

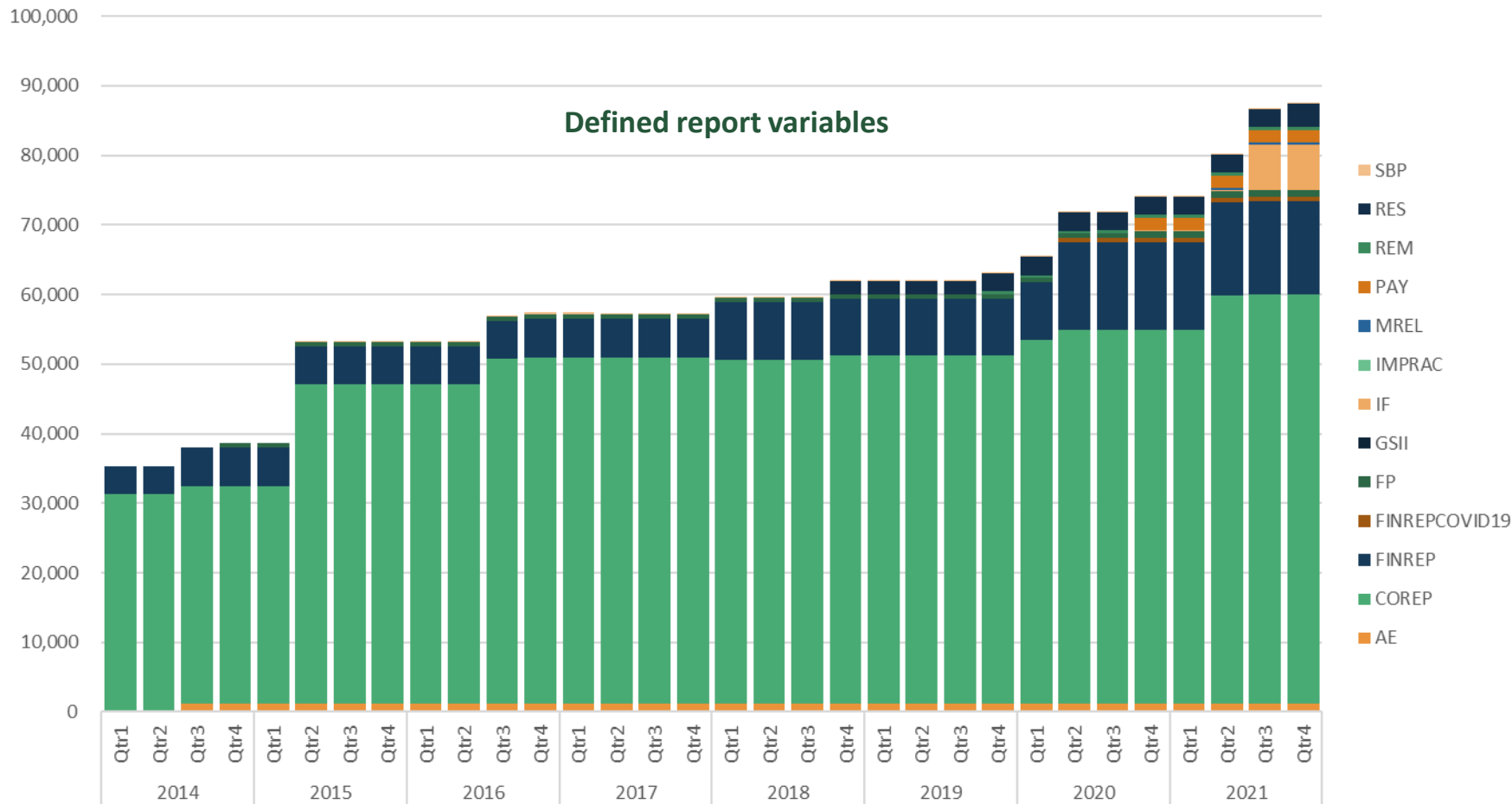


Moving towards the DPM Refit

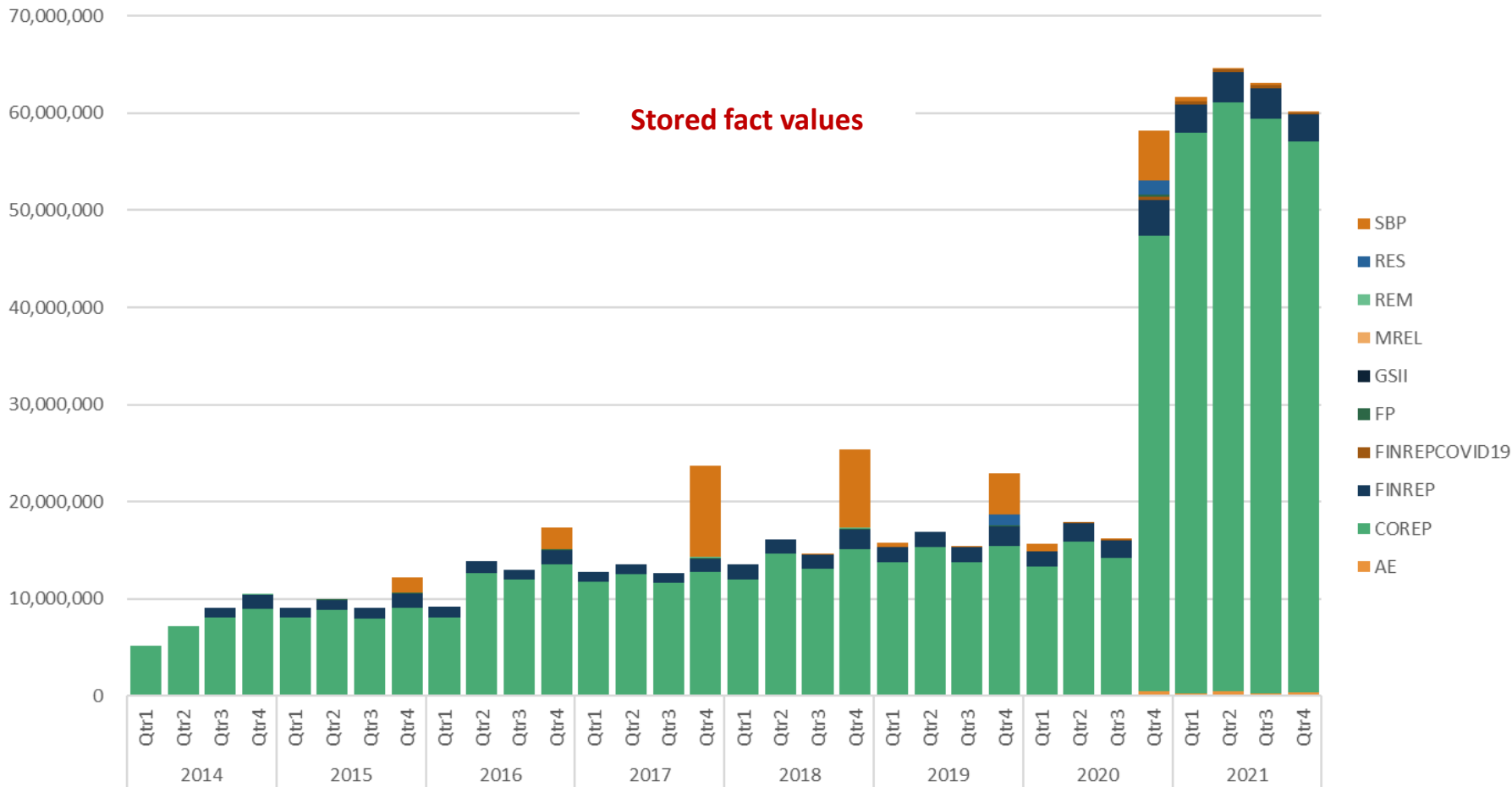
Carlos Martins

EUROFILING seminar | 22 June 2022

- ❖ The EBA Data Point Model development **started in 2012**, to support the EBA reporting framework 2.0
- ❖ The DPM database was first **published by end 2013**, as part of the ITS 2.0 technical package
- ❖ Over the last **8 years**, the DPM database has been accumulating all the successive releases of the EBA data dictionary, from **version 2.0 to 3.3**
- ❖ The data dictionary **tracks changes** and maintains the full historisation of all templates structure, data points categorisation, validation rules, and taxonomies, **across all releases**
- ❖ The structure of the DPM database has not changed significantly since its first publication
- ❖ The DPM database is being used as a **main component of EUCLID** (as it had been already with the previous ESP reporting system)
- ❖ The DPM database is also at the core of the EBA solutions for regulatory data analysis



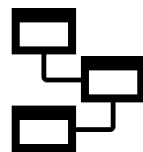
Evolution of EBA regulatory data collection





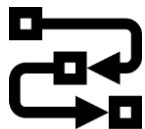
Metadata describing concepts and regulatory data requirements of all reporting framework releases.

**Semantic
content**



Metamodel defining the data modelling language, and the metadata storage model.

**Syntactic
structure**



Methodology for defining regulatory data requirements, using specific data modelling techniques.

