



**MULTILINGUAL DIGITAL
SINGLE MARKET**

Riga Summit
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A Vision of an Interoperable EU

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language technology software

“...a supportive environment for businesses – small and large – to fully exploit new technologies like Big Data or Cloud computing. Small online businesses can start operating in “**just a click across the EU**” grow fast, scale up and sell across borders;

Citizens and businesses enjoy the benefits of public and private services that are **interlinked across the EU** (health, justice, transport, e-signatures, procurement) and have the skills to operate and work in an e-society”

A Digital Single Market Strategy for Europe

Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions

Leaked document undated



- ❖ an EU where top down directives give way to **collaborative agreement** with the understanding that we differ in legal systems and languages...
- ❖ where **citizen interaction** is the norm and every government, city council, and the European Commission mine that data in **multiple languages** to underpin their decisions.

Interoperability makes €800.000.000.000

Cost of NON-EUROPE Map

TOTAL: ± € 800 bn



European Parliament Research Report 2014



- ❖ The precise **meaning** of exchanged information is understood by all stakeholders...
- ❖ ...and preserved throughout exchanges.
- ❖ Semantic Interoperability Assets: **Sector-specific sets of data structures** and data elements.
- ❖ **Agreement** on the meaning of the information to be exchanged
- ❖ **At back-office level, the underlying information architectures should be linguistically neutral so that multilingualism is not a blocking issue.**

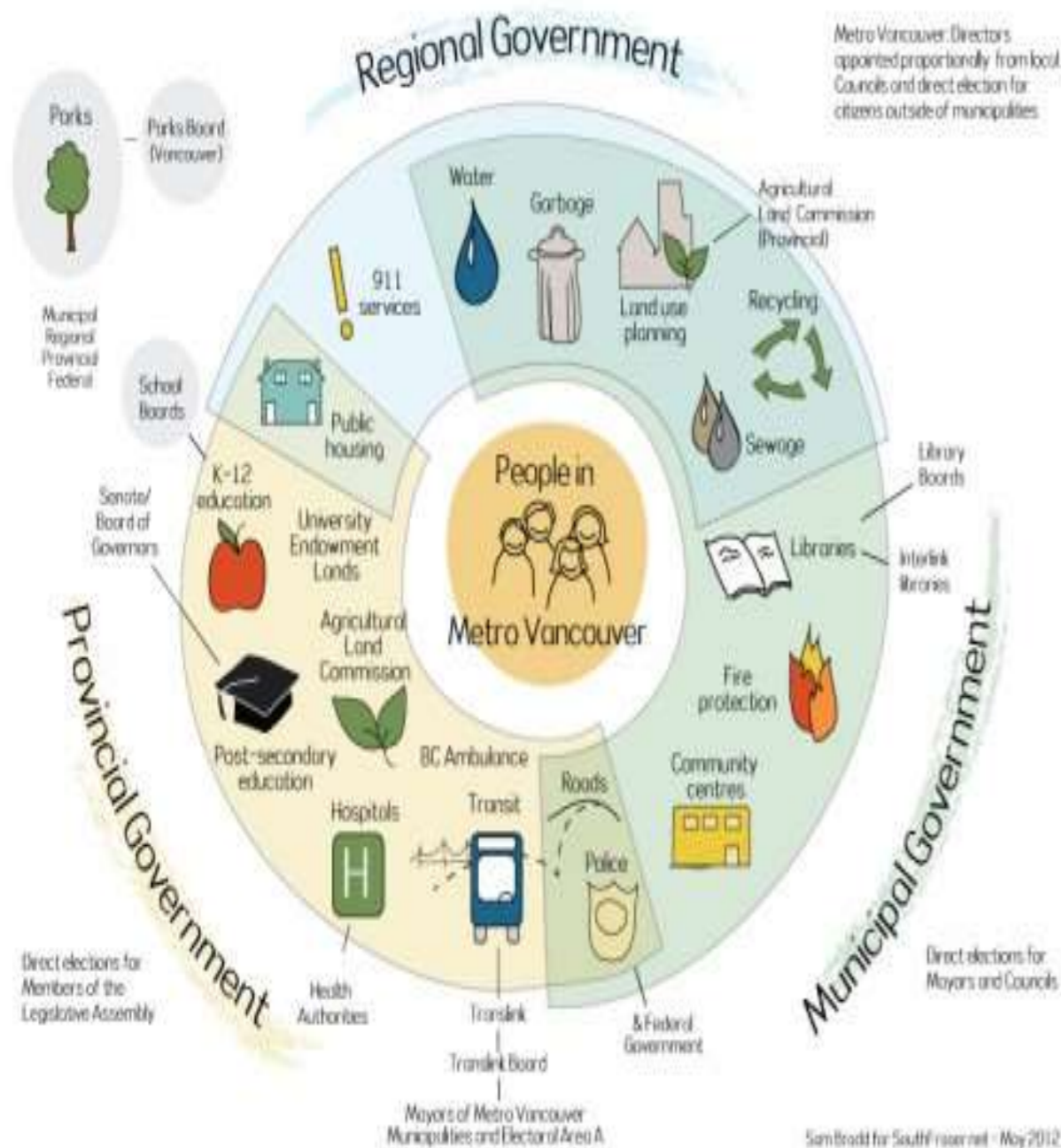
*Raul M. Abril @ eSENS Conference 2014:
“If one of the layers of the EIF is not properly addressed your interoperability project will fail!”*

