TOGAF®

Version 9.1 Enterprise Edition

# Module 4
# The Enterprise Continuum & Tools



THE Open GROUP



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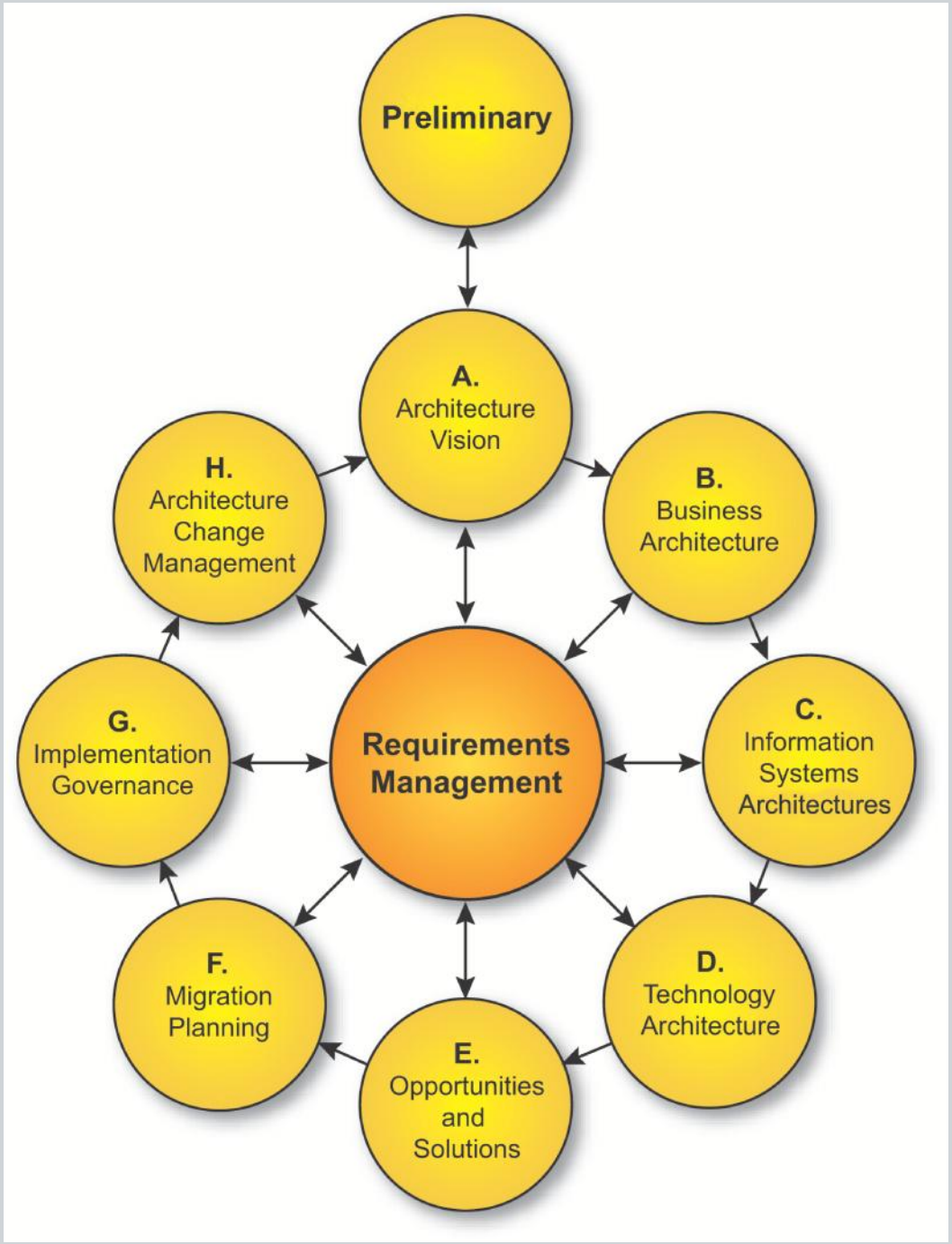


# The Enterprise Continuum & Tools



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# Roadmap

| Part I - Introduction |
| --- |
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| ADM Phase Narratives |
| Part III – ADM Guidelines and Techniques |
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| Techniques for Architecture Development |
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| Architecture Deliverables |
| Building Blocks |
| Part V – Enterprise Continuum and Tools |
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| Architecture Repository |
| Tools for Architecture Development |
| Part VI – Reference Models |
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| Integrated Information Infrastructure Reference Model |
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| Architecture Board |
| Architecture Compliance |
| Architecture Contracts |
| Architecture Governance |
| Architecture Maturity Models |
| Architecture Skills Framework |

- Part V, Enterprise Continuum and Tools, Chapter 39



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# Module Objectives

- To provide an introduction to the Enterprise Continuum.
- The purpose of the Enterprise Continuum
- The constituent pieces of the  Enterprise Continuum
- To explain high-level issues with Tool Standardization

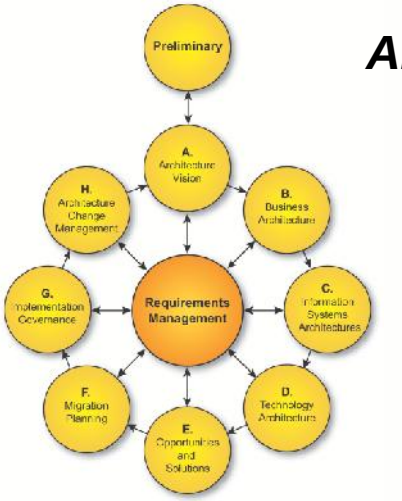
# Definition of ‘Continuum’

