

Enterprise Architecture Modelling with ArchiMate 3 - Overview

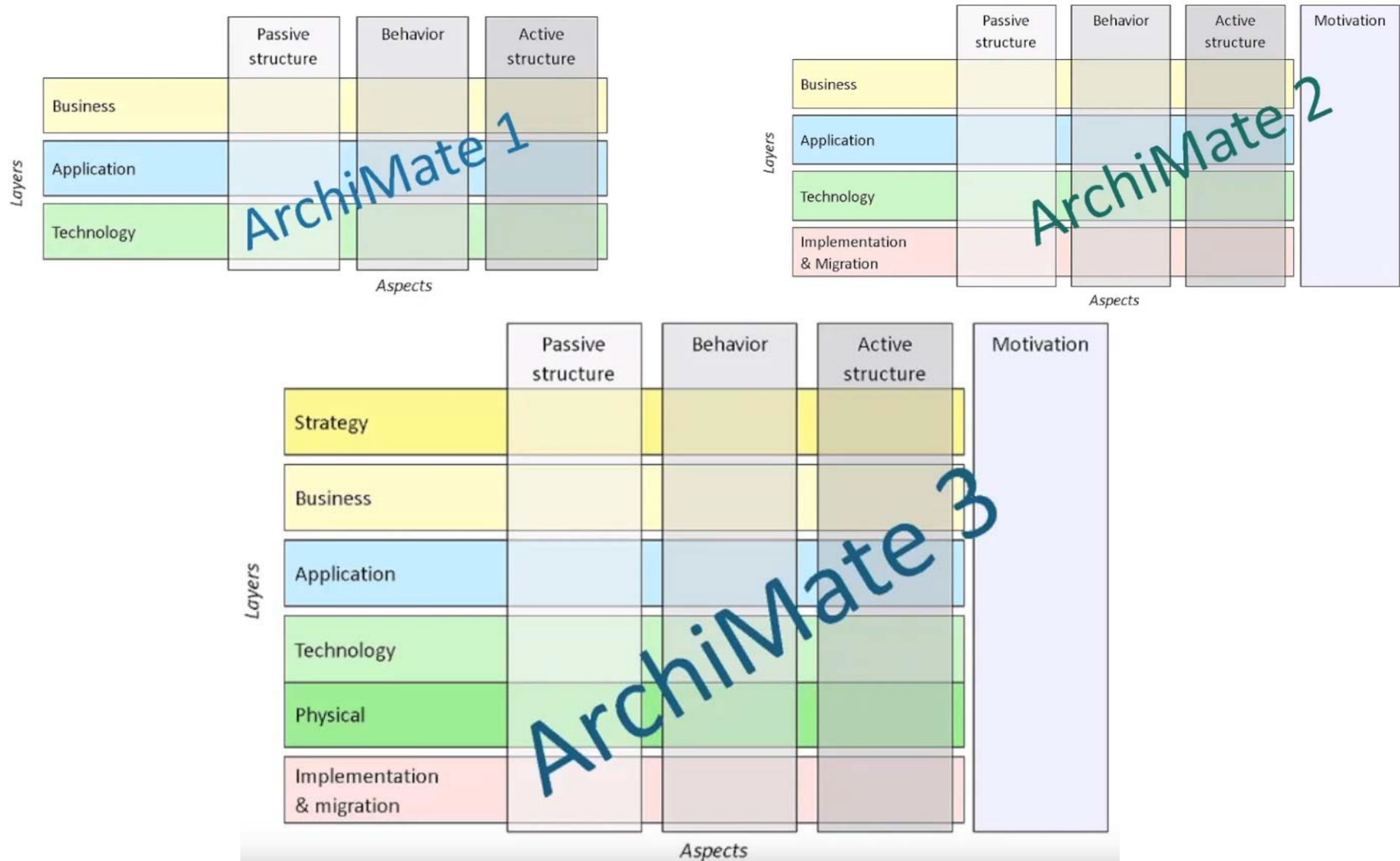
Knut Hinkelmann



Reference

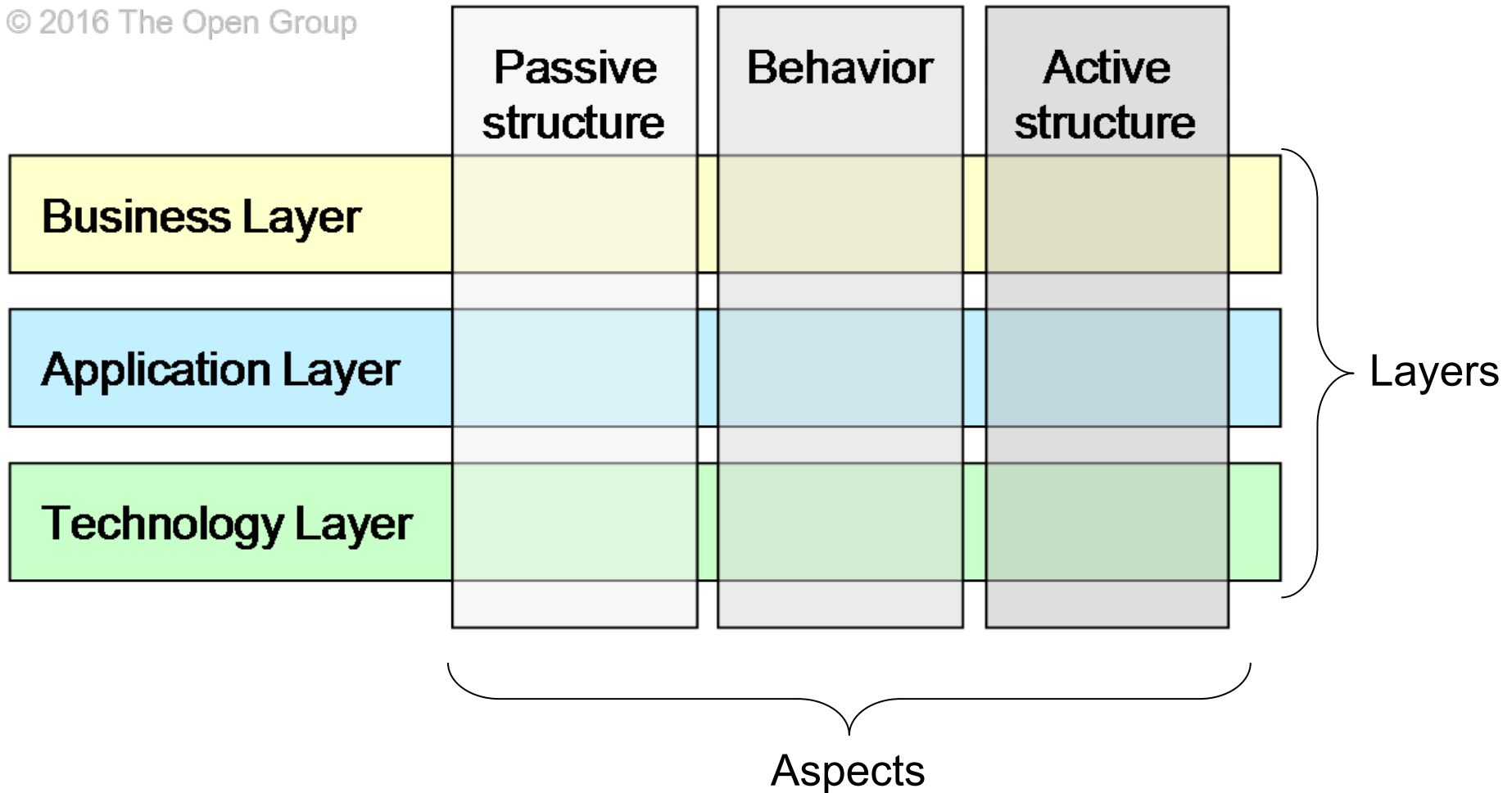
- The ArchiMate 3 specification is available at
<http://pubs.opengroup.org/architecture/archimate3-doc/>
- It is referenced in this presentation as ArchiMate 3

