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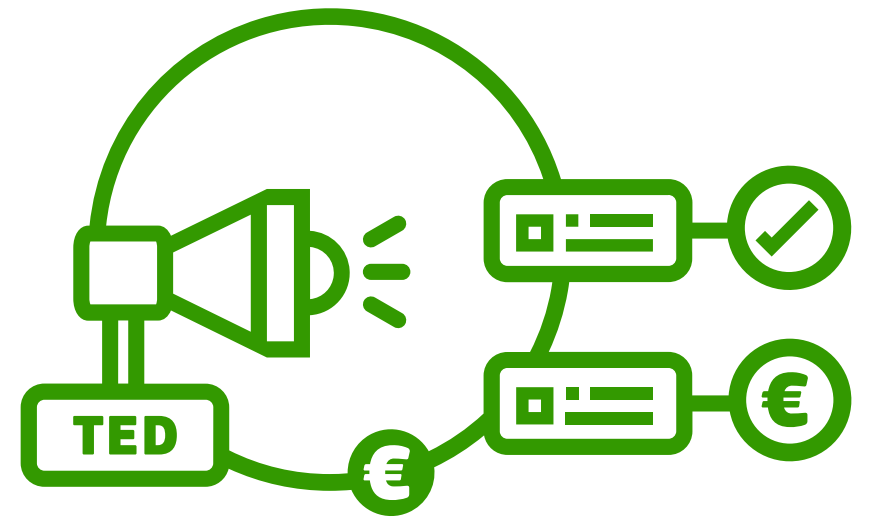
# Making the most of the eProcurement Ontology (ePO)

Unlocking Interoperability and Efficiency  
in European Public Procurement

**28 November 2025 - TED-together**

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Publications Office of the European Union



## How it all started?

- CEN BII Workshop
- CEN/TC 440



Architecture



Notification



Tendering



Catalogue



Post-Award

## Business Pain Points Addressed By The ePO



**Time lost reconciling  
information between  
platforms**



**Compliance  
complexity and risk  
of errors**



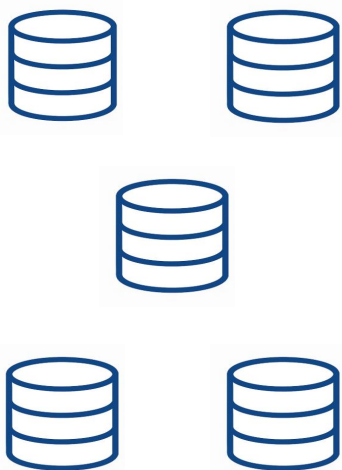
**Missed insights due to  
poor data reuse**



**Difficulty proving transparency  
and value for money**

# What If Procurement Data Could Flow Seamlessly?

Imagine every stakeholder “speaking the same language”.



