An Overview of TOGAF® Version 9.1

Robert Weisman
MSc, PEng, PMP, CD
CEO / Chief Enterprise Architect

robert.weisman@buildthevision.ca

1168 Ste Therese
Ottawa, Ontario
Canada
K1C2A6

Tel +1 613 841 5118
www.buildthevision.ca

TOGAF is a registered trademark of The Open Group in the United States and other countries

Copyright © The Open Group 2011

THE Open GROUP

Agenda

- Background on TOGAF®
- TOGAF® Version 9.1
- TOGAF® 9 Certification
- Q&A

Copyright © The Open Group 2011

What is TOGAF®?

- TOGAF, an Open Group Standard:
  - A proven enterprise architecture methodology and framework used by the world's leading organizations to improve business efficiency
  - The most prominent and reliable enterprise architecture standard, ensuring consistent standards, methods, and communication among enterprise architecture professionals
  - Enterprise architecture professionals fluent in TOGAF standards enjoy greater industry credibility, job effectiveness, and career opportunities
  - TOGAF helps practitioners avoid being locked into proprietary methods, utilize resources more efficiently and effectively, and realize a greater return on investment

Copyright © The Open Group 2011

THE Open GROUP

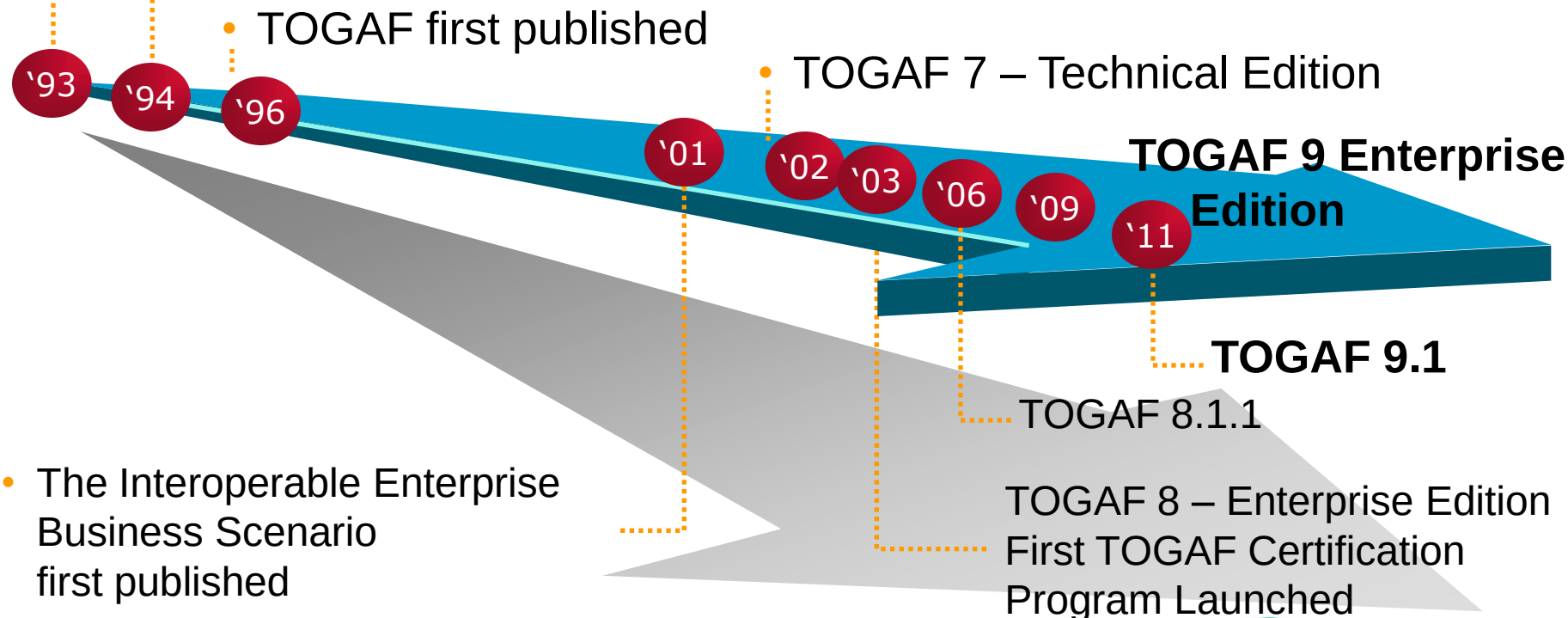
The Origins of TOGAF®

- A customer initiative
- A framework, not an architecture
  - A generic framework for developing architectures to meet different business needs
  - Not a “one-size-fits-all” architecture
- Originally based on TAFIM (U.S. DoD)

Copyright © The Open Group 2011

Member (End User) Driven

- Customer members demand architecture standards …
  - Customer members select TAFIM as preferred starting point…
  - DoD Information Systems Agency (DISA) donate TAFIM as base



- The Interoperable Enterprise Business Scenario first published

Copyright © The Open Group 2011

THE Open GROUP

Why TOGAF® ?

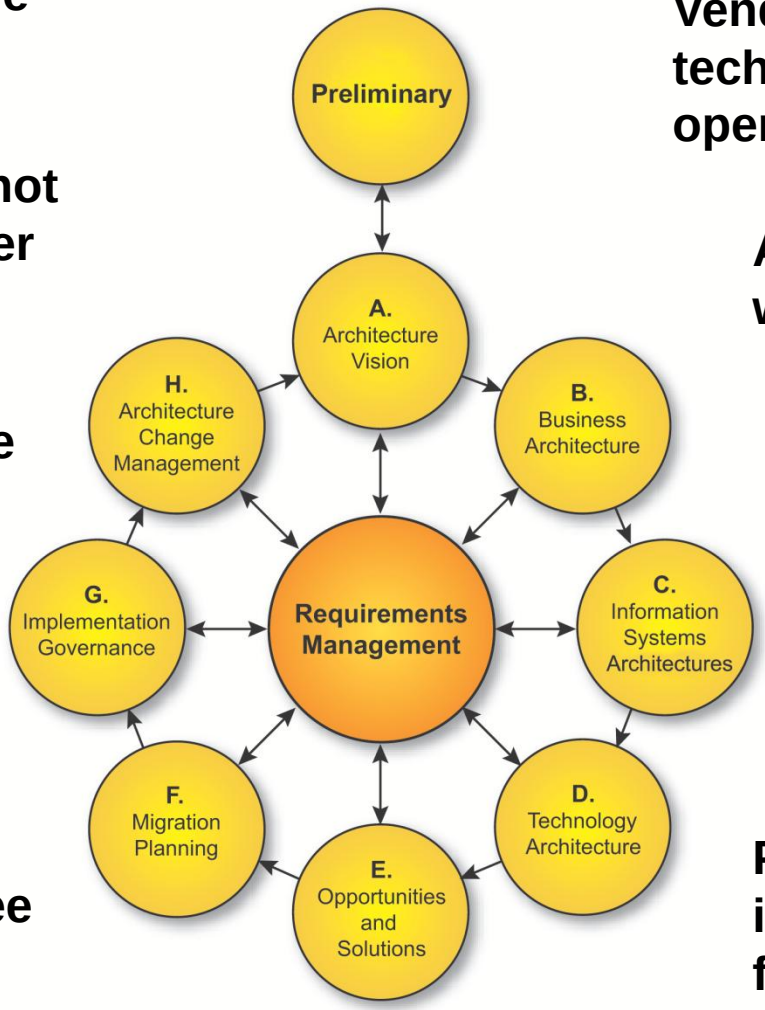
A comprehensive general method

Complementary to, not competing with, other frameworks

Widely adopted in the market

Tailorable to meet an organization and industry needs

Available under a free perpetual license



Vendor, tool and technology neutral open standard

Avoids re-inventing the wheel

Business IT alignment

Based in best practices

Possible to participate in the evolution of the framework

Copyright © The Open Group 2011

THE Open GROUP

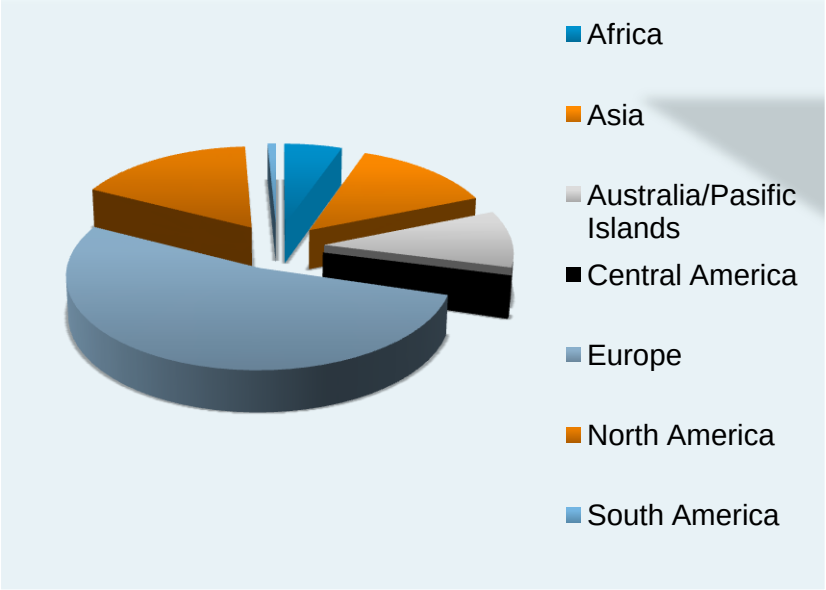
TOGAF® Momentum

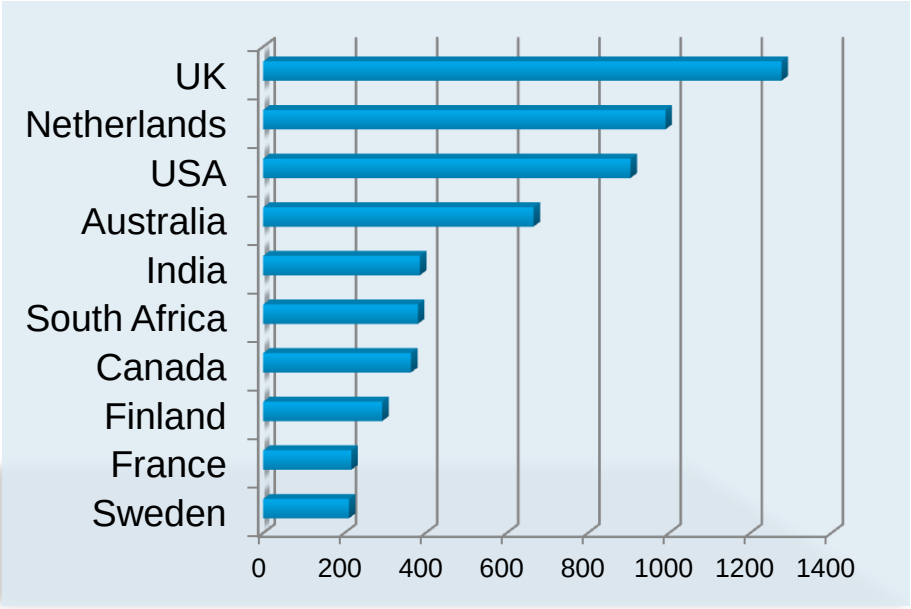
- More than 100,000 downloads
- Over 16,000 certified practitioners
- More than 220 corporate members of The Open Group Architecture Forum
- Over 55,000 TOGAF series books shipped
- Association of Enterprise Architects membership at more that 20,000

Copyright © The Open Group 2011

TOGAF® Certification Statistics

- TOGAF® 9
  - Foundation (3100)
  - Certified (7200)
  - Total (10,300) since February 2009
- TOGAF® 8
  - 7564





Copyright © The Open Group 2011

THE Open GROUP

TOGAF® 9 Market Drivers

- Ongoing quest for Boundaryless Information Flow™
- In a survey of members, the three most prominent views:
  - The need for closer alignment with the business
  - The desire for simple implementation, greater usability
  - The next version of TOGAF should be an evolution rather than a revolution
- Consideration for different architectural styles, e.g. SOA
- Security is an increasing concern for CIOs and Enterprise Architects due to disappearance of traditional boundaries
- Need for greater detail on Architecture Development Method (ADM)

