

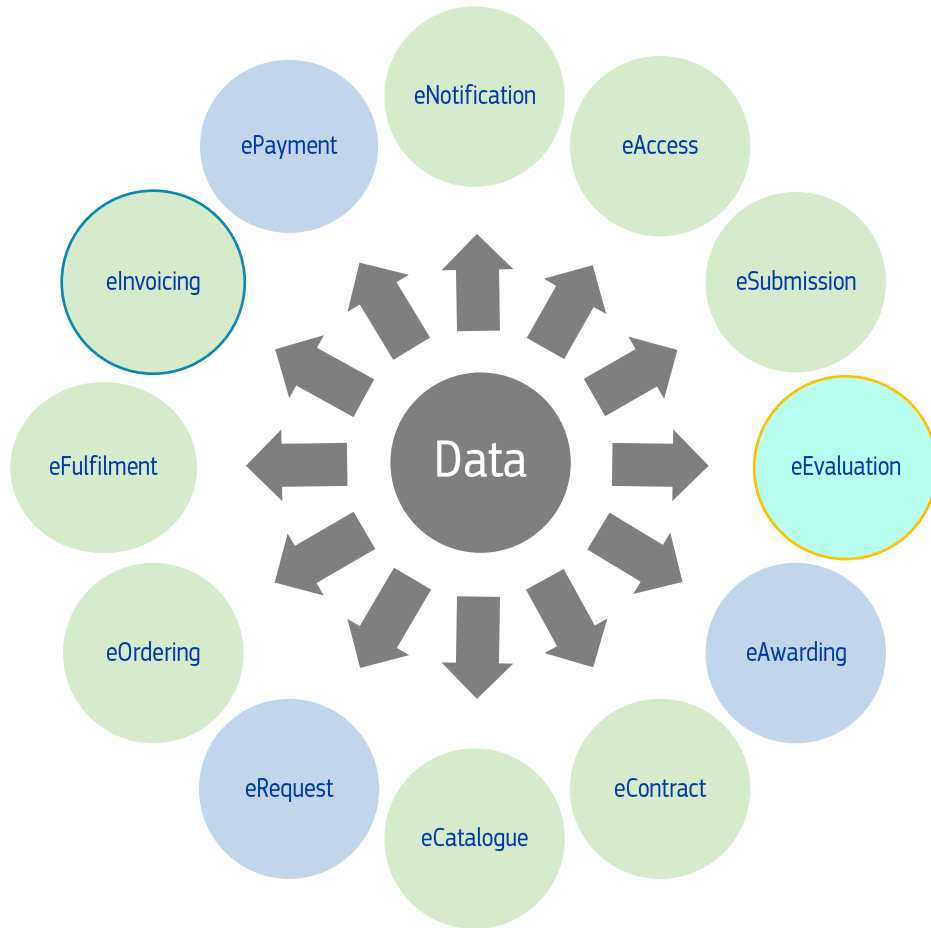


Publications Office  
of the European Union

# The eProcurement Ontology - News and updates

TED Together  
Natalie Muric  
Luxembourg 2024

# Model of the complete procurement lifecycle



The ePO enables:

- ✓ Correctness of input data
- ✓ Provision of quality data
- ✓ Efficient reuse
- ✓ Enhanced transparency
- ✓ Viability of analysis
- ✓ Data usage from across the procurement life cycle

# Machine readable and human readable concepts

## Machine Readable concepts

```
:hasItemCountryOfOrigin rdfs:domain :Tender ;  
  rdfs:range skos:Concept .
```

```
:includesTender rdfs:domain :Contract ;  
  rdfs:range :Tender .
```

