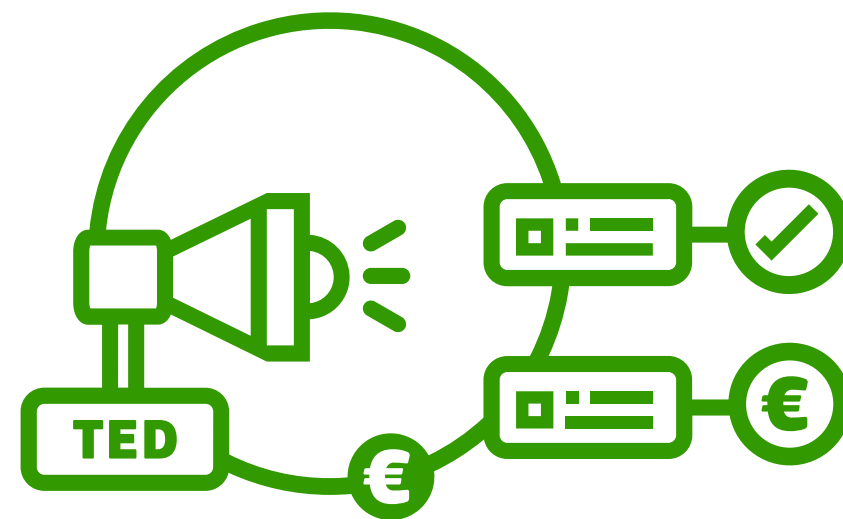




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# ESPD ANNUAL SEMINAR 2021

2<sup>nd</sup> December 2021

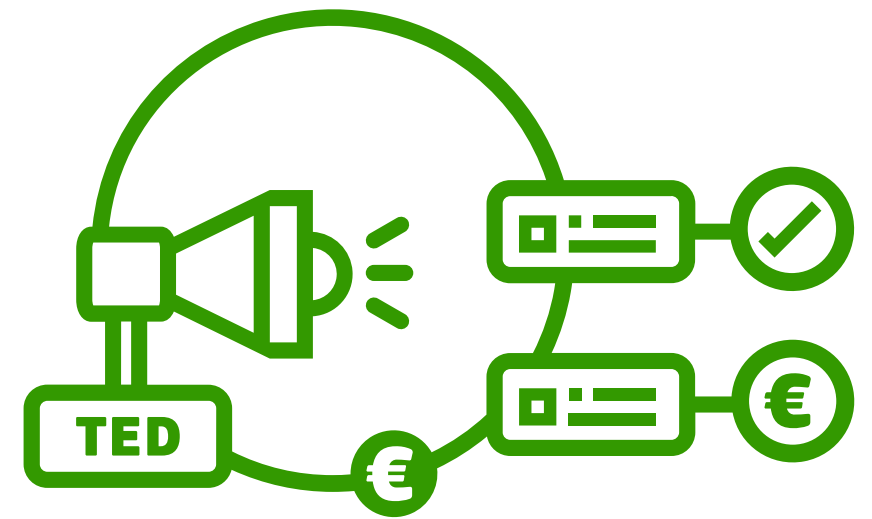




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7. Update of UUIDs for repeatable subgroups
8. Next steps

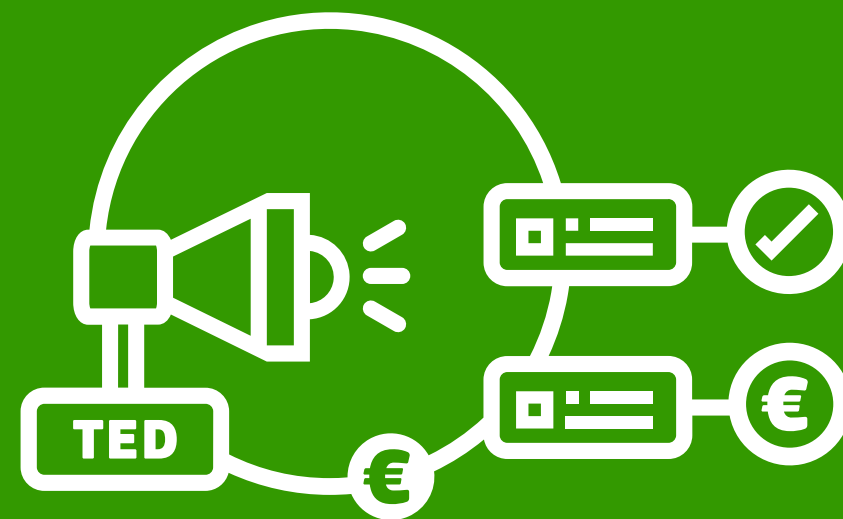




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# INTRODUCTION

Paloma Arillo, Publications Office



# Introduction

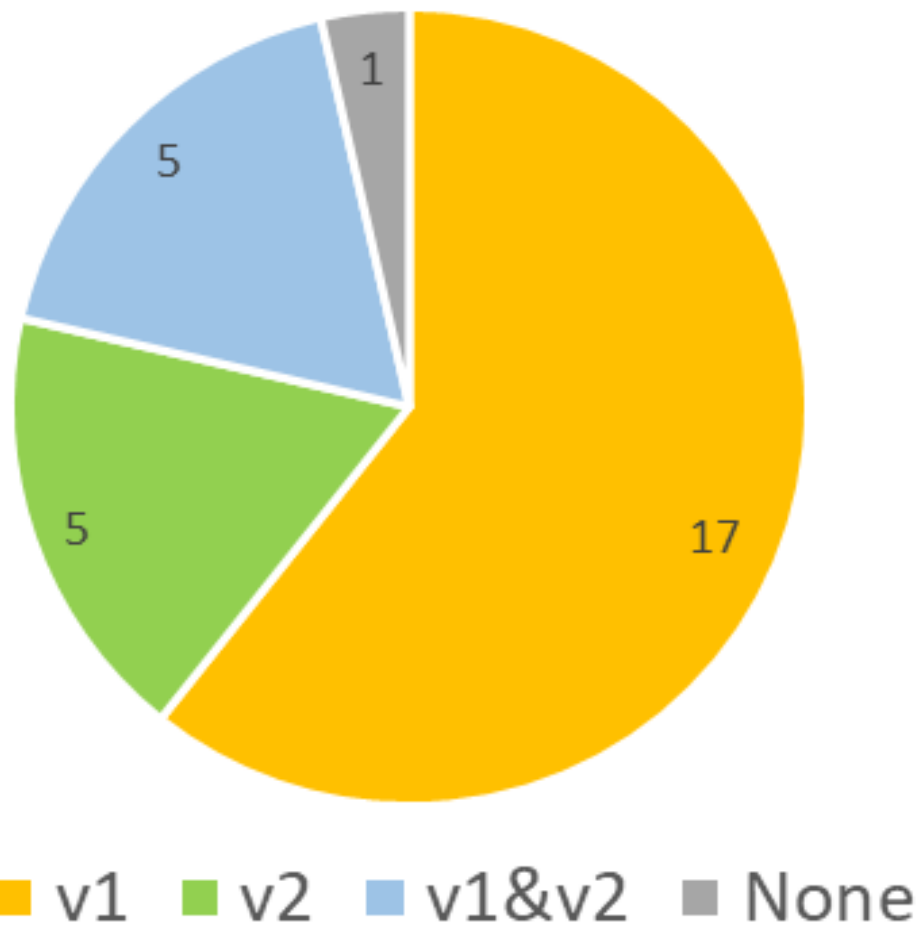
- The public procurement [Directive 2014/24/EU](#) introduced the European Single Procurement Document (ESPD).
  - The electronic version became mandatory in April 2018.
- The [Commission Implementing Regulation \(EU\) 2016/7](#) established the standard form for the ESPD.
- The [ESPD](#):
  - Facilitates the self-declaration of preliminary evidences of economic operators;
  - Simplifies the participation of economic operators in public procurement procedures;
  - Reduces administrative burdens for public authorities and economic operators;
  - Provides a simple way of procuring across borders.

# History of the ESPD

- The ESPD Exchange Data Model (EDM) is the technical representation of the ESPD standard form.
- The ESPD-EDM clearly distinguishes between an ESPD request and an ESPD response.

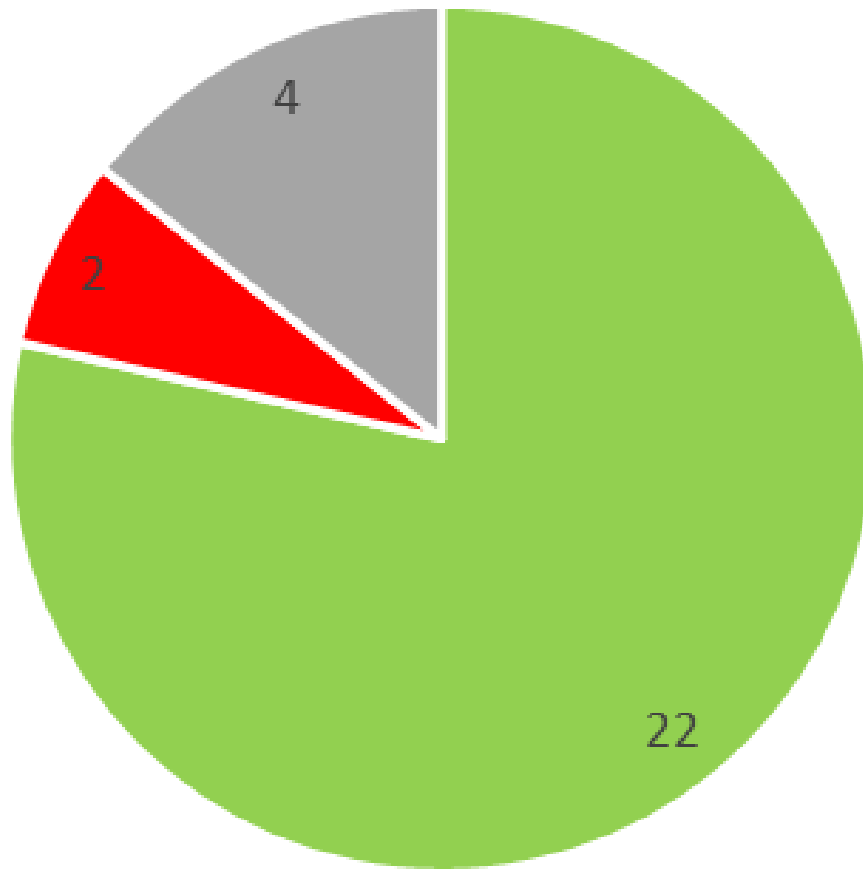
Major version	Release date	Summary
v1	December 2015	Basic version
v2	September 2017	Incorporates 2 designs: <ul style="list-style-type: none"><li>• Basic version (regulated); and</li><li>• Extended version (self-contained).</li></ul>
v3	April 2021	Extended version. Focuses on the following main principles: <ul style="list-style-type: none"><li>(1) Aligns eForms and ESPD (lots);</li><li>(2) Reduces the information required to buyers and economic operators (information available in eForms).</li></ul>

