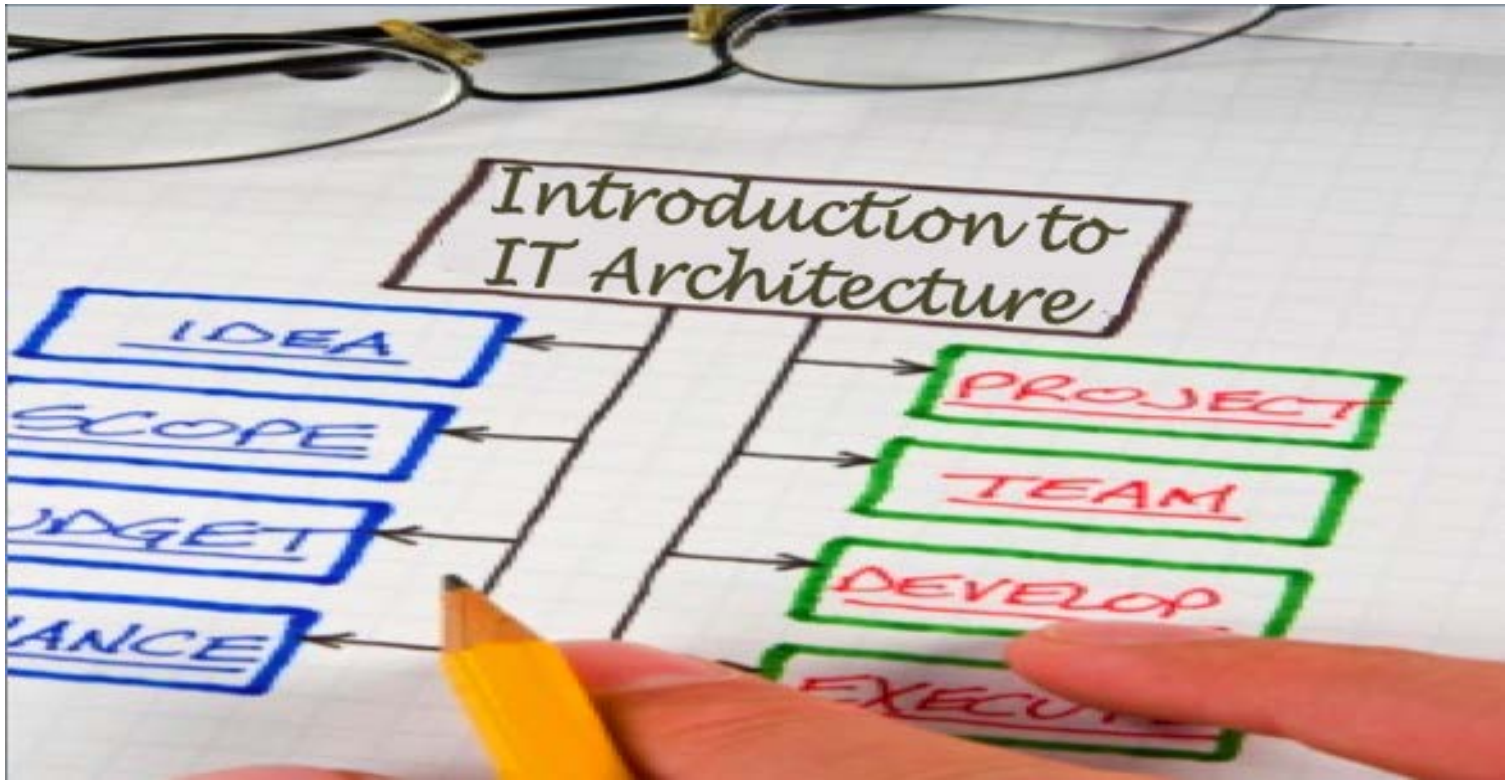

IASA SPAIN
AN ASSOCIATION FOR ALL IT ARCHITECTS

Introduction to Enterprise Architecture and TOGAF 9.1

Introduction to Entreprise Architecture

And Enterprise Architecture with TOGAF 9.1

Who am I?

- 12 year architecture
- CMU Certified Architect
- TOGAF Certified Architect
- IASA Spain Education Lead

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Índice

Today's **Session**

What is Enterprise Architecture?

Why Bussiness and EA?

What is TOGAF?

TOGAF and Other Frameworks

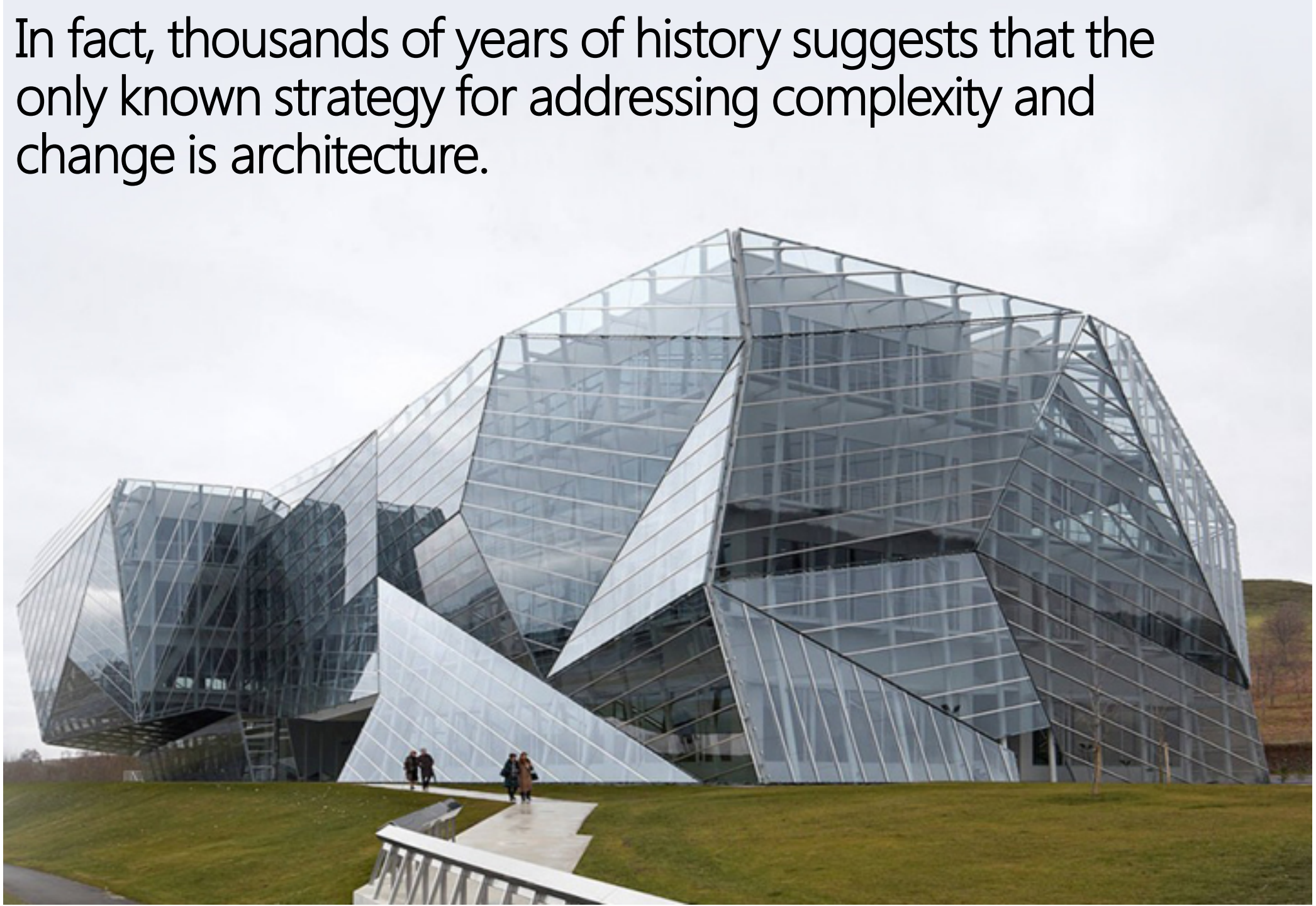
Adoption of EA

Summary

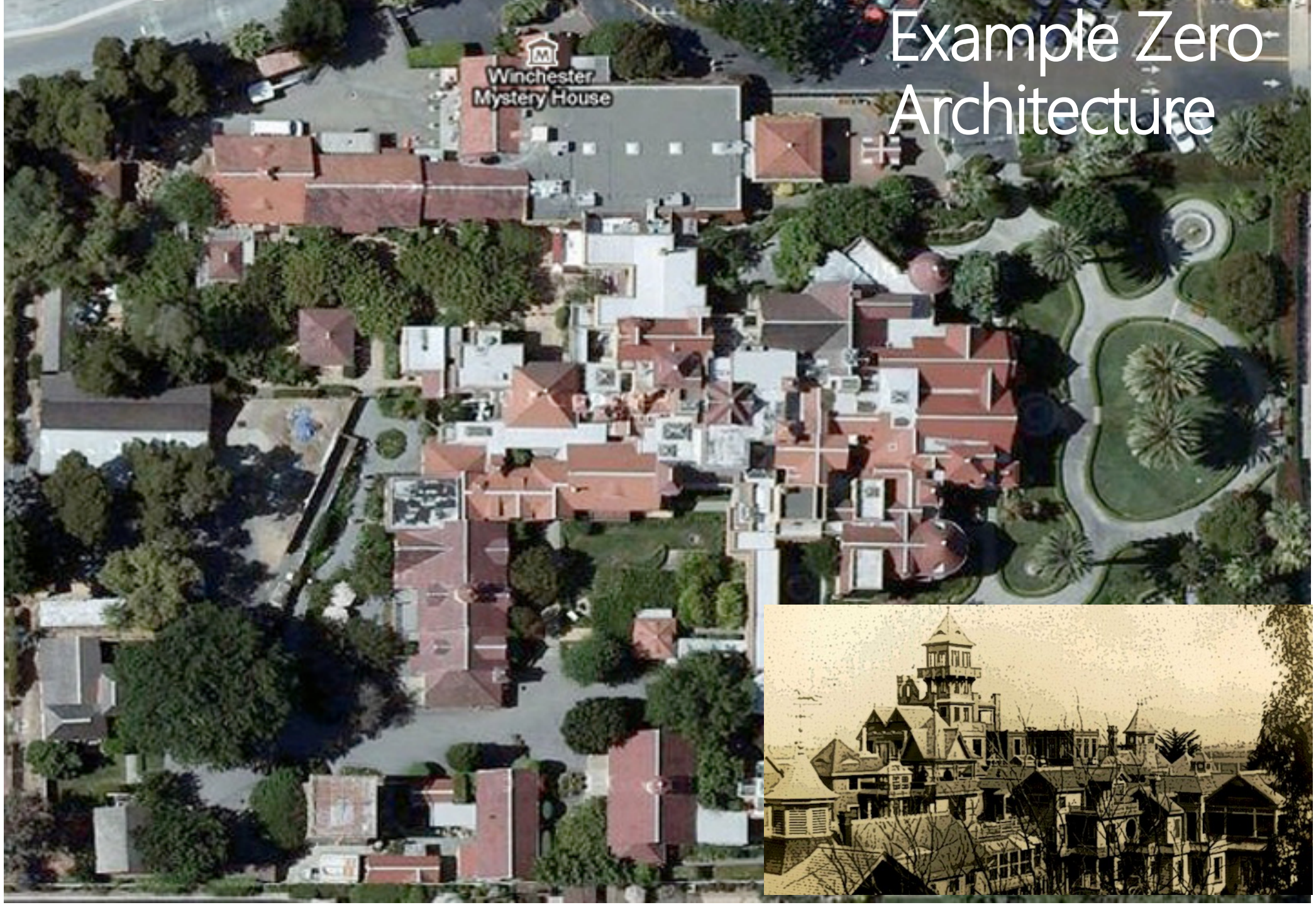
The Need for Enterprise Architecture.

Architecture Has Always Around Us…

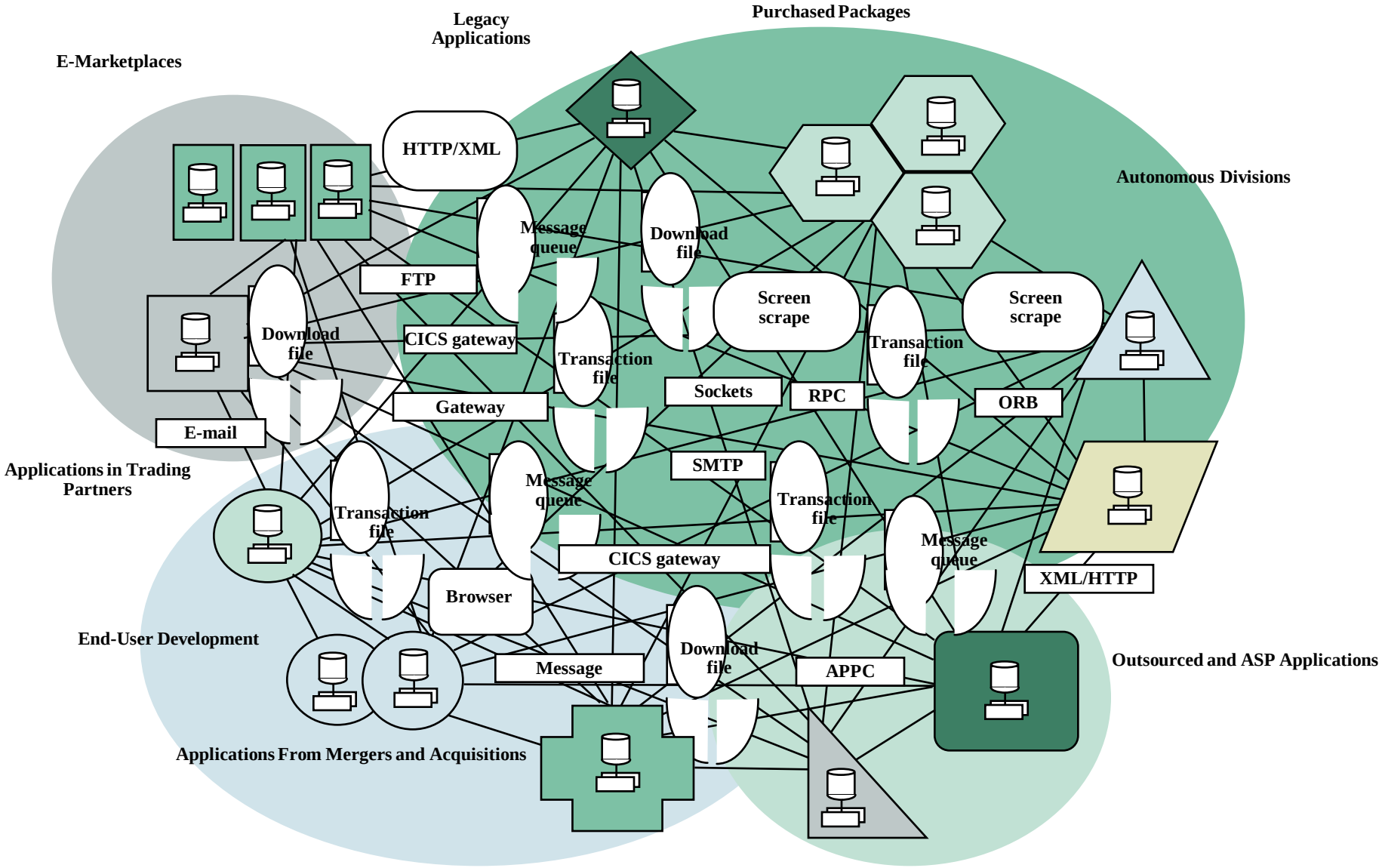
In fact, thousands of years of history suggests that the only known strategy for addressing complexity and change is architecture.



Example Zero Architecture



Or, In Terms of Your Organization's Systems



The Car Analogy

Enterprise. Architecture

- **A Enterprise is a collection of organizations that share a common set of goals**
  - **– Government agency**
  - **– Part of a corporation**
  - **– Corporation**

Large corporations may comprise multiple enterprises

May be an extended enterprise including partners, suppliers and customers

- An Architecture is the fundamental organization of something, embodied in:
  - – its components,
  - – their relationships to each other and the environment,
  - – and the principles governing its design and evolution

Enterprise Architecture

- **Enterprise Architecture is:**

  – The organizing logic for business processes and IT infrastructure reflecting the integration and standardization requirements of the firm's operating model.

  – A conceptual blueprint that defines the structure and operation of an organization.The intent of an enterprise architecture is to determine how an organization can most effectively achieve its current and future objectives.

Why Enterprise Architecture?

Optimize across the enterprise the often fragmented legacy of processes

Enable creation of an integrated environment that is responsive to change and supportive of the delivery of the business strategy

Effective management and exploitation of information through IT is a key factor to business success, and an indispensable means to achieving competitive advantage.

An enterprise architecture provides a strategic context for the evolution of the business & IT systems in response to the constantly changing needs of the enterprise.