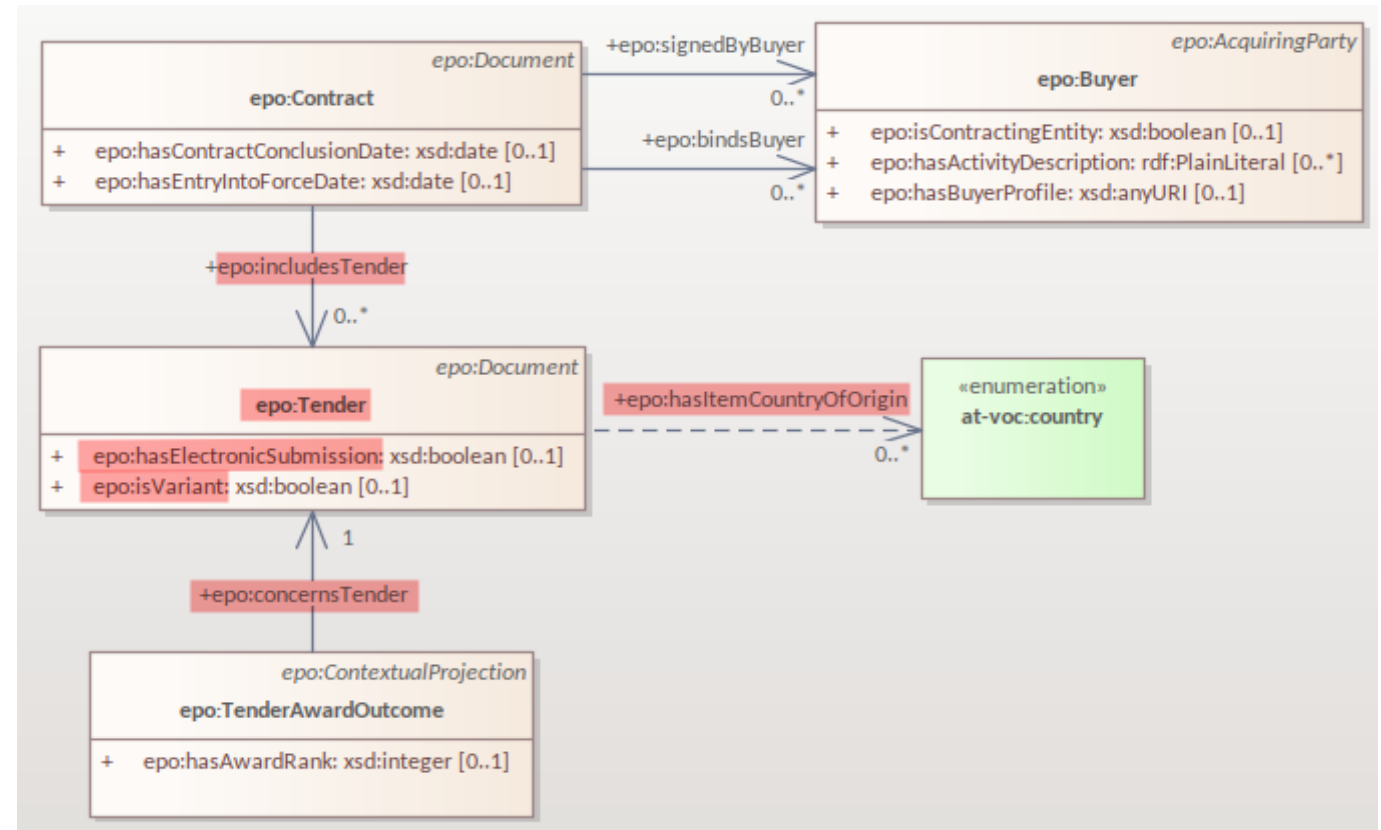
```
:concernsTender a owl:FunctionalProperty ;  
  rdfs:domain :TenderAwardOutcome ;  
  rdfs:range :Tender .
```

```
:hasElectronicSubmission rdfs:domain :Tender ;  
  rdfs:range xsd:boolean .
```