Evolution of the ArchiMate Framework



The ArchiMate Core Framework – Archimate 1

© 2016 The Open Group



Archimate 1 corresponds to the Core Enterprise Architecture



The ArchiMate Full Framework

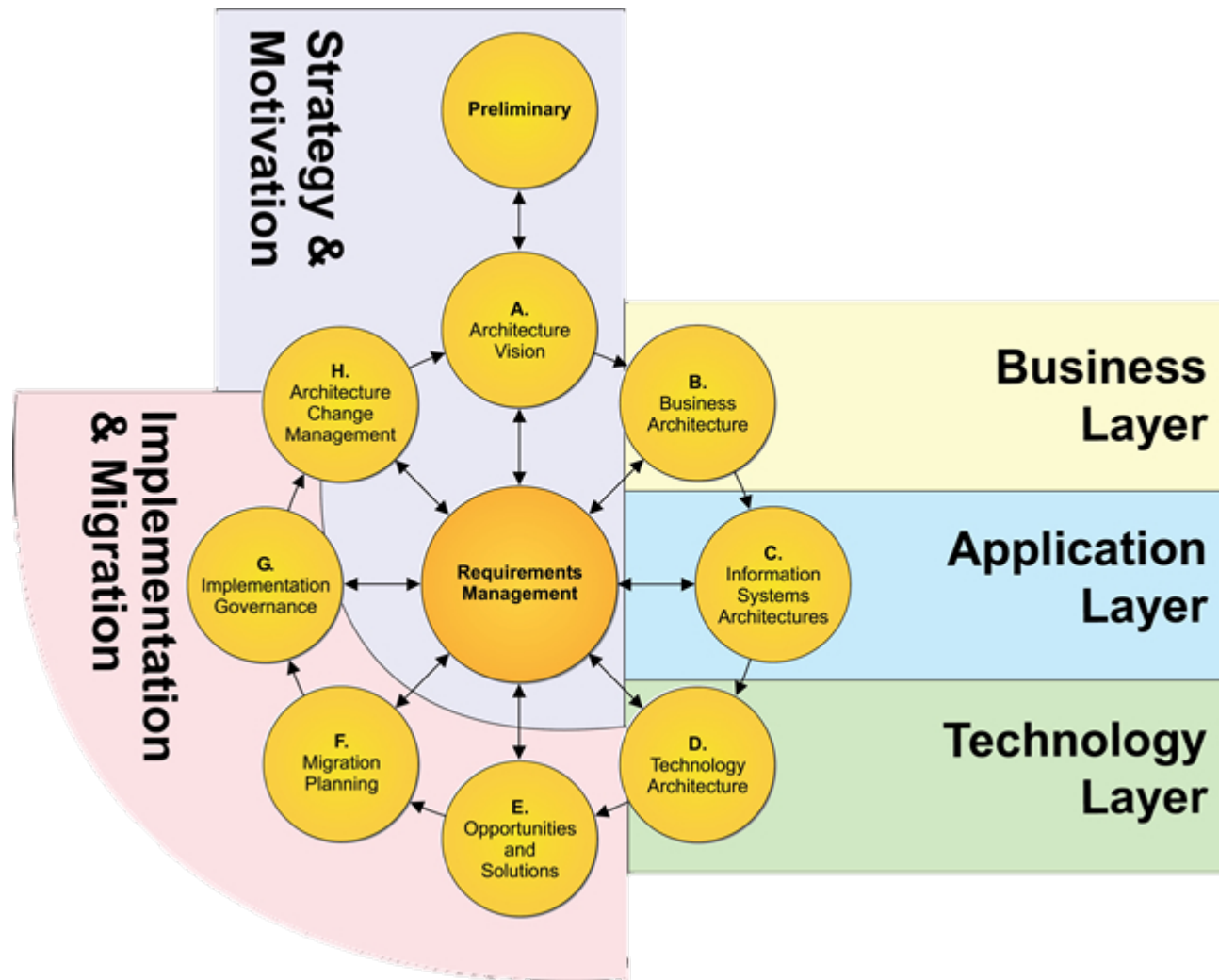
© 2016 The Open Group

	Passive structure	Behavior	Active structure	Motivation
Strategy				
Business				
Application				
Technology				
Physical				
Implementation & Migration				

