

Enterprise Architecture Modelling with ArchiMate 3 - Overview

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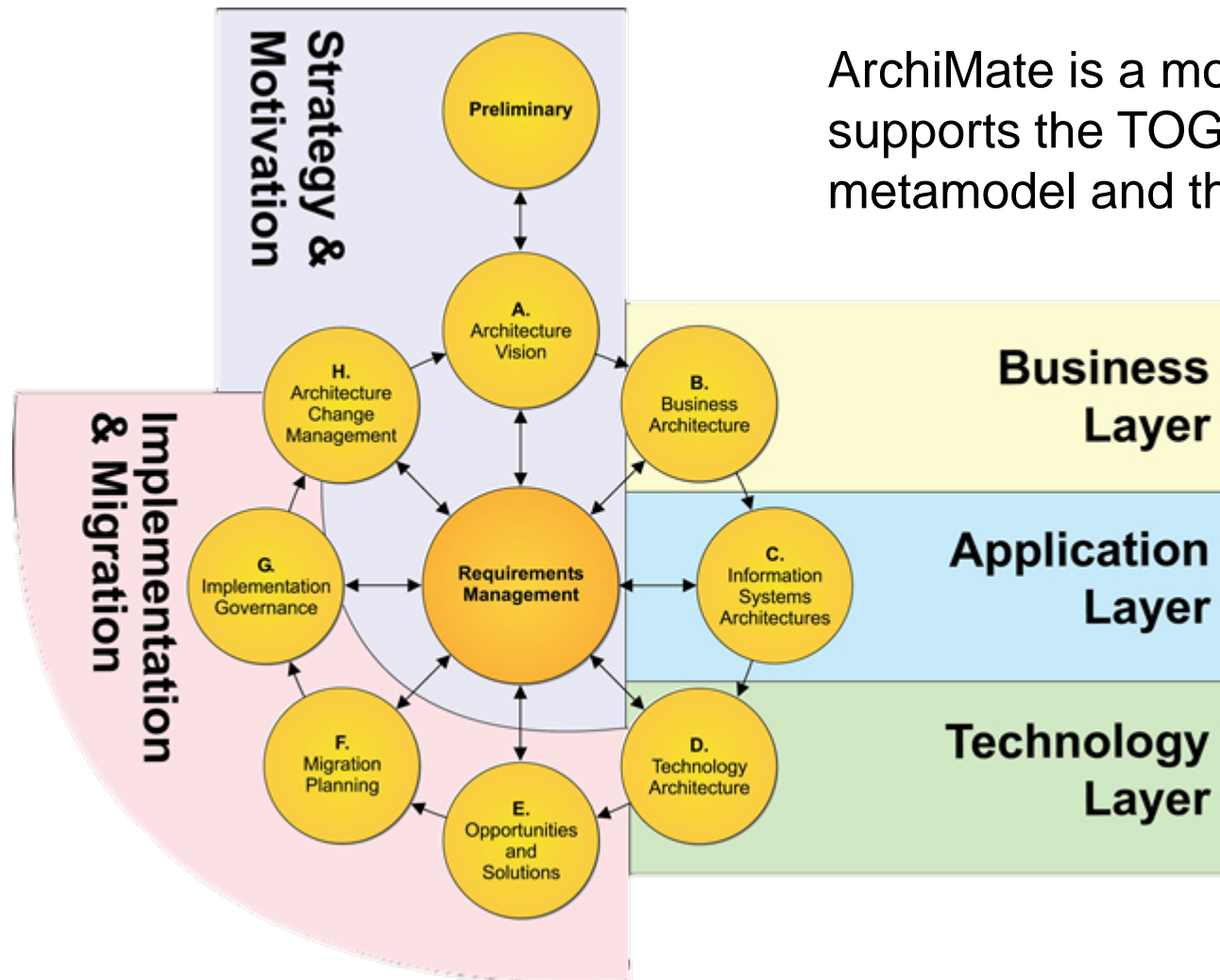


