Trends in Enterprise Architecture 2005

How are Organizations Progressing?

Web-form Based Survey 2005

Report of the Third Measurement December 2005

Edition 1.0
J. Schekkerman
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1 Introduction

This report presents the results of the third electronic survey, executed by the Institute For Enterprise Architecture Developments (IFEAD), on the progress of Enterprise Architecture (EA) usage & implementations in several organizations all over the world.

The Enterprise Architecture Survey's first edition was executed during 2003 and the results were presented during the LAC2003 conference in the Netherlands. A summary of the results is also present on the website of the Institute For Enterprise Architecture Developments; http://www.enterprise-architecture.info.

In the context of this report the definition of the term Enterprise Architecture is derived from the book 'How to survive in the jungle of Enterprise Architecture Frameworks'¹.

Definition: Enterprise Architecture is about understanding all of the different elements that go to make up the enterprise and how those elements inter-relate.

An Enterprise in this context is any collection of organizations that has a common set of goals/principles and/or single bottom line. In that sense, an enterprise can be a whole corporation, a division of a corporation, a government organization, a single department, or a network of geographically distant organizations linked together by common objectives.

Elements in this context are all the elements that enclose the areas of People, Processes, Business and Technology. In that sense, examples of elements are: strategies, business drivers, principles, stakeholders, units, locations, budgets, domains, functions, processes, services, information, communications, applications, systems, infrastructure, etc.

Filling in the EA survey 2005 at the website of IFEAD was voluntary, so the results can be a little bit distorted by the fact that only people who are interested in Enterprise Architecture are taking the effort to fill in this survey.

The survey was executed from September 2004 till September 2005.

In the following chapter, the context and scope of this study are elaborated. Afterwards, the result of the third measurement and the progress that has been achieved compared to the previous measurements is presented. In chapter 7 the overall observations and conclusions on how EA progressed in the last year are summarized. The symbol at the left is asking special attention from the reader for some remarkable observations.

2 The Enterprise Architecture Survey 2005 - Study

This third report is part of a yearly recurrent survey to measure the progress and developments in Enterprise Architecture. The report is based on a 25 questions survey, addressing geographical aspects, branch aspects, EA implementations aspects as well about tools and methodologies used in Enterprise Architecture programs and the role of architects in organizations. 79 respondents filled in the EA 2005 survey.

Where possible an overview will be given of the results of 2004 and 2003 and an analysis and explanation of exceptions. All geographic areas are represented in the survey as well as different sizes of organizations. All the source information is copyrighted and based on the EA Survey’s 2005, 2004 and 2003 executed by the Institute For Enterprise Architecture Developments (IFEAD) 2005.

2.1 Enterprise Architecture Activity Ranking

The next figure shows the EA activity ranking 2005 and the related IFEAD 2004 Enterprise Architecture top 20 ranking. High ranked countries, related to 2004 are India, Singapore and Brazil, while South Korea, the Netherlands and Finland have reached a lower ranking in 2005.

<table>
<thead>
<tr>
<th>2005 Country</th>
<th>EA Activity %</th>
<th>2004 Country</th>
<th>EA Activity %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. United States of America</td>
<td>45.27%</td>
<td>1. United States of America</td>
<td>45.05%</td>
</tr>
<tr>
<td>2. United Kingdom</td>
<td>6.50%</td>
<td>2. Netherlands</td>
<td>6.16%</td>
</tr>
<tr>
<td>3. Canada</td>
<td>6.24%</td>
<td>3. United Kingdom</td>
<td>5.25%</td>
</tr>
<tr>
<td>4. Netherlands</td>
<td>5.54%</td>
<td>4. Canada</td>
<td>4.78%</td>
</tr>
<tr>
<td>5. Australia</td>
<td>4.66%</td>
<td>5. Australia</td>
<td>4.50%</td>
</tr>
<tr>
<td>6. India</td>
<td>2.60%</td>
<td>6. South Korea</td>
<td>2.97%</td>
</tr>
<tr>
<td>7. Germany</td>
<td>2.55%</td>
<td>7. Japan</td>
<td>2.68%</td>
</tr>
<tr>
<td>8. South Korea</td>
<td>1.78%</td>
<td>8. Germany</td>
<td>2.42%</td>
</tr>
<tr>
<td>9. France</td>
<td>1.64%</td>
<td>9. Iran</td>
<td>2.13%</td>
</tr>
<tr>
<td>10. South Africa</td>
<td>1.50%</td>
<td>10. India</td>
<td>1.99%</td>
</tr>
<tr>
<td>11. Japan</td>
<td>1.48%</td>
<td>11. South Africa</td>
<td>1.85%</td>
</tr>
<tr>
<td>12. Sweden</td>
<td>1.25%</td>
<td>12. France</td>
<td>1.79%</td>
</tr>
<tr>
<td>13. Iran</td>
<td>1.24%</td>
<td>13. Sweden</td>
<td>1.20%</td>
</tr>
<tr>
<td>14. China</td>
<td>1.07%</td>
<td>14. Belgium</td>
<td>1.16%</td>
</tr>
<tr>
<td>15. Switzerland</td>
<td>0.99%</td>
<td>15. China</td>
<td>1.01%</td>
</tr>
<tr>
<td>16. Belgium</td>
<td>0.90%</td>
<td>16. Finland</td>
<td>0.89%</td>
</tr>
<tr>
<td>17. Singapore</td>
<td>0.80%</td>
<td>17. Switzerland</td>
<td>0.71%</td>
</tr>
<tr>
<td>18. Italy</td>
<td>0.75%</td>
<td>18. Spain</td>
<td>0.70%</td>
</tr>
<tr>
<td>19. Brazil</td>
<td>0.70%</td>
<td>19. Italy</td>
<td>0.66%</td>
</tr>
<tr>
<td>20. Spain</td>
<td>0.69%</td>
<td>20. Singapore</td>
<td>0.63%</td>
</tr>
</tbody>
</table>

