

# TED OPEN DATA SERVICE

## EVOLUTION

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Publications Office of the European Union

TED-together 2025



## Today's topics

- Let's explore a real use case
- From XML notices to Linked Open Data
- Data available in Cellar
- Linked Open Data in a nutshell
- Our tools
- Our vision and roadmap
- Developer community
- Q&A

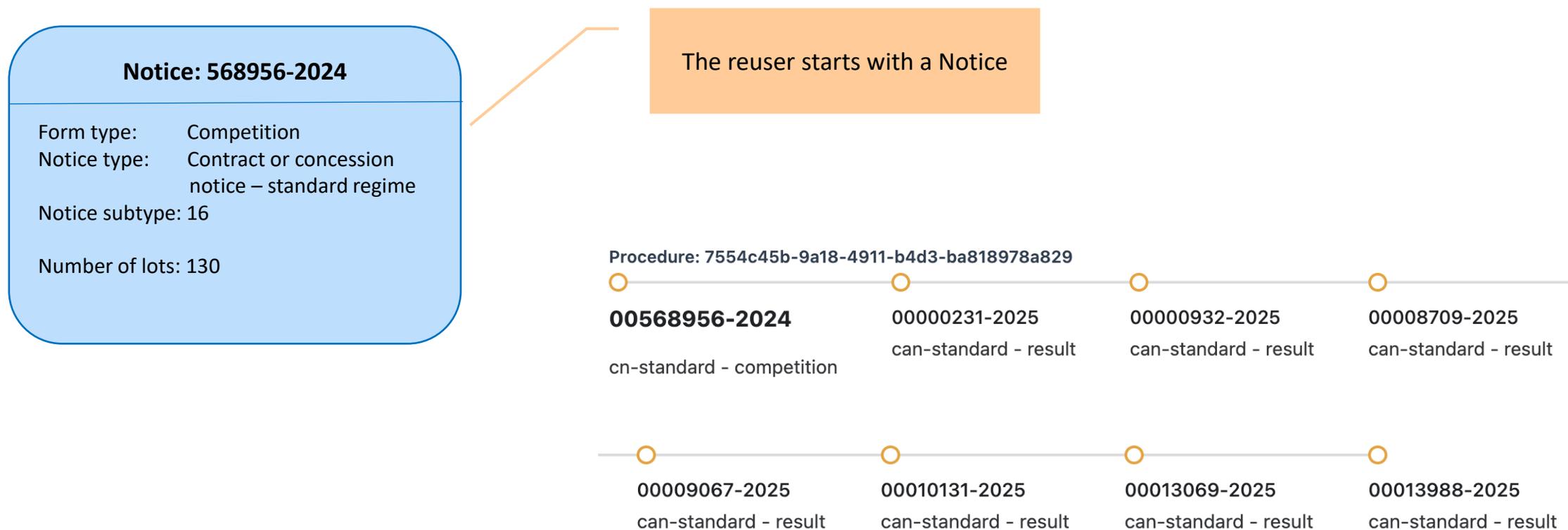


**e-Procurement**

# Let's explore a real use case

## The need

*A reuser would like to know which economic operator wins which lot in a given procedure.*



# Let's explore a real use case

## The expected result: A spreadsheet

Procedure (id): **75....a829**

Result notices: **7**

Lots: **130**

The reuser needs an Excel spreadsheet containing the following information for each lot:

- Lot
- Notice publication number
- Winner
  - Legal identifier
  - Legal name

Lot	Publication Number	Legal Identifier	Winner
LOT-0001	00000231-2025	11206233	Medtronic Poland Sp. z o.o.
LOT-0002	00000231-2025	790003564	Bialmed Sp. z o. o
LOT-0003	00000231-2025	12401907	Boston Scientific Polska Sp. z o.o.
LOT-0004	00000231-2025	141354556	Xanthus Viomedical Sp. z o.o.
LOT-0007	00000231-2025	142972865	Artivion Polska sp. z o.o.
LOT-0008	00000231-2025	340769059	Promedica Toruń Sp. z o.o.
LOT-0009	00000231-2025	17397116	BERYL MED POLAND Sp. z o. o.
LOT-0010	00000231-2025	17397116	BERYL MED POLAND Sp. z o. o.
LOT-0011	00000231-2025	730920652	Baxter Polska Sp. z o.o.
LOT-0012	00000231-2025	17397116	BERYL MED POLAND Sp. z o. o.
LOT-0013	00000231-2025	790003564	Bialmed Sp. z o. o
LOT-0014	00000231-2025	142789010	LivaNova Poland Sp. z o.o.
LOT-0017	00000231-2025	12328754	Getinge Polska Sp. z o.o.
LOT-0018	00000231-2025	382541145	CYTOSORBENTS POLAND sp. z o. o.
LOT-0019	00000231-2025	12731970	Abbott Medical Sp. z o. o.
LOT-0020	00000231-2025	273295877	ZARYS International Group spółka z ograniczoną odpowiedzialnością spółka komandytowa
LOT-0022	00000932-2025	930505208	Agencja Naukowo-Techniczna SYMICO Sp z o.o.
LOT-0023	00000932-2025	930505208	Agencja Naukowo-Techniczna SYMICO Sp z o.o.
LOT-0024	00000932-2025	930505208	Agencja Naukowo-Techniczna SYMICO Sp z o.o.
LOT-0025	00000932-2025	930505208	Agencja Naukowo-Techniczna SYMICO Sp z o.o.
LOT-0027	00000932-2025	11206233	Medtronic Poland Sp. z o.o.



# Let's explore a real use case

## Querying the TED Search API

```
curl -X 'POST' \  
  'https://api.ted.europa.eu/v3/notices/search' \  
  -H 'accept: */*' \  
  -H 'Content-Type: application/json' \  
  -d '  
{  
  "query": "publication-number IN (231-2025)",  
  "fields": [ "organisation-identifier-tenderer", "organisation-name-tenderer" ],  
  "page": 1,  
  "limit": 100,  
  "scope": "ALL",  
  "paginationMode": "PAGE_NUMBER"  
}'
```



# Let's explore a real use case

## Querying the TED Search API

```
{
  "notices": [
    {
      "organisation-identifier-tenderer": [
        "011206233",
        "790003564",
        "012401907",
        "141354556",
        "142972865",
        "340769059",
        "017397116",
        "730920652",
        "012328754",
        "382541145",
        "012731970",
        "273295877",
        "142789010"
      ],
      "publication-number": "231-2025",
```

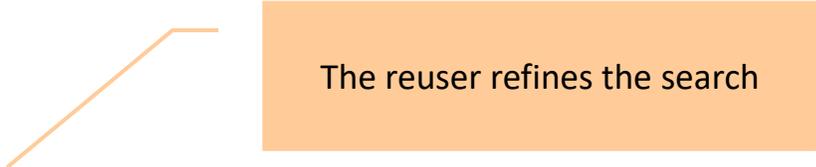
```
"organisation-name-tenderer": {
  "pol": [
    "Medtronic Poland Sp. z o.o.",
    "Bialmed Sp. z o. o",
    "Boston Scientific Polska Sp. z o.o.",
    "Xanthus Viomedical Sp. z o.o.",
    "Artivion Polska sp. z o.o.",
    "Promedica Toruń Sp. z o.o.",
    "BERYL MED POLAND Sp. z o. o.",
    "Baxter Polska Sp. z o.o.",
    "Getinge Polska Sp. z o.o.",
    "CYTOSORBENTS POLAND sp. z o. o.",
    "Abbott Medical Sp. z o. o.",
    "ZARYS International Group spółka...",
    "LivaNova Poland Sp. z o.o."
  ]
}, ...
```



# Let's explore a real use case

## Querying the TED Search API

```
curl -X 'POST' \  
  'https://api.ted.europa.eu/v3/notices/search' \  
  -H 'accept: */*' \  
  -H 'Content-Type: application/json' \  
  -d '  
{  
  "query": "publication-number IN (231-2025) AND organisation-identifier-tenderer=011206233",  
  "fields": [ "organisation-identifier-tenderer", "organisation-name-tenderer" ],  
  "page": 1,  
  "limit": 100,  
  "scope": "ALL",  
  "paginationMode": "PAGE_NUMBER"  
}'
```



The reuser refines the search

# Let's explore a real use case

## Querying the TED Search API

The reuser refined the search but obtained the same results !!!

```
{
  "notices": [
    {
      "organisation-identification-number": [
        "011206233",
        "790003564",
        "012401907",
        "141354556",
        "142972865",
        "340769059",
        "017397116",
        "730920652",
        "012328754",
        "382541145",
        "012731970",
        "273295877",
        "142789010"
      ],
      "publication-number":
```

This reflects the limitations of the TED search functionality.