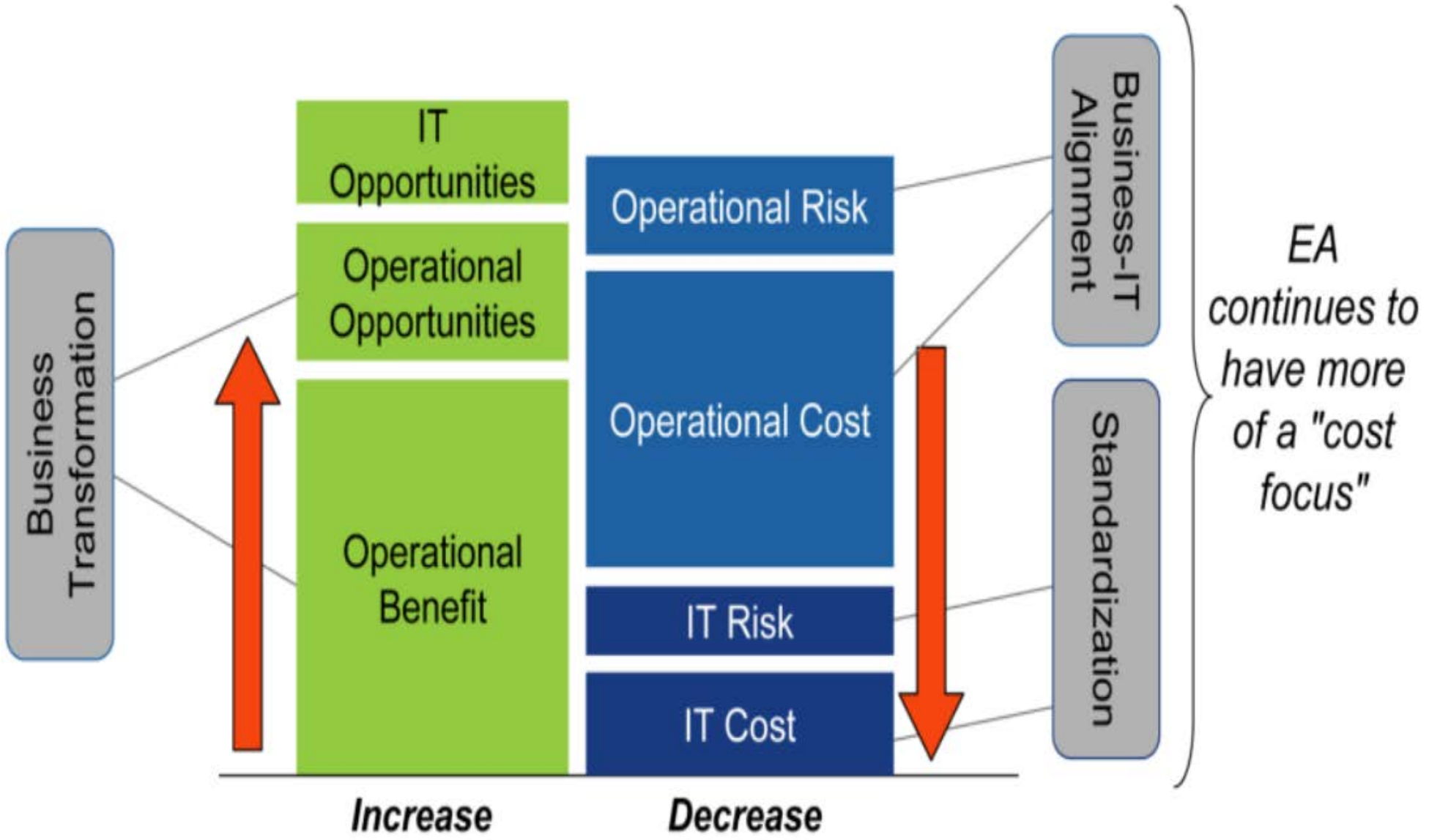
Two key reasons why you need an enterprise architecture:

- **Critical to business survival and success**
- **Enables managed innovation within the enterprise**

The Benefits

Business Benefits	IT Benefits
• Helps an enterprise achieve its business strategy. • Shortens time to market for new innovations and capabilities. • Provides consistent business processes and information across business units. • Improves reliability and security, and reduces risk.	• Increases the efficiency of business and IT operations. • Provides better return on existing investment. • Reduces risk for future investment. • Ensures faster and simpler procurement.

The Why in a Design…



In a Nutshell…

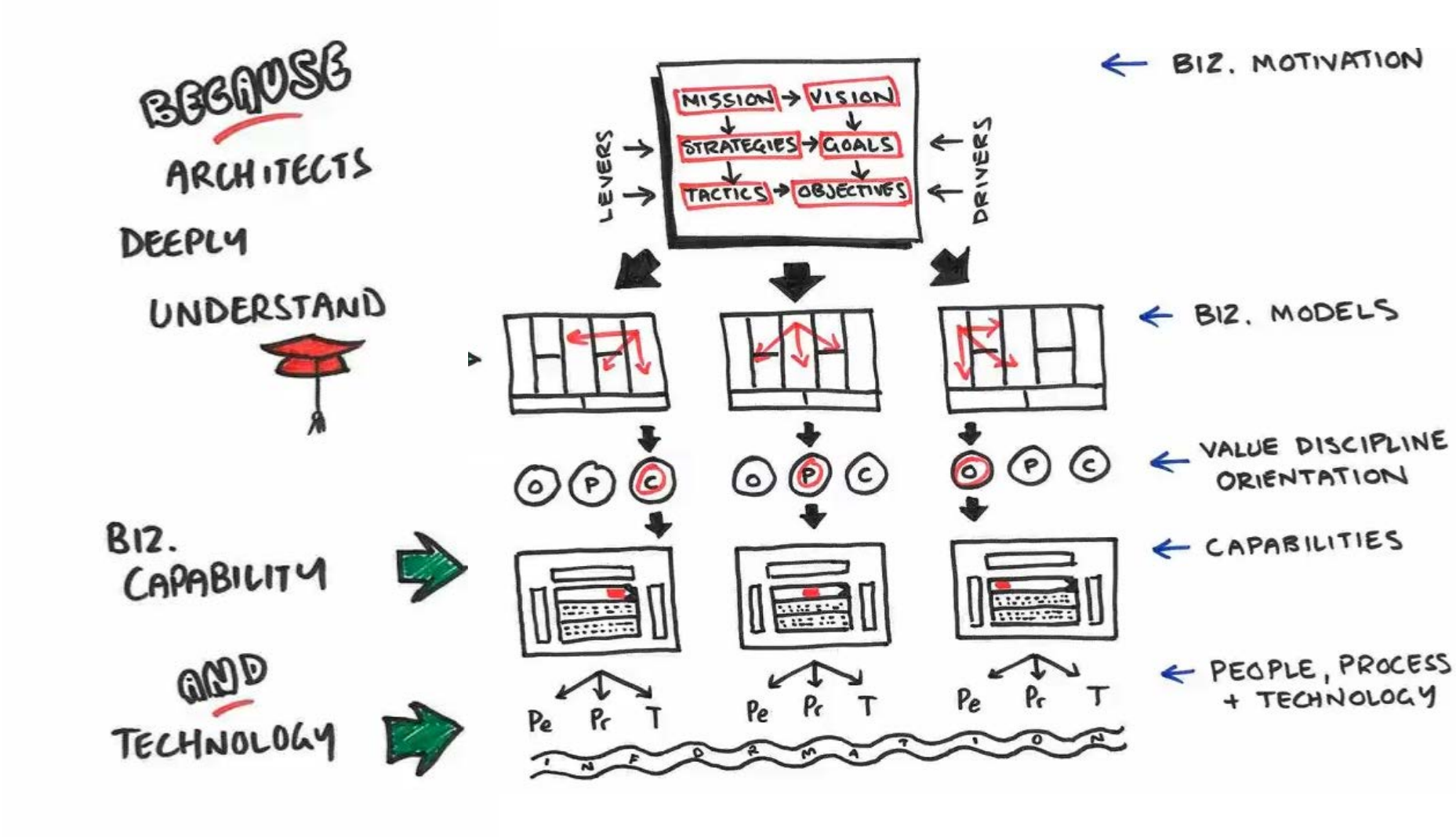
Enterprise Architecture = Strategy + Business + Technology

EA = S + B + T (Scott A. Bernard. EA3)

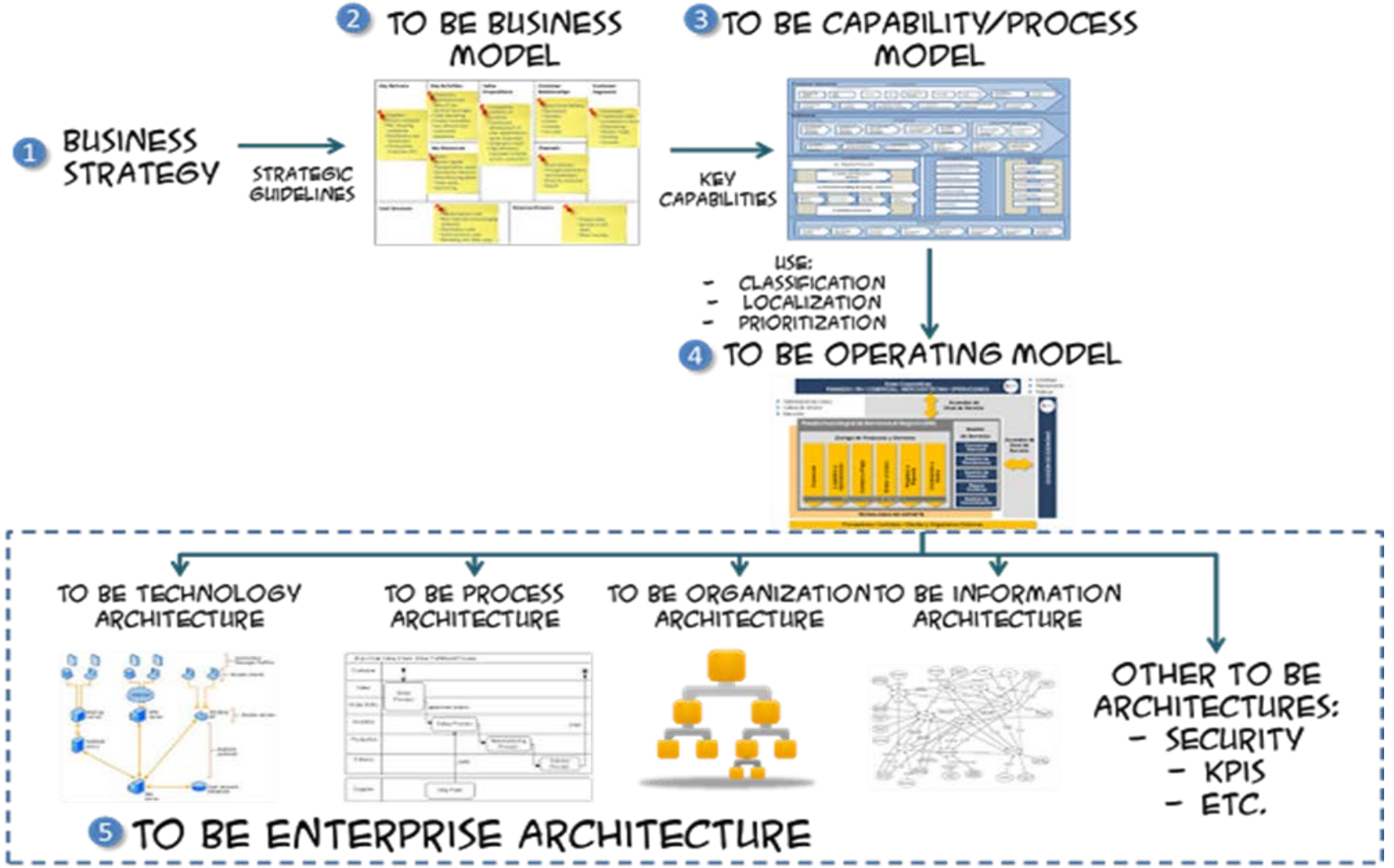
In a Nutshell…

Enteprise Architecture means better business, pure and simple

Why Business and EA?



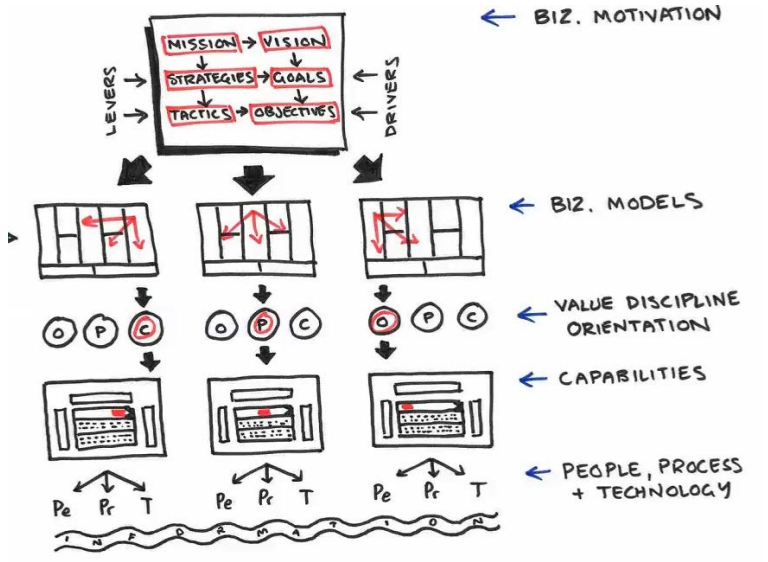
Why Business and EA?



What is a Capability? (© www.EnterpriseArchitects.com)

