

Enterprise Architecture Modelling with ArchiMate 3 - Overview

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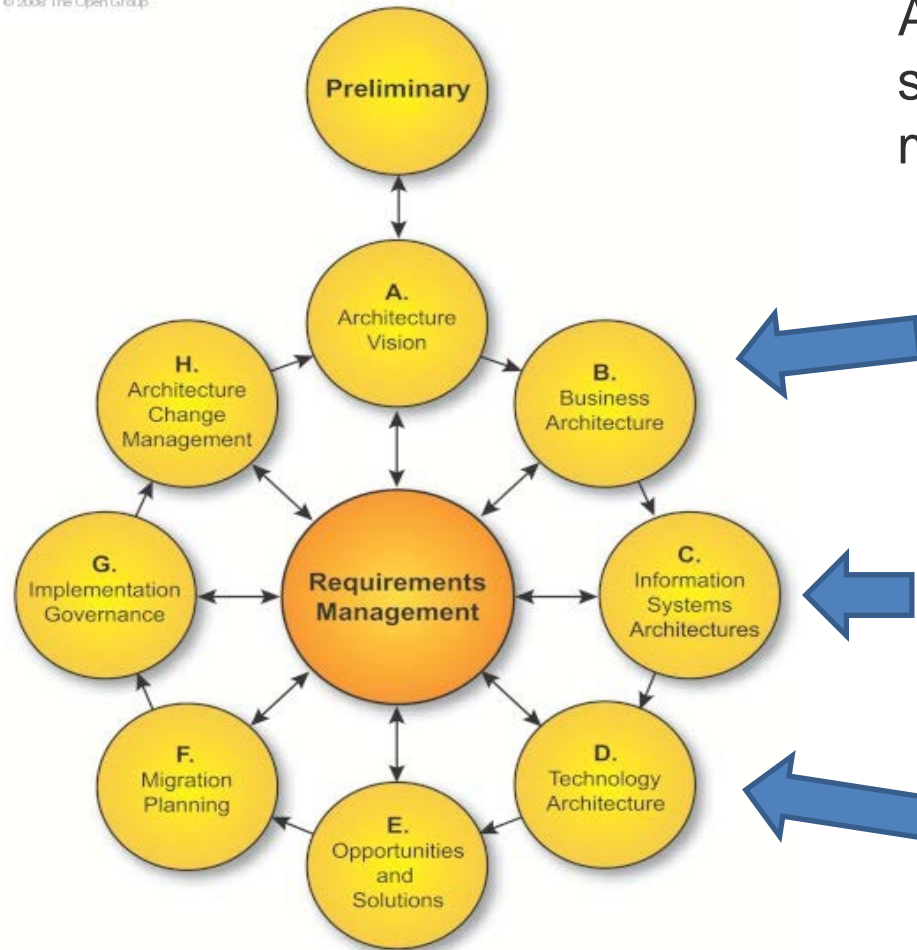