- Noun: a continuous extent of something, no part of which is different from any other

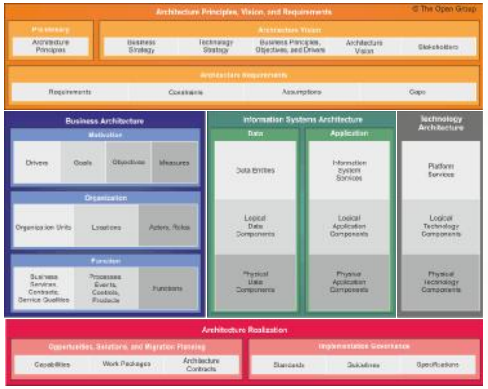
*Source: Wiktionary.org*

# TOGAF 9 Components

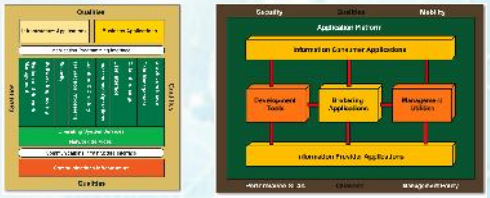
## ADM



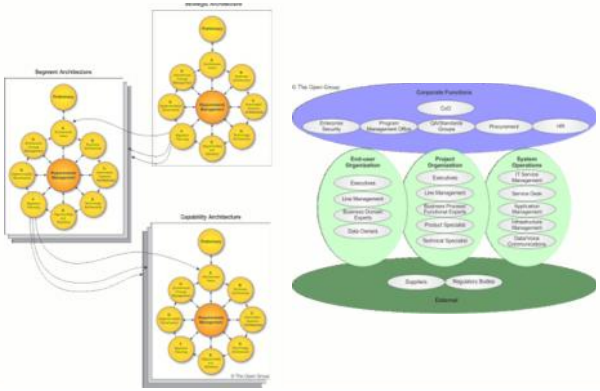

## Architecture Content Framework



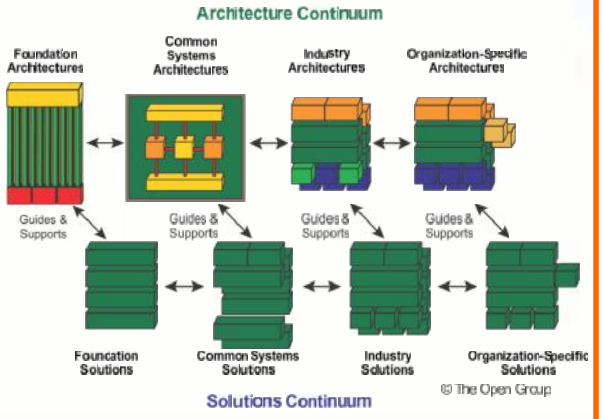
## Reference Models



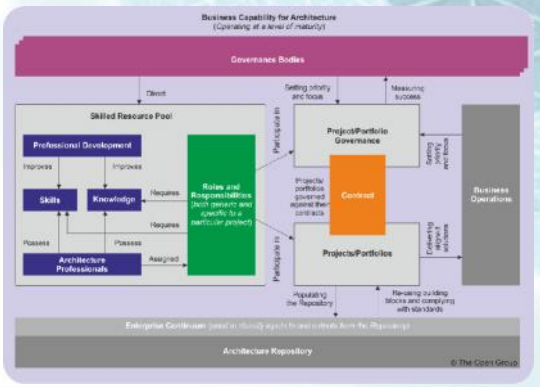
## ADM Guidelines & Techniques



## Enterprise Continuum




## Architecture Capability Framework



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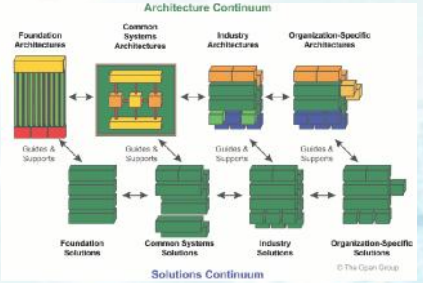
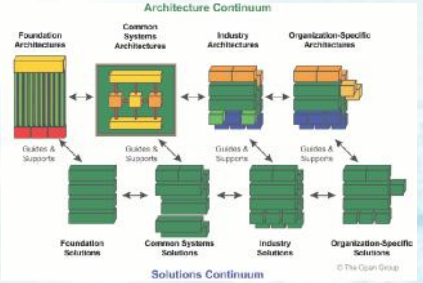
# Overview




- A model for structuring a virtual repository and methods for classifying architecture and solution artifacts
- Based on architectures and solutions:
  - Models, patterns, architecture descriptions
  - Deliverables produced in this iteration of the ADM
  - Deliverables produced in other iterations of the ADM
  - Assets from the industry at large
  - Showing how artifacts evolve
- The practical implementation of the Enterprise Continuum takes the form of an Architecture Repository

