TOGAF®

Version 9.1 Enterprise Edition

Module 8
Preliminary Phase

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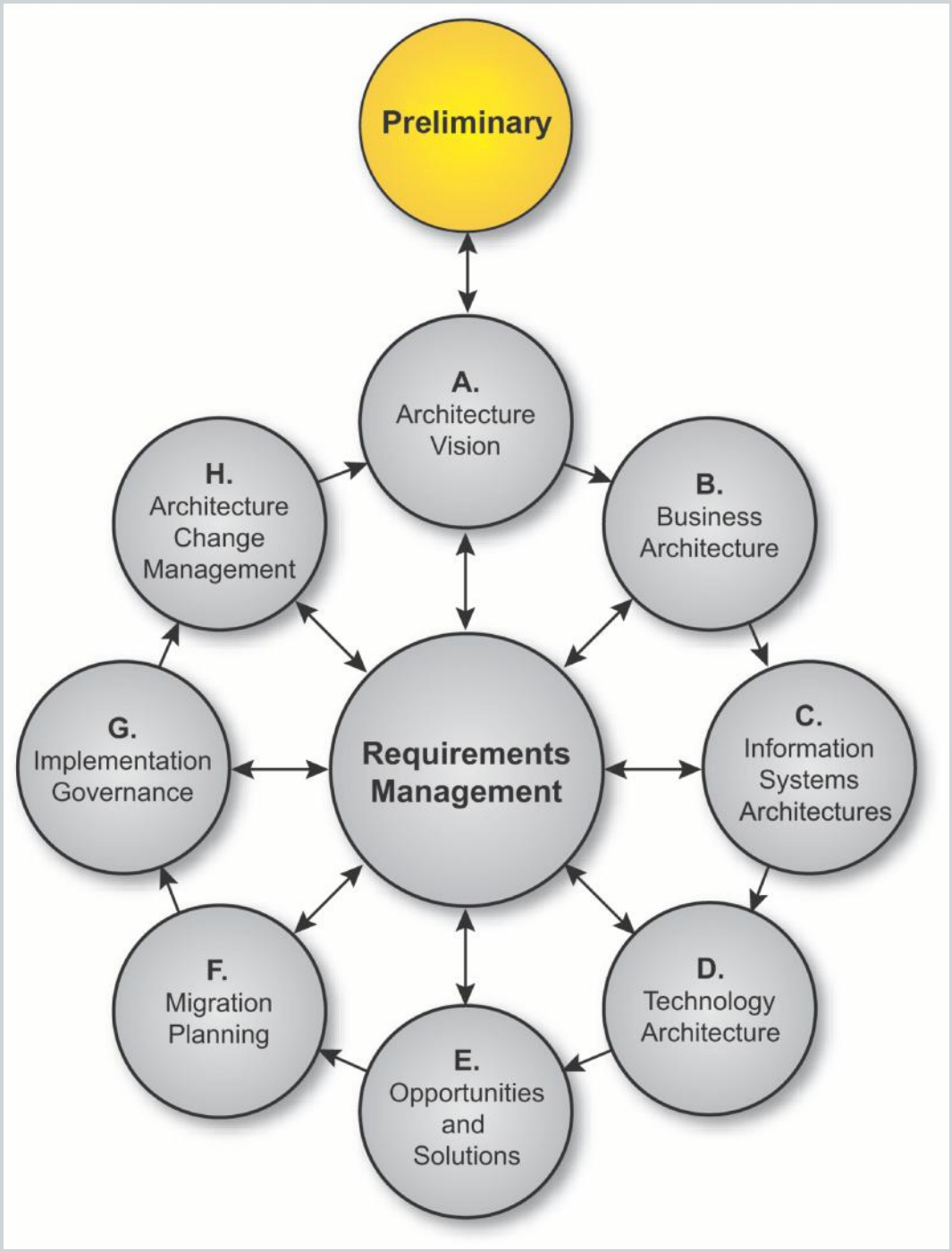
Published by The Open Group, 2011



Preliminary Phase

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Module Objectives

The objectives of this module are to understand the Preliminary Phase:

- Objectives
- Approach
- Steps
- Inputs
- Outputs

Preliminary Phase: Objectives in detail

- Determine the Architecture Capability desired by the Organization:
  - Review the organizational context for conducting enterprise architecture
  - Identify and scope the elements of the enterprise organizations affected by the Architecture Capability
  - Identify the established frameworks, methods, and processes that intersect with the Architecture Capability
  - Establish a Capability Maturity target

Continued...