Reference

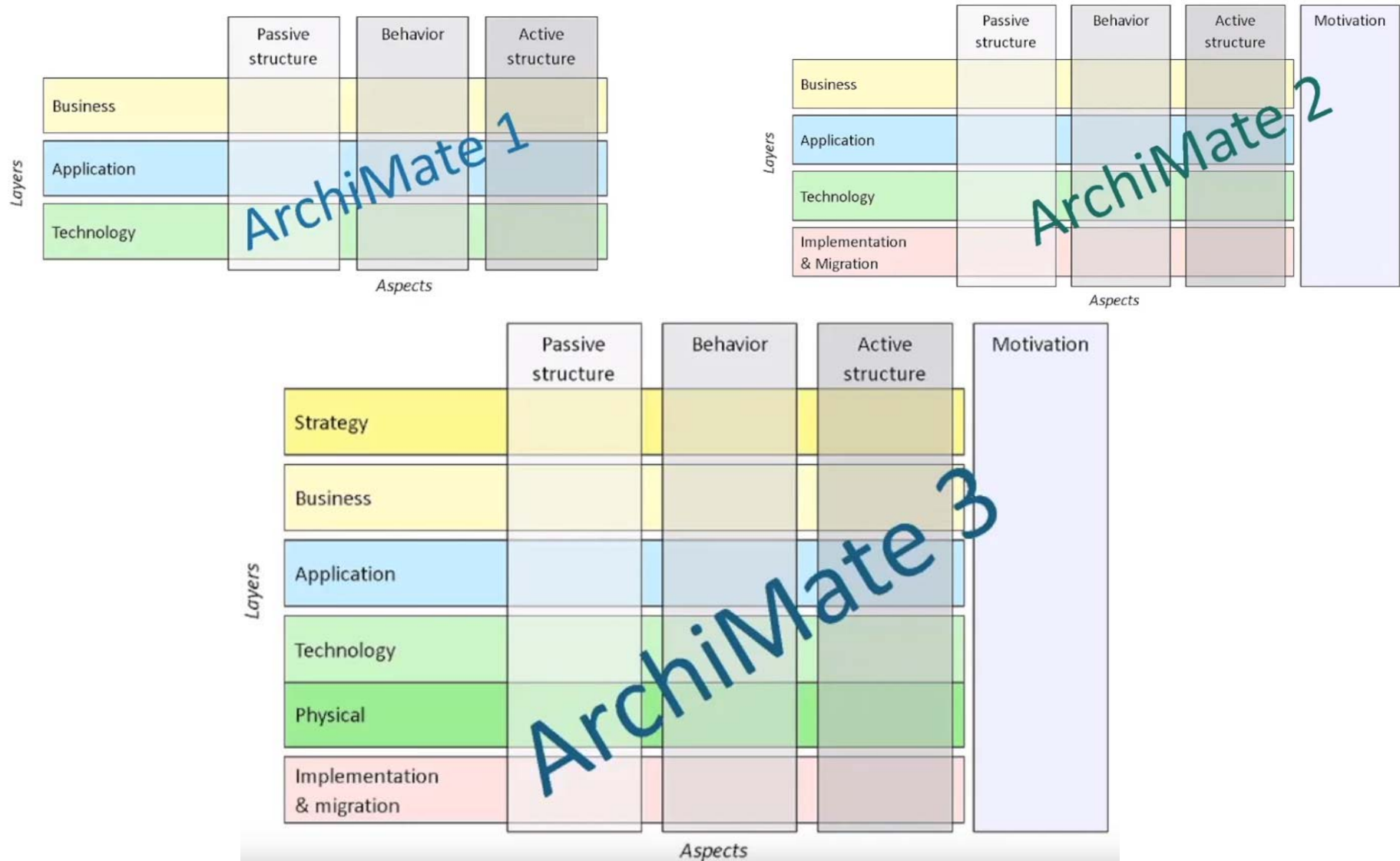
- The ArchiMate 3 specification is available at
<http://pubs.opengroup.org/architecture/archimate3-doc/>
- It is referenced in this presentation as ArchiMate 3

