Trends for Enterprise Architecture Management and Tools

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and
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Detecon International GmbH
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2. Motivation
3. Scope & Approach
4. EA-relevant Business and Technology Trends
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We are a company specialized in providing ICT management consulting services with the infrastructure of a global player.

We are established, with more than 50 years of consulting know-how.

We are experienced, thanks to the successful realization of more than 6000 projects.

We are international, with worldwide representation, clients in 165 countries, and employees from more than 30 nations.

We are part of a globally active shareholder, Deutsche Telekom AG.
We have many years of experience from numerous EAM projects worldwide, including consulting of the senior management and a concrete operationalization.

<table>
<thead>
<tr>
<th>Management Consulting for business and IT executives</th>
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<tbody>
<tr>
<td>- Trainings for management</td>
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<tr>
<td>- EA transformation quick assessment</td>
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<td>- „EA Booster“ Program</td>
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<table>
<thead>
<tr>
<th>Business and platform transformation programs</th>
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<tr>
<td>- EA based Business Transformations-Framework</td>
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<td>- EA introduction strategy</td>
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<td>- Establishment of the EA function</td>
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<td>- Development of EA contents</td>
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<table>
<thead>
<tr>
<th>Enable a holistic approach to the organizations</th>
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<tbody>
<tr>
<td>- TOGAF trainings</td>
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<td>- Enterprise Architecture Curriculum</td>
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<td>- Individual training program</td>
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<td>- EA marketing and communication concepts</td>
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<table>
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<tr>
<th>Some customer examples</th>
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<tr>
<td>- Daimler</td>
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<td>- Allianz</td>
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<tr>
<td>- Ford</td>
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<tr>
<td>- Deutsche Telekom</td>
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<td>- Die Bahn</td>
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Common consulting offer with David Robertson, professor at the IMD, Lausanne
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Companies notice that their architecture rather prevents them from operating effectively and realizing their business strategies instead of supporting their business transformation.
Companies are influenced from outside and inside of the organization.
Motivation – Business Challenges

Organizations need to react on business trends and changing market environment.

- Business and technology have fused into one system and one strategy
- Customer information about product/service use and needs is mission-critical to the enterprise
- Innovation are about new business models and enterprise collaboration
- Integration of customer touch points across all channels is essential to future success
- Knowledge engineering is the true asset of the 21st century
- Understanding the key trends will determine the survival of the enterprise
- Learn from the financial crisis: Liquidity is the driver of business
- Emerging markets, electronic exchanges and security breeches will disrupt the market
- Innovations will form entirely new industries
- Customer information about product/service use and needs is mission-critical to the enterprise
Motivation – Technology Challenges

Emerging Technology trends changing very fast have to be considered...

Gartner Hype Cycle for Emerging Technologies 2010

Gartner Hype Cycle for Emerging Technologies 2011
Motivation - Targets

So organizations need to be …

...faster

...more competitive

...more adaptive

... more flexible

... more agile

... more Innovative
Enterprise Architecture Management helps to unify stakeholders, their concerns and needs regarding the business and IT-challenges.

I’m concerned about the impact on my capabilities...

We have to implement a new business model...

I understand his idea, but...

This project does affect me...

There might be some issues with my project...
Trends and challenges in Business and IT should be addressed by a holistic and complete EAM approach.

**Trends in Business**
- Business and technology have fused into one system and one strategy.
- Integration of customer touch points across all channels is essential to future success.
- Customer information about products/services use and needs is mission-critical to the enterprise.
- Innovations are about new business models and enterprise collaboration.
- Knowledge engineering is the key asset of the 21st century.
- Learning from the financial crisis: Liquidity is the driver of business.
- Emerging markets, electronic exchanges and security breaches will disrupt the market.
- Understanding the key trends will determine the survival of the enterprise.

**Trends in IT**
- Emerging markets, electronic exchanges and security breaches will disrupt the market.
- Knowledge engineering is the key asset of the 21st century.
- Innovations are about new business models and enterprise collaboration.
- Understanding the key trends will determine the survival of the enterprise.

**Enterprise Architecture Management**

**Achieve Business Transformation Readiness!**
Motivation – Bridging the gap

Bridging the gap between business and IT…

…. and not stop on half the way
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We conducted a study among IT professionals from different industries and tool vendors worldwide, documenting experiences in the context of Enterprise Architecture Management.
Which are the most significant IT and Business trends in the upcoming three years?

How does the future of Enterprise Architecture Management look like and how is it influenced by those trends?

Which Business and IT Trends are on horizon of Enterprise Architecture tool vendors?

