

TOGAF – The Open Group Architecture Framework

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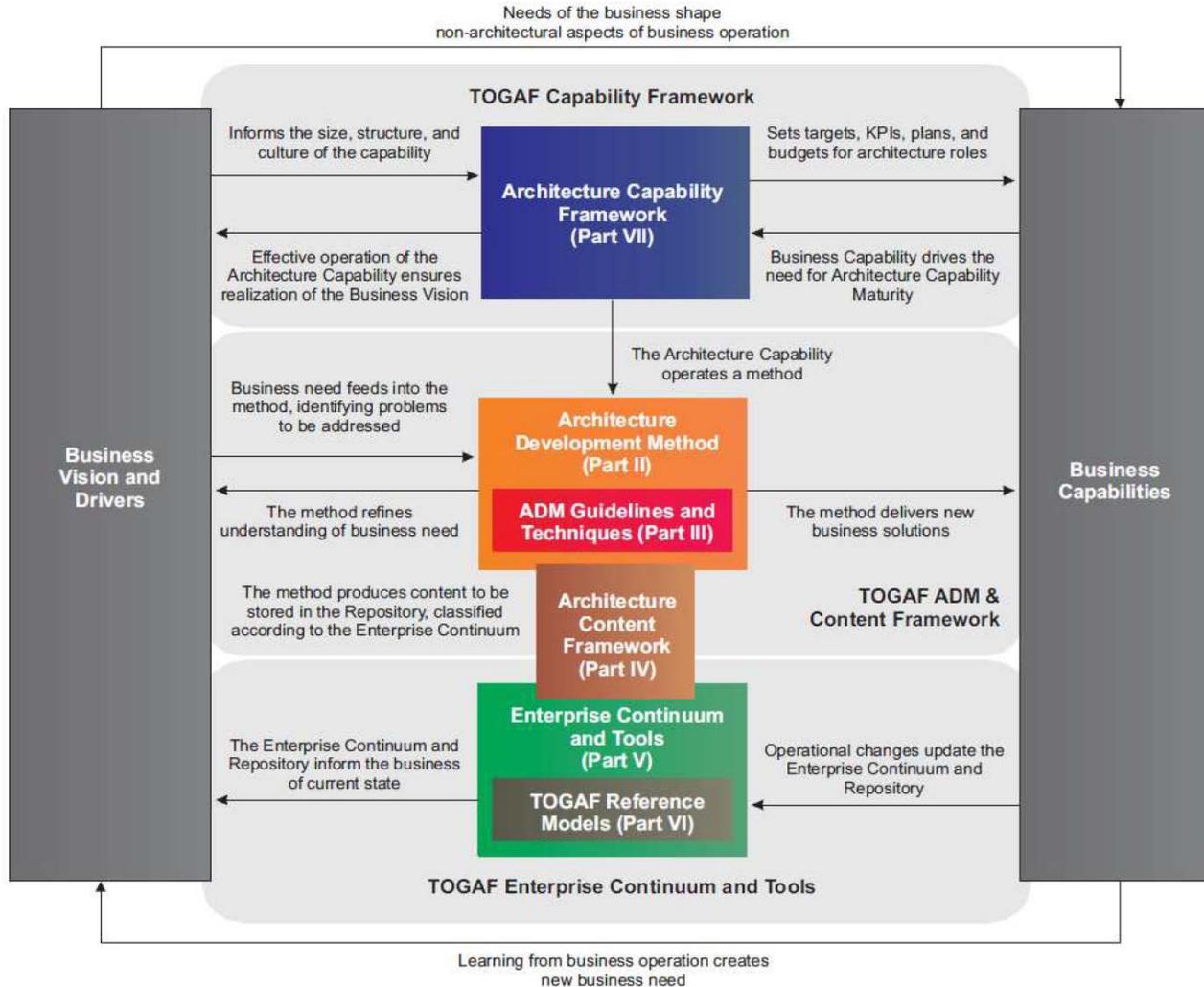


TOGAF – The Open Group Architecture Framework

- Developed and continuously evolved since the mid-90's by The Open Group's Architecture Forum
- At the heart of the framework are the
 - ◆ Architecture Development Method (ADM) and
 - ◆ The Content Framework
- <http://www.opengroup.org/togaf/>



Structure of the TOGAF Document



(The Open Group 2009, p. 4)



TOGAF Architectures

The TOGAF enterprise architecture model is organised in four partial sub-architectures:

