



# Semantic Interoperability Conference

## SEMIC 2013

### Highlights Report

Dublin 21 June 2013



# Semantic Interoperability Conference

## SEMIC 2013 – Conference Highlights

Margarida Abecasis and Vassilios Peristeras - Conference Chairs  
European Commission, DG DIGIT, Interoperability Solutions for European Public Administrations



“Interoperability between Public Administrations is key to face today’s challenges and increase efficiency, transparency and quality of public services. Interoperability requires harmonisation, adoption of common standards and frameworks.”



In order to realise the full potential of the European single market, Public administrations need to seamlessly exchange information across borders and sectors.

The [Interoperability Solutions for European Public Administrations \(ISA\) Programme](#) of the European Commission addresses this need by promoting interoperability of eGovernment systems and services.

In this context, SEMIC 2013 brought together both the experts driving the practice of semantics and linked data technologies and those who have firsthand experience of implementing these standards in cross-border eGovernment applications.

The conference highlighted how Public Administrations can use semantic technologies to make information exchange efficient and effective, allowing them to operate at lower costs and provide better services.

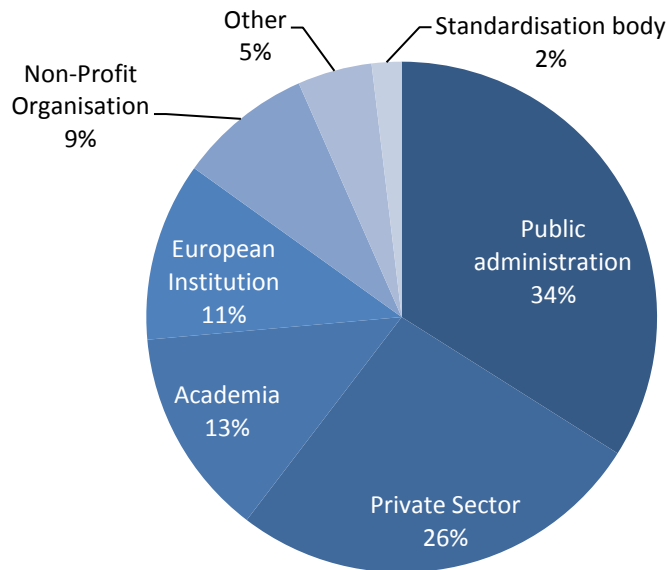
# SEMIC 2013 - Conference Figures

**106** participants  
...from 27 countries



+ Australia, Turkey, USA, Russia

## Types of organisations represented



# SEMIC 2013 Conference Highlights

## PART 1: Achieving interoperability through reuse



### **Keynote - Maintaining the quality of EU statistics while enabling reuse** Marco Pellegrino - Eurostat

Marco Pellegrino has been playing a key role on the promotion of advanced standards for managing micro data and aggregated data, and for the dissemination of high-quality open data. In his keynote, he presented the work of Eurostat on the use of open data standards to maintain data quality and facilitate data reuse. Marco Pellegrino highlighted the potential benefits and main challenges on the publication of statistical data as linked open data.



### **Open Standards for eGovernment – The evolution of the eGov Core Vocabularies and ADMS**

*Phil Archer – W3C*

Phil Archer was the editor of all four Core Vocabularies initiated by the ISA Programme. He also participated in the Asset Description Metadata Schema (ADMS) Working Group. Phil also assisted with the adoption of the Core Business, ADMS, and Core Location vocabularies by the Government Linked Data Working Group. In his talk Phil highlighted the evolution of the ADMS and RegOrg vocabularies, developed in the context of the ISA Programme, and are now formally published by W3C. Additionally, Phil presented the status of other eGovernment Core Vocabularies which are not maintained by W3C such as the Core Person, Core Public Service and ADMS.SW. Finally, Phil unveiled the plans of W3C on supporting development of other Vocabularies.



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## PART 1: Achieving interoperability through reuse



### Putting the eGov Core Vocabularies into practice

Stijn Goedertier & Nikolaos Loutas - PwC EU Services

Stijn Goedertier and Nikolaos Loutas from PwC EU Services have been working as contractors of the ISA Programme supporting actions focused on the improvement of semantic interoperability in European eGovernment systems. In this context of Stijn and Nikolaos presented the findings and lessons learned from the use of the eGov Core Vocabularies for harmonising linking data coming from different public administrations in Europe. Nikolaos and Stijn highlighted the fact that Core Vocabularies can be used in different contexts; they can be easily extended, integrated and adapted to specific needs in both XML and RDF world.



### Extending the eGov Core Vocabularies to a local level by the OLSO project (Open Standards for Local Administrations – Belgium)

Raf Buyle - V-ICT-OR, the Flemish ICT organisation

Raf Buyle is involved in Geographic Information System and eGovernment projects at the Flemish ICT Organization. Raf presented his work on the Open Standards for Local Administrations - OSLO - project. 'OSLO' is a generic data standard for local authorities to implement more rational and interoperable eGovernment systems. It is a local extension of the core Person, Business, Location, and Public Service vocabularies created at in the context of the ISA Programme. In this context Raf highlighted why the reuse of common agreed vocabularies and linked data are essential for local governments.



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## PART 1: Achieving interoperability through reuse



### **Integrating plant protection product data using semantic technologies**

Giorgos Georgiannakis - European Commission, DG SANCO

Giorgos Georgiannakis presented the main objectives, outcomes and lessons learned of his experience with Semantic Technologies at the Directorate-General for Health and Consumers (DG SANCO) of the European Commission. He highlighted the challenges on linking European Commission open data with data from other authentic sources such as national catalogues and scientific thesauri. Referring to the pilot implementation on the use of semantic technologies for integrating plant protection product data, Giorgos pointed out the challenges in linking data from multiple sources. He highlighted the value of common vocabularies and the advantages of focusing on practical solutions which can evolve instead of complex implementations and large projects to tackle data integration challenges.



