
Data Architecture and Governance In An Agile World

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What is Agile



[Agile] advocates adaptive planning, evolutionary development, early delivery, and it encourages rapid and flexible response to change. (adapted from Wikipedia)

Agile accelerates ...



... but there are potential risks

GDPR fines and notices

From Wikipedia, the free encyclopedia

The [General Data Protection Regulation](#) (GDPR) is a [European Union regulation](#) that specifies standards for [data](#) [European Economic Area](#), and the rights of European citizens to control the processing and distribution of [person](#)

Violators of GDPR may be fined up to €20 million, or up to 4% of the annual worldwide turnover of the preceding f following is a list of **finances and notices** issued under the GDPR, including reasoning.

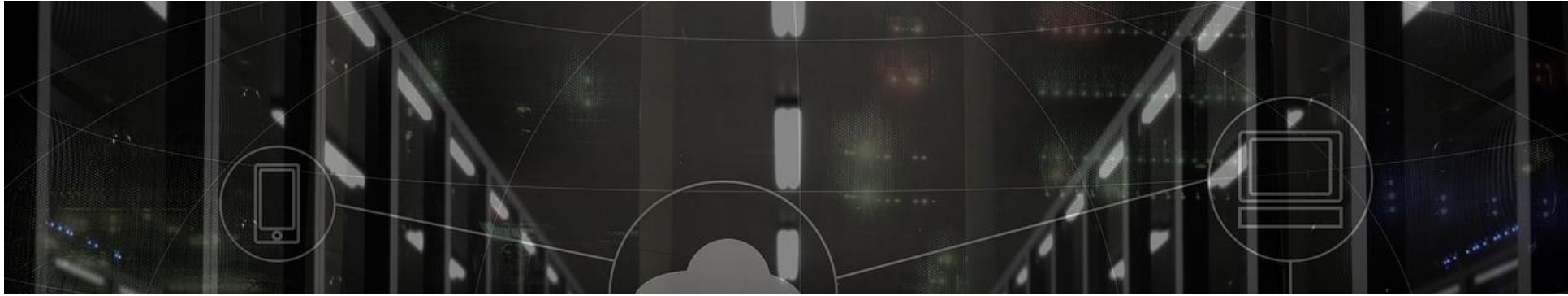


This table is incomplete for fines imposed by the [Hungarian DPA](#) because they have published in English or in the [National News](#) section of the [European Data Protection](#) by adding information about GDPR enforcement in Hungary.

Date ↕	Organisation ↕	Amount ↕	Issued by ▼	Reason
2019-06-24	EE (telecoms)	£100,000	UK (ICO)	Sending over 2.5 million direct marketing messages without consent. ^{[18][19]}
2019-07-08	British Airways	£183 million	UK (ICO)	Use of poor security arrangements that resulted in a data breach affecting 500,000 consumers. ^{[20][21][22]}
2019-07-09	Marriott International	£99 million	UK (ICO)	Failure to undertake sufficient due diligence where whose systems were compromised in 2014, exposing personal records. ^[25]



