Entwicklungsstufen des Unternehmensarchitekturmanagements

SITIC SEA Round Table

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Background
University of St. Gallen (HSG)

- St. Gallen: “Switzerland’s prestigious business school” (Business Week)
- 7100+ Students
- Focus: Management, Technology and Law
- Consistent top-ten rankings among Europe’s top universities
- First continental European university to be accredited from top European as well as top US accreditation bodies (since 2003)
IWI-HSG provides an extensive network based on their research program, executive education, and their community events.

**Research Program**
- Competence Center Corporate Intelligence
- Master Network Engineering
- Independent Living
- Corporate Data Quality
- EIM

**Executive Education**
- Executive Master of Business Engineering
- IT Business Management
- Individual Programs (e.g. DQM, EAM, BE-Methods)

**Events & Community**
- AWF Sc. Galler Anwenderforum
- DW2013 Business Engineering Forum
Background

EAM, Transformation and Intelligence Group

What

- Enterprise Architecture Management
  - Modeling
  - Analyses
  - Planning
- Enterprise Transformation Management
  - Principles
  - Value of Infrastructure

How

- Bilateral
  - Projects
  - Studies and Reviews
  - Internal Workshops
  - Trainings
  - Publications
- Exclusive Community
  - Competence Center Workshops
  - Benchmarking
  - Exchange of Best Practices
- Public Community
  - Conferences (St.Galler Anwenderforum, DW2012, BE Forum)
  - Research Events

Who

- Barmenia Versicherungen
- SAP
- Deutsche Telekom Laboratories
- University of St. Gallen
- UBS
- Swiss Re
- IBM
- EnBW
- Deutsche Leasing
- winterthur
- finanz informatik
- Helsana
- RTC
- CREDIT SUISSE
- HP
- RWE
- COMMERZBANK
- Zürcher Kantonalbank
- Bundesagentur für Arbeit
- Institute of Information Management

Picture: HSG central institute's building
Agenda

1. We have come a long way
2. Where we (and maybe you) are now
3. What we should do
4. Going from here
St. Gallen’s Enterprise Architecture Approach (1)

Enterprise Architecture is „Business-to-IT“

Strategy Layer
- Strategy Design
  - Business network models
  - Customer process models
  - Output models
  - Corporate goals

Organizational Layer
- Organizational Design
  - Process models
  - Process landscapes
  - Organizational structure
  - Information map

Alignment Layer
- Alignment Design
  - Domains
  - Application map
  - Capabilities

Software Layer
- Software Design
  - Software components
  - Software services
  - Data models

Infrastructure Layer
- IT Infrastructure Design
  - Platform infrastructure
  - Network infrastructure
St. Gallen’s Enterprise Architecture Approach (2)

Enterprise Architecture is broad – not deep

- Enterprise Architecture needs to explicate the dependencies within the “Business-to-IT” stack.
- To be sustainable you must not get lost in details.
"Outside-in" is the exhaustive but sustainable way (because it is participative).
It supports spot-on (as opposed to arbitrary) transparency.
St. Gallen’s Enterprise Architecture Approach (4)
Enterprise Architecture is a Tool for Transformation

- Business driven projects (top-down)
- Technology driven projects (bottom-up)
- Alignment projects
- Simplification/agility projects (SOA)
- Networking projects

(Almost) every transformation project is different and requires different information and method based support. EA delivers well-grounded coordination and decision support.
From our experience: transparency is the ultimate foundation of agility
EAM needs an explicit goal system by all means

Agility and flexibility are the ultimate goals – however, there is some homework to be prepared.

Agility and Innovation
Preparation for future, not yet specifiable transformation needs

Flexibility
Improve adaptability to known and specifiable adaptation needs

Consistency creation and maintenance
Coordination of transformations that are aligned to common goals and do not just happen by “accident”.

Simplification, Consolidation
Build fine-grained, reusable functionalities
Goal: reuse of functionalities

Transparency
Update and complement old, fragmentary, inconsistent documentation
Goal: Assess misalignment, missing coverage of functional demands, unnecessary IT functionalities.