Copyright © The Open Group 2011

Introducing TOGAF® 9

- Developed, reviewed and approved by a collaborative of 300 members from some of the world's leading IT customers and vendors
- An evolution from TOGAF 8.1.1 that preserves existing investments
  - The core Architecture Development Method
  - Existing investment in people - knowledge and skills
  - Existing investment in tools
- Expanded detail and clarification of existing proof points
- Restructured for better usability
- More focused on holistic enterprise change
- Clear links between business and IT objects
- Increased consistency of output

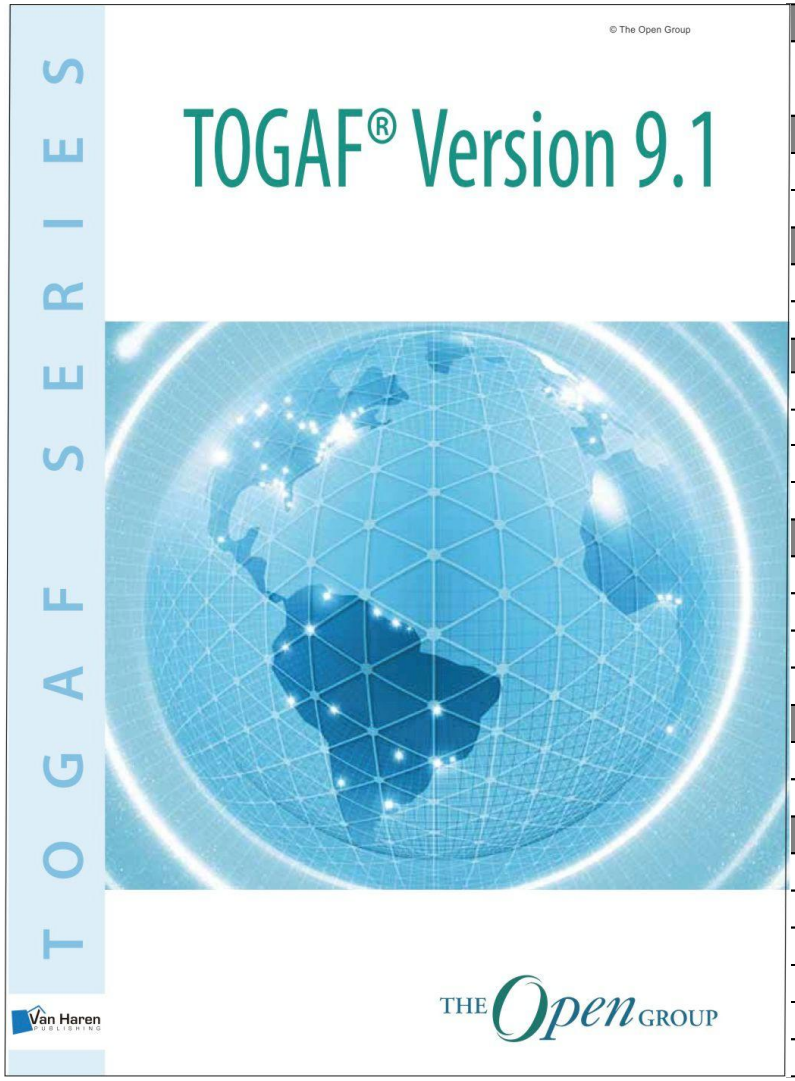
Copyright © The Open Group 2011

TOGAF® 9.1

- TOGAF 9.1 was released in December 2011
- It is the first maintenance update to TOGAF 9
- It is an upwards-compatible evolution from TOGAF 9, addressing usage feedback and comments raised
  - It addresses over 400 comments received
  - Contains over 450 changes
- TOGAF 9 Technical Corrigendum 1 (Document U112) is available describing each change in detail

Copyright © The Open Group 2011

The TOGAF® 9.1 Standard

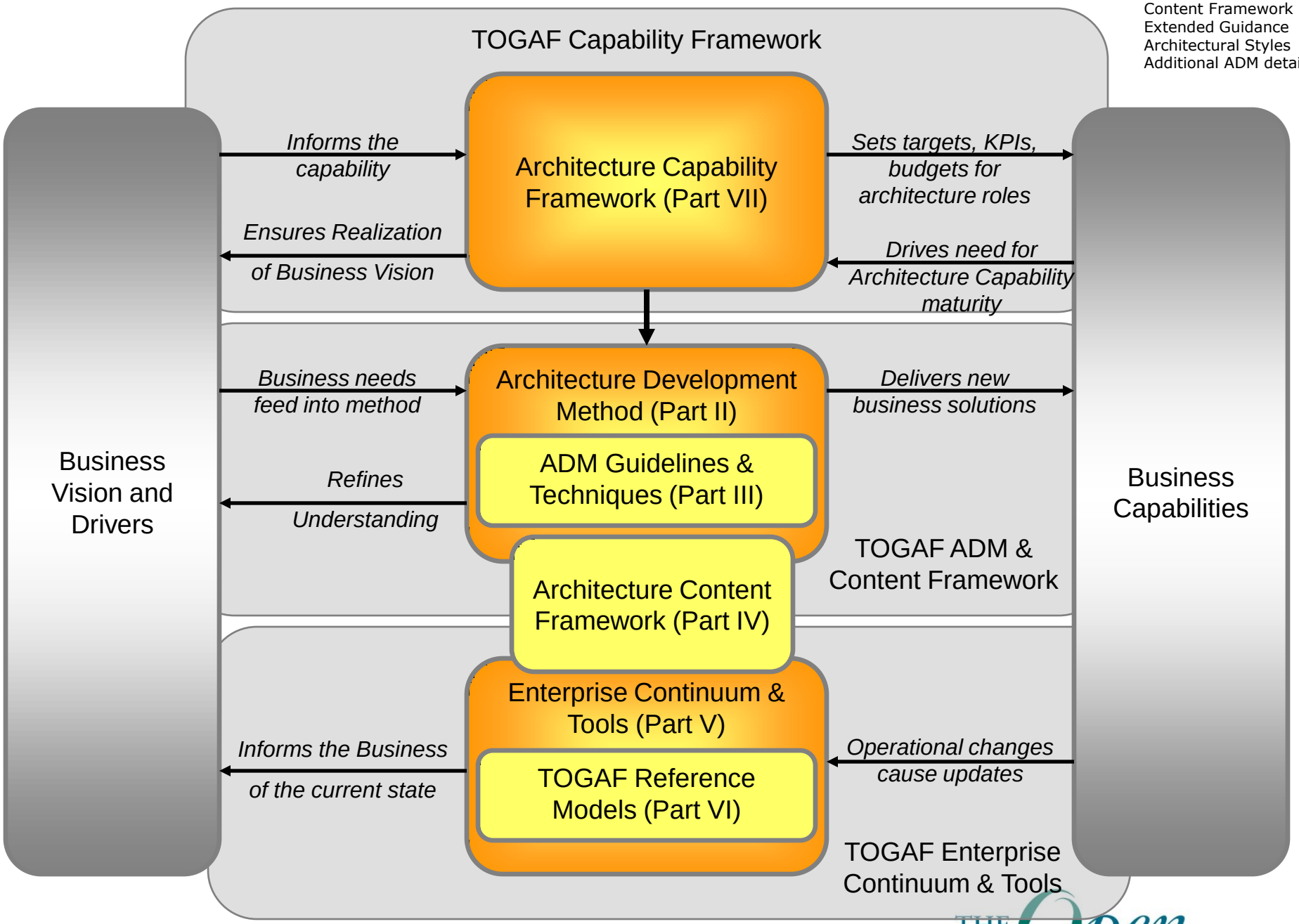


Part I - Introduction
Preface, Executive Overview, Core Concepts, Definitions and Release Notes
Part II – Architecture Development Method
Introduction to ADM
ADM Phase Narratives
Part III – ADM Guidelines and Techniques
Guidelines for Adapting the ADM Process
Techniques for Architecture Development
Part IV – Architecture Content Framework
Content Metamodel
Architectural Artifacts
Architecture Deliverables
Building Blocks
Part V – Enterprise Continuum and Tools
Enterprise Continuum
Architecture Partitioning
Architecture Repository
Tools for Architecture Development
Part VI – TOGAF Reference Models
Foundation Architecture: Technical Reference Model
Integrated Information Infrastructure Reference Model
Part VII – Architecture Capability Framework
Architecture Board
Architecture Compliance
Architecture Contracts
Architecture Governance
Architecture Maturity Models
Architecture Skills Framework

Copyright © The Open Group 2011

THE Open GROUP

Modular Structure
Content Framework
Extended Guidance
Architectural Styles
Additional ADM detail