**BEFORE**



Tendering



Contract signing



Data analytics

**AFTER**

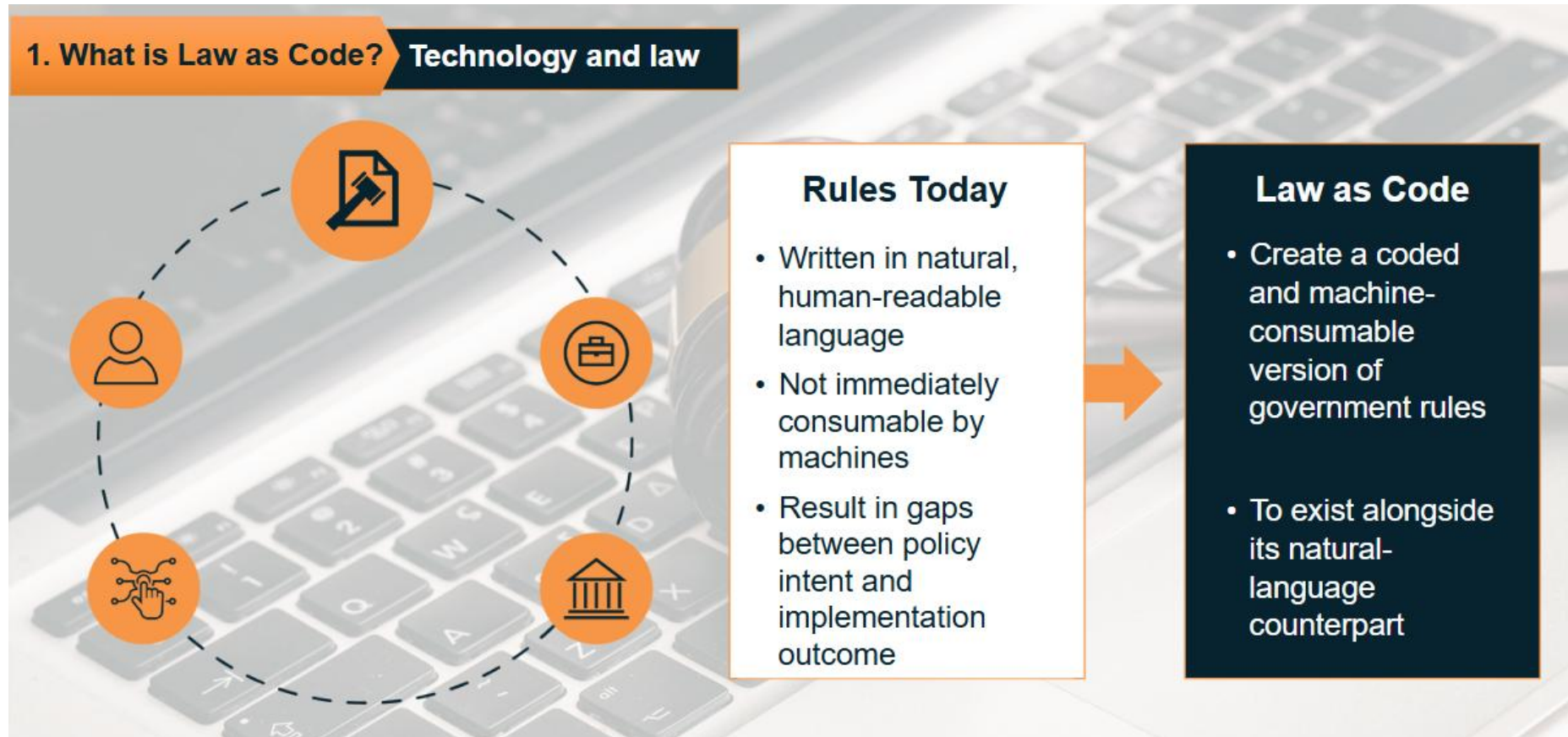
# The Policy Context: Interoperability Act (Regulation (EU) 2024/903)

- New Regulation establishing a common framework for interoperable public services in the EU.
- Emphasizes **semantic interoperability and reuse of common specifications and ontologies**.
- ePO is a practical implementation of these principles in the procurement domain.



# Law as Code and Smart Regulation

## 1. What is Law as Code? Technology and law



<https://academy.europa.eu/courses/understanding-law-as-code>

# Digital-ready legislation: Designing Rules for Machines and People

## 1. What is Law as Code? Digital-ready policymaking

### Digital-ready policies: Components and enabler



1. User centric process  
ready for automation



2. Alignment with digital  
policies



3. Once-only principle  
and reuse of data



4. Evolving ICT landscape



5. Innovation &  
Digital technologies



6. Digital-ready drafting



**Enabler:**  
Multidisciplinary teams

<https://academy.europa.eu/courses/understanding-law-as-code>  
Digital-Ready Policymaking (DRPM@EC)



# Semantics in legislation

## 2. Semantics in legislation Legal ontologies and semantic interoperability

### Law as Code

#### Legal Ontologies

Serve to encode the structures and relationships inherent in legal documents.

