

# **EDF2015 Call for Contributions:**

## **The Council Open Data Initiative Pilot Project: Making EU Council votes reusable**

Simon Dalferth (Council of EU), Gunther Stuer (Council of EU), Martin Kaltenböck (SWC)

*In this presentation the speaker(s) will introduce the motivation and aim of the Council Open Data Initiative (Pilot Project) as well as demonstrate the realised Open Data Hub<sup>1</sup> including the explanation of the dataset (of the Lisbon Voting Results), the 3 realised use cases (browse - download - query data), the used (open source) technology stack, as well as give insights in the first examples of re-use of this Council' open dataset. Finally the speaker(s) give an outlook to the future plans of the Council of EU regarding its Open Data Strategy and Activities.*

**The Council of the EU** is the legislative body of the European Union, together with the European Parliament. It adopts legislative texts by vote among its 28 members, the representatives of the governments of the EU member states. The Council's voting records are public whenever it adopts a legislative act, so that citizens can see how each country voted. On average, the Council adopts 120 legislative acts per year. Until now, the votes of the EU Council were, however, only available in a non-open format, specifically as a picture embedded in a pdf document. As voting is a core element of democratic accountability, there is a considerable interest among practitioners and researchers in the voting patterns at EU level, including those of the EU Council.

The European Council concluded in 2013 that "Open data is an untapped resource with a huge potential for building stronger, more interconnected societies that better meet the needs of the citizens and allow innovation and prosperity to flourish." It called for the modernisation of public administrations and requested that interoperability and re-use of public sector information should be promoted actively. The General Secretariat of the Council therefore launched a pilot project to make all Council votes on legislative acts since the entry into force of the Lisbon Treaty on 1 December 2009 available as linked open data with daily updates. This data has been available since April 2014.

The EU open data portal was launched in December 2012. It is a single point of access to a growing range of data from the EU institutions and other EU bodies. The data are free for you to use and reuse for commercial or non-commercial purposes, provided that the source is acknowledged. The EU open data portal aims to promote the innovative use of the data and unleash their economic potential. It also aims to help encourage the transparency and accountability of the EU's institutions and other EU bodies. The EU Council voting dataset is also available from the EU open data portal.

The aim of the open data pilot project of the Council of the EU is to participate in the worldwide open data movement and thereby ensure transparency on information about the votings of the Council of the EU, and empower experts, journalists and citizens to re-use the data and analyse such votings and realise visualisations, applications et al on top of the EU

---

<sup>1</sup> <http://data.consilium.europa.eu/>

Council dataset. With the pilot project the General Secretariat of the Council also aims to learn lessons for future investments in open data and for the development of a coherent approach to open data in the context of its overall information and data management strategies.

### **Dataset: Council votes on legislative acts**

The dataset of Council votes on legislative acts contains not only the votes of the Council when adopting a legislative act but also information related to that act, such as:

- act type (regulation, directive, decision or position)
- act number (as published in the EU's Official Journal)
- document number (submitted to the Council for adoption)
- interinstitutional number
- date of adoption
- action by the Council (according to the steps of the legislative procedure)
- form of adoption (in a Council meeting or by written procedure)
- Council configuration
- Council session
- policy area
- voting procedure (ordinary or special legislative procedure)
- voting rule (qualified majority or unanimity)

### **Used Technology - An Open Source Linked Open Data Stack**

The Council of the European Union - Open Data Initiative Pilot Project was specified together with, and implemented by, the Semantic Web Company<sup>2</sup> by making use of the following set of Open Source software components: UnifiedViews<sup>3</sup>: an ETL Framework for for extraction - transform - load mechanisms of the data from the Council original database and the creation of LOD as well as Virtuoso Universal (Open Source Triple Store<sup>4</sup> to store all data as RDF triples by making use of the RDF Datacube Vocabulary<sup>5</sup> and creating 311,000 RDF Triples, using 23 classes, 45 different predicates and ~18,000 different subjects. Parts of this LOD Technology Stack used have been developed by the successful FP7 project LOD2<sup>6</sup>.

### **First use of the dataset in place**

As a first example of data re-use, 3 data visualizations have been created. For these visualizations the data is always directly taken from the Council Open Data Initiative's API<sup>7</sup>, in the form of a SPARQL endpoint<sup>8</sup>. The visuals are realised in JavaScript by making use of D3.JS JavaScript library<sup>9</sup>.