The core of EAM
What are EAM Results?
EAM Services and its Method Support

<table>
<thead>
<tr>
<th>Transparency</th>
<th>Planning</th>
<th>Rules</th>
<th>Communication</th>
<th>Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meta Model</td>
<td>Target Model</td>
<td>Principles</td>
<td>Marketing/Sales</td>
<td>Project Reviews</td>
</tr>
<tr>
<td>Models (Application</td>
<td>Roadmap</td>
<td>(Standards, Guidelines</td>
<td>Training (internal,</td>
<td>Project Support</td>
</tr>
<tr>
<td>(Landscape,</td>
<td>Transformation</td>
<td>etc.)</td>
<td>external, of Architect,</td>
<td>(Inhouse Consulting,</td>
</tr>
<tr>
<td>Domain Models,</td>
<td>plans (Projects,</td>
<td></td>
<td>of Non-Architects)</td>
<td>“Special Forces”</td>
</tr>
<tr>
<td>Lists etc.)</td>
<td>Project Portfolio</td>
<td></td>
<td>Know-how-Mgmt.</td>
<td>etc.)</td>
</tr>
<tr>
<td>Specific Analyses</td>
<td>Stakeholder and</td>
<td>Governance</td>
<td>(Best Practices,</td>
<td>Projekt Controlling</td>
</tr>
<tr>
<td>(Dependency</td>
<td>Requirements</td>
<td>Structures</td>
<td>Methods)</td>
<td></td>
</tr>
<tr>
<td>Analyses etc.)</td>
<td>Coordination</td>
<td></td>
<td></td>
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</tbody>
</table>

Feasible and tested **methods** are available. It is important not to get lost in details.

This is a **tricky** one and not for beginners.

Many believe that principles can be dealt with just along the way – however, this is hardly sustainable.

Seems to be laborious but the **impact** especially with non-architects is **terrific**.

If you do not want to stay passive – this is the only way to go – otherwise just leave EAM be.
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EAM-Entwicklungsstufen

1 Einfache IT-Architektur
+ fachliche Aspekte

2a Passives IT-EAM
+ proaktives Handeln

2b Proaktives IT-EAM
+ Verankerung Fachbereich

3 Strategisches EAM
> Strategisches Instrument im Fachbereich
> Verankerung im Fachbereich

> Aktive EAM-Planung
> Definition und Durchsetzung von EAM-Prinzipien
> Integration von EAM in die IT-Governance

> Erweiterung um fachliche Aspekte
> Besonderer Fokus Geschäftsprozesse
> Konsequente Orientierung an Stakeholdern

> Fokus auf IT
> Transparenz als Ziel
> Verankerung in der IT

Der Kern-Anwendungsfall des modernen EAM sind fundamentale, nicht-lokale, oft unternehmensweite Veränderungen → Transformationen.

We found three groups of drivers of Transformation

Drivers of Corporate Intelligence

**External Pressures (external, reactive)**
- Pressure by regulations (e.g. separation of power networks and power trading, financial supervision)
- Political and social pressure, pressure by customers (e.g. acceptance of nuclear energy)
- Technological pressure (e.g. operations of legacy systems, “omnipresence“ of the iPad)

**Strategic Decisions (external/internal, proactive)**
- Globalization
- Mergers & Acquisitions
- Cooperation/networking in value creation
- Adaptations of product portfolios
- Reorganizations
- Decommissioning of core systems

**Optimization/Transformation Functions (internal, proactive/reactive)**
- Limits von development of maturity resulting in fundamental transformations
- Limits of growth in existing structures and modes of operation
- Constant pressure for efficiency and necessity of global optimization/consolidation
Drivers and Disciplines of Transformation
Positioning of Transformation Topics

- **Mode**
  - **proactive**
    - driver: optimization-/transformation functions
    - disciplines: classical disciplines existing in EA context
    - Focus of “classical” EA within an IT department.
  - **reactive**
    - driver: existing disciplines rarely used in EA context

- **Focus**
  - internal
  - external

- **Driver Disciplines**
  - **A**: Organizations that positioned EA outside IT are “powerful” here.
  - **B**: Strategic decisions and disciplines existing in EA context are used in EA context.
  - **C**: External pressures and EA almost no impact because it is too slow and transformation is business driven ignoring EA.

