



WORKSHOP

SEMANTIC TECHNOLOGIES AND SEMANTIC WEB:
STRUCTURING DATA FOR STI POLICY ANALYSIS

SESSION 2

**USING SEMANTIC TECHNOLOGIES
AND SEMANTIC WEB TO
STRUCTURE THE STI POLICY FIELD**

Brussels, 19 June 2017 – Alina DENIAU

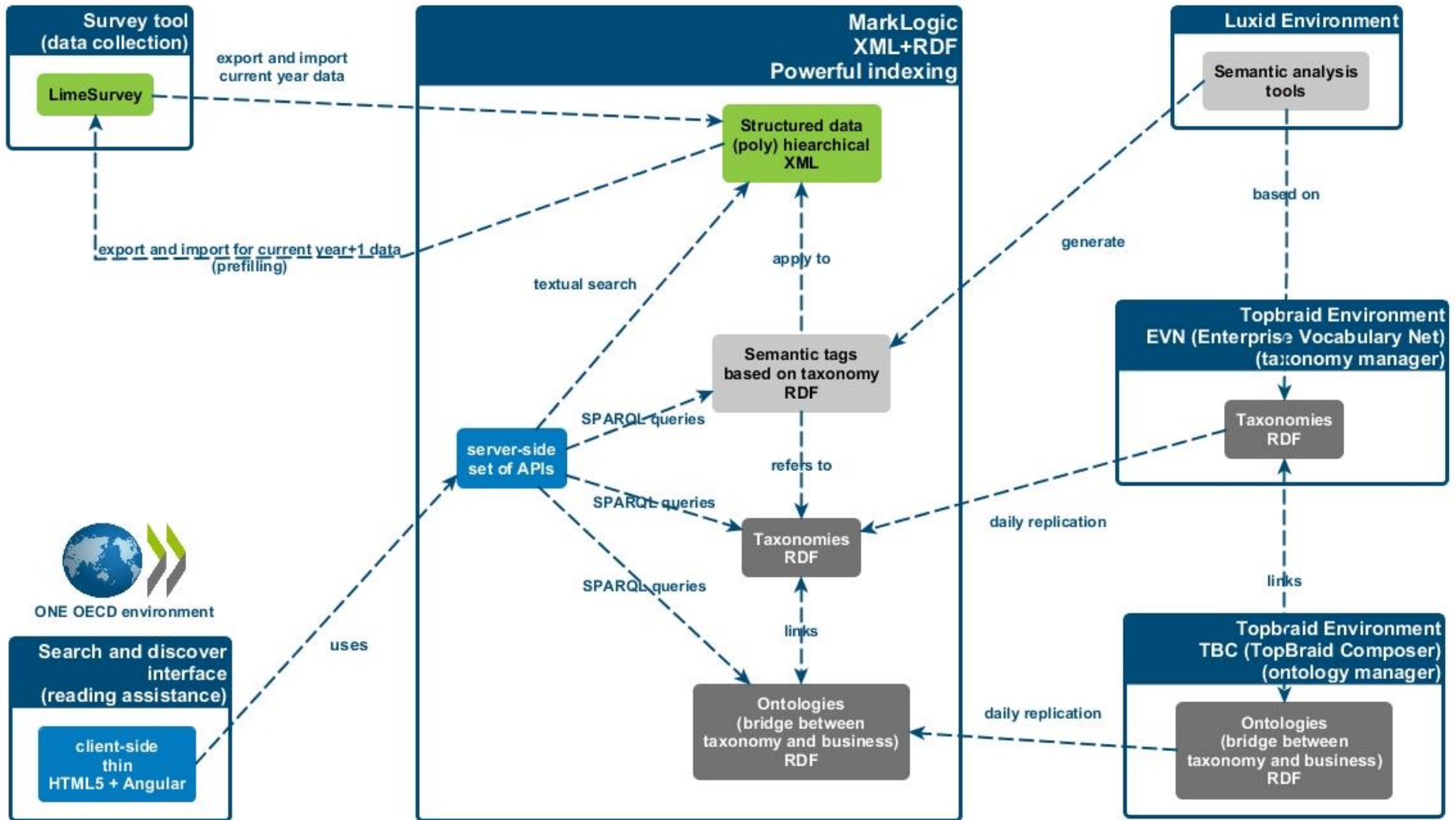


REITER WP3 -- Modelling

- **Experimental Taxonomy**
 - Concepts & Relations (Synonyms, Inclusion) – reuse IPP
 - XML Model – structuring the dataset STIO2014
- **Building Taxonomies / Ontology**
 - Specific relations between concepts
- **Workshops**
 - Internal Workshops with OECD Experts
 - External Workshops with DG RTD – Brussels, 19 June 2017
 - External Workshops with international group of experts
- **Network**
 - Expert Advisory Group
- **Releases: 1 (November 2017) & 2 (April 2018)**



REITER - WP3 -- Architecture



Search and discover interface (reading assistance)

client-side thin HTML5 + Angular



First Model – Data 2014

- Experimental model
 - Ingest the old dataset from 2014 (curated) in MarkLogic®
- XML model based on the Questionnaire 2014
 - 1 question – 1 answer
 - 1 answer has several parts: Objective, Budget, Background, Responsible organisation, etc.
- Model useful
 - Validate the “Refining” functionalities
- Reuse of the IPP taxonomy
 - Tagging unstructured text



“Refine” in the 1st experimental version

TYPES

- Question [14]
- Response [275]
- Part of response [0]
 - In brief [315]
 - Evaluation [9]
 - Governance [82]
 - Instrument [473]
 - International component [45]
 - Name of the initiative [103]
 - Objectives [306]
 - Trends and background [378]



Second Model – “STIP ecosystem”

- Ontology – modelling the area of policy
 - Policy initiative
 - Policy instrument
- Taxonomies – refining + dashboards
 - Target groups
 - Budget ranges
 - Countries (part of the existing OECD taxonomy)
 - Themes = The Questionnaire itself
- Curated data 2016



“Refine” in the second model

TYPES

- STIP resource [0]
- Policy initiative [256]
- Policy instrument [0]
 - Collaborative platforms and infrastructures [0] +
 - Direct financial support [0] +
 - Governance [0] +
 - Indirect financial support [0] +
 - Non-financial support [0] +

GEOGRAPHICAL AREAS IDENTIFIED FROM THE QUERY

- Belgium [111]
 - Brussels Capital [74]
 - Brussels [50]
 - Flanders [202]
 - Walloon Region [146]



Example of refining

US-ITALY FULBRIGHT COMMISSION

STIP policy initiatives and instruments (2016) | Policy initiative

The Fulbright Program was established in 1946 under legislation introduced by the late Senator J. William Fulbright, to promote the peace process through cultural exchanges between the United States and the other countries of the world.



- arts
- lifelong learning
- social sciences and humanities
- Italy
- United States

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STIP COUNTRY

STIP THEMES

YEARLY BUDGET

STIP TARGET GROUPS

DATES

- 1900s [1] +
- 1920s [1] +
- 1930s [1] +
- 1940s [1]
- 1948 [1]
- 1950s [2] +
- 1970s [1] +
- 1980s [8] +
- 1990s [15] +
- 2000s [154] +
- 2010s [412] +



Workshop session 2

- Presenters
 - Thierry Vebr (OECD)
 - Diana Maynard (Univ. Sheffield, UK)
 - Cinzia Daraio (Univ. Roma Sapienza, Italy)

- Discussants
 - Frédérique Sachwald (OST, France)
 - Abdullah Gök (Univ. Manchester, UK)