## ESPD-EDM versions used across Europe



\***Source:** <https://webgate.ec.europa.eu/fpfis/wikis/display/EPROC/eProc+Matrix+mid-2021>

## Countries interested in using v3.0.0



■ Interested   ■ Currently not interested   ■ Currently unknown

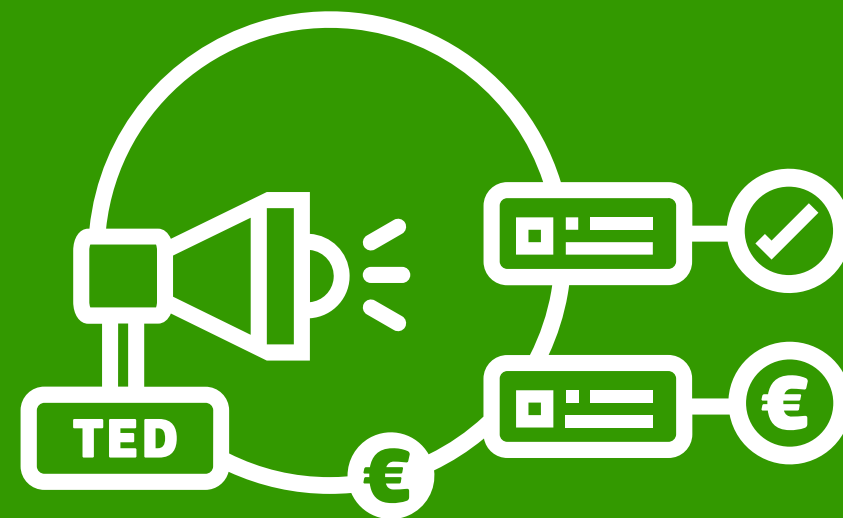
\***Source:** <https://webgate.ec.europa.eu/fpfis/wikis/display/EPROC/eProc+Matrix+mid-2021>



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# ESPD-EDM v3.0.0 SUMMARY

Alba Colomer Padrosa, NTTDATA





## ESPD-EDM v3.0.0 summary

- ESPD-EDM v3.0.0 was released in April 2021.
- The complete distribution package is available in GitHub: [OP-TED/ESPD-EDM Tag v3.0.0](https://github.com/OP-TED/ESPD-EDM-Tag-v3.0.0)
- ESPD-EDM v3.0.0 provides updates covering:
  - eForms alignment;
  - Technical code lists;
  - Criteria;
  - Validation tool;
  - Online documentation.

# eForms alignment, lot management

- Upgrade from UBL-2.2 to UBL-2.3, as eForms is based on UBL-2.3.
- **ESPD Request**
  - One ESPD Request per procedure;
  - Exclusion Grounds (same for all lots);
  - Selection Criteria (defined for given lots).

*1 XML Request  
per Procedure*



- *Lot 1.. \**
- *Exclusion Grounds*
- *Selection Criteria 1 -> Lot identifier(s)*
- *Selection Criteria n -> Lot identifier(s)*

# eForms alignment, lot management

- **ESPD Response**

- One ESPD Response per lot submission;
- Provides preliminary evidence for the Exclusion Grounds and the Selection Criteria.

*1..n XML Response per Procedure*



# eForms alignment, lot management

*1 XML Request  
per Procedure*



*1..n XML Response per Procedure*



..



- Lot 1..\*
- Exclusion Grounds
- Selection Criteria 1 -> Lot identifier(s)
- Selection Criteria n -> Lot identifier(s)

- Lot 1
- Exclusion Grounds
- Selection Criteria 1
- Selection Criteria 2

..

- Lot n
- Exclusion Grounds
- Selection Criteria 1
- Selection Criteria 2

# eForms alignment, lot and group of lots identifiers

ESPD adopts eForms lot and group of lots identifiers.

Object	Scheme
Group of Lots	<i>GLO-XXXX</i>
Lot	<i>LOT-XXXX</i>

Note: XXXX is a set of 4 sequential numbers with leading 0s

## Technical code lists

- EvaluationMethodType → REMOVED

ShortName	EvaluationMethodType
LongName	EVALUATION METHOD TYPE
Code	Name
PASSFAIL	Pass or Fail
WEIGHTED	The Criterion is weighted

- WeightingType → REMOVED

ShortName	WeightingType
LongName	WEIGHTING TYPE
Code	Name
PERCENTAGE	Percentage
NUMERIC	Numeric

# Technical code lists

- ResponseDataType → LOT\_IDENTIFIER and WEIGHT\_INDICATOR concepts REMOVED

Code	Name
AMOUNT	An Amount, and currency, as defined in UN/CEFACT's CCTS
CODE	A code for an unspecified concept
CODE_COUNTRY	Code identifying a country (Compulsory use of ISO 3166-1 alpha 2)
DATE	Date values (format YYYY-DD-MM)
DESCRIPTION	Textual field
EVIDENCE_IDENTIFIER	Points at the instance of an evidence
INDICATOR	"true" or "false" values representing "Yes" affirmative or "No" negative answers
PERCENTAGE	A decimal number representing a percent (e.g. 0.1)
PERIOD	Period object as defined in UBL-2.1
QUANTITY_INTEGER	A number representing a quantity in a specific unit of measure. The unit has to be specified (e.g. Kg).
QUANTITY_YEAR	A non-negative integer representing a year. The unit has to be specified as YEAR
QUANTITY	A number representing a generic quantity, integer or decimal, with no unit specified.
NONE	No response is expected. This may be the case when a contracting authority wants to set specific requirements
IDENTIFIER	An identifier for a person, entity or object (e.g. a Party, a Lot, etc.)
URL	A url, including e-mail addresses
MAXIMUM_AMOUNT	The maximum amount the answer must have
MINIMUM_AMOUNT	The minimum amount the answer must have
MAXIMUM_VALUE_NUMERIC	The maximum value the answer to a criterion question must have
MINIMUM_VALUE_NUMERIC	The minimum value the answer to a criterion question must have
TRANSLATION_TYPE_CODE	The type of translation that a contracting authority's requirement shall be translated for example certified translation
CERTIFICATION_LEVEL_DESCRIPTION	The description of the level of the expected certification that a contracting authority requires to an economic operator
COPY_QUALITY_TYPE_CODE	The type of Copy quality required by a contracting authority, expressed as a code
TIME	Time values (format HH:MM:SS)
LOT_IDENTIFIER	The identifier of a procurement procedure lot
WEIGHT_INDICATOR	Establishes whether a criterion is weighted or not.
CODE_BOOLEAN	Code identifying a type of GUI control element.
ECONOMIC_OPERATOR_IDENTIFIER	Code used to detect an identifier referred to an Economic Operator
QUAL_IDENTIFIER	Code identifying an educational or professional qualifications held by the service provider or contractor

# Criteria

Item	Change
BASIC version	In v3.0.0., only the EXTENDED version is available. No repetition of Criteria to cover both BASIC and EXTENDED version, as only the EXTENDED version is available in v3.0.0.
ESPD Request	Part I and Part II data to correspond to the data in eForms. Part III Exclusion Grounds and Part IV Selection Criteria independent of eForms data.
Part IV, Set up of an economic operator	<i>CRITERION 33</i> removed. Included as a <i>SUBCRITERION</i> in Selection Criteria: <ul style="list-style-type: none"><li>• Specific turnover</li><li>• General turnover</li></ul>
<i>LOT_IDENTIFIER</i>	Removed as unnecessary (one ESPD per Lot).
Exclusion Grounds	Sections of Part III defined as mandatory: <ul style="list-style-type: none"><li>• A-criminal convictions</li><li>• B-payment of taxes</li></ul>



# Criteria

Item	Change
Selection Criteria: General turnover	Updated PropertyDataType type from QUANTITY_INTEGER to QUANTITY_YEAR. New QUESTION added to define a common threshold.
Selection Criteria: <ul style="list-style-type: none"><li>• Defense</li><li>• Utilities</li></ul>	Removed because they were not included in eCertis at the moment.
Selection Criteria: References	Updated cardinality in QUESTION_SUBGROUP from 1 to 1..n.
Selection Criteria: Other economic or financial requirements	Updated QUESTION_SUBGROUP element code to ON*.
All Selection Criteria	Added new question “Does the EO fulfil the criteria by itself?”.

# Validation tool

- ESPD validator: <https://www.itb.ec.europa.eu/espd/upload>
- Updated to reflect new ESPD requirements.
- Exclusion Grounds made mandatory.

## ESPD validator

Content to validate

File



Select file...

Validate as



Validate

This service is powered by the ISA<sup>2</sup> Interoperability Test Bed, a conformance testing service offered by the European Commission's DG DIGIT for projects involved in the delivery of cross-border public services. Find out more [here](#).

# Online documentation

**New methodology** → creation of two handbooks tailored to specific audiences:

- Business handbook;
- Technical handbook.