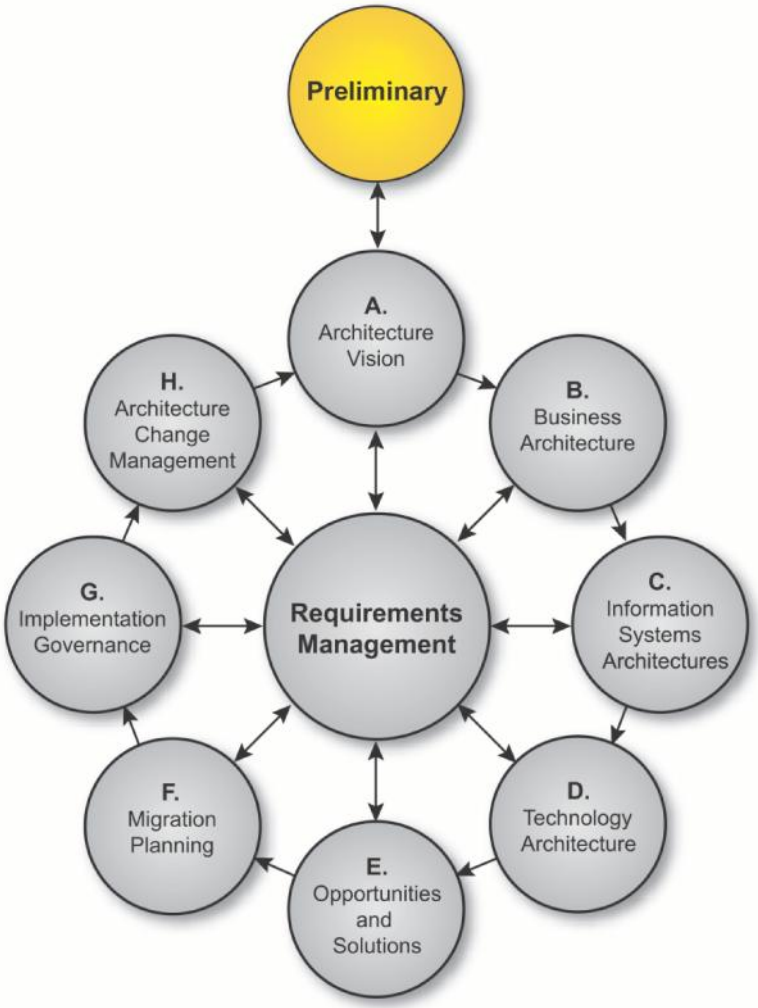
Preliminary Phase: Objectives in detail

- Establish the Architecture Capability:
  - Define and establish the Organizational Model for Enterprise Architecture
  - Define and establish the detailed process and resources for architecture governance
  - Select and implement tools that support the Architecture Capability
  - Define the architecture principles

Approach

- Define the Enterprise
- Identify key drivers and elements in the organizational context
- Define the requirements for architecture work
- Define the architecture principles that will inform any architecture work
- Define the framework to be used
- Define the relationships between management frameworks
- Evaluate the enterprise architecture maturity

Preliminary Phase: Main inputs

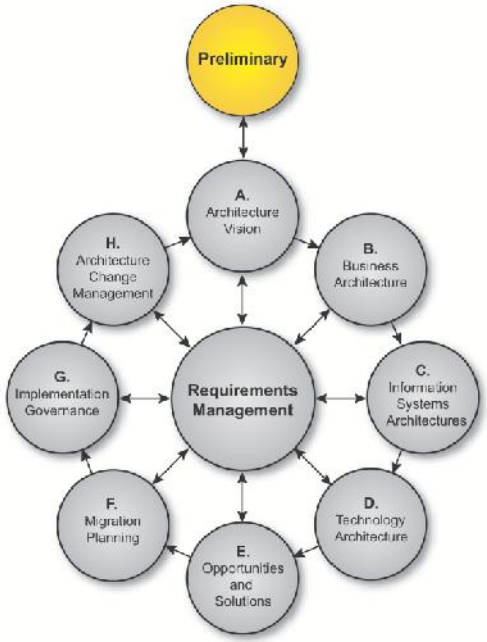


- TOGAF
- Other architecture frameworks
- Business strategies and board business plans, IT strategy
- Business principles, business goals, and business drivers
- Governance and legal frameworks

Any existing:

- organizational model
- architecture framework
- architecture principles
- architecture repository

Steps



6. Implement Architecture Tools

5. Tailor TOGAF, and other Architecture Frameworks, if any

4. Identify Architecture Principles

3. Define & Establish the Enterprise Architecture Team

2. Confirm Governance and Support Frameworks

1. Scope the Enterprise Organizations Impacted

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1. Scope the enterprise organizations impacted

- Identify core enterprise
- Identify soft enterprise
- Identify extended enterprise
- Identify communities
- Identify governance involved

2. Confirm governance and support frameworks

- The major output of this phase is a framework for architecture governance.
- The existing governance and support models of an organization will probably need to change
- The current governance and support models need to be assessed to understand their content.
- Sponsors and stakeholders will need to be consulted concerning the potential impact

As a result of Step 2 the architecture touch-points and likely impacts should be understood and agreed by relevant stakeholders.

3. Define the team and organization

- Determine existing enterprise and business capability
- Conduct an architecture/business change maturity assessment
- Identify gaps in existing work areas
- Allocate key roles and responsibilities for enterprise architecture capability management and governance
- Write requests for change for existing projects
- Scope new enterprise architecture work
- Determine constraints on enterprise architecture work
- Review and agree with sponsors and board
- Assess budget requirements

4. Identify and establish architecture principles

- Principles are rules and guidelines that say how an organization fulfils its mission.
- Enterprise principles enable decision-making
- Architecture principles relate to architecture work, and include:
  - Architecture process principles
  - Architecture implementation principles

Defining Architecture Principles

- Why
  - Architecture principles provide a framework for decision making
- Who
  - Developed by the Enterprise Architects
  - In conjunction with key stakeholders
    - The Enterprise CIO
    - Architecture Board
    - Other key business stakeholders

TOGAF Template for Principles

Name

- Should represent the essence of the rule, and be memorable
- Should not mention specific technology platforms
- Should avoid ambiguous words

Statement

- Should succinctly and unambiguously communicate the fundamental rule

Continued...