*Continued…*

# Overview (Cont'd)

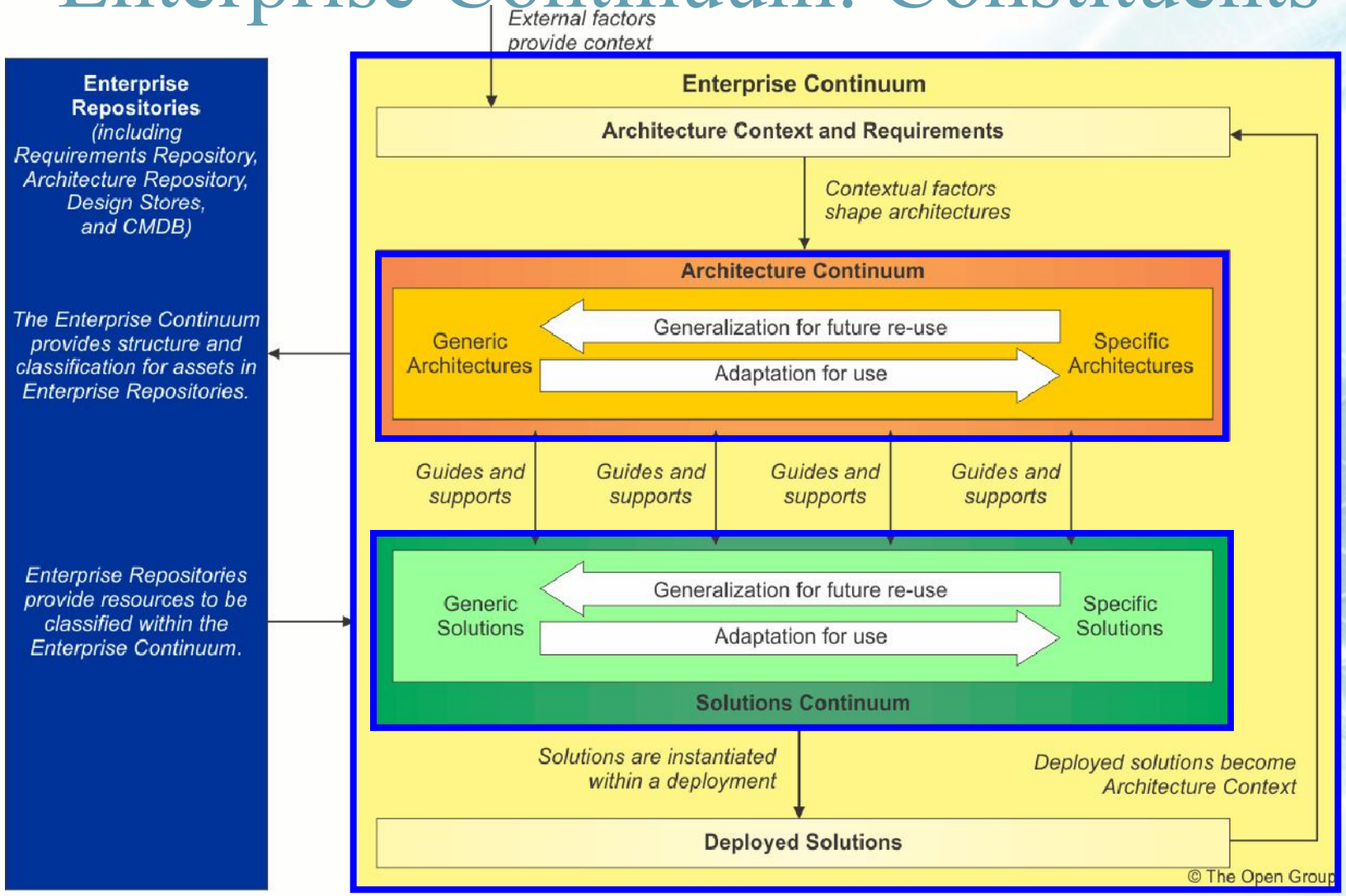



- The Enterprise Continuum is a combination of two complementary concepts: the Architecture Continuum and the Solutions Continuum
- It enables effective use of COTS products.
- It improves engineering efficiency
- It aids organization of reusable architecture and solution assets
- It provides a common language:
  - Within enterprises
  - Between customer enterprises and vendors

# Architecture Reuse

- The Enterprise Continuum enables the architect to articulate the broad perspective of what, why, and how the enterprise architecture has been designed with the factors and drivers considered. The Enterprise Continuum is an important aid to communication and understanding, both within individual enterprises, and between customer enterprises and vendor organizations.

# Enterprise Continuum: Constituents



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# The Architecture Continuum