## ESPD Exchange Data Model (ESPD-EDM)

v3.0.0

### Resources

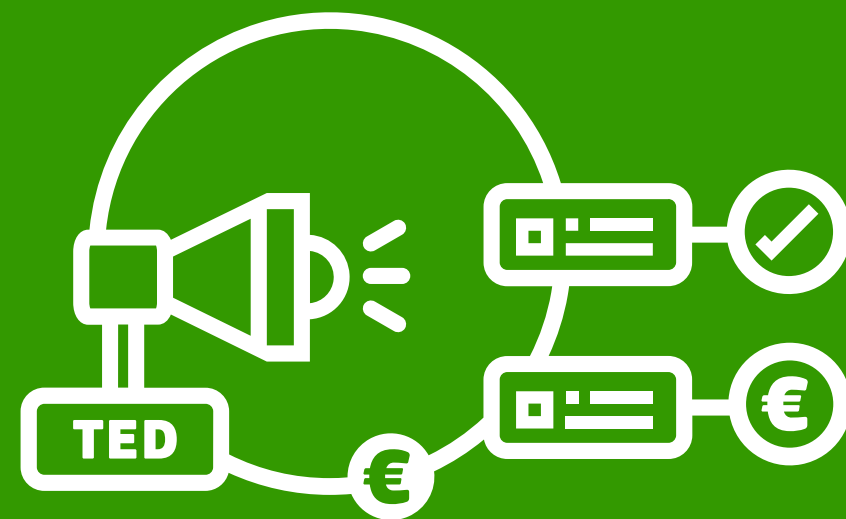
- [ESPD BUSINESS HANDBOOK V3.0.0](#)
- [ESPD TECHNICAL HANDBOOK V3.0.0](#)
- [All resources in the distribution package](#)
- [Release Notes](#)



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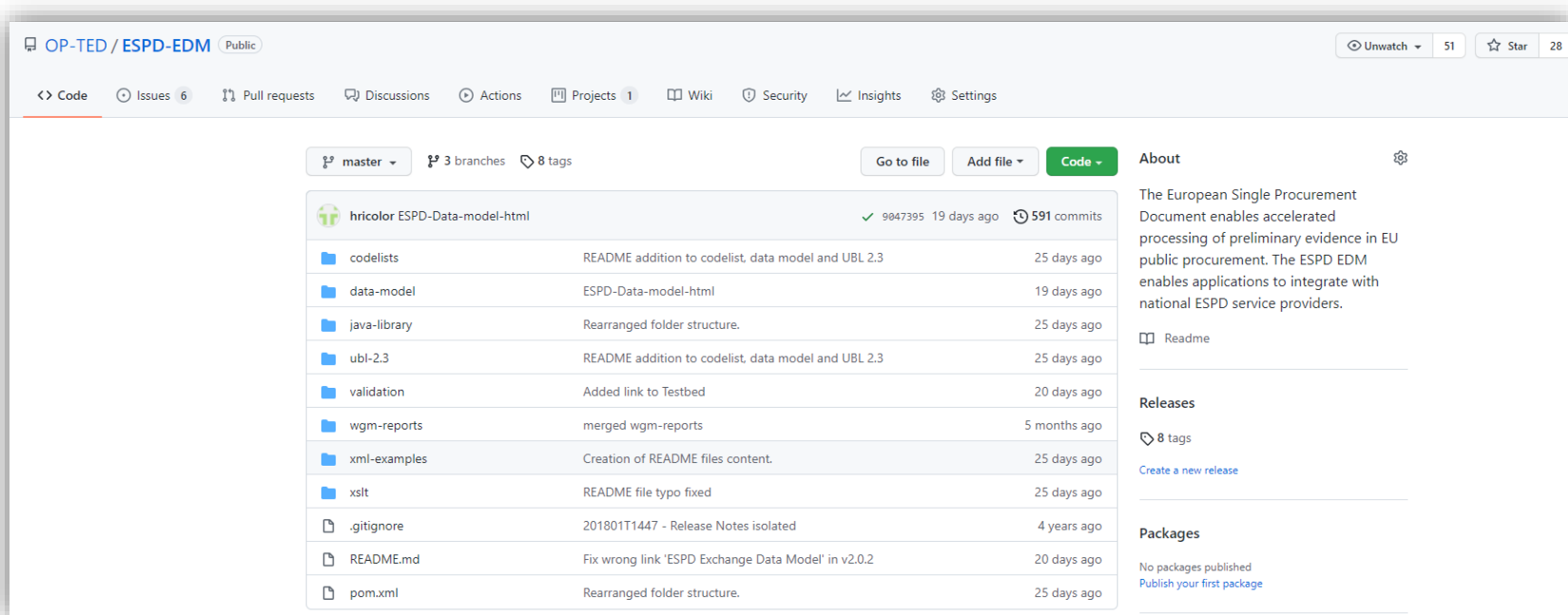
# GITHUB: ONLINE WORKSPACE REORGANISATION AND DOCUMENTATION REVISION

Alba Colomer Padrosa, NTTDATA



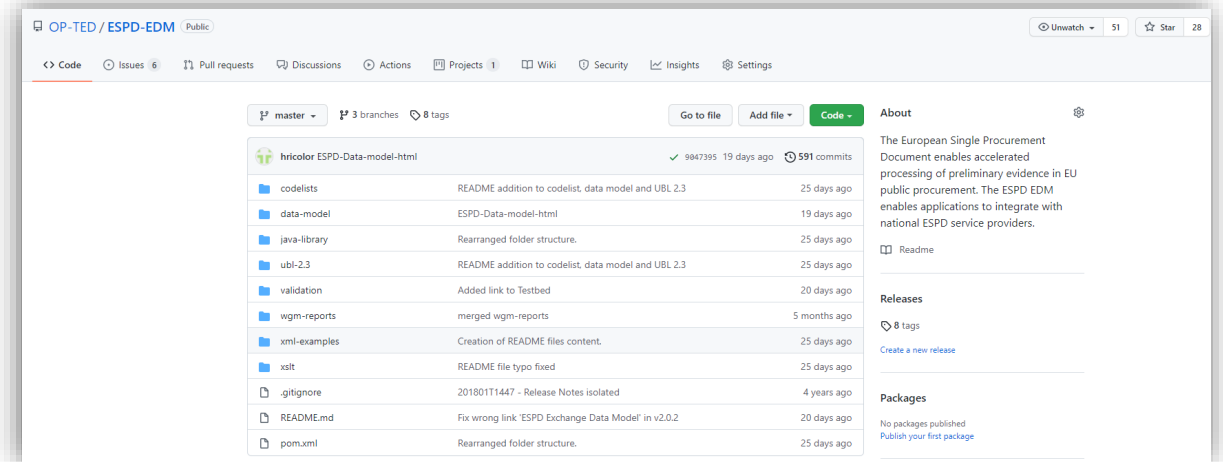
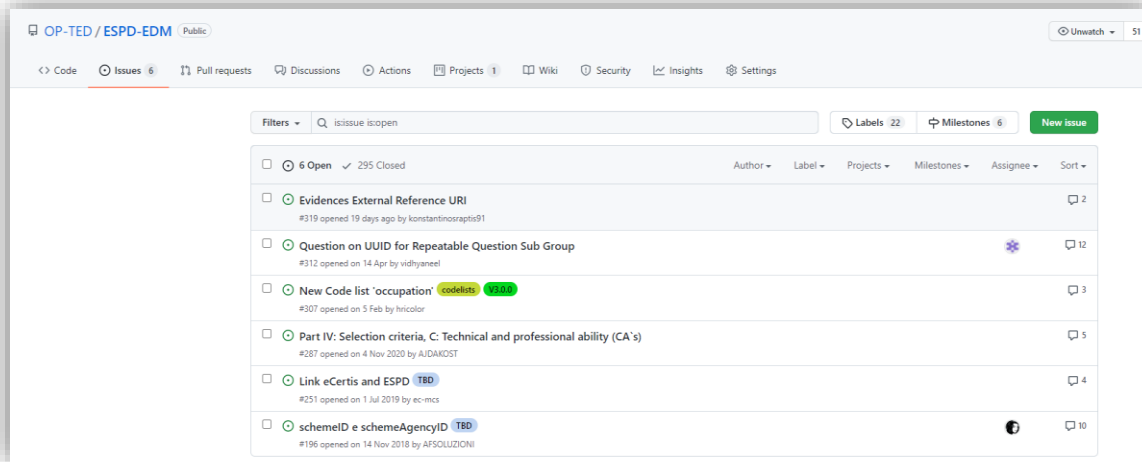
# GitHub repository migration

- The ESPD-EDM GitHub has been migrated to an OP-administered repository.
  - When using the previous URL, users will be redirected to the latest repository.
  - **New URL:** <https://github.com/OP-TED/ESPD-EDM/>



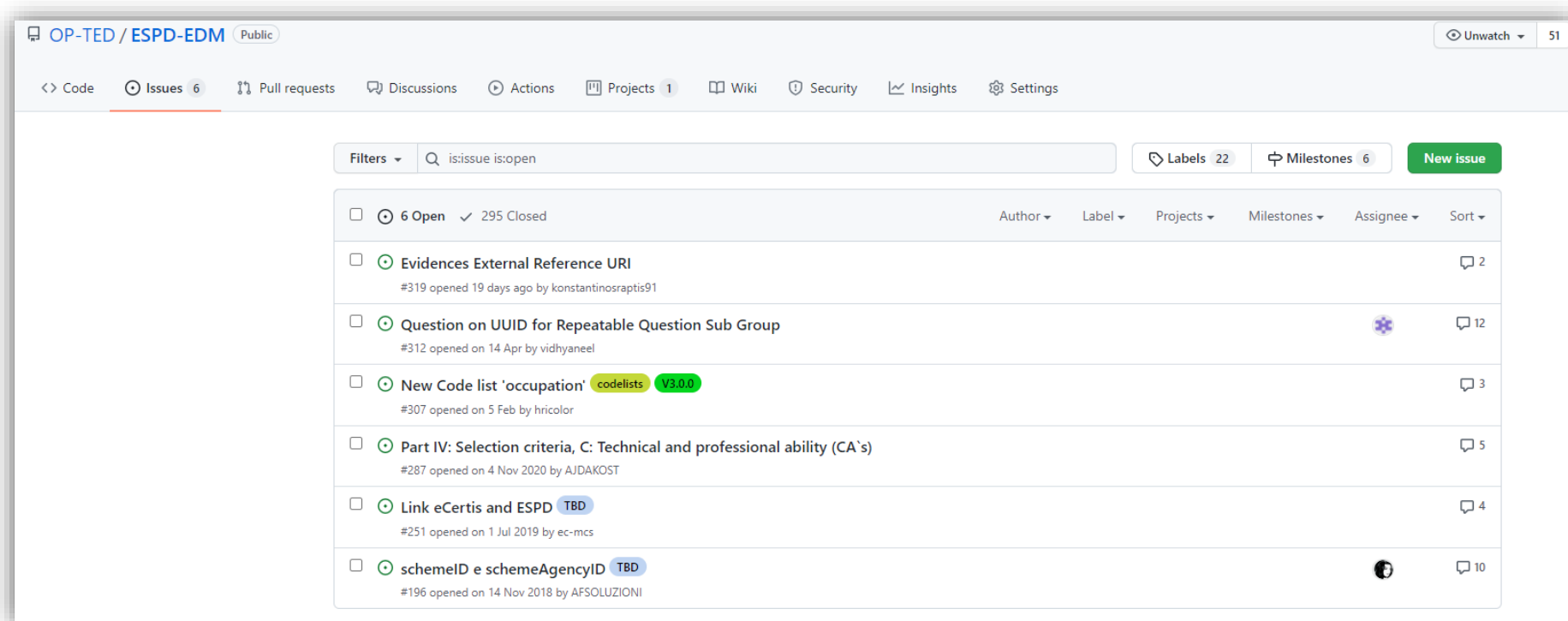
# GitHub repository migration

- ESPD-EDM GitHub issues: <https://github.com/OP-TED/ESPD-EDM/issues>
- ESPD-EDM distribution package: <https://github.com/OP-TED/ESPD-EDM>
- ESPD-EDM online documentation: <https://docs.ted.europa.eu/ESPD-EDM/3.0.0/index.html>