How do Enterprise Architecture tool capabilities and functionalities support future Enterprise Architecture Management (EAM)?

Competent empirical study results based on feedback of best of breed Enterprise Architecture tool vendors and industry partners.

Practice relevant recommended practices based on 7 years of project experience and innovation from Detecon in the area of Enterprise Architecture Management.

IT project managers and solution architects who are interested in approaching current and future initiatives in a holistic manner.

Requirement managers from business departments who search to develop sustainable solutions to address business demands.

Persons in charge of the IT strategy and enterprise architecture which have the mandate to support different initiatives with the EA management approach.
Initial Scenario Development
- Identification of future EAM trends scenarios
- Workshops with industry partners
- Refined scenarios
- Identification of relevant EA tools

TOGAF ® Mapping
- Usage of a standard EAM Framework TOGAF ® during the study enables the comparability between the different scenarios
- Main ADM phases for each scenario were identified

Weighting Architecture
- Scenario prioritization by industry partners
- Selection of tools via online survey
- Scenario prioritization by EAM tool vendors
- Analyze & document results
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The future scenarios are clustered into sections focusing on different topics like M&A, sourcing, flexibility, knowledge management, holistic management and decision support.

**Scenario Cluster**

- Trends related to enterprise federation and sourcing
- Trends for mergers and acquisitions
- Trends in decision support
- Trends for future knowledge work
- Trends in holistic management
- Flexibility-related trends
Scenario clusters (1)

Trends related to enterprise federation and sourcing

- Outsourcing
- Modular Sourcing
- Cloud Computing
- Collaboration in an Extended Enterprise

Flexibility-related trends

- Agile Support of a Continuous IT Restructuring
- Business Platform Management
- IT Goes Green: Virtualization for Data Centers
Scenario clusters (2)

Trends for future knowledge work

- Enterprise 2.0 and Social Computing
- Mobile devices and universal availability of information
- Workplace of the future

Trends in holistic management

- Corporate Performance Management (CPM)
- Corporate Risk Management
- Strategic IT Human Resource Planning
Scenario clusters (3)

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**Trends in decision support**

- Advanced Analytics and KPIs for EA Management
- Improving Security via Activity Monitoring
- Strategic Allocation of Open Source Solutions

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**Trends for mergers and acquisitions**

- Data Consolidation
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   4.2 Collaboration with partners in an extended enterprise
5. Summary & Recommendation
An architecture facilitating the ubiquitous access of distributed data can be used to gain process improvements, lower costs & increase quality, flexibility & customer centricity.
The phases in the TOGAF® ADM mostly affected by the introduction of mobile devices & universal availability of information are those dealing with the architecture definition.
Making information universally available using mobile devices offers various opportunities which can be leveraged when certain aspects are considered.

**Indications**

- Highly increasing number of users of mobile devices and smartphones. This is facilitated by the continuous improvements of mobile network connections.
- Having employees which do not spend the whole day sitting at their desk, e.g. field workers, sales representatives, nurses and doctors.
- Increasing diversity through introduction of mobile devices in the company’s infrastructure needs to be addressed.

**Challenges**

- Usability must be ensured, keeping in mind that mobile devices might have different user interfaces with different usage paradigms compared to a desktop PC.
- Ensure sufficient availability, reliability and bandwidth at mobile devices.
- Definition of use cases, planning, which business capabilities should be available on mobile devices and deriving a corresponding architecture definition.

**Threats**

- Data Loss and Security Needs. The data security needs to be ensured throughout the whole communication at the organization specific security level.
- Non adequate usage of data, meaning e.g. when personal health data for insurance companies are used to develop criminal profiles. This must be prevented in order to gain customers’ trust and prevent image damage.

**Opportunities**

- Increase Competitive Advantage, by fostering customer centricity, process improvement, cost efficiency, failure avoidance and increase of quality, flexibility and agility.
- Quality Improvements by e.g. avoidance of failures.
- Using EA management for the related implementation, a high quality architecture and implementation will be facilitated, since the holistic approach of EA management ensures that business as well as IT needs and requirements are met.
Our partners of different industries value this scenario of Mobile devices and universal availability of information more relevant than the questioned tool vendors for EAM.

Partner prioritization of the scenario *)

Vendor prioritization of the scenario *)

*) prioritizations on a seven step Likert Scale
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Alignment of different technological environments, sharing of knowledge & exchange of information across organizational boundaries are core issues in an extended enterprise.
Operating in an extended enterprise is related to challenges regarding both information systems and business aspects, as well as change management.
## EA-relevant Business and Technology Trends: Collaboration with partners in an extended enterprise

### Transparency should be confined to interoperability-relevant parts of the EA, while avoiding to disclose business-critical architecture information.