TOGAF ADM and ArchiMate

ArchiMate is a modeling language that supports the TOGAF content metamodel and the TOGAF ADM

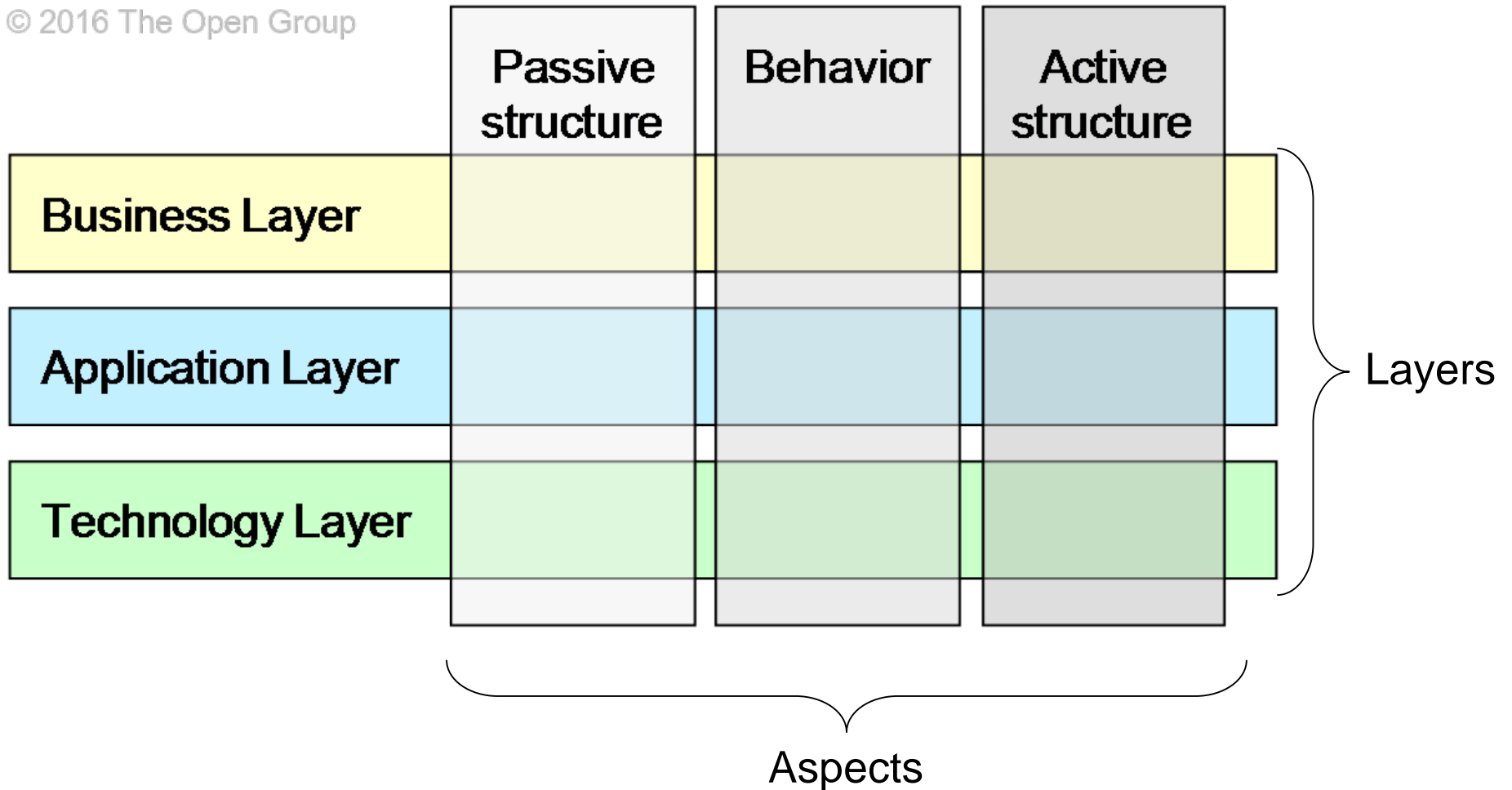


Evolution of the ArchiMate Framework



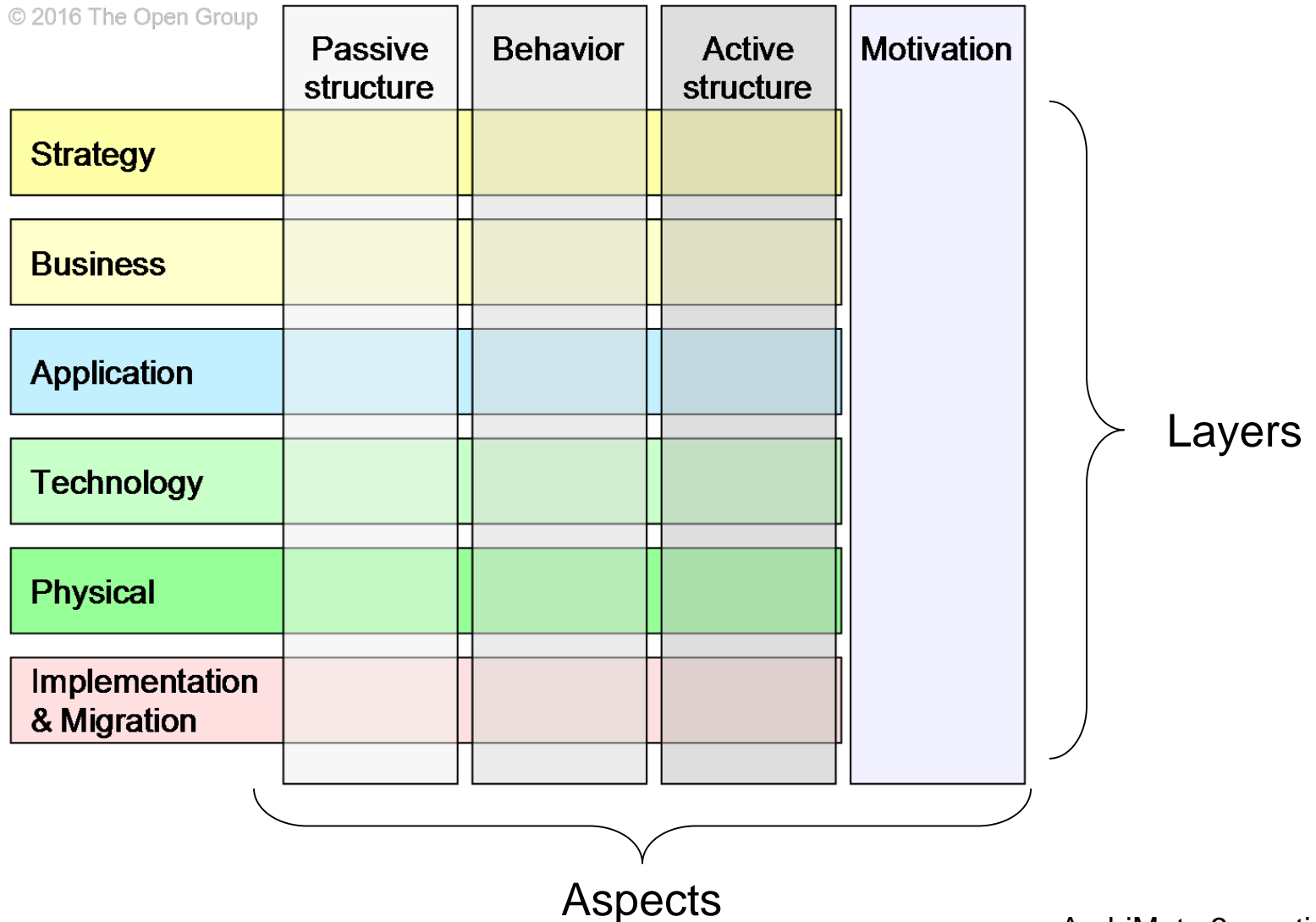
The ArchiMate Core Framework

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The ArchiMate Full Framework

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Layers in ArchiMate (1/2) – Core

■ *Business Layer*

- ◆ business services offered to customers, which are realized in the organization by business processes performed by business actors.