They address elements that are cross-domain and applicable across various legal contexts.

#### Domain-specific semantic assets

Capture the concepts and relationships that embody the knowledge within a specific legal field.

Such assets include ontologies, vocabularies, and taxonomies.

<https://academy.europa.eu/courses/understanding-law-as-code>



## Why Semantics Matter?

- Syntax: data format (XML, JSON)
- Semantics: data meaning (ontology)
- Example:
  - "Procedure" vs. "Contract"
  - "Contractor" vs. "Seller"
- Semantics enables interoperability, automation, and analytics

# From Paper to Digital

The image shows a paper form titled 'Supplement to the Official Journal of the European Union' with the URL 'http://map.industry.eu'. It is a 'Prior information notice' (Directive 2004/17/EC). The form is divided into three main sections: Section II: Object, Section I: Contract, and Section I: Contracting authority. Section II: Object includes fields for Title, Main CPV code, Type of contract, Short description, Estimated total value, Information about lots, Description, Additional CPV code, Place of performance, Description of the procurement, Award criteria, Estimated value, Duration of the contract, Framework, Information about variants, Information about options, Information about European Union, and Estimated date of publication of contract notice. Section I: Contract includes fields for Name and address, Joint procurement, Communication, and Main activity. Section I: Contracting authority includes fields for Name and address, Joint procurement, Communication, and Main activity.

<XML>

71881-2016 - Competition  
Romania-Bucuresti: Credit granting services  
OJ S 43/2016 02/03/2016  
Contract notice – utilities  
Services

Directive 2004/17/EC

## Section I: Contracting entity

### I.1. Name and addresses

Official name: Electrocentrale Bucuresti SA  
Postal address: Splaiul Independentei 227, sector 6  
Town: Bucuresti  
Postal code: 060021  
Country: Romania  
For the attention of: Anca Iuliana Ordean  
E-mail: [anca.ordean@elcen.ro](mailto:anca.ordean@elcen.ro), [achizitii@elcen.ro](mailto:achizitii@elcen.ro)  
Telephone: +40 212751476  
Fax: +40 212751406  
**Internet address(es):**  
General address of the contracting entity: [www.elcen.ro](http://www.elcen.ro)  
Address of the buyer profile: [www.e-licitatie.ro](http://www.e-licitatie.ro)  
**Additional information can be obtained from:**  
Official name: Electrocentrale Bucuresti SA  
Postal address: Splaiul Independentei nr.227  
Town: Bucuresti  
Postal code: 060041  
Country: Romania