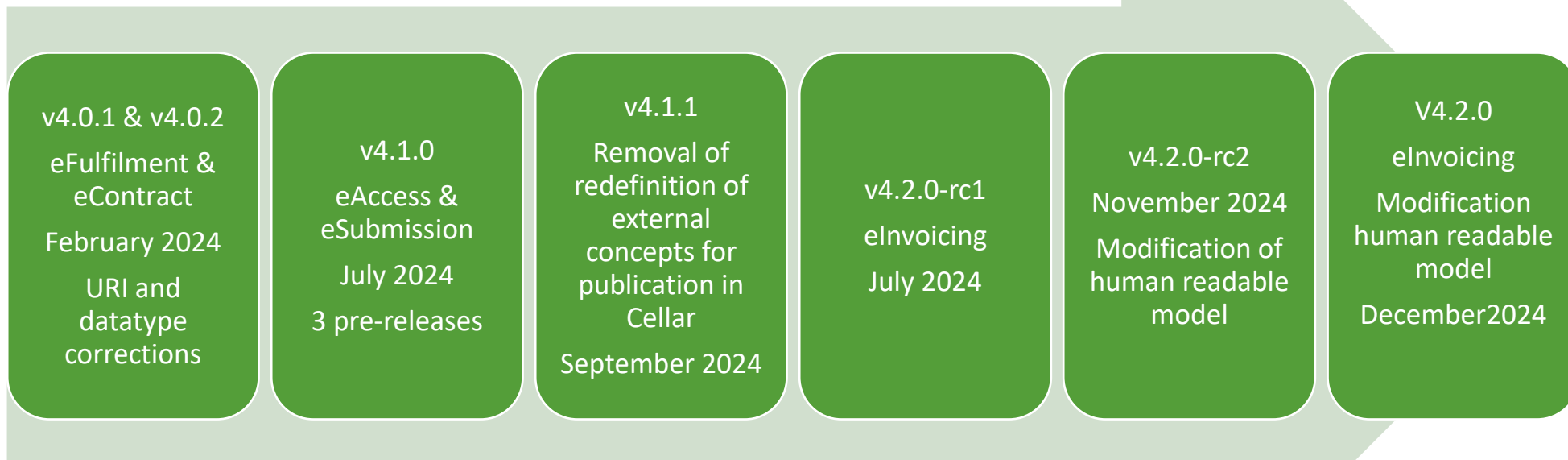
```
:isVariant rdfs:domain :Tender ;  
  rdfs:range xsd:boolean .
```

```
:Tender a owl:Class ;  
  rdfs:isDefinedBy :core ;  
  rdfs:subClassOf :Document ;  
  skos:definition "Information submitted by the Economic Operator to specify its Offer regarding a specific Lot, in response to the call for Tender. (WG approval 03/05/2022)"@en ;  
  skos:prefLabel "Tender"@en .
```

## Human readable concepts



# 2024 Releases



# Editorial and history notes

**Class : epo:AdHocChannel**

**Properties**

- General
- Responsibilities
- Requirements
- Constraints
- Scenarios
- Files
- Related
- Links

**Name:**  
epo:AdHocChannel

**Web page where tools and devices for electronic communication that are not generally available can be downloaded free of charge.**

**Class (epo:AdHocChannel)**

- skos:editorialNote Used by eForms BT-724
- skos:historyNote WG Approval 10/01/20...
- from cv:Channel

**UML Diagram:**

```
graph TD
    epoAgentInRole[epo:AgentInRole] -- "+epo:exposesChannel [0..*]" --> cvChannel[cv:Channel]
    cvChannel <|-- epoAdHocChannel[epo:AdHocChannel]
```

**epo:AgentInRole**

- + dct:description: rdf:PlainLiteral [0..\*]
- + dct:title: rdf:PlainLiteral [0..\*]

**cv:Channel**

- + dct:description: rdf:PlainLiteral [0..1]
- + epo:hasAddressURL: xsd:anyURI [0..1]

**epo:AdHocChannel**

# External concept links

The image shows a UML class diagram on the left and a software tool window for editing the 'cccev:Criterion' class on the right.

**UML Class Diagram:**

- cccev:Criterion** class:
  - + cccev:bias: xsd:decimal [0..1]
  - + cccev:weight: xsd:decimal [0..1]
  - + cccev:weightingConsiderationDescription: rdf:PlainLiteral [0..1]
- epo:ProcurementCriterion** class:
  - + epo:hasAdditionalInformation: rdf:PlainLiteral [0..1]
  - + epo:hasFormula: rdf:PlainLiteral [0..1]
- Relationships:**
  - Generalization: **epo:ProcurementCriterion** inherits from **cccev:Criterion**.
  - Association: **cccev:Criterion** is associated with **epo:ProcurementCriterion** via the role **epo:hasWeightValueType**.

**Software Tool Window (Class: cccev:Criterion):**

**Properties:**

- Name:** cccev:Criterion

**Responsibilities:**

- Requirements
- Constraints
- Scenarios
- Files
- Related
- Links

**External concept defined by** <http://data.europa.eu/m8g/Criterion>

**Metadata:**

- Stereotype:
- Status: Proposed
- Alias:
- Keywords:
- Author: lps
- Complexity: Easy
- Language: Java
- Version: 1.0
- Phase: 1.0
- Package: classes
- Created: 26-04-2022 17:20:03
- Modified: 11-11-2024 09:55:45

**Buttons:** Main, Details, Advanced, Tags, OK, Cancel, Apply, Help

# Model2Owl – Updates



## Ongoing work

- Filtering of data in the human readable format
- SmarterCamelCase
- Incorporating the semic fork
- Remove duplicate imports
- Handling property inheritance in SHACL shapes

- UML : unified modeling language
- OWL: web ontology language
- SHACL: shapes constraints language