- ◆ **Business Architecture**
 - Strategies, governance, organisation and business processes of the enterprise
- ◆ **Information Systems Architecture** – consists of
 - **Data Architecture**
 - data and their relations as well as principles for the organisation and the management of resources
 - **Application Architecture**
 - information systems and their relations to business processes
- ◆ **Technology Architecture**
 - current technical realisation and future enterprise-specific standards like operating system, middleware, infrastructure

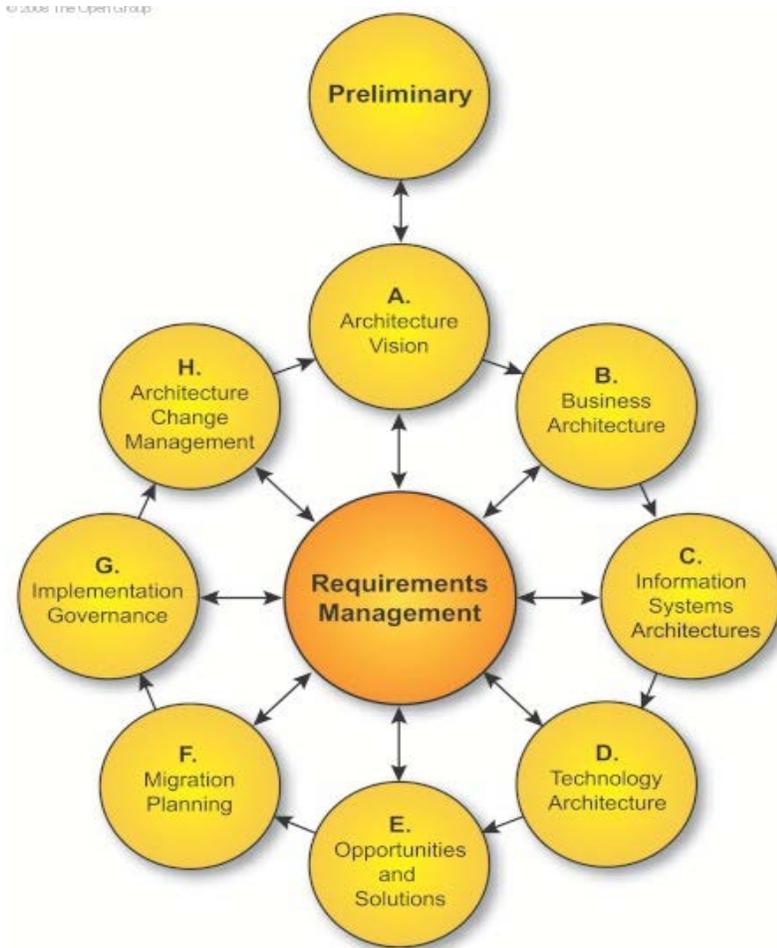