TOGAF Template for Principles

Rationale

- Should highlight the business benefits of adhering to the principle, using business terminology
- Should describe the relationship to other principles

Implications

- Should highlight the requirements for the business and for IT for carrying out the principle.
- Should state the business impact and consequences of adopting the principle

An Example Statement of Principles

The following set of principles have been approved by the Internal Architecture Board.

Business Principles:

1. Primacy of Principles
2. Maximize Benefit to the Enterprise
3. Compliance with the Law
4. Availability at Anytime from Anywhere
5. Business Continuity
6. Citizenship

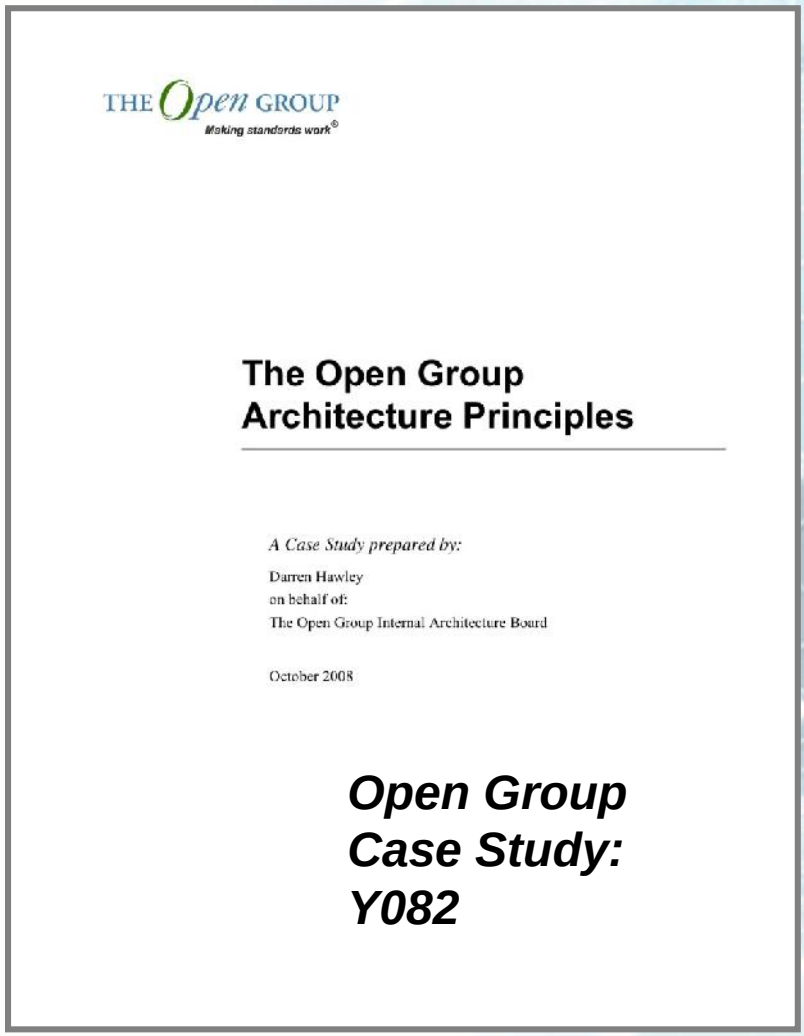
Continued...

An Example Statement of Principles

7. Custodianship
8. De-Customization
9. Painless User Experience
10. Self-Serve
11. Sharing of Information

Architecture Principles:

1. De-Skill
2. One Source
3. Content Management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Architecture Principles

A Case Study prepared by:

Darren Hawley
on behalf of:
The Open Group Internal Architecture Board

October 2008

Open Group Case Study: Y082

Example: Primacy of Principles

Statement	Principles apply throughout the enterprise and override all other considerations when decisions are made
Rationale	The only way we can provide a recognized, consistent and measurable level of operations is if all parts of the enterprise abide by the principles when making decisions
Implications	Without this principle, short-term consideration, supposedly convenient exceptions, and inconsistencies would rapidly undermine the management of information. Information management initiatives will not be permitted to begin until they are examined for compliance with the principles. A conflict with a principle will be resolved by changing the conflicting initiative, which could delay or prevent the initiative.

Example: Self-Serve

Statement	Customers should be able to serve themselves
Rationale	Applying this principle will improve customer satisfaction, reduce administrative overhead, and potentially improve revenue.
Implications	There is an implication to improve ease-of-use and minimize training needs; for example, members should be able to update their contact details, etc. and be able to buy additional membership products online.

Five Qualities of Principles

1. **Understandable**: they can be quickly grasped. Intent is clear and unambiguous.
2. **Robust:** they enable good decisions about architectures and plans, and enable enforceable policies and standards to be created. A principle must be precise to support consistent decision making in complex situations.
3. **Complete:** every potentially important principle governing the management of IT is defined. Principles cover every situation perceived.