**Methods, rules,
postulates**

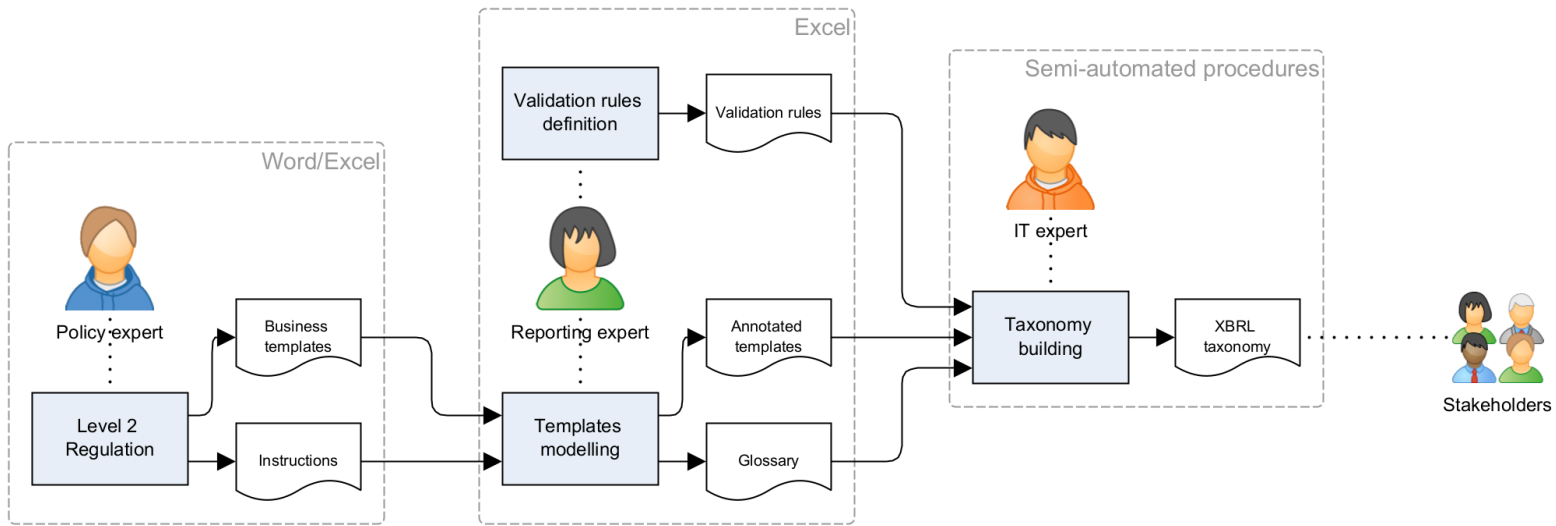


Tool set that supports the work of reporting experts for the continuous development of the DPM releases.