# GitHub issues

As-Is migration: <https://github.com/OP-TED/ESPD-EDM/issues>



OP-TED / ESPD-EDM Public

Unwatch 51

<> Code Issues 6 Pull requests Discussions Actions Projects 1 Wiki Security Insights Settings

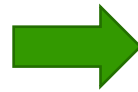
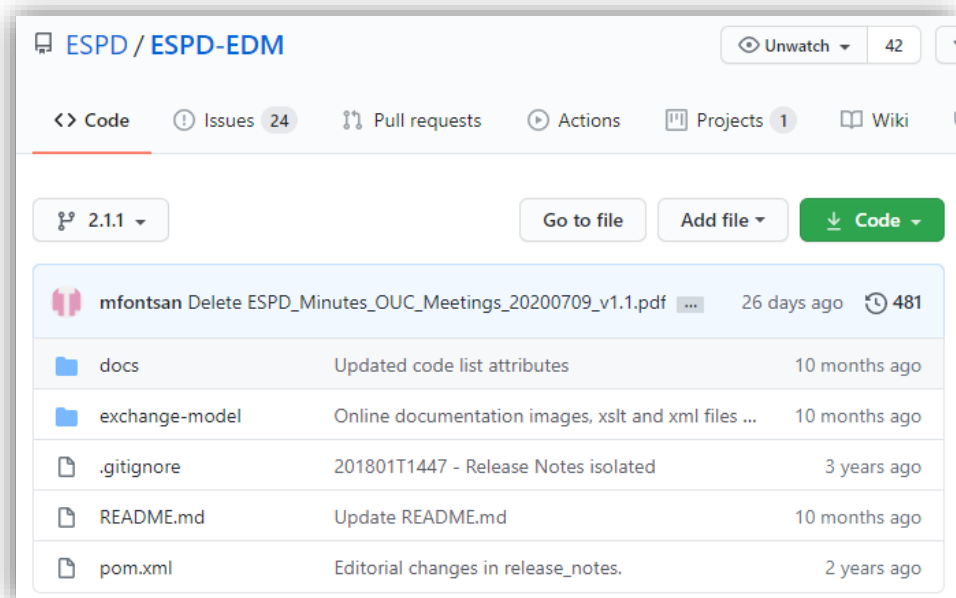
Filters is:issue is:open Labels 22 Milestones 6 New issue

<input type="checkbox"/>	6 Open ✓ 295 Closed	Author	Label	Projects	Milestones	Assignee	Sort
<input type="checkbox"/>	<b>Evidences External Reference URI</b> #319 opened 19 days ago by konstantinosraptis91						2
<input type="checkbox"/>	<b>Question on UUID for Repeatable Question Sub Group</b> #312 opened on 14 Apr by vidhyaneel						12
<input type="checkbox"/>	<b>New Code list 'occupation'</b> <b>codelists</b> <b>V3.0.0</b> #307 opened on 5 Feb by hricolor						3
<input type="checkbox"/>	<b>Part IV: Selection criteria, C: Technical and professional ability (CA's)</b> #287 opened on 4 Nov 2020 by AJDAKOST						5
<input type="checkbox"/>	<b>Link eCertis and ESPD</b> <b>TBD</b> #251 opened on 1 Jul 2019 by ec-mcs						4
<input type="checkbox"/>	<b>schemeID e schemeAgencyID</b> <b>TBD</b> #196 opened on 14 Nov 2018 by AFSOLUZIONI						10

# Distribution package

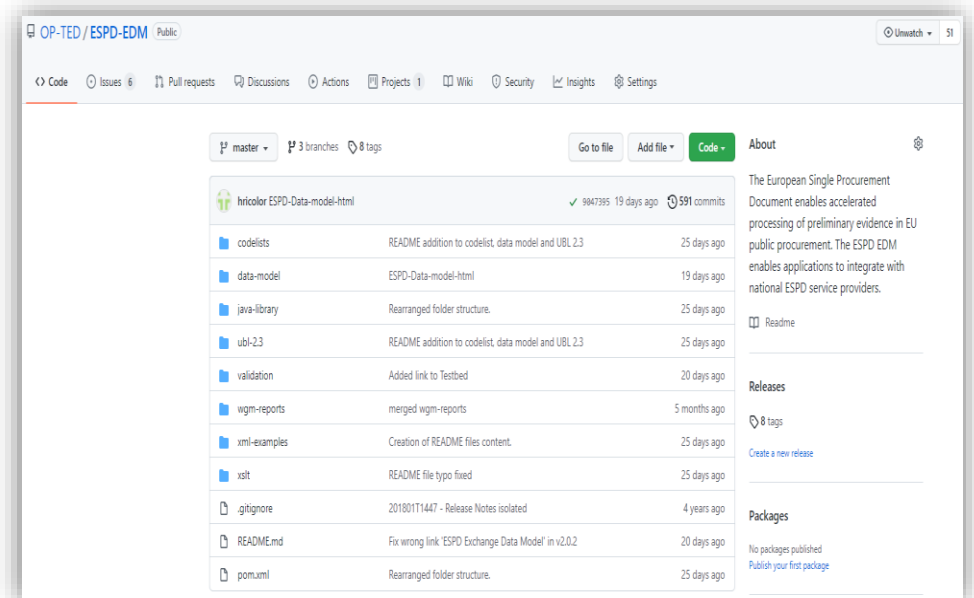
- Ongoing work
- Simplification of the structure

## *Distribution package previous structure*



## *Distribution package new structure*

<https://github.com/OP-TED/ESPD-EDM>



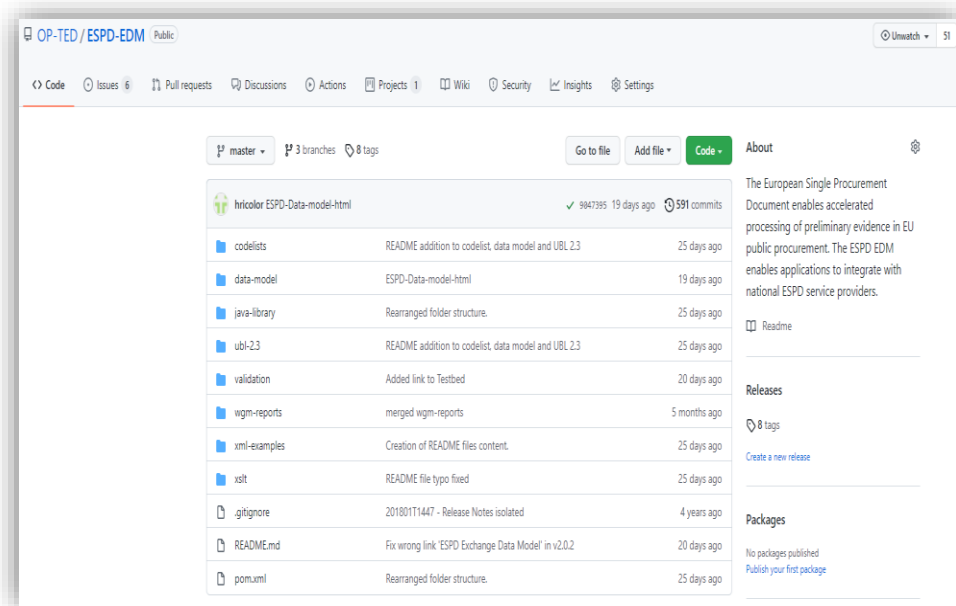


# Distribution package

- Direct access from the “**Code tab**” and “**Release tag**”

