

TenForce Semantic Technology Offering

TenForce is a Belgian software company, with a team of 40 people specialized in Semantic Technology and Project Management. We embrace a pragmatic approach as a principle in everything we do.

OUR OFFER CONSISTS OF CONSULTANCY, PROJECTS AND TRAINING

CONSULTANCY

Assesment

When does Semantic Technology fit the solution of a problem? Will it bring value to your business? We help you to find out which technologies are applicable for different applications and knowledge domains.

Architecture

We assist in defining the right architecture to ensure performance and scalability. Our expertise covers tools and components that are available and what it takes to build high-quality applications.

Modeling

We model knowledge domains and assist in the modelling process, from choosing the right ontology, taxonomy or thesaurus to validating and implementing the model into the application.

Coaching & Validation

Existing material is validated to be compliant with W3C and ISO-standards. We coach semantic projects based on regular progress reviews and guidance.

PROJECTS

End-to-end projects

We take ownership of end-to-end project implementations. Starting from requirements gathering and defining the project's scope; over design, development and testing; to maintenance after delivery.

Mixed teams

In some projects we team up with the customer's experts and ensure a complete knowledge transfer.

Projects in an EU framework

We collaborate with cross-domain partners in different international frameworks, like the European FP7.

TRAINING

Introduction to Semantic Technology

Understanding values of Semantic Technology in different application domains. Analyzing real-life use cases of solutions built on Semantic Technology fundamentals and standards.

Modeling & programming Semantic Technology

Insight in modeling techniques and adoption of programming skills needed to build performant and scalable semantic applications.

TECHNOLOGY

We are highly skilled in following technologies:

Programming	.NET, JAVA, Perl, Lisp, ECMA script, javascript, PHP, Python
Formats	HTML, CSS, SGML, XML, DTD, XML Schema, XSLT, Xquery, UML, Topic maps, Knowledge Modeling
Standards	RDF, OWL, SPARQL, SKOS, Dublin Core, British Standard
Tools	<i>We are the European distributor of</i> Pellet, Mondeca ITM, Oracle RDF <i>We have extended expertise in</i> TopBraid, Protégé, Virtuoso, Sesame, Oracle Text, Drupal, Omnimark, Fedora Commons

Some of the TenForce customers



Use Case - Modeling Occupations & Skills on a European level

European Commission - Directorate-General Employment, Social Affairs and Equal Opportunities



The European Commission wants to improve job mobility across Europe.

“We have very high levels of unemployment but Europe has now 4 million job vacancies. The Commission needs to show people where the jobs are in Europe and which skills are needed. “

(José Manuel Barroso, State of the Union, September 2010)

To help people find jobs and employees across Europe, the European Commission needs a solution to better match supply and demand on the labour market. This demands a common language to facilitate communication and foster more systematic links and comparability between sectors, institutions and countries.

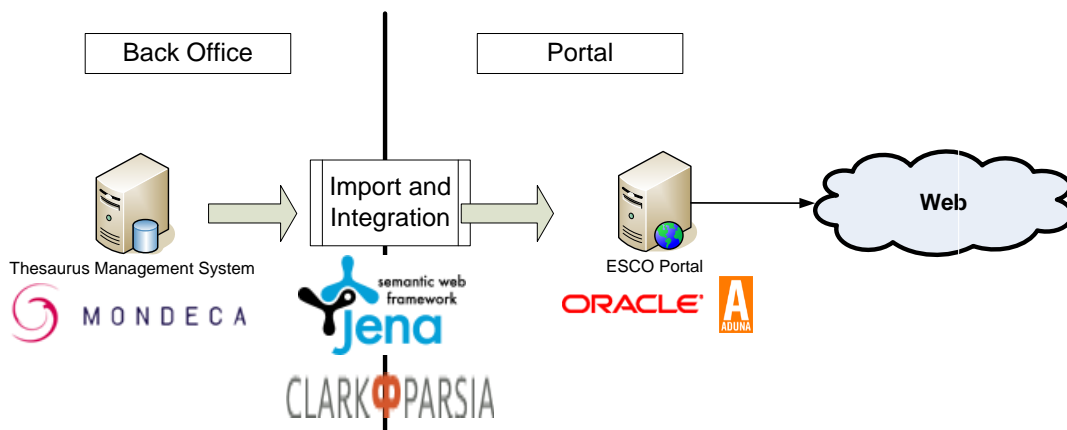
The European Commission is coordinating a multilingual classification, or ‘taxonomy’, of skills, competences and occupations called ESCO. It is the only European multilingual taxonomy linking skills and competences to occupations and it will be available to all labour market and education institutions across Europe.

