

The logo for SEMICON 2023 features a network of interconnected nodes in blue, orange, and yellow, with lines connecting them. This logo is positioned above the text 'SEMICON 2023 conference 23' inside a glowing cyan circle.

SEMICON 2023
conference 23

A yellow location pin icon with a white dot in the center, positioned above the word 'Madrid'.

Madrid

17 Oct

Pre-conference
workshops

SORTIS - Study On Regulatory reporTing Standards

- **Create a metadata vocabulary for regulatory reporting, reusing metadata elements from the European semantic domain ELI, AKN4EU (*first iteration*)**
- An algorithm to semantically annotate the legal information contained in regulatory text according to such vocabulary (*in development together with prof. Ashwin Ittoo - University of Liege*)
- Build reusable template regulatory reporting clauses (*in development*)

Main approach

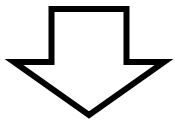
- To use an ontology for modelling the legal knowledge
- To use AI for extracting the legal knowledge
- To use AKN for identifying the correct part of the original text
- To use AKN-ELI metadata for detecting the modifications

An example regulatory reporting obligation

Regulation (EU) 2016/1011 on indices used as benchmarks in financial instruments and financial contracts

Art. 54

2. Review the evolution of international principles applicable to benchmarks and of legal frameworks and supervisory practices in third countries concerning the provision of benchmarks and **report** to the **European Parliament and to the Council** every **five years after 1 January 2018**. That report shall assess in particular whether **there is a need to amend this Regulation and shall be accompanied by a legislative proposal, if appropriate.**



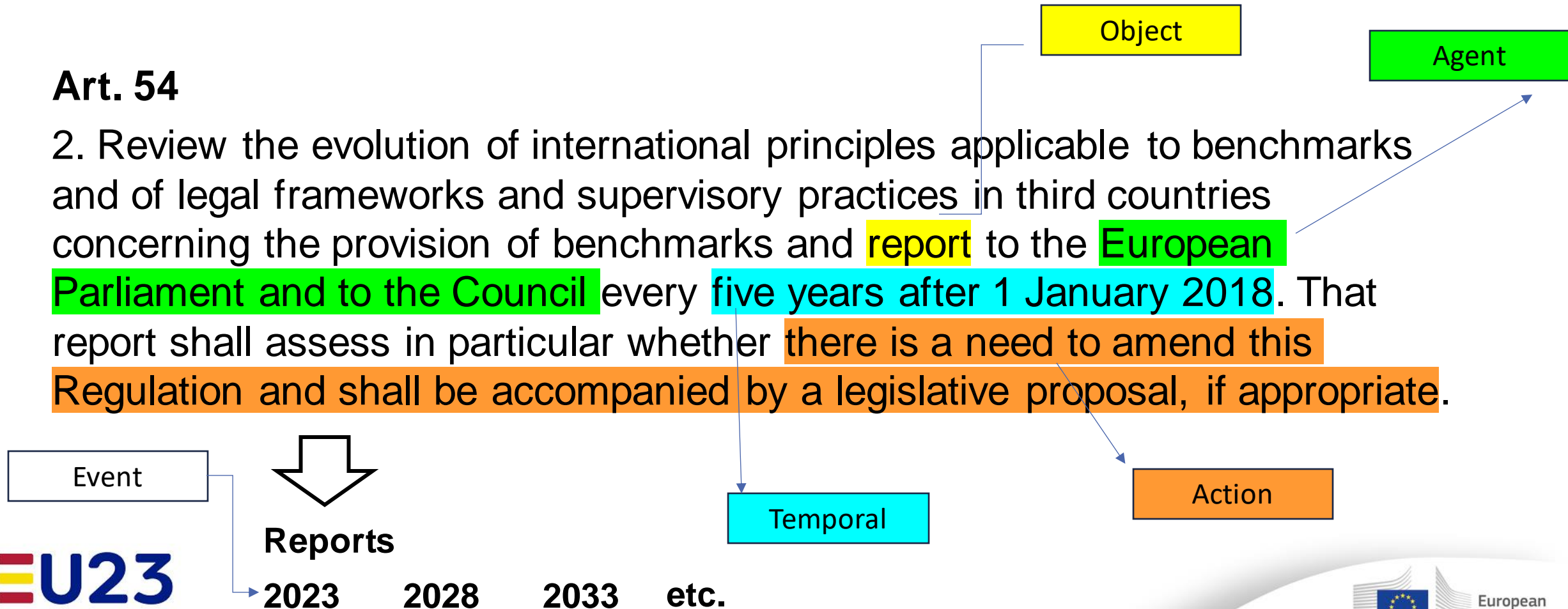
Reports

2023 2028 2033 etc.