---

<sup>2</sup> <http://www.semantic-web.at/>

<sup>3</sup> <http://unifiedviews.eu/>

<sup>4</sup> <http://virtuoso.openlinksw.com/>

<sup>5</sup> <http://www.w3.org/TR/vocab-data-cube/>

<sup>6</sup> <http://lod2.eu/>

<sup>7</sup> <http://data.consilium.europa.eu/sparql>

<sup>8</sup> <http://en.wikipedia.org/wiki/SPARQL>

<sup>9</sup> <http://d3js.org/>

These visualizations are as follows:

- Visualization 1: Map Visualization: [Map Visualization](#)
- Visualization 2: Votes over Time: [Votes over Time](#)
- Visualization 3: Votes on a PunchCard: [PunchCard](#)

### **Lessons Learned & Outlook - the Council Open Data Initiative**

The main lesson learned is the importance of high quality source data. This includes both the enforcement of strict syntax validation for all data elements, as an increased focus on using controlled vocabularies wherever applicable. On a more conceptual level, we found that the overall level of understanding of this new set of technologies, its best practises, and opportunities, is still rather low, and that a lot of evangelisation still needs to take place.

It is expected that in 2016 two additional data sets will be created and made available via the same endpoint:

- all metadata of the Council's public register
- all non-personal information on access to document requests

Where feasible, these new datasets will be interlinked with the already existing one (voting results).

In the long term the General Secretariat is looking into whether semantic technologies can function as core drivers for a comprehensive information and knowledge management approach for the GSC as a knowledge-based organisation. The opportunities and chances of this technology are being explored through the above and other pilot projects. The lessons learned from these cases will be used to make these strategic choices.

## ANNEX - Contributor names and short CVs

**Simon Dalferth** studied political science and European studies at the universities of Berlin, Prague and Sussex. He obtained his PhD from Jacobs University Bremen in 2008 on police cooperation in Europe. After co-founding and working with the European Institute of Public Participation on large scale citizen participation processes, he worked for an executive agency of the European Commission (EACEA) on the Bologna process. Since 2011 he works at the General Secretariat of the Council of the European Union where he is adviser to the director responsible for transparency, information and document management. Simon is a regular speaker at conferences on transparency of EU institutions and the design of public participation processes.

LinkedIn: <https://be.linkedin.com/pub/simon-dalferth/29/5a6/67b>

Twitter: @sdalferth

**Gunther Stuer** studied computer sciences at the University of Antwerp, where he obtained his PhD in 2003 on large scale distributed systems. After 3 more years as post-doctoral researcher in the field of grid computing, he moved to the Governmental sector. First, two years as lead architect for FedICT, the Belgian ICT ministry, after which he started working for the General Secretariat of the Council of the European Union, where he currently leads a team of software development architects.

As time permits, Gunther's current research interests are oriented towards big data, sentiment analysis, and open data.

LinkedIn: <https://be.linkedin.com/in/stuer>

Google Scholar: <https://scholar.google.be/citations?&user=iFuqHg4AAAAJ>

**Martin Kaltenböck** studied communication, psychology and marketing at the [University of Vienna](#). In 2000 he was co-founder of [punkt. netServices](#) - an Austrian company specialised on information- & knowledge management as well as on Enterprise 2.0 solutions.

He is co-founder and managing partner of the Semantic Web Company and as CFO responsible for financial and organisational issues. Furthermore he leads and works in several national and international research, industry and projects in public administration - mainly in the areas of project management, requirements engineering and communication activities. He is tutor and publishes in the fields of semantic information management, Linked (Open) Data as well as Open (Government) Data and Social Semantic Web. He is lecturer at national and international conferences and business events in the mentioned topics. Martin is Certified Management Consultant since 2006, member of the Executive Board of the [Austrian Chapter of the Open Knowledge Foundation](#) (OKFN) as well as Member of the Advisory Council of the Open Knowledge (Foundation, UK) and invited expert of the governmental [Cooperation OGD Austria](#). He is working as invited expert of W3C and is member of the Steering Board of the [European Data Forum](#) that he chaired in 2014.

### LINKS

LinkedIn: <https://at.linkedin.com/in/martinkaltenboeck>

Xing: [https://www.xing.com/profile/Martin\\_Kaltenboeck](https://www.xing.com/profile/Martin_Kaltenboeck)

Semantic Web Company: <http://www.semantic-web.at>