SEMICeu/DCAT-AP/master/releases/1.1/dcat-ap_1.1.jsonld