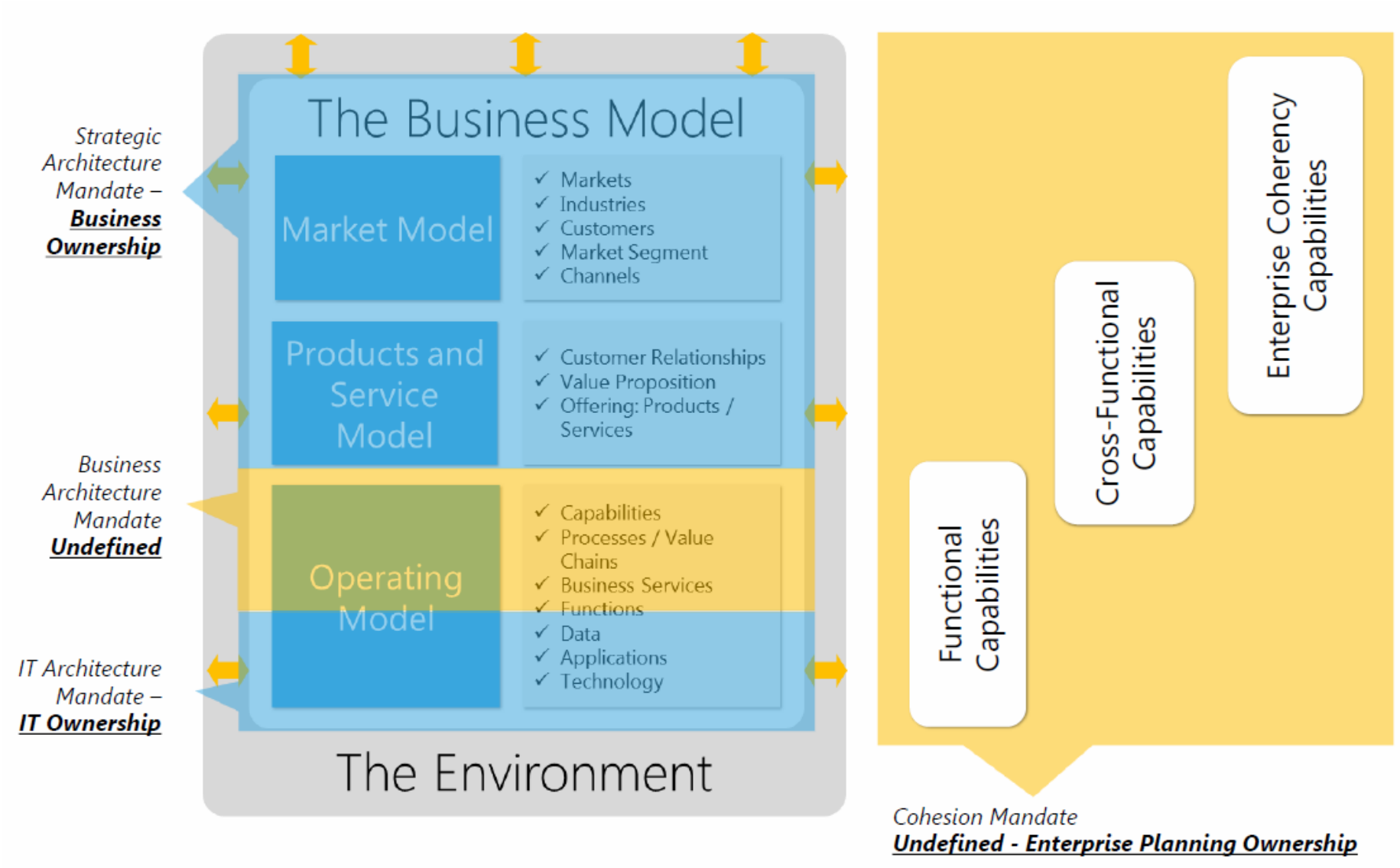
Tecnology

Process
People

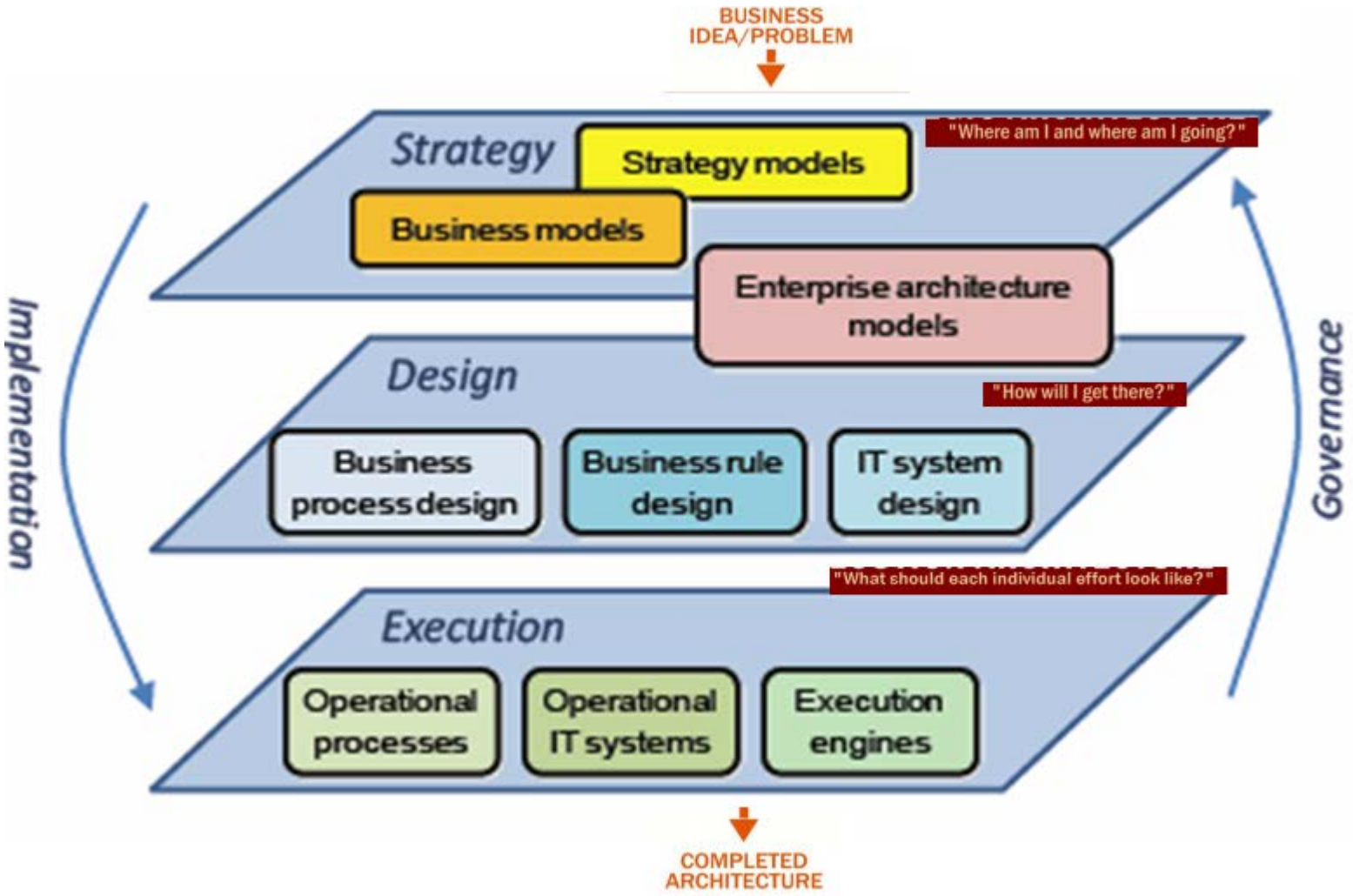


Capability

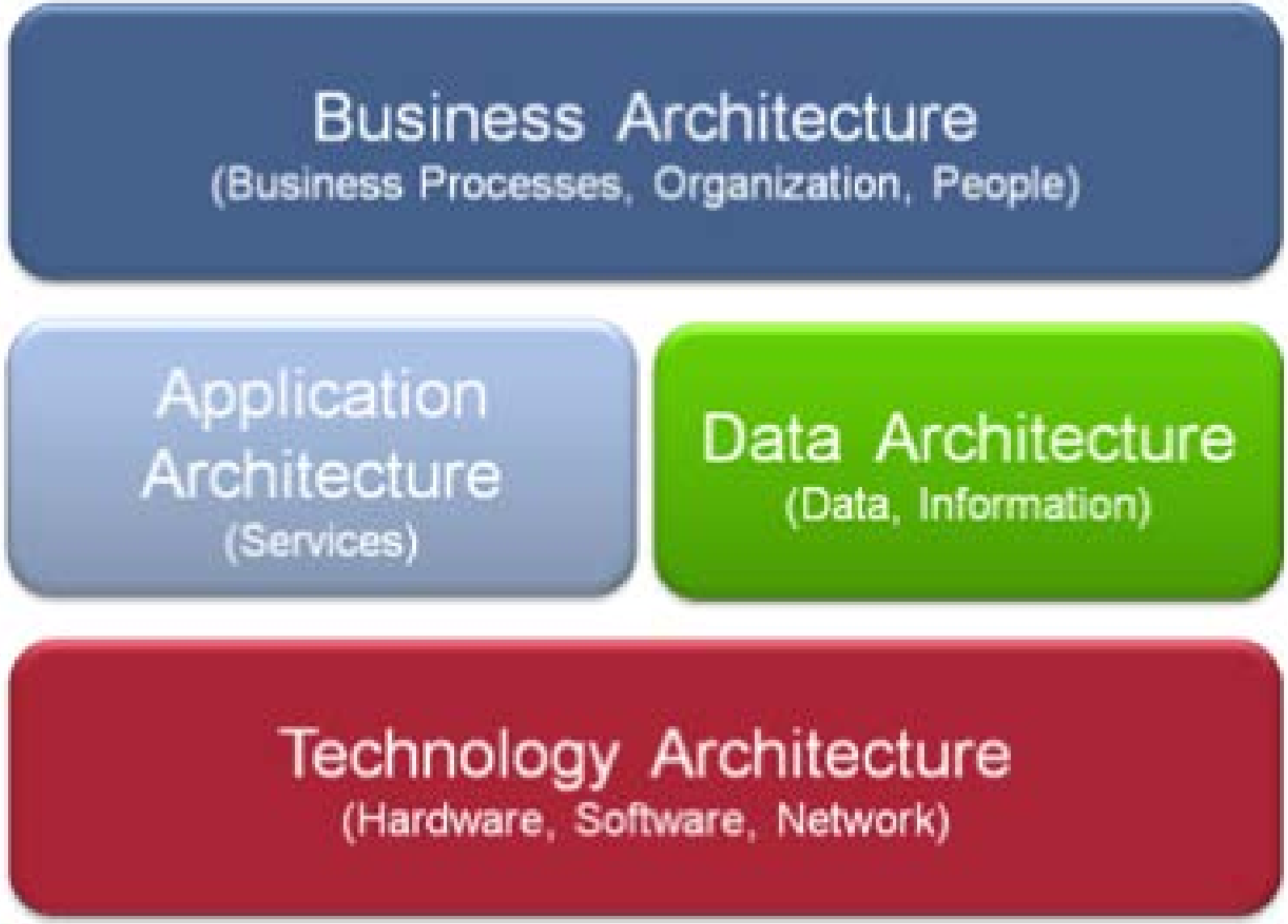
Why Business and EA? (© www.EnterpriseArchitects.com)



From Strategy to Execution



Architecture Domains



EA Domains and Sub Domains

Application/ Integration

- Enterprise Application Integration Components
- Custom Application Development
- Services Definition
- Process Alignment
- Services/Event Architectures

Information/Data

- Data Integration
- Data Architecture
- Master Data Mgmt
- Metadata Mgmt
- Data Delivery Architecture
- Dashboards & Analytics
- Business Intelligence
- Enterprise Reporting
- Corporate Performance Mgmt
- Data Modeling
- Data Quality
- Content Mgmt

Technical/ Infrastructure

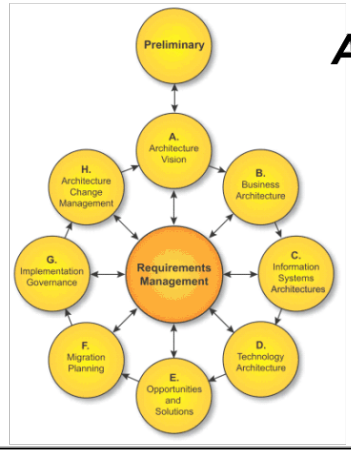
- Servers
- Networks
- Telecom
- Operating Systems
- Desktop
- Middleware
- Database Infrastructure
- Security
- Storage
- Other hardware

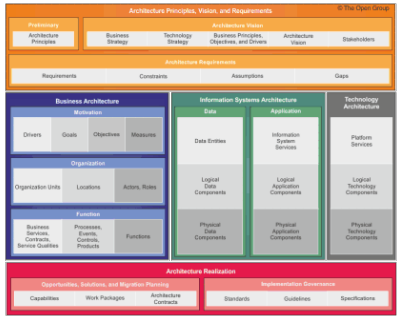
Business Architecture

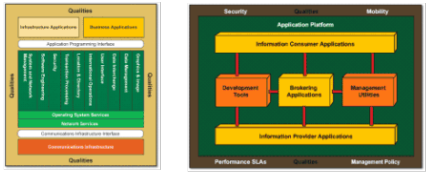
- Business Requirements
- Business Rules
- Organization Structure
- Critical Success Factors
- Business Process Design & Modeling
- Mission /Vision

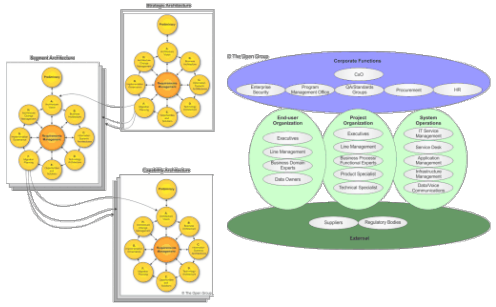
TOGAF

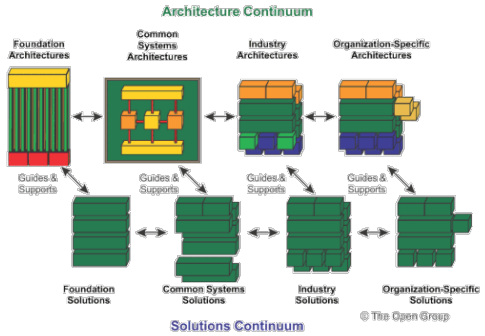
How do we manage EA?	How do we map all necessary information?	How do we build on industry-practice models?
ADM	**Architecture Content Framework**	**Reference Models**
ADM Guidelines & Techniques	**Enterprise Continuum**	**Architecture Capability Framework**
How do we apply the ADM?	How can we maximize recycling of existing architectures?	How do we design our EA?

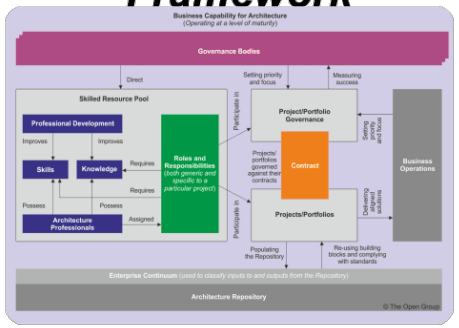




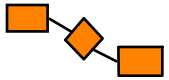
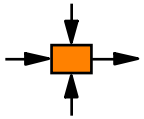
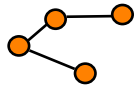
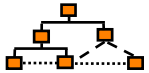
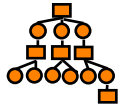
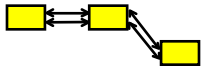
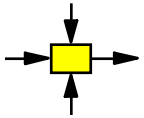
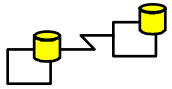
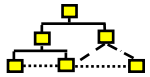
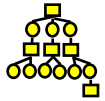
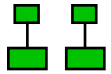
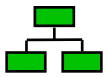
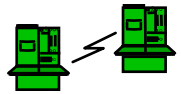
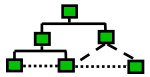
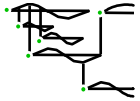
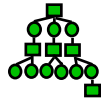








Zachman

abstractions / perspectives	DATA *What*	FUNCTION *How*	NETWORK *Where*	PEOPLE *Who*	TIME *When*	MOTIVATION *Why*
SCOPE *Planner* contextual	List of Things - *Important to the Business*  Entity = Class of Business Thing	List of Processes - *the Business Performs*  Function = Class of Business Process	List of Locations - *in which the Business Operates*  Node = Major Business Location	List of Organizations - *Important to the Business*  People = Class of People and Major Organizations	List of Events - *Significant to the Business*  Time = Major Business Event	List of Business Goals and Strategies  Ends/Means=Major Business Goal/Critical Success Factor
ENTERPRISE MODEL *Owner* conceptual	e.g., Semantic Model  Entity = Business Entity Rel. = Business Relationship	e.g., Business Process Model  Process = Business Process I/O = Business Resources	e.g., Logistics Network  Node = Business Location Link = Business Linkage	e.g., Work Flow Model  People = Organization Unit Work = Work Product	e.g., Master Schedule  Time = Business Event Cycle = Business Cycle	e.g., Business Plan  End = Business Objective Means = Business Strategy
SYSTEM MODEL *Designer* logical	e.g., Logical Data Model  Entity = Data Entity Rel. = Data Relationship	e.g., Application Architecture  Process.= Application Function I/O = User Views	e.g., Distributed System Architecture  Node = IS Function Link = Line Characteristics	e.g., Human Interface Architecture  People = Role Work = Deliverable	e.g., Processing Structure  Time = System Event Cycle = Processing Cycle	e.g., Business Rule Model  End = Structural Assertion Means =Action Assertion
TECHNOLOGY CONSTRAINED MODEL *Builder* physical	e.g., Physical Data Model  Entity = Tables/Segments/etc. Rel. = Key/Pointer/etc.	e.g., System Design  Process= Computer Function I/O =Data Elements/Sets	e.g., Technical Architecture  Node = Hardware/System Software Link = Line Specifications	e.g., Presentation Architecture  People = User Work = Screen/Device Format	e.g., Control Structure  Time = Execute Cycle = Component Cycle	e.g., Rule Design  End = Condition Means = Action
DETAILED REPRESEN-TATIONS *Subcontractor* out-of-context	e.g. Data Definition  Entity = Field Rel. = Address	e.g. Program  Process= Language Statement I/O = Control Block	e.g. Network Architecture  Node = Addresses Link = Protocols	e.g. Security Architecture  People = Identity Work = Job	e.g. Timing Definition  Time = Interrupt Cycle = Machine Cycle	e.g. Rule Specification  End = Sub-condition Means = Step
FUNCTIONIN G	DATA Implementation	FUNCTION Implementation	NETWORK Implementation	ORGANIZATION Implementation	SCHEDULE Implementation	STRATEGY Implementation

Pick a Framework

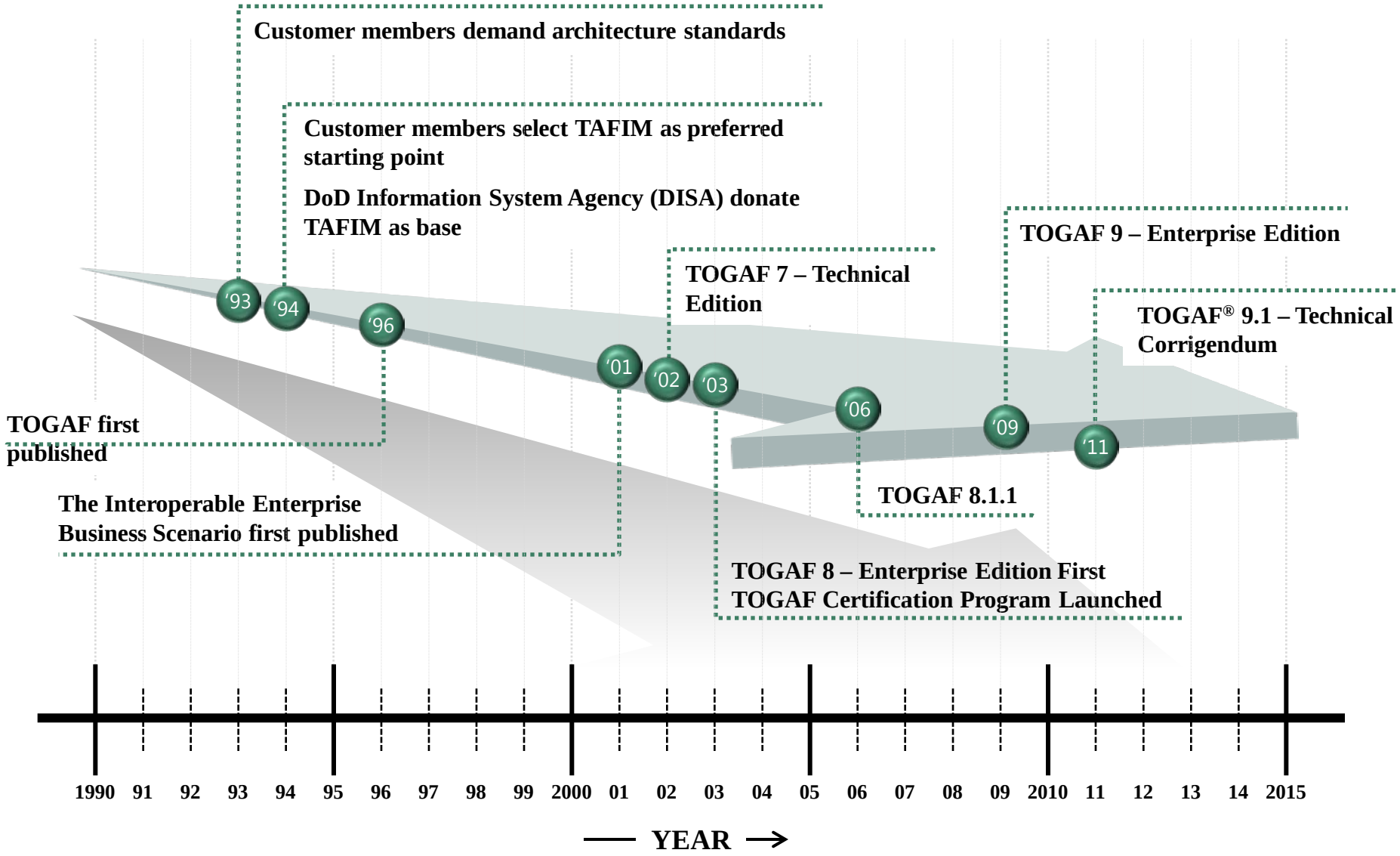

And, the
Winner Is…

TOGAF: A Cook Book

What is TOGAF®?

- The Enterprise Architecture standard used by the world's leading organizations to improve business efficiency.
- A methodology & framework
    - Everyone speaks the same language
    - The most prominent and useful EA standard
    - Combine industry best practices and with your organizations
    - Avoid being locked into proprietary methods
    - Saves time and money
    - Proven, tested, and effective
    - Utilize resources more effectively
    - Demonstrates ROI
    - Reliable
    - Benchmark