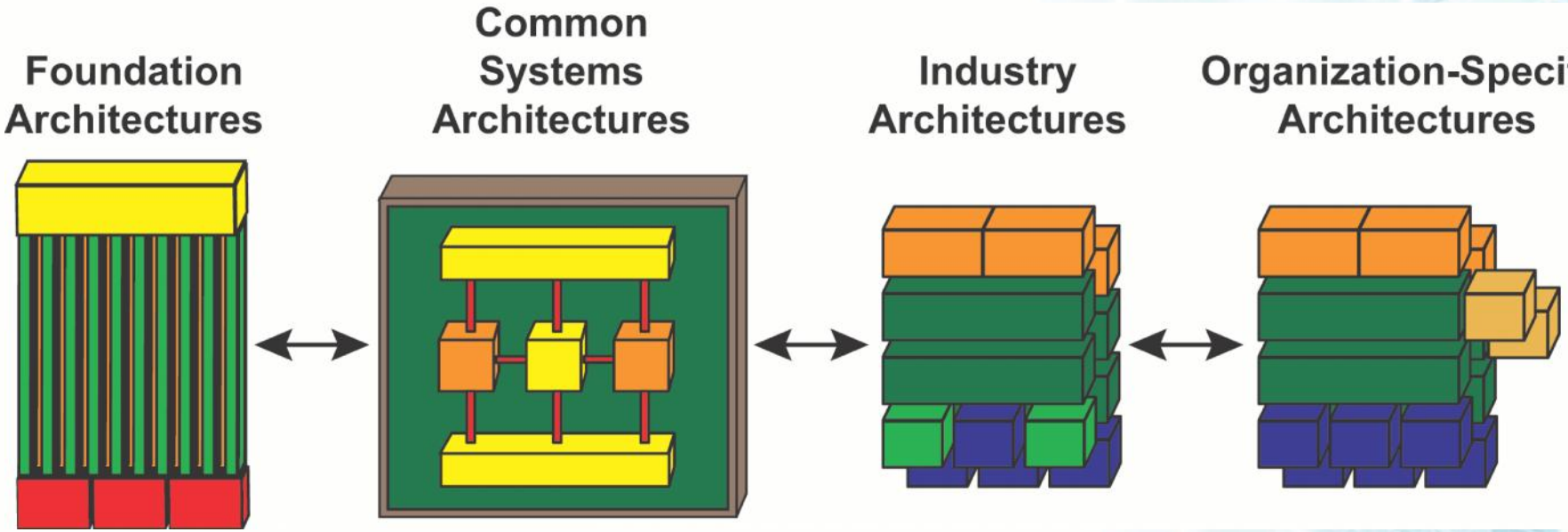


***Figure 1***

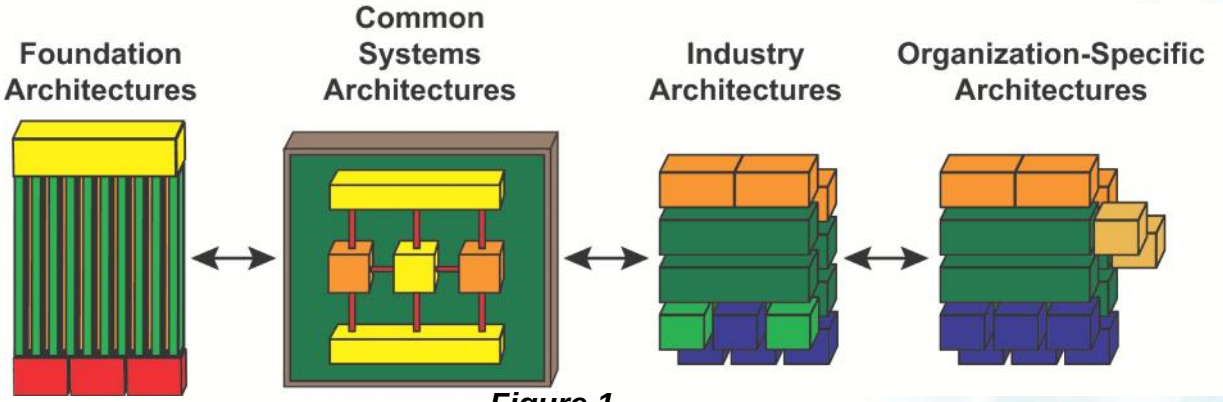


*Figure 1*

- Architectures range from Foundation Architectures through Common Systems Architectures, and Industry Architectures to an enterprise's own Organization-Specific architecture
- Arrows represent bi-directional relationship between the different architectures
  - Left to right: meeting enterprise needs and business requirements
  - Enterprise needs and business requirements increase in detail from left to right
  - Right to left: leveraging architectural components and building blocks

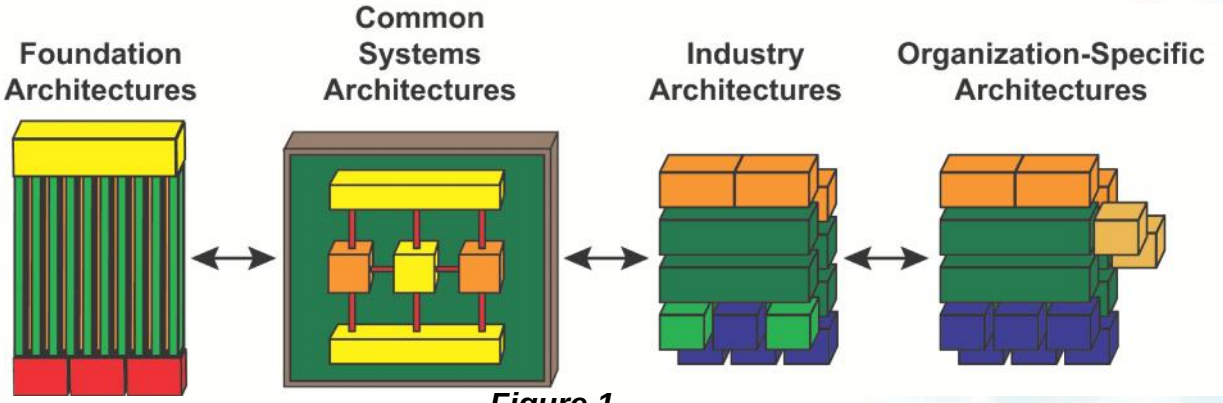


*Figure 1*

- The architectural elements furthest left are the most reusable
- Requirements for missing elements are passed to the left of the continuum for inclusion.
- Enterprises can use the same continuum models, specialized for specific businesses.
- Figure 1 shows the different architectures that may be developed:
  - these are not fixed stages in a process
  - different architectures may exist as well.