- ❑ Very high level and limited potential
- ❑ Useful but solves only a part of the problem - like a travel plug functioning between 2 systems and with the same electricity levels
- ❑ Semantic Interoperability needs a more fine grained approach especially in Governments



- ❖ EU governments are all islands with internal operations and laws.
- ❖ Top-down directives and laws from Brussels are getting less and less popular.
- ❖ Interoperable EU must be achieved with the agreement to differ as long as it is possible to understand what the difference is...

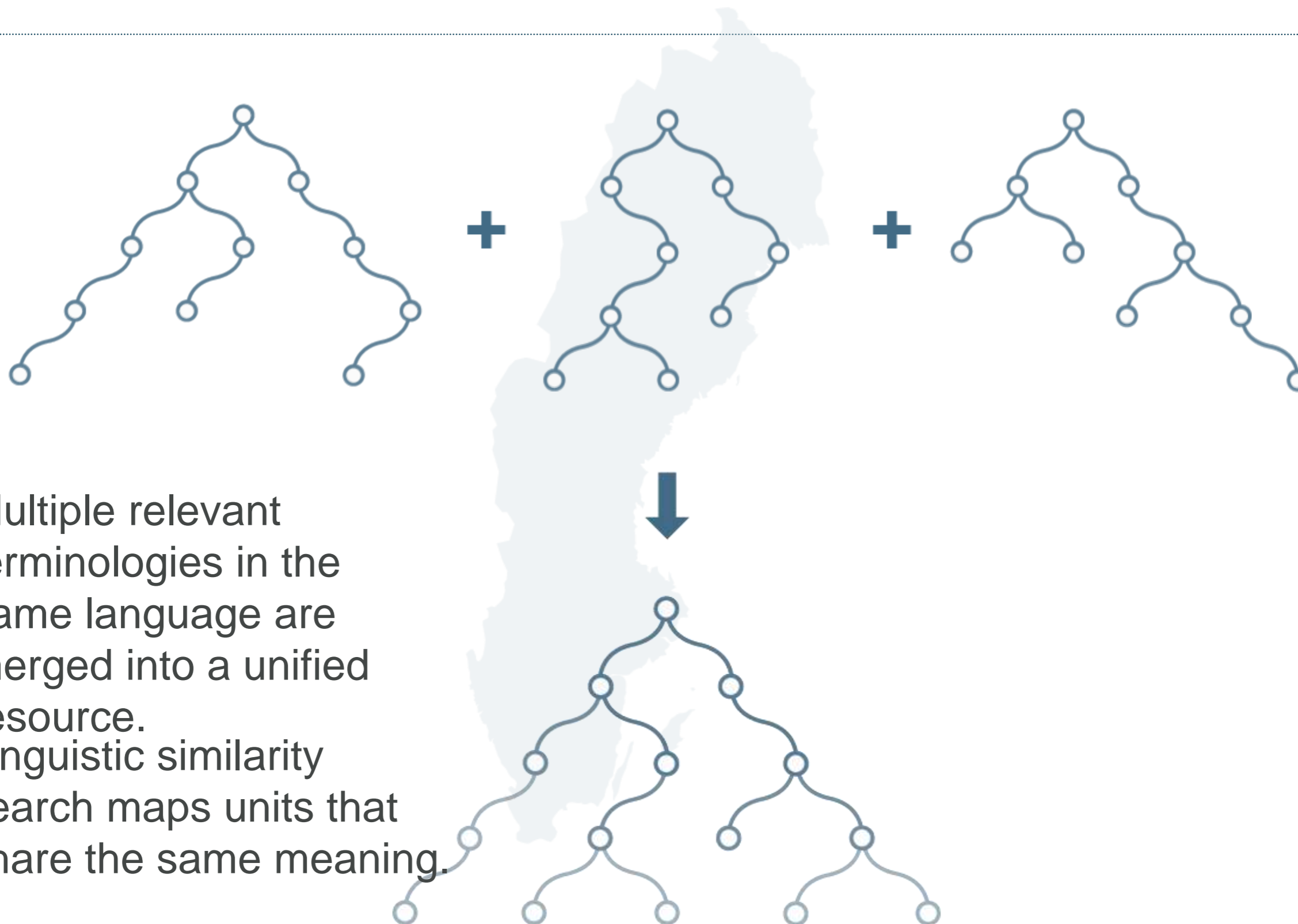




- ❑ To achieve interoperability it is necessary to create a **governmental knowledge structure** beginning with high priority domains.
- ❑ Governments share meaning and use even if it is expressed differently – therefore the task is **viable**.
- ❑ The knowledge structure must be **multilingual** to serve all member states