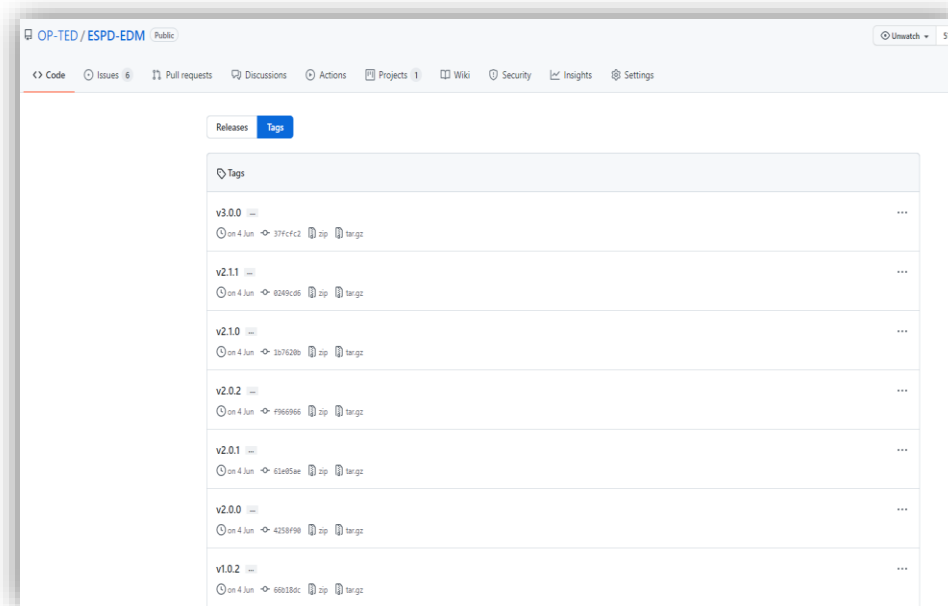
## *Distribution of ongoing work*

<https://github.com/OP-TED/ESPD-EDM>



## *Distribution of different releases*

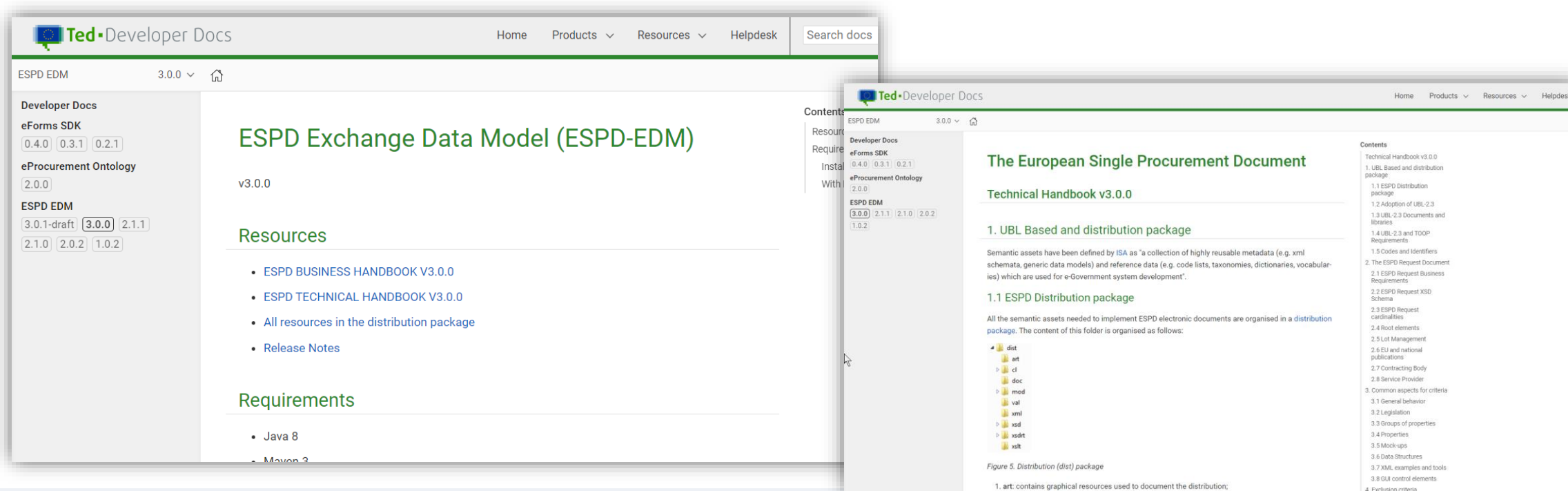
<https://github.com/OP-TED/ESPD-EDM/tags>



# Documentation

- Documentation for the implementation for each major release and current minor releases
- Currently: 3.0.0, 2.1.1, 2.0.2, and 1.0.2

<https://docs.ted.europa.eu/ESPD-EDM/3.0.0/index.html>



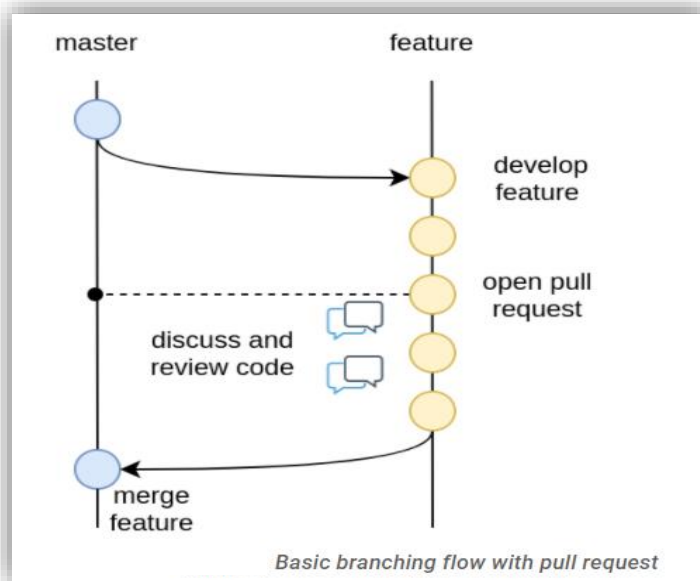
# GitHub usability

	Previous methodology	Current methodology
Reorganisation	Master branch One version per branch	Master branch One version per tag
Access a released version	Specific release branch	Specific release tag
Access a developing version	Specific version branch	Master branch-feature/xxx branch
Bug-fixing & evolution releases	New version branch	New version tag

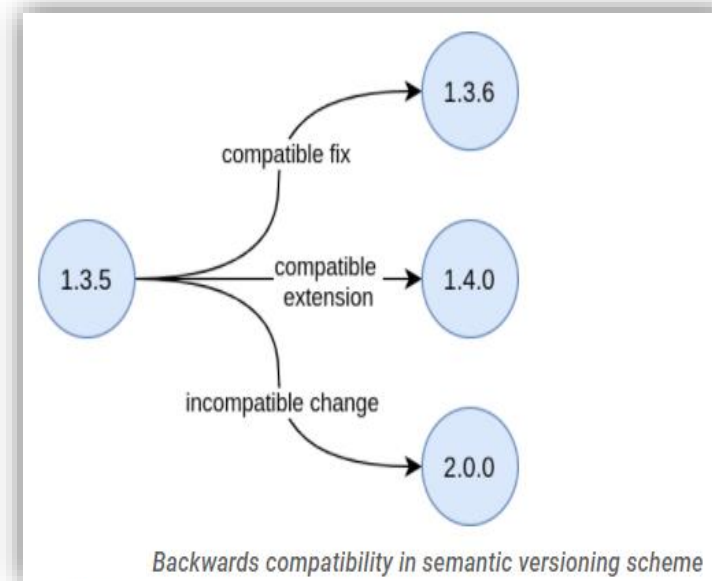
# Git usage methodology

- Version management is explained in the Git Usage Methodology:  
<https://docs.ted.europa.eu/git-versioning-methodology/git-methodology/latest/>
- Generic evolution recommendations and semantic versioning of artefacts are provided.

## *Basic branching flow*



## *Semantic versioning*

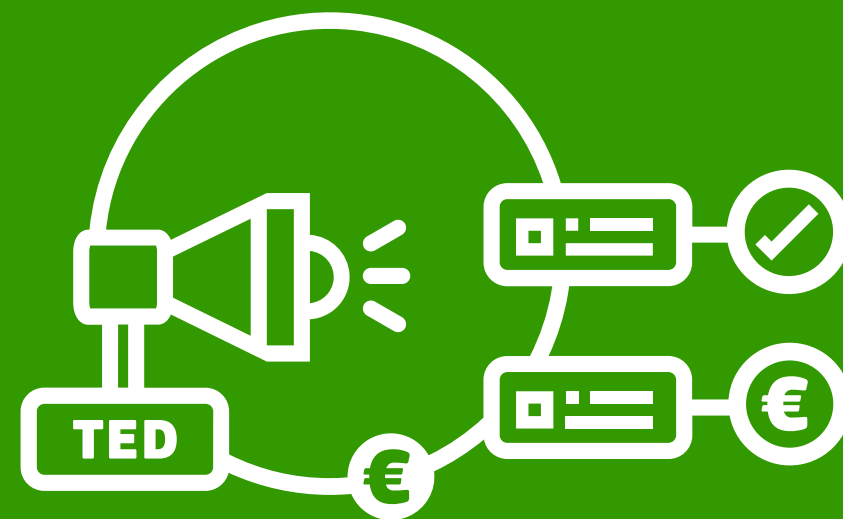




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# ESPD-EDM V3.0.0 DATA MODEL

Alba Colomer Padrosa, NTTDATA



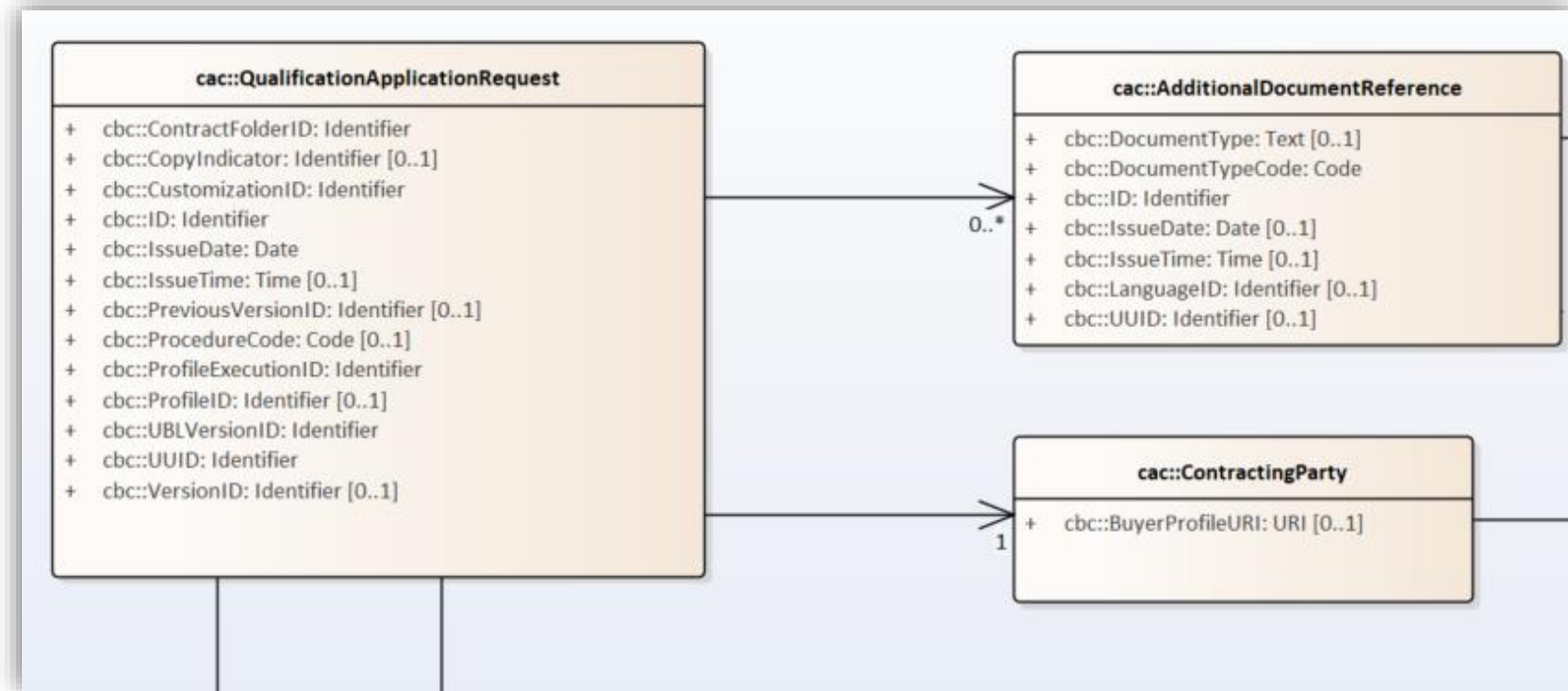
# Data model goal

- The initial (current) objective is to simplify and facilitate the understanding of the UBL schema and excel sheets that represent ESPD-EDM data structures.
- The Data Model is available here:
  - **EAP file:** [https://github.com/OP-TED/ESPD-EDM/blob/master/data-model/ESPD\\_EDM\\_DataModel\\_TOV-BOV.eapx](https://github.com/OP-TED/ESPD-EDM/blob/master/data-model/ESPD_EDM_DataModel_TOV-BOV.eapx)
  - **HTML file:** [https://github.com/OP-TED/ESPD-EDM/blob/master/data-model/ESPD-EDM\\_DataModel\\_TOV-BOV.html](https://github.com/OP-TED/ESPD-EDM/blob/master/data-model/ESPD-EDM_DataModel_TOV-BOV.html) (correct link: <https://github.com/OP-TED/ESPD-EDM/tree/master/data-model/ESPD-data-model-html>)
  - **XMI file:** [https://github.com/OP-TED/ESPD-EDM/blob/master/data-model/ESPD-EDM\\_DataModel\\_TOV-BOV.xmi](https://github.com/OP-TED/ESPD-EDM/blob/master/data-model/ESPD-EDM_DataModel_TOV-BOV.xmi)
- The Data Model provides a unique file containing both a Technical-Oriented View (TOV) and a Business-Oriented View (BOV).
- The final objective is to show the data model relationship with standardised vocabularies as the eProcurement Ontology.