■ *Application Layer*

- ◆ application services that support the business, and the applications that realize them.

■ *Technology Layer*

- ◆ technology services such as processing, storage, and communication services needed to run the applications
- ◆ computer and communication hardware and system software that realize those services.
- ◆ Physical elements for modeling physical equipment, materials, and distribution networks (new in ArchiMate 3)

Layers in ArchiMate (2/2) - Extensions

■ ***Strategy Layer***

- ◆ An approach or plan for configuring some capabilities and resources of the enterprise, undertaken to achieve a goal.
- ◆ Capability, Resource, Course of Action.

■ ***Physical Layer***

- ◆ overview of the physical elements and their relationships, derived from the ArchiMate Technology layer.
- ◆ Equipment, Facility, Distribution network, Material.

■ ***Implementation & Migration Layer***

- ◆ Focusing on the actual implementation of an EA and the migration process with work packages and dependencies.
- ◆ Work package, Deliverable, Implementation event, Plateau, Gap

Aspects in ArchiMate

■ *Active Structure*

- ◆ represents the structural elements (the business actors, application components, and devices that display actual behavior).

■ *Behavior*

- ◆ represents the behavior (processes, functions, events, and services) performed by the actors.
- ◆ Structural elements are assigned to behavioral elements, to show who or what displays the behavior.

■ *Passive Structure*

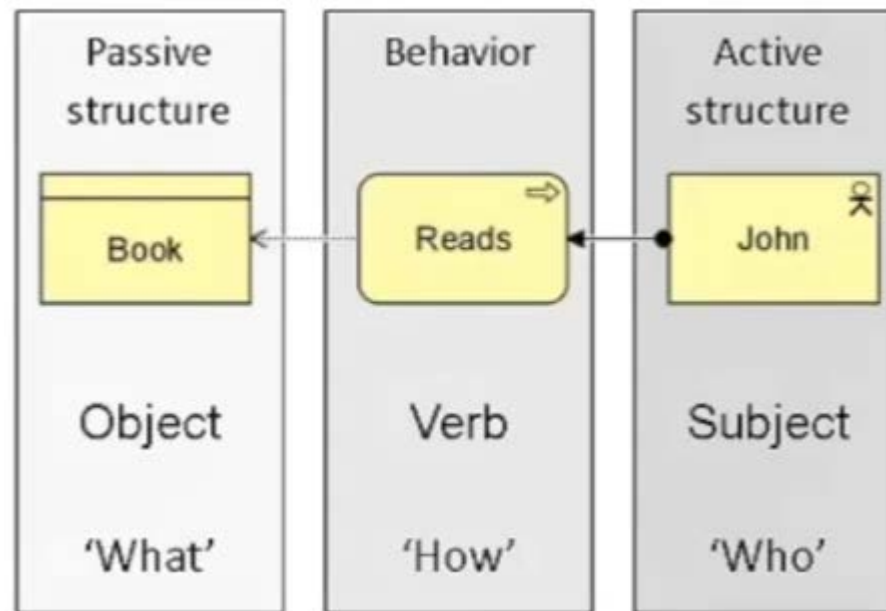
- ◆ represents the objects on which behavior is performed. These are usually information objects in the Business Layer and data objects in the Application Layer.