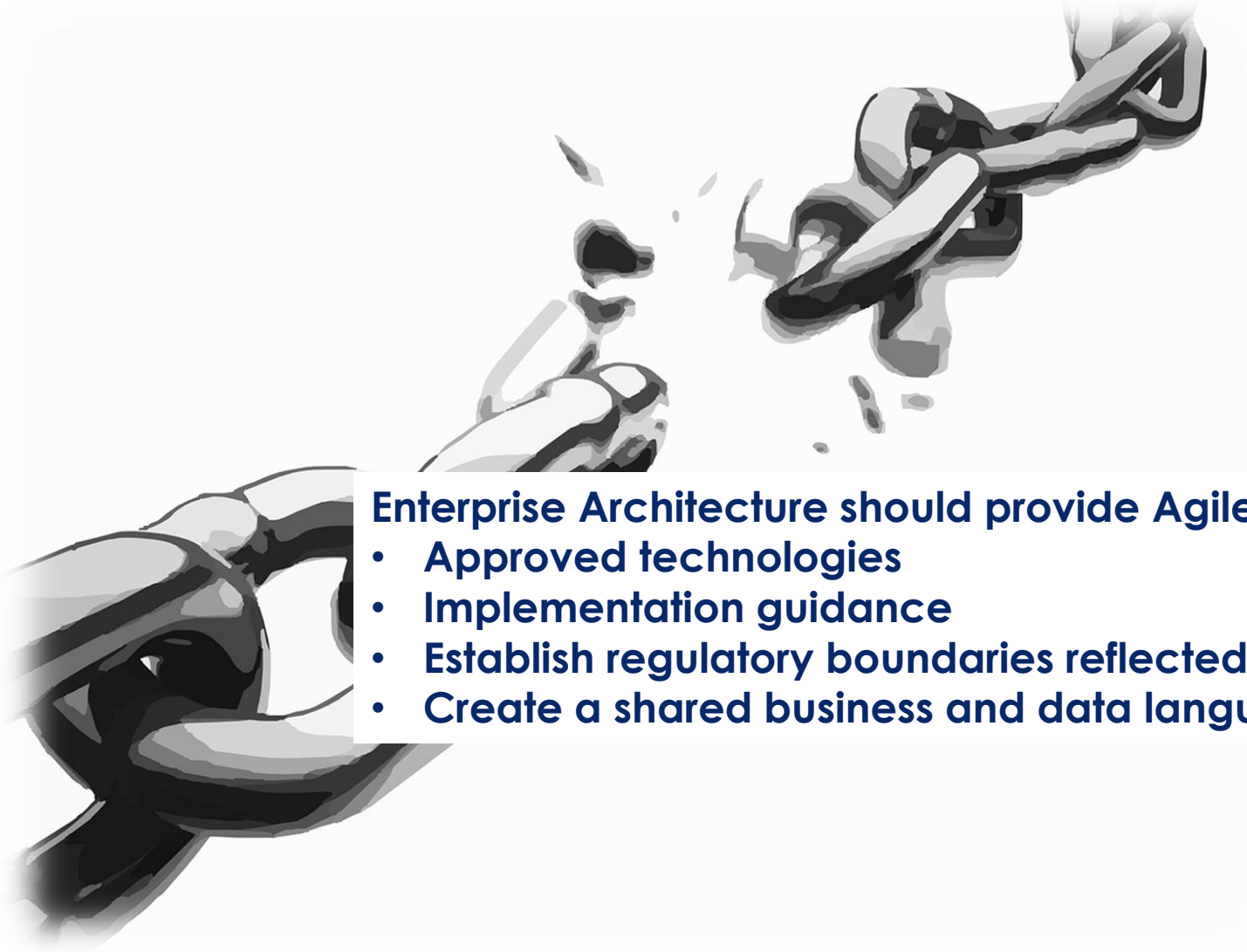
What is Enterprise Architecture



Enterprise Architecture is a well-defined practice for conducting enterprise analysis, design, planning, and implementation, using a comprehensive approach at all times, for the successful development and execution of strategy (adapted from Wikipedia)