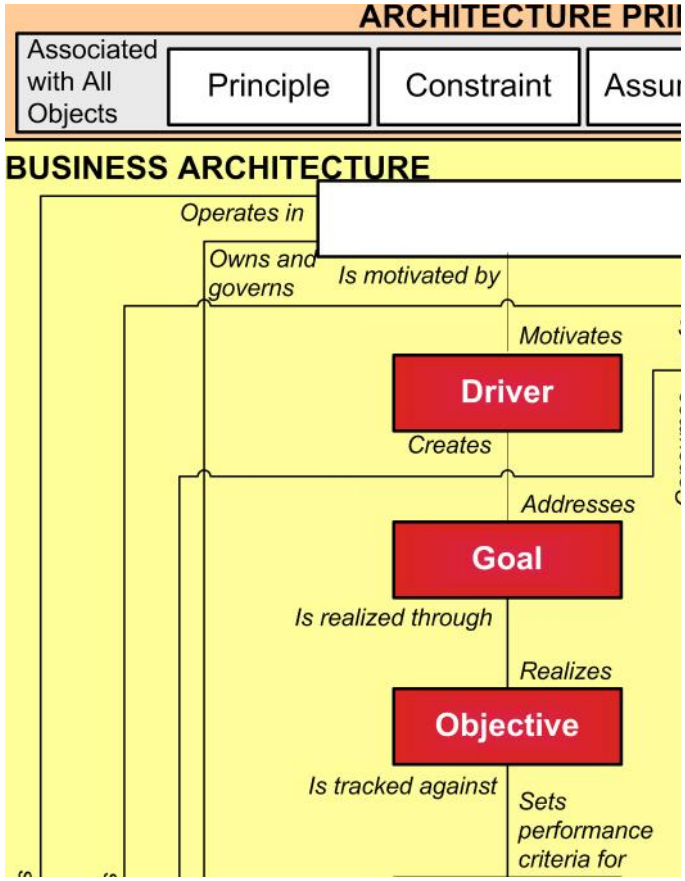
Continued...

Five Qualities of Principles

4. **Consistent:** strict adherence to one principle may require loose interpretation of another. Principles must be expressed in a way that allows a balance of interpretations and should not be contradictory.
5. **Stable:** Principles must be enduring, yet able to accommodate change.

An amendment process should be established for adding, removing, or altering principles after they are ratified.

Principles and the Metamodel



- Information related to Principles can be modeled, if the right information is captured
- The metamodel relates Principles back to specific drivers, goals and objectives

5. Tailor TOGAF and, if any, other Selected Architecture Frameworks

- **Terminology Tailoring**: it is best to use terminology that is understood across the enterprise.
- **Process Tailoring**: the ADM is a generic process. Process tailoring allows us to remove tasks that are done elsewhere, add organization-specific tasks and align the ADM processes with external process frameworks.
- **Content Tailoring**: using the TOGAF Architecture Content Framework, this allows adoption of third-party content frameworks and customization of the framework to support organization-specific requirements

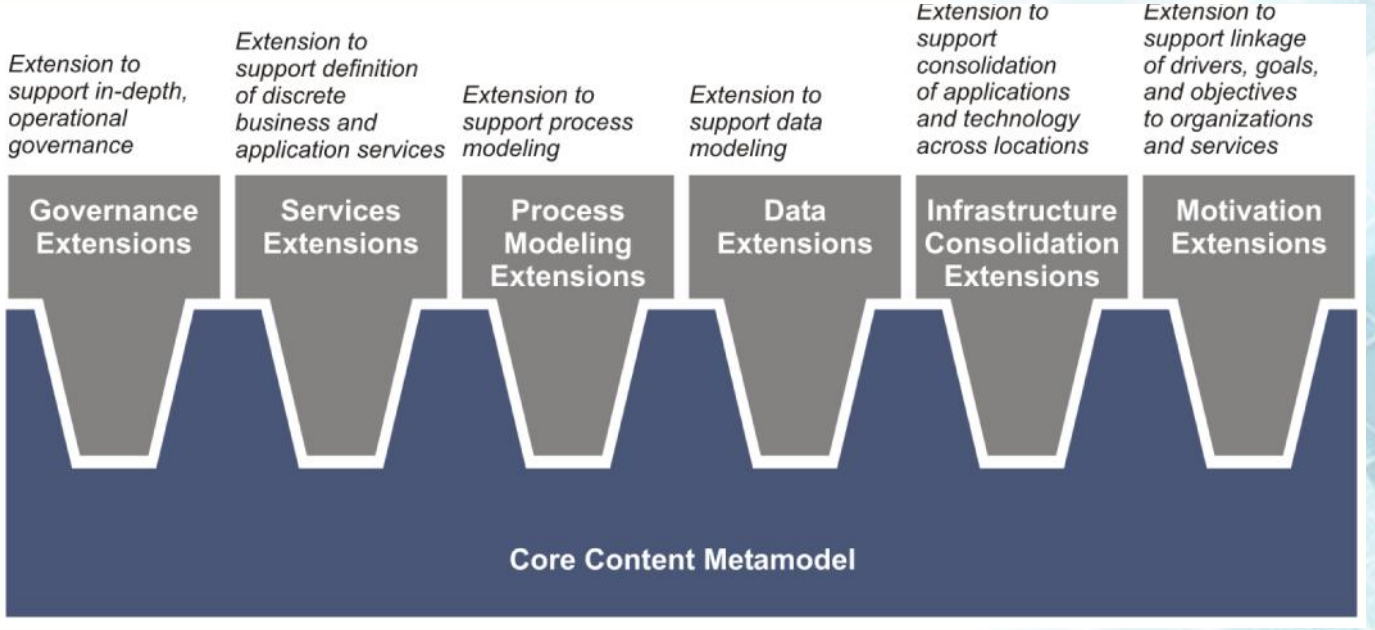
Terminology Tailoring

- Lack of agreement on the precise meanings of terms can cause problems of communication during the Architecture Engagement.
- Define and agree standard terminology
- Provide a Glossary, if appropriate