■ *Motivation*

- ◆ used to model the motivations, or reasons, that guide the design or change of an Enterprise Architecture

Core Aspects in ArchiMate

- Aspects correspond to a Subject-Verb-Object of sentences:



Abstractions in ArchiMate (1)

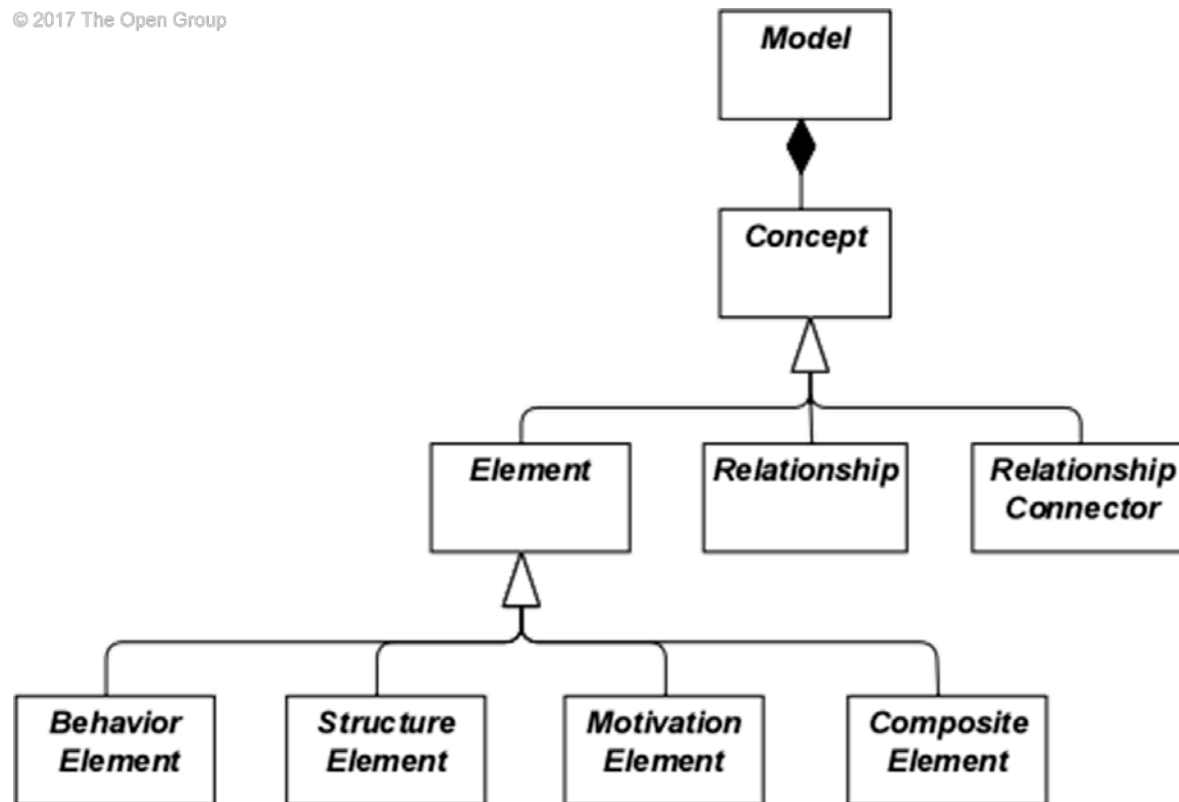
- Separate Behavior from active structure
 - ◆ **Behavior:** *what* the system must do and *how* the system does it
 - ◆ **Active structure:** the system constituents (people, applications, and infrastructure) that do it
- External vs. internal behavior :
 - ◆ **External view:** *what* the system has to do for its environment (e.g. a service)
 - ◆ **Internal view:** *how* it does this (e.g. the process or application realising the service)

Abstractions in ArchiMate (2)