Reference

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

TOGAF Architecture Views

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

Business Architecture

Data Architecture

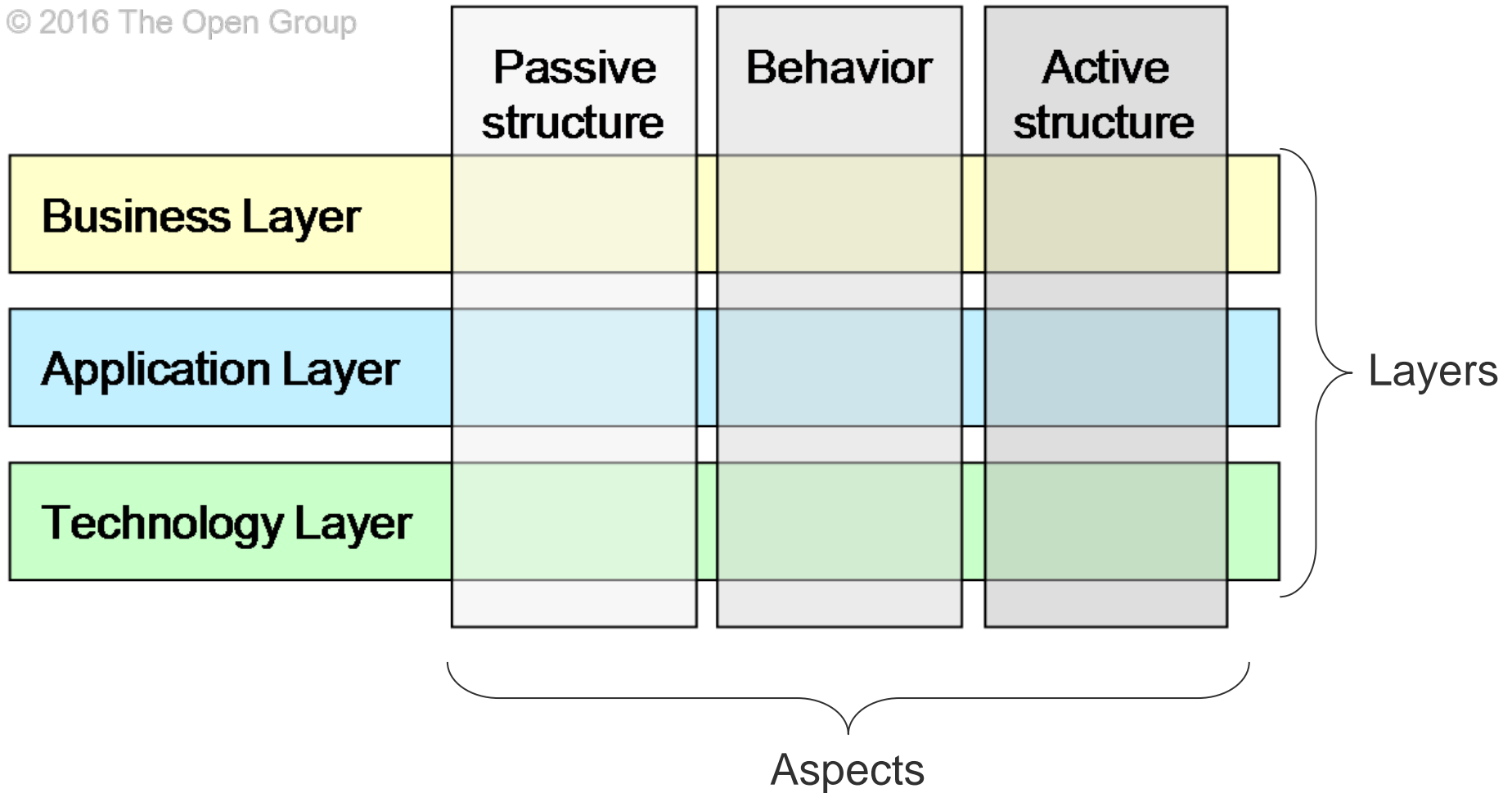
Application Architecture

Technology Architecture



The ArchiMate Core Framework

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Layers in ArchiMate

■ ***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)