Infrastructure

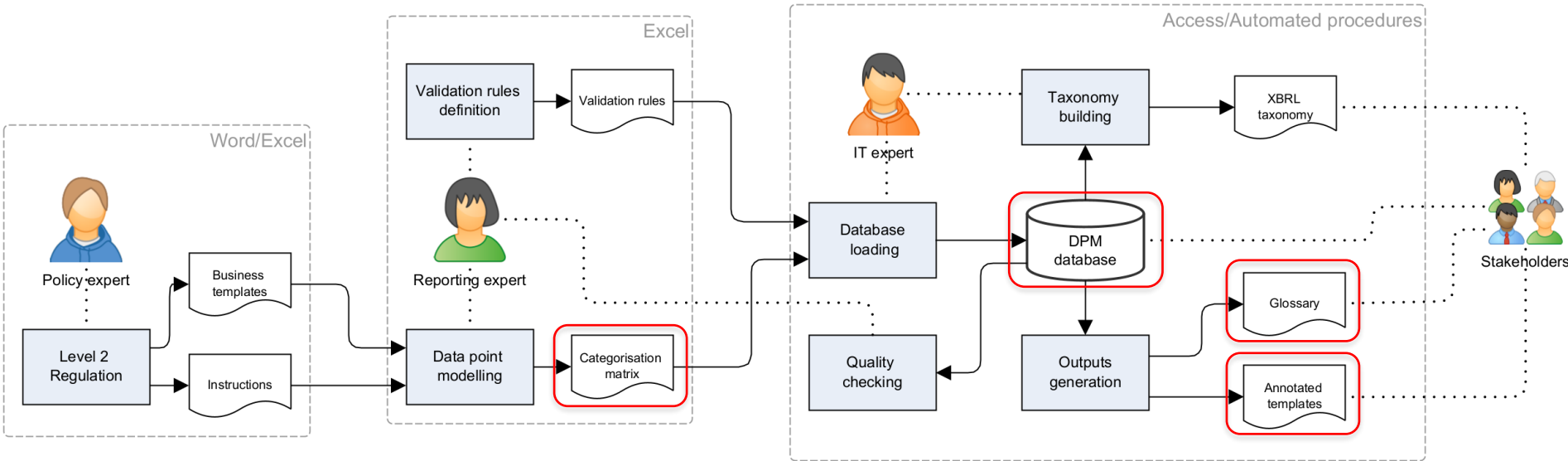
Evolution of DPM development process

Pre-EBA phase – ... /2012



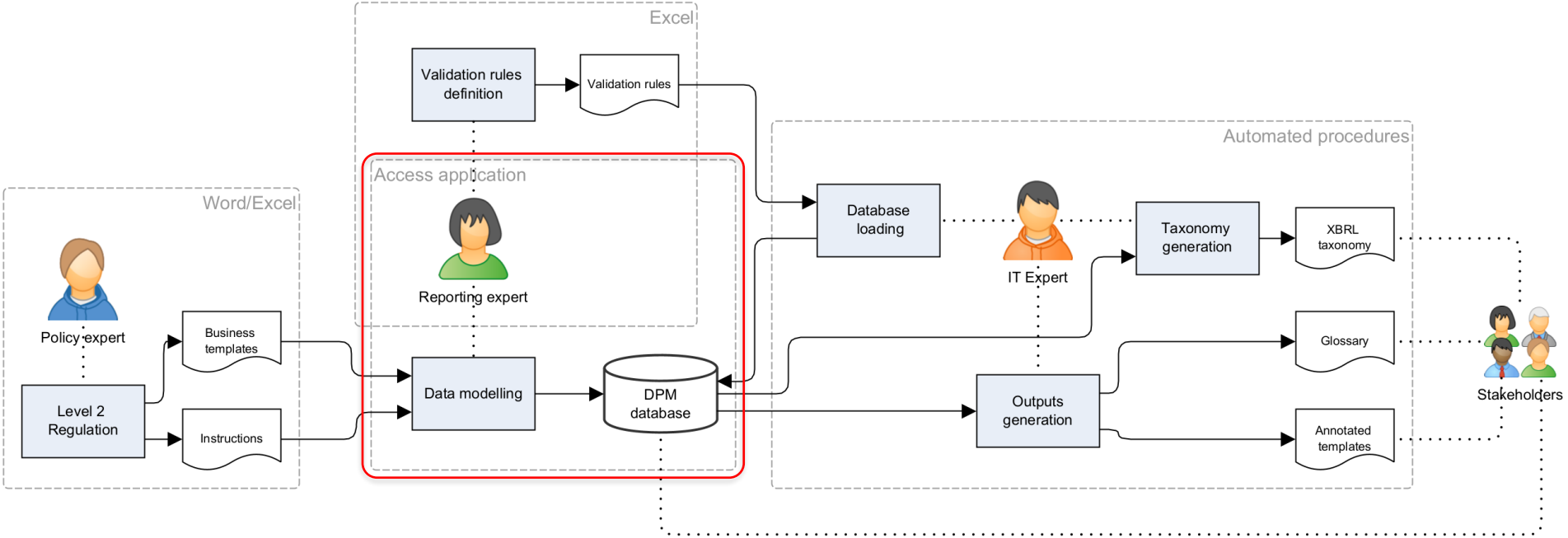
Evolution of DPM development process

Initial EBA phase – 2012/2016