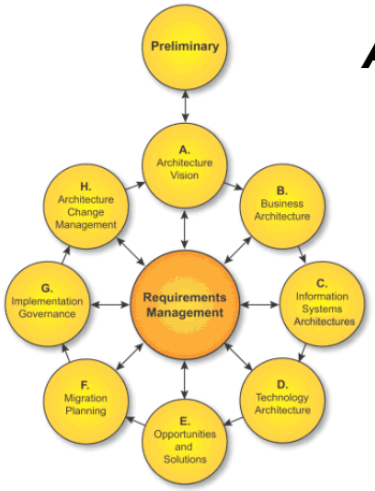


Copyright © The Open Group 2011

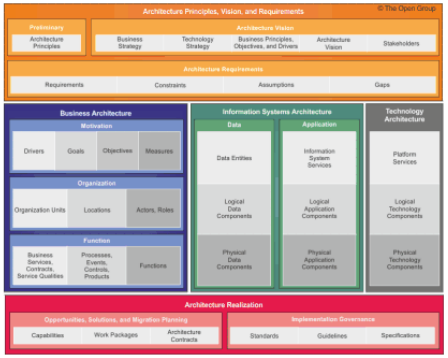
THE Open GROUP

TOGAF® 9 Components

ADM

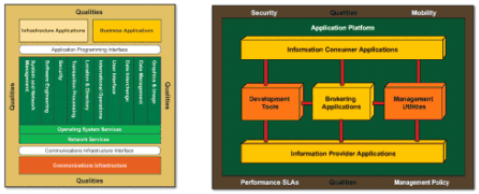


Architecture Content Framework

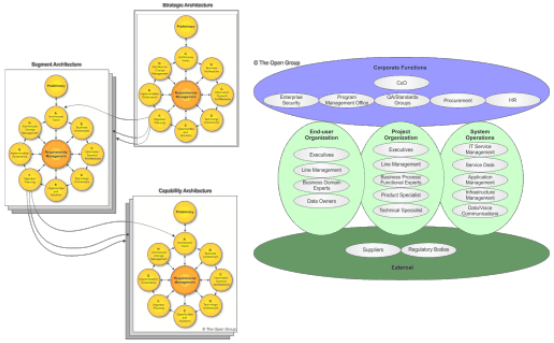


Reference Models

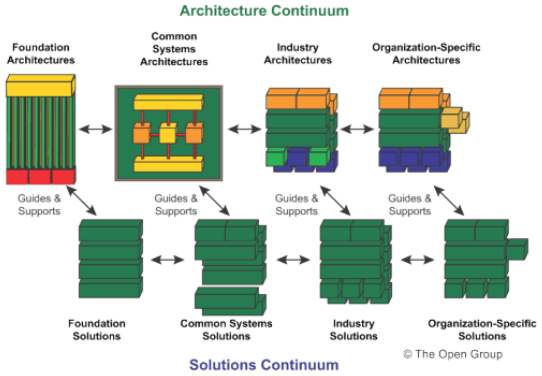
© The Open Group



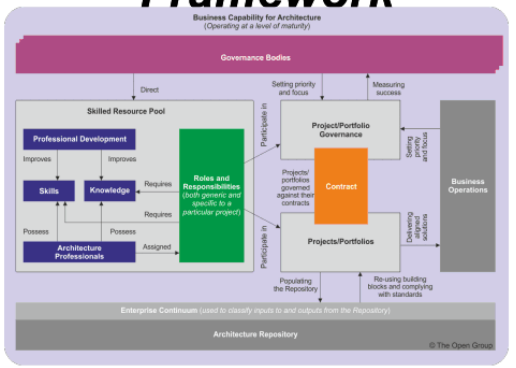
ADM Guidelines & Techniques



Enterprise Continuum



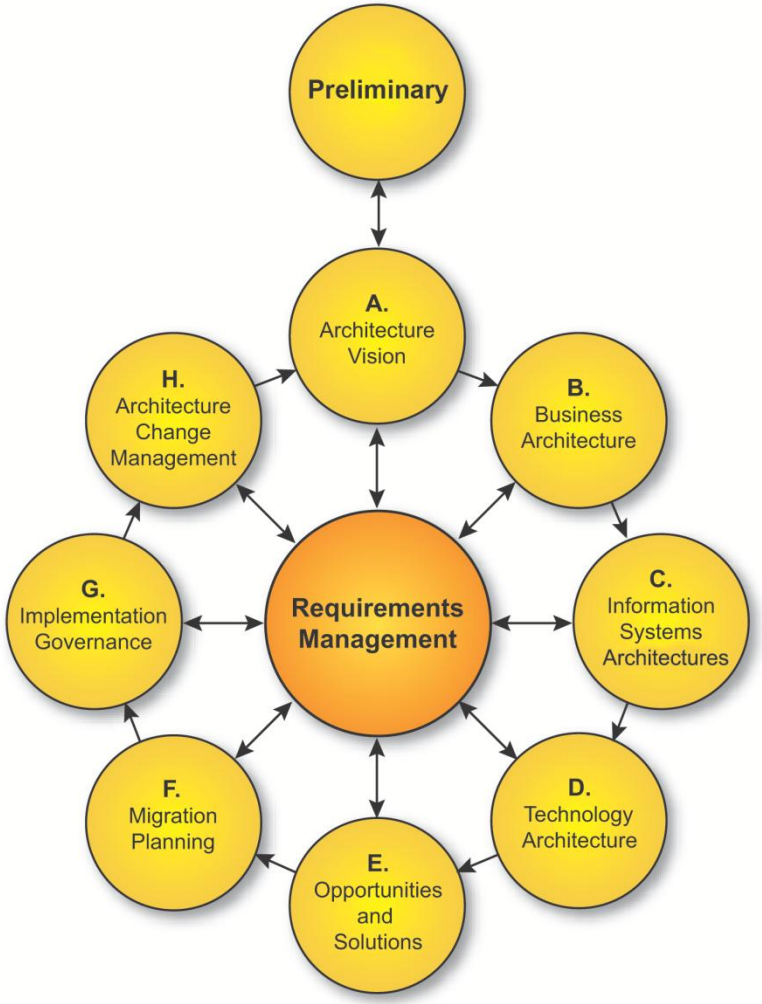
Architecture Capability Framework



Copyright © The Open Group 2011

THE Open GROUP

The Architecture Development Method

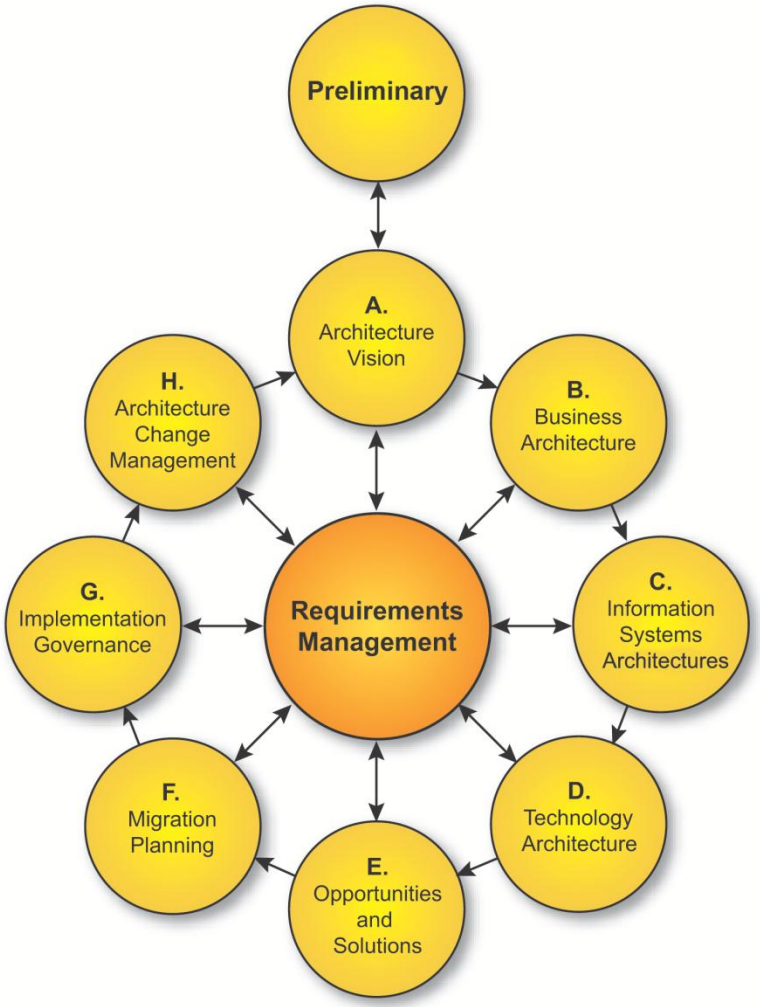


- The core of TOGAF
- A proven way of developing an architecture
- Specifically designed to address business requirements
- An iterative method
- A set of architecture views to ensure that a complex set of requirements are adequately addressed

Copyright © The Open Group 2011

THE Open GROUP

ADM – Basic Principles



An iterative method, over the whole process, between phases and within phases

Each iteration = new decisions:

- Enterprise coverage
- Level of detail
- Time horizon
- Architecture asset re-use:
  - previous ADM iterations
  - other frameworks, system models, industry models,…

Decisions based on:

- Competence / resource availability
- Value accruing to the enterprise.

Copyright © The Open Group 2011

THE Open GROUP

Prepare the organization for a successful architecture project

Set the scope, constraints and expectations for a TOGAF project; create the Architecture Vision; validate the business context; create the Statement of Architecture Work

Provide continual monitoring and a change management process to ensure that the architecture responds to the needs of the enterprise

Develop Business Architecture
Develop baseline and target architectures and analyze the gaps

Provide architectural oversight for the implementation; ensure that the implementation project conforms to the architecture

Develop Information Systems Architectures
Develop baseline and target architectures and analyze the gaps

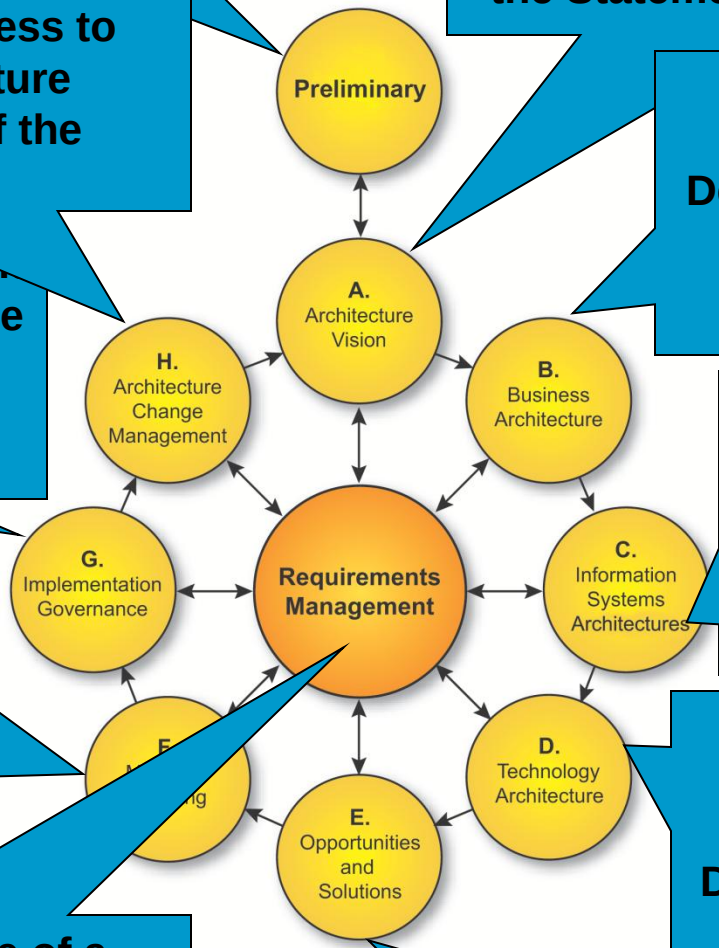
Analyze costs, benefits and risks; develop detailed Implementation and Migration Plan

Develop Technology Architecture

Develop baseline and target architectures and analyze the gaps

Ensure that every stage of a TOGAF project is based on and validates business requirements

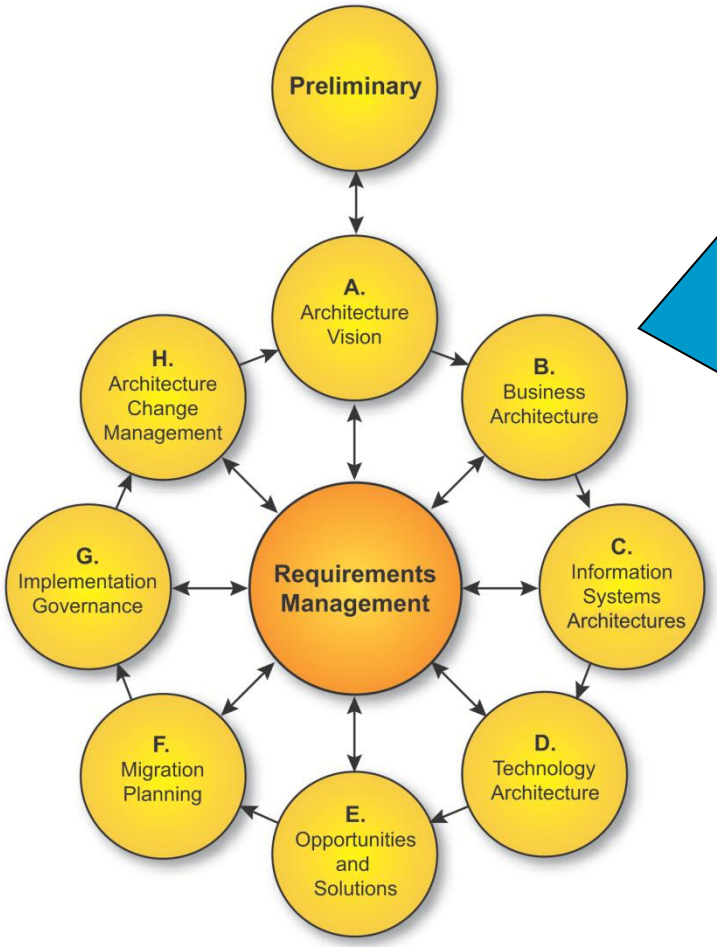
Perform initial implementation planning; identify major implementation projects



Copyright © The Open Group 2011

GROUP

ADM Phase Steps Example



The order of the steps should be adapted to the situation.