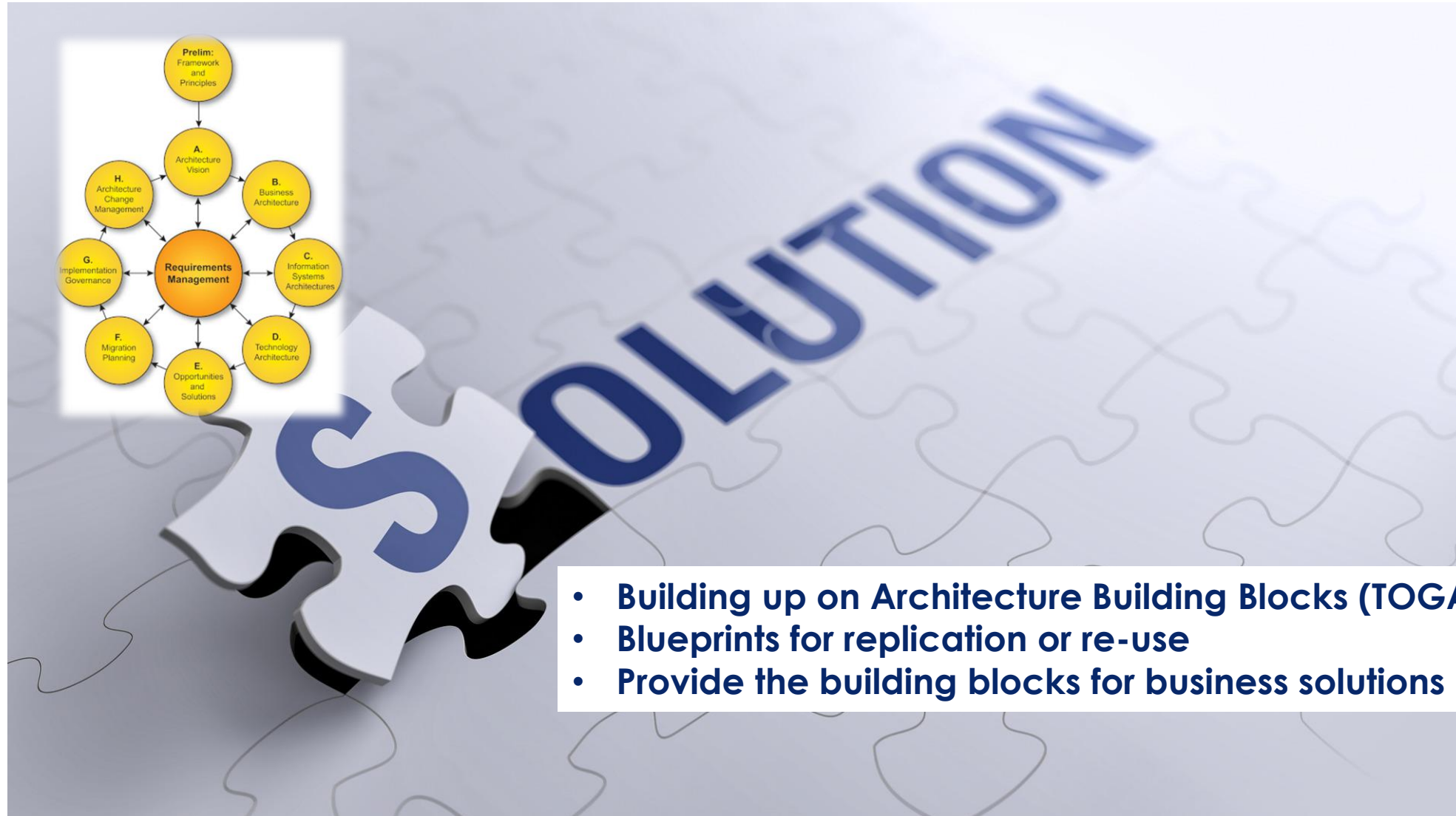
Bringing the two worlds together



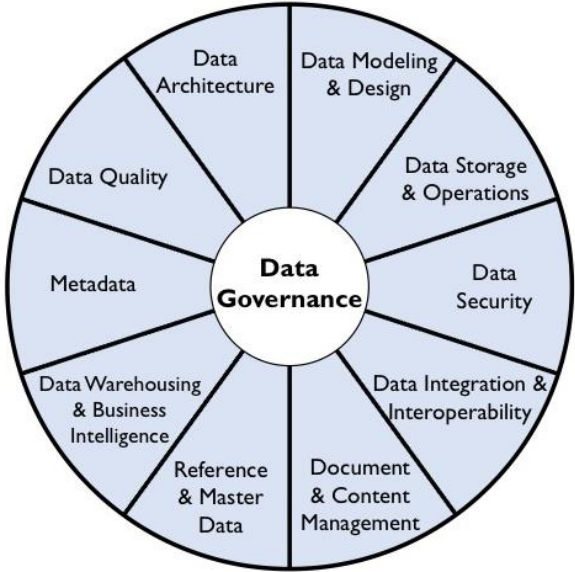
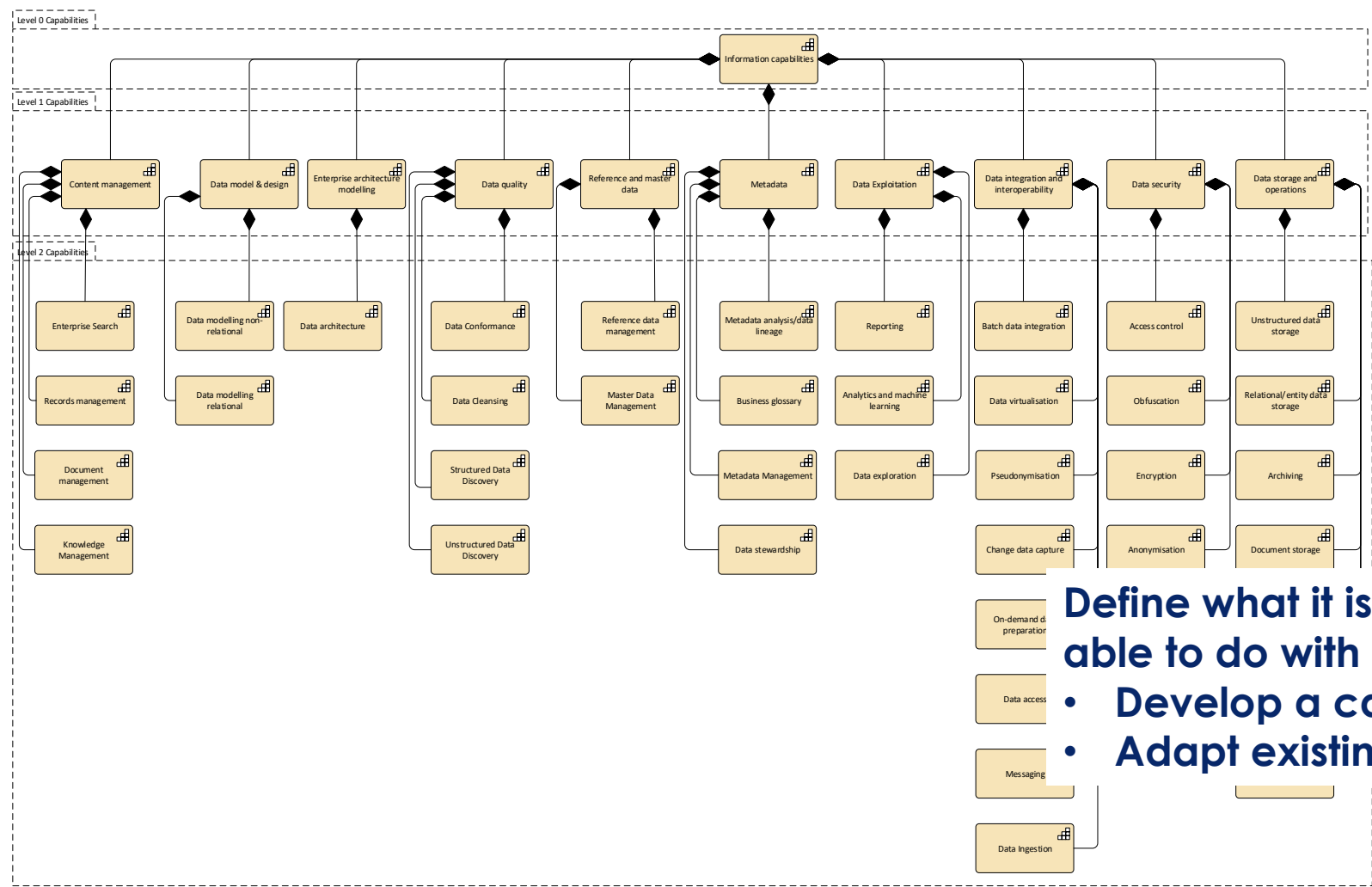
Enterprise Architecture should provide Agile with the right tools:

- **Approved technologies**
- **Implementation guidance**
- **Establish regulatory boundaries reflected in guidance**
- **Create a shared business and data language**

Architecture Patterns



Capability Model



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Define what it is that the organisation needs to be able to do with data:

- Develop a capability model
- Adapt existing models e.g. DMBOK

Business Glossary

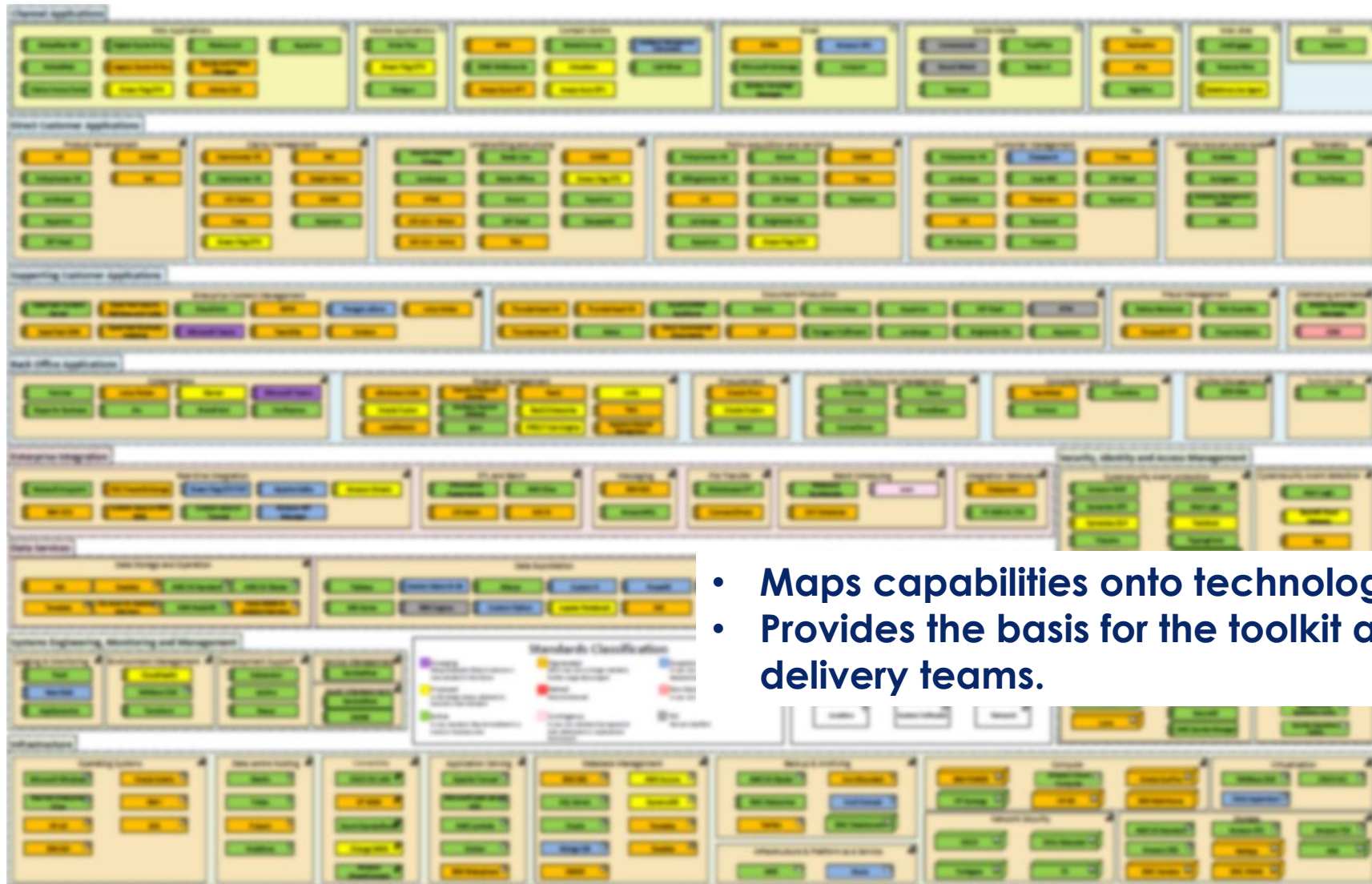
What does the organisation know about and what does it all mean?

Who defines what it all means?

What are the characteristics of all these data items?

How are these characteristics relevant?

Reference architecture



- Maps capabilities onto technologies.
- Provides the basis for the toolkit available to delivery teams.

Putting it all together

Business Glossary

- Regulatory relevance (GDPR? PCI?) & Confidentiality
- Business subject area
- How is data to be structured / described?

Data Capabilities

- Which capabilities are realised through this pattern?
- Are these capabilities to be re-used or replicated?