Process Tailoring

- Re-order the phases of the ADM
- Only use a subset of the phases
- Complete the Information Systems or Technology Architecture first

Content Tailoring



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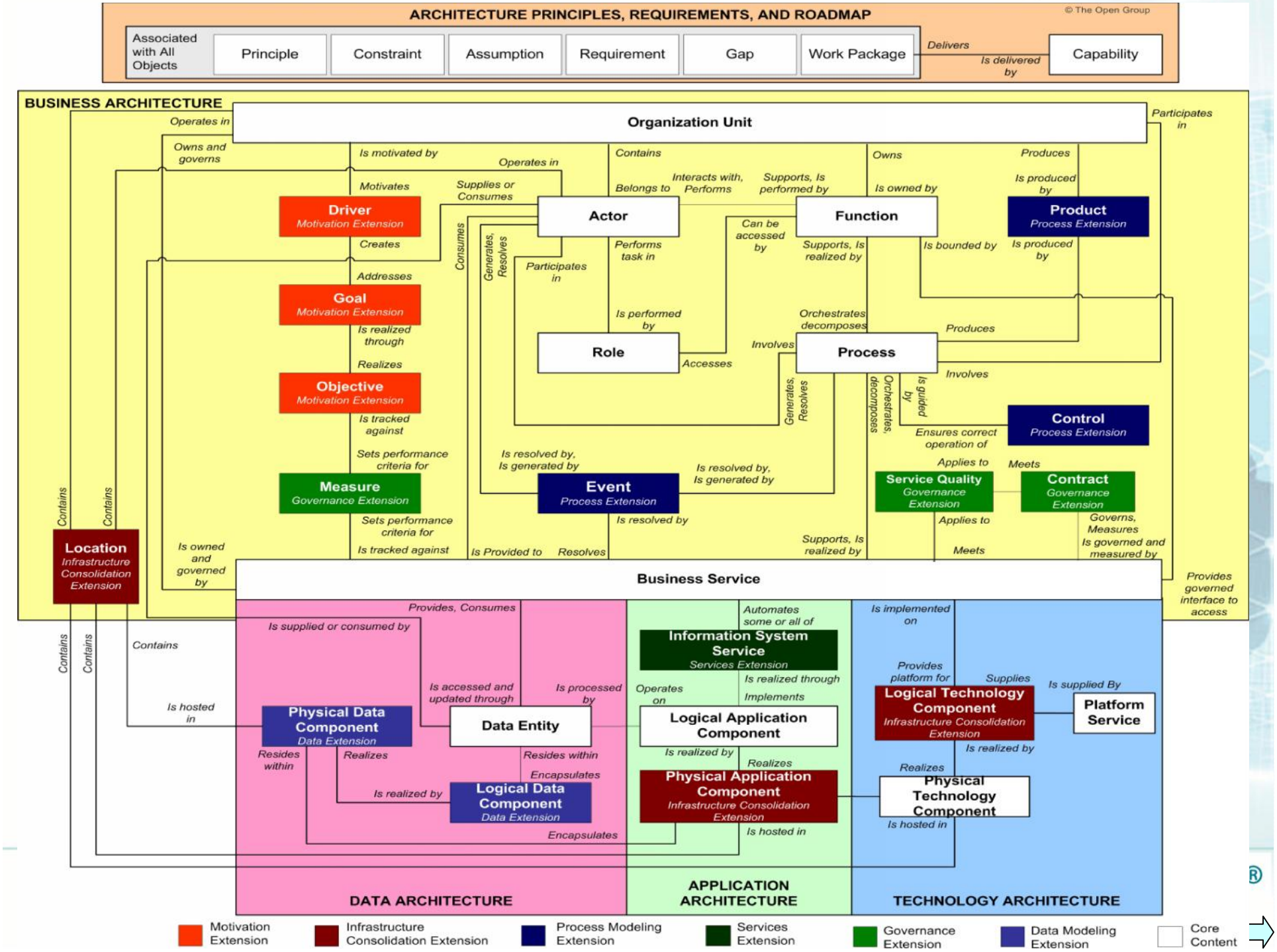
ARCHITECTURE PRINCIPLES, REQUIREMENTS, AND ROADMAP
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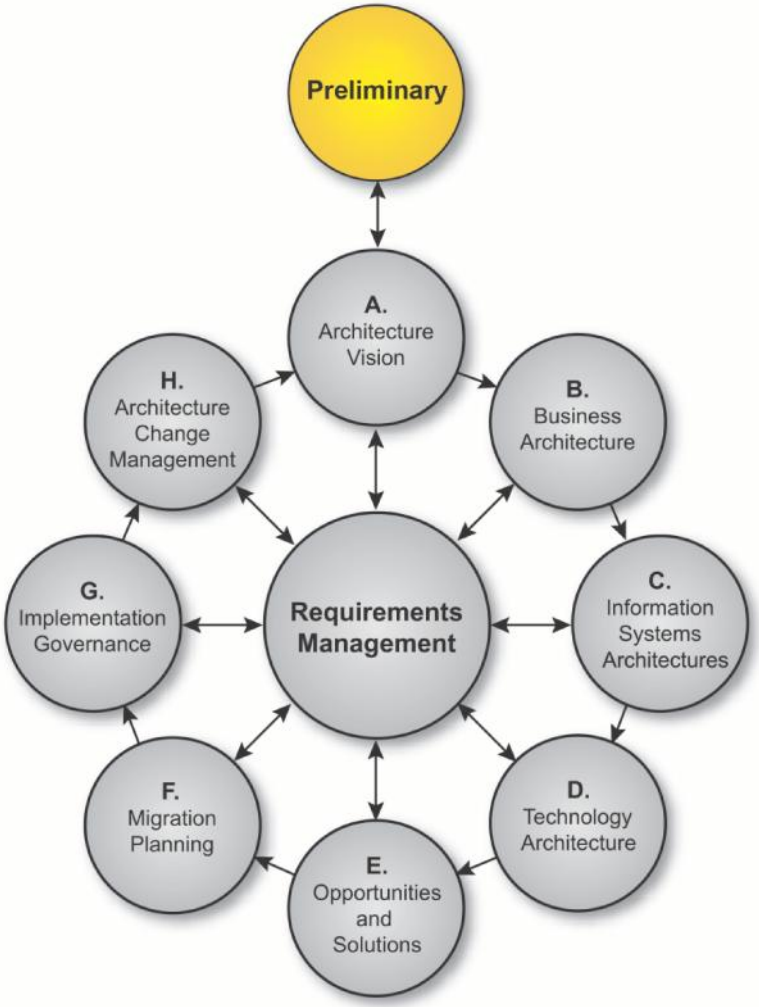
Associated with All Objects
Principle
Constraint
Assumption
Requirement
Gap
Work Package
Delivers
Is delivered by
Capability
BUSINESS ARCHITECTURE
Organization Unit
Operates in
Participates in
Owns and governs
Is motivated by
Operates in
Contains
Owns
Produces
Motivates
Supplies or Consumes
Belongs to
Interacts with, Performs
Supports, Is performed by
Is owned by
Is produced by
Driver
Motivation Extension
Actor
Function
Product
Process Extension
Creates
Consumes
Generates, Resolves
Performs task in
Can be accessed by
Supports, Is realized by
Is bounded by
Is produced by
Addresses
Participates in
Goal
Motivation Extension
Is realized through
Is performed by
Orchestrates decomposes
Produces
Role
Involves
Process
Realizes
Accesses
Involves
Objective
Motivation Extension
Is tracked against
Generates, Resolves
Orchestrates, decomposes
Is guided by
Control
Process Extension
Sets performance criteria for
Is resolved by, Is generated by
Ensures correct operation of
Applies to
Meets
Measure
Governance Extension
