

Master Thesis: An information model as a basis for process automation for data portability as required by Article 20 GDPR

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1. Motivation

2. Research Questions

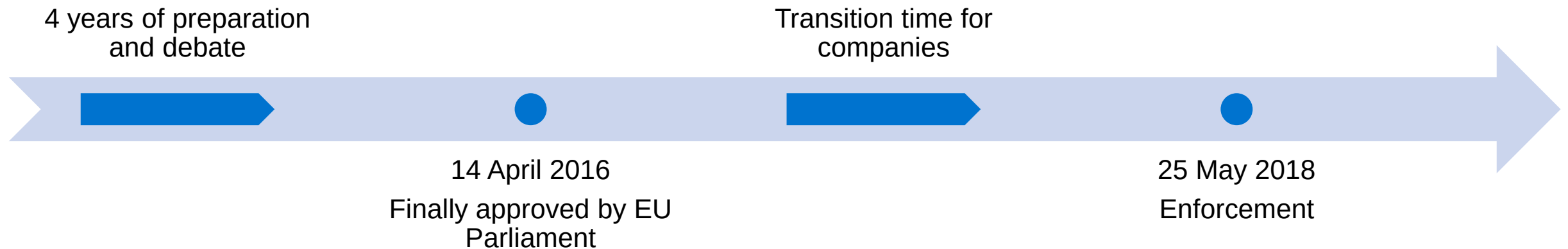
3. Literature Review

- Information Model

4. Further Steps: Timeline

New general data protection regulation (GDPR) [1]

- People have more control over their personal data
- Businesses benefit from a level playing field



Data protection rules for **all companies operating in the EU**

requires

New processes and techniques to meet legal requirements

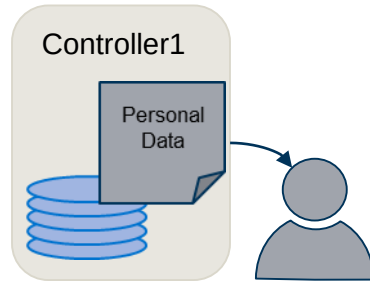


‘personal data’ means any information relating to an **identified or identifiable natural person** (‘data subject’); an identifiable natural person is one who can be identified, *directly* or *indirectly*, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person;

Article 4:
Definitions
– Personal
Data

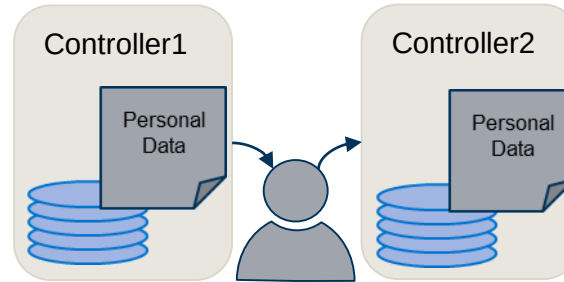
GDPR

Article 20:
Data
Portability



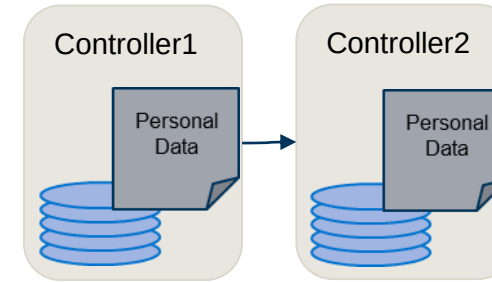
the right to receive

(without hindrance from the data controller) data concerning data subject which he/she has provided (§1);



the right to transmit

(without hindrance from the data controller) those data to another controller (§1); and



the right to have the personal data transmitted directly

from one controller to another (§2).