In particular you should determine whether it is appropriate to do the Baseline Business Architecture or Target Business Architecture development first

Steps

1. Select reference models, viewpoints, and tools
2. Develop Baseline Business Architecture Description
3. Develop Target Business Architecture Description
4. Perform gap analysis
5. Define candidate roadmap components
6. Resolve impacts across the Architecture Landscape
7. Conduct formal stakeholder review
8. Finalize the Business Architecture
9. Create Architecture Definition Document

Slide 8 of 33

TOGAF®

Copyright © The Open Group 2011

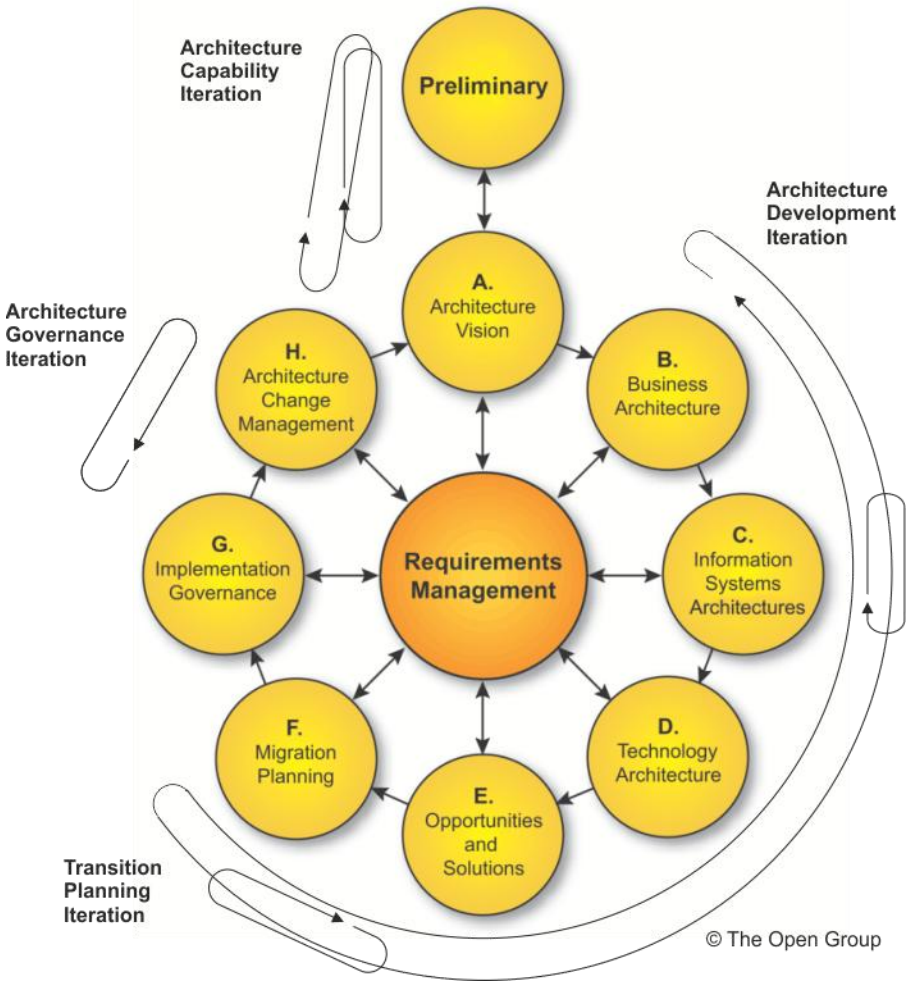
THE Open GROUP

ADM Guidelines and Techniques

- A set of guidelines and techniques to support the application of the ADM
- The guidelines help to adapt the ADM to deal with different scenarios, including different process styles (e.g. the use of iteration) and also specific requirements (e.g. security).
- The techniques support specific tasks within the ADM (e.g. defining principles, business scenarios, gap analysis, migration planning, risk management, etc).