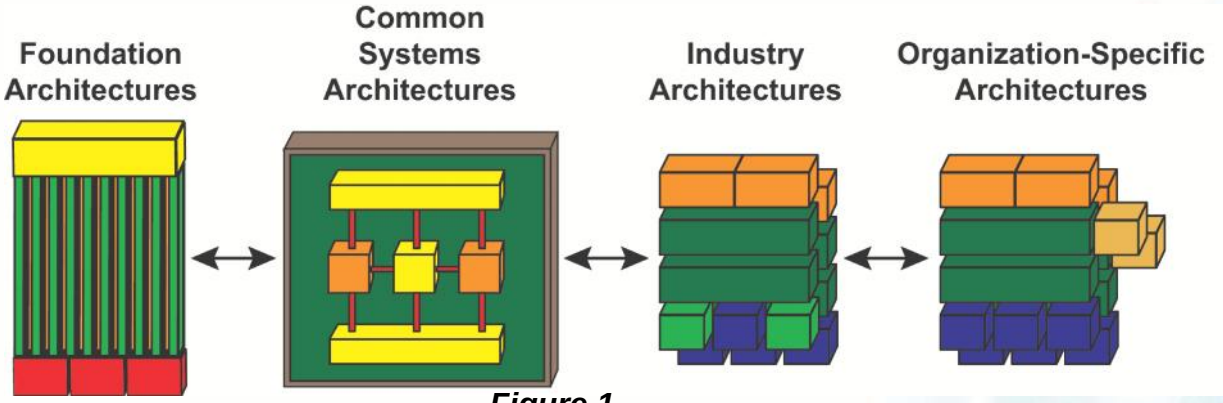


*Figure 1*

- Figure 1 does not represent a formal process but represents a progression occurring at several levels:
  - Logical ⇨ Physical
  - Horizontal (IT technology-focused) ⇨ Vertical (business-focused)
  - Generalization ⇨ Specialization
  - Taxonomy ⇨ Architecture Specification
- At each point, an architecture is designed in terms of the design concepts and building blocks available.

# The Solutions Continuum

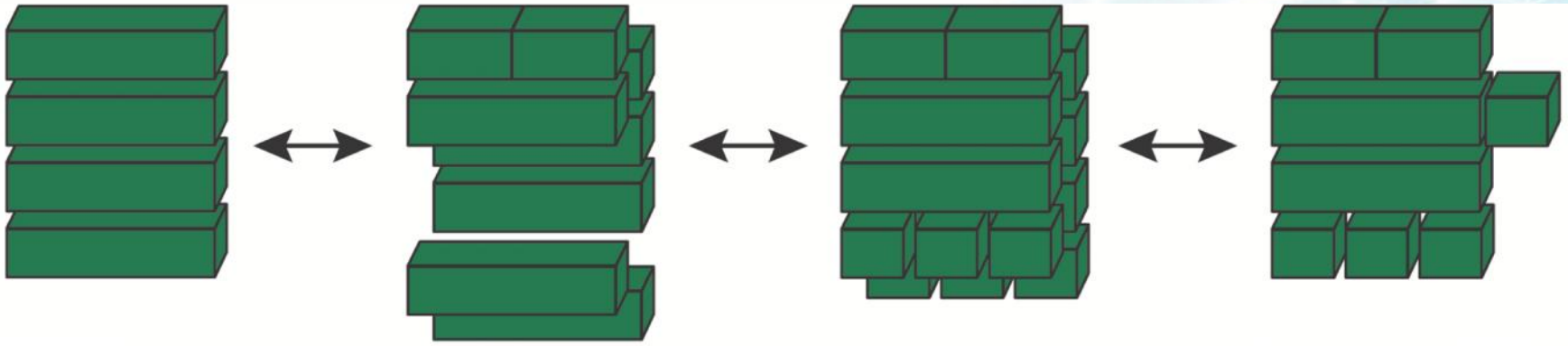


***Figure 2***

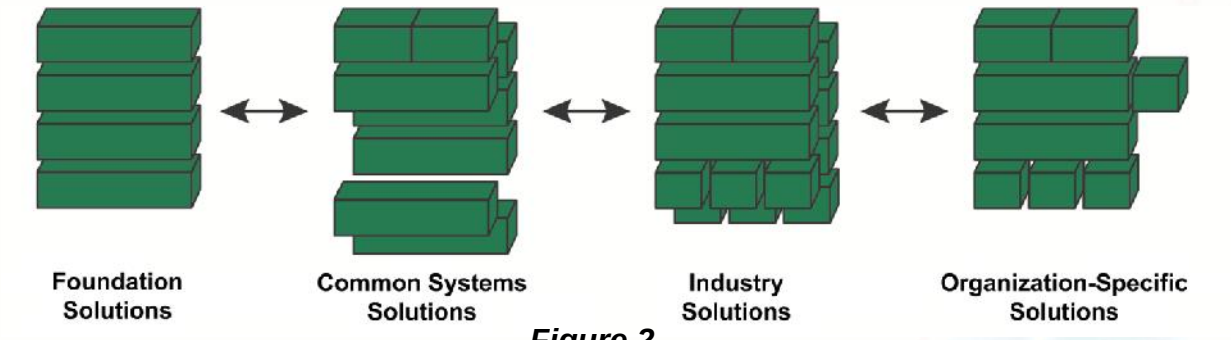


***Figure 2***

- The most specific architectures are on the right:
  - Foundation solutions help to create common systems solutions
  - Common systems solutions are used to create industry solutions
  - Industry Solutions are used to create organization-specific solutions
- The most generic concepts are on the left.