Its primary goal is to find notices, and the search results are based on the notice itself rather than the individual fields within it.

The returned values are extracted using specific XPath expressions for each field, which produce a flat list of values.

```
"organisation-name-tenderer": {
  "pol": [
    "Medtronic Poland Sp. z o.o.",
    "Sp. z o.o.",
    "o.o.",
    ".",
    ".",
    "o.",
    "/",
    "o. o.",
    "spółka...",
    "
  ]
}
```

# Let's explore a real use case

## Linked Open Data to the rescue

The reuser identifies the procedure associated to the Competition Notice

```
PREFIX adms: <http://www.w3.org/ns/adms#>
PREFIX dcterms: <http://purl.org/dc/terms/>
PREFIX epo: <http://data.europa.eu/a4g/ontology#>
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
```

```
SELECT ?procedureIdentifier ?procedureTitle
```

```
WHERE {
  FILTER (?publicationNumber = "00569856-2024")

  ?notice a epo:Notice ;
    epo:hasNoticePublicationNumber ?publicationNumber ;
    epo:refersToProcedure [
      dcterms:title ?procedureTitle ;
      adms:identifier / skos:notation ?procedureIdentifier
    ]
}
```

procedureIdentifier

procedureTitle

"7554c45b-9a18-4911-b4d3-ba818978a829"

"ZP 32/24 dostawa sprzętu dla Oddziału Kardiologii"@pl

# Let's explore a real use case

## Linked Open Data to the rescue

The reuser then obtains the required data that spans across multiple notices

```
PREFIX adms: <http://www.w3.org/ns/adms#>
PREFIX epo: <http://data.europa.eu/a4g/ontology#>
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>

SELECT ?lot ?publicationNumber ?identifier ?winner

WHERE {
  FILTER (?procedureIdentifier = "7554c45b-9a18-4911-b4d3-ba818978a829")

  ?procedure adms:identifier / skos:notation ?procedureIdentifier .
  ?notice a epo:ResultNotice ;
    epo:hasNoticePublicationNumber ?publicationNumber ;
    epo:refersToProcedure ?procedure ;
    epo:announcesAwardDecision / epo:comprisesAwardOutcome /
      epo:comprisesTenderAwardOutcome / epo:concernsTender ?tender .
  OPTIONAL {
    ?tender epo:isSubmittedForLot / adms:identifier / skos:notation ?lot .
  }
  OPTIONAL {
    ?tender epo:isSubmittedBy / epo:playedBy / epo:hasLegalName ?winner .
  }
  OPTIONAL {
    ?tender epo:isSubmittedBy / epo:playedBy / epo:hasLegalIdentifier / skos:notation ?identifier .
  }
} ORDER BY ?lot
```



# Let's explore a real use case

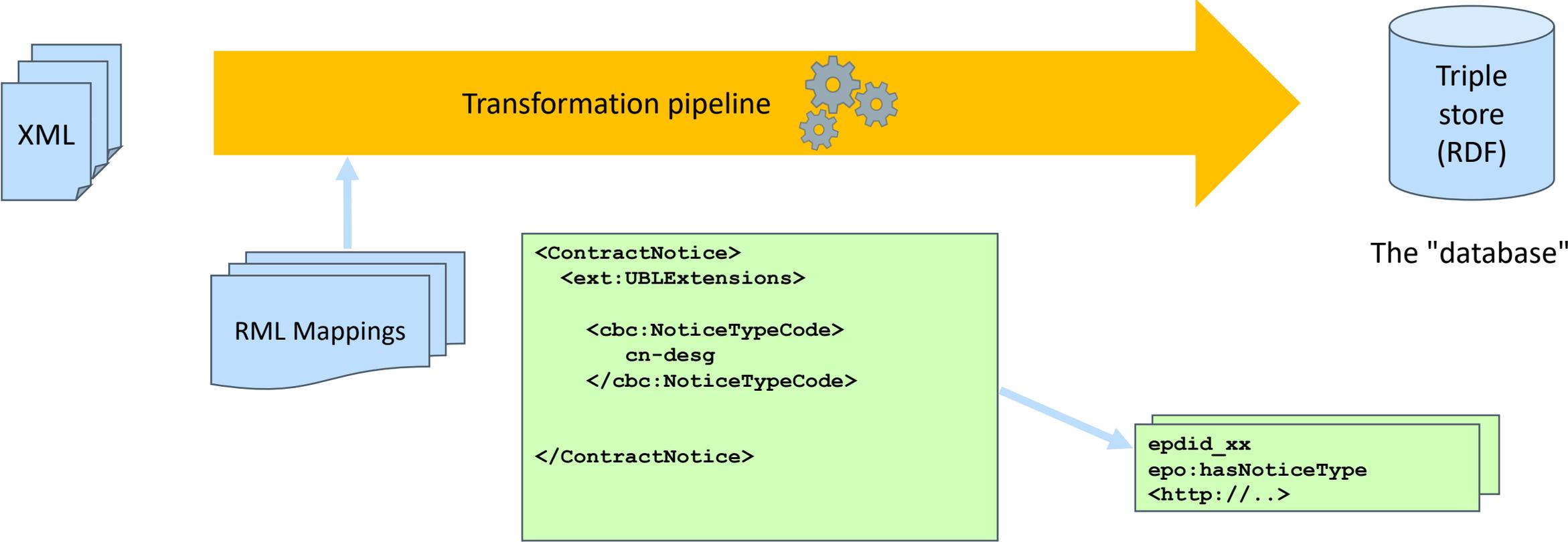
## Linked Open Data to the rescue

The reuser downloads it as an CSV file that can be imported into Excel

```
"lot","publicationNumber","identifier","winner"  
"LOT-0001","00000231-2025","011206233","Medtronic Poland Sp. z o.o."  
"LOT-0002","00000231-2025","790003564","Bialmed Sp. z o. o"  
"LOT-0003","00000231-2025","012401907","Boston Scientific Polska Sp. z o.o."  
"LOT-0004","00000231-2025","141354556","Xanthus Viomedical Sp. z o.o."  
"LOT-0007","00000231-2025","142972865","Artivion Polska sp. z o.o."  
"LOT-0008","00000231-2025","340769059","Promedica Toruń Sp. z o.o."  
"LOT-0009","00000231-2025","017397116","BERYL MED POLAND Sp. z o. o."  
"LOT-0010","00000231-2025","017397116","BERYL MED POLAND Sp. z o. o."  
"LOT-0011","00000231-2025","730920652","Baxter Polska Sp. z o.o."  
"LOT-0012","00000231-2025","017397116","BERYL MED POLAND Sp. z o. o."  
"LOT-0013","00000231-2025","790003564","Bialmed Sp. z o. o"  
"LOT-0014","00000231-2025","142789010","LivaNova Poland Sp. z o.o."  
"LOT-0017","00000231-2025","012328754","Getinge Polska Sp. z o.o."  
"LOT-0018","00000231-2025","382541145","CYTOSORBENTS POLAND sp. z o. o."  
"LOT-0019","00000231-2025","012731970","Abbott Medical Sp. z o. o."  
"LOT-0020","00000231-2025","273295877","ZARYS International Group spółka z ograniczoną odpowiedzialności  
"LOT-0022","00000932-2025","930505208","Agencja Naukowo-Techniczna SYMICO Sp z o.o."  
"LOT-0023","00000932-2025","930505208","Agencja Naukowo-Techniczna SYMICO Sp z o.o."
```