# ESPD-EDM Data Model, Technical-Oriented View

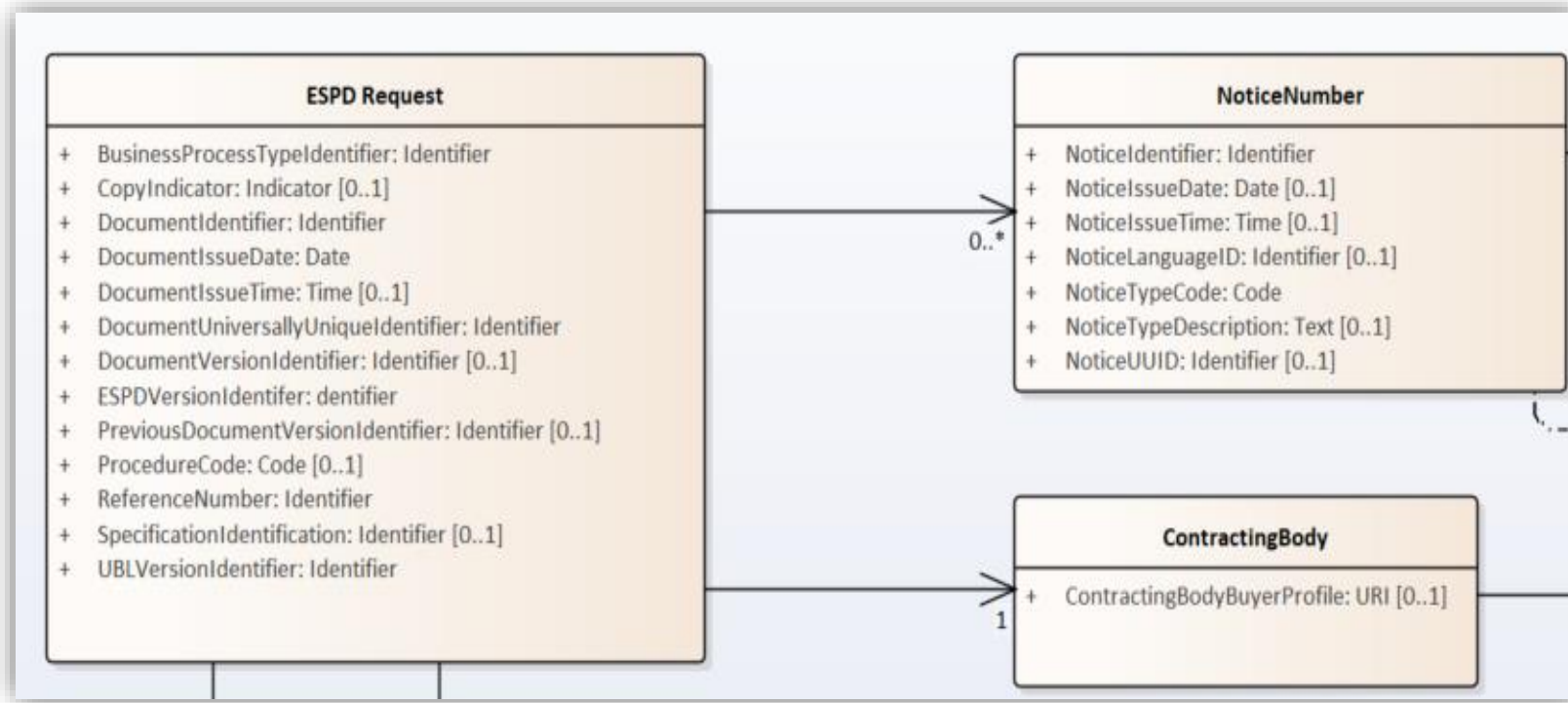
- **Technical-oriented view (TOV)** represents the UBL-based schema.

- The UML diagram uses the UBL naming for:
  - Classes
  - Attributes
- Only the UBL elements used in ESPD-EDM v3.0.0 have been included with the corresponding cardinalities.



# ESPD-EDM Data Model, Business-Oriented View

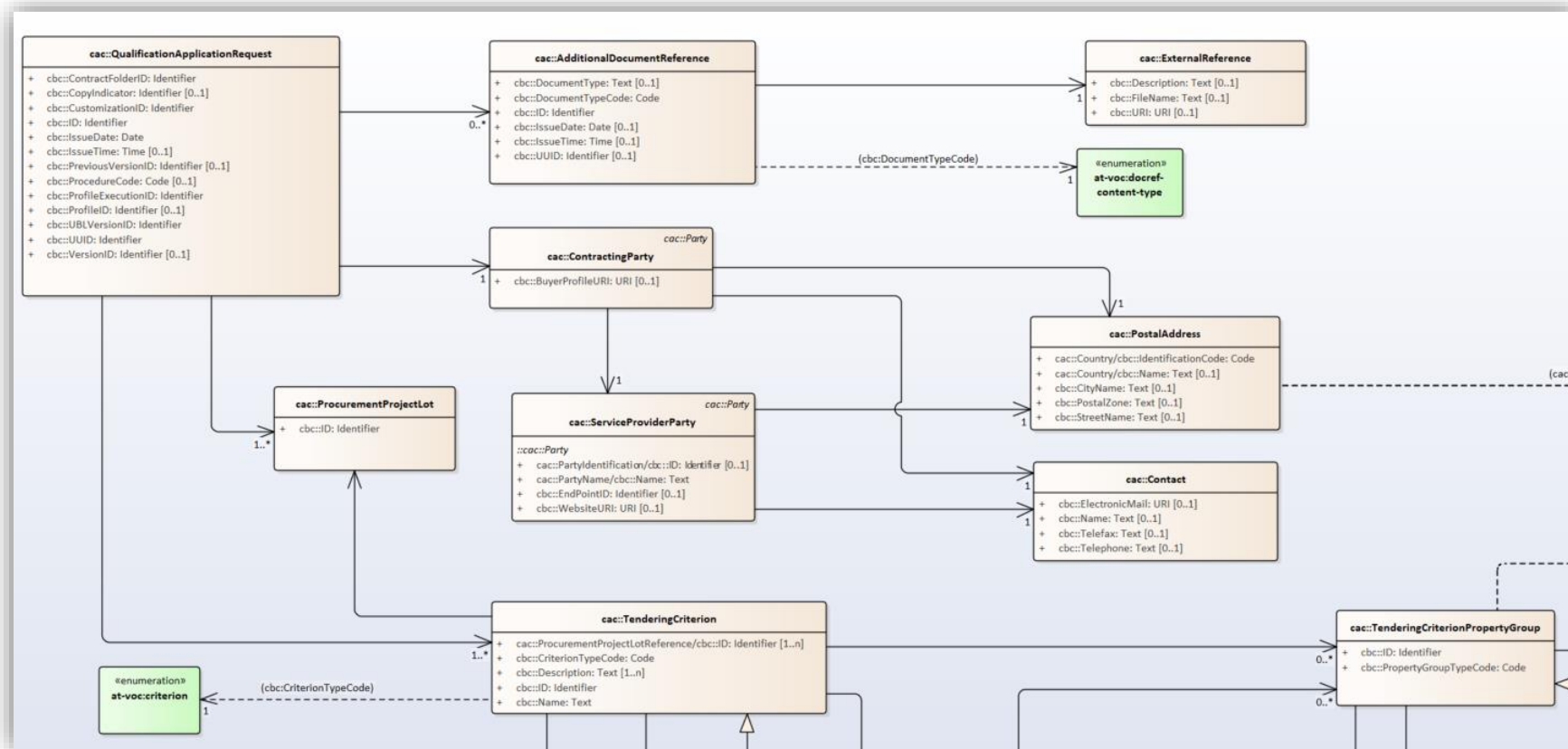
- **Business-oriented view (BOV)** is aimed at facilitating the understanding of the model and the business context, with references to the technical model.
- The UML diagram uses the ESPD documentation naming for:
  - Classes
  - Attributes
- The diagram follows the technical-oriented view (TOV) with regard to cardinality and elements represented.