Event
Process Extension
Is resolved by, Is generated by
Service Quality
Governance Extension
Contract
Governance Extension
Contains
Contains
Sets performance criteria for
Is resolved by
Applies to
Governs, Measures
Location
Infrastructure Consolidation Extension
Is owned and governed by
Is Provided to
Resolves
Supports, Is realized by
Meets
Is governed and measured by
Business Service
Provides governed interface to access
Provides, Consumes
Is supplied or consumed by
Automates some or all of
Is implemented on
Contains
Contains
Contains
Information System Service
Services Extension
Provides platform for
Supplies
Is supplied By
Is accessed and updated through
Is processed by
Operates on
Is realized through
Implements
Logical Technology Component
Infrastructure Consolidation Extension
Platform Service
Is hosted in
Physical Data Component
Data Extension
Data Entity
Logical Application Component
Is realized by
Resides within
Realizes
Resides within
Realizes
Realizes
Encapsulates
Is realized by
Logical Data Component
Data Extension
Physical Application Component
Infrastructure Consolidation Extension
Physical Technology Component
Encapsulates
Is hosted in
Is hosted in
DATA ARCHITECTURE
APPLICATION ARCHITECTURE
TECHNOLOGY ARCHITECTURE
Motivation Extension
Infrastructure Consolidation Extension
Process Modeling Extension
Services Extension
Governance Extension
Data Modeling Extension
Core Content