- The entire spectrum is important when balancing cost and value.

# The Solutions Continuum:

- Represents the implementations of the architectures at the corresponding levels of the *Architecture Continuum*
- Is a population of the architecture with Solution Building Blocks, either purchased products or built components, that represent a solution to the enterprise's business need
- Forms a *Solutions Inventory* or *Reuse Library*, which adds significant value to the task of managing and implementing improvements to the IT environment

# Relationships

- The Architecture and Solutions Continuum are related by guidance, direction, and support.
- E.g. the Foundation Architecture:
  - is an architecture of building blocks and corresponding standards
  - supports all the Common Systems Architectures and, therefore, the complete enterprise operating environment
- The Open Group's  Foundation Architecture consists of the TRM
- The Open Group's III-RM is an example of a Common Systems Architecture

# The Enterprise Continuum

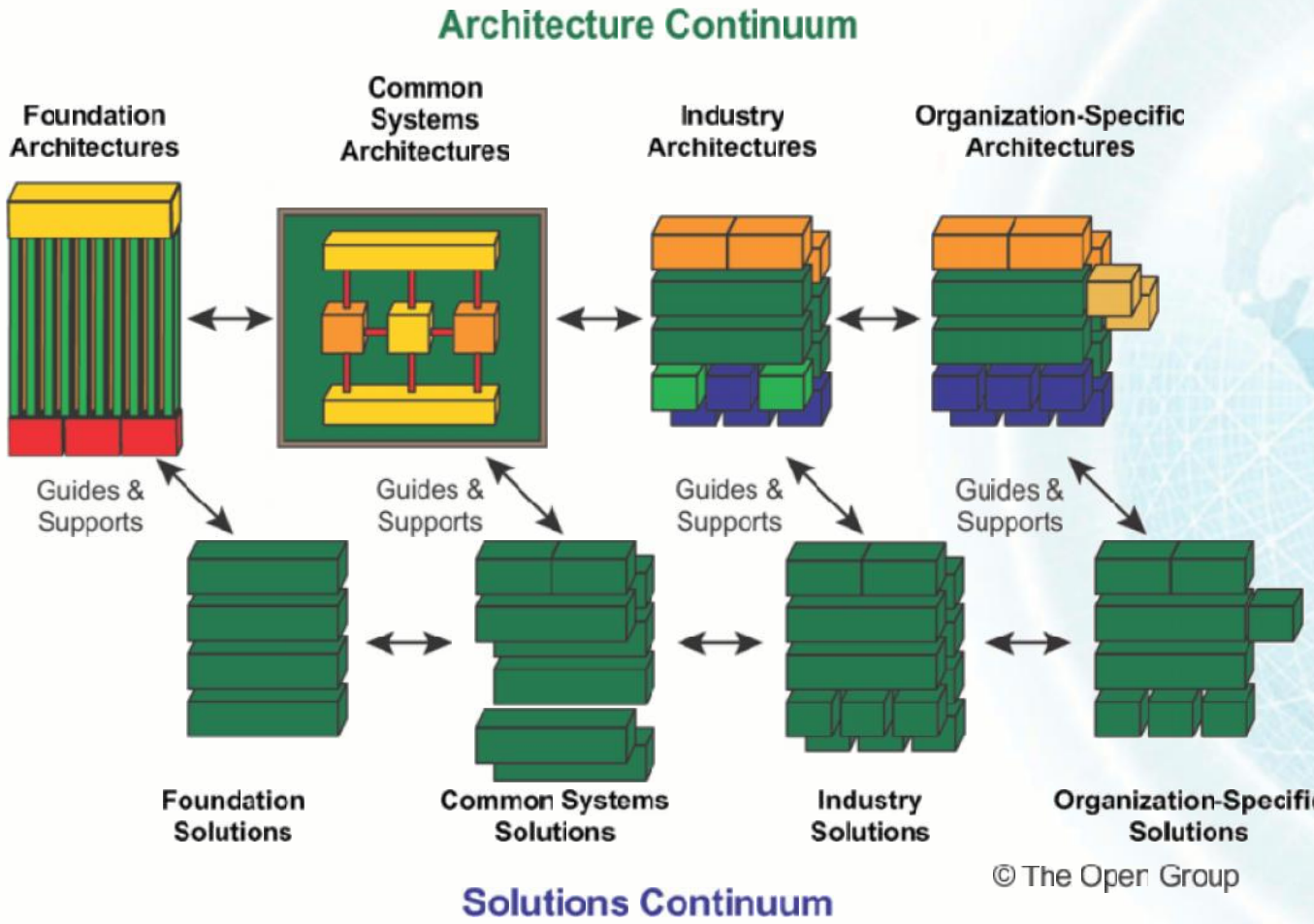


Figure 3: Best case for leveraging of architecture and solution components



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# Using the Continuum

- The TOGAF ADM describes the process of developing an enterprise-specific architecture by adopting and adapting generic architectures and solutions
- The Continuum:
  - contains complete and work-in-progress solutions
  - is a "framework-within-a-framework”
  - has few internal assets, at first
  - grows by adding reusable building blocks