Copyright © The Open Group 2011

Applying Iteration to the ADM

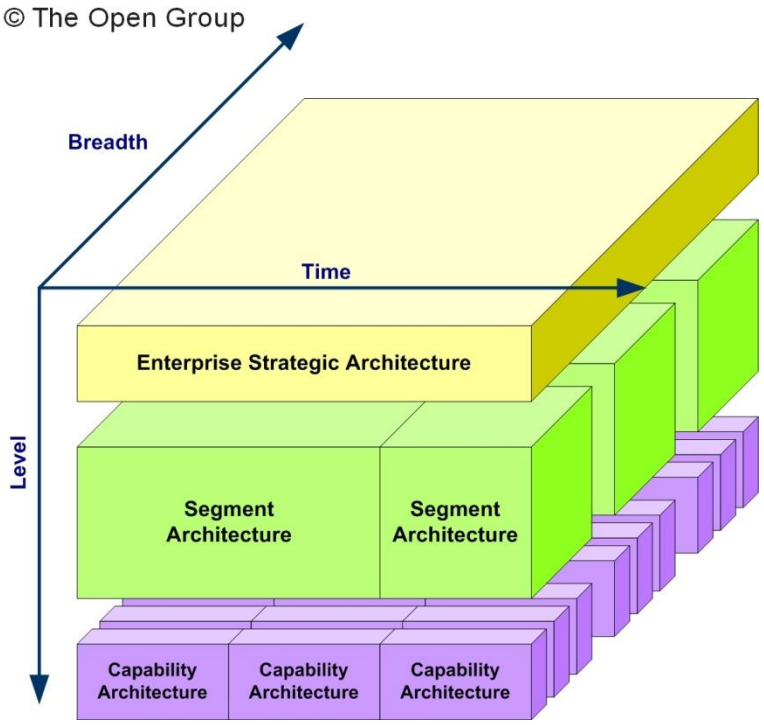


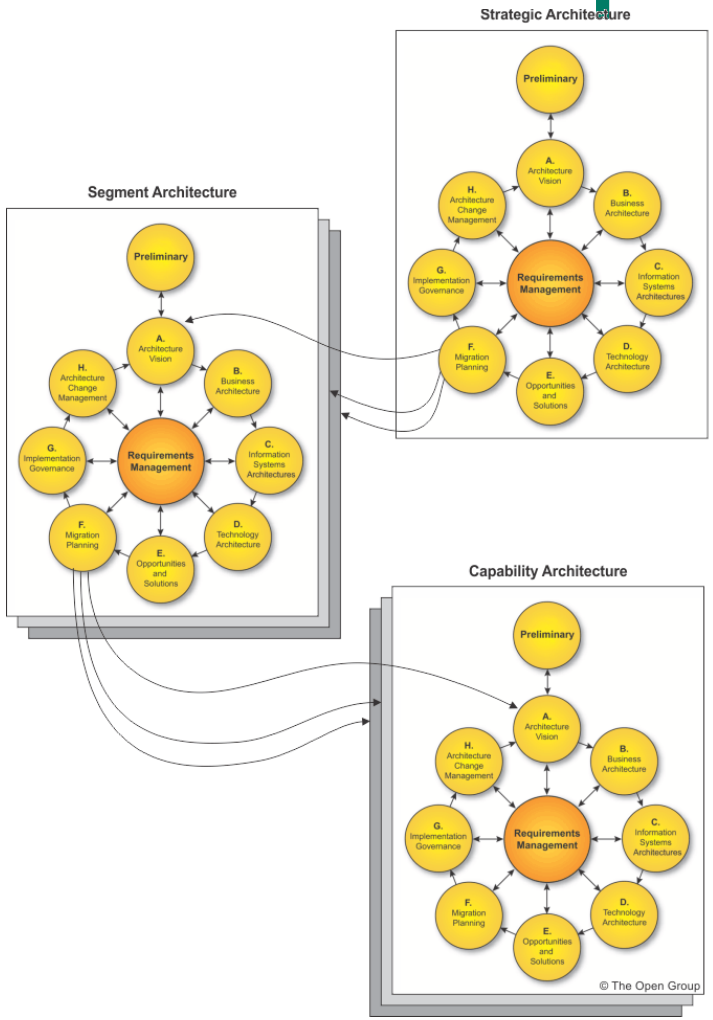
Example Guideline

Copyright © The Open Group 2011

THE Open GROUP

Applying the ADM Across the Architecture Landscape



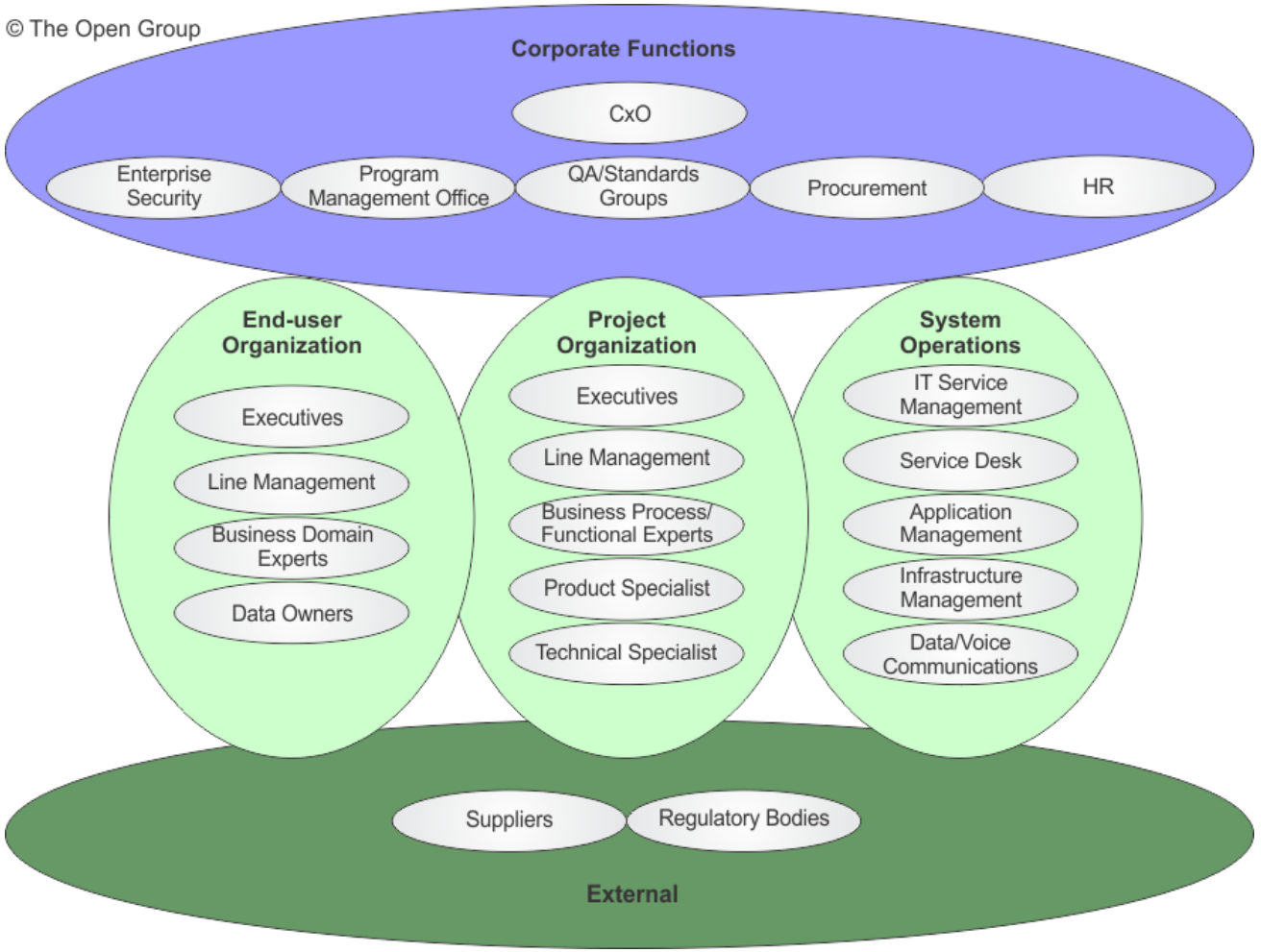


Example Guideline

Copyright © The Open Group 2011

THE Open GROUP

Categories of Stakeholder

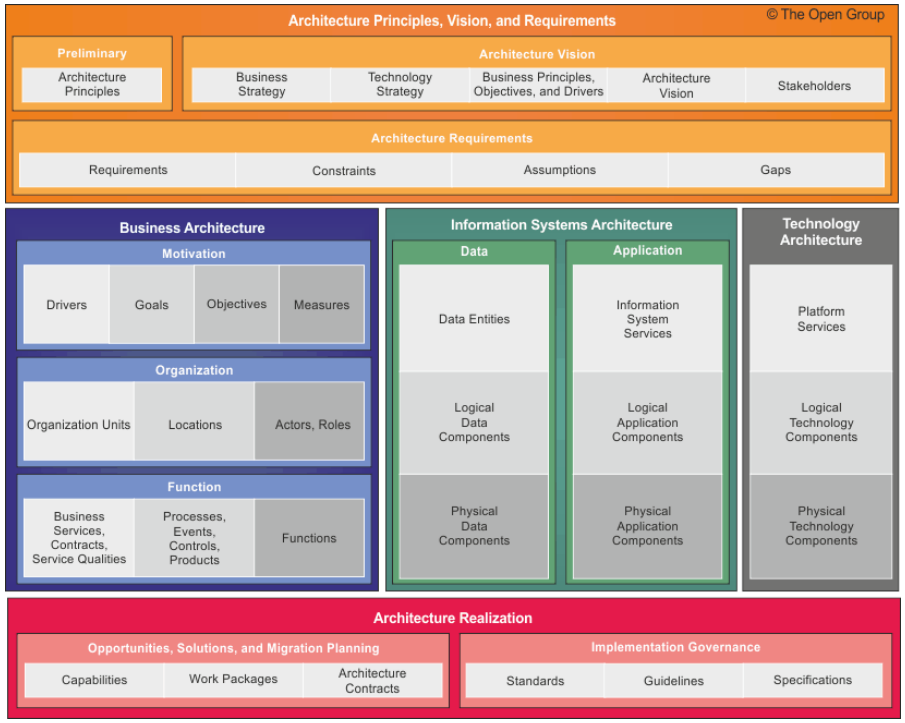


Example Technique

Copyright © The Open Group 2011

THE Open GROUP

Architecture Content Framework



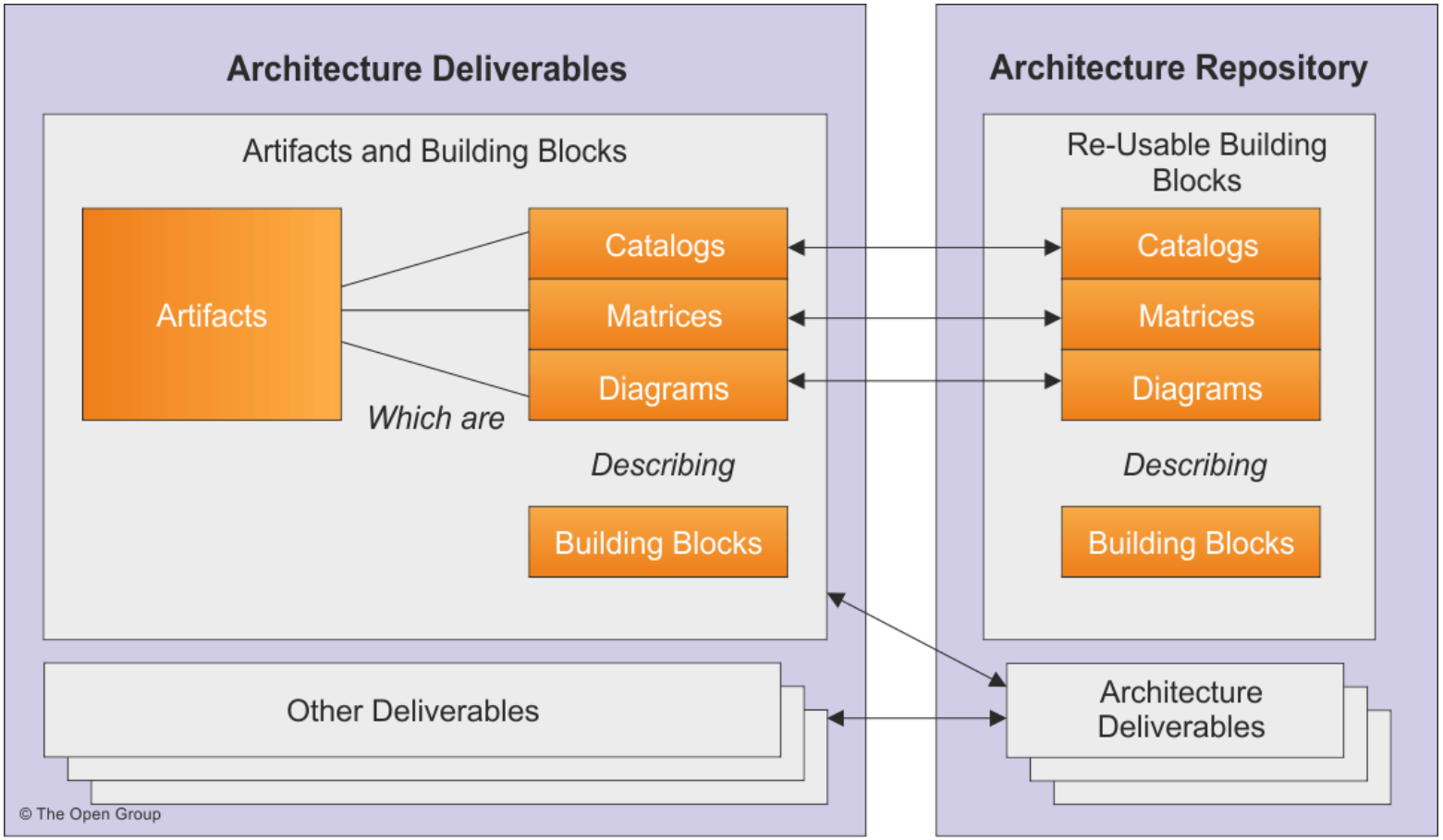
Provides a detailed model of architectural work products, including **Deliverables**, **Artifacts** within deliverables, and the **Architecture Building Blocks** (ABBs) that deliverables represent.

- It drives for greater consistency in the outputs of TOGAF
- It provides a comprehensive checklist of architecture outputs
- It promotes better integration of work products
- It provides a detailed open standard for how architectures should be described
- It includes a detailed metamodel

Copyright © The Open Group 2011

THE Open GROUP

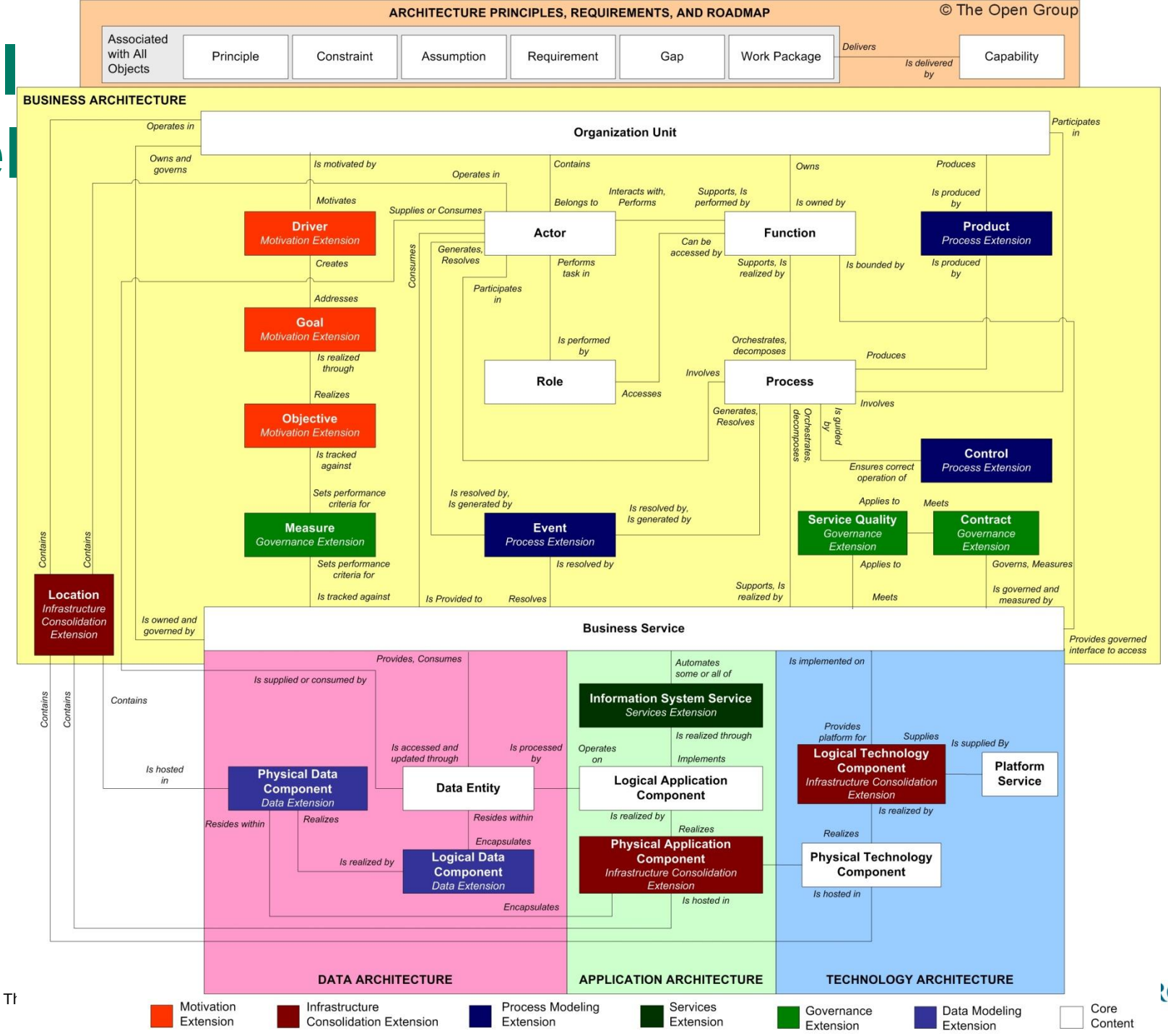
Deliverables, Artifacts and Building Blocks