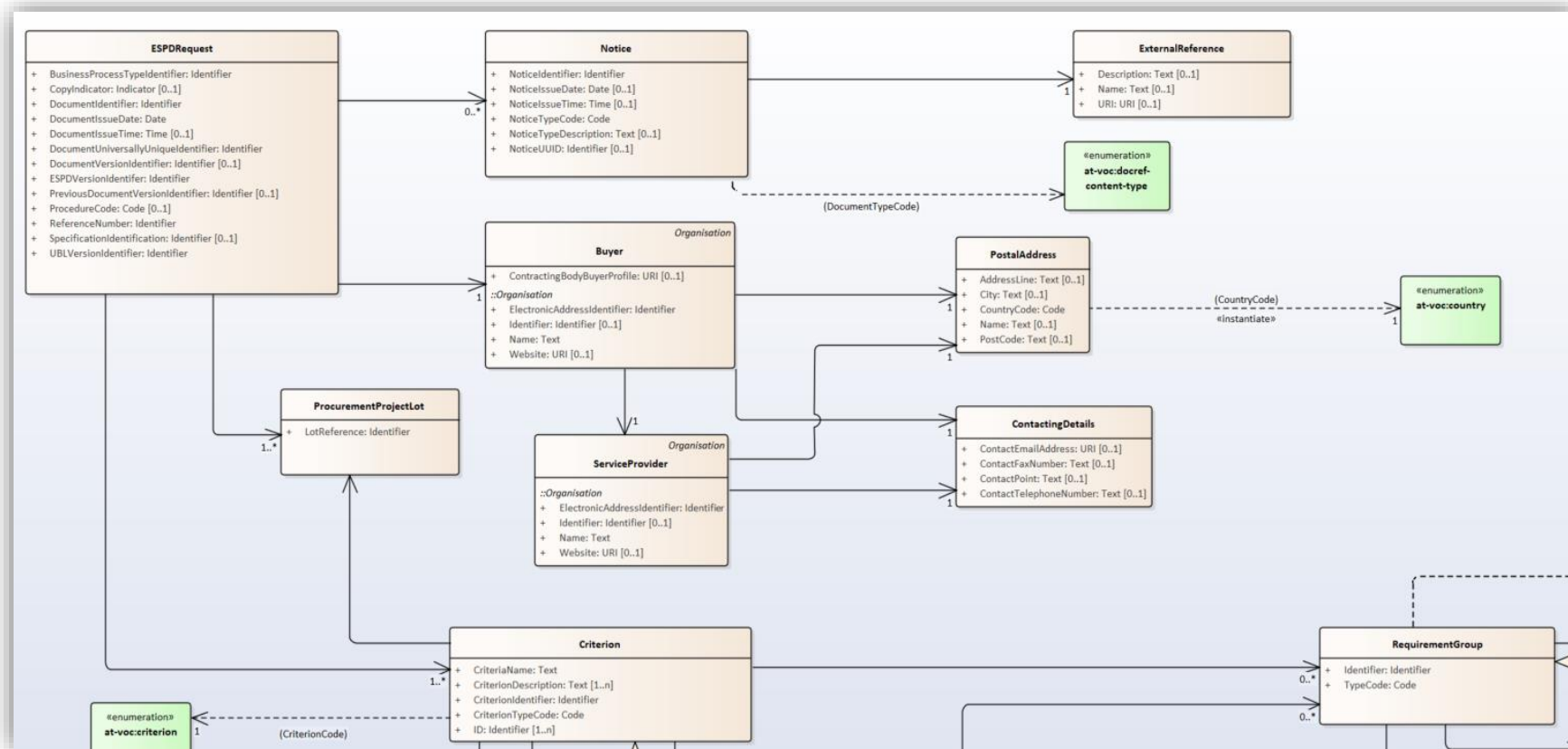
# Data model overview

- Technical-oriented view (TOV) example:



# Data model overview

- Business-oriented view (BOV) example:

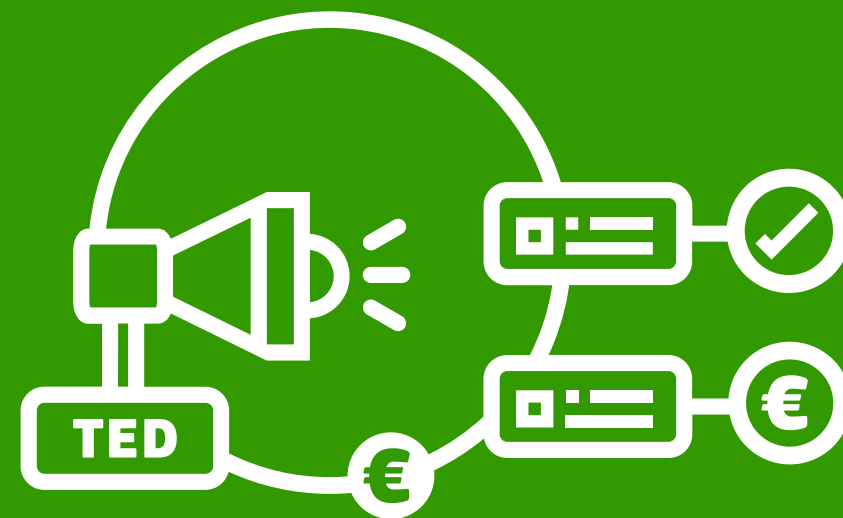




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# eCERTIS

Marc Christopher Schmidt, DG GROW



# eCertis

- eCertis helps economic operators to understand what kind of evidence can be used to fulfil a specific requirement in a European country.

<https://ec.europa.eu/tools/ecertis/>

- In the context of public procurement, eCertis is used for the identification of exclusion grounds and selection criteria economic operators need to fulfil.
- Information in eCertis has to be continuously maintained by Member States.



European Commission

eCertis

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OVERVIEW

FEEDBACK

E-CERTIS QUICK GUIDE

ABOUT ECERTIS

Entity	AT	BE	BG	CY	CZ	DE	DK	EE	EL	ES	FI	FR	HR	HU	IE	IS	IT	LI	LT	LU	LV	MT	NL	NO	PL	PT	RO	SE	SI	SK
																														
Issuers	13	13	16	7	11	19	5	6	11	4	6	15	3	20	1	5	29	2	8	6	6	3	7	3	12	8	26	4	5	12
Criteria	11	44	52	31	41	55	26	48	46	25	56	39	56	53	20	4	54	30	47	13	48	56	23	26	56	24	50	24	56	37

## eCertis

- eCertis was launched in 2010 and has seen many upgrades.
- In December 2020 eCertis was upgraded to be used for multiple domains.
- This will allow to cater for different Directives and Scenarios
  - Directives 2014/24/EU, 2014/23/EU, 2014/25/EU, 2009/81/EC
  - Scenarios for each Directive will be further divided into Works, Services and Supply
  - Currently only the 2014/24/EU Directive is fully encoded for the three scenarios
- Providing different Directives means, that there will be additional criteria, like “Process, store and transmit classified information”, introduced through the Defence Directive 2009/81/EC



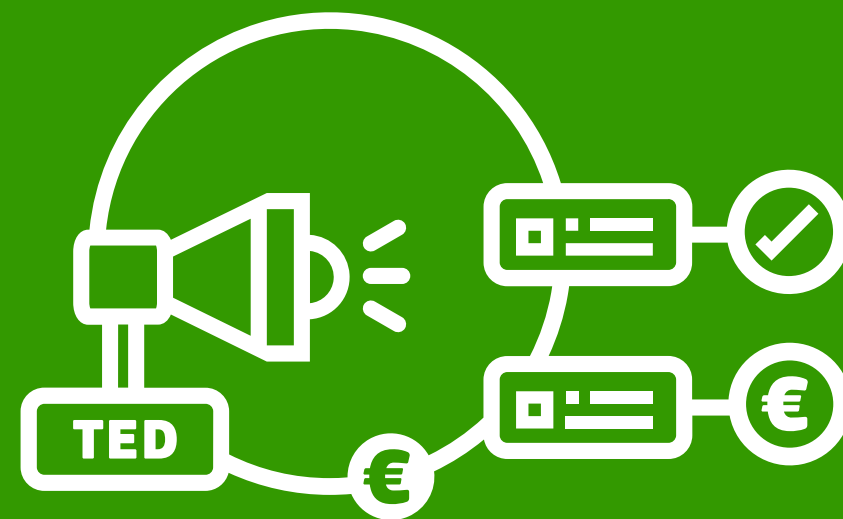
- This makes it necessary to retrieve data from eCertis and not to rely on the static data used in the ESPD.



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# ESPD-EDM & eCERTIS

Alba Colomer Padrosa, NTTDATA



## ESPD-EDM & eCertis

### Current situation:

Information concerning criteria is currently maintained both in eCertis and in the ESPD Service. The same information is duplicated in the two models (eCertis and ESPD).



### Problems to be addressed:

- Information needs to be manually updated in two different systems.
- Risk of data inconsistency between systems if information is not updated in parallel.

## ESPD-EDM & eCertis

- Goal:
  - Retrieve information provided in eCertis by the Member States to reuse directly in the ESPD.
- Benefits:
  - Facilitates reuse;
  - Facilitates the generation of the ESPD Request document;
  - Facilitates interoperability with other domains;
  - Ensures better data quality, harmonization;
  - Ensures national and EU law is respected;
  - Provides one single source of truth.



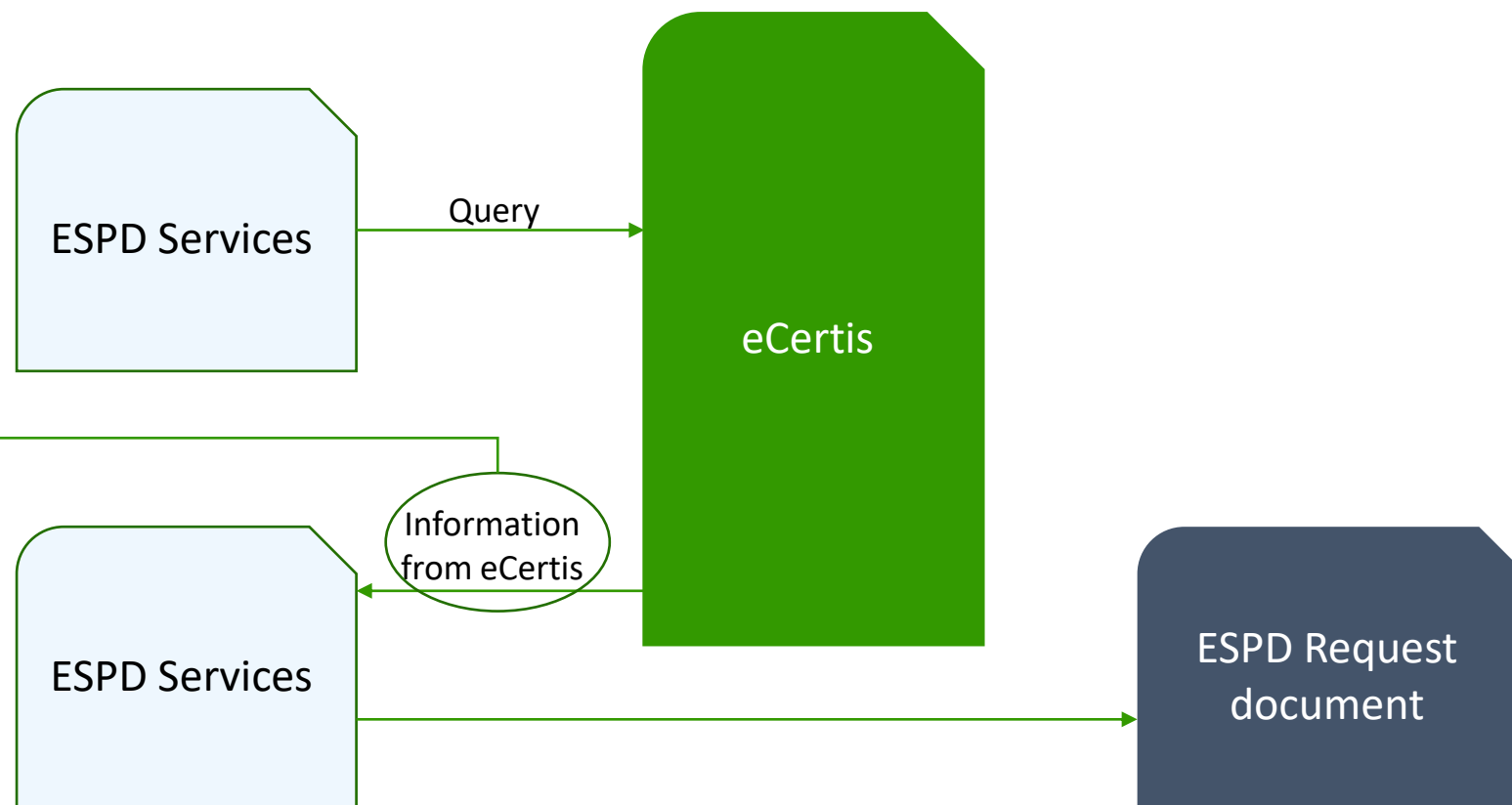
## ESPD-EDM & eCertis - parties involved