# From XML notices to Linked Open Data



# Data available in Cellar

## eForms

Conform to the eProcurement Ontology v4  
(to be upgraded to ePO v5 in 2026)

### Current availability:

- ✓ Daily eForms notices
- ✓ All eForms notices from 2023 and 2025
- ✓ Currently finalising the complete set of notices for 2024 (to be completed by the end of 2025)

## Standard Forms

Conform to the eProcurement Ontology v3.1  
(to be upgraded to ePO v5 after eForms)

### Current availability:

- ✓ A limited number of XML notices are available in Cellar. These were produced during the initial TED Open Data Service Pipeline proof of concept
- ✓ Form types F3, F6, F21, F22, F23, F25

# Linked Open Data in a nutshell

## The F.A.I.R. Data Principles

The goal



### Findable

Data is assigned a unique URI and metadata, making it discoverable through services like the TED Open Data Service.



### Accessible

Data is retrievable by its identifier using standard protocols (HTTP) via a SPARQL endpoint.



### Interoperable

Using the ePO ontology allows our data to be combined with other data sources.



### Reusable

Clear licensing and rich metadata (like CPV codes) allow you to confidently build new tools.

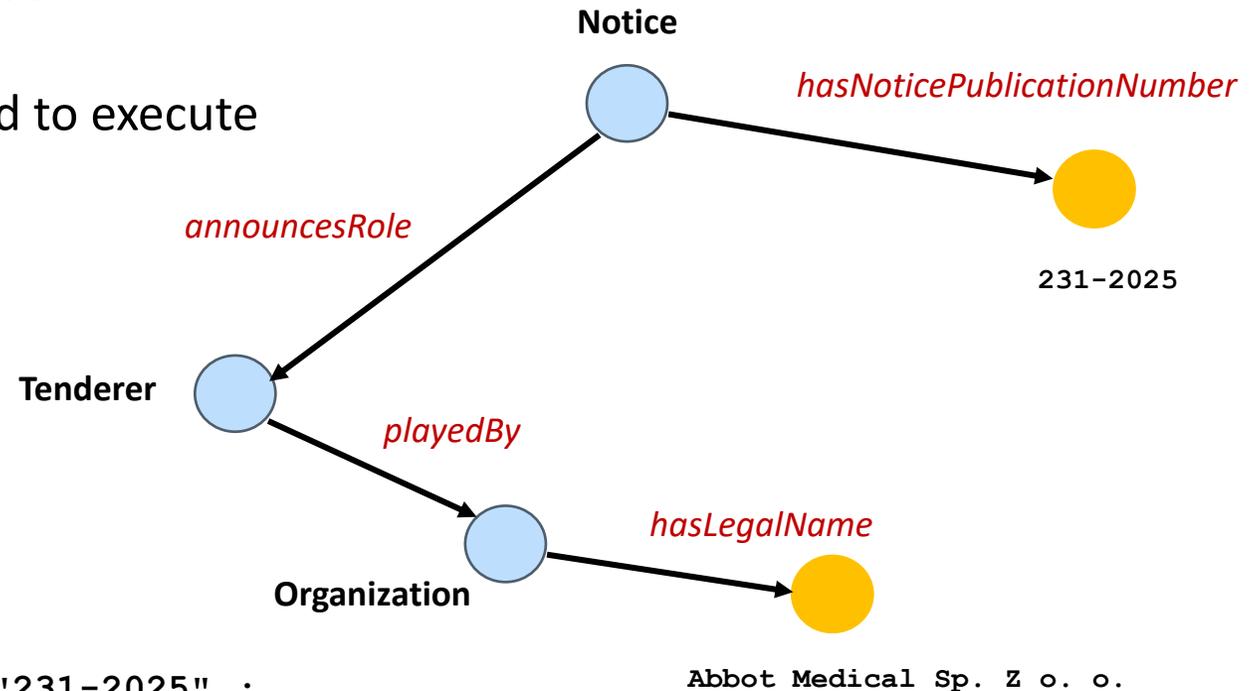
# Linked Open Data in a nutshell

## Querying the graph with SPARQL

The tool

SPARQL is the 'SQL for RDF':

- It lets us query the data graph as opposed to documents
- TED Open Data Service can be used to execute SPARQL queries



```
SELECT ?publicationNumber ?legalName
WHERE {
  ?notice a epo:Notice ;
  epo:hasNoticePublicationNumber "231-2025" ;
  epo:announcesRole / epo:playedBy / epo:hasLegalName ?legalName .
}
```

# Linked Open Data in a nutshell

## From data silos to a linked graph

The method

### Key Concepts

- ✓ Prefixes are key: `epo:` (eProcurement Ontology), `cpv:` (Common Procurement Vocabulary), `nuts:` (Nomenclature of Territorial Units)
- ✓ CPV: The *\*what\** (CPV)
- ✓ NUTS: The *\*where\**. Along with the CPV, the primary tools for filtering SPARQL allows powerful queries on their hierarchical structures
- ✓ URIs are identifiers: Every notice, buyer, and supplier must have a unique URI. This is how you link data

### SPARQL Querying Tips

- ✓ Start with `LIMIT` 10: Always limit your results when exploring. This prevents accidentally requesting millions of triples
- ✓ Use `OPTIONAL` blocks: Not all entities have all data fields
- ✓ `DESCRIBE`: Use `DESCRIBE ?uri` to get all known information about one specific entity, which is excellent for exploration
- ✓ Use `SELECT` to get a table with data



# Linked Open Data in a nutshell

## Why this matters in public procurement



### Enhanced Transparency

Trace procurement procedures flow. Identify red flags. Uncover conflicts of interest and fight corruption.



### Interoperability

Connect procurement data with company registries, sanctions lists, and beneficial ownership data across borders.