Copyright © The Open Group 2011

THE Open GROUP

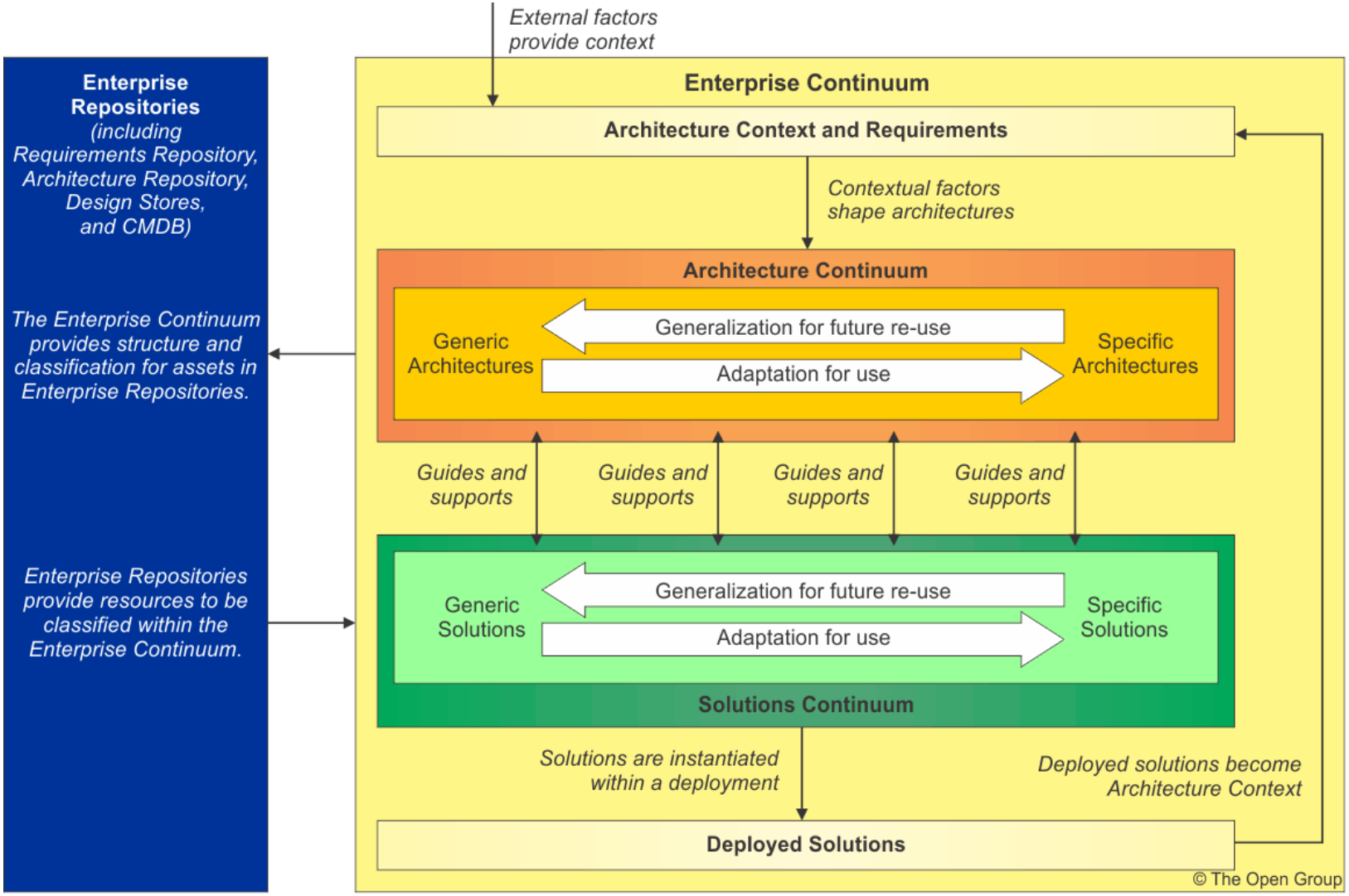
Ful
Rel



Copyright © Th

ROUP

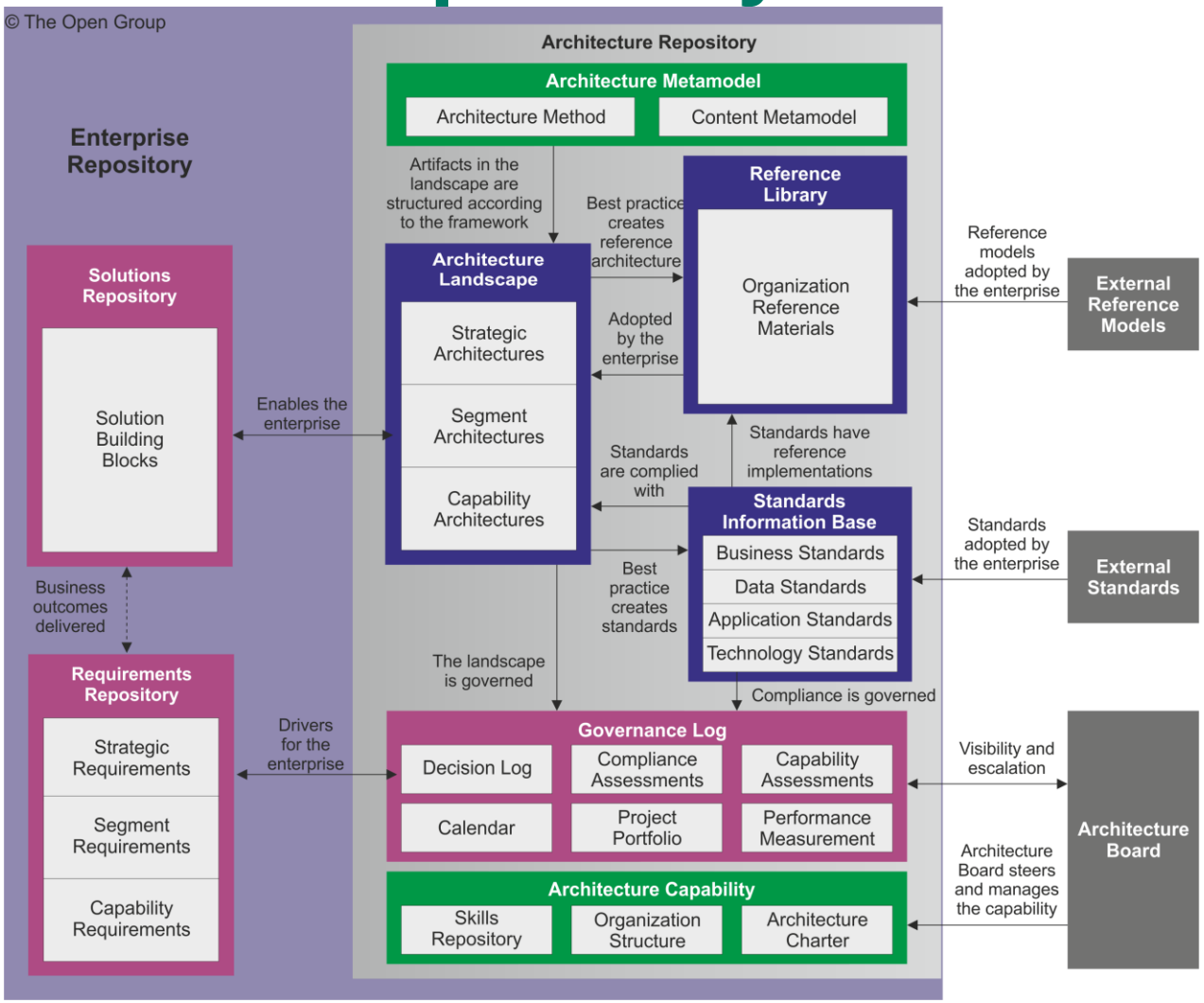
The Enterprise Continuum



Copyright © The Open Group 2011

THE Open GROUP

Architecture Repository



Copyright © The Open Group 2011

THE Open GROUP

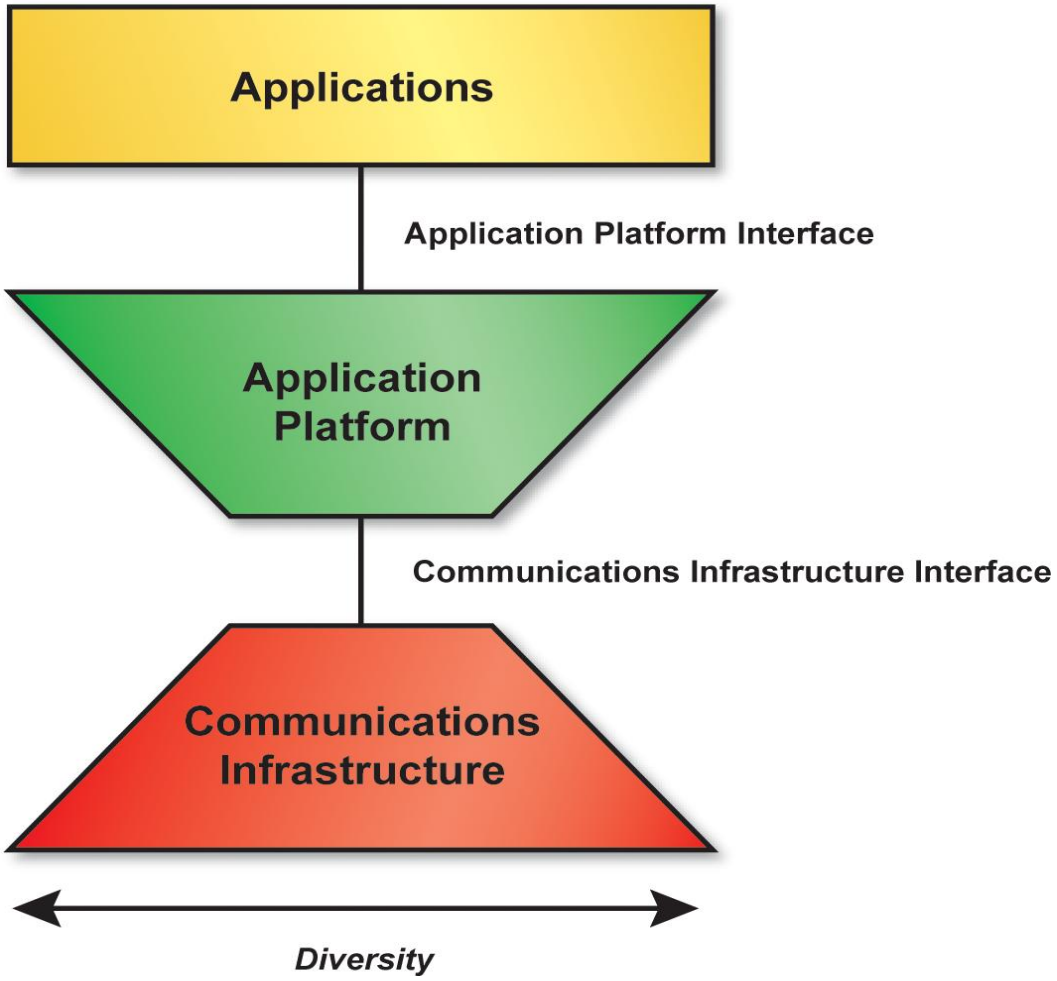
TOGAF® Reference Models

- Two Reference Models are provided
  - **The TOGAF Technical Reference Model (TRM)**
    - A Foundation Architecture
    - A model and a taxonomy of generic platform services
  - **The Integrated Information Infrastructure Model** (III-RM).
    - A model for business applications and infrastructure applications
    - Specifically aimed to support the vision of *Boundaryless Information Flow*™