<table>
<thead>
<tr>
<th><strong>Indications</strong></th>
<th><strong>Challenges</strong></th>
</tr>
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<tbody>
<tr>
<td>Participation in well-defined production or service delivery processes involving equally sized enterprises.</td>
<td>Gain transparency over the extended enterprise as a whole as far as required for collaboration and align the individual EAs in their current state &amp; in their evolution.</td>
</tr>
<tr>
<td>Growing customer demands which cannot be addressed by a single participating enterprise.</td>
<td>Stakeholder management to establish trust, keep all partners informed and foster innovation and agility during the realization of solutions.</td>
</tr>
<tr>
<td>Confrontation with the economic pressure in a highly competitive market.</td>
<td>Especially when e.g. R&amp;D departments collaborate or customer bases are shared within the extended enterprise, a comprehensive security architecture is required.</td>
</tr>
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<table>
<thead>
<tr>
<th><strong>Threats</strong></th>
<th><strong>Opportunities</strong></th>
</tr>
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<tbody>
<tr>
<td>Strong dependency on the providers of the functional modules / services due to the black box reality.</td>
<td>Maximized economies of scales due to the focus on the right core capabilities and core competencies.</td>
</tr>
<tr>
<td>Potential loss of know-how through missing protection of core competencies (e.g. considering data protection).</td>
<td>Increased innovation potential due to bringing together the best capabilities from each partner in the extended enterprise.</td>
</tr>
<tr>
<td>If no systematic stakeholder management and governance are applied, involved stakeholders may not perceive that the benefits are mutual and imply a win-win situation.</td>
<td>Simplification of the production process due to managed modularization.</td>
</tr>
</tbody>
</table>
Partners of different industries as well as the questioned EAM tool vendors rate the scenario of Collaboration with partners in an extended enterprise as important.
Summary

Summary of the results from both the vendors’ and the partners’ prioritization of the different trends.

<table>
<thead>
<tr>
<th>General findings</th>
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<tbody>
<tr>
<td>The trends identified in this survey can be classified along the dimensions <strong>business – technical</strong> and <strong>strategic – operational</strong>.</td>
</tr>
<tr>
<td>The majority of the scenarios can be considered both <strong>“technical and strategic”</strong> and <strong>“business and strategic”</strong>.</td>
</tr>
<tr>
<td>No <strong>“business and operational”</strong> scenarios were identified</td>
</tr>
<tr>
<td>- misapprehension: day-to-day business operations are not considered to benefit from the holistic perspective, that EA management provides.</td>
</tr>
<tr>
<td>- business-centric management responsibilities are not aware or willing of the benefits that EA management can provide.</td>
</tr>
<tr>
<td>Scenarios of the two types <strong>“technical and operational”</strong> and <strong>“technical and strategic”</strong> are well-supported by today’s EA management tools.</td>
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Portfolio matrix for EA management scenarios

<table>
<thead>
<tr>
<th>Caption</th>
<th>Description</th>
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<tbody>
<tr>
<td>1</td>
<td>Enterprise 2.0</td>
</tr>
<tr>
<td>2</td>
<td>Mobile devices</td>
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<tr>
<td>3</td>
<td>Extended Enterprise</td>
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<tr>
<td>4</td>
<td>Modular Enterprise</td>
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<tr>
<td>5</td>
<td>Cloud Computing</td>
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<tr>
<td>6</td>
<td>Business platform Mgmt.</td>
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<tr>
<td>7</td>
<td>Corporate Risk Management</td>
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<tr>
<td>8</td>
<td>Corporate Performance Mgmt.</td>
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<tr>
<td>9</td>
<td>IT goes green</td>
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<tr>
<td>10</td>
<td>Open Source Solutions</td>
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<td>11</td>
<td>Advanced Analytics</td>
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<td>12</td>
<td>Continuous IT Restructuring</td>
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<tr>
<td>13</td>
<td>Outsourcing</td>
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<tr>
<td>14</td>
<td>Data Consolidation</td>
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<tr>
<td>15</td>
<td>Activity Monitoring</td>
</tr>
<tr>
<td>16</td>
<td>Workplace of the future</td>
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How to get the complete study?

You can order this study free of charge sending an email to:

EAM@detecon.com
Questions

The Future
EAM
Contact

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Chair Software Engineering for Business Information Systems (sebis)

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