Business Architecture

Data
Architecture

Application
Architecture

Technology Architecture

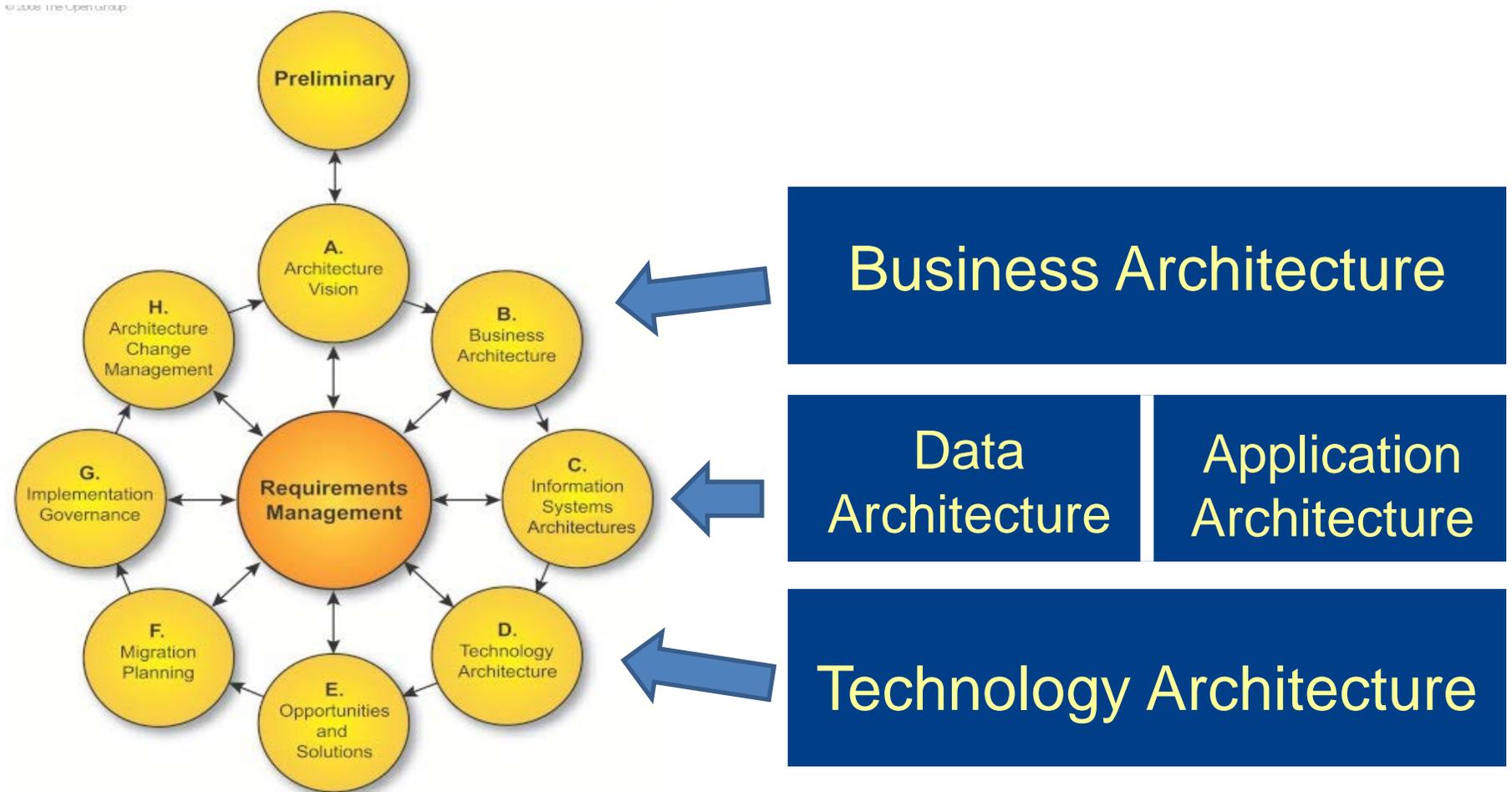
TOGAF Architecture Development Method (ADM)



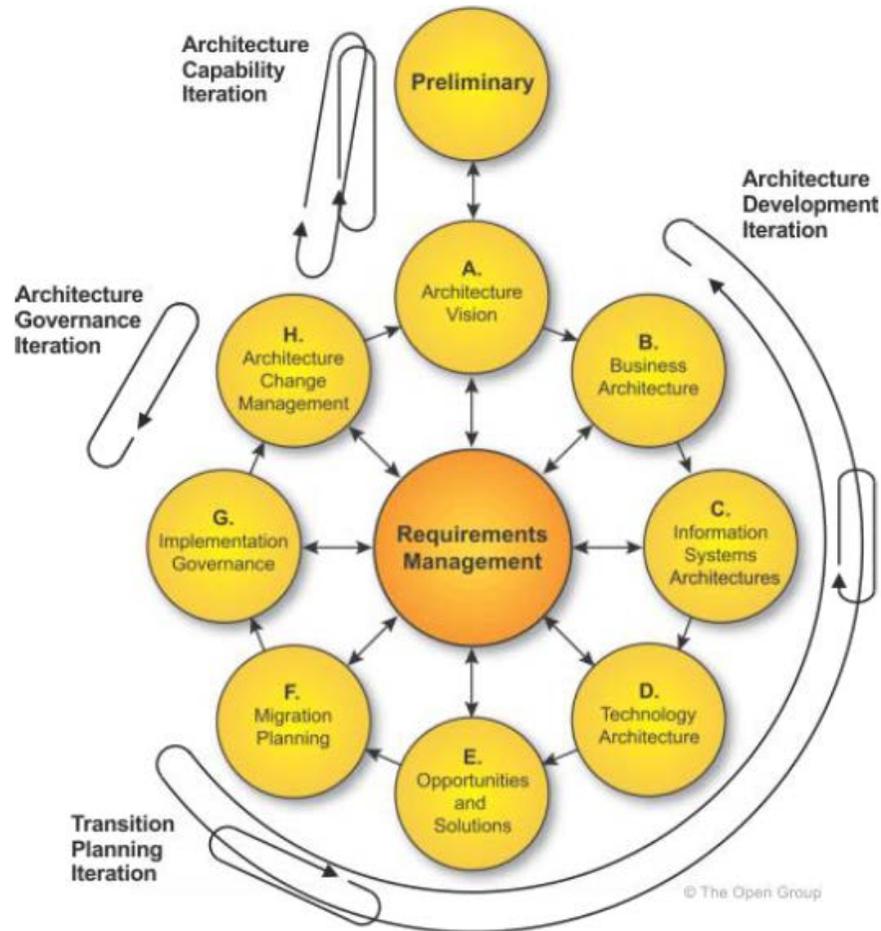
- TOGAF addresses the whole enterprise architecture lifecycle
- The TOGAF Architecture Development Method (ADM) is a generic method for developing an enterprise architecture
- The goals, approaches, required input, activities and deliverables are documented for each phase separately
- The ADM method is enriched by specific ADM guidelines and techniques.