Creating a Large Scale MKS

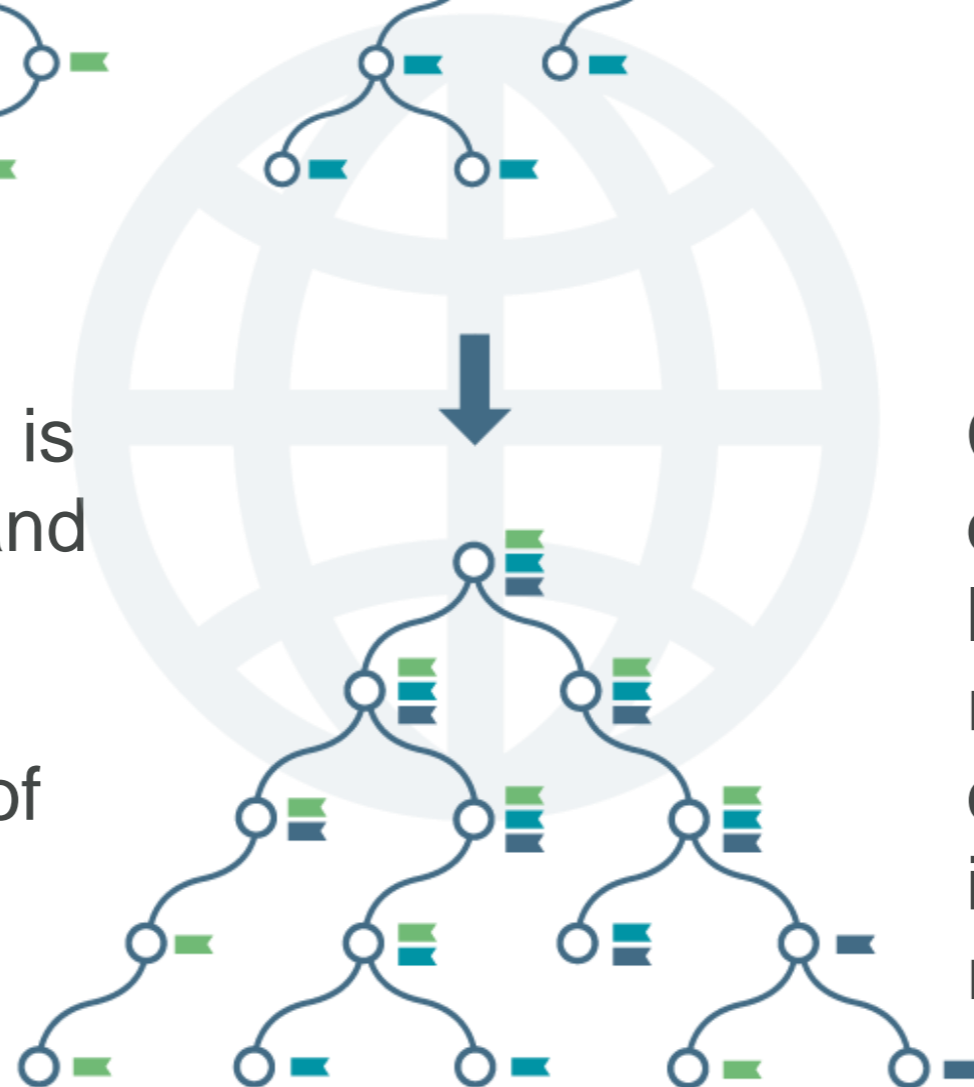


...also Multilingually!



Cross language merge is deployed to find links and equivalence across language borders. Metadata keeps track of variations.

Countries without data fill in their language inside the resource – adding concepts and ignoring those not relevant



EUROVOC as a MKS

The screenshot shows a web browser window with the URL <https://app.coreon.com/52ea7b3c636f72027c0e0000/concepts/search/medic>. The main content is a concept map for 'medic' (2841 health) with a search bar and language selector (EN English, LV Latvian). The concept map shows a hierarchy starting from '28 SOCIAL QUESTIONS' (20) down to '2841 health' (8), which branches into 'health care profession' (7), 'health policy' (5), 'medical science' (6), and 'pharmaceutical industry' (6). 'medical science' further branches into 'medicine' (8) and 'therapeutics' (6). 'medicine' branches into 'health care' (18) and 'medical report' (8). 'health care' branches into 'doctor' (3) and 'organisation of health care' (3). 'pharmaceutical industry' branches into 'pharmaceutical product' (3) and 'medicament' (3). The right sidebar shows a list of concepts related to 'medic', including 'doctor', 'medical report', 'medicament', and 'therapeutics', with their broader terms and Latvian translations.

Concept	Broader	Latvian Translation
doctor	health care profession	ārstējošais ārsts