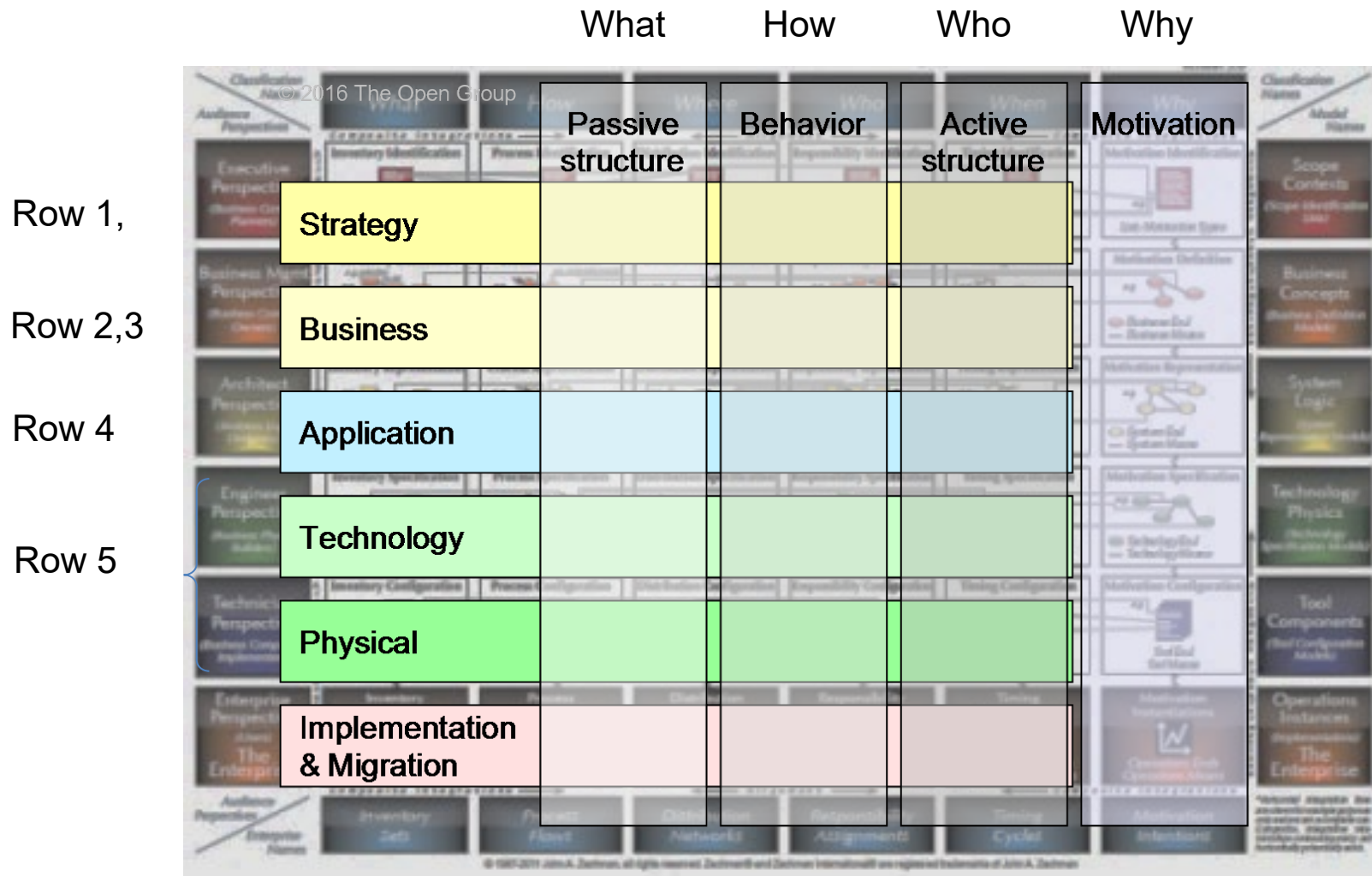
Archimate is an Ontology for both

- TOGAF
- Zachman Framework

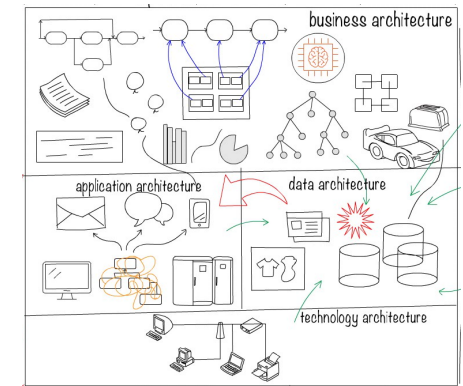
Archimate supports TOGAF



Archimate can be mapped to Zachman Framework



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
- ◆ *hardware and system software* that realize those services.
- ◆ *physical elements* for modeling equipment, facilities, materials

Layers in ArchiMate (2/2) - Extensions

■ ***Strategy Layer***

- ◆ An approach or plan for configuring some *capabilities* and *resources* of the enterprise