Aspects in ArchiMate

■ *Active Structure*

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

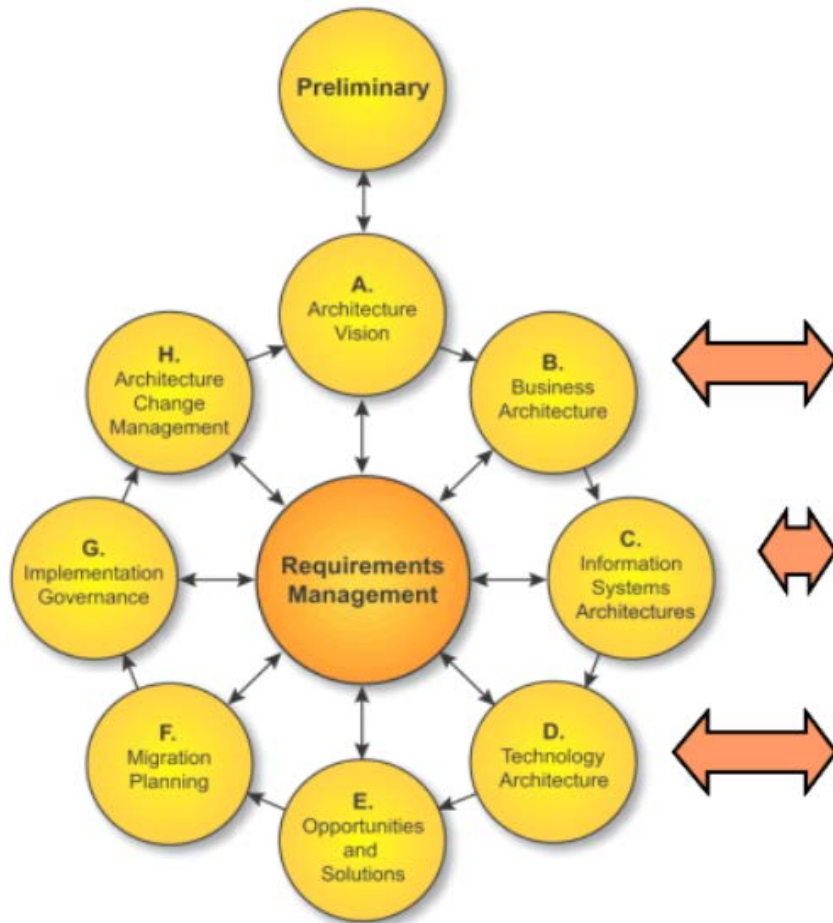
■ *Behavior*

- ◆ 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*

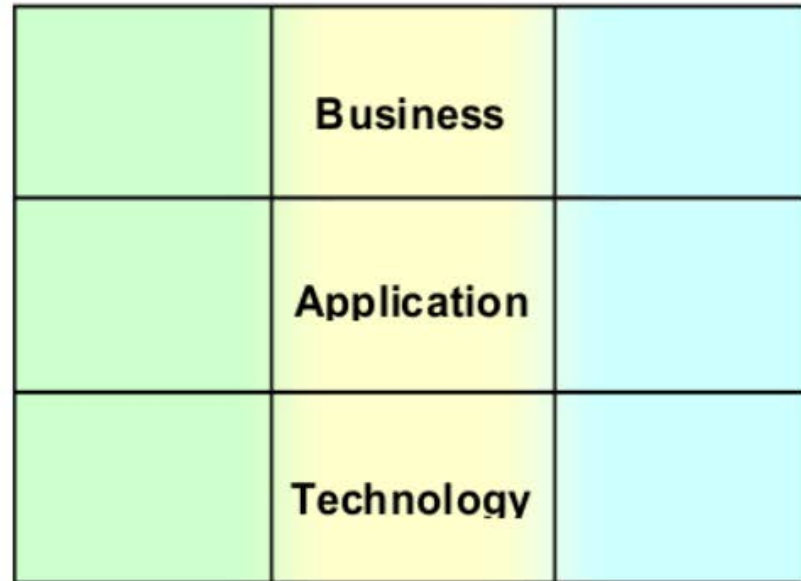
- ◆ represents the objects on which behavior is performed. These are usually information objects in the Business Layer and data objects in the Application Layer, but physical objects.