TOGAF Evolution

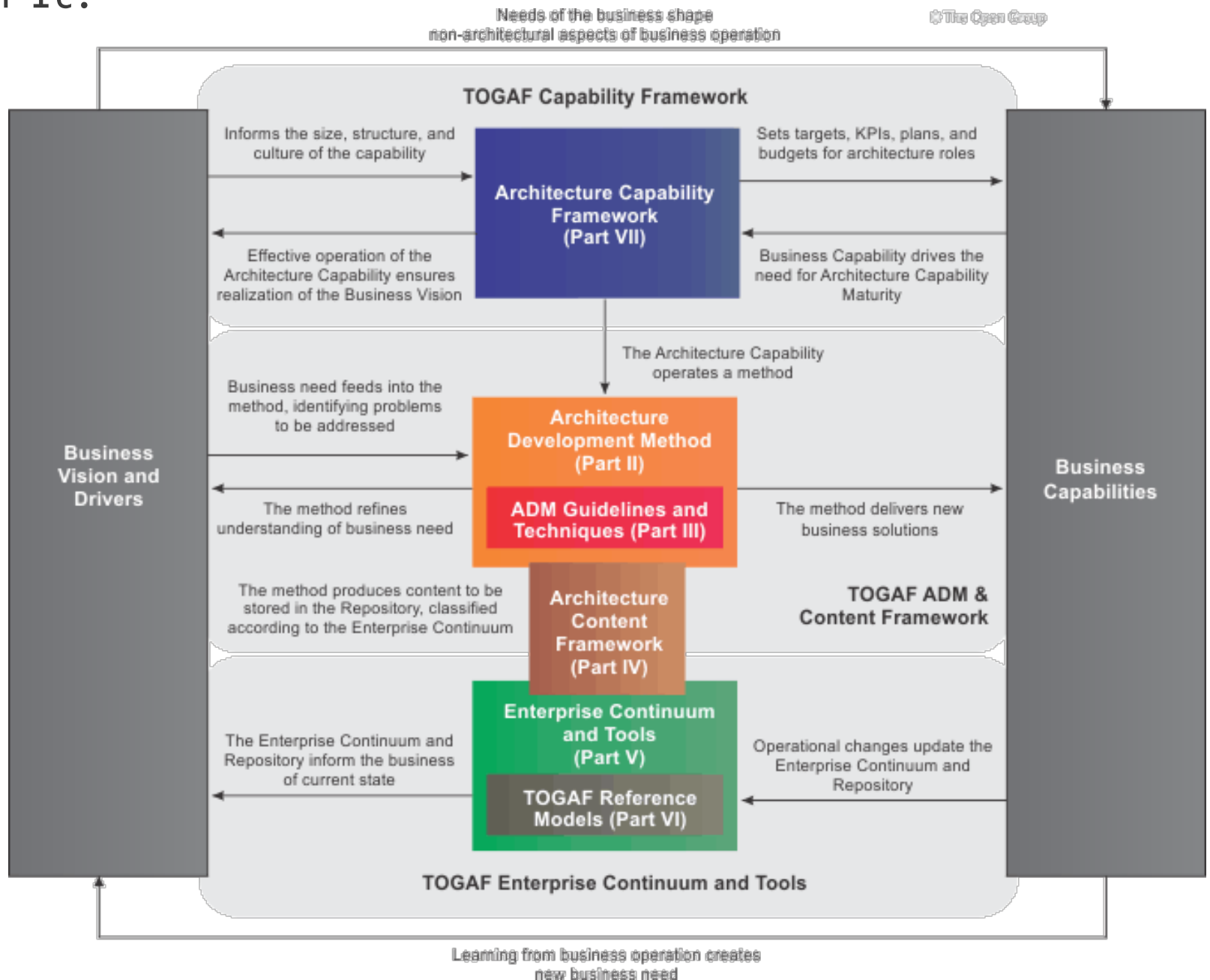


TOGAF Features

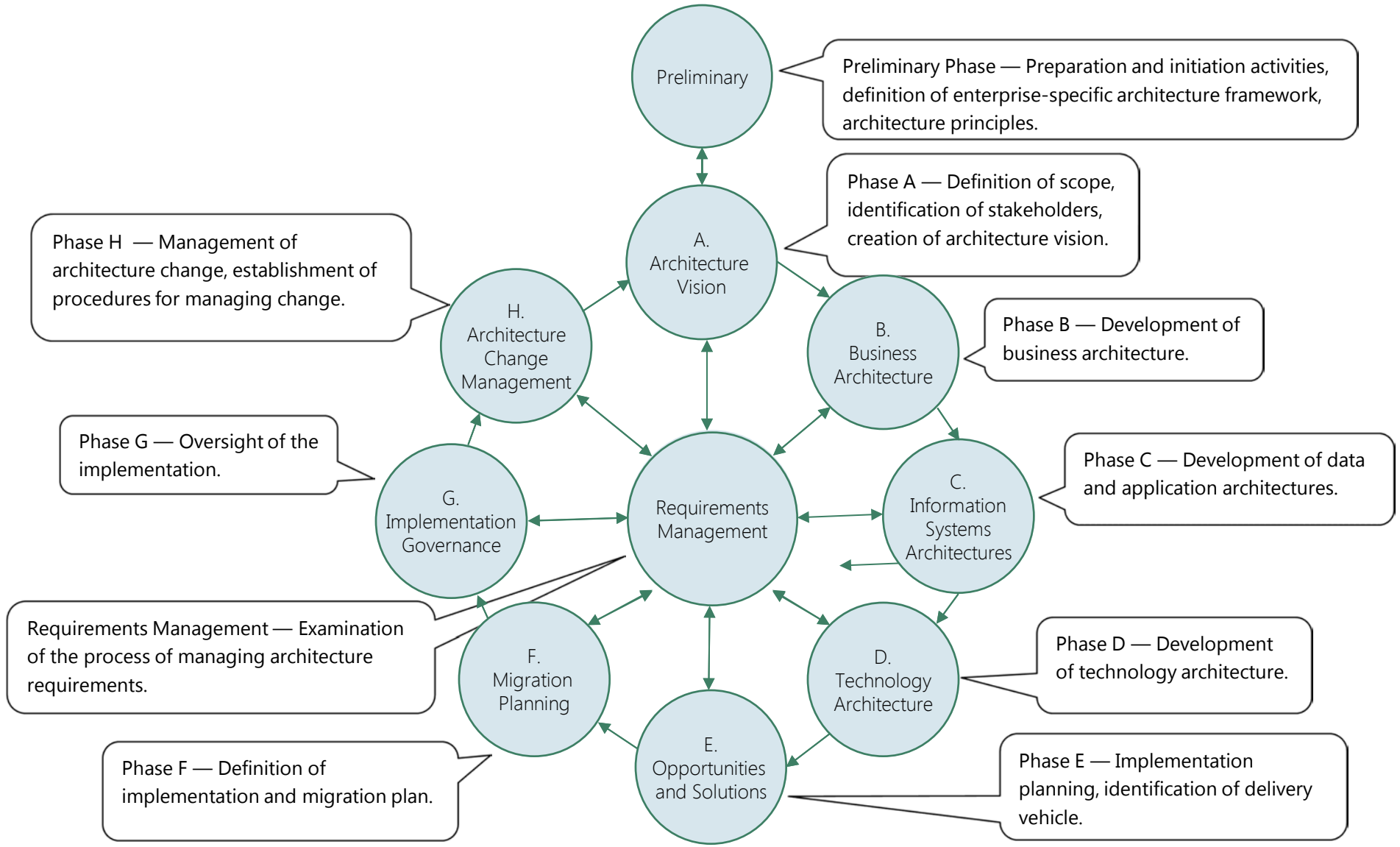
- Open
- Re-Invencion
- Alignment
- Best Practice
- Glue
- Community

- General
- Complementary
- Adoption
- Customizable
- Free
- Agnostic

What's in It?

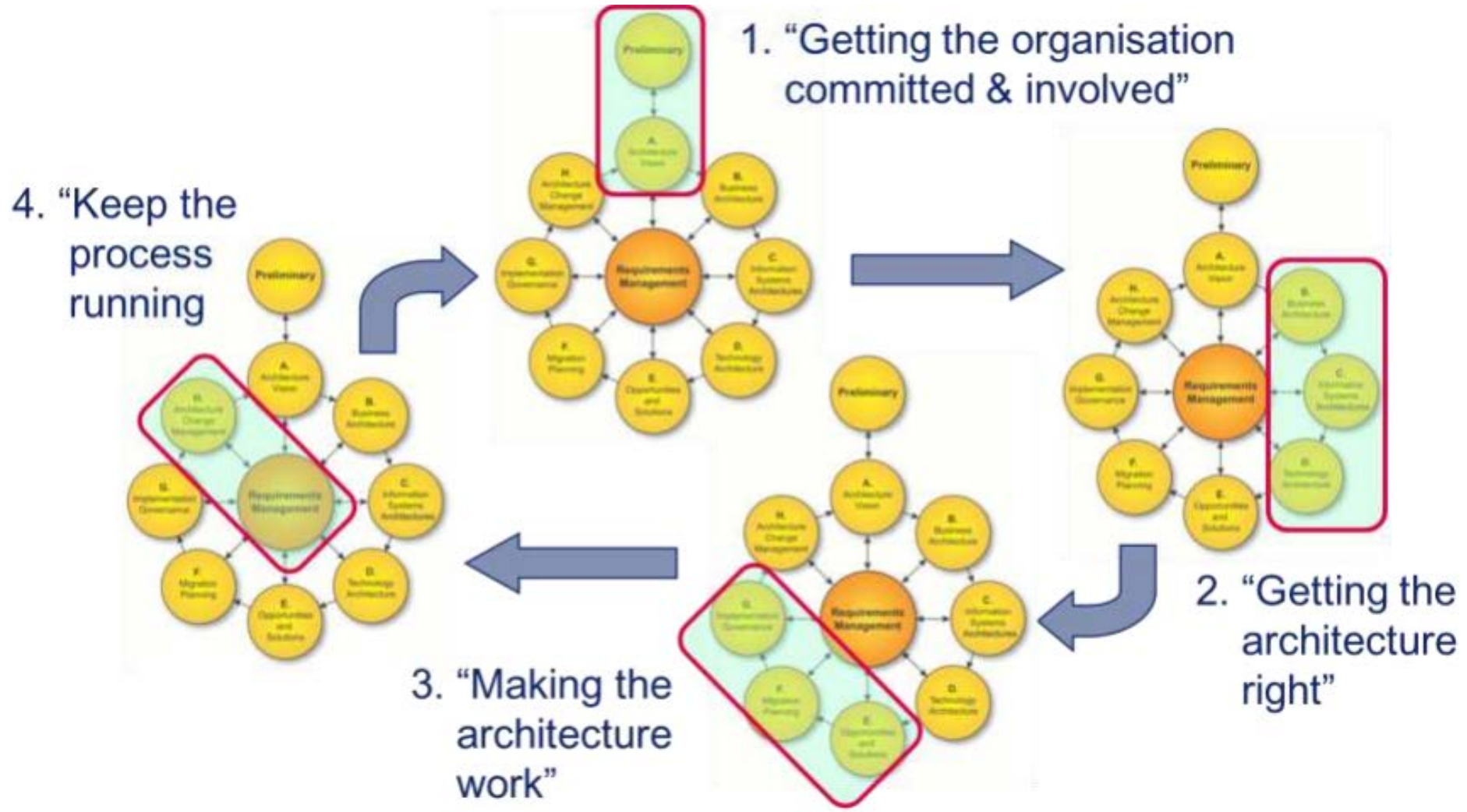

Needs of the business shape non-architectural aspects of business operation
© The Open Group
TOGAF Capability Framework
Informs the size, structure, and culture of the capability
Sets targets, KPIs, plans, and budgets for architecture roles
Architecture Capability Framework (Part VII)
Effective operation of the Architecture Capability ensures realization of the Business Vision
Business Capability drives the need for Architecture Capability Maturity
The Architecture Capability operates a method
Business need feeds into the method, identifying problems to be addressed
Business Vision and Drivers
Architecture Development Method (Part II)
ADM Guidelines and Techniques (Part III)
Business Capabilities
The method refines understanding of business need
The method delivers new business solutions
The method produces content to be stored in the Repository, classified according to the Enterprise Continuum
Architecture Content Framework (Part IV)
TOGAF ADM & Content Framework
Enterprise Continuum and Tools (Part V)
The Enterprise Continuum and Repository inform the business of current state
Operational changes update the Enterprise Continuum and Repository
TOGAF Reference Models (Part VI)
TOGAF Enterprise Continuum and Tools
Learning from business operation creates new business need

Core Concepts: ADM



Source: ***TOGAF® Version 9.1*, The Open Group, 2011**

TOGAF ADM


1. “Getting the organisation committed & involved”
2. “Getting the architecture right”
3. “Making the architecture work”
4. “Keep the process running”
Preliminary
Requirements Management

ADM Guidelines and Techniques

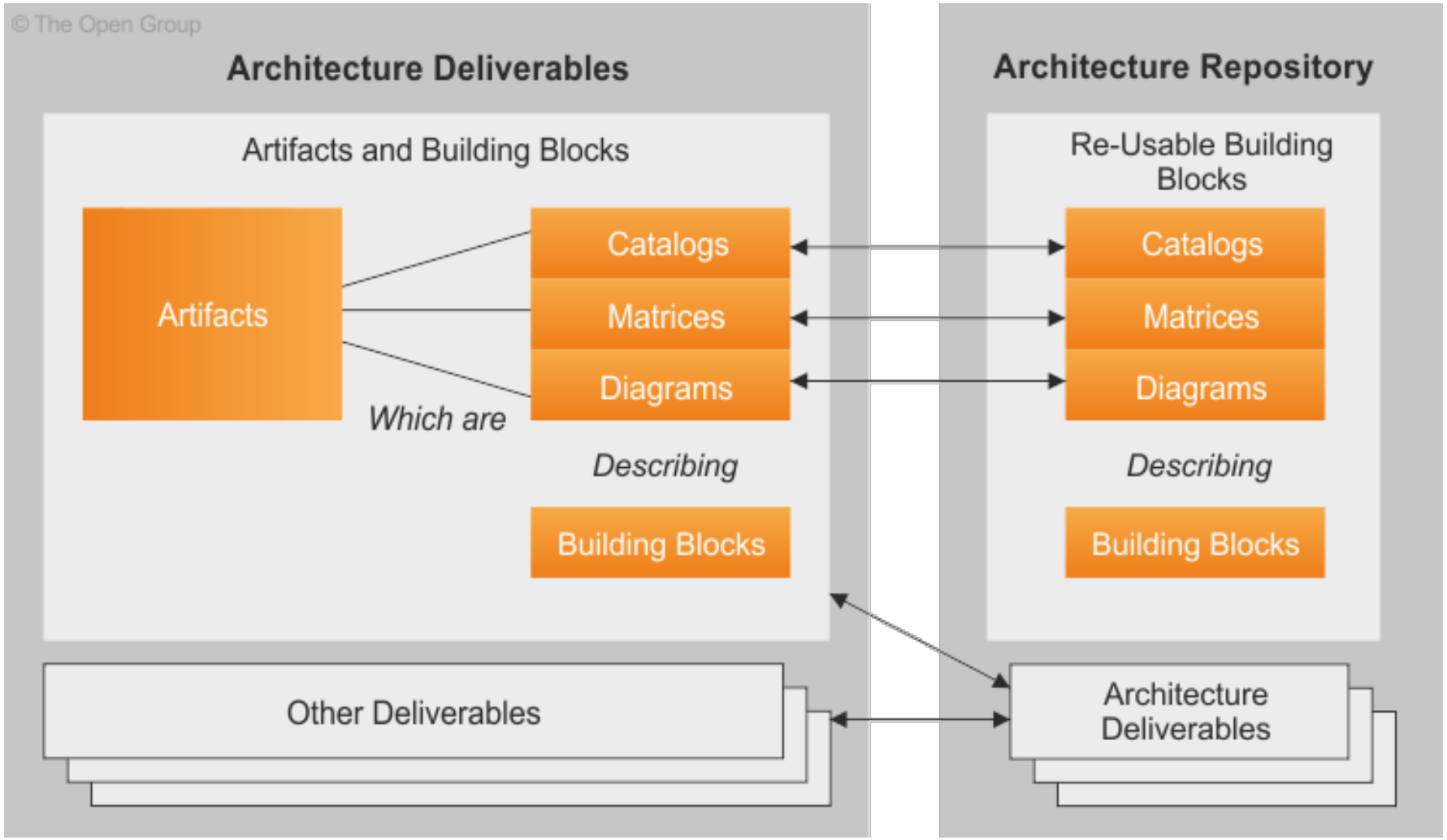
Guidelines for Adapting the ADM Process

- Ways to apply iteration to the ADM,
- Applying the ADM at different levels of the enterprise,
- Security considerations for the different phases and
- Supporting SOA

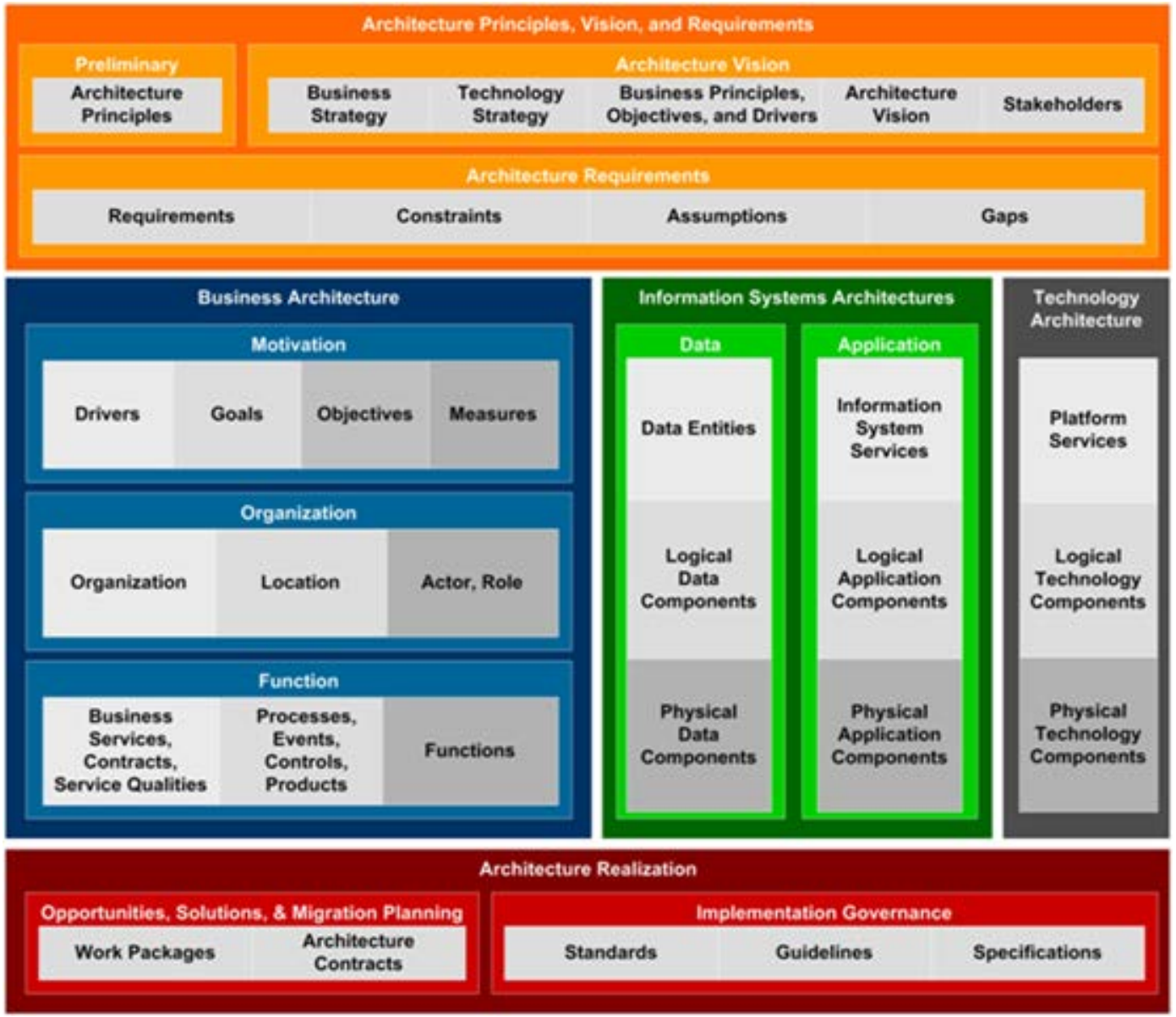
Techniques for Architecture Development

- Architecture Principles,
- Stakeholder Management,
- Architecture Patterns,
- Business Scenarios,
- Gap Analysis,
- Migration Planning Techniques
- Interoperability Requirements,
- Business Transformation Readiness Assessment,
- Risk Management,
- Capability-Based Planning