- ◆ *course of action* undertaken to achieve a *goal*

■ ***Implementation & Migration Layer***

- ◆ Focusing on the implementation and the migration process with *work packages, events* and *deliverables*.

Aspects in ArchiMate

■ ***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.

■ ***Active Structure***

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

■ ***Passive Structure***

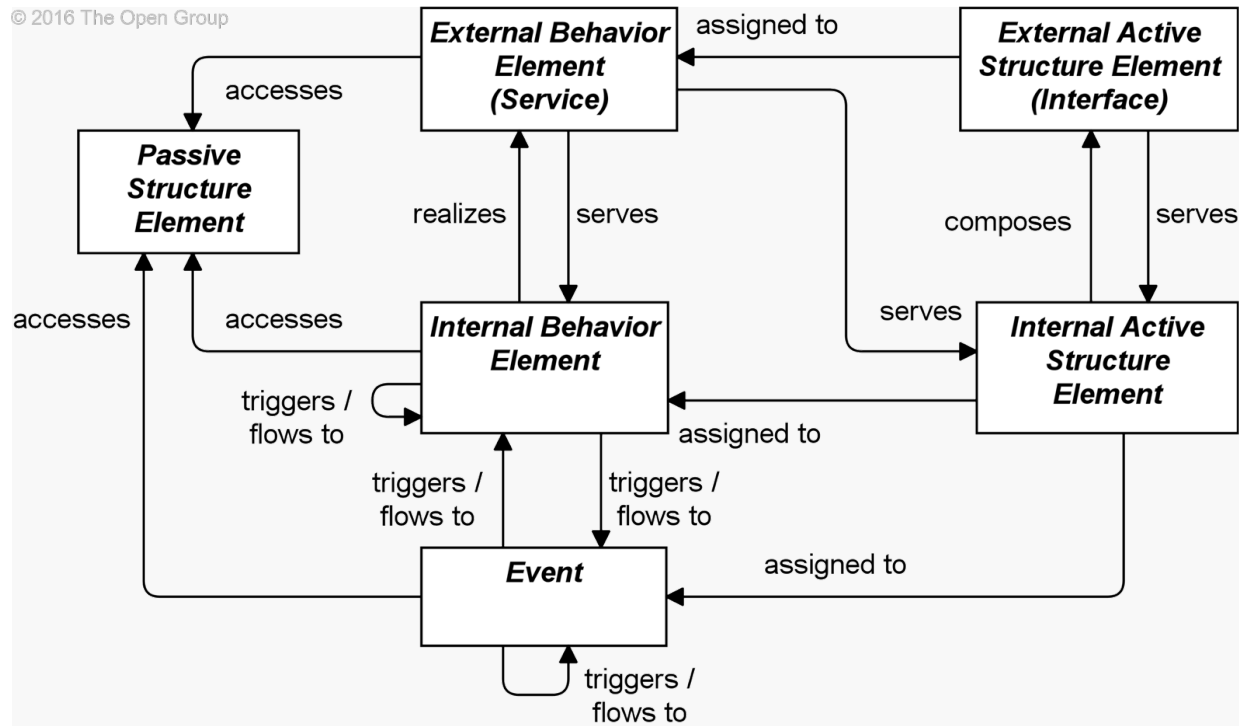
- ◆ represents the objects on which behavior is performed (business objects, data objects, artefacts).