### Complex Analytics

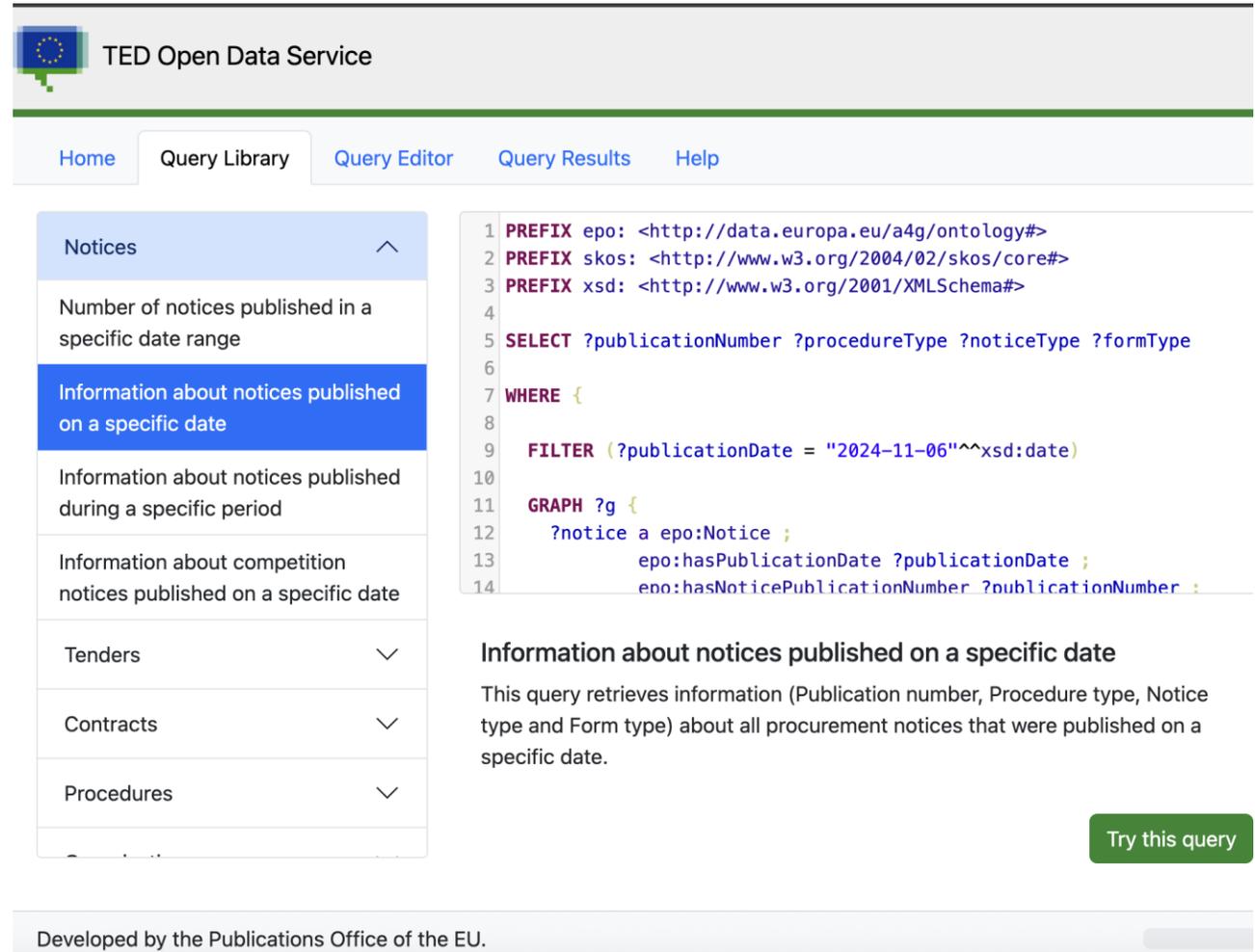
Ask "what's the average contract value by region for CPV code X?". Analyze market trends.

# Our tools

## TED Open Data Service

Upcoming updates:

- Enhanced Query library
- Output format selection enhancements
- Access to Ontology documentation



The screenshot displays the TED Open Data Service interface. At the top, there is a header with the European Union flag and the text "TED Open Data Service". Below the header is a navigation bar with links for "Home", "Query Library", "Query Editor", "Query Results", and "Help". The main content area is divided into two columns. The left column contains a list of queries under the "Notices" category, with "Information about notices published on a specific date" selected. The right column shows the SPARQL query for this selected query, which filters for notices published on the date 2024-11-06. Below the query is a description of the query's purpose and a "Try this query" button. At the bottom of the interface, there is a footer that reads "Developed by the Publications Office of the EU."

TED Open Data Service

Home Query Library Query Editor Query Results Help

Notices

- Number of notices published in a specific date range
- Information about notices published on a specific date**
- Information about notices published during a specific period
- Information about competition notices published on a specific date

Tenders

Contracts

Procedures

```
1 PREFIX epo: <http://data.europa.eu/a4g/ontology#>
2 PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
3 PREFIX xsd: <http://www.w3.org/2001/XMLSchema#>
4
5 SELECT ?publicationNumber ?procedureType ?noticeType ?formType
6
7 WHERE {
8
9   FILTER (?publicationDate = "2024-11-06"^^xsd:date)
10
11  GRAPH ?g {
12    ?notice a epo:Notice ;
13            epo:hasPublicationDate ?publicationDate ;
14            epo:hasNoticePublicationNumber ?publicationNumber ;
```

**Information about notices published on a specific date**

This query retrieves information (Publication number, Procedure type, Notice type and Form type) about all procurement notices that were published on a specific date.

Try this query

Developed by the Publications Office of the EU.



# Our tools

## TED Open Data Explorer

- A tool that offers an alternative view to procurement data available in TED
- It is centered around procurement notices and integrates information available on TED website and in Cellar
- Provides a human readable version of the structured data in Cellar

The screenshot displays the TED Open Data Explorer interface. At the top, there is a search bar with the text "Search notices by publication : number" and a search button. The search results show a notice with the ID "00568956-2024". Below the notice ID, there is a timeline of events. The first event is "2024-09-23+02:00 [ "POL" ] eforms-sdk-1.12". The second event is "Procedure: 7554c45b-9a18-4911-b4d3-ba818978a829". The timeline then shows five events, each with a date and a description: "00568956-2024", "00000231-2025", "00000932-2025", "00008709-2025", and "00009067-2025". Each event has a "TED link" below it. The interface also shows a "Notices clipboard" with the notice ID "00568956-2024" and a "SPARQL Query" button. The bottom part of the screenshot shows a table with the following data:

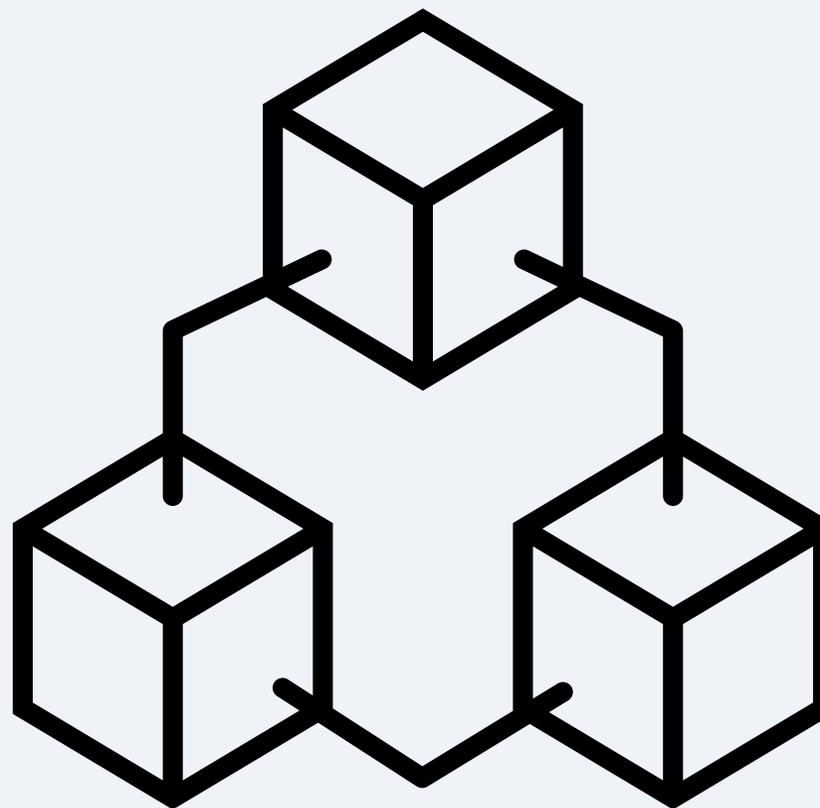
type	Competition Notice	Notice	Notice16
...	...	...	...





DEMO TIME

TED Open Data Explorer



# TED Open Data Explorer

## Demo Scenario

We want to get all available information about the eProcurement Notice **00000251-2025**

- What other Notices related to the same procurement procedure are available in TED?
- What information is available in Cellar?