[3]

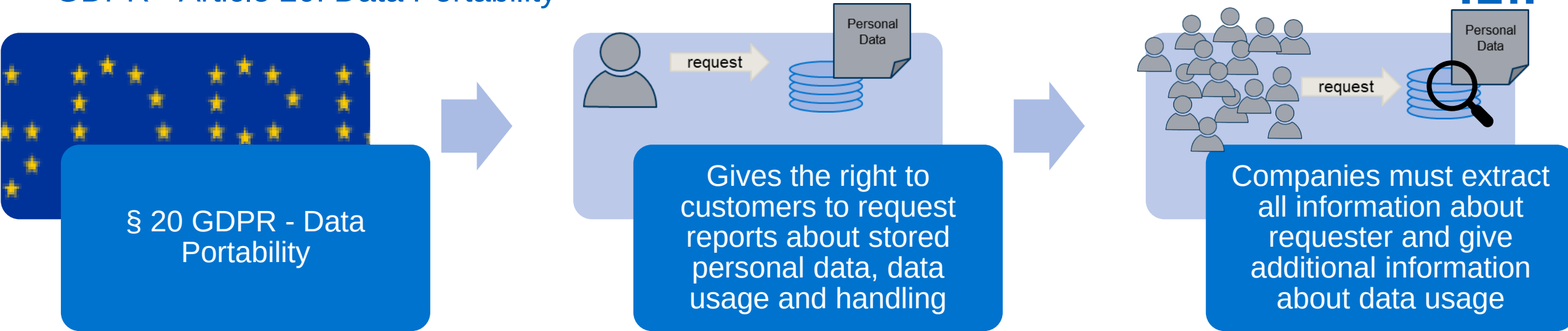
Article 4:
Definitions
– Personal
Data

GDPR

Article 20:
Data
Portability

Motivation

GDPR - Article 20: Data Portability



How can a company identify where information about personal data is stored?
How can a company automate the extraction of information about the requester?

Identify Business Applications and Business Objects storing information about the requester
Identify the stored information about the requester and meet GDPR requirements

Research Goal:

Development of an information model that stores necessary information to comply with Article 20 GDPR

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Research Goal:

Development of an information model that stores necessary information to comply with Article 20 GDPR



What are existing approaches of information models?



What are the requirements for fulfilment of Article 20 GDPR?



What is a possible information model for business objects covering the requirements of Article 20 GDPR?



How useful and applicable is the developed information model?

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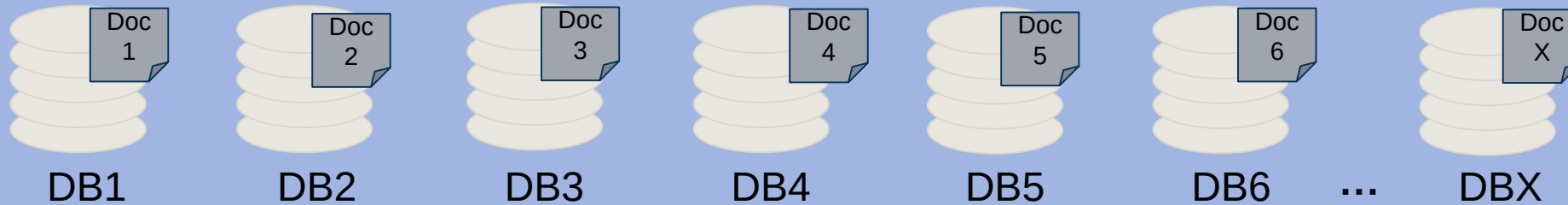
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Document-based



describe GDPR requirements with e.g. Metadata models like Dublin Core, RDF

What are the advantages and disadvantages of document-based IM?



Is it a good idea to review all data bases, documents and infrastructure?
Big companies have thousands of documents and many databases



Maybe there is another, more efficient way to apply the GDPR requirements to stored personal data?

What is a business object?