■ ***Motivation***

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

Abstractions and Relations

© 2016 The Open Group



external

internal

WHAT is the system doing (black box)

HOW is the system doing it (white box)

Passive structure

Behavior

Active structure

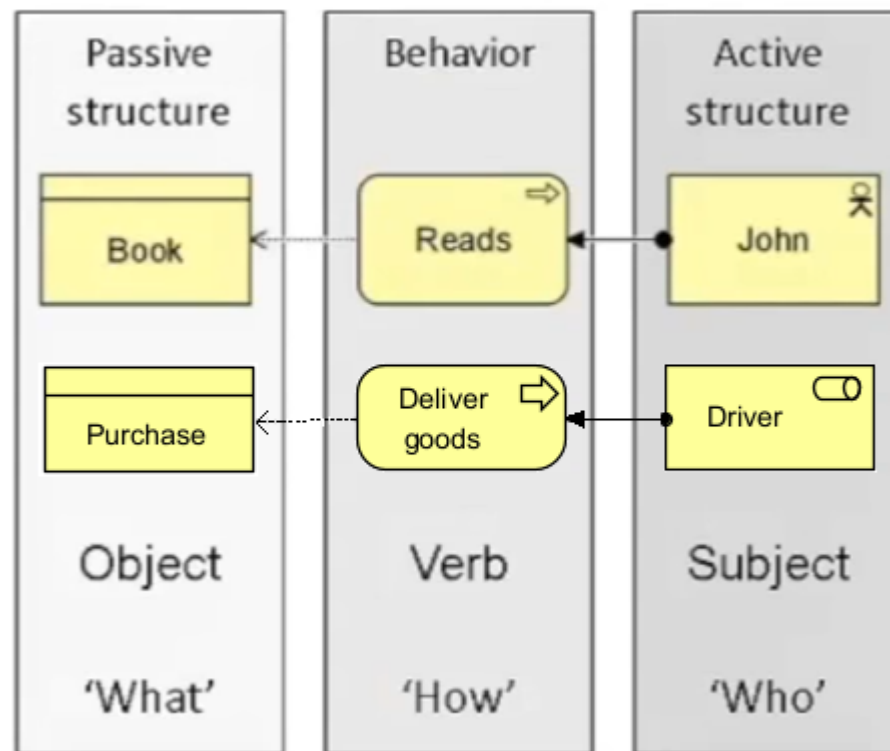
Objects on which behavior is performed

What the system must do

System constituents (people applications infrastructure)

Aspects in ArchiMate

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



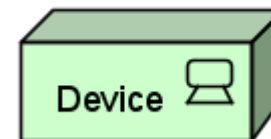
<https://www.youtube.com/watch?v=ULI9lf0OZco&>

Notational Encodings in ArchiMate 3

Although not strictly enforced, ArchiMate 3 comes with a set of 'notational best-practices'

■ Color-encoding of Layers

- ◆ Yellow for the Business Layer
- ◆ Blue for the Application Layer
- ◆ Green for the Technology Layer



■ Shape-encoding of Aspects

- ◆ Square corners are used to denote structure elements.
- ◆ Round corners are used to denote behavior elements.
- ◆ Diagonal corners are used to denote motivation elements.