### 568956-2024 - Competition

Notice View Back to results list

Related notices

- [Download XML](#)
- [Show the direct links](#)
- [Create an alert](#)
- [Send by email](#)
- [Request a translation](#)

1. Buyer ▶

2. Procedure ▶

5. Lot (130) ▶

8. Organisations (3) ▶

Notice information

**Notice View**

▼ **Summary**

Competition  
**Poland: Cardiac surgery devices**  
ZP 32/24 dostawa sprzętu dla Oddziału Kardiologii  
Poland, Łódzki (PL712) Łódź  
Type of procedure: Open

**Buyer**  
Buyer: Wojewódzki Specjalistyczny Szpital im. dr Wł. Biegańskiego w Łodzi  
Email: [zampubliczne@bieganski.com.pl](mailto:zampubliczne@bieganski.com.pl)  
Poland, Miasto Łódź (PL711), Łódź

**LOT-0001: Pakiet 1**  
Cardiac surgery devices  
Poland, Łódzki (PL712) Łódź

▼ **Languages and formats**

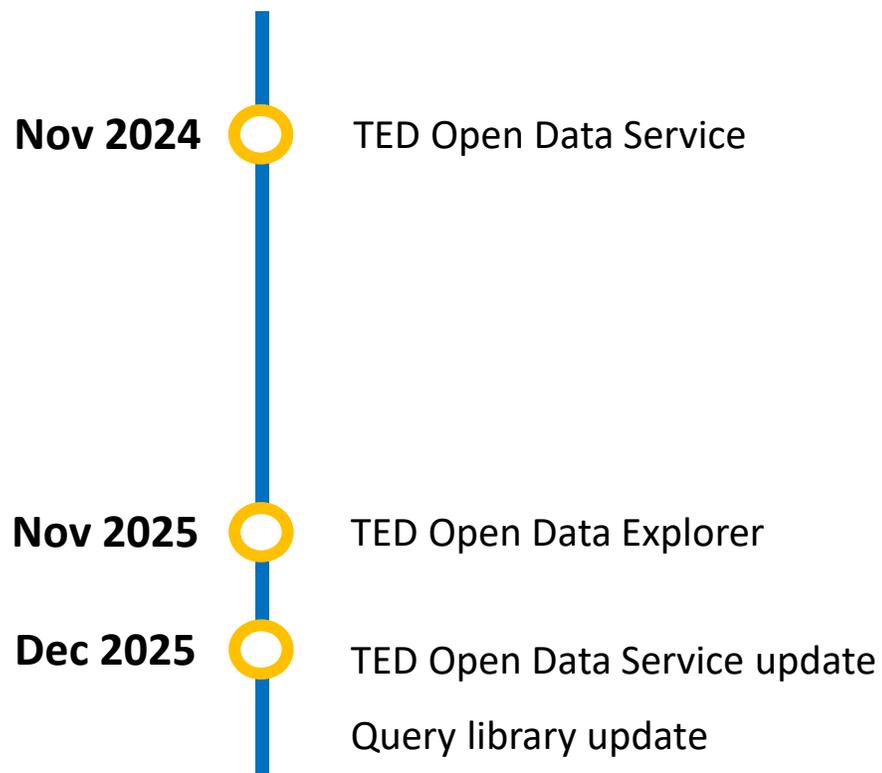
**Official language** (Signed PDF)  
BG CS DA DE EL ES EN ET FI FR GA HR HU IT LT LV  
MT NL PL PT RO SK SL SV





# Our vision and roadmap

*To empower a broader community to build a truly open, efficient, and innovative public procurement knowledge hub.*



*Entity Resolution Service  
More tools...  
Application notes...*





## Developer community



Register & keep your profile updated: Get your API keys and the latest documentation by keeping your Developer Portal profile current (<https://developer.ted.europa.eu>)



Participate in Forums: Ask questions, share your SPARQL queries, and help others with their procurement analysis (<https://github.com/OP-TED/ted-open-data/discussions>)



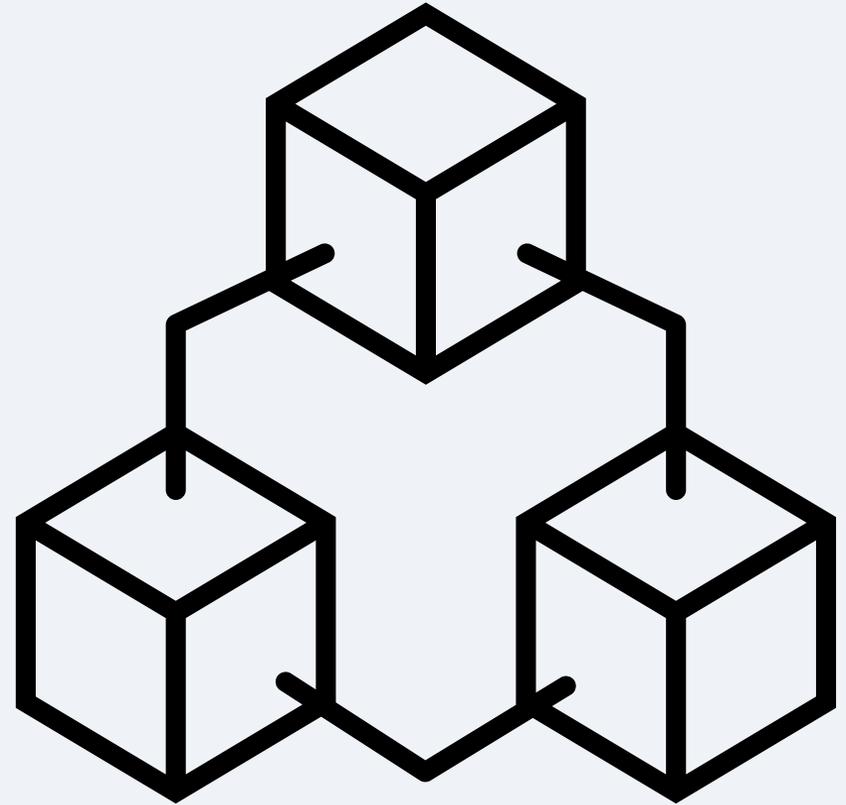
Report Bugs: Found a data issue or an endpoint error? Let us know on our boards so we can work on a fix (<https://github.com/OP-TED/ted-open-data/issues>)



Attend Our Events: Join our webinars, workshops, and hackathons to learn advanced techniques and share your eProcurement use cases