Architecture Content Framework

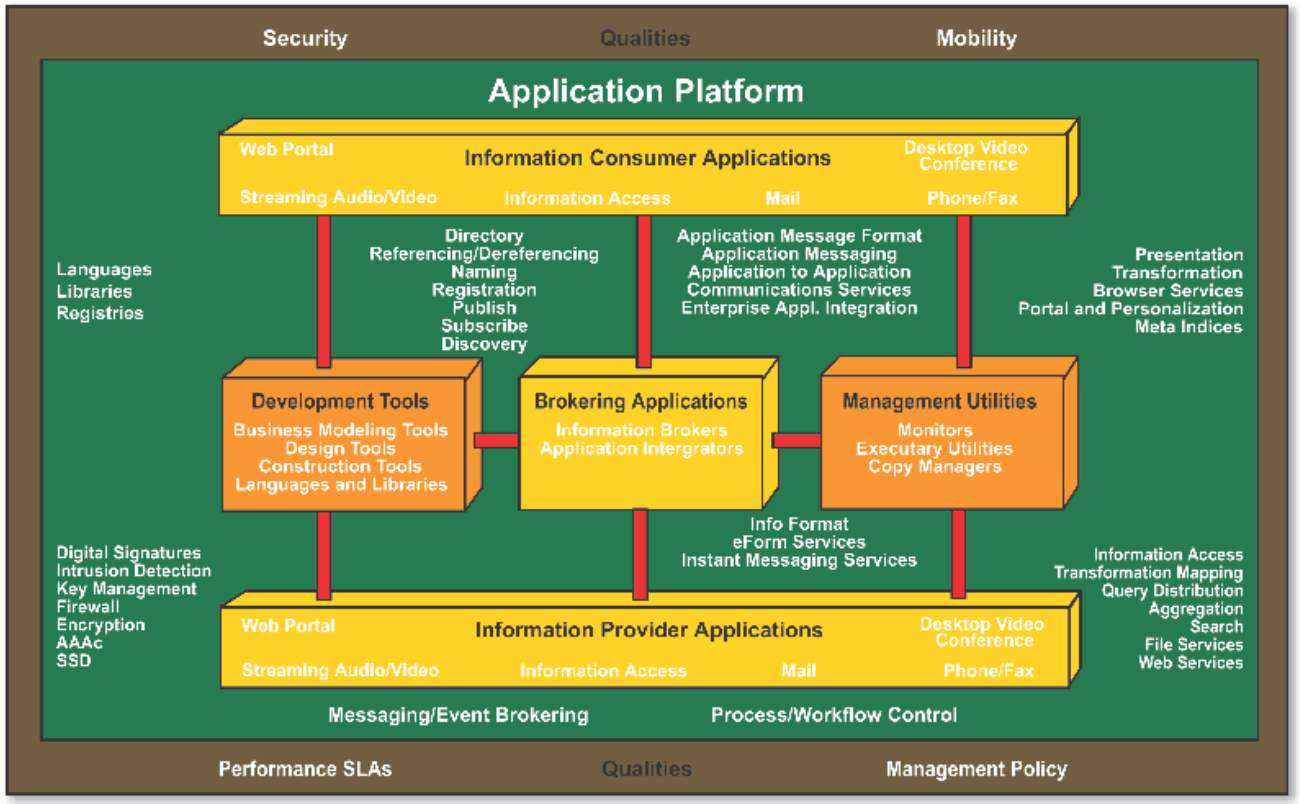


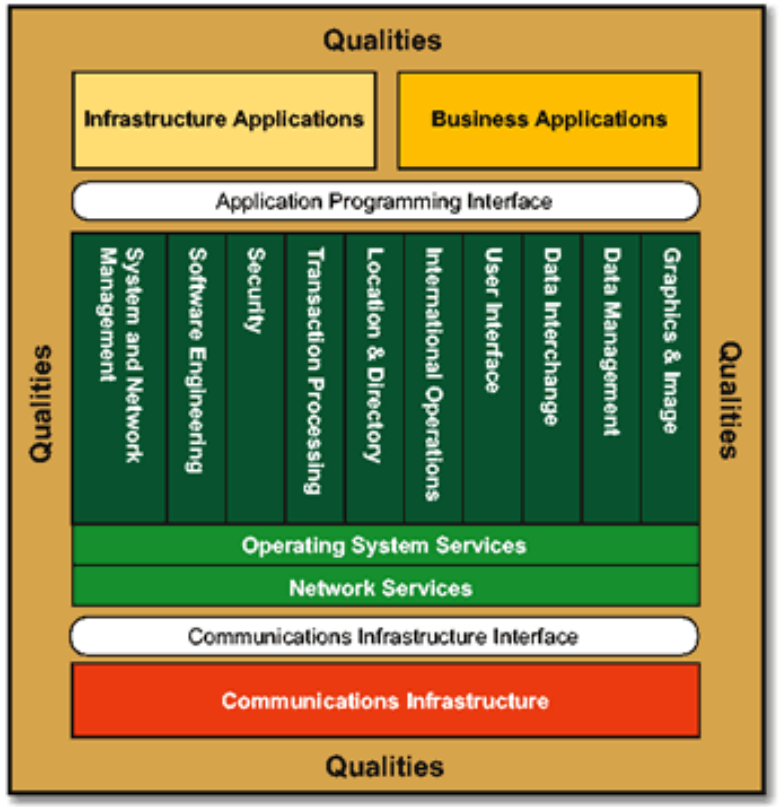
Architecture Content Framework



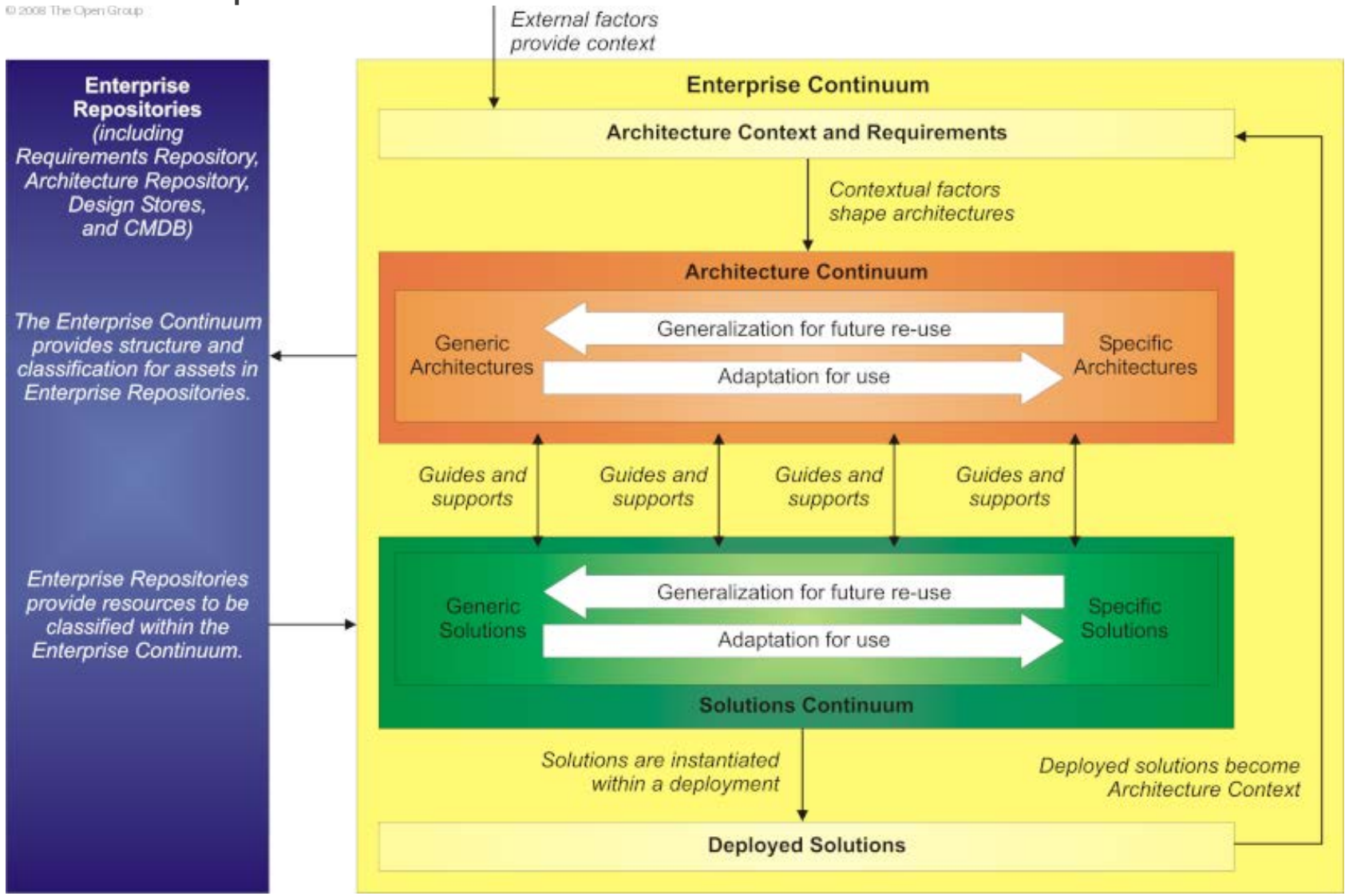
TRM and III-RM

Technical Reference Model
Integrated Information Infrastructure Reference Model

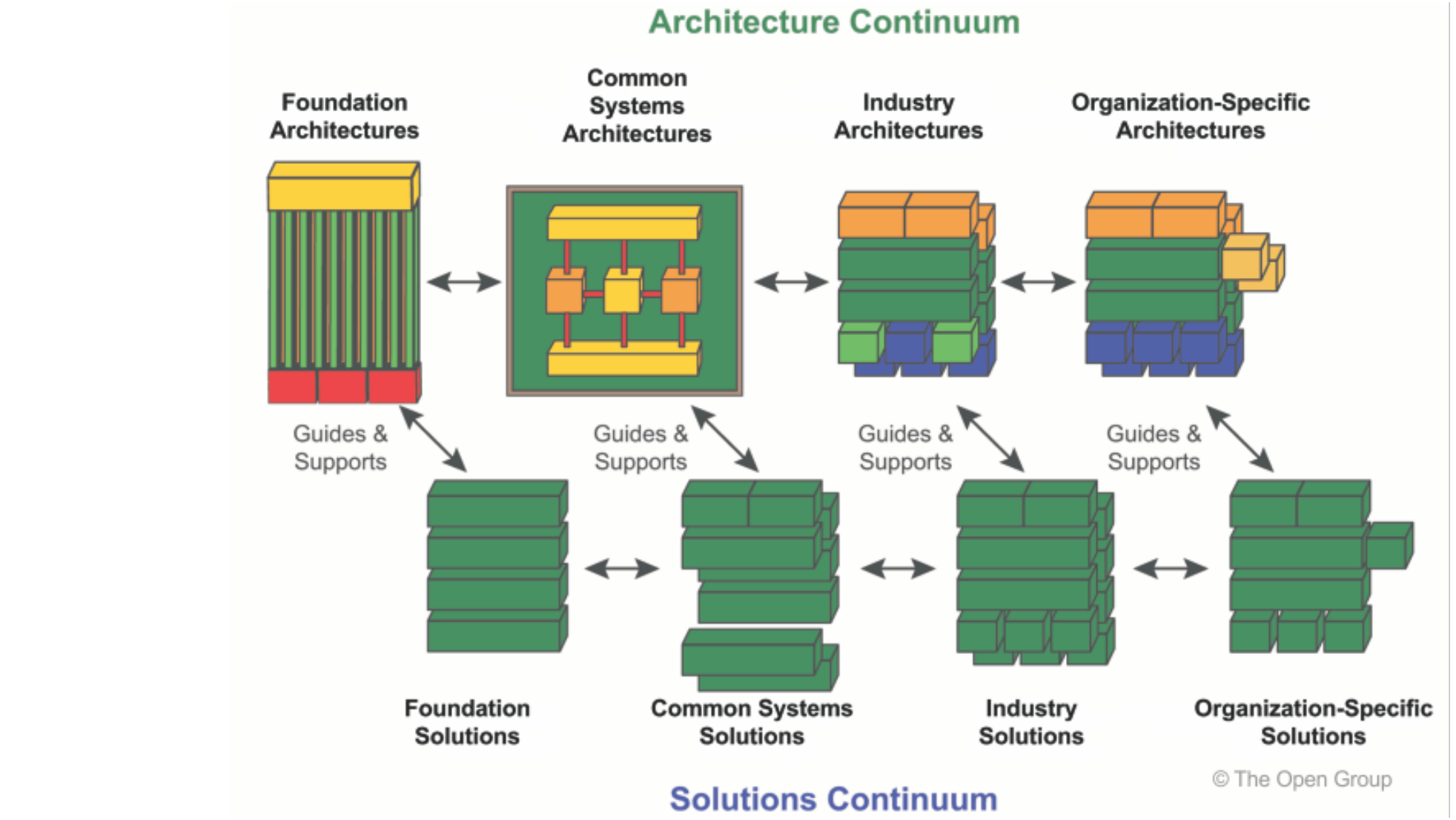




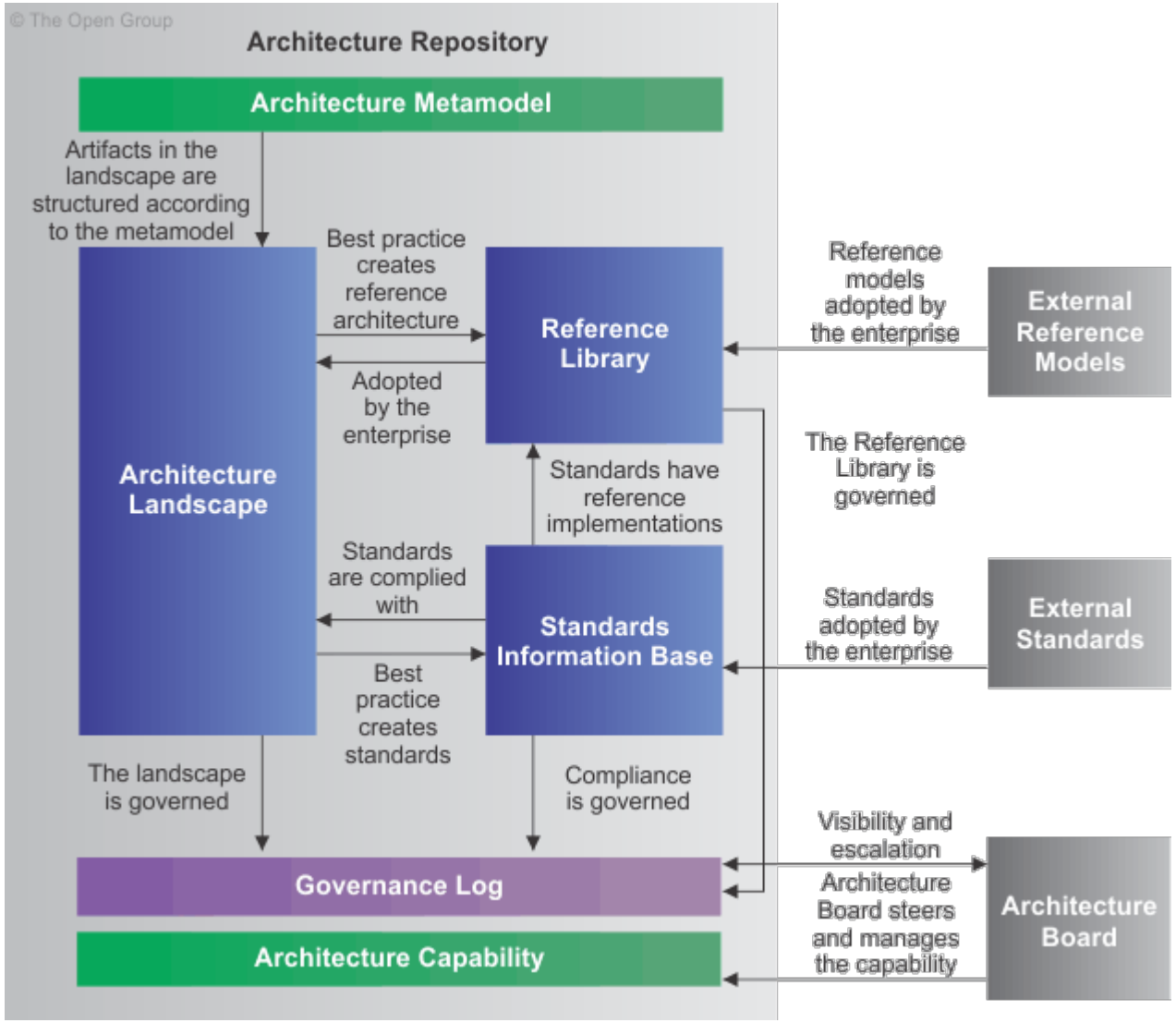
TOGAF Enterprise Continuum



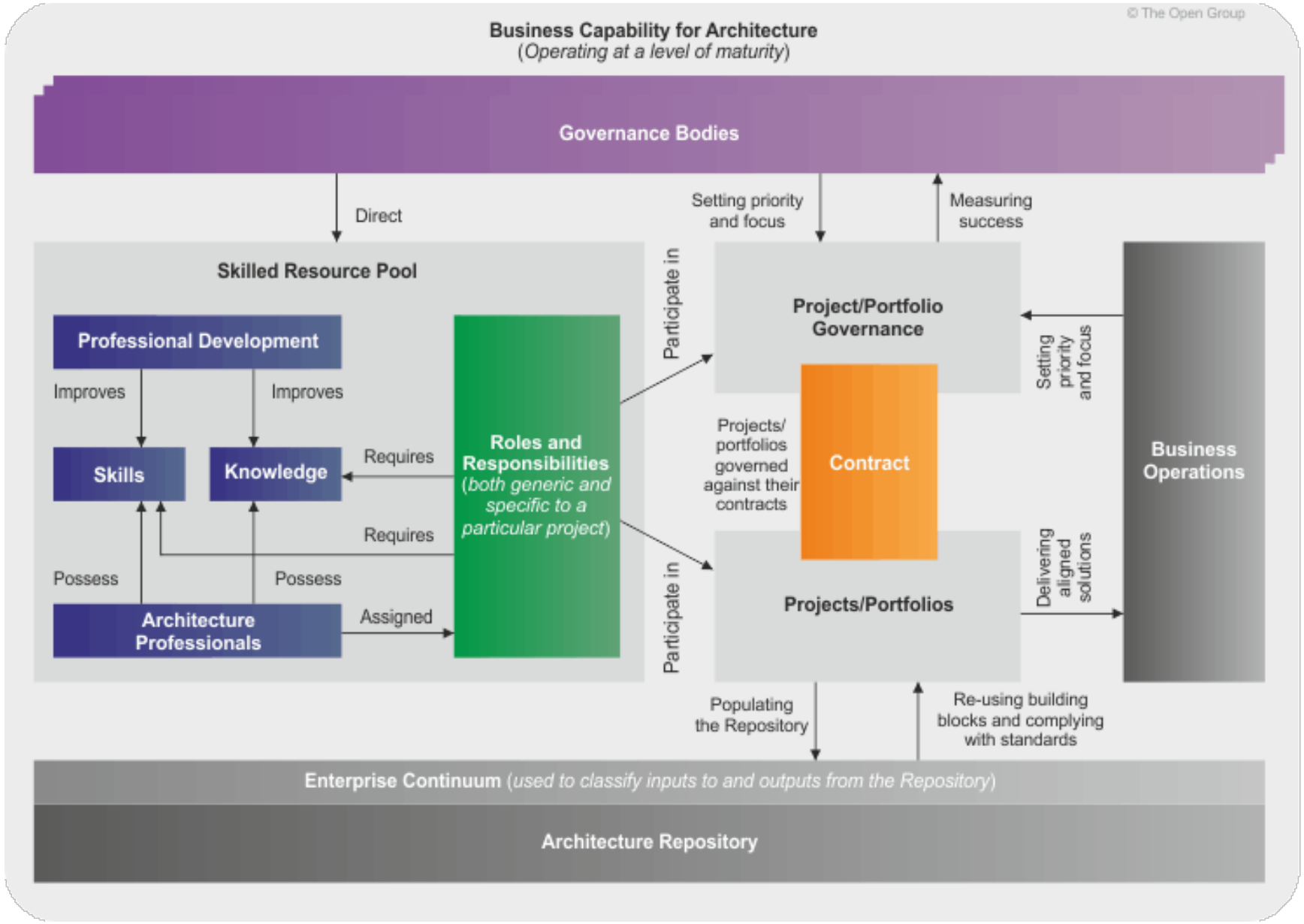
TOGAF Enterprise Continuum