# From Document to Data

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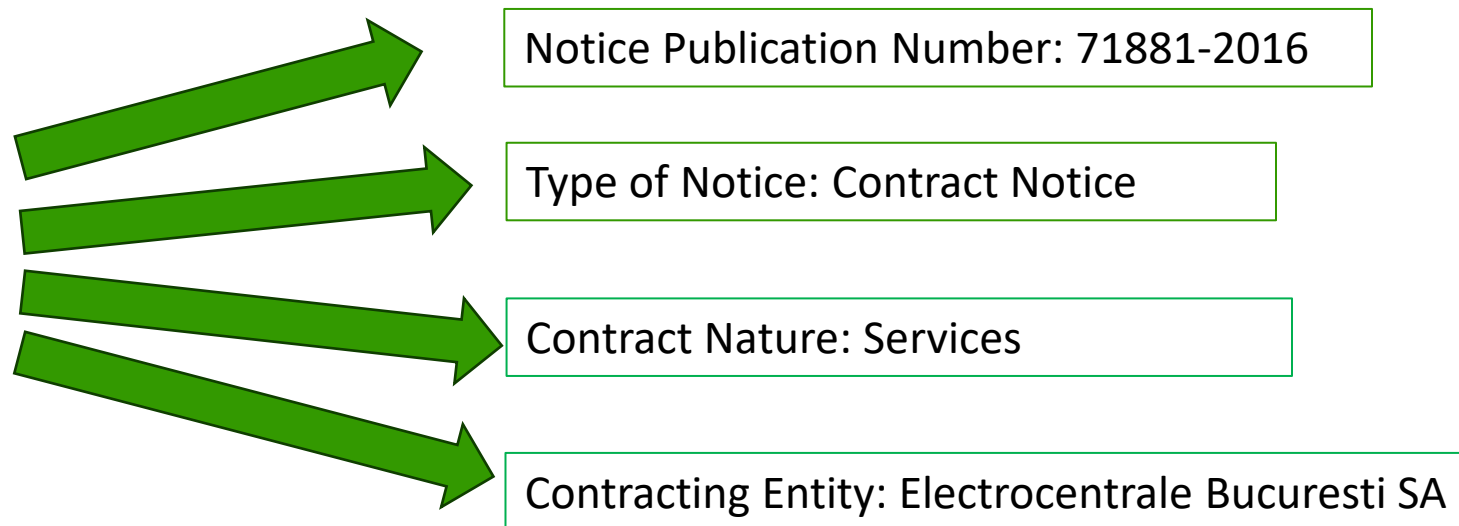
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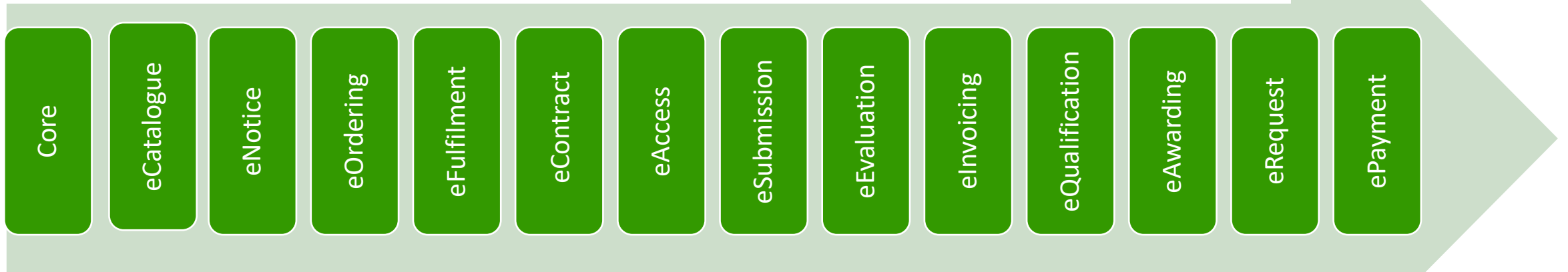


Extracting data from documents in a uniform way allows data to be linked across :