(The Open Group 2009)

TOGAF Architecture Views



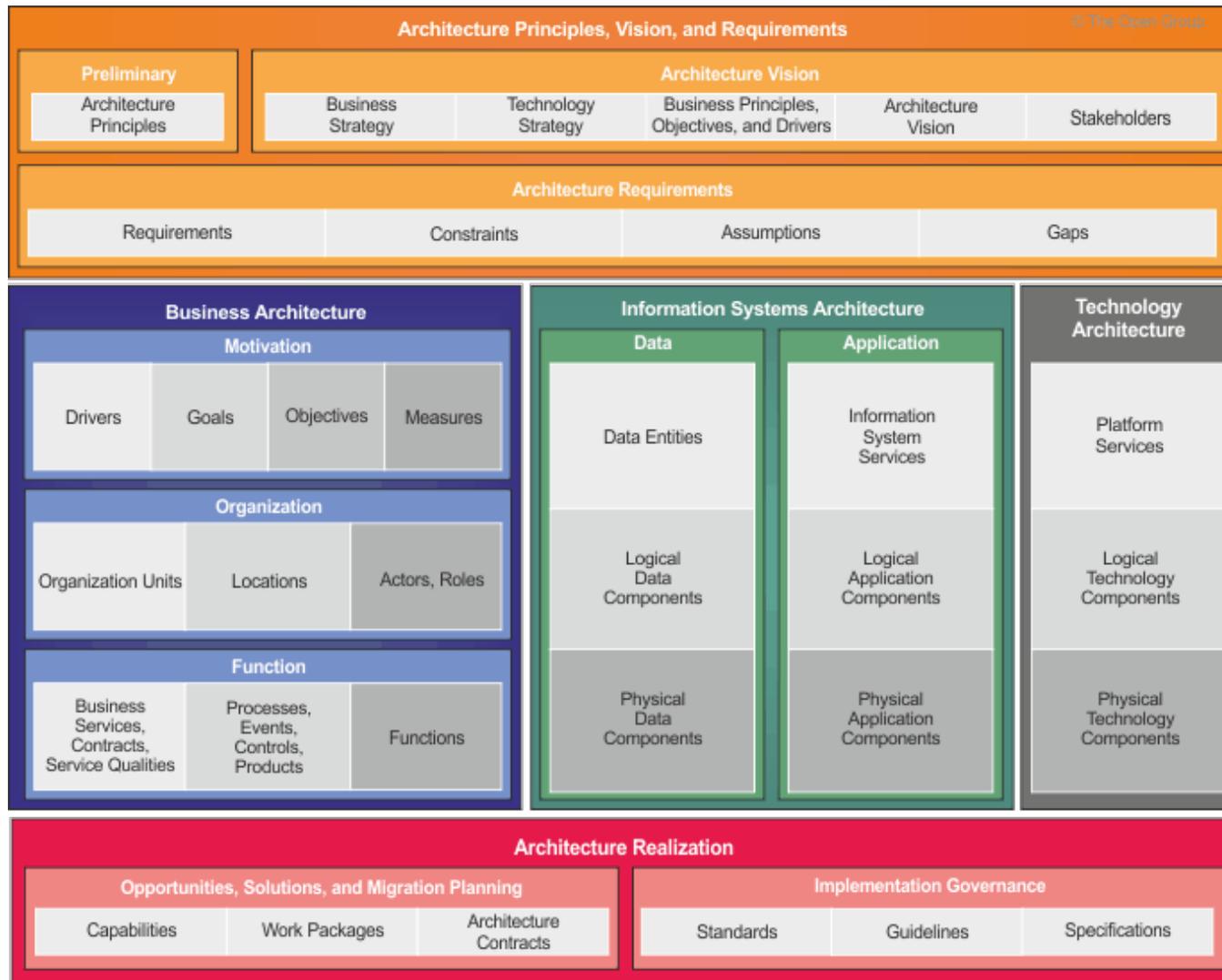
TOGAF Architecture Development Method (ADM)