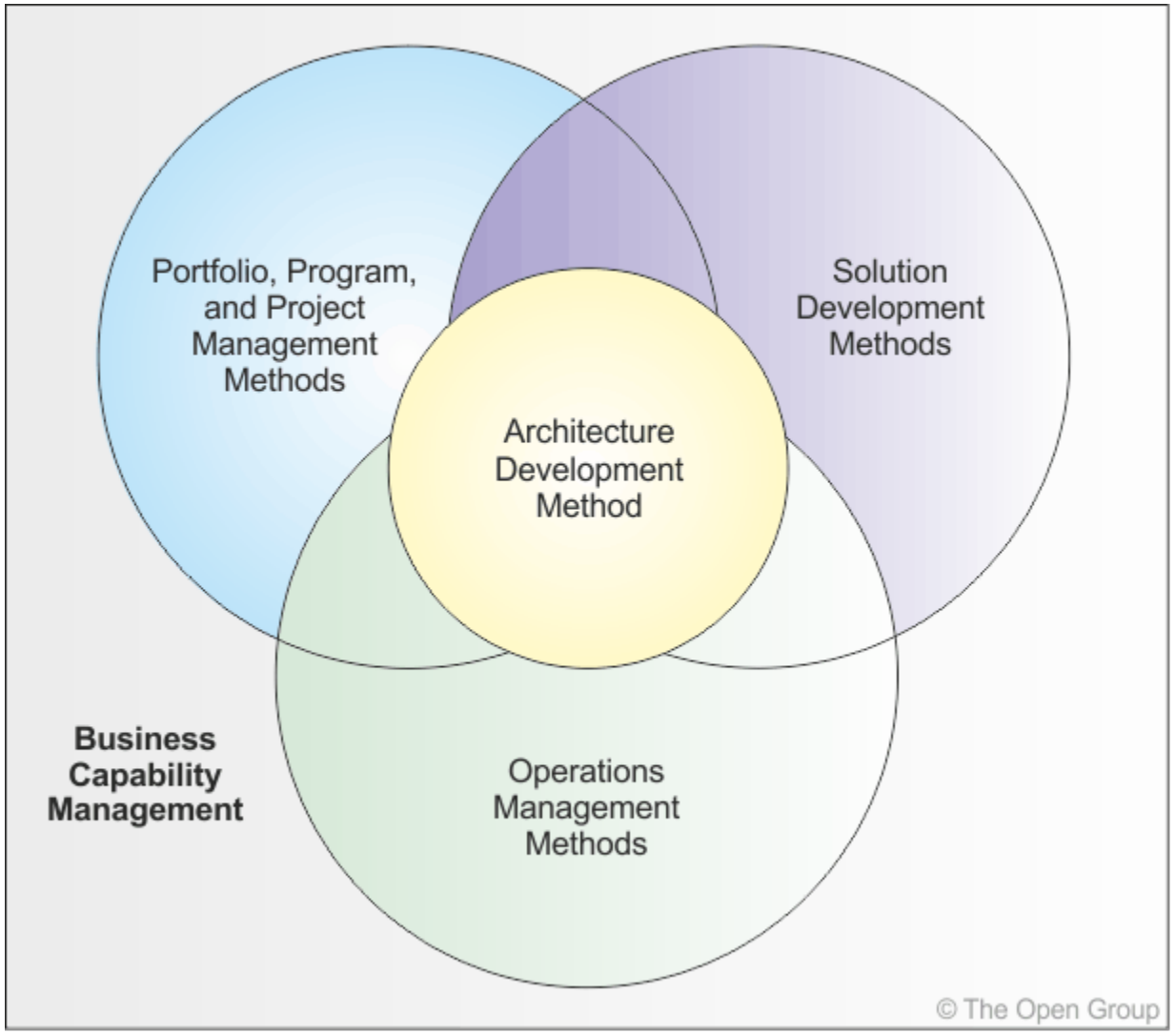
TOGAF Enterprise Repository



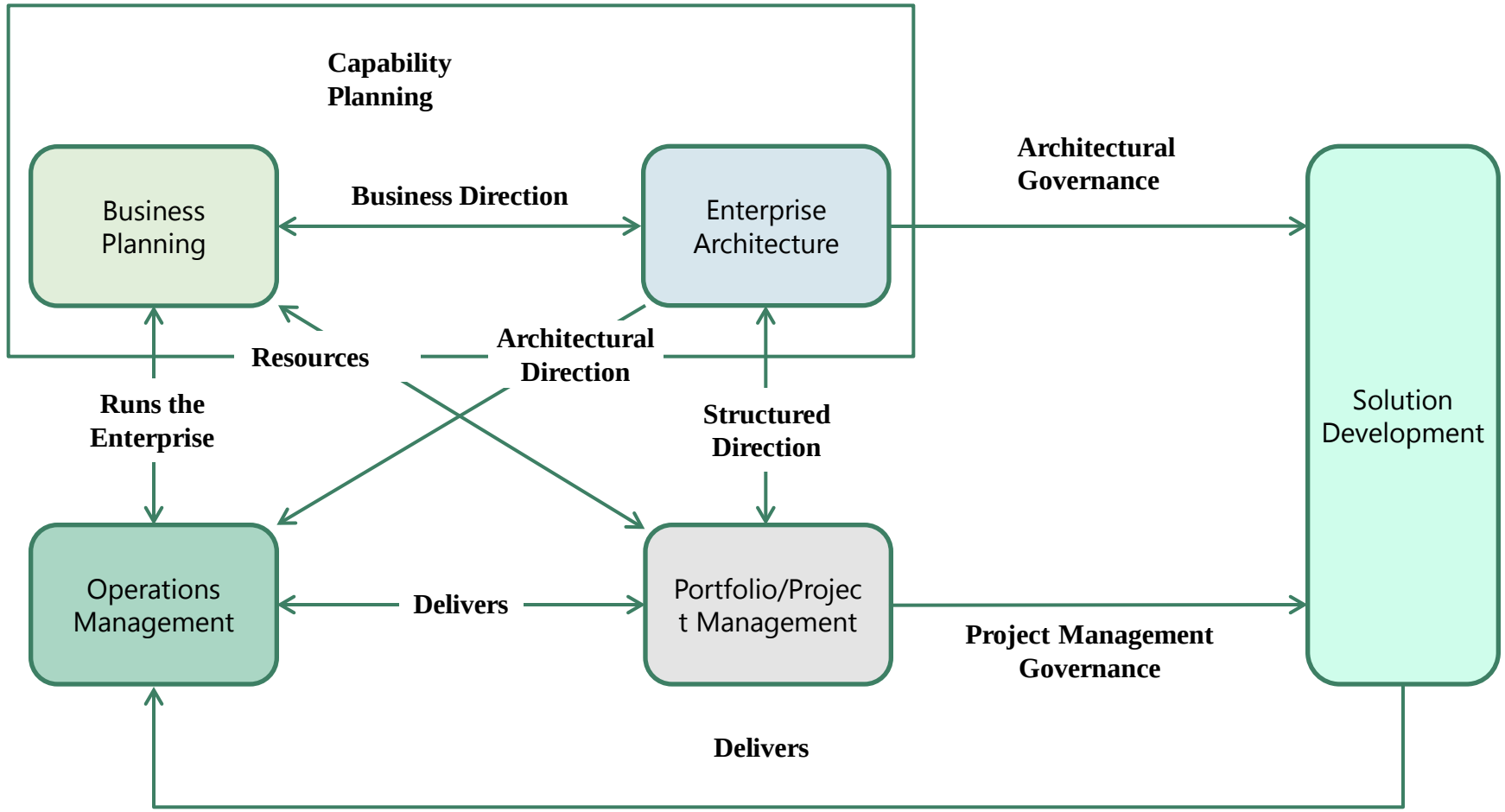
Architecture Capability Framework



How Does EA Relate to Mayor IT Frameworks?

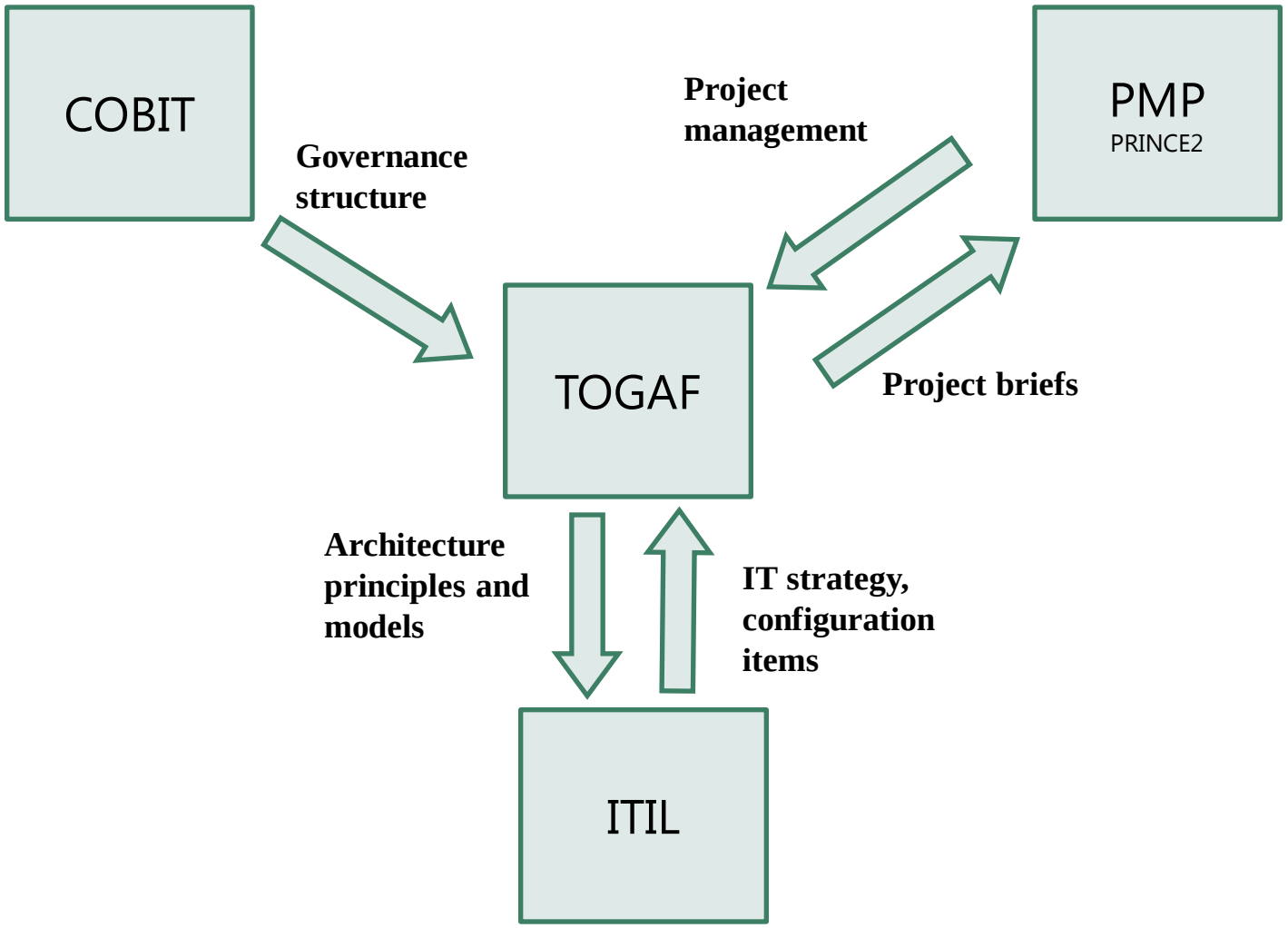


How Does EA Relate to Mayor IT Frameworks?

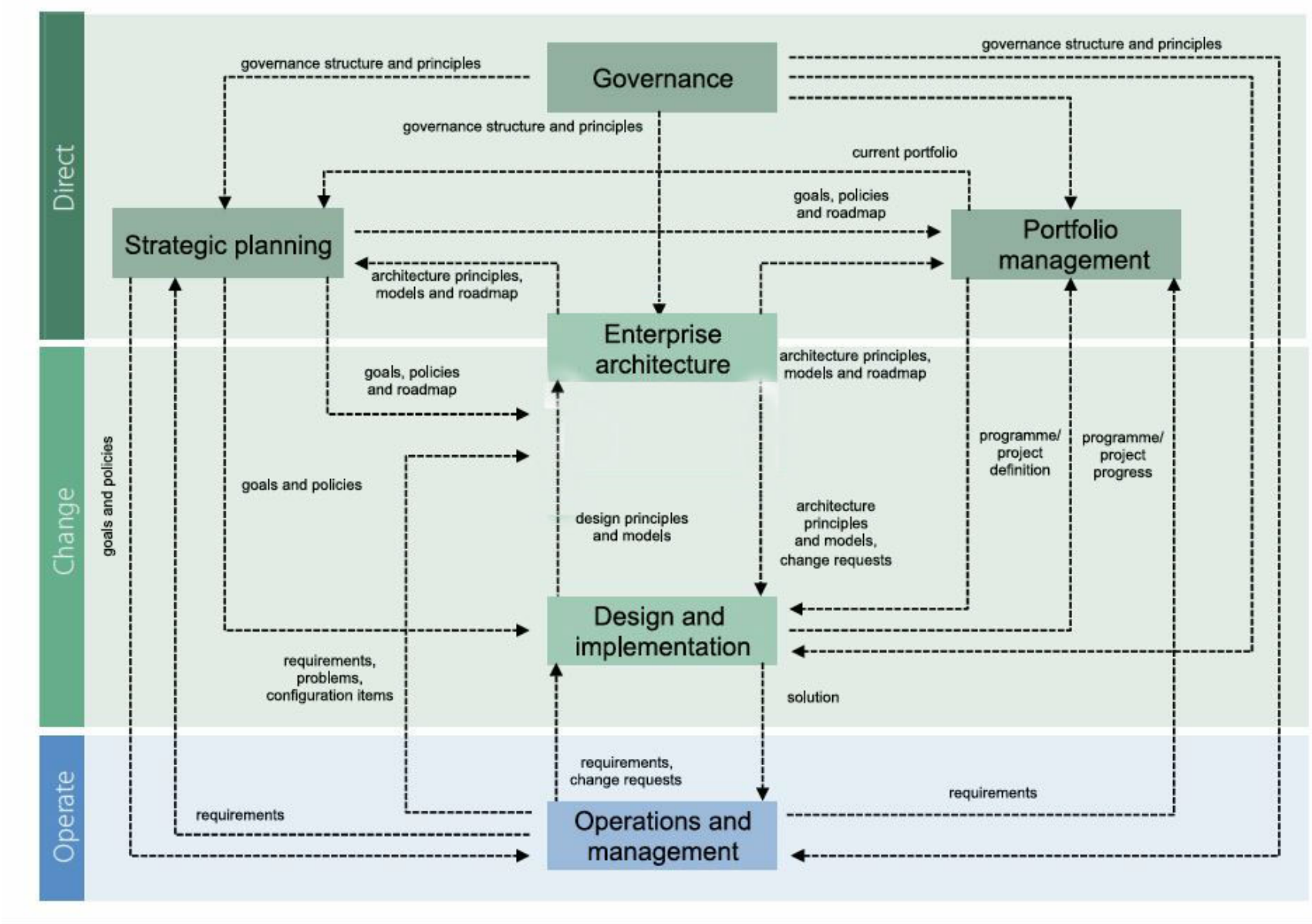


Source: *TOGAF® Version 9.1*, The Open Group, 2011

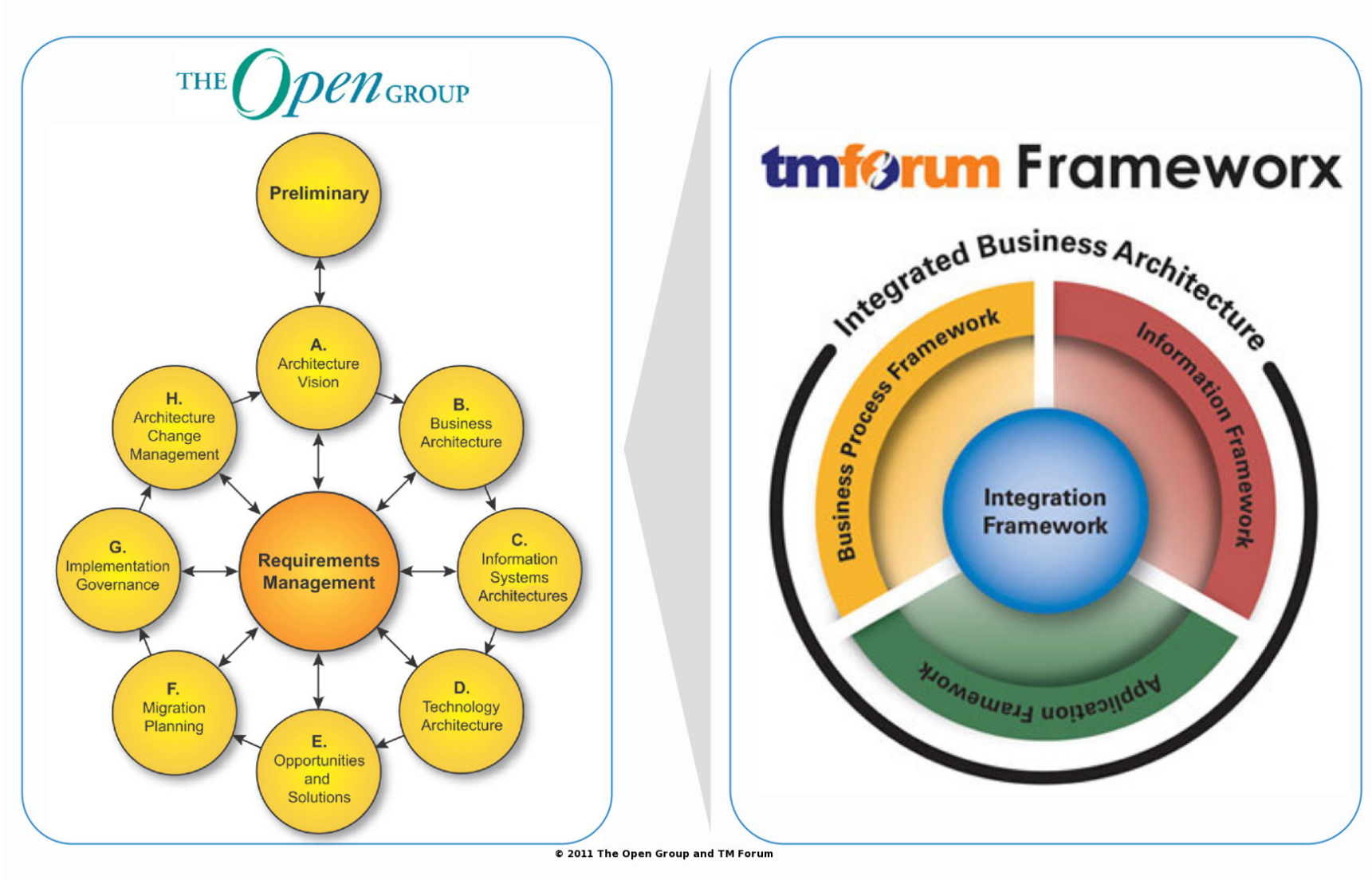
How Does EA Relate to Mayor IT Frameworks?