- time
- organisations
- the procurement life cycle

# Introducing the eProcurement Ontology (ePO)

2017

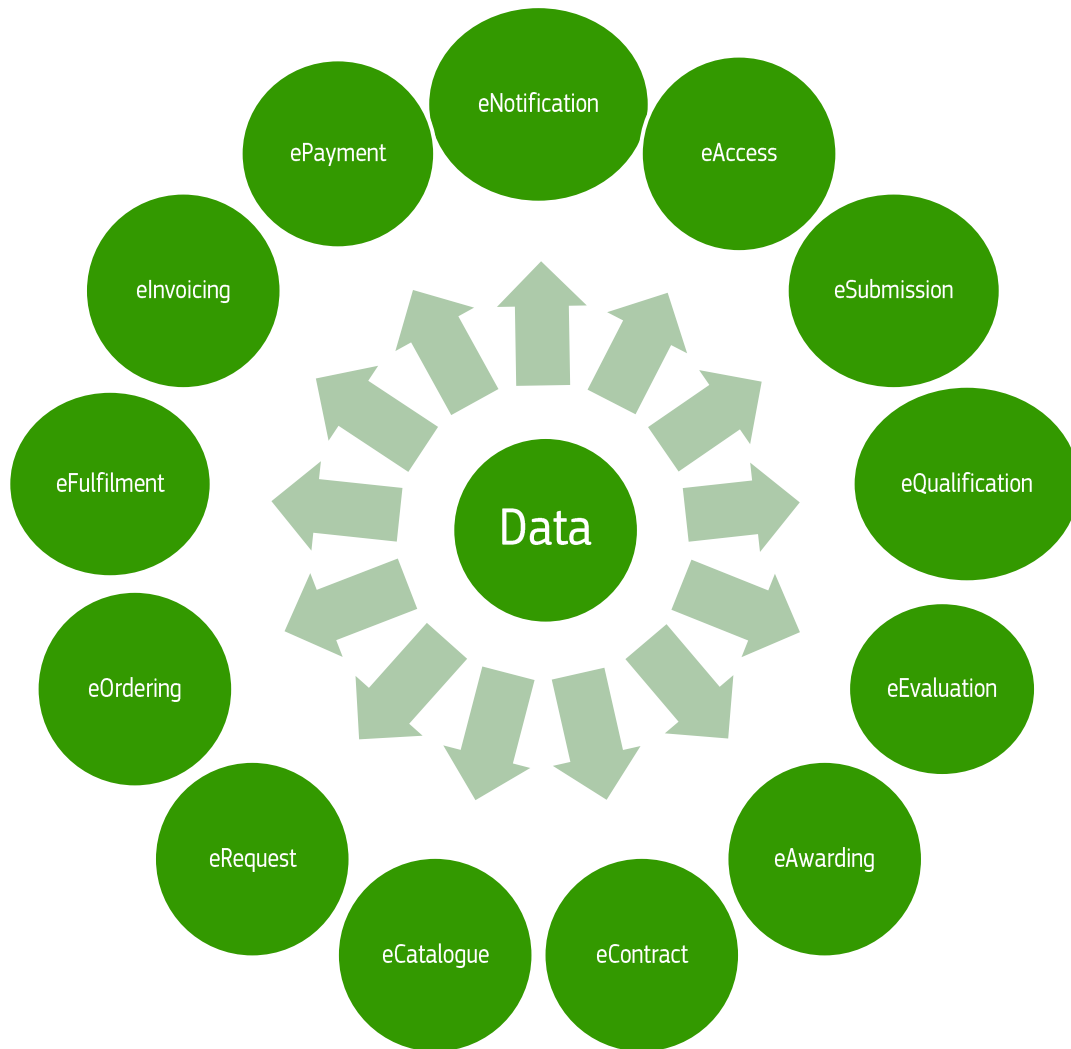


Standard semantic data model across the public procurement lifecycle.