TOGAF Architecture Views



TOGAF ADM

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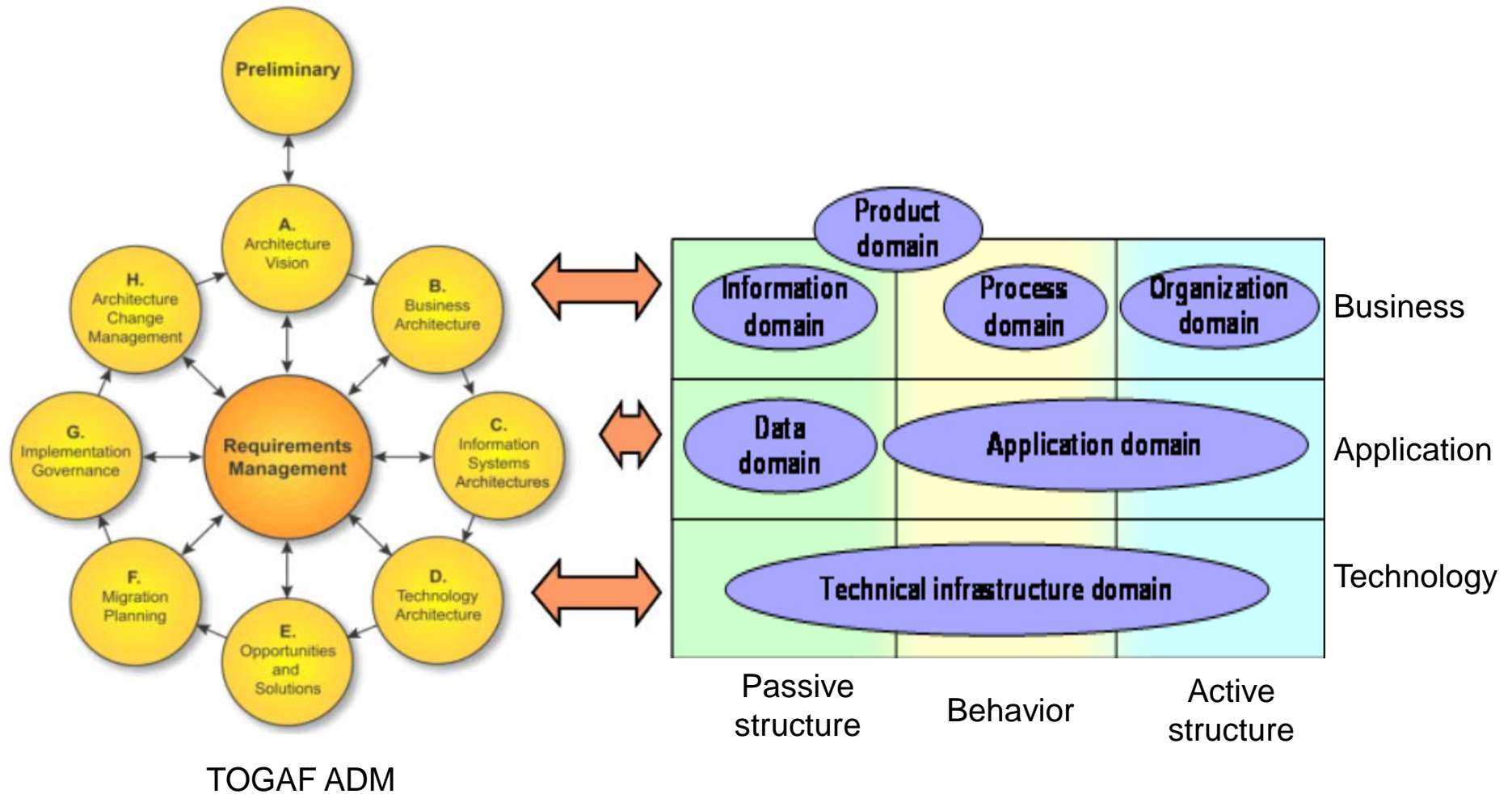
Passive structure

