Luxembourg, 12 March 2021

The LYNX project

Presented by Rodolfo Maslias
Member of the Advisory Board
SMEs and large corporations face multiple constraints to trade in the EU and to localize their products and services, due to…

**legal silos and linguistic islands**
Companies wishing to operate in a new market must:

- Comply with applicable legislation (European, national, regional, local)
- Implement **different standards** (e.g., ISO, AENOR, DIN)
- Follow sector-specific practices
Lynx Consortium Members
**Mission**

- **Smart services** to better manage compliance
- **Legal Knowledge Graph** of European legal and regulatory open data
- **Multilingual** and **multi-jurisdictional** data
Legal Knowledge Graph

European Directives
General legal goals for every European Member State

Industry standards
Technical documents in occasions necessary to achieve certification

National Legislation
Every Member State has different national and regional legislation in force

European Regulations
Legislative act binding in every European Member State

Case law
Judgements, sentences
Multilingualism in the Legal Knowledge Graph

- Need to create ad-hoc terminologies per corpus
- Structured in Semantic Web formats
- Useful for:
  - Information Retrieval (cross-lingual search, query expansion…)
  - Machine Translation
  - Document linking across jurisdictions
Terminological resources are:

➔ Scarce
➔ Non-machine readable
➔ Outdated

Linked Legal Terminologies
(in RDF, a standard for data interchange that is used for representing highly interconnected data.)
Converting Language Resources

**Manual work**

**“Simple” data**

**Proprietary formats**

**Isolated resources**

**Automatic workflow**

**Rich data**

**Open formats**

**Linked resources**

Icons from flaticon.com
Workflow

INPUT: Legal Corpus

Plain Term list

Refinement → Enrichment → Revision Validation → RDF Publication

Linked Legal Terminologies

Terminology Extraction
Proof of concept - Lynx Terminology Portal

Access through: [https://lynx-project.eu/](https://lynx-project.eu/)
Proof of concept - Lynx Terminology Portal

Terminology

Pilot terminologies: these terminologies have been specifically generated from each pilot corpus with the help of Tilde’s Terminology Services and other Natural Language Processing techniques. They have been enriched by reusing resources from the Linguistic Linked Open Data cloud.

Browse Terminologies

- Search Term Through User Interface
  - Write a term
  - Search

- Browse Pilot Terminologies
  - Contracts
  - Industrial Standards
  - Labour Law

- SPARQL ENDPOINT

Download Terminologies

Contracts
  - Number of terms: 6429
  - Creation date: October 2020
  - Languages: DE, EN, ES, NL

Description: Terminological data about contracts in Europe.

Industrial Standards
  - Number of terms: 4682
  - Creation date: March 10
  - Languages: DE, EN, ES, NL

Description: Terminological data about Labour Law in Europe.

Labour Law
  - Number of terms: 701
  - Creation date: April 10
  - Languages: DE, EN, ES, NL

Description: Terminological data about Labour Law in Europe.

Terminologies semi-automatically built, currently under revision

Icons from flaticon.com
ICT14-2016-2017 (IA) Innovation action

Pillar: Industrial Leadership
Work Programme Year: H2020-2016-2017
Work Programme Part: Information and Communication Technologies

TOPIC : Big Data PPP: cross-sectorial and cross-lingual data integration and experimentation

Duration: 40 months
Start date: 1st December 2017