

# Project: Council of the European Union

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## Step 1:

### Description of the domain, corpora:

The domain of the corpus is the regulation of the use of Artificial Intelligence (AI) in the European Union. The corpus covers various aspects of the development, marketing, and use of AI, such as safety and fundamental rights, the internal market, and harmonized rules on the placing on the market, putting into service, and use of AI systems. It lays out specific prohibited practices. The corpus consists mainly of legislative documents, regulations, and guidelines that govern the use of AI in the European Union. The whole document has a size of around : 28325 words, 153559 characters, 98-99 pages.

### Core concepts:

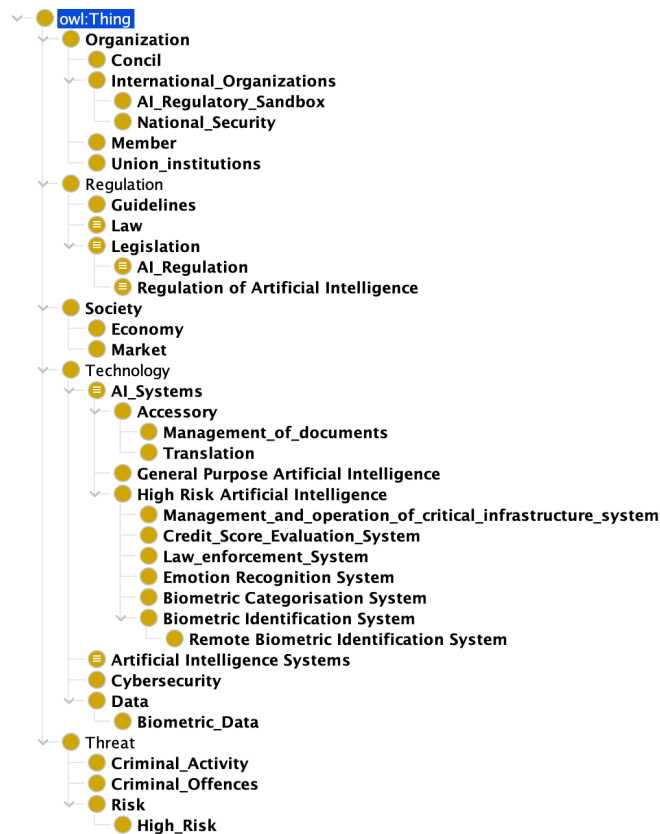
We highlighted semi-important words that can be potentially categories or potentially linked together with some core relations.

Lists of candidates (and Key Term of the domain) : Regulation, AI-based, AI, Artificial intelligence systems (AI systems), economy, society, fundamental rights obligations, Treaty on the Functioning of the European, law, European Data, Artificial intelligence, Union law, safety, Guidelines, Regulation, European Parliament, Member States, AI systems, national labour law, biometric, biometric identification system, high-risk, market, European Union, Europol, EU, third countries, &nbsp;international organisations, Recipient Member States, Union institutions, defence, national security, criminal offences, biometric data, other, remote biometric identification, High-risk AI, legislation, criminal offences, democratic processes, administrative activities, administrative tasks, restrictions, High data quality, cybersecurity, vulnerabilitie, European Parliament, Council, bodies, Fundamental Rights of the, AI regulatory sandbox, Commission, AI, emotion recognition system, biometric categorisation system, remote biometric identification system, General purpose AI, Union legislation, Member, Union financial services legislation

We kept as Core concepts what we thought was very important:

- Regulation (superclass of law, rules...)
- Technologie (superclass of AI Systems, Cybersecurity...)
- Organization (superclass of institutions...)
- Threats (Criminal Activities...)

Because we could: Here is subclasses propositions within the core concepts:



Core relations:

Here are the relations between core concepts:

- **Technologies** can be “Regulated By” **Organization**
- **Threat** can be “caused By” **Technologies**
- **Society** can be “threatened” by **Threat**
- **Organization** can “apply” **Regulation**
- **Regulation** can “control” **Technologies, Society**

Some additional relations (that may be not core relations) can be found within the file.



Model of the core ontology with protege:

The file with the ontology is in the archive. This ontology contains more information than just the “core ontology” but the core ontology is here.

Domain ontology competences:

- The ability to understand the concepts and relationships defined in the ontology related to the regulation of the use of AI in the European Union
- The ability to use the ontology to understand and analyze legislative documents, regulations, and guidelines that govern the use of AI in the European Union
- Knowledge of the legal, technical and ethical aspects related to AI governance and the use of AI in the EU context.

*Document:*

<https://docs.google.com/document/d/15axmtgTPYuy5EPv0cq-zSl3S9AzvLPGQaQlB1Zl0L9w/edit?usp=sharing>

## add evaluation concepts

AI has a core concept

-> AI Domain (where can it be applied)

-> AI SYSTEM Approach (ML, DL...)

-> AI Development process (steps, evaluation...)

-> AI System

-> Data

->->High Risk AI System

Law

-> Law Text

Agent

-> Organization

-> Person