Successful Enterprise Architecture

with ArchiMate® and TOGAF®

Ready for Use

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Henry Franken - BiZZdesign
Henry Franken

- 45 years old, M.Sc. & Ph.D. (cum laude)
- Happy in life 😊
- Co-founder & manager of BiZZdesign
- Chair of the ArchiMate Forum at The Open Group
- At BiZZdesign, is responsible for research and innovation. Alignment with and contribution to open standards are key

BiZZdesign www.bizzdesign.com
Who is BiZZdesign

BiZZdesign offers complete and integrated solutions (tools, methods, consultancy and training) to design and improve organizations.

- Business Model Innovation, Enterprise Architecture, Business Requirements Management and Business Process Analysis and Management are important ingredients in the solutions.

- Contributed to and edited the ArchiMate 2 specification.
- Involved in the work group working towards the next version of TOGAF® and its alignment with ArchiMate®.
- BiZZdesign offers native tooling, consultancy and certified training courses for TOGAF and ArchiMate.

BiZZdesign

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... a global open consortium that furthers the achievement of business objectives through open business and IT standards
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- The following are registered trademarks of The Open Group
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  - TOGAF®
  - ArchiMate®
  - Making Standards Work®,
  - Motif®
  - OSF/1®
  - The Open Group®
  - Jericho Forum®
  - the ``X'' device

Work is performed by members within:
- Forums (like TOGAF, ArchiMate)
- Projects
- Industry Forums
- Quarterly conferences
- Governing boards

Open work => voting => publication.
How about (Enterprise) Architecture

What does it mean and why do we need it?
How about Enterprise Architecture!

[Fig. 1.4. Enterprise architecture as a management instrument]

Mission

Vision

Strategy

Goals

as is to be

enterprise architecture

domain/aspect architectures

Actions

culture

leadership

people

Operations

products

processes

people

IT

[Lankhorst et al., 2005]
Why Enterprise Architecture?

- Managing change and complexity:
  - Aligning business and IT
  - Outsourcing
  - Impact analysis
  - Project support (project start architectures)
  - Portfolio management
  - Communication with stakeholders
  - ...

- Obtaining insight in baseline situation (“as is”)
- High-level design of the target situation (“to be”)
- Enterprise architecture as a tool for:
  - Communication
  - Governance
  - Innovation
What is Enterprise Architecture?

- A **discipline**, with the objective of steering changes

- A **product**
  - A design that shows the coherence between products, processes, organisation, information supply and infrastructure, based on a vision and certain explicit starting points, principles and preferences

- A **process**
  - Way of working
  - Aimed at the development and use of enterprise architectures within an enterprise
  - With people and resources
Ingredients of a Successful EA Practice

TOGAF

ArchiMate

Process

Viewpoints

Language

Repository, Reference Models
A short introduction on TOGAF

A framework and way of working for Enterprise Architecture
What is TOGAF?

- A framework for enterprise architecture
- Version 9.1 was released January 2012 in San Francisco
- Facilitates and provides:
  - A way of working (method)
  - A reference structure to build models (content framework)
  - A quick start (some high level reference models)
  - Guidelines & techniques and reusable templates

Most known ADM: Architecture Development Method
1. “Getting the organization committed & involved”

2. “Getting the architecture right”

3. “Making the architecture work”

4. “Keeping the process running”
Some more information about ArchiMate

A modelling language for Enterprise Architecture
Why one language...
What is ArchiMate?

- Visual modelling language for enterprise architecture
- Version 2 was released January 2012 in San Francisco
- Facilitates shared understanding across disciplines
  - Management
  - Enterprise, technical and business architects
  - Consultants, engineers, analysts, various business people
- Complements and interrelates to detailed system design languages such as UML, SysML, BPMN, ERD, SBVR, BMM
Linking Architectural Domains

- Information architecture
- Process architecture
- Product architecture
- Application architecture
- Technical architecture
The ArchiMate Language

A basis for

- High-level modelling *within* domains
- Modelling relationships *between* domains
- Relating detailed *design models*
- Visualizations
- Analysis

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ArchiMate language Framework

Active Structure | Behavior | Passive Structure | Motivation
--- | --- | --- | ---
Business layer
Application layer
Technology layer
Implementation & Migration
A Real Language

- Boxes become concepts
- Lines become relationships
- A modelling language defines concepts, relationships, semantics, rules and notation
► ArchiMate Core

► Models the business, application and technology layers and their interrelations.