- Although originally represented as a sequential method, chapter 19.2 of TOGAF describes also iteration cycles

(The Open Group 2011)

TOGAF Content Metamodel



<http://pubs.opengroup.org/architecture/togaf9-doc/arch/chap33.html>

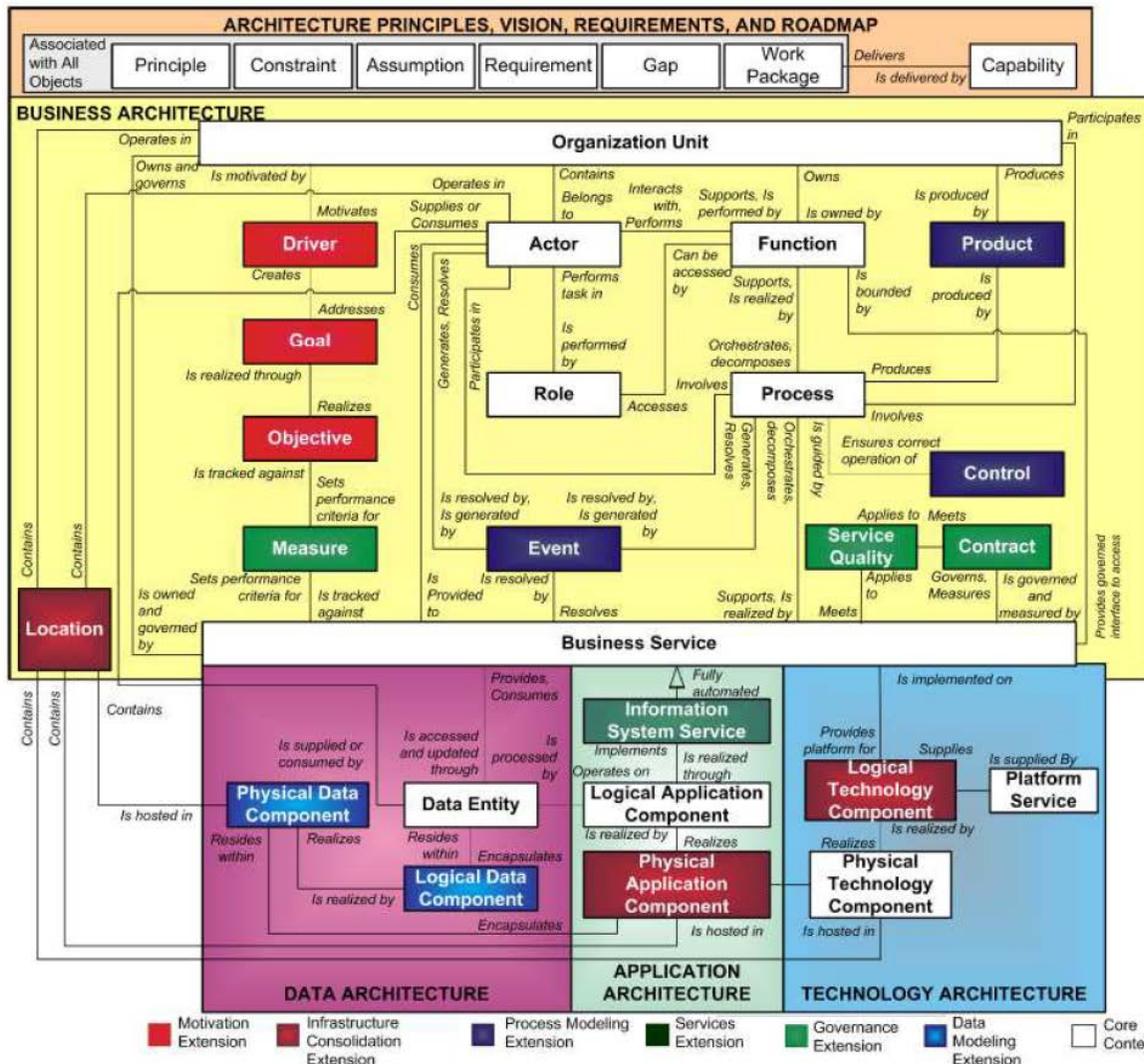
(The Open Group 2011)