6. Implement architecture tools

In this step we must select appropriate architecture tools.

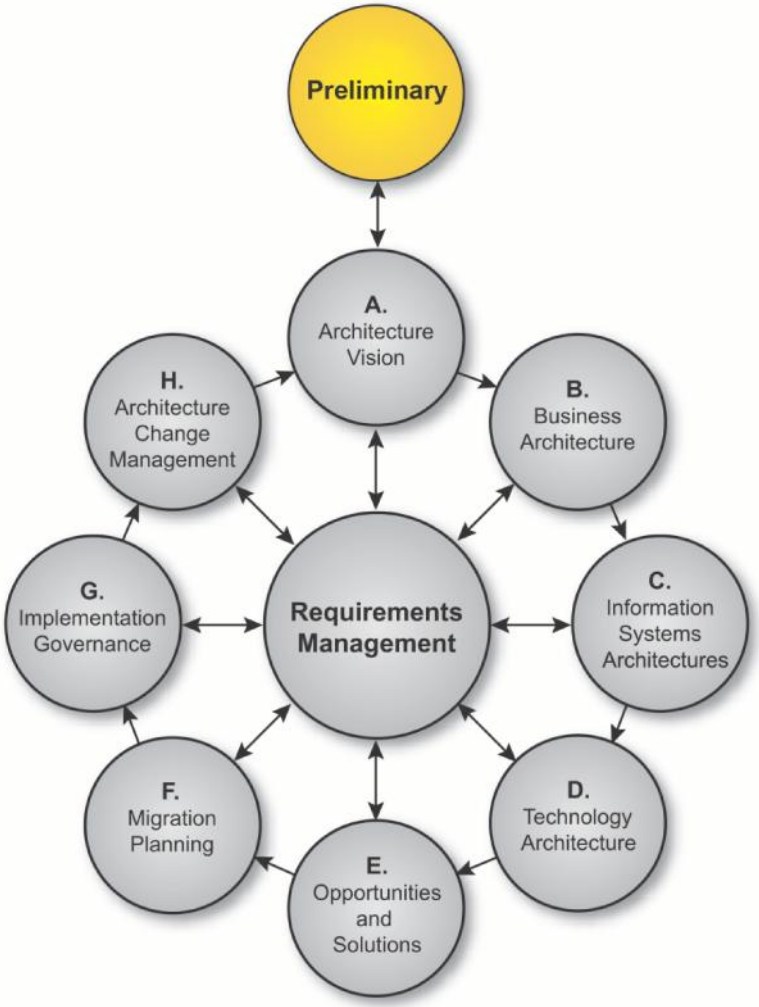
- The implementation of the tools may range from a trivial task to a more involved system implementation activity utilizing the TOGAF Content Metamodel

Preliminary Phase: Outputs



- Organizational model for enterprise architecture
- Tailored Architecture Framework, including architecture principles
- Initial Architecture Repository
- Restatement of business principles, goals and drivers
- Request for Architecture Work
- Architecture Governance Framework

Summary



- The main objective of the preliminary phase is to prepare an organization for a successful Enterprise Architecture project by defining “how we do architecture”

Continued...

Summary

Preliminary Phase			
Objectives	**Steps**	**Inputs**	**Outputs**
Determine the Architecture Capability desired by the organization: • Review the organizational context for conducting enterprise architecture • Identify and scope the elements of the enterprise organizations affected by the Architecture Capability • Identify the established frameworks, methods, and processes that intersect with the Architecture Capability • Establish Capability Maturity target Establish the Architecture Capability: • Define and establish the Organizational Model for Enterprise Architecture • Define and establish the detailed process and resources for architecture governance • Select and implement tools that support the architecture activity • Define the Architecture Principles	Scope the enterprise organizations impacted Confirm governance and support frameworks Define and establish enterprise architecture team and organization Identify and establish architecture principles Tailor TOGAF and, if any, other selected Architecture Frameworks Implement architecture tools	TOGAF Other architecture framework(s) Board strategies, business plans, business strategy, IT Strategy, business principles, business goals, and business drivers Governance and legal frameworks Architecture capability Partnership and contract agreements Existing organizational model for enterprise architecture Existing architecture framework, if any, including: • Architecture method • Architecture content • Configured and deployed tools • Architecture Principles • Architecture Repository	Organizational Model for Enterprise Architecture Tailored Architecture Framework, including architecture principles Initial Architecture Repository Restatement of, or reference to, business principles, business goals, and business drivers Request for Architecture Work Architecture Governance Framework

Preliminary Phase
- Principles catalog

Phase A, Architecture Vision
- Stakeholder Map Matrix
- Solution Concept diagram
- Value Chain diagram

Requirements Management
- Requirements catalog

Phase B, Business Architecture
- Organization/Actor catalog
- Driver/Goal/Objective catalog
- Role catalog
- Business Service/Function catalog
- Location catalog
- Process/Event/Control/Product catalog
- Contract/Measure catalog
- Business Interaction matrix
- Actor/Role matrix
- Business Footprint diagram
- Business Service/Information diagram
- Functional Decomposition diagram
- Product Lifecycle diagram
- Goal/Objective/Service diagram
- Business Use-Case diagram
- Organization Decomposition diagram
- Process Flow diagram
- Event diagram

Phase C, Data Architecture
- Data Entity/Data Component catalog
- Data Entity/Business Function matrix
- Application/Data matrix
- Logical Data diagram
- Data Dissemination diagram
- Data Security diagram
- Class Hierarchy diagram
- Data Migration diagram
- Data Lifecycle diagram

Phase C, Application Architecture
- Application Portfolio catalog
- Interface catalog
- Application/Organization matrix
- Role/Application matrix
- Application/Function matrix
- Application Interaction matrix
- Application Communication diagram
- Application and User Location diagram
- Application Use-Case diagram
- Enterprise Manageability diagram
- Process/Application Realization diagram
- Software Engineering diagram
- Application Migration diagram
- Software Distribution diagram

Phase D, Technology Architecture
- Technology Standards catalog
- Technology Portfolio catalog
- System/Technology matrix
- Environments and Locations diagram
- Platform Decomposition diagram
- Processing diagram
- Networked Computing/Hardware diagram
- Communications Engineering diagram

Phase E. Opportunities & Solutions
- Project Context diagram
- Benefits diagram

TOGAF 9 Artifacts

P

Catalogs

Catalog	Purpose
Principles Catalog	The Principles catalog captures principles of the business and architecture principles that describe what a "good" solution or architecture should look like. Principles are used to evaluate and agree an outcome for architecture decision points. Principles are also used as a tool to assist in architectural governance of change initiatives. The Principles catalog contains the following metamodel entities: * Principle

Exercises

- Select 7 principles at random from the *Example Set of Architecture Principles* in TOGAF Chapter 23
- For each selected principle state whether it applies to your organization or not, and give your reasons.