- **eCertis** includes information, such as:
  - Whether a criterion is mandatory or not;
  - Whether a criterion is applicable or not for which Directive;
  - The name of the criterion;
  - Legislation related to the criterion.
- **ESPD Services** will retrieve the criteria from eCertis.
- **ESPD-EDM** will provide the data structures to place the data.

# Transaction between ESPD-Services and eCertis

## Information retrieved from eCertis:

- Criteria mandatory/not mandatory
- Criteria applicable/not applicable for different Directives
- UUID for the scenario and the country
- Name of the criteria
- Code of the criteria (from criterion code list on EU Vocabularies)
- Legislation related to criteria

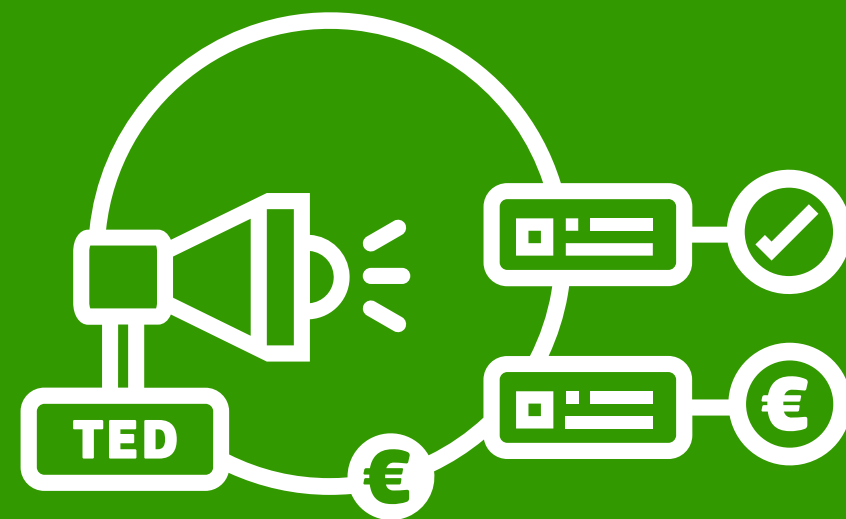




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# UPDATE OF UUIDS FOR REPEATABLE SUBGROUPS

Alba Colomer Padrosa, NTTDATA



# Problem statement, business requirements and proposed solution

- Problem statement:
  - Currently, questions in criteria need to be instantiated for each procurement procedure instead of reusing criteria from earlier procurement procedures.
- Business requirements:
  - Ensure the connection for each criterion between ESPD Request and Response;
  - Ensure reusability of criteria both in the Request and the Response across procurement procedures;
  - Ensure traceability and respect The Once-Only Principle (TOOP).
- Proposed solution:
  - Reduce the randomness on the ESPD Request by defining fixed identifiers for requirements and questions (identifiers are already fixed for criteria).
    - This implies no longer using dynamic UUIDs but extending UUIDs with SHA224 hash values.

# Proposed solution (under discussion)

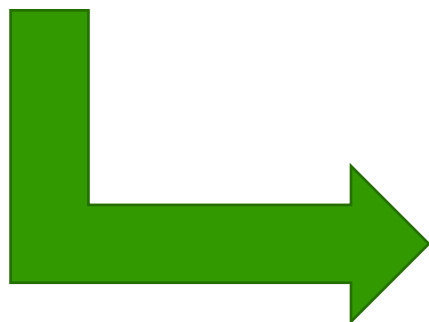
## Proposed solution



Define fixed identifiers for questions

## Implies

- (1) Defining the pattern that would identify questions with the criteria they belong to.
- (2) Defining a question identifier that is traceable between the Request and the Response.



## Ongoing discussions with the Open User Community



**Ongoing discussion 1:** Is the proposed solution useful for all stakeholders? (e.g. Buyers and Economic Operators)

**Ongoing discussion 2:** Does the proposed solution meet business requirements?

**Ongoing discussion 3:** Is the proposed solution the most efficient and useful from an implementation point of view?

## Proposed solution PROS and CONS

Pros	Cons
Improves the readability of the responses by adding fixed identifier.	More complex than the current one and might entail performance risks.
The codification of response values eases the reuse of information (TOOP)	Breaks compatibility with previous versions since the new identifiers would not follow the UUID standard.
All identifiers are defined in one ESPD Request document.	Implies additional maintenance, as modifications on the data structures would require inclusion of new identifiers. Additionally, in case of full code refactoring, new code registration will be needed in eCertis (not foreseen).

# Proposed solution specification

- Reusable Request and Response codes: **CCCCCCCC-XXXX-SSSS-RRRRRRRR**

Code	Length	Request / Response	Description
CCCCCCCC	8	Request	Criterion code as a CRC32 hash value.
XXXX	4	Request	Fixed unique code. This value will be defined in the ESPD criteria to ensure identifiers are collision-safe.
SSSS	4	Request	Sequence value needed to address multiple cardinality. This value is local to the group of questions with multiple cardinality.
RRRRRRRR	56	Response	Response value encrypted as a SHA224 hash value.

- REQUEST example:

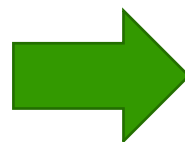
4908c6dc-a52d-0001

- RESPONSE example:

4908c6dc-a52d-0001- cf655931d7b5dd0a2880633ab7be2f4395857f67edddd7f5ad6ede0c

## Proposed solution example

Request
Selection Criteria
Yearly turnover (CCCCCCCC)
Requirement Group
Requirement (EUR 5 million)
Question Group
Question 1 CCCCCCCC-XXXX-SSSS(Year 1) 4908c6dc-a52d-0001
Question 2 CCCCCCCC-XXXX-SSSS(Year 2) 4908c6dc-a52d-0002



Response
Question 1:
Response Identifier (CCCC-XXXX-SSSS- RRRRRRRR) 4908c6dc-a52d-0001- cf655931d7b5dd0a2880633ab7be2f4395857f67edd dd7f5ad6ede0c
Question 2:
Response Identifier (CCCC-XXXX-SSSS- RRRRRRRR) 4908c6dc-a52d-0002- cf655931d7b5dd0a2880633ab7be2f4395857f67edd dd7f5ad6ede0c

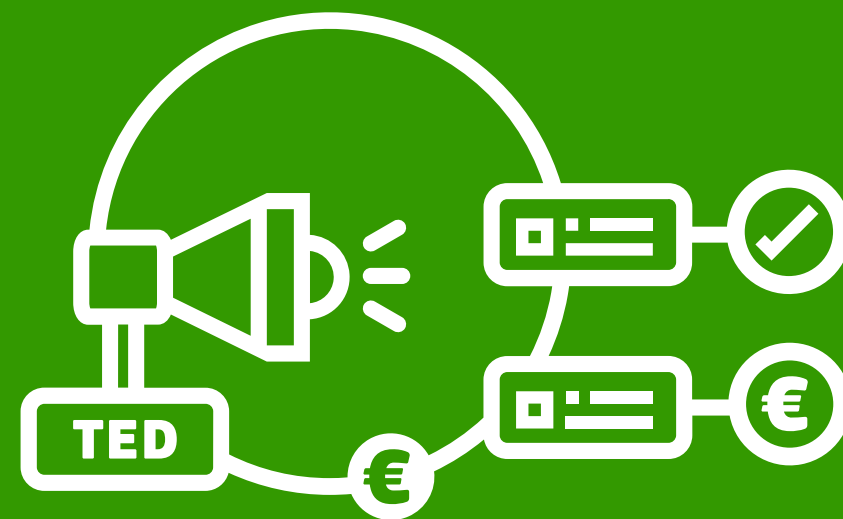




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# NEXT STEPS

Natalie Muric, Publications Office



## The Governance foresees 3 version types

1. **Patch:** editorial changes, additional clarifications or small bug fixes.
2. **Minor release:** modifications or additions of elements that do not affect deeply the ESPD-EDM.
3. **Major release:** fundamental aspects of the ESPD-EDM are affected.



## **V3.0.1 January 2022**

1. Reorganisation of the GitHub.
2. Update cardinalities in the documentation.
3. Update of cardinalities in the example files.

## V3.1.0 June 2022

1. Reorganisation of the documentation.
2. Enforce validation of mandatory fields - currently only fields that are present.
3. Validate all code lists.
4. Changes in Criterion codes to enable retrieval of data from eCertis.
5. Removal of CEN references (as the CEN references use UBL 2.2 rather than 2.3).
6. **Implement** the ESCO occupation code list as genericode.

## Possible future work to be discussed

1. Changes in the UUID.
2. Guidelines for the retrieval of criterion from eCertis.
3. Any other ideas? (Slido).
4. Next OUC on 27 January 2022.

THANK YOU FOR YOUR PRESENCE

ANY QUESTIONS?

*Please feel free to send also your questions to*

[OPESPD@publications.europa.eu](mailto:OPESPD@publications.europa.eu)