TOGAF Content Metamodel

- The content metamodel provides a definition of all the types of building blocks that may exist within an architecture.
- The content metamodel
 - ◆ identifies all of these building block (i.e., application, data entity, technology, actor, and business service),
 - ◆ shows the relationships that are possible between them, e.g.
 - actors consume business services
 - data entities are held within applications
 - technologies implement applications
 - applications support business users or actors
 - ◆ identifies artifacts that can be used to represent them.

TOGAF: Architecture Content



The architecture content framework “provides a structural model for architectural content” and may also be substituted with other frameworks, such as the Zachman Framework (The Open Group, 2009, p. 361).

(The Open Group 2009, p. 379)

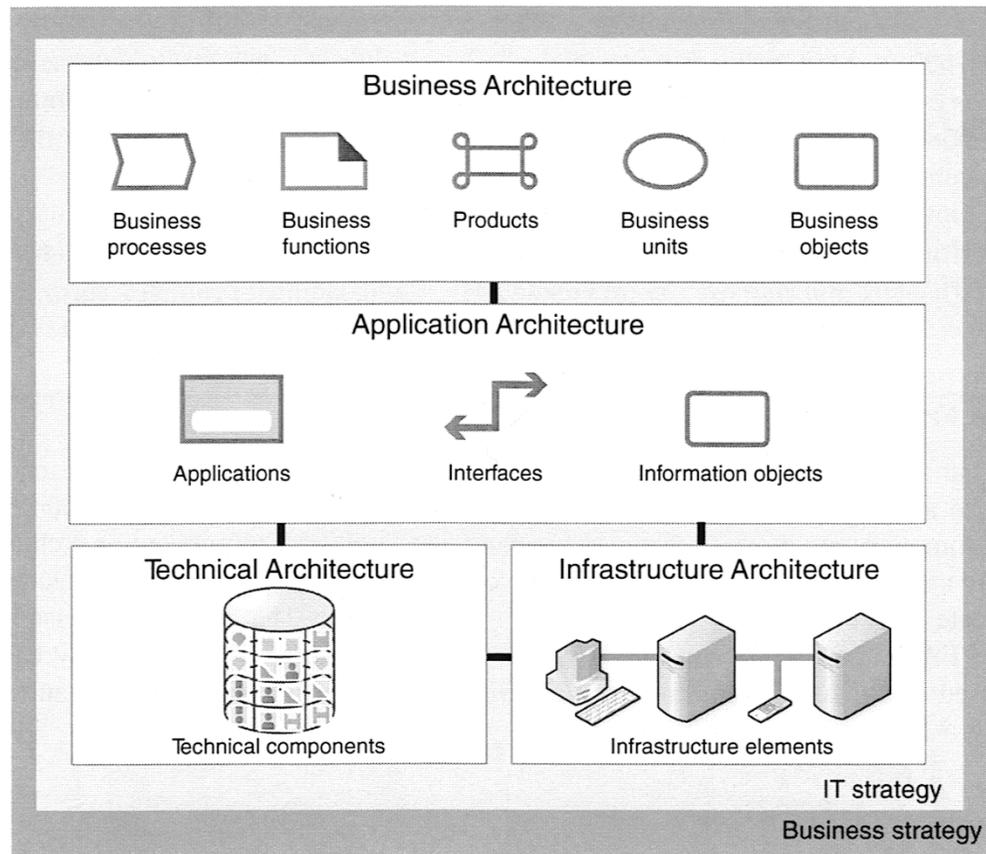


TOGAF: Architecture Content Framework

- The content framework is intended to allow TOGAF to be used as a stand-alone framework for architecture.
- However, some enterprises may opt to use an external framework (such as the Zachman Framework or ArchiMate) in conjunction with TOGAF.
- In these cases, the content framework provides a useful reference and starting point for TOGAF content to be mapped to other frameworks

Best Practice Enterprise Architecture

Best Practice Enterprise Architecture



- The Best Practice Architecture from Inge Hanschke (2010) is another example of a three-layer enterprise architecture framework.
- In contrast to TOGAF
 - ◆ it is quite simple
 - ◆ it differentiates between the technical architecture and the infrastructure architecture
 - ◆ it does not have a separate data or information architecture

from (Hanschke, 2010)

Partial Architectures of the Best Practice Architecture

■ Business Architecture

- ◆ Describing main entities that determine the business: business processes, functions, products, business units and business objects.