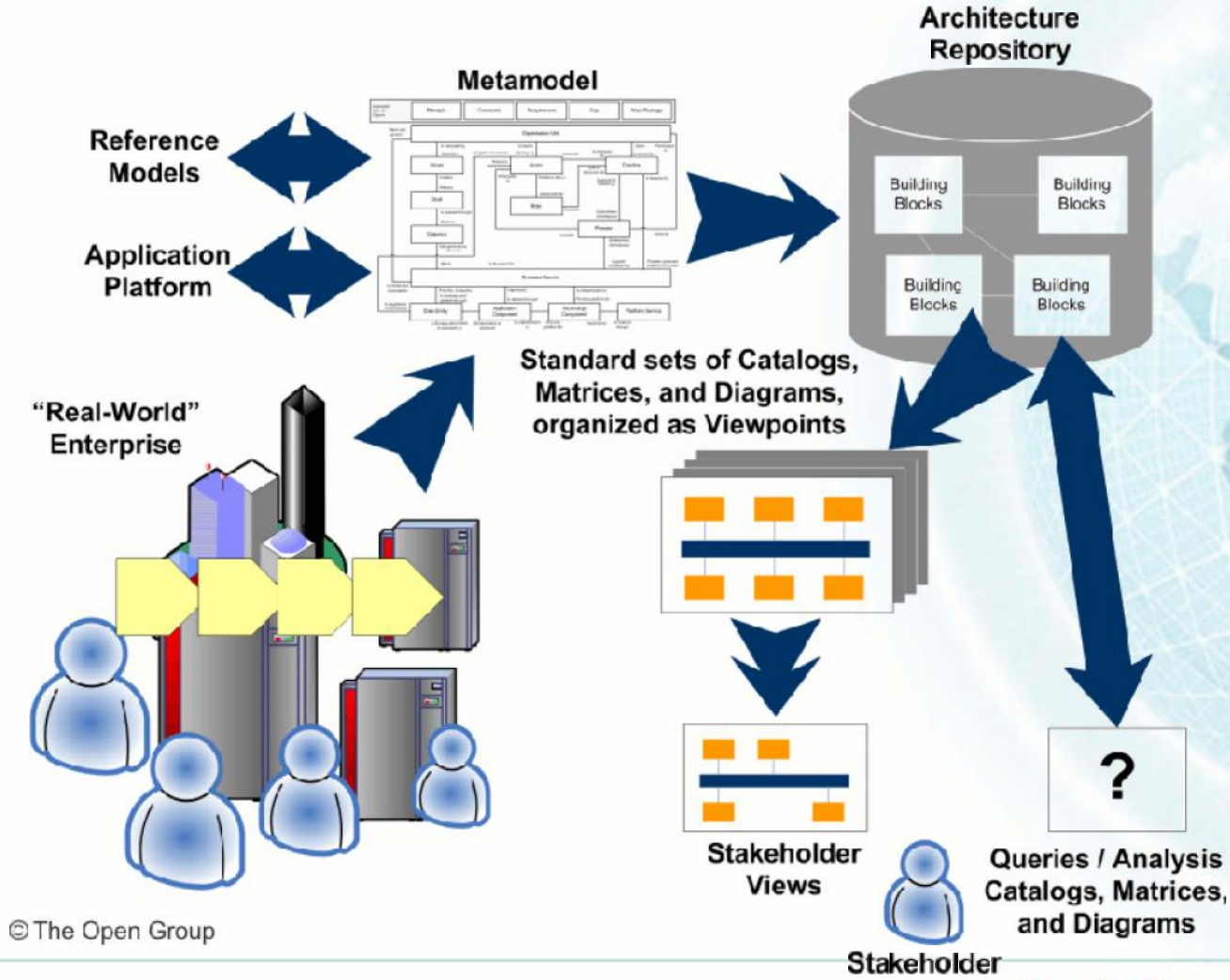
# Relationships

- The Solutions Continuum assists understanding of products, systems, services, and solutions
- The Enterprise Continuum improves productivity through leverage
- The Enterprise Continuum does not represent strictly chained relationships:
  - enterprise architectures may have components from a Common Systems Architecture
  - enterprise solutions may contain a product or service

# The need for Tools

- Tools are needed to manage and control the artifacts within the Enterprise Continuum
  - To promote re-use
  - To enable sharing of architecture information within an organization
  - To facilitate easier maintenance of the architecture
  - To ensure common terminology is used
  - To provide stakeholders with relevant models

# Tools can model the Enterprise Architecture



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# Issues in Tools Standardization

- A single “one size fits all” tool versus multiple tools
- Can a single tool address all needs, all maturity levels?
- The Open Group recognizes the complexity in this area and is developing a TOGAF 9 Tools Certification program to assist with the evaluation

# Summary

- The Enterprise Continuum is
  - a model for structuring a virtual repository and methods for classifying architecture and solution artifacts
  - It enables the organization of reusable architecture and solution assets.
  - It is also an aid to communication between all architects involved in building and procuring an architecture by providing a common language and terminology.
  - This in turn enables efficiency in engineering and effective use of COTS products.