TenForce brings state-of-the-art technology to the European Commission.

ESCO is disseminated using cutting edge technologies such as RDF, SKOS and LOD. This guarantees that ESCO will be easily accessed, and that the potential of the Semantic Web can be fully exploited by all interested parties.

TenForce publishes the classification in SKOS and makes it available on the data web.

SKOS is a standard that makes controlled vocabularies such as thesauri *interoperable*. Publishing a model in SKOS allows mapping to other thesauri, so that the solution becomes a common platform for exchange for all the European member states. The whole of Europe can now exchange information about jobs without even having to change their own methodologies, documents or language.



TenForce built an architecture that incorporates state-of-the-art tools

An end-to-end project in an international framework

TenForce took ownership in the end-to-end flow of the projects, from setting the requirements to deploying the solution. A good understanding with domain experts on the side of the European Commission gave the thesaurus a standard of quality needed for international adaptation.

Pragmatically applying expertise allows TenForce to undertake large scale challenges.

Use Case - Multilingual Publishing System with Semantic Technology

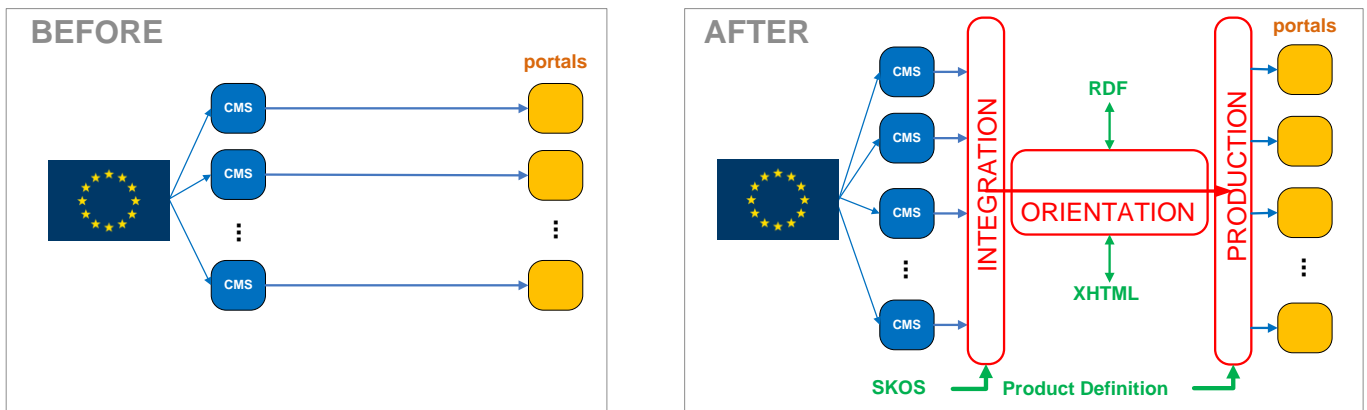
Wolters Kluwer Legal & Regulatory, Europe



Legal practitioners all over Europe consult the Wolters Kluwer portals to consume law-related publications. It is an important gateway for the European Union to communicate decisions regarding European laws & regulations.

Wolters Kluwer L&R needs a solution to manage the publishing process in a European context.

Publishing in a European context means you need to feed a multitude of portals, even for centralized sources of information. The content has to be interpreted from the European to the national level – as law systems differ for each country - and the categorization needs to be done in the language of the portal.