Behavior

Active structure

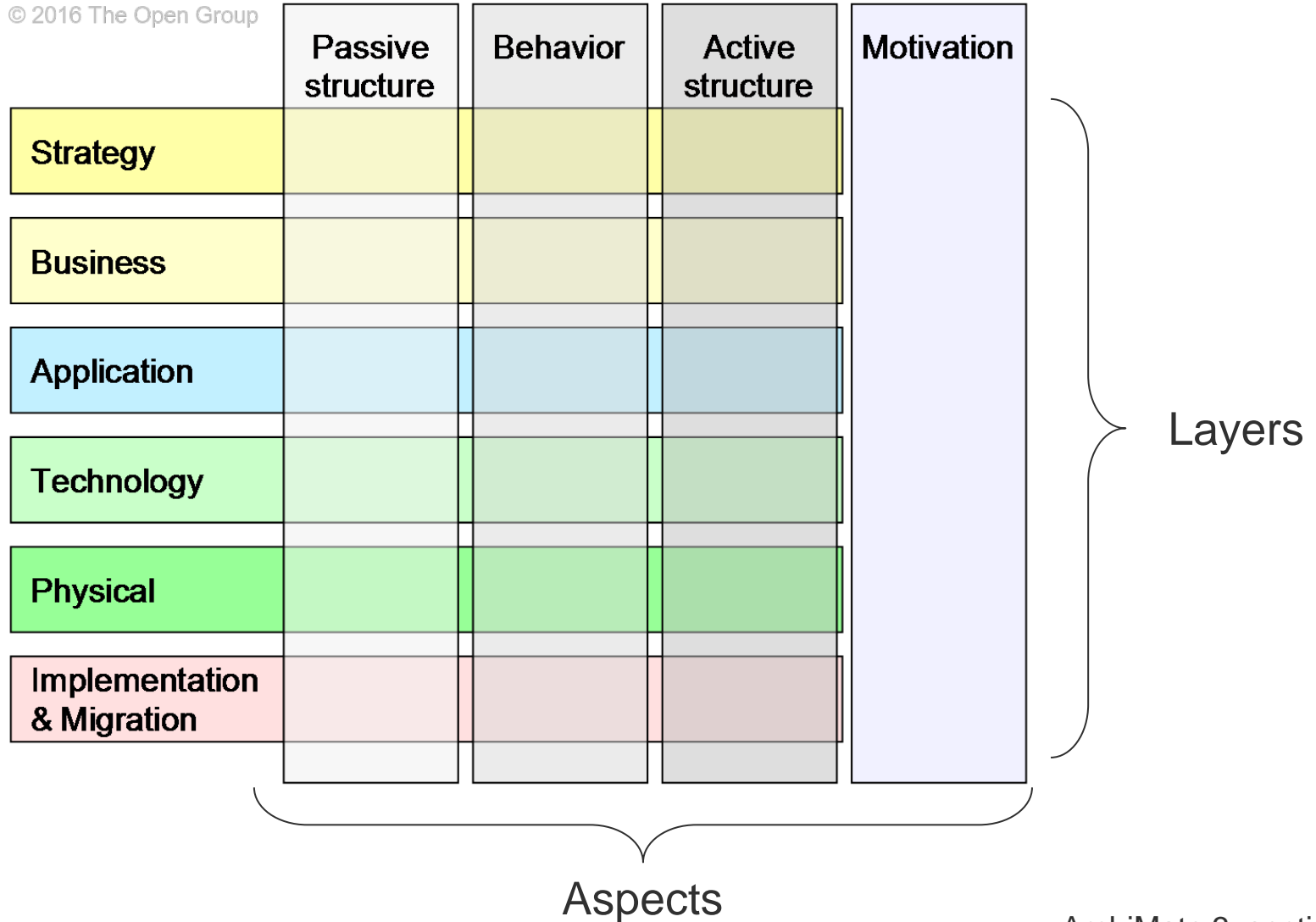
ArchiMate

ArchiMate and TOGAF



The ArchiMate Full Framework

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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

Hierarchy of Behavior and Structure Elements