Q&A



# THANK YOU

**TED Open Data Service:** <https://data.ted.europa.eu>

**TED Open Data Explorer:** <https://docs.ted.europa.eu/ted-open-data-explorer>

**TED Open Data Documentation:** <https://docs.ted.europa.eu/ODS/latest/index.html>

**TED Developer Portal:** <https://developer.ted.europa.eu>



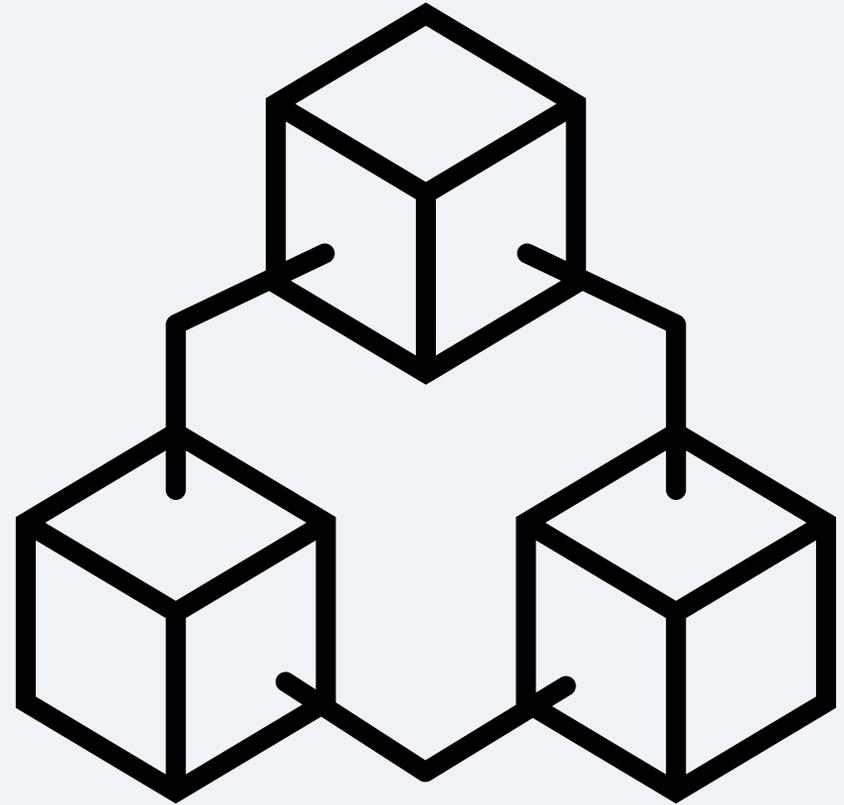
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Publications Office  
of the European Union

# SUPPORT SLIDES



# Scenario

We want to get all available information about the eProcurement Notice **00000251-2025**

- What other Notices related to the same procurement procedure are available in TED?
- What information is available in Cellar?

## 251-2025 - Competition

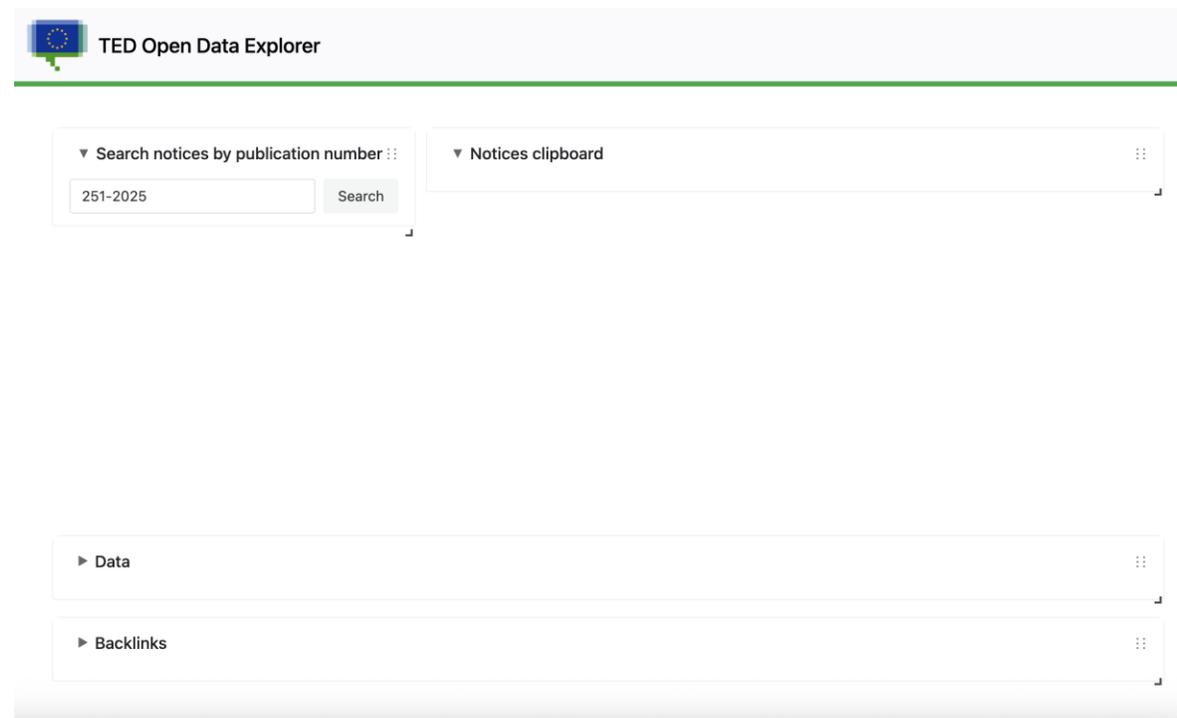
The screenshot displays the 'Notice View' page for the eProcurement Notice 00000251-2025. The page is titled '251-2025 - Competition' and features a 'Notice View' header. A blue banner at the top right contains a notification: 'Check out the latest version of this notice 3159-2025'. The main content is organized into sections:

- Related notices:** A list of related notices with a 'Notice View' tab.
- Actions:** A list of actions including 'Download XML', 'Show the direct links', 'Create an alert', 'Send by email', and 'Request a translation'.
- Summary:** A section containing the following information:
  - Competition:** Germany: Construction work for swimming pool, Neubau Kombibad Herzogenried, Germany, Mannheim, Stadtkreis (DE126) Mannheim, Type of procedure: Open.
  - Buyer:** Buyer: Stadt Mannheim- Fachbereich Baurecht, Bauverwaltung und Denkmalschutz, Email: 60\_ausschreibung@mannheim.de, Germany, Mannheim, Stadtkreis (DE126), Mannheim.
  - LOT-0000:** Neubau Kombibad Herzogenried, Construction work for swimming pool, Germany, Mannheim, Stadtkreis (DE126) Mannheim.
- Languages and formats:** A section with the following information:
  - Official language (Signed PDF):** BG CS DA DE EL ES EN ET FI FR GA HR HU IT LT LV MT NL PL PT RO SK SL SV.



## Step by step

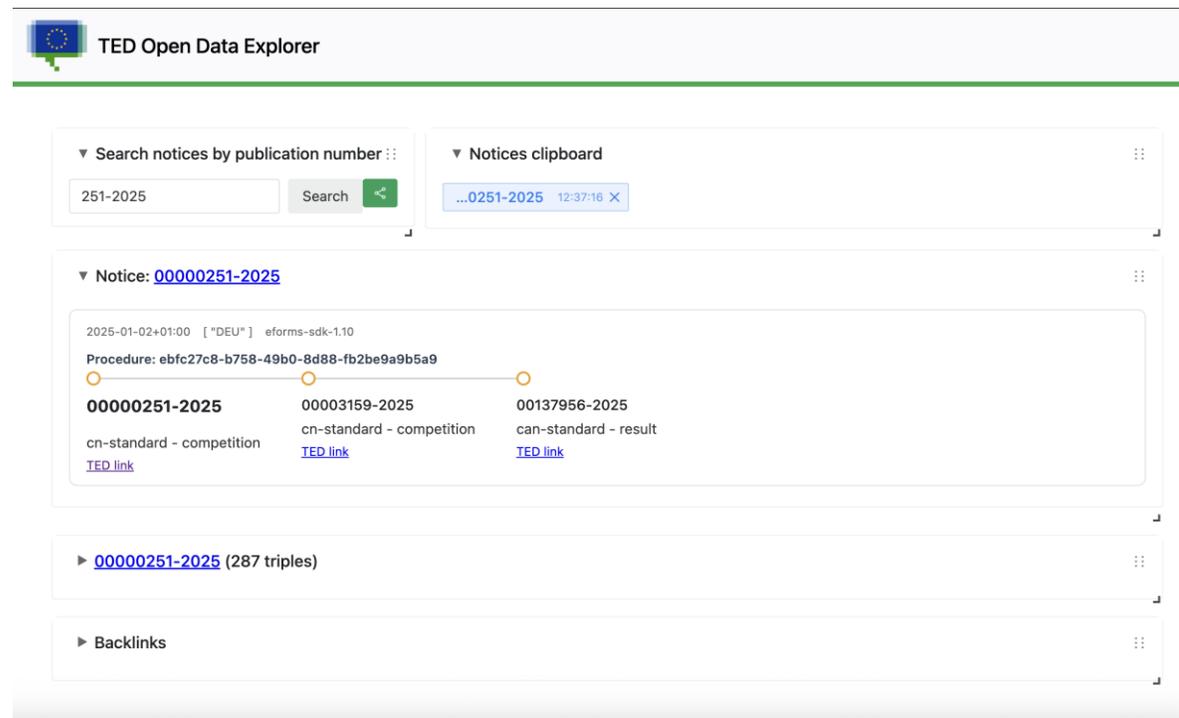
- The user indicates **251-2025** as the search criteria



The screenshot displays the TED Open Data Explorer interface. At the top, there is a header with the European Union flag and the text "TED Open Data Explorer". Below the header, there are two main sections. The first section is titled "Search notices by publication number" and contains a text input field with the value "251-2025" and a "Search" button. The second section is titled "Notices clipboard" and is currently empty. Below these sections, there are two expandable panels: "Data" and "Backlinks", both of which are currently collapsed.