The ontology is used for annotating reporting obligations

Art. 54

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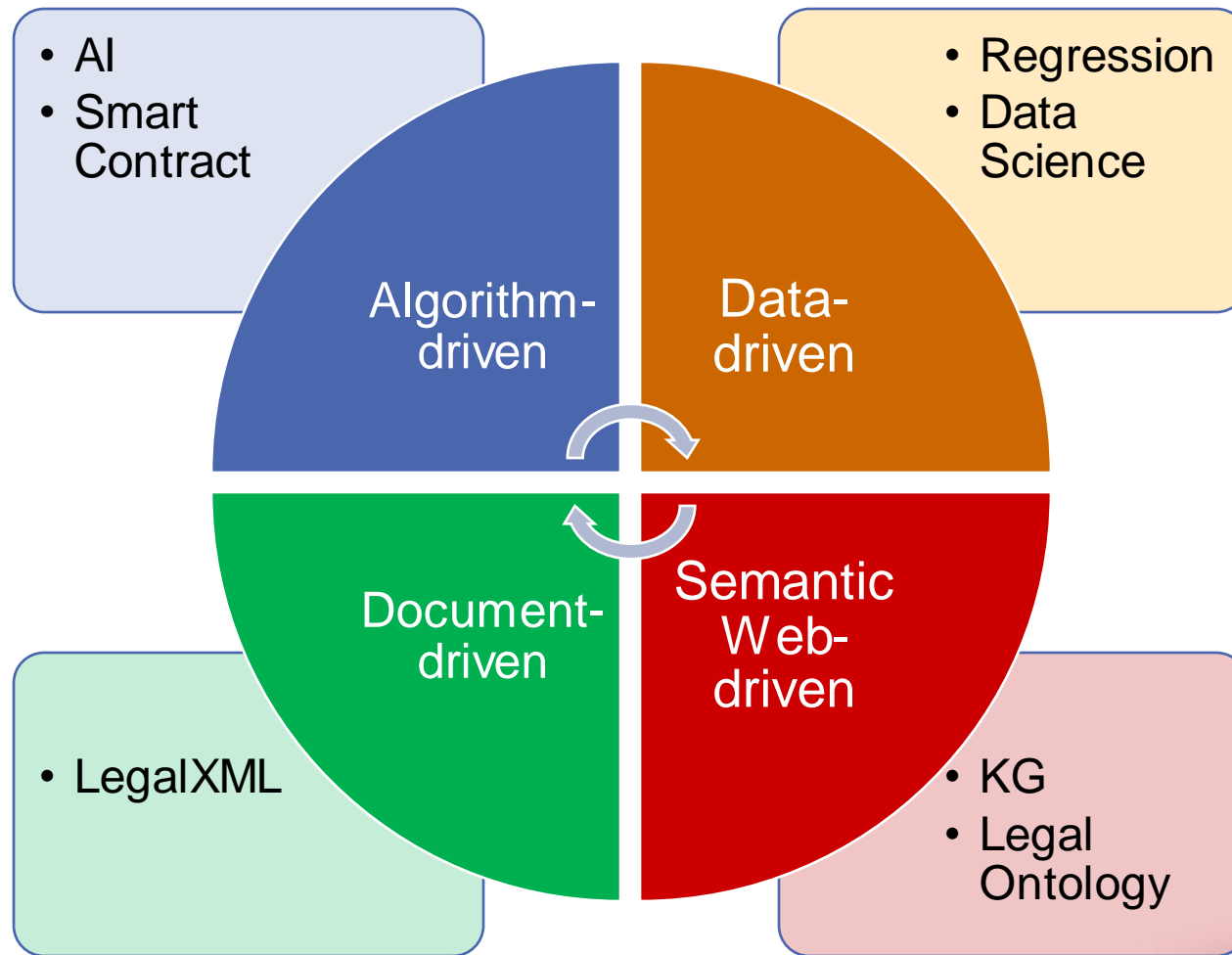
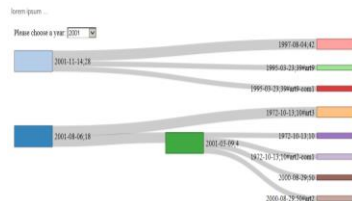
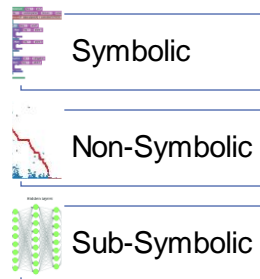