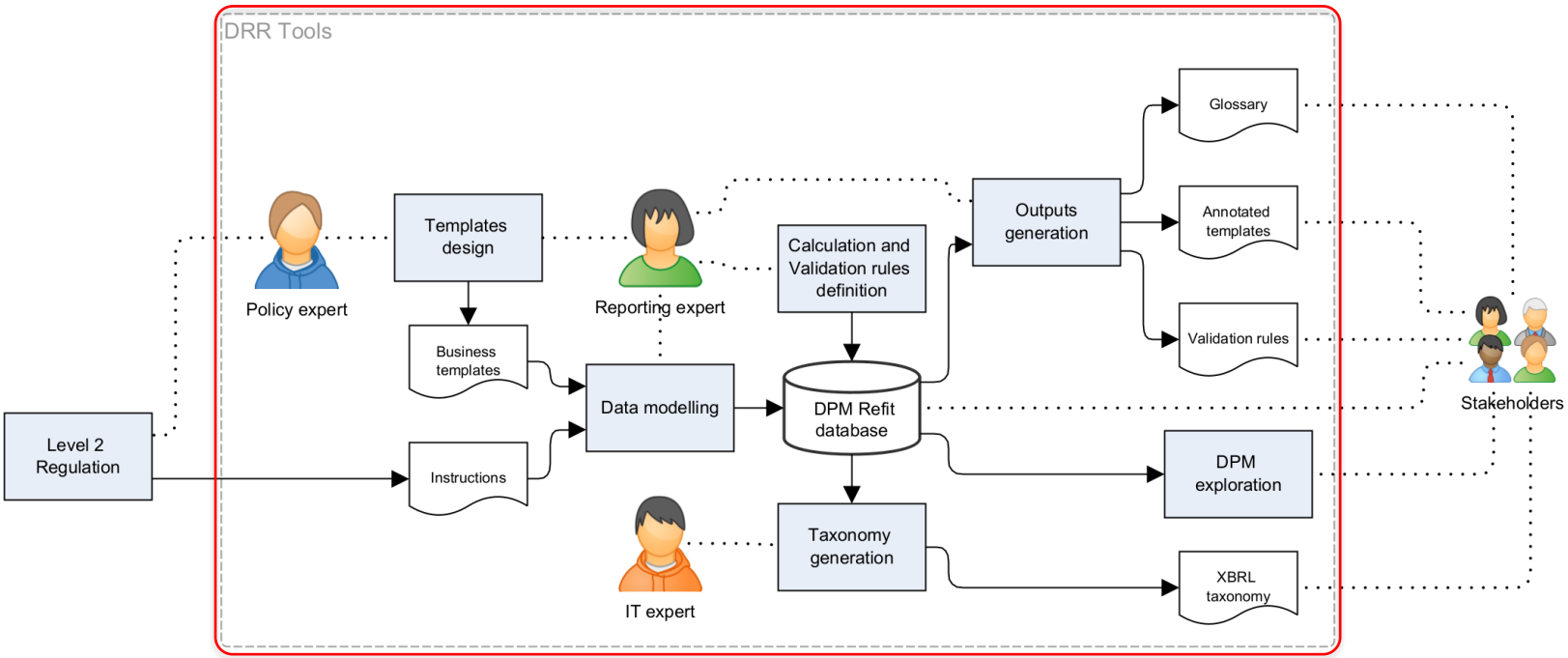
Evolution of DPM development process

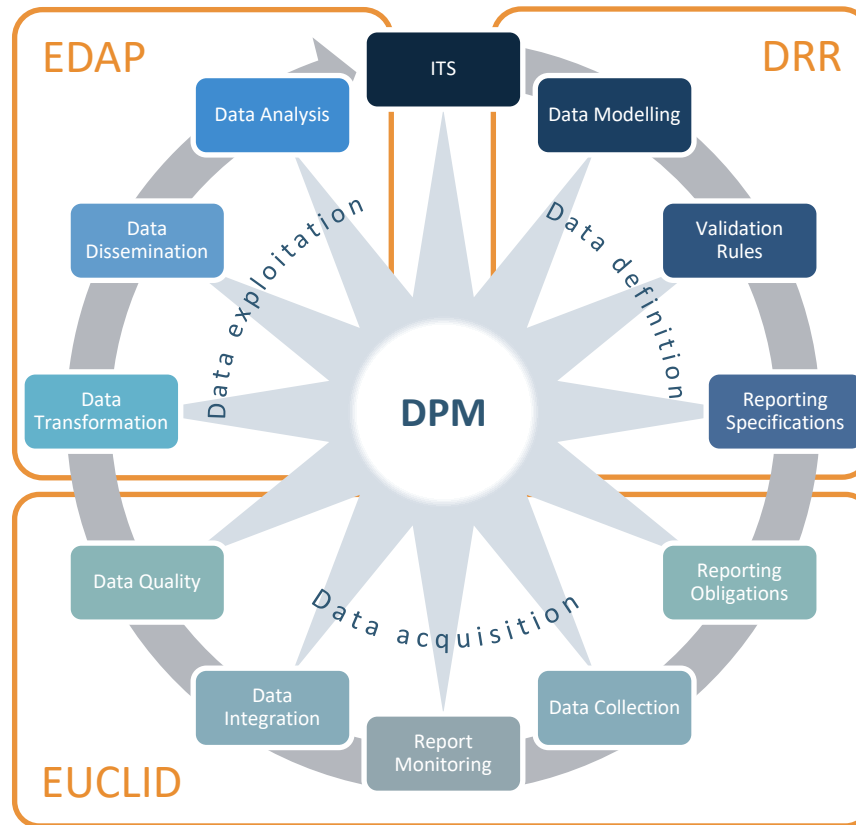
Current EBA phase – 2016/2022



Evolution of DPM development process

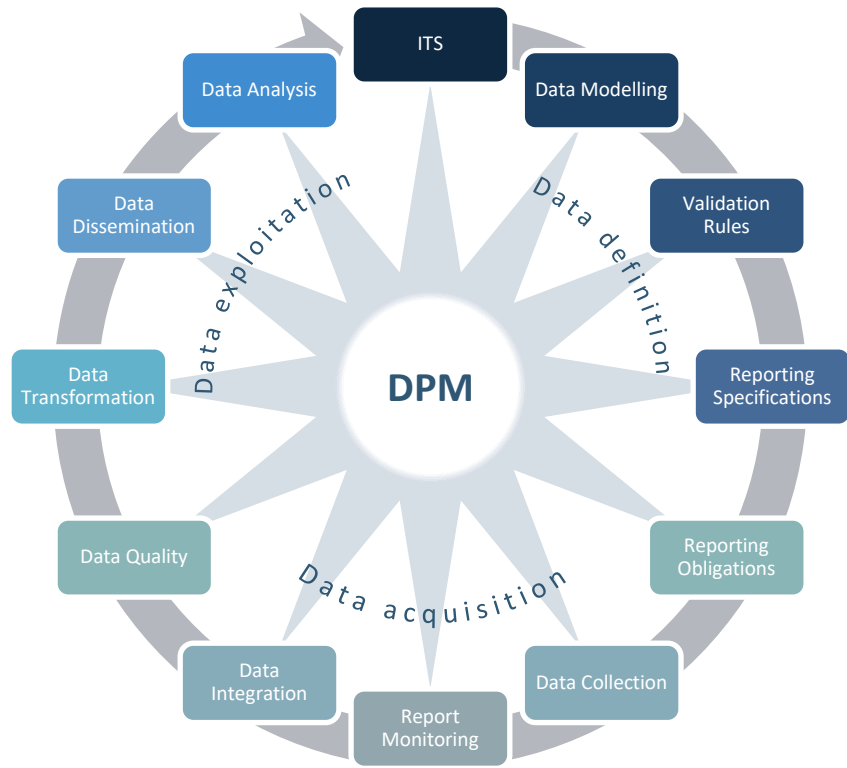
Future EBA phase – 2023/ ...