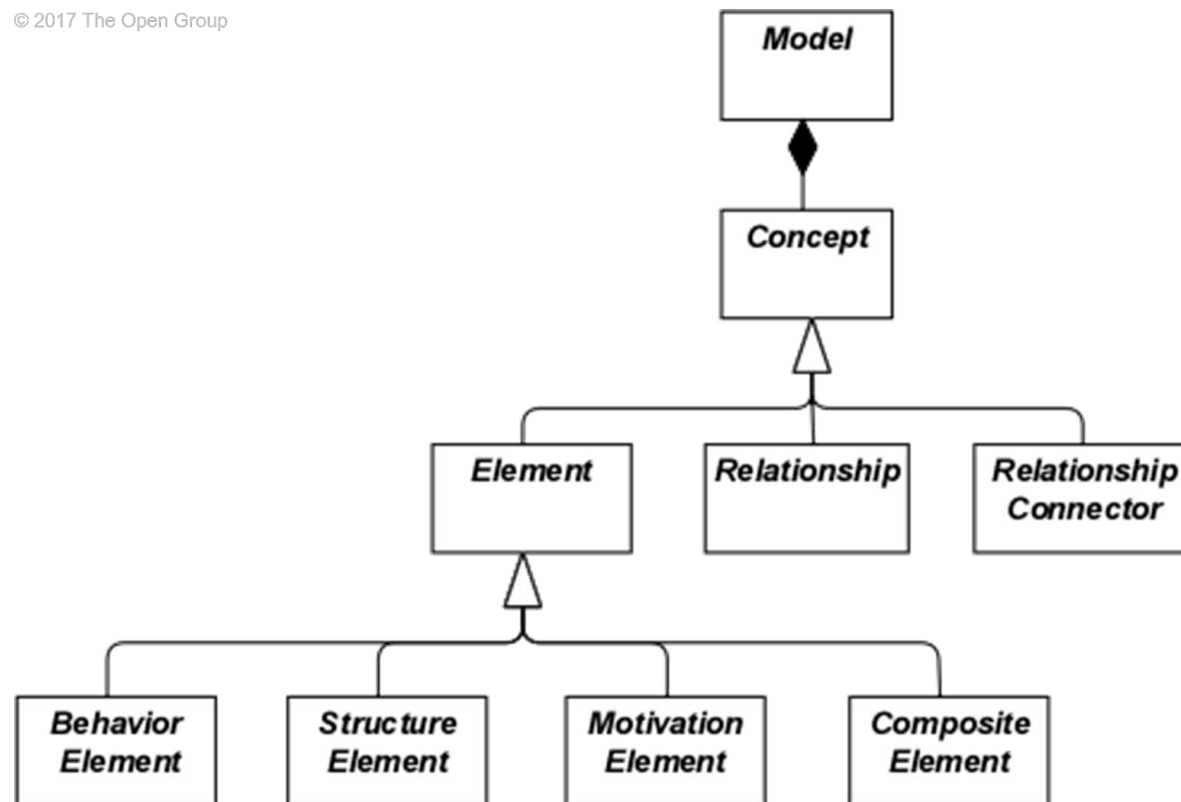


Which of the following elements represent internal behavior

① Start presenting to display the poll results on this slide.

Top-Level Hierarchy of ArchiMate Concepts

© 2017 The Open Group



Overview of Relationship