The ontology is interoperable with key semantic assets

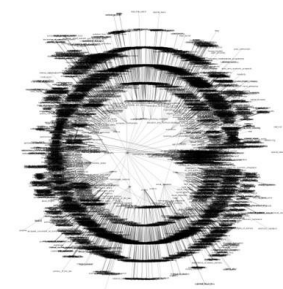
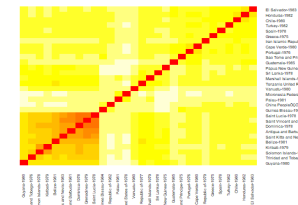
- Unique URI based on FRBR – AKN/ELI
- ELI ontology metadata reused
 - eli:Person, eli:Organization, eli:Agen, eli:cites, eli:related_to
- CCCEV - cccev:PeriodOfTime

Hybrid AI for the Legal Domain

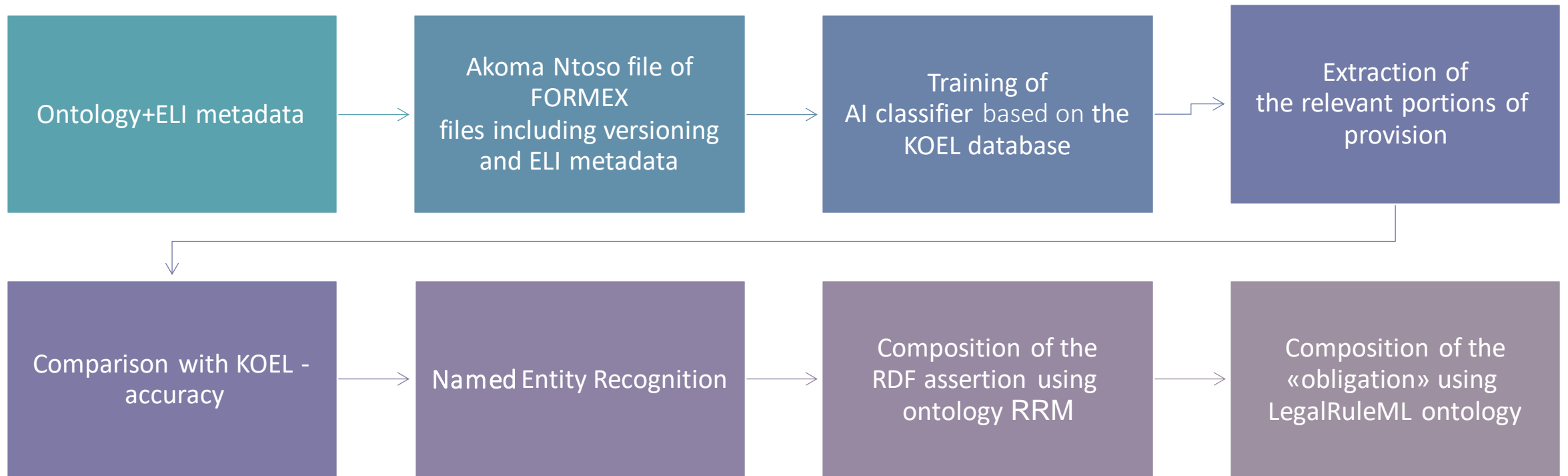
Content, Context, Semantic, Processing



Similarity World Constitutions



D

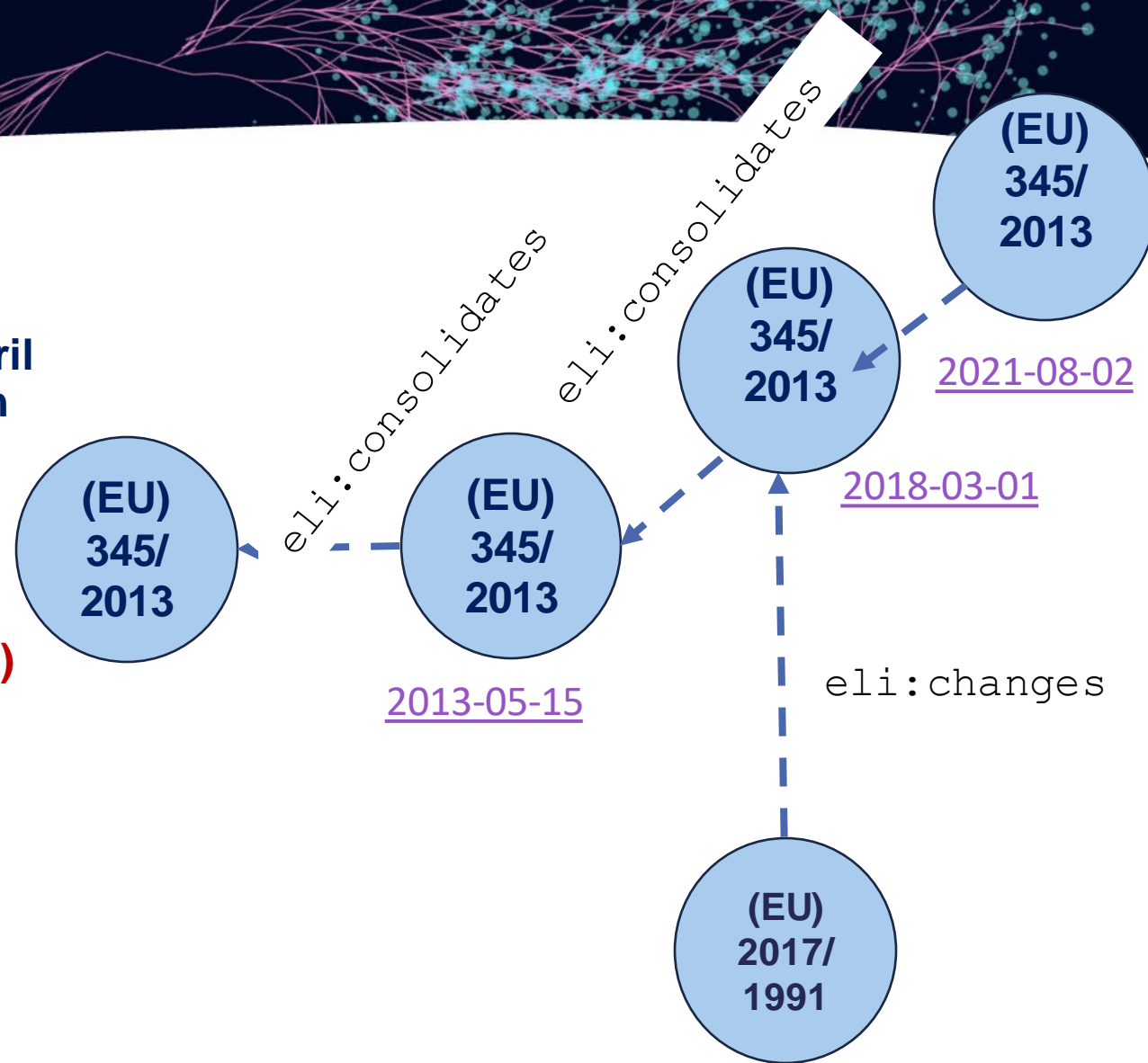


Business use case: legal versioning

The vocabulary takes into account temporal elements key for legal analysis

Ex: Reliable identification of the legal provision valid at a certain point in time

- Agent: FISMA
- Source: Regulation (EU) No 345/2013 of the European Parliament and of the Council of 17 April 2013 on European venture capital funds Text with EEA relevance – celex:32013R0345
- Type of Action: Report
- Frequency: One
- Provison involved: Art. 26, paragraph 1, points (a) to (g), (i) and (j)
- Old text: 22/7/2017
 - (a) by **22 July 2017** as regards points (a) to (g), (i) and (j); and
- New text: 01/03/2018
 - (a) by ► **M1 2 March 2022** ◀ as regards points (a) to (g), (i) and (j); and



Business use case: regulatory reporting obligation management

A legal knowledge graph based on the ontology would enhance reporting obligation data management, empowering further use cases:

- Enhanced search
- Data analytics
- Innovative applications



Thank you!