Some DPM use cases in the data lifecycle

- Defining better regulation ●
- Basis of semantic layer for data analytics ●
- Integration with data catalogue ●
- Support data preparation ●
- Definition and management data access policies ●
- Definition and management of calculation and derivation rules ●
- Definition and management of plausibility checks ●
- Organisation of data storage model ●
- Integrity checks of incoming data ●



- Better understanding of regulation
- Definition and management of data requirements
- Definition and management of validation rules
- Basis for automatic generation of data exchange formats
- Reference for defining the report compliance rules
- Dynamic generation of data entry forms
- Definition of the reporting calendar
- Reference for checking report compliance

Data dictionary features

- Formal definition of data requirements
- Glossary of business terms
- Dimensional data definitions
- Templates rendering
- Explicit metamodel
- Uniquely identified datapoints
- Historisation of concepts and relationships
- Easy navigation with standard query languages
- Verifiable global model consistency
- Can support frameworks integration
- Does not require specific IT expertise
- Does not depend on special IT tools

**XBRL****DPM**

- ❖ The evolution of reporting requirements, and the extensive use of the DPM for data integration and data exploration, have triggered the need to improve the meta model in a number of aspects, e.g.:
 - Modelling of Open tables (relationships, normalisation)
 - Versioning of Domains, Dimensions, and Hierarchies
 - Supporting snowflaked dimensions, where some members are composite combinations of other members of different Dimensions (e.g. Benchmarking portfolios)
 - Defining relationships between data points
 - Modelling of value Restrictions (allowed values for open axes, qualitative “metrics”)
 - Modelling and versioning of Validation rules, and Calculations (required for integrating Disclosure and Reporting requirements)

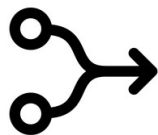
- ❖ The continuous growth, in scope, diversity, and complexity, of the EBA metadata-driven reporting ecosystem requires a robust and future-proof data dictionary, supported by adequate management tools

- Considering the existing convergence between EBA and EIOPA with regard to:
 - The similarities of the developing processes of the technical packages of the reporting framework
 - The use of common base methodologies for modeling reporting requirements
 - The use of the same database structure to hold the DPM metadata repository
 - The adoption of the same technical format for reporting regulatory data (XBRL)

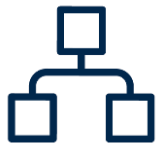
- Considering the advantages for all stakeholders that arise from the adoption of common models and processes

- ❖ **EBA and EIOPA decided to start a joint project** (in January 2020) **to review and update the DPM methodology and meta model**, in order to enable complete convergence in the way of defining and communicating regulatory reporting requirements.

- ❑ Redesign the DPM meta model, addressing current shortcomings and coping with foreseeable challenges
- ❑ Develop a fully consistent approach between EBA and EIOPA for modelling reporting requirements
- ❑ Unbiased model with respect to any data exchange formats (xBRL-XML, xBRL-CSV, SDMX)
- ❑ Delivering the foundations for the development of new DPM tools
- ❑ Supporting the entire data lifecycle, from data definition to data exploration, enabling the development of new metadata-driven solutions



Total convergence of EBA and EIOPA methods, models, processes, and tools used for the development of data dictionaries and related regulatory products.