► Complete coverage of information, product, process, application, technological architectures

► Thus addresses needs of the TOGAF phases to build the as-is and to-be architecture
Example Business Layer Model

- **Value**: Be insured (security)
- **Business actor**: Client, Insurant, ArchiSurence, Insurer
- **Business role**: Claims registration service, Customer information service, Claims payment service
- **Contract**: Insurance policy
- **Product**: Claims submitted
- **Business event**: Registration, Acceptance, Valuation, Payment
- **Business process**: Damage claiming process
- **Business object**: Invoice

[Diagram showing the relationships and processes involved in a business layer model for insurance services.]
Example Application Layer Model

- Application interface
  - Web frontend
  - Home & Away policy administration

- Application service
  - Policy creation service

- Application function
  - Policy creation
    - Calculate risk
    - Calculate premium
    - Create policy

- Application component
  - Data object
    - Insurance request
    - Insurance policy data
Example Technology Layer Model

- Infrastructure service
- Database service
- File access service
- Mainframe
  - CICS
  - DBMS
- NAS file server
  - LAN
  - Data files
- Network
- Device
- System software
- Node
- Artifact

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ArchiMate Motivation Extension

- Models stakeholders, drivers for change, business goals, principles and requirements, and their relationships

- Supports traceability between motivations and other architectural components

- Thus addresses needs of the early TOGAF phases and the Requirements Management process

- Inspired by standards and existing techniques such as OMG’s Business Motivation Model, KAOS, i*
Example Motivation Extension Model

- Stakeholder: CEO, CFO
- Driver: Customer satisfaction, Costs
- Goal: Improve portfolio management, Reduce interaction with customers, Reduce manual work
- Requirement: Provide on-line portfolio service, System should be customer facing
- Principle: Assign personal assistant, Personal assistance, Portfolio management
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Traceability of Motivations

- Reduce interaction with customer
- Online portfolio management
- Support for policy administration
- Support for financial transactions
- Policy administration services
- Financial services
- Handle claim
- CRM data access
- General CRM System
- ArchiSurence Back Office Suite
- ArchiSurence general-purpose server cluster
- ArchiSurence Back Office Suite
- ArchiSurence back-up server cluster
- Data consistency
- Single source of data
- CRM data should be maintained centrally
- FO general-purpose server

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Implementation & Migration Extension

- Models and supports:
  - Management of individual projects and project portfolios
  - Gap analysis
  - Transition and migration planning

- Thus addresses the needs of the later phases of the TOGAF ADM cycle
Implementation & Migration Extension Example

- Baseline Architecture
- Transition Architecture
- Target Architecture

- Project A: Integration of CRM systems
- Transition Architecture A
- Integration of back-office systems

- Project B: Integration of back-office systems

- Back-office system integration
  - Work Package Software modification
  - Work Package Hardware
  - Work Package Legacy outphasing
Benefits of ArchiMate Experienced in Practice

- ArchiMate closes the gap between ‘free-format’ strategy models and detailed solutions architecture models.
- Consistent and integrated modelling:
  - It is a tool for knowledge management.
  - It helps to integrate various (types of) models.
  - It enables stakeholder-specific view generation.
  - It enables analysis (gap, what-if, comparison etc).
- Insight in the various domains, but also their interrelationships.
- It is a widely accepted open standard, i.e., no vendor lock-in.
- ArchiMate makes it easier to communicate with architects across organisational boundaries, domain boundaries and between architect and designer.
- Easy to use, low complexity, step-by-step increase in advanced use.
TOGAF & ArchiMate

Form a perfect basis for a tool supported Enterprise Architecture practice!

- Specifically designed for enterprise architecture
- Integrated, consistent and coherent modelling in various phases
- Supports generation of compelling views for various stakeholders from a central repository
- Eases impact, gap and other types of analysis
- Eases sharing and reuse of models
Do you want to know more?

15.30h at Evropa A: **complete case presentation** about Insurance firm using TOGAF & ArchiMate to achieve a successful merger of three separate businesses through application rationalization.

In your bag brochure:

Or contact me at:
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Thank you for your attention!

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