■ Application Architecture

- ◆ documentation of the information systems landscape, i.e. information systems, their data and interfaces und the information flow
- ◆ bridge between business architecture and the architectures of technology and infrastructure

■ Technology Architecture

- ◆ determination of enterprise-specific technical standards for information systems, interfaces and infrastructure

■ Infrastructure Architecture

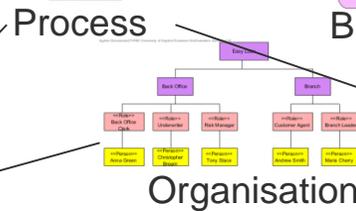
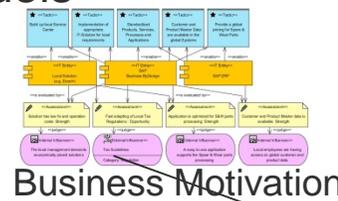
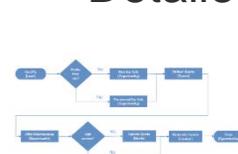
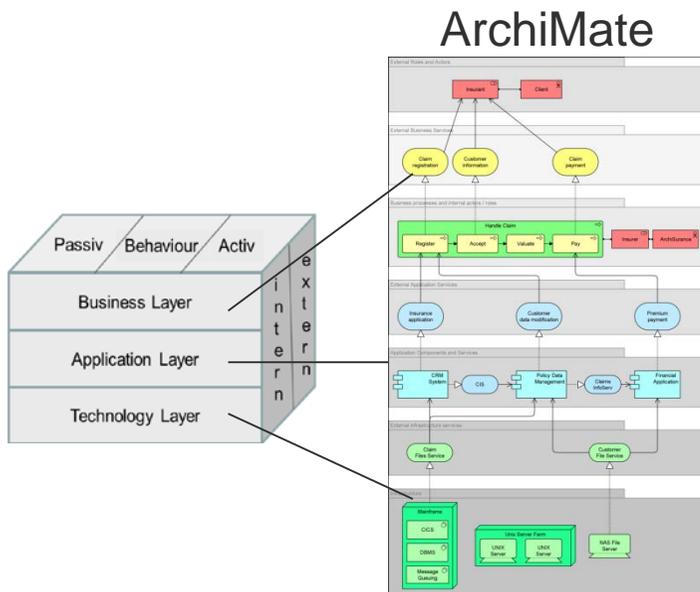
- ◆ Entities of the infrastructure, on which the information systems are running

Enterprise Architecture Modeling

Architecture: TOGAF

Detailed Models

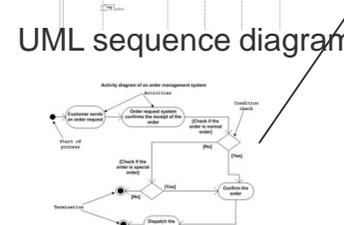
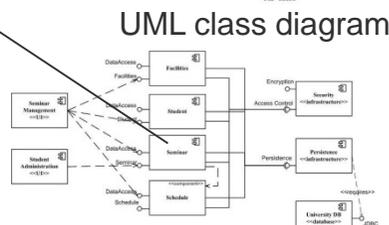
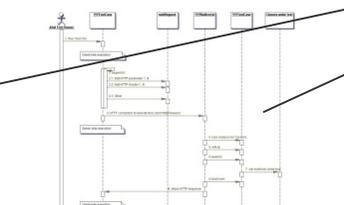
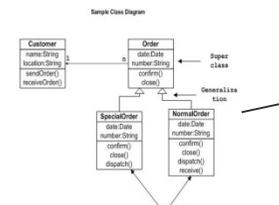
Overview: Zachman



Data/Documents

Business Rules

Fact Type Model



UML component diagram

UML activity diagram