Process Chain and Frameworks (© www.bizzdesign.com)

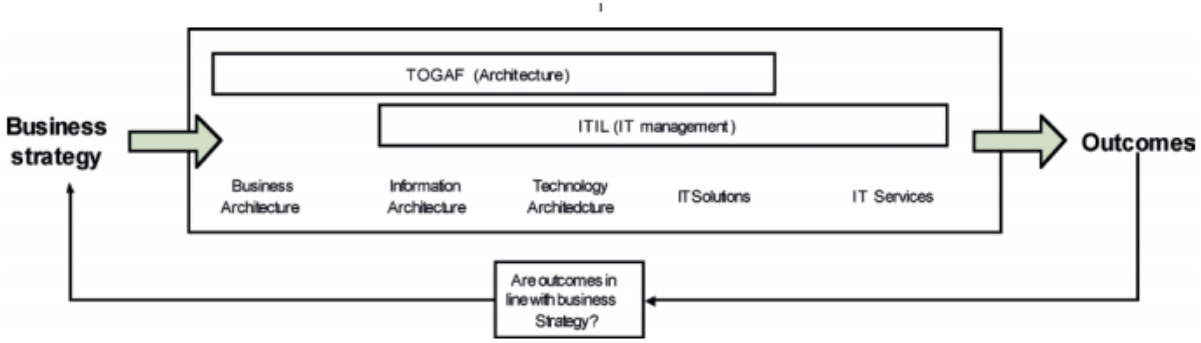


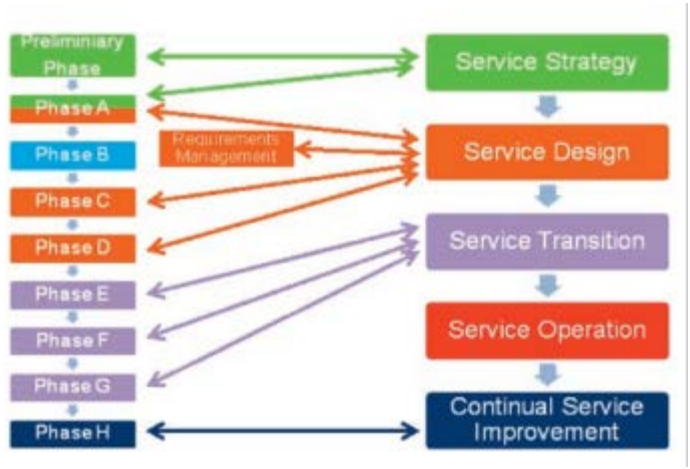
TOGAF and eTOM

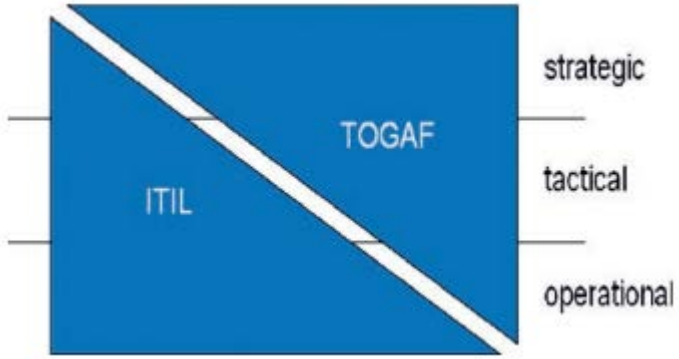


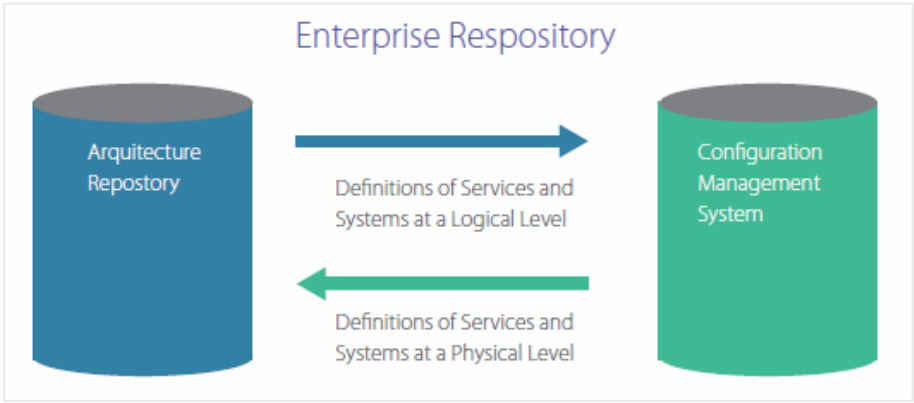
TOGAF and BIAN

EA and ITIL

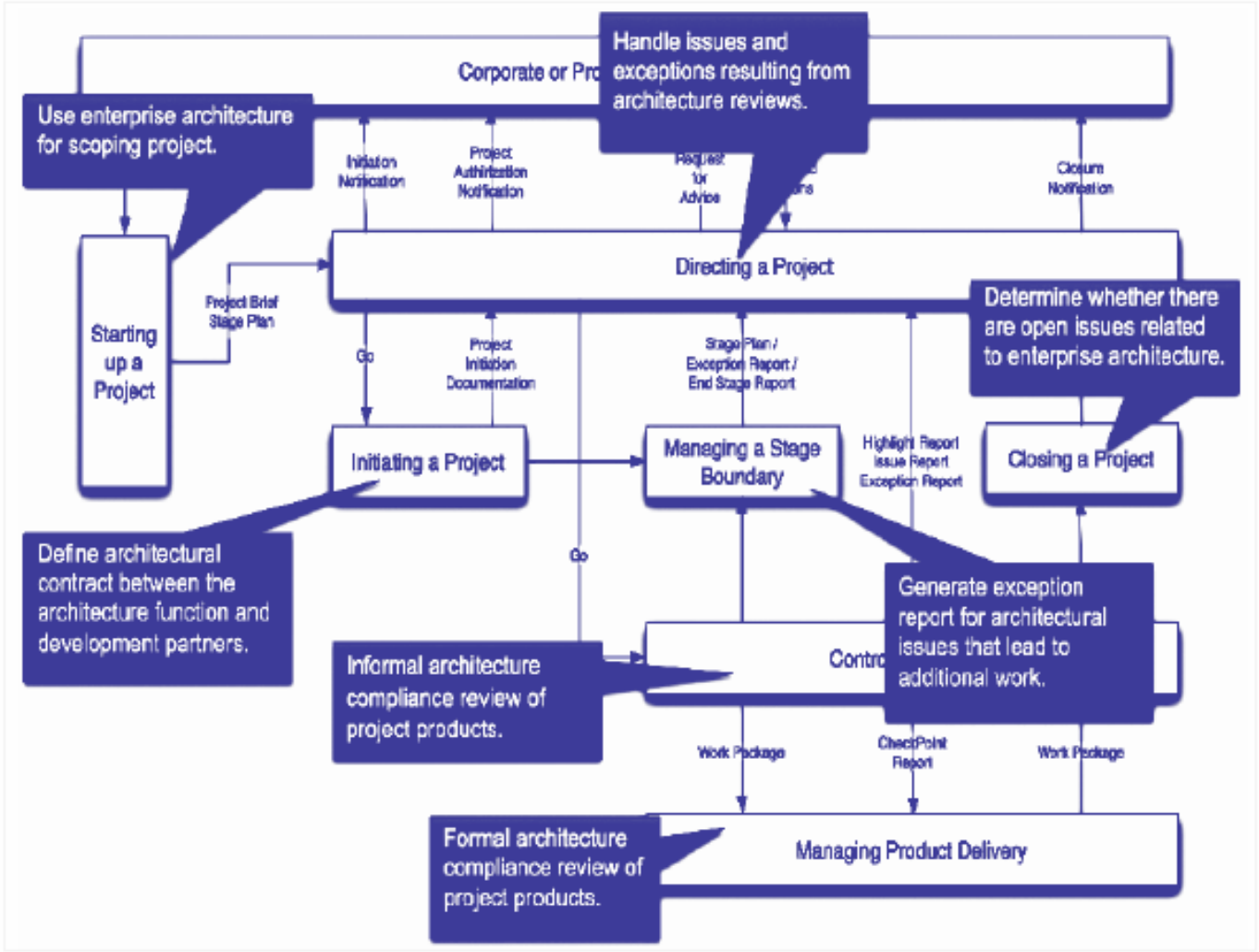

TOGAF (Architecture)
ITIL (IT management)
Business strategy
Outcomes
Business Architecture
Information Architecture
Technology Architedcture
IT Solutions
IT Services
Are outcomes in line with business Strategy?


Preliminary Phase
Phase A
Phase B
Phase C
Phase D
Phase E
Phase F
Phase G
Phase H
Requirements Management
Service Strategy
Service Design
Service Transition
Service Operation
Continual Service Improvement


TOGAF
ITIL
strategic
tactical
operational


Enterprise Respository
Arquitecture Repostory
Definitions of Services and Systems at a Logical Level
Definitions of Services and Systems at a Physical Level
Configuration Management System

EA and PRINCE2



EA and COBIT


Procesos de Gobierno de TI Empresarial
Evaluar, Orientar y Supervisar
EDM01 Asegurar el Establecimiento y Mantenimiento del Marco de Gobierno
EDM02 Asegurar la Entrega de Beneficios
EDM03 Asegurar la Optimización del Riesgo
EDM04 Asegurar la Optimización de los Recursos
EDM05 Asegurar la Transparencia hacia las Partes Interesadas
Alinear, Planificar y Organizar
APO01 Gestionar el Marco de Gestión de TI
APO02 Gestionar la Estrategia
APO03 Gestionar la Arquitectura Empresarial
APO04 Gestionar la Innovación
APO05 Gestionar Portafolio
APO06 Gestionar el Presupuesto y los Costes
APO07 Gestionar los Recursos Humanos
APO08 Gestionar las Relaciones
APO09 Gestionar los Acuerdos de Servicio
APO10 Gestionar los Proveedores
APO11 Gestionar la Calidad
APO12 Gestionar el Riesgo
APO13 Gestionar la Seguridad
Construir, Adquirir e Implementar
BAI01 Gestionar los Programas y Proyectos
BAI02 Gestionar la Definición de Requisitos
BAI03 Gestionar la Identificación y la Construcción de Soluciones
BAI04 Gestionar la Disponibilidad y la Capacidad
BAI05 Gestionar la Introducción de Cambios Organizativos
BAI06 Gestionar los Cambios
BAI07 Gestionar la Aceptación del Cambio y de la Transición
BAI08 Gestionar el Conocimiento
BAI09 Gestionar los Activos
BAI010 Gestionar la Configuración
Entregar, dar Servicio y Soporte
DSS01 Gestionar las Operaciones
DSS02 Gestionar las Peticiones y los Incidentes del Servicio
DSS03 Gestionar los Problemas
DSS04 Gestionar la Continuidad
DSS05 Gestionar los Servicios de Seguridad
DSS06 Gestionar los Controles de los Procesos del Negocio
Supervisar, Evaluar y Valorar
MEA01 Supervisar, Evaluar y Valorar Rendimiento y Conformidad
MEA02 Supervisar, Evaluar y Valorar el Sistema de Control Interno
MEA03 Supervisar, Evaluar y Valorar la Conformidad con los Requerimientos Externos
Procesos para la Gestión de la TI Empresarial

IASA y The Open Group

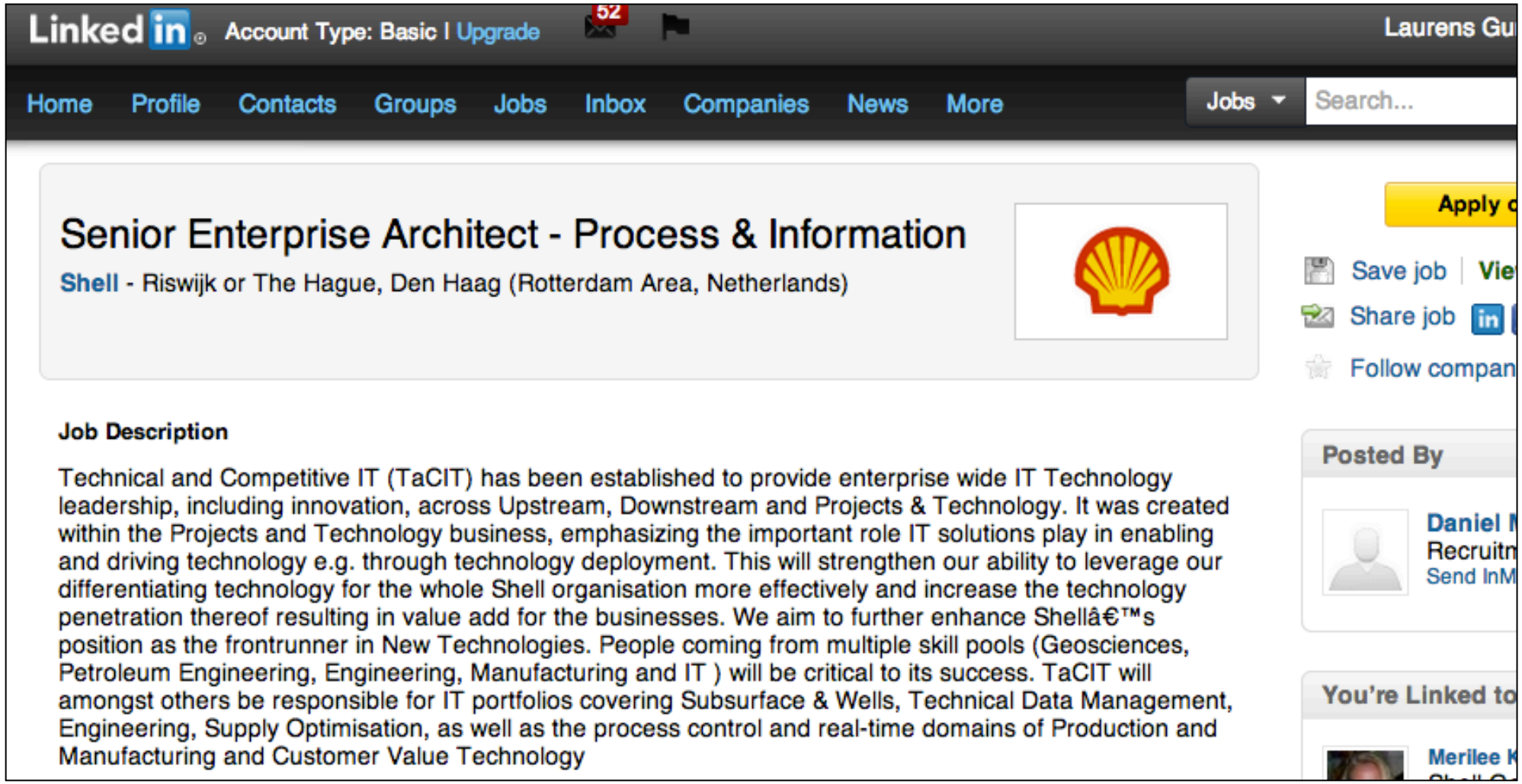
	Big Data	Developing TOGAF® Artifacts CPD .5 each	ArchiMate® Case Studies CPD .5 each
4:00 - 4:45	Challenges and Opportunities for "Big Data" in Healthcare Larry Schmidt, Chief Technologist, Enterprise Services Hewlett-Packard	4.00-4.30 Deliverables in the CARTV EA Projects with TOGAF® Santos Pardos, Enterprise Architect, Corporacion Aragonesa de Radio y TV (CARTV), Spain	ArchiMate® as Foundation for Enterprise Architecture at APG Asset Management Gerben Wierda, Lead Architect, APG Asset Management, Netherlands
4:45 - 5:30	Big Data and Semantics Panel	4.30-5.30 Workshop: Constructing EA Artifacts Using TOGAF® ADM Daniel Spar, Enterprise Architecture Practice Champion, Deloitte Consulting	From Implicit to Explicit with ArchiMate® Mieke Mahakena, Capgemini, Netherlands

TOGAF in Spain. Examples

REPSOL

TOGAF in The World.

TOGAF Skills Are Demanded. (Jobs)



EA and The University.