# ePO work







## ePO in 2025

### v5.0.0

- eEvaluation
- eForms coverage

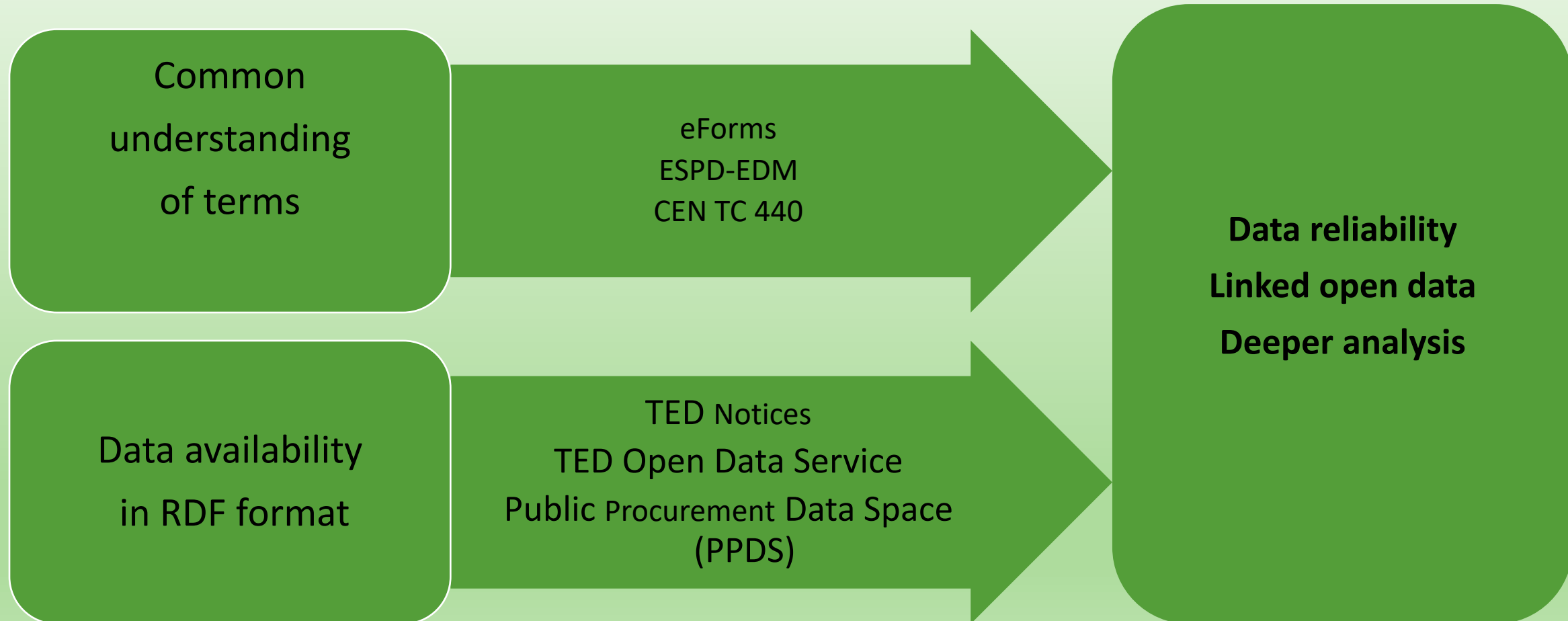
### Development

- eAwarding
- eRequest
- ePayment

### Maintenance

- All modules
- All artefacts

## Recap of the advantages of the ePO



# How do we ensure the correctness and quality of the ePO

- Weekly meetings with procurement stakeholders (please contact us to join) to:
  - Create the human readable view
  - Define the data concepts and their relations
- Automation and Feedback mechanisms
  - Automatic transformation from human readable to machine readable
  - Publish release candidates to allow review and feedback
  - Availability on [github](https://github.com) to encourage the raising of issues and discussions
- Reuse of other vocabularies
  - Core vocabularies
  - Authority tables

<https://github.com/OP-TED/ePO>

[Issues · OP-TED/ePO \(github.com\)](#)

<https://docs.ted.europa.eu/epo-home/index.html>

[OP-EPROCUREMENT-ONTOLOGY@publications.europa.eu](mailto:OP-EPROCUREMENT-ONTOLOGY@publications.europa.eu)

[Natalie.muric@publications.europa.eu](mailto:Natalie.muric@publications.europa.eu)



© European Union 2024

Unless otherwise noted the reuse of this presentation is authorised under the [CC BY 4.0](#) license. For any use or reproduction of elements that are not owned by the EU, permission may need to be sought directly from the respective right holders.