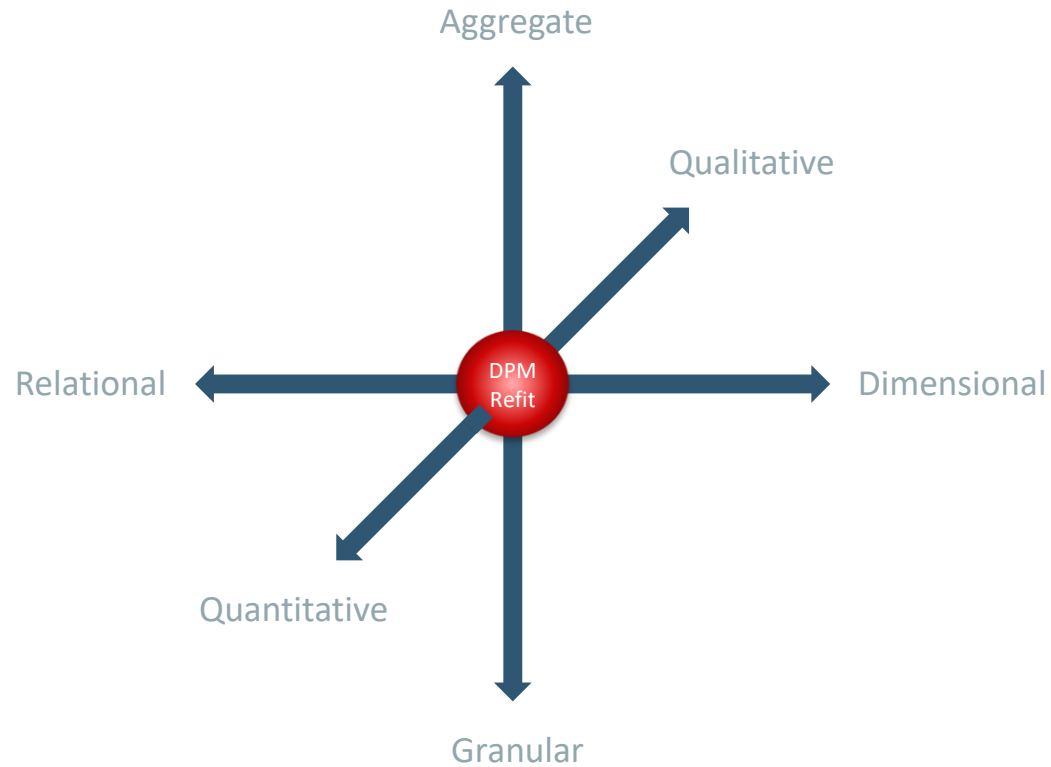
Unified metamodel applicable to all data exchanges, from highly aggregated data points to very granular data sets.