Pragmatic approach to publishing in a European context.

TenForce builds a multilingual publishing solution based on semantic technology.

TenForce separates the publishing process into three steps: integration of the content, orientation towards the portals and production based on Wolters Kluwer’s product definitions. The solution is a pragmatic approach to managing and distributing content.

A consolidated publishing bus to all European portals improves the efficiency of the process and delivers higher added-value. End-users can search the content irrespective of their language, as this content is indexed across countries and language. Moreover this allows to cross-link content that is published on different portals, adding more value to the user’s search results.

The core of the multilingual publishing solution is a SKOS model, which translates the content into XHTML with metadata in RDF. Categorization is an automatic process relying on multilingual thesauri and workflow specifications.

TenForce takes ownership in end-to-end projects

The TenForce team is responsible for the definition, design, development and implementation of the multilingual publishing solution.

Use Case - Common access to EU information - the CELLAR project

Publications Office of the European Union

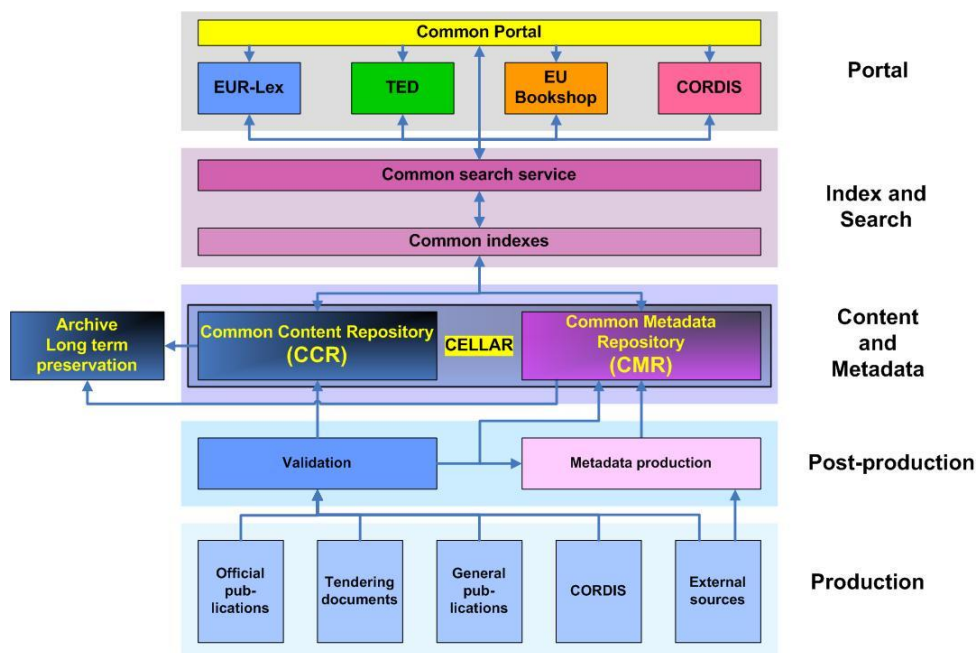


The European Union wants to facilitate access to Law and Publications.

“Building an area of freedom, justice and security is one of the major challenges for the Union over the next years.”
 (José Manuel Barroso, State of the Union, September 2010)

The Publications Office wants to make all digital content and the metadata that they manage available at a single place, in a harmonized and standardized way. This will give citizens better access to law and publications of the EU and will encourage professionals and experts to reuse content and metadata.

Together with different technological partners, the Publications Office develops a common portal where citizens get access to a variety of content sources: laws, tenders, publications and research reports. The content and its metadata comes from different sources, but is stored in common repositories – aptly called the “CELLAR” of the Publications Office.



TenForce joined the project with its metadata expertise

TenForce works together in this project with I.R.I.S., each building its side of the CELLAR in close cooperation. TenForce is responsible for building a Common Metadata Repository, where all metadata coming from different sources is stored together. In order to present it to the common portal, the metadata are commonly indexed and prepared for search.