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BARCELONATECH
School of Professional & Executive Development

Inicio Portada | **Conoce la UPC School** Quiénes somos | **Másters y posgrados** Para profesionales | **Soluciones corporativas** Para empresas

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Presentación

IT PROJECT MANAGEMENT

MÁSTER PRESENCIAL. 4ª EDICIÓN

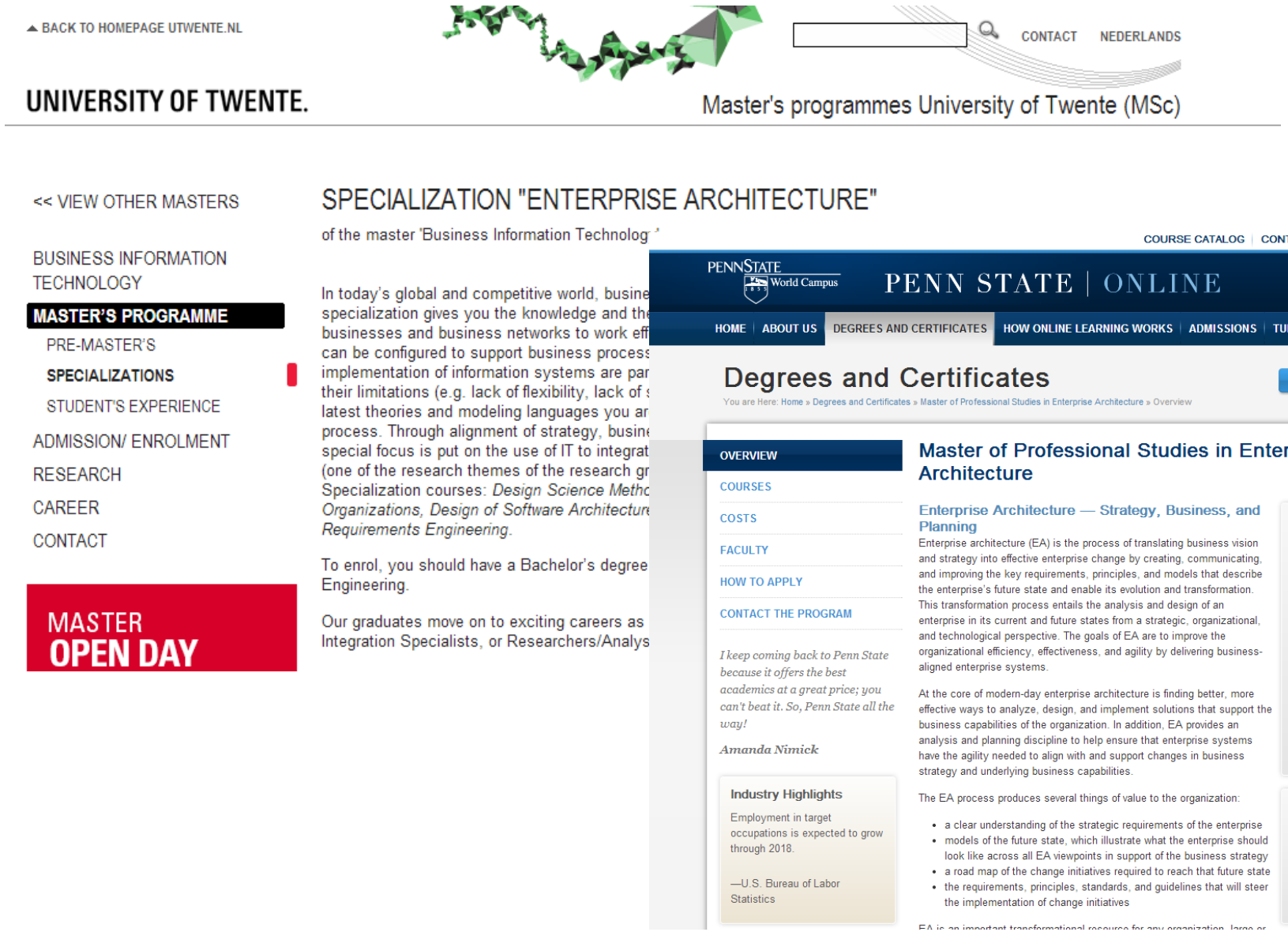
3. Sistemas de Información en las organizaciones

Marcos para la IT Governance

6 ECTS. 39 horas lectivas.

1. Gobierno corporativo y IT Governances
2. PPM/PMO (Project Portfolio Management/Project Management Office)
3. IT Enterprise Architecture

EA and The University.



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MASTER'S PROGRAMME

PRE-MASTER'S

SPECIALIZATIONS

STUDENT'S EXPERIENCE

ADMISSION/ ENROLMENT

RESEARCH

CAREER

CONTACT

MASTER OPEN DAY

SPECIALIZATION "ENTERPRISE ARCHITECTURE"

of the master 'Business Information Technolog

In today's global and competitive world, busine
specialization gives you the knowledge and th
businesses and business networks to work eff
can be configured to support business process
implementation of information systems are par
their limitations (e.g. lack of flexibility, lack of
latest theories and modeling languages you ar
process. Through alignment of strategy, busine
special focus is put on the use of IT to integrat
(one of the research themes of the research gr
Specialization courses: *Design Science Metho
Organizations, Design of Software Architecture
Requirements Engineering.*

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OVERVIEW

COURSES

COSTS

FACULTY

HOW TO APPLY

CONTACT THE PROGRAM

I keep coming back to Penn State because it offers the best academics at a great price; you can't beat it. So, Penn State all the way!

Amanda Nimick

Industry Highlights

Employment in target occupations is expected to grow through 2018.

—U.S. Bureau of Labor Statistics

Master of Professional Studies in Enterprise Architecture

SHARE PRINT

Enterprise Architecture — Strategy, Business, and Planning

Enterprise architecture (EA) is the process of translating business vision and strategy into effective enterprise change by creating, communicating, and improving the key requirements, principles, and models that describe the enterprise's future state and enable its evolution and transformation. This transformation process entails the analysis and design of an enterprise in its current and future states from a strategic, organizational, and technological perspective. The goals of EA are to improve the organizational efficiency, effectiveness, and agility by delivering business-aligned enterprise systems.

At the core of modern-day enterprise architecture is finding better, more effective ways to analyze, design, and implement solutions that support the business capabilities of the organization. In addition, EA provides an analysis and planning discipline to help ensure that enterprise systems have the agility needed to align with and support changes in business strategy and underlying business capabilities.

The EA process produces several things of value to the organization:

- a clear understanding of the strategic requirements of the enterprise
- models of the future state, which illustrate what the enterprise should look like across all EA viewpoints in support of the business strategy
- a road map of the change initiatives required to reach that future state
- the requirements, principles, standards, and guidelines that will steer the implementation of change initiatives

Summary

Credits Required 36

Tuition per Credit $736–$930

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IST Faculty Spotlight

Rosalie Ocker's teaching strategies benefit online students and make her a more disciplined instructor.

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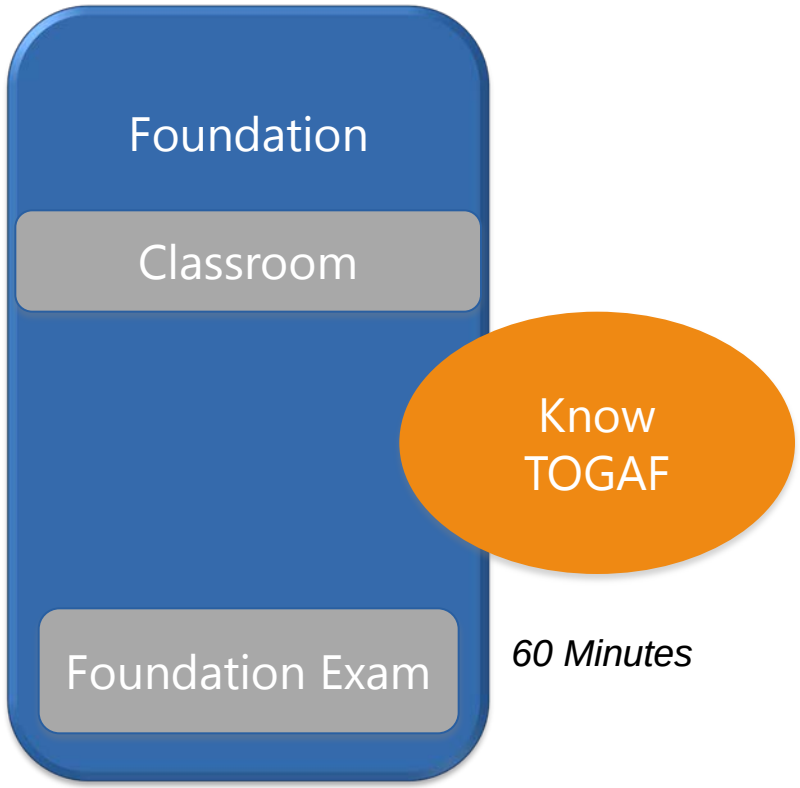
Enterprise Architect
Solution Architect
ERP/SAP Architect
Data Architect
Technical Architect
Governance Engineer
EA/ Governance Consultant
Business Analyst
Business information Manager
Project & Program Manager

The TOGAF® Momentum

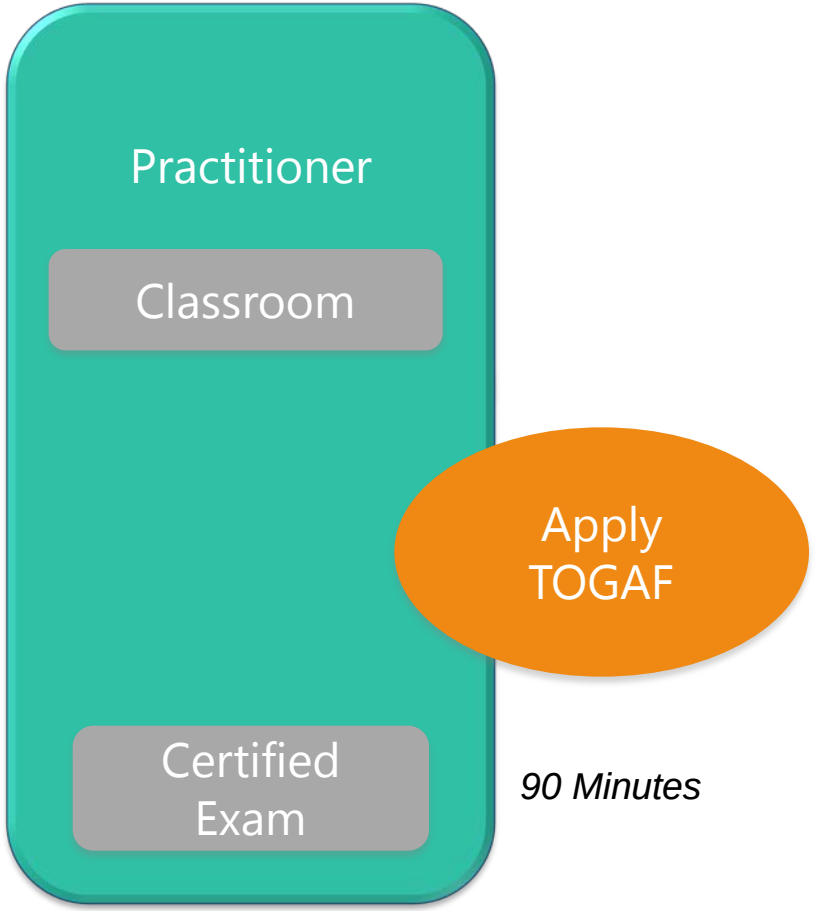
- Over 30,000 certified practitioners
- More than 200 corporate members of The Open Group Architecture Forum
- Over 35,000 TOGAF® series books shipped
- Association of Enterprise Architects membership at more that 18,000

TOGAF® 9.1 Portfolio

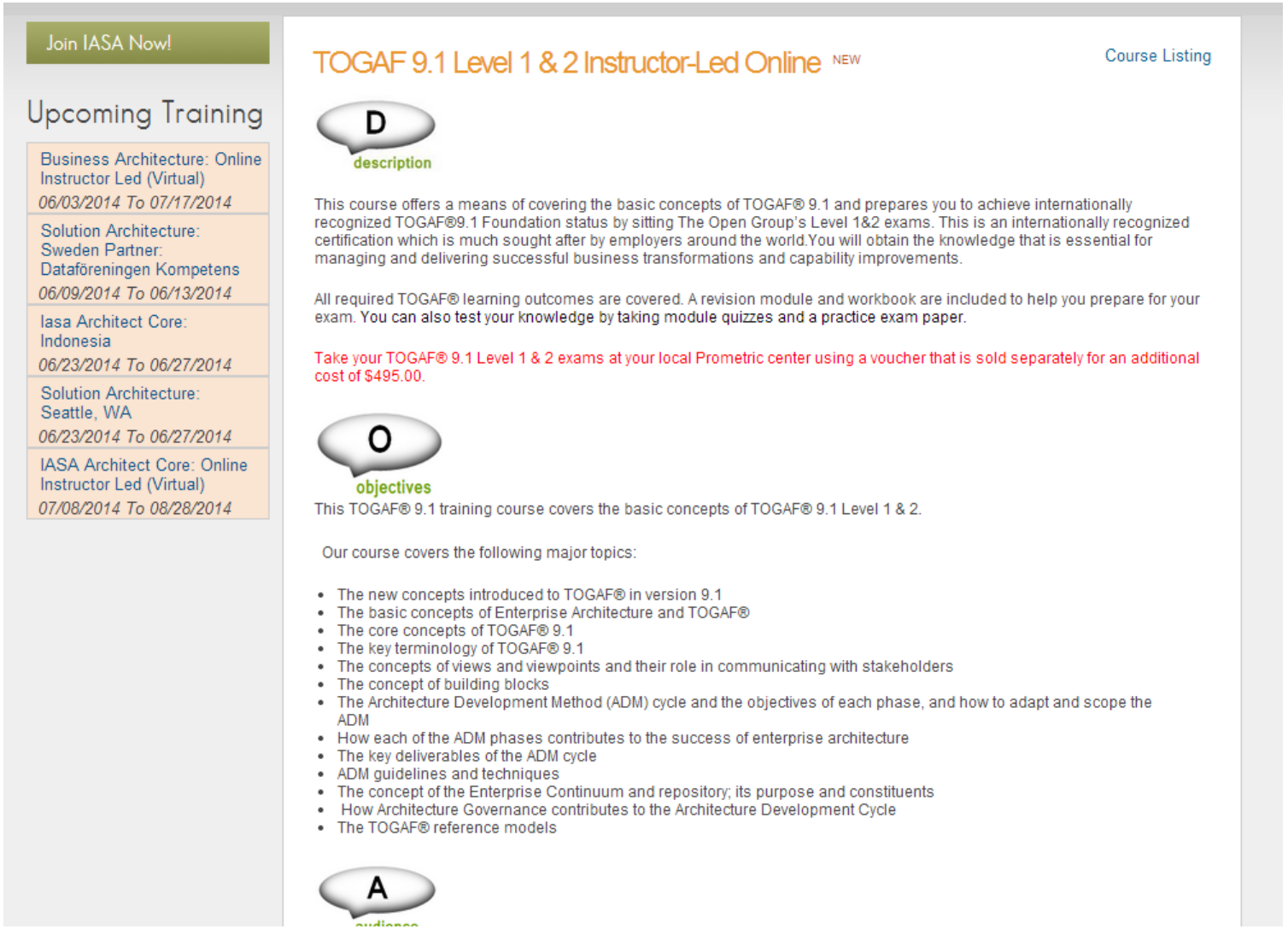
Ensures knowledge and understanding of the terminology, basic concepts and the core principles of TOGAF.



Focuses on implementation, enabling professionals to analyze and apply knowledge of TOGAF.



IASA and TOGAF®



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- Solution Architecture: Seattle, WA *06/23/2014 To 06/27/2014*
- IASA Architect Core: Online Instructor Led (Virtual) *07/08/2014 To 08/28/2014*

TOGAF 9.1 Level 1 & 2 Instructor-Led Online NEW

Course Listing

D

description

This course offers a means of covering the basic concepts of TOGAF® 9.1 and prepares you to achieve internationally recognized TOGAF®9.1 Foundation status by sitting The Open Group's Level 1&2 exams. This is an internationally recognized certification which is much sought after by employers around the world.You will obtain the knowledge that is essential for managing and delivering successful business transformations and capability improvements.

All required TOGAF® learning outcomes are covered. A revision module and workbook are included to help you prepare for your exam. You can also test your knowledge by taking module quizzes and a practice exam paper.

Take your TOGAF® 9.1 Level 1 & 2 exams at your local Prometric center using a voucher that is sold separately for an additional cost of $495.00.

O

objectives

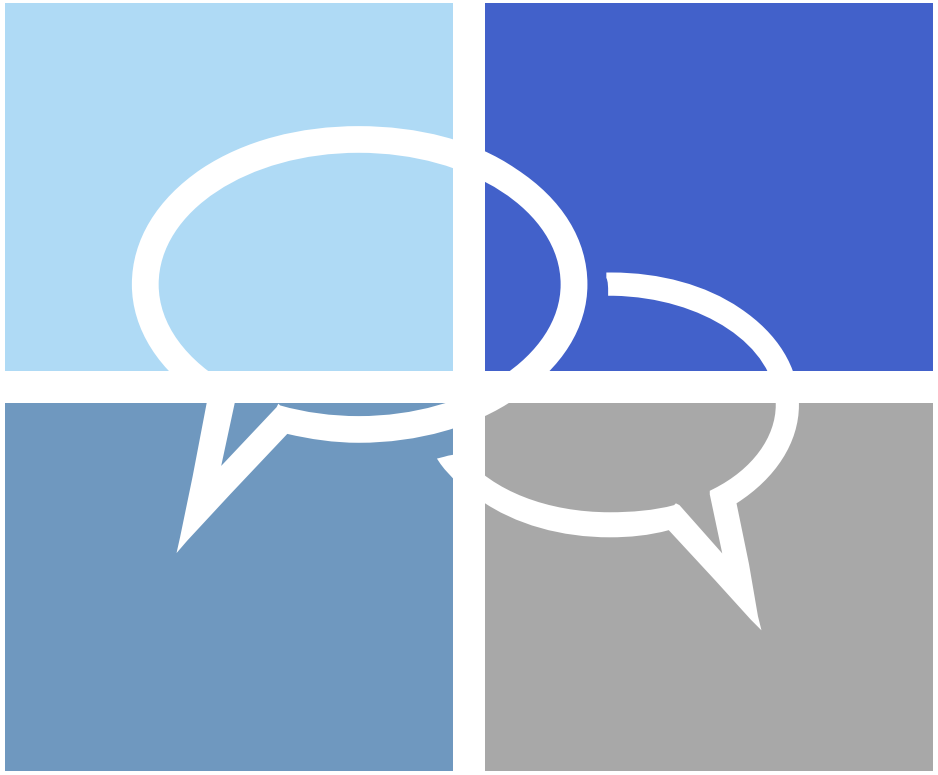
This TOGAF® 9.1 training course covers the basic concepts of TOGAF® 9.1 Level 1 & 2.

Our course covers the following major topics:

- The new concepts introduced to TOGAF® in version 9.1
- The basic concepts of Enterprise Architecture and TOGAF®
- The core concepts of TOGAF® 9.1
- The key terminology of TOGAF® 9.1
- The concepts of views and viewpoints and their role in communicating with stakeholders
- The concept of building blocks
- The Architecture Development Method (ADM) cycle and the objectives of each phase, and how to adapt and scope the ADM
- How each of the ADM phases contributes to the success of enterprise architecture
- The key deliverables of the ADM cycle
- ADM guidelines and techniques
- The concept of the Enterprise Continuum and repository; its purpose and constituents
- How Architecture Governance contributes to the Architecture Development Cycle
- The TOGAF® reference models

A

¿Preguntas? y Respuestas…



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