## Step by step (cont.)

- The application shows all the notices associated to the same procurement procedure in a timeline



The screenshot displays the TED Open Data Explorer interface. At the top, there is a header with the European Union flag and the text "TED Open Data Explorer". Below the header, there are two main sections:

- Search notices by publication number ::** This section contains a search input field with the text "251-2025", a "Search" button, and a green arrow icon.
- Notices clipboard**: This section shows a list of notices in a clipboard, with one entry highlighted: "...0251-2025 12:37:16 X".

Below these sections, there is a detailed view for a specific notice:

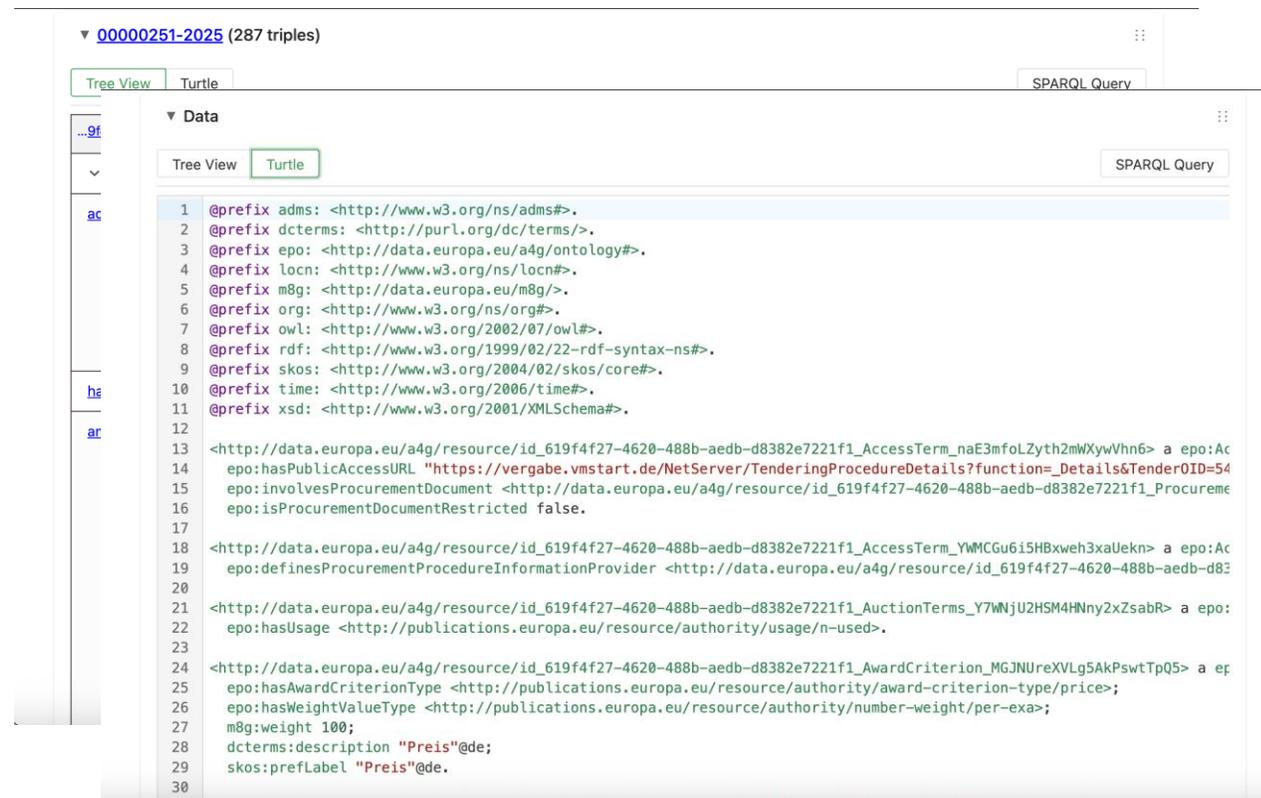
- Notice: 0000251-2025**: This section shows a timeline of notices for a specific procurement procedure. The timeline starts with the date "2025-01-02+01:00" and the text "[\*DEU\*] eforms-sdk-1.10". The procedure ID is "ebfc27c8-b758-49b0-8d88-fb2be9a9b5a9".
- The timeline shows three notices connected by a horizontal line with orange circles at the ends:
  - 0000251-2025**: cn-standard - competition. TED link
  - 00003159-2025**: cn-standard - competition. TED link
  - 00137956-2025**: can-standard - result. TED link

Below the notice details, there are two expandable sections:

- 0000251-2025 (287 triples)**: This section is currently collapsed.
- Backlinks**: This section is also currently collapsed.

## Step by step (cont.)

- The user chooses between a "Tree" or a Turtle representation of the triples available in Cellar associated to the selected notice



▼ 00000251-2025 (287 triples)