Copyright © The Open Group 2011

THE Open GROUP

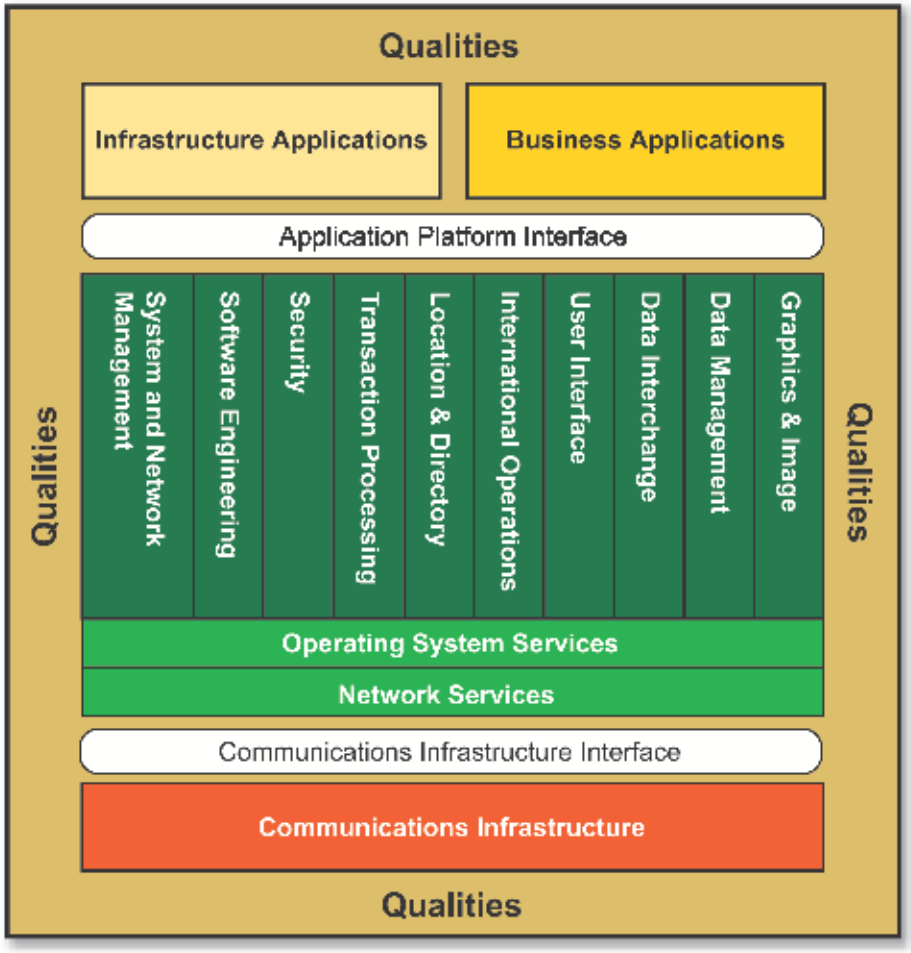
High-Level TRM



Copyright © The Open Group 2011

THE Open GROUP

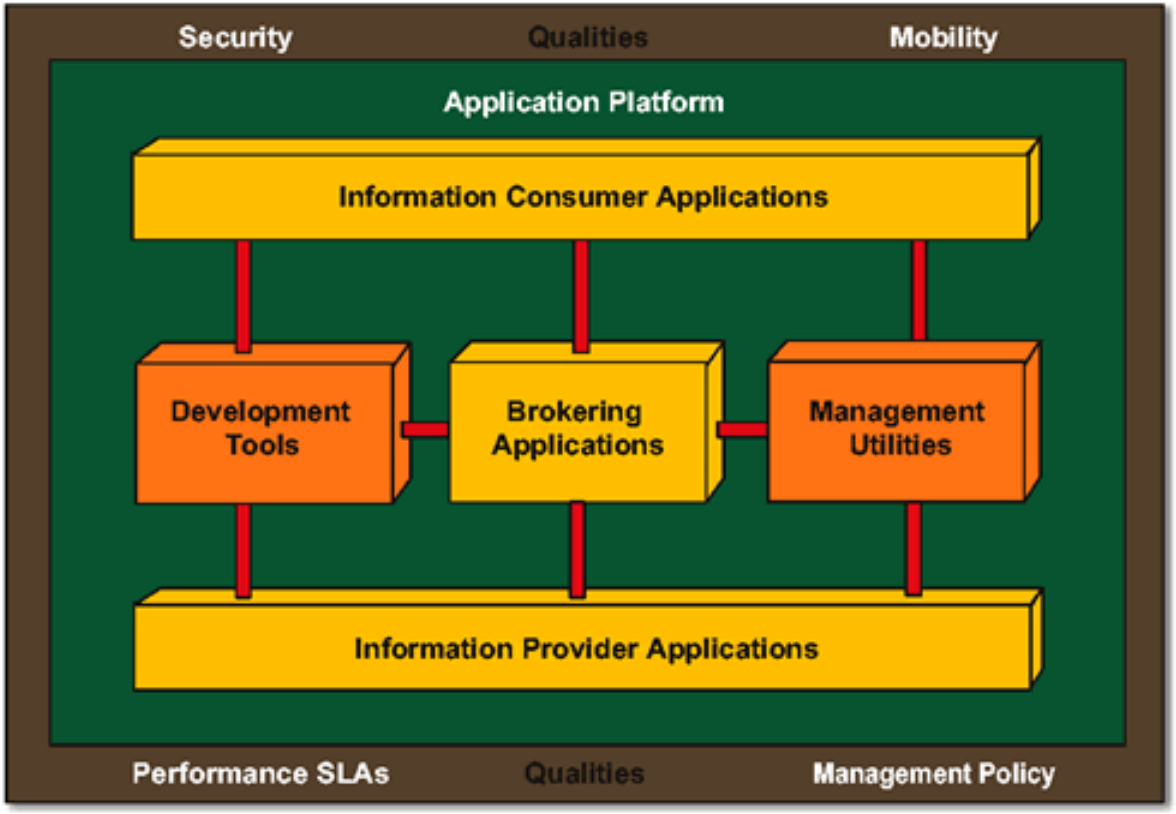
Detailed TRM



Copyright © The Open Group 2011

THE Open GROUP

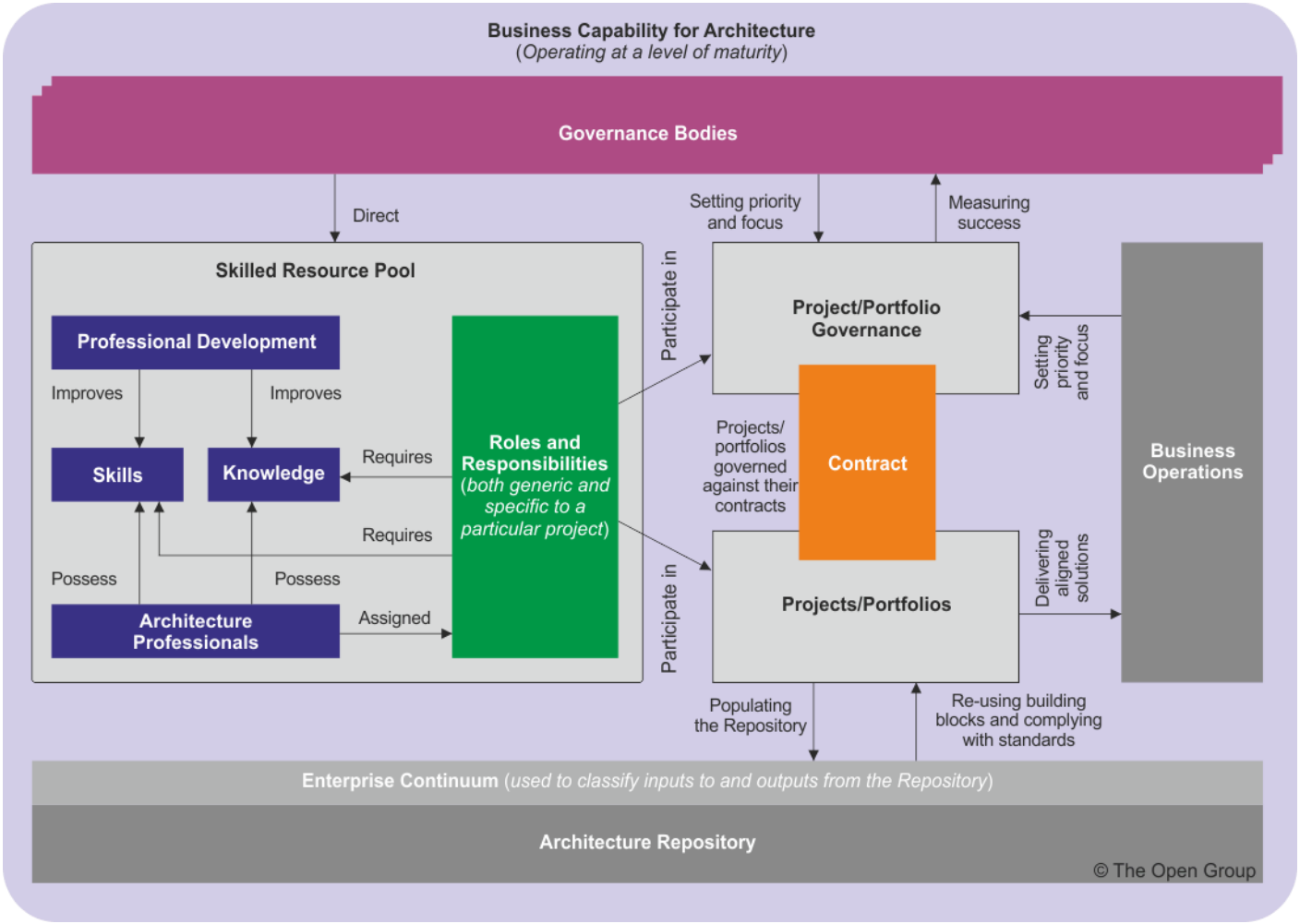
The Integrated Information Infrastructure Reference Model (III-RM)



Copyright © The Open Group 2011

THE Open GROUP

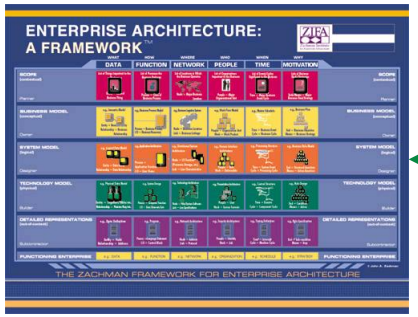
Capability Framework



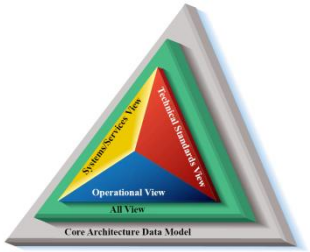
Copyright © The Open Group 2011

THE Open GROUP

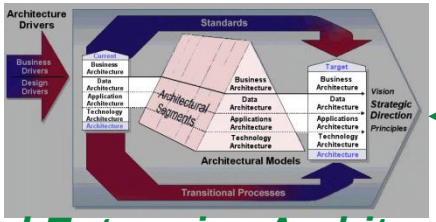
Stand-alone or Complementary



Zachman Framework

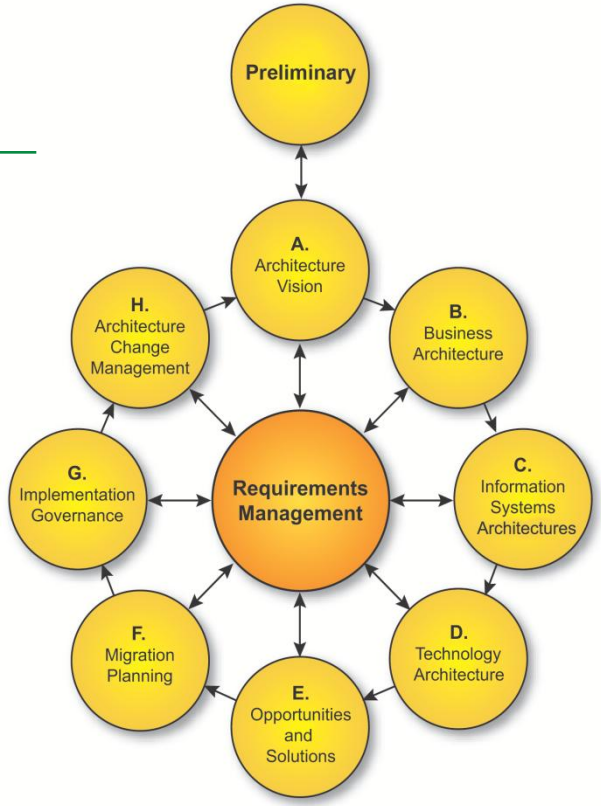


DoD Architecture Framework



Federal Enterprise Architecture Framework

Support or Guidance



TOGAF 9

Other Frameworks

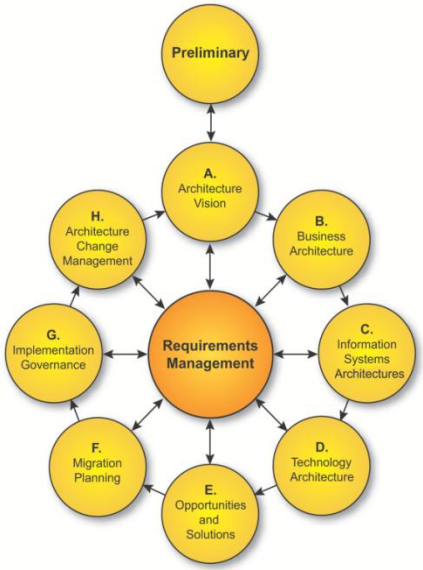
Copyright © The Open Group 2011

THE Open GROUP

Complementary

ITIL

IT Service Management Best Practice



TOGAF 9

Framework, method and resources

COBIT

Governance and control

MODEL DRIVEN ARCHITECTURE™

Modeling languages and notation

Copyright © The Open Group 2011

THE Open GROUP

Value of TOGAF® Certification

- A globally recognized standard, backed by certification
- Certified professionals
  - Demonstrable knowledge of TOGAF
  - Minimizes employers' hiring time and improves quality of hires
- Vendors of TOGAF Certified Products or Services
  - Warrant conformance to the TOGAF product standard throughout the lifetime of certification
  - Customers who procure are assured of compliance
- Certification credentials can readily be verified