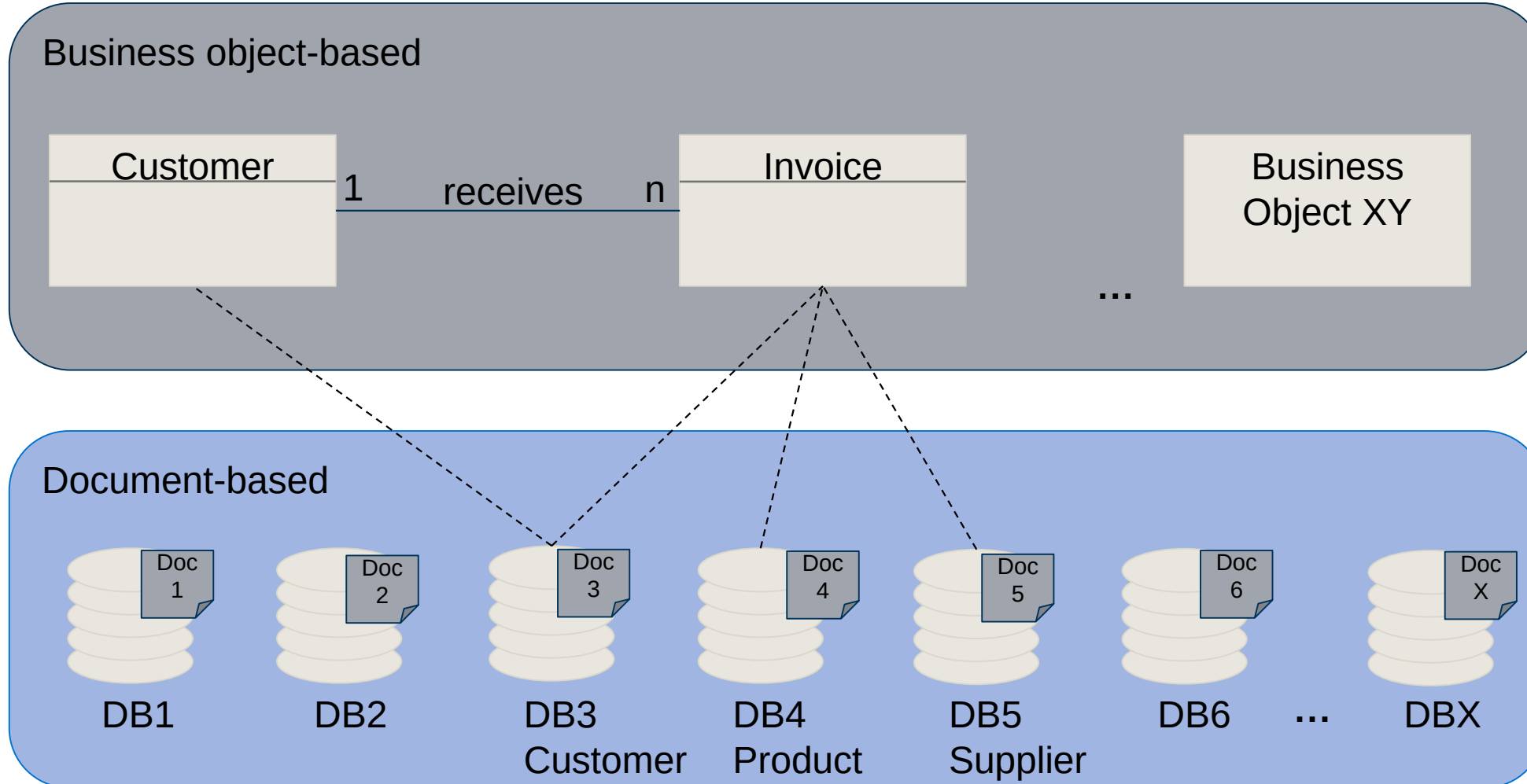


Definition by TOGAF [2]:

A business object is defined as a passive element that has relevance from a business perspective.

- Represents the important „informational“ or „conceptual“ elements
- EA: used to model an object type
- Passive: they do not trigger or perform processes
- May be accessed by a business process, function, business interaction, business event, business service
- Name should be a noun

Examples: Invoice, Customer, Supplier, Product, Employer, etc.