Test Yourself Question

Q. Which one of the following is completed during the Preliminary Phase of the TOGAF ADM?

A. Architecture Principles
B. Gap Analysis
C. Impact Analysis
D. Statement of Architecture Work
E. Requirements Gathering

TOGAF Set of Principles

- Primacy of Principles
- Maximize Benefit to the Enterprise
- Information Management is Everybody's Business
- Business Continuity
- Common Use Applications
- Service Orientation
- Compliance with Law
- IT Responsibility
- Protection of Intellectual Property

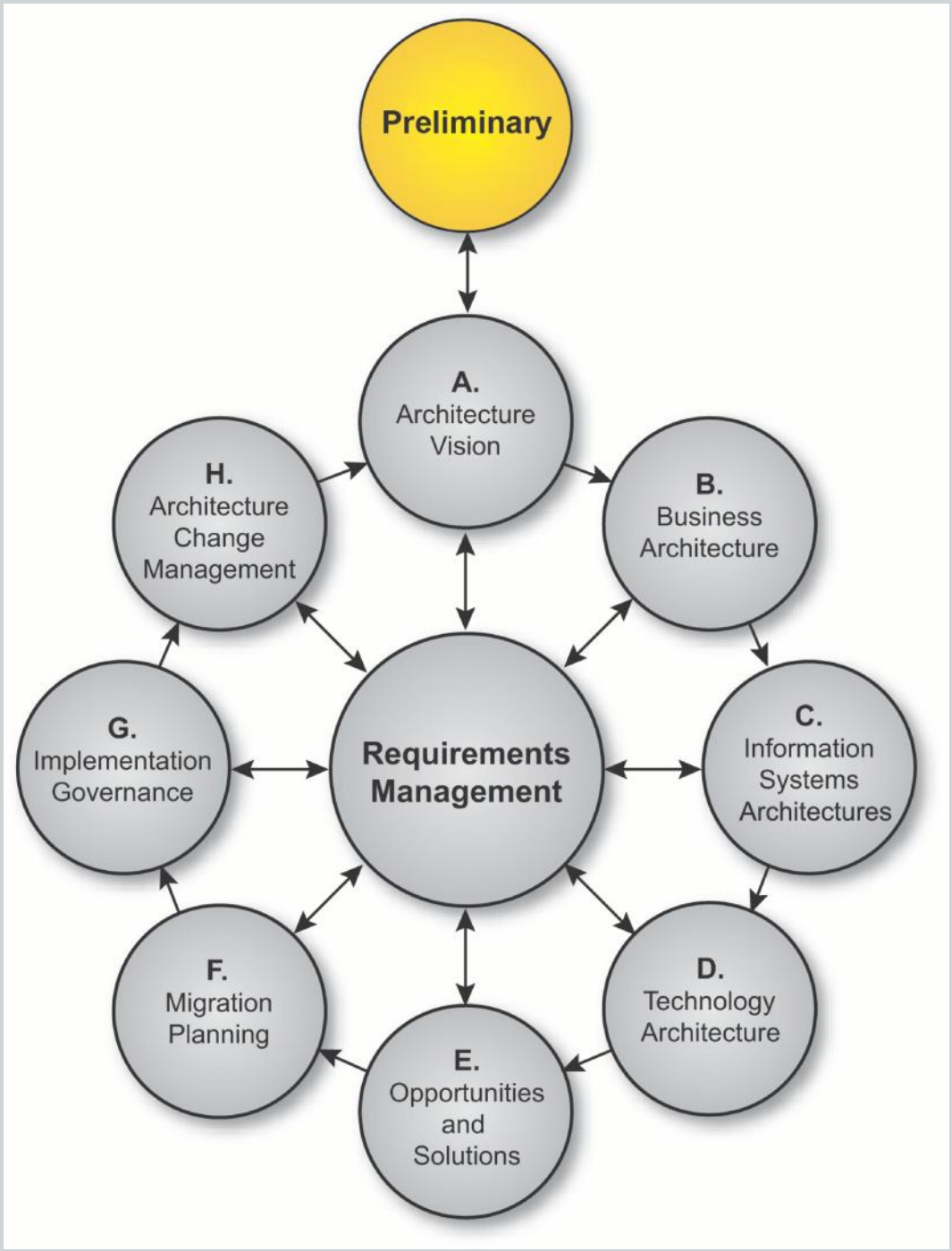
- Data is an Asset
- Data is Shared
- Data is Accessible
- Data Trustee
- Common Vocabulary and Data Definitions
- Data Security

- Technology Independence
- Ease-of-Use
- Requirements-Based Change
- Responsive Change Management
- Control Technical Diversity
- Interoperability

Test Yourself Question

Q. Which one of the following is a reason to adapt the ADM?

A. The use of TOGAF is being integrated with another framework.
B. The ADM is being used for a purpose other than enterprise architecture.
C. The enterprise is a large federated organization.
D. The IT Governance model needs to be tailored.
E. All of the answers above.



Preliminary Phase

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