*Continued…*

# Summary

- The Enterprise Continuum
  - provides an overall context for architectures and solutions and classifies assets that apply across the entire scope of the enterprise.
- The Architecture Continuum
  - provides a classification mechanism for assets that collectively define the architecture at different levels of evolution from generic to specific.
- The Solutions Continuum
  - provides the classification for assets to describe specific solutions for the organization that can be implemented to achieve the intent of the architecture.

*Continued…*

# Summary

- Tools are needed to manage artifacts within the Enterprise Continuum
- TOGAF provides an introduction to Issues in Tools Standardization

# Test Yourself Question

Q. According to TOGAF, all the following statements apply to the Enterprise Continuum, *except* _____*:*

A It is a virtual repository of all known architecture assets and artifacts in the IT industry

B It is a virtual repository of all architecture assets and artifacts which the enterprise is considering in its own architecture project

C It provides a taxonomy for classifying architecture assets

D Its is an important aid to communication for architects on both the buy and supply side

E It helps to organize reusable and solution assets

# Test Yourself Question

Q. According to TOGAF, all of the following are examples of 'assets within the IT Industry at large' from the Architecture Continuum, *except* _____

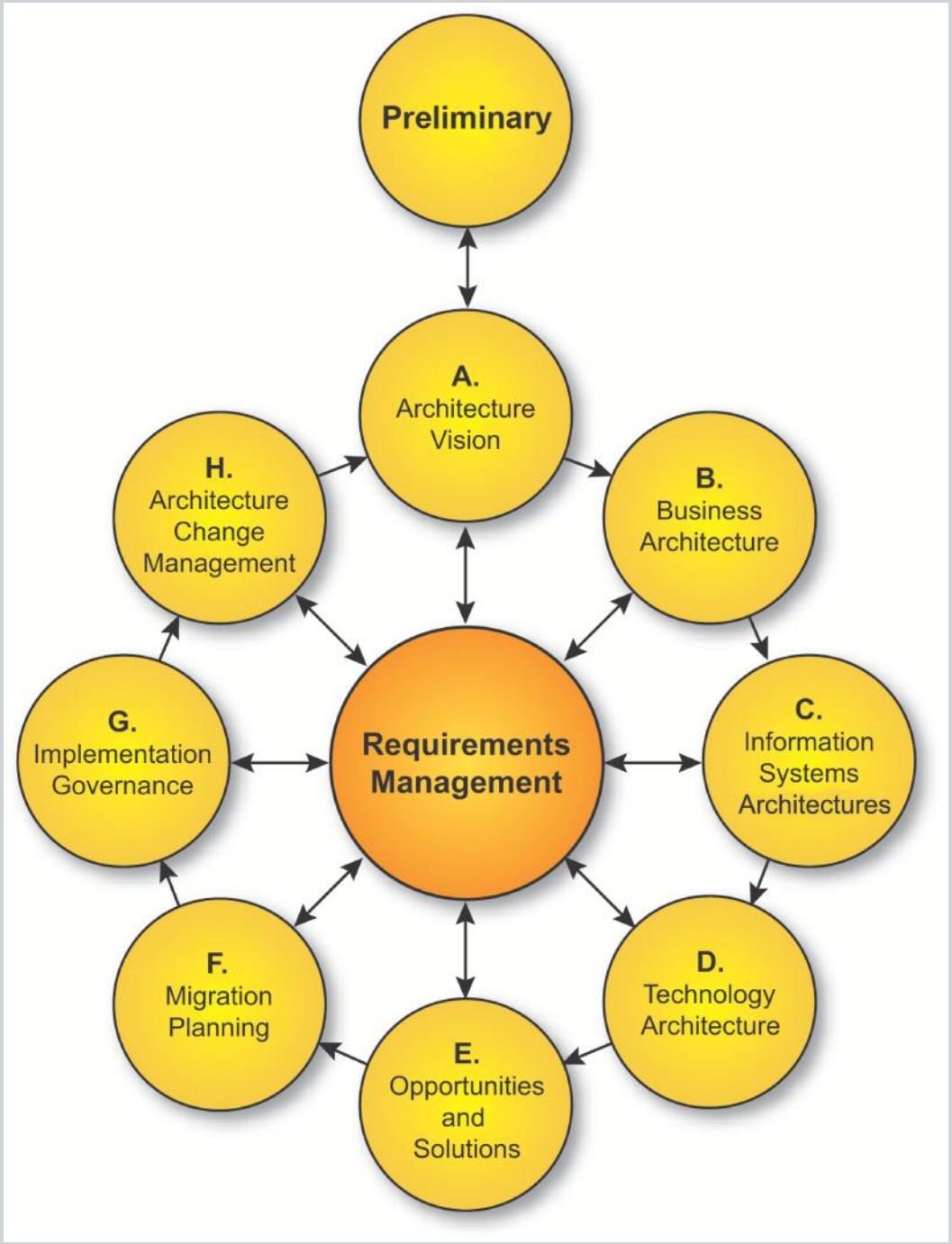
A The TOGAF TRM

B The Zachman Framework

C IT-specific models, such as web services

D The ARTS data model

E Deliverables from previous architecture work




# The Enterprise Continuum & Tools



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