### **ISA methodologies supporting the Common Information Sharing Environment for the EU Maritime Domain**

Fernando Dias Marques - Portuguese Directorate-General for Maritime Policy

Fernando Dias Marques presented his work on the Cooperation Project for the Common Information Sharing Environment for the EU Maritime Domain – the CISE project of DG MARE. As the leader of the Work Package related to the specification of common data formats and semantics, Fernando presented the approach of the project in reusing the “*ISA’s process and methodology for developing shared data models through consensus building and semantic agreements*”. Fernando highlighted the importance of using a process and methodology which are proven, tested and used, and which can be tailored by to meet specific projects needs.



# SEMIC 2013 Conference Highlights

## PART 2: Semantic Interoperability for Public Services



### **Keynote - Peta vs. Meta, Rethinking Data Interoperability on the World Wide Web**

James Hendler - Rensselaer Polytechnic Institute (RPI)

James Hendler is considered one of the initiators and early innovators of the Semantic Web. He was appointed senior constellation professor of the Tetherless World Research Constellation and the Head of the Computer Science Department at Rensselaer Polytechnic Institute - RPI. In his keynote presentation he stressed the importance of using common metadata vocabularies for publishing and linking government data. James Hendler highlighted the ultimate need for linking metadata in order to enable interoperability of Open Government Data.



### **Semantic Interoperability of Basic Data in the Italian Public Sector**

Giorgia Lodi - Agenzia per l'Italia Digitale (AgID)

Giorgia Lodi works for the Agenzia per l'Italia Digitale in topics such as digital identities, technical interoperability, semantic interoperability and open data. She was one of the main authors of the national guidelines for Public Administrations on "Semantic Interoperability through Linked Open Data". Giorgia presented the SPCData project, a major effort on the Linked Open Government Data (LOGD) in Italy. Giorgia highlighted the fact that, with minimum effort and maximum reuse, AgID has already published more than 6000 open data sets with the ultimate goal of achieving economic growth.



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## PART 2: Semantic Interoperability for Public Services



### **Applying semantics and language technology in TMClass to harmonise trademark registrations**

Jochen Hummel & Gudrún Magnúsdóttir - ESteam AB

Gudrún Magnúsdóttir and Jochen Hummel are the Chief Strategy Officer and CEO of ESteam AB, a provider of advanced language technology and semantic solutions to EU institutions and corporations. They presented the work of ESteam AB on applying Semantics and Language Technology in TMClass to Harmonise Trademark Registrations. Gudrún and Jochen highlighted their approach consisted of harmonising trademark classifications (such as these based on the Nice classification system). These classifications are used to indicate the areas in which trademarks registered by European national trademark offices and OHIM are protected. The harmonisation effort involved activities such as cleansing, conceptualisation, translation, and taxonomy building.



### **Semantic interoperability of Civil Status Registers by the International Commission on Civil Status (ICSS-CIEC)**

Panagiotis Gouvas - UBITECH

Panagiotis Gouvas, presented the work of UBITECH on the use of Semantic Technologies for increasing interoperability of Civil Status Registers in the context of the International Commission on Civil Status – ICSS-CIEC. Panagiotis explained that the Data Exchange Platform of the International Commission on Civil Status enables interoperable and cross-border electronic exchange of civil-status documents, such as marriage, birth and death.





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### **Building on INSPIRE: Existing and missing components for cross-domain interoperability in the EU**

Andrea Perego - Joint Research Centre

Andrea Perego reported about the current status of INSPIRE, an EU Directive establishing an EU-wide data and service infrastructure in support to EU environmental policies. Besides reporting the lesson learnt in implementing INSPIRE, Andrea stressed the importance of re-using INSPIRE assets for enhancing cross-domain interoperability at the EU level. He also highlighted the involvement of the INSPIRE community in EU and international initiatives on cross-domain government and research data, and illustrated current and future work on INSPIRE in the framework of two actions of the EU ISA Programme, namely, ARE3NA (Re-usable INSPIRE Reference Platform) and EULF (European Union Location Framework).



### **Metadata interoperability - The DCAT Application profile for data portals in Europe**

Leda Bargiotti - Publications Office of the European Union

In the context of the work of the Publications Office on the implementation of the Open Data initiative at the EU level, Leda Bargiotti provides advice on and support for policy, legal and procedural issues related to the dissemination of Public Sector Information via the Open Data Portal ([open-data.europa.eu](http://open-data.europa.eu)). Leda presented the work of the Publications Office in collaboration with the ISA Programme on the development of a common specification for describing public sector datasets and sharing these descriptions with data portals across Europe - the DCAT Application profile for data portals in Europe.



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## PART 2: Semantic Interoperability for Public Services



### Open Data Pipeline – publishing and linking government data

Richard Cyganiak - DERI, NUI Galway



Richard Cyganiak is a research associate at NUI Galway's Digital Enterprise Research Institute (DERI), and co-ordinates DERI's Linked Data Research Centre. Richard presented the Open Data Publishing Pipeline (ODPP) project of DERI. Richard highlighted the objectives of the ODPP project on tackling the challenges involved in converting raw government data into high-quality Linked Data. The project aims at providing web-based data publishing platform that map input data (relational, CSV, Excel) to semantic standards and provides visual mapping editor and vocabulary search based on UML. The ODPP tool is under development since early 2013 and a public beta version will be available by quarter 3 of 2013.



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