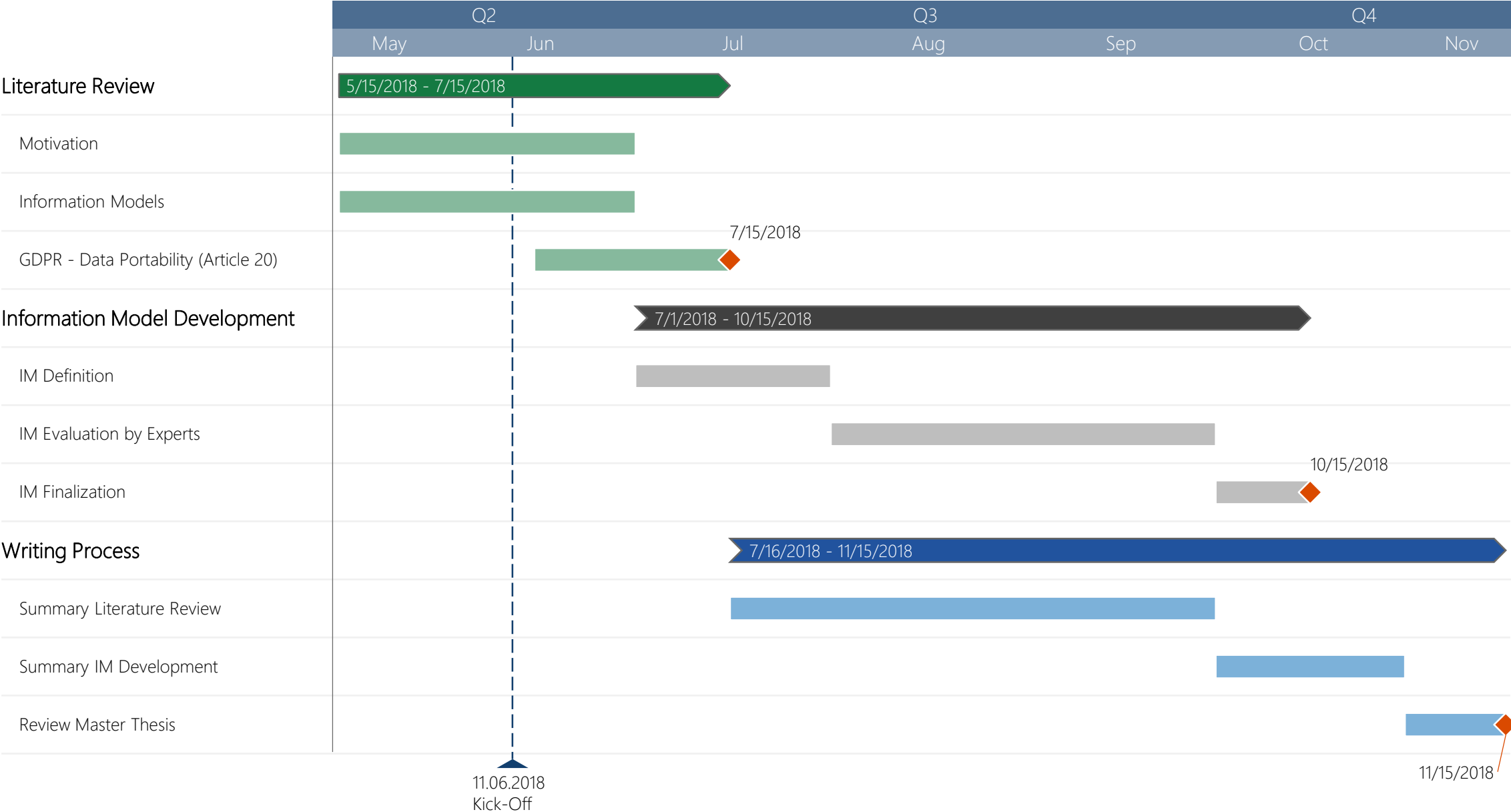


describe GDPR requirements on business object level (TOGAF) with semantic view e.g. EAM Pattern Catalog (I-Model) [4]

describe GDPR requirements with e.g. Metadata models like Dublin Core, RDF

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Timeline





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- [1] Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) Official Journal of the European Union, Vol. L119 (4 May 2016), pp. 1-88, 2016.
- [2] The Open Group (2012-2013): ArchiMate® 2.1 Specification – Business Objects.
<http://pubs.opengroup.org/architecture/archimate2-doc/chap03.html> (accessed on: 04.06.2018)
- [3] De Hert, P., Papakonstantinou, V., Malgieri, G., Beslay, L., & Sanchez, I. (2018). The right to data portability in the GDPR: Towards user-centric interoperability of digital services. Computer Law & Security Review, 34(2), 193–203. <https://doi.org/10.1016/J.CLSR.2017.10.003>
- [4] Buckl, S., Matthes, F., Roth, S., Schulz, C., & Schweda, C. M. (2010). A Method for Constructing Enterprise-wide Access Views on Business Objects. 16th European Conference on Pattern Languages of Programs EuroPLOP 2011, 6.