2025

# The eProcurement Ontology (ePO)

## Model of the complete procurement lifecycle

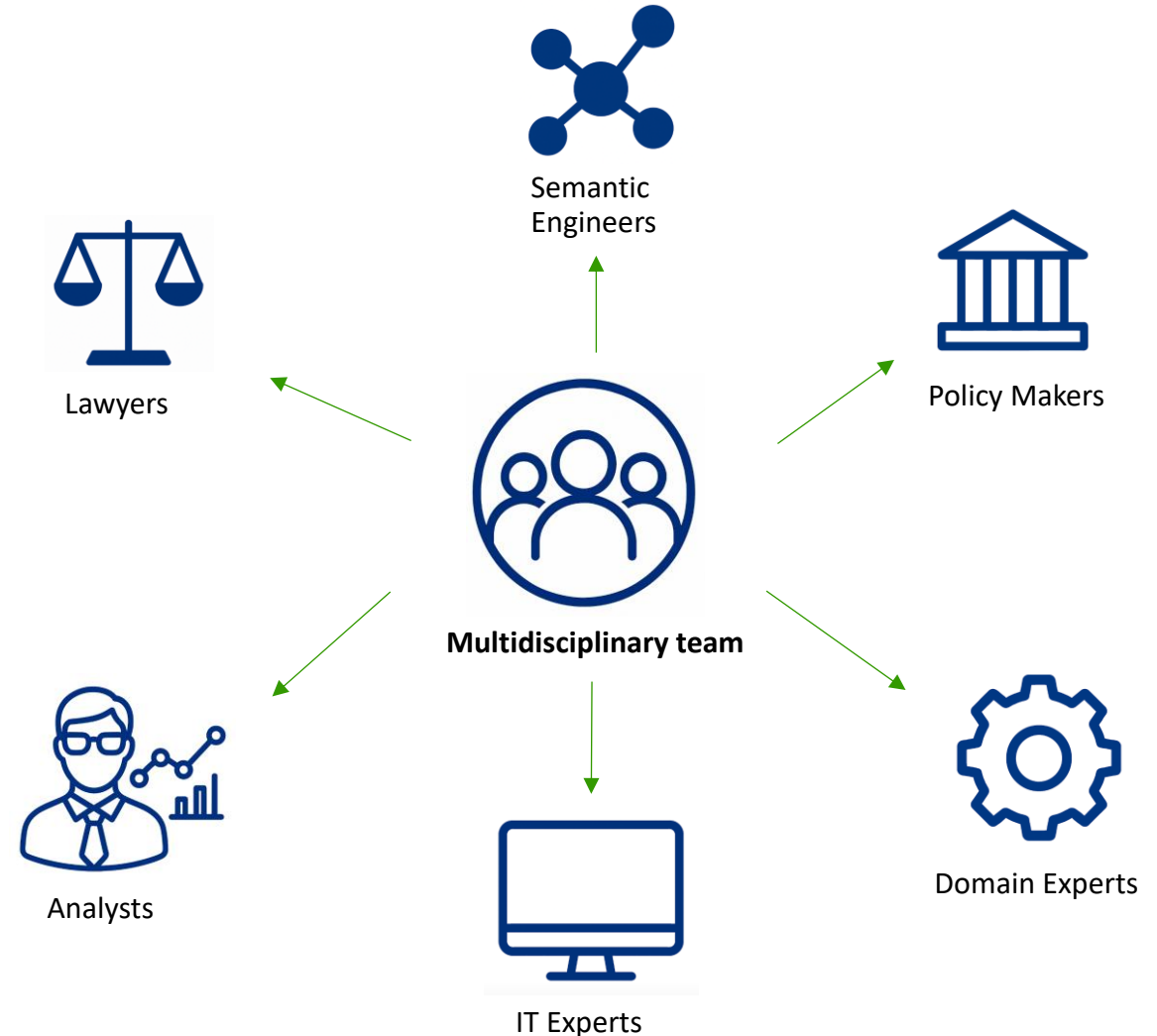


The ePO enables:

- Easier data integration, reuse and interoperability
- Faster, more accurate reporting
- Improved transparency and accountability
- Reduced duplication and manual entry
- AI agents to understand the procurement domain by providing the semantic context.

## Lessons learnt in creating the ePO

- The ePO can be used as a test-bed when drawing up new legislation to ensure smooth and quick implementation by the Member States.
- Implementation works better with multidisciplinary teams.





## The Road Ahead

- Facilitate digital-ready legislation.
- Facilitate Law as Code.
- Facilitate linking to other data spaces.
- Work with AI community to improve usability for AI training.
- Incorporate future changes of Public Procurement legislation, eForms and other stakeholder needs.
- Align and connect with other linked data standards & ontologies.
- Evolve with technology.

## Conclusions

- **Semantic interoperability** is essential in our digital era.
- The **ePO** provides the semantics for **end-to-end electronic public procurement**.
- The **ePO** is available and ready for use.
- We are ready to work with you on the **digitalisation of public procurement**.

## Tools and Resources



Visit ePO resources:

- [Documentation website](#)
- [GitHub repository](#)



Join the community

- [E-mail address](#)
- [GitHub discussions](#)



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