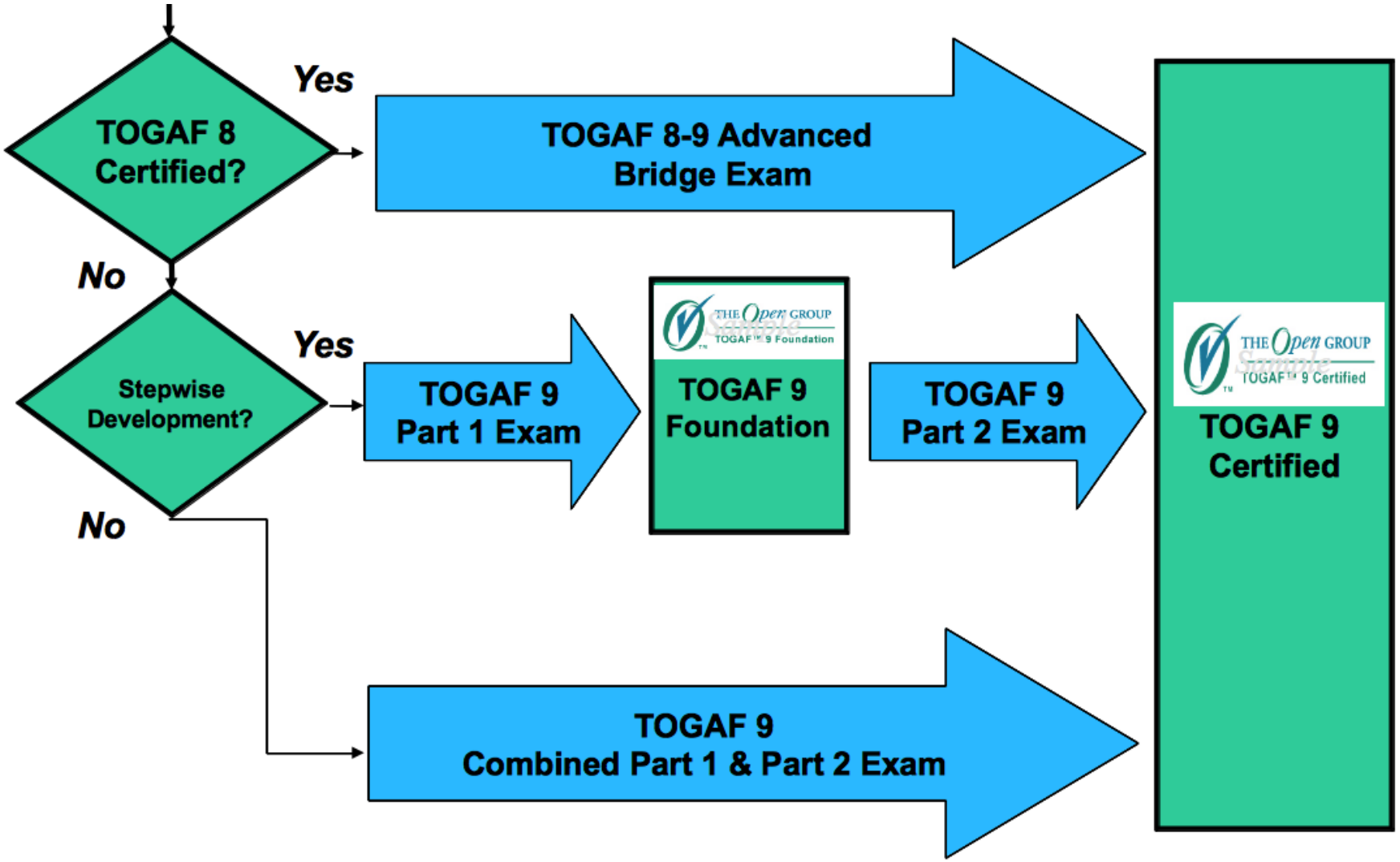
Copyright © The Open Group 2011

TOGAF® Certification

Certification Level	Purpose
TOGAF 9 Foundation	To provide validation that the candidate has gained knowledge of the terminology and basic concepts of TOGAF 9 and understands the core principles of Enterprise Architecture and TOGAF
TOGAF 9 Certified	To provide validation that in addition to knowledge and comprehension, the candidate is able to analyze and apply knowledge of TOGAF

Copyright © The Open Group 2011

TOGAF® 9 Certification



Copyright © The Open Group 2011

THE Open GROUP

Summary

TOGAF®, an Open Group Standard, is…

- An effective, industry standard framework and method for enterprise architecture.
- Complementary to, not competing with, other enterprise frameworks
- A repository of best practice
- Vendor, tool, and technology neutral
- A framework and method for achieving the "Boundaryless Information Flow" vision

Copyright © The Open Group 2011

Questions?

Robert Weisman
MSc, PEng, PMP, CD
CEO / Chief Enterprise Architect

robert.weisman@buildthevision.ca

1168 Ste Therese
Ottawa, Ontario
Canada
K1C2A6

Tel +1 613 841 5118
www.buildthevision.ca

Copyright © The Open Group 2011

THE Open GROUP

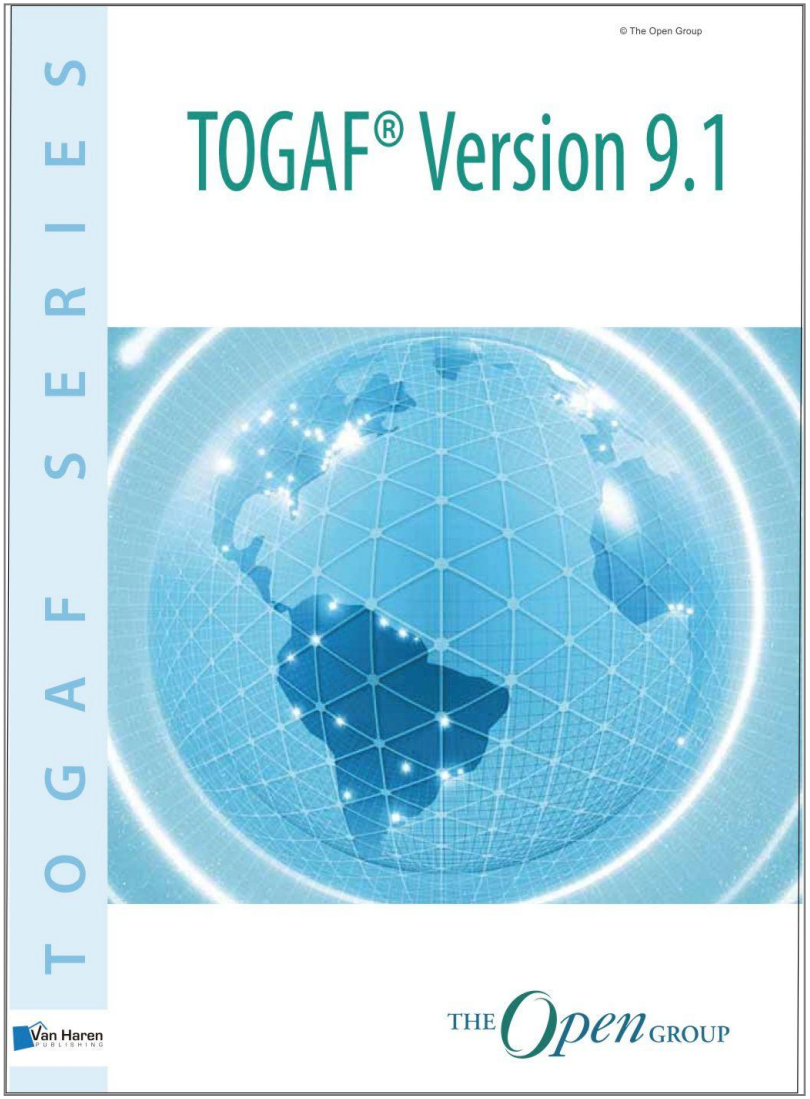
For More Information . . .

- The TOGAF Web Site
  - http://www.opengroup.org/togaf/
- The Architecture Forum
  - http://www.opengroup.org/architecture/
- TOGAF Version 9.1 on-line
  - http://www.opengroup.org/architecture/togaf9-doc/arch/
- TOGAF Version 9.1 licensing and downloads
  - http://www.opengroup.org/togaf/

Copyright © The Open Group 2011

THE Open GROUP

TOGAF® Version 9.1

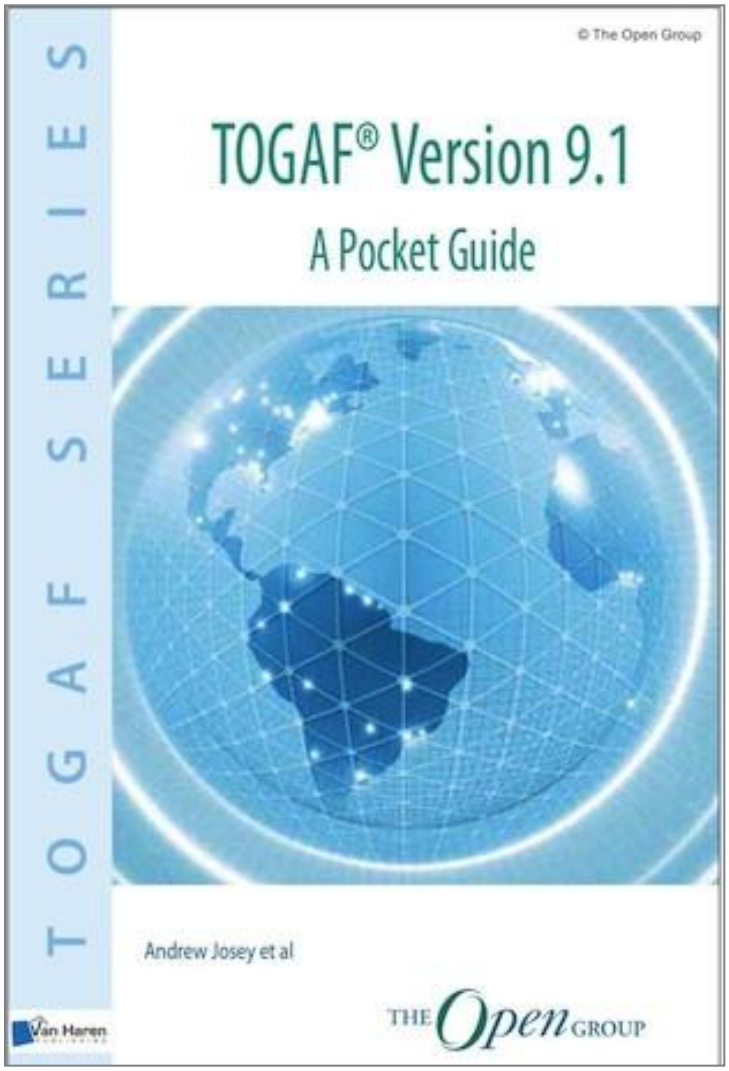


- TOGAF Version 9.1, “The Book”
  - Document No. G116
  - www.opengroup.org
  - www.vanharen.net

Copyright © The Open Group 2011

THE Open GROUP

TOGAF® Version 9.1 Pocket Guide

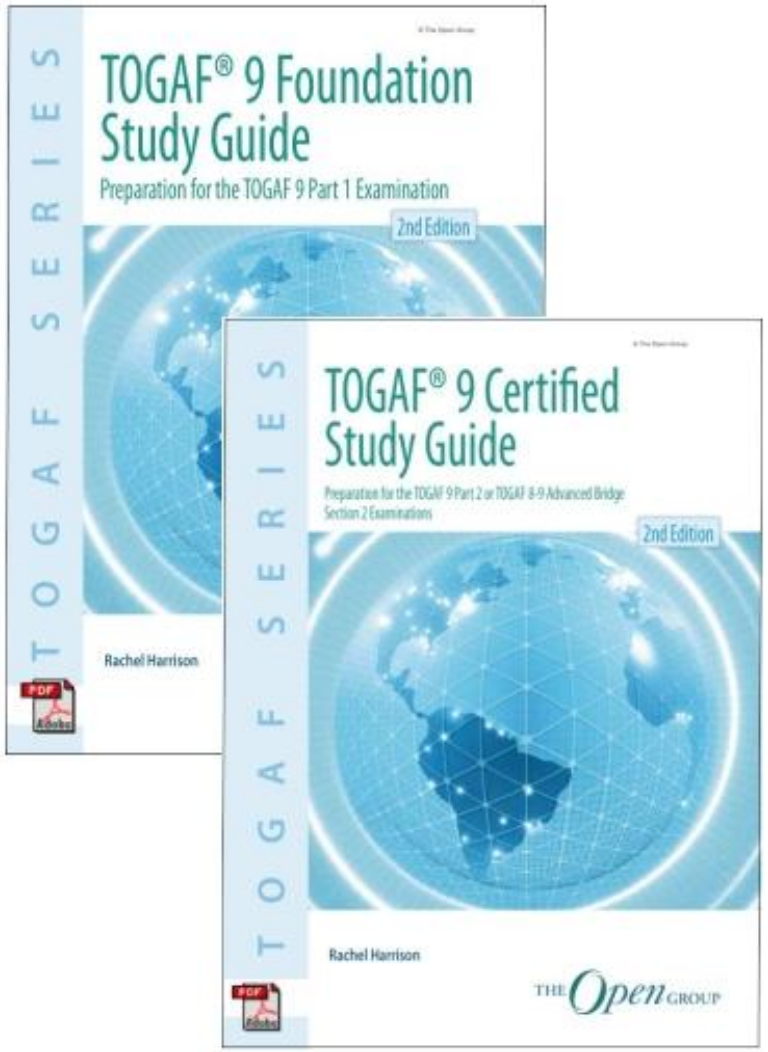


- TOGAF Version 9, The Pocket Guide
  - Document No. G117
  - www.opengroup.org
  - www.vanharen.net

Copyright © The Open Group 2011

THE Open GROUP

TOGAF® 9 Certification Self Study Pack



- Preparation for the TOGAF 9 Part 1 and Part 2 Examinations
- Includes Study Guides, Practice tests, Pocket Guide, Reference Cards and more…
  - Document No. B097
  - www.opengroup.org

Copyright © The Open Group 2011

THE Open GROUP