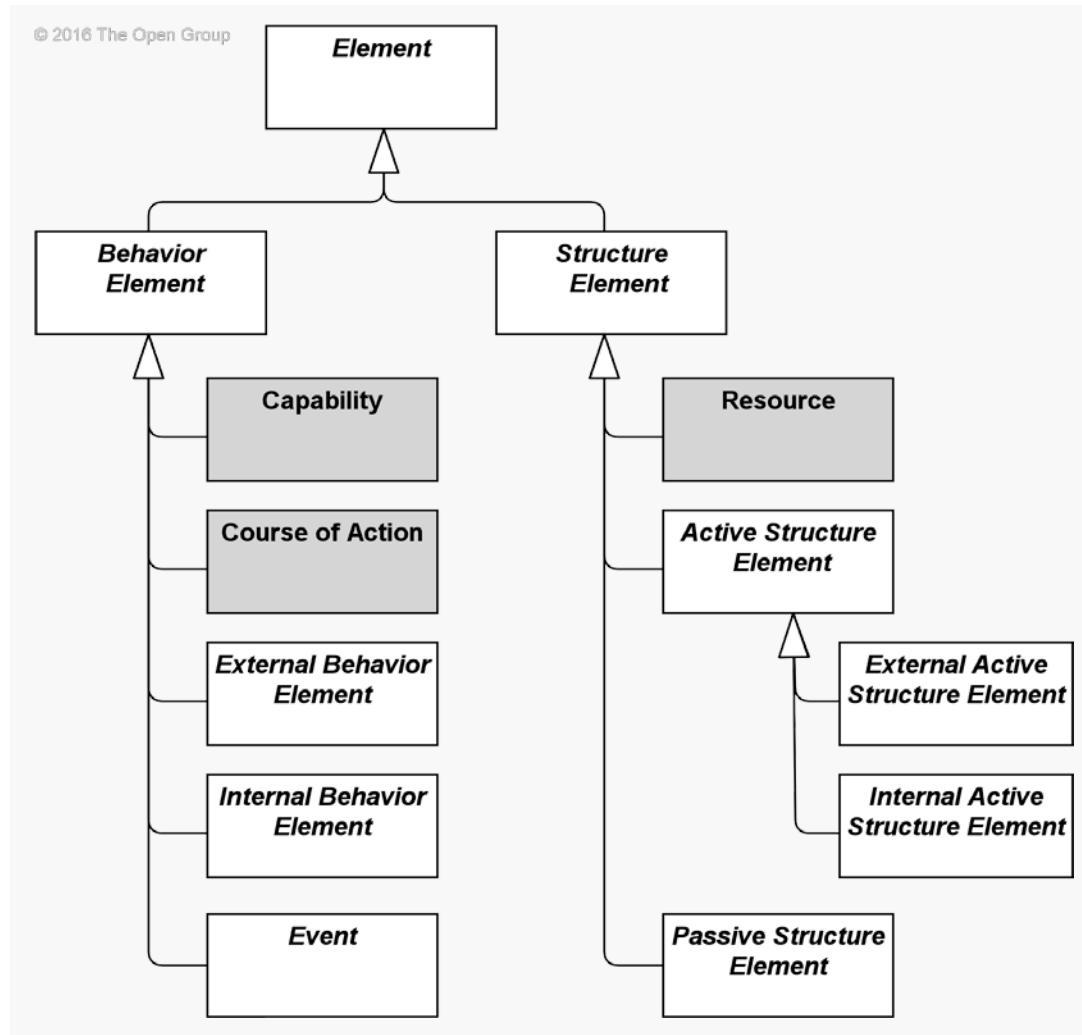
- Conceptual, logical, and physical abstraction levels
 - ◆ **conceptual elements** represent the information the business finds relevant;
 - ◆ **logical elements** provide logical structure to this information for manipulation by information systems;
 - ◆ **physical elements** describe the storage of this information; for example, in the form of files or database tables.
- In the ArchiMate language, this corresponds with business objects, data objects, and artifacts, and the realization relationships between them

Top-Level Hierarchy of ArchiMate Concepts

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Hierarchy of Behavior and Structure Elements



Overview of Relationship