general practitioner	health care profession	ārstējošais ārsts
health care	medicine	medicīniskā aprūpe
medical care	medicine	medicīniskā aprūpe
medical opinion	medical science	medicīniskā ekspertīze
medical practitioner	medical science	ārstējošais ārsts
medical report	medical science	medicīniskā ekspertīze
medical science	2841 health	medicīnas zinātne
medical treatment	2841 health	radioterapija

- ❖ Citizen - You put in your CV and MKS can process all job ads in any EU language and possibly find a job for you.
- ❖ Governance local – Why are the citizens of Berlin so unhappy with the garbage services? What can I as a politician do to help improve this?
- ❖ Business global – you register your trademark in China the MKS helps you do it in Latvian and understand the difference in legal issues.



Success Story OHIM

- ❖ 44 Participating Countries, all the EU and USA, China, Japan, Korea, and still expanding
- ❖ Economical savings in EU member states administration of IP – Millions annually
- ❖ Economical gains of industry having their IP rights much faster validated - Billions annually
- ❖ This is a win-win – the entire project including work carried out internally ca 30 Mil Euro
- ❖ <http://tmclass.tmdn.org/ec2/>





“We have to share ideas and try to align, map between concepts, rather than trying to harmonize different world perspectives.”

Tom van Engers,
Leibniz Center for Law, Amsterdam

Thank you

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