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Evolution paths for EAM
Maturity and Differentiation

- **A**
  - **driver**
  - optimization-/transformation functions
  - existing disciplines
  - classical disciplines
  - existing in EA context

- **B**
  - **driver**
  - strategic decisions
  - existing disciplines rarely used in EA context

- **C**
  - **driver**
  - external pressures

- **(1)** Active EA **planning**, **(2)** EA **roadmaps**, **(3)** business cases for EAM and EAM relevant projects.

- **Adapt to needs and language of stakeholders outside IT.**

- **Mature active EAM**

- **Mode**
  - proactive
  - reactive

- **Focus**
  - internal
  - external
Lean EAM

Missing instruments or existing instruments too slow

Most (EA-) instruments do not help here. We need **lean versions** of EAM processes: **fast tracks**.

- **A**: proactive
  - driver: optimization-/transformation functions
  - disciplines: classical disciplines existing in EA context

- **B**: reactive
  - driver: strategic decisions disciplines
  - existing disciplines rarely used in EA context

- **C**: external pressures

**Focus**

- **internal**
- **external**
Strategic EAM or Corporate Intelligence

EAM as decision support, integrating disciplines

We need a management support function integrating so far isolated enterprise wide disciplines such as:
- strategic control
- financial control
- strategic HR
- innovation management

**Driver**
- strategic decisions
- disciplines
- existing disciplines rarely used in EA context

**Mode**
- proactive
- reactive

**Focus**
- internal
- external

**Integration of disciplines**

- optimization-/transformation functions
disciplines
classical disciplines existing in EA context

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Competence Center Corporate Intelligence
Wie können wir Transformationen unterstützen?

Transformationen sind selten lokal beschränkt. Sie wirken oft auf Produkte, Prozesse, Informationsysteme etc. und die Menschen, die damit arbeiten.

Nachhaltige Lösungen zu bauen, heisst Synergien zu kennen und zu nutzen. Neben lokalen Projekt-Perspektiven darf das grosse Ganze nicht verloren gehen.

Enterprise Architecture Management (EAM) ist ein guter Startpunkt dafür. EAM ist aber oft zu technisch – in Inhalt und Sprache und ignoriert die weichen Faktoren.

Welche Fähigkeiten kann EAM zur Transformationsunterstützung beitragen und welche Fähigkeiten müssen geschaffen und etabliert werden?

Wir nennen das Ergebnis Corporate Intelligence (CI).

Wir bauen ein Corporate Intelligence Framework, das
- bestehende EAM-Fähigkeiten integriert,
- diese um das Vokabular der Fachseite erweitert und übersetzbar macht,
- welche Faktoren berücksichtigt, um das Framework auch etablieren zu können
- Transformationen in verschiedenen Szenarien unterstützt

Aufgabe
### Work in Progress: How can EAM Support Enterprise Transformation?

**Capabilities of the Corporate Intelligence Framework**

#### Enablement of Transformation

<table>
<thead>
<tr>
<th>Strategic Alignment</th>
<th>Value Perspective</th>
<th>Risk</th>
<th>Program Management</th>
<th>Architecture</th>
<th>Change Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Define overall goals</td>
<td>Orchestrate skills &amp; disciplines</td>
<td>Establish transformation lifecycle</td>
<td>Assign roles</td>
<td>Facilitate commitment</td>
<td>Analyze &amp; set cultural environment</td>
</tr>
<tr>
<td>Analyze initial situation</td>
<td>Develop integrated transformation plan</td>
<td>Develop high-level business case</td>
<td>Analyze needs &amp; maturity level</td>
<td>Align with risk management</td>
<td></td>
</tr>
<tr>
<td>Conduct program planning</td>
<td>Manage program scope</td>
<td>Manage program quality</td>
<td>Manage program integration</td>
<td>Manage program time &amp; cost</td>
<td>Manage program HR</td>
</tr>
<tr>
<td>Perform 360° strategic risk assessment</td>
<td>Evaluate risk for transformation business case</td>
<td>Define risk strategy</td>
<td>Conduct risk monitoring</td>
<td>Conduct program reporting</td>
<td></td>
</tr>
<tr>
<td>Establish potentials for further benefits</td>
<td>Review and evaluate results</td>
<td></td>
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</tbody>
</table>

#### Attention: This is work in progress as discussed in CC CI year one.
Thank You!

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