Tree View Turtle SPARQL Query

▼ Data

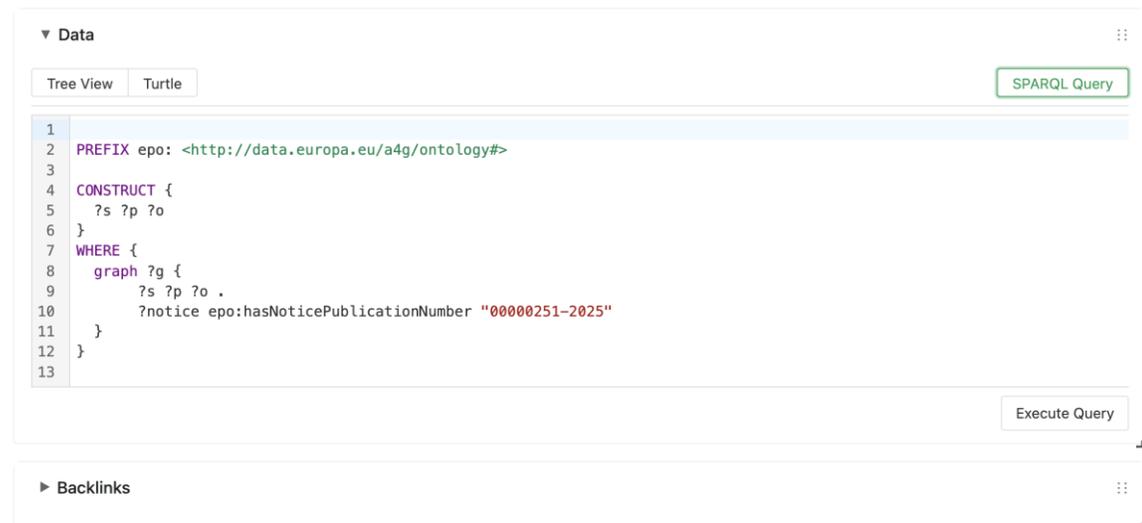
Tree View Turtle SPARQL Query

```
1 @prefix adms: <http://www.w3.org/ns/adms#>.
2 @prefix dcterms: <http://purl.org/dc/terms/>.
3 @prefix epo: <http://data.europa.eu/a4g/ontology#>.
4 @prefix locn: <http://www.w3.org/ns/locn#>.
5 @prefix m8g: <http://data.europa.eu/m8g/>.
6 @prefix org: <http://www.w3.org/ns/org#>.
7 @prefix owl: <http://www.w3.org/2002/07/owl#>.
8 @prefix rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>.
9 @prefix skos: <http://www.w3.org/2004/02/skos/core#>.
10 @prefix time: <http://www.w3.org/2006/time#>.
11 @prefix xsd: <http://www.w3.org/2001/XMLSchema#>.
12
13 <http://data.europa.eu/a4g/resource/id_619f4f27-4620-488b-aedb-d8382e7221f1_AccessTerm_naE3mfoLZyth2mWxyVhn6> a epo:Ac
14 epo:hasPublicAccessURL "https://vergabe.vmstart.de/NetServer/TenderingProcedureDetails?function=_Details&TenderOID=54
15 epo:involvesProcurementDocument <http://data.europa.eu/a4g/resource/id_619f4f27-4620-488b-aedb-d8382e7221f1_Procureme
16 epo:isProcurementDocumentRestricted false.
17
18 <http://data.europa.eu/a4g/resource/id_619f4f27-4620-488b-aedb-d8382e7221f1_AccessTerm_YMCGu6i5HBxweh3xaUekn> a epo:Ac
19 epo:definesProcurementProcedureInformationProvider <http://data.europa.eu/a4g/resource/id_619f4f27-4620-488b-aedb-d83
20
21 <http://data.europa.eu/a4g/resource/id_619f4f27-4620-488b-aedb-d8382e7221f1_AuctionTerms_Y7WnjU2HSM4HNny2xZsabR> a epo:
22 epo:hasUsage <http://publications.europa.eu/resource/authority/usage/n-used>.
23
24 <http://data.europa.eu/a4g/resource/id_619f4f27-4620-488b-aedb-d8382e7221f1_AwardCriterion_MGJNureXVLg5AkPswtTp05> a ep
25 epo:hasAwardCriterionType <http://publications.europa.eu/resource/authority/award-criterion-type/price>;
26 epo:hasWeightValueType <http://publications.europa.eu/resource/authority/number-weight/per-exa>;
27 m8g:weight 100;
28 dcterms:description "Preis"@de;
29 skos:prefLabel "Preis"@de.
30
```



## Step by step (cont.)

- It is also possible to execute custom SPARQL queries



The screenshot shows a web-based SPARQL query editor. At the top, there is a dropdown menu labeled 'Data' and a 'SPARQL Query' button. Below this, there are two tabs: 'Tree View' and 'Turtle'. The main area contains a text editor with a SPARQL query. The query is as follows:

```
1  
2 PREFIX epo: <http://data.europa.eu/a4g/ontology#>  
3  
4 CONSTRUCT {  
5   ?s ?p ?o  
6 }  
7 WHERE {  
8   graph ?g {  
9     ?s ?p ?o .  
10    ?notice epo:hasNoticePublicationNumber "00000251-2025"  
11  }  
12 }  
13
```

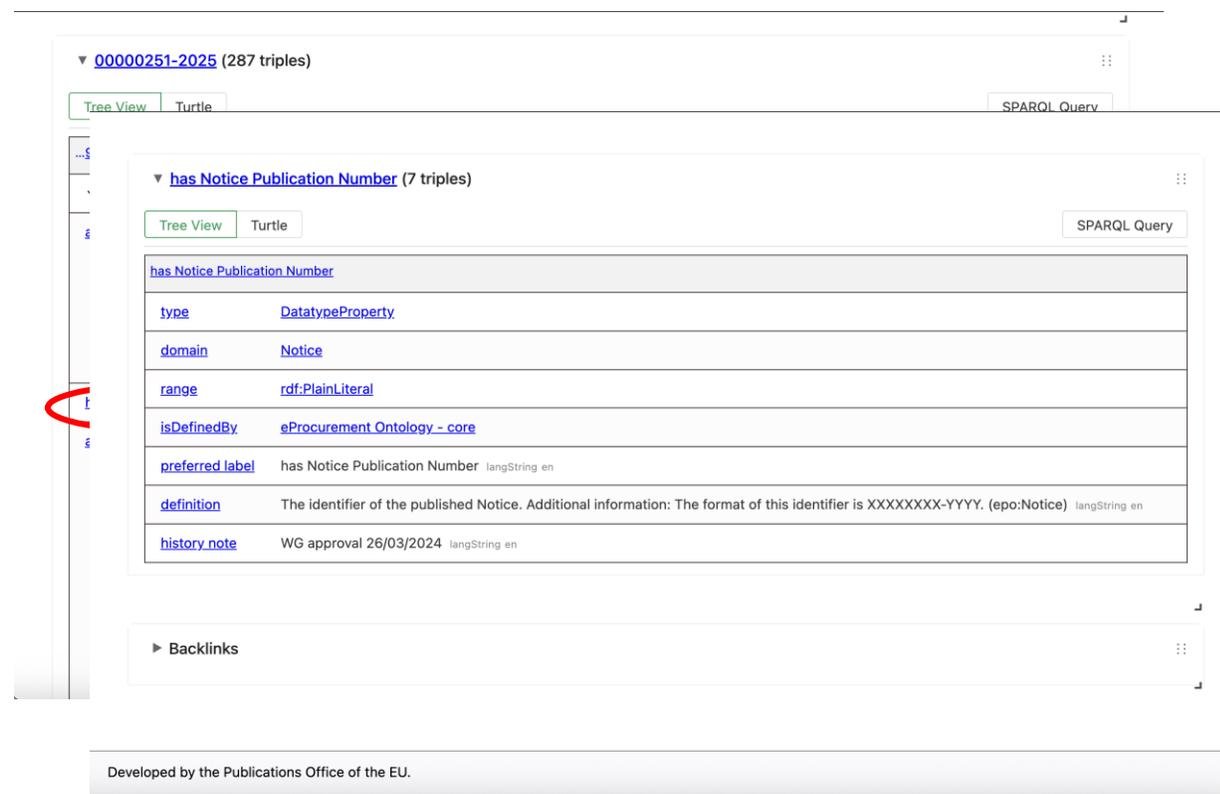
At the bottom right of the editor, there is an 'Execute Query' button. Below the editor, there is a section labeled 'Backlinks'.

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## Step by step (cont.)

- And get insight about the eProcurement Ontology



The screenshot displays a web interface for an ontology. At the top, it shows a dropdown menu for '00000251-2025 (287 triples)' with 'Tree View' and 'Turtle' tabs, and a 'SPARQL Query' button. Below this, a section for 'has Notice Publication Number (7 triples)' is shown, also with 'Tree View' and 'Turtle' tabs and a 'SPARQL Query' button. A red arrow points to the 'Tree View' tab. The main content area contains a table with the following properties:

has Notice Publication Number	
type	<a href="#">DatatypeProperty</a>
domain	<a href="#">Notice</a>
range	<a href="#">rdf:PlainLiteral</a>
isDefinedBy	<a href="#">eProcurement Ontology - core</a>
preferred label	has Notice Publication Number <small>langString en</small>
definition	The identifier of the published Notice. Additional information: The format of this identifier is XXXXXXXX-YYYY. (epo:Notice) <small>langString en</small>
history note	WG approval 26/03/2024 <small>langString en</small>

Below the table, there is a 'Backlinks' section with a right-pointing arrow and a vertical ellipsis icon.

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