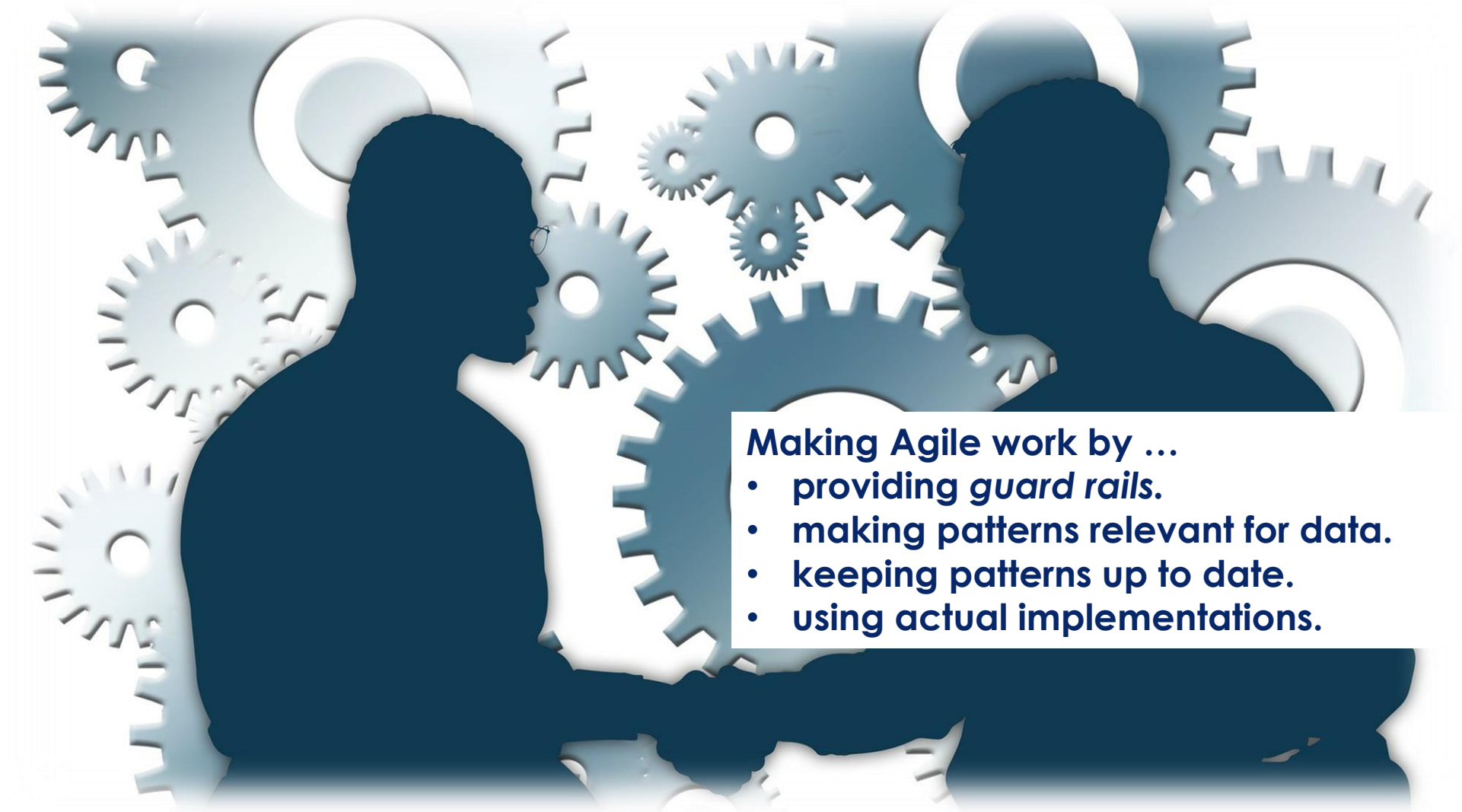
Data Architecture Pattern

Reference implementation

- What are the example implementations of this pattern?
- What are the constraints for re-use?
- What are the cost implications?

Reference Architecture

- What technologies are available to implement the capabilities?
- Are there any constraints based on business data processed / managed?



Making Agile work by ...

- providing *guard rails*.
- making patterns relevant for data.
- keeping patterns up to date.
- using actual implementations.