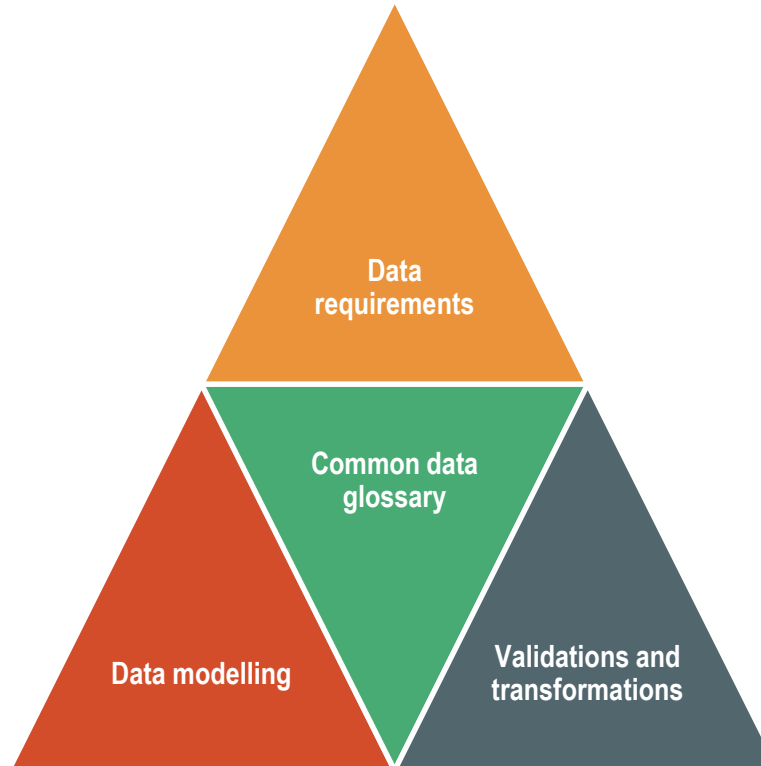


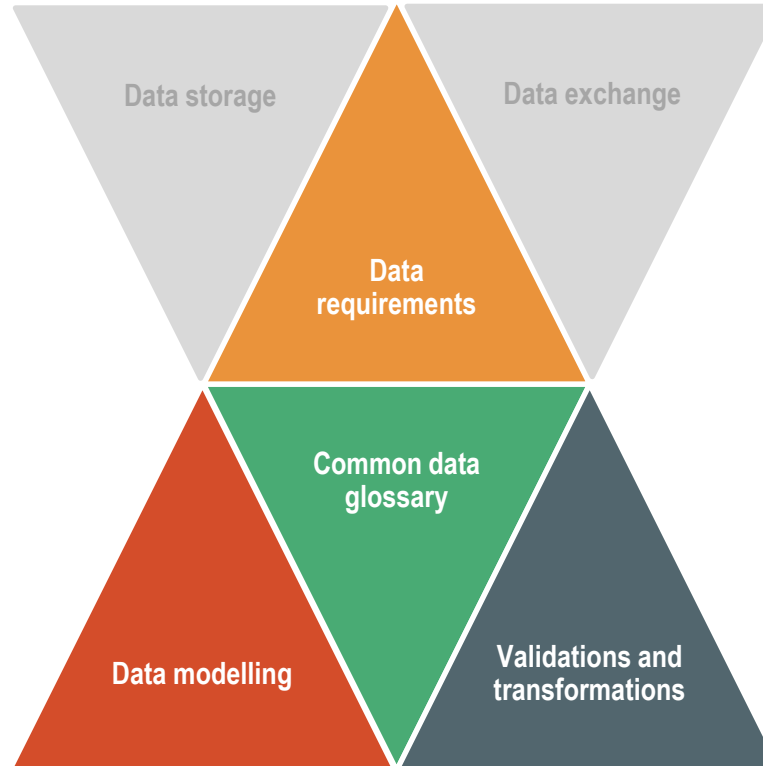
DPM methodology defined as **ISO standard**



Enabling subsequent **semantic integration** of data dictionaries across different regulatory domains









Agnostic

Not bound to a particular data exchange standard



Unified

Single metamodel supporting different types of data sets



Rendering

Enabling data visualisation in the template layout



Versatile

Compatible with different approaches for data requirements definition



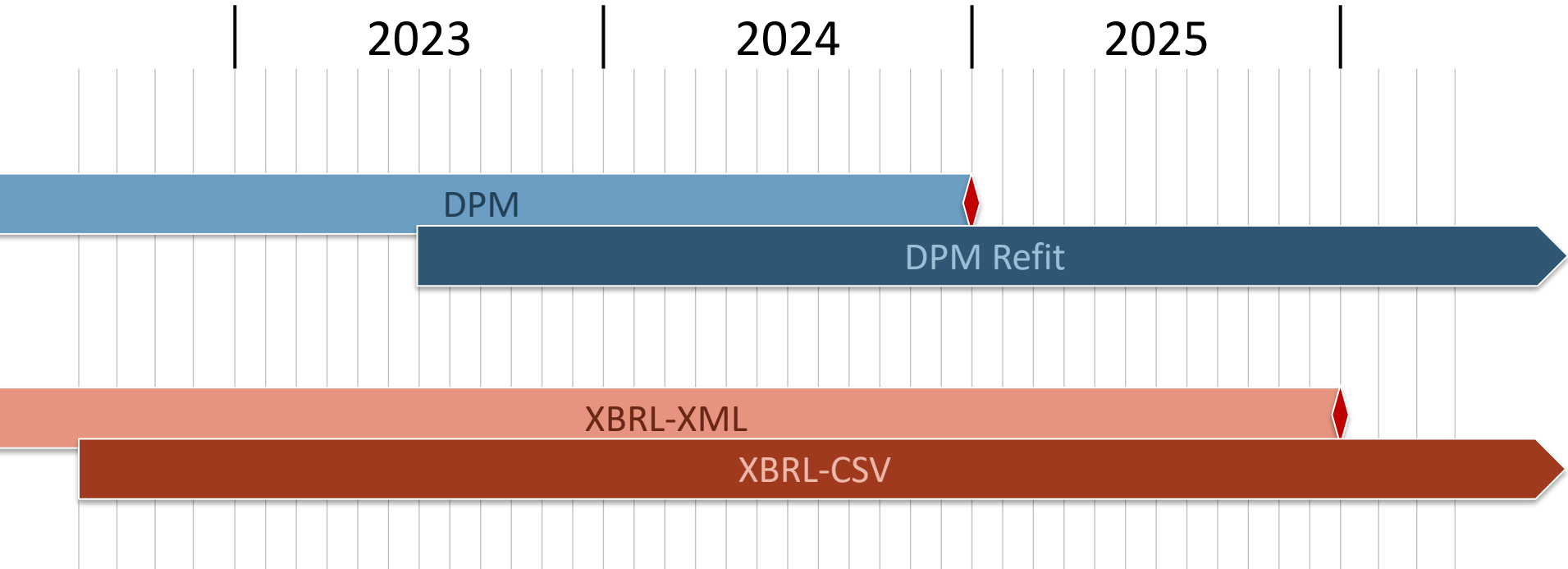
Historisation

Keeping track of individual changes of data dictionary concepts across releases



Relationships

Support for primary/foreign keys and tables association





Thank you!



EUROPEAN BANKING AUTHORITY

Floors 24-27, 20 Av André Prothin, 92927 Paris La Défense

Tel: +33 1 86 52 7000

E-mail: info@eba.europa.eu

<http://www.eba.europa.eu>