Looking to the overall list of registered EA countries in 2005, it is interesting to see that a total number of 149 countries are identified to be active in the Enterprise Architecture domain.

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2 This ranking is based on a total of 219721 registered downloads in 2005 from the website of the Institute For Enterprise Architecture Developments.
3 Enterprise Architecture Business Issues

3.1 Why is Enterprise Architecture important for your organization?

This diagram is showing the reasons why Enterprise Architecture is important in today's organizations.

Trends in Enterprise Architecture 2005: How are Organizations Progressing?
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3.1.1 Analysis

Comparing the 2005, 2004 and 2003 figures there are some significant changes between the 2005 and the 2004 / 2003 results.

Managing the IT portfolio is one of the up coming reasons for EA besides supporting decision making and delivering a roadmap for change. Managing complexity has slow down as one of the reasons for EA. There is no direct explanation for the shift between managing IT portfolio and managing complexity.

3.2 For what kind of issues do you plan an Enterprise Architecture program?

This diagram is showing the reasons for planning Enterprise Architecture activities.
3.2.1 Analysis
There is some significant change in some reasons for planning EA. In the 2004 survey there was a strong growth for the item 'Transformation Road Map' as a reason for EA and a decline for the reason Business-IT Alignment. In 2005 Business-IT Alignment is back as number one reason, while Transformation Roadmap is almost at the same level as 2004. Infrastructure Renewal is showing a significant decline.
4 Enterprise Architecture Environment

4.1 In what geographic area is your organization located?

This diagram is showing the geographic spread of the participating organizations in the EA survey 2005.
4.1.1 Analysis

Related to the 2003 results a larger presence from organizations of the United States of America, Asia and Russia can be seen in the EA survey 2005. South Korea and China are not anymore present in the 2005 survey. Due to higher EA activities in the USA, Europe and Asia, the 2005 results represents better the overall status of EA in the world.

4.2 In which business area can your organization be positioned?

This diagram is showing in which business areas the participants are active.
4.2.1 Analysis

Comparing the 2005 results with the 2004/2003 results, we can see that the Governmental sector as well as the Consultancy sector is growing in the 2005 survey while Insurance, Telco and Utilities is showing a significant decline. The overall conclusion is that Enterprise Architecture is broadly accepted in almost all the business areas.

4.3 How many people are working in your organization?

This diagram is showing the categories of organizations participating in this 2005 survey. A significant difference can be seen when comparing the organizations that participate in the 2005 survey with the 2004 survey. In 2005 more mid-size (25,000 – 50,000) multi-national organizations were participating and less smaller organizations (10,000 – 25,000). In 2005 we can see that Enterprise Architecture is present in all sizes of organizations.
4.3.1 Analysis

The good thing is today that not only very large and multi national organizations have adopted Enterprise Architecture but also smaller organizations have adopted Enterprise Architecture as a strategic governance tool. However the enterprise architecture maturity is at a higher level in larger organizations then in smaller organizations.

4.4 How many people are working at your IT department?

This diagram is showing the number of people working at the IT departments of the EA 2005 Survey participants.
4.4.1 Analysis

The average of IT people working at the IT department in the 2005 survey is slightly different compared with the results from the 2003 survey. While the 2004 survey was showing the presence of more smaller organizations.

46% of the participants in the 2005 survey have IT departments in the categories of 1-10 people (15%) and 10-100 people (31%) where in the 2004 survey 73% were in these categories. In 2004 there was a group of 10% in the categories 100 - 500 and 500 - 1000, while in the 2005 survey these categories together are 39%.

4.5 Is your organization familiar with the importance of Enterprise Architecture?

This diagram is showing how familiar organizations are with Enterprise Architecture.
4.5.1 Analysis

95% of the reflecting organizations are familiar with the growing importance of Enterprise Architecture in 2005. In the 2003 survey 95% was also telling that their organizations were familiar with Enterprise Architecture. So the 2005 survey is showing the same figures as the 2003 survey.

4.6 Is Enterprise Architecture part of your organizations Strategic Governance?

This diagram is showing how Enterprise Architecture is part of organizations Strategic Governance.
4.6.1 Analysis

No significant changes can be seen when comparing the 2005 results with the 2004 results. What we can see is that Enterprise Architecture is today part of the organizations Strategic Governance.

4.7 Are there any laws or regulations related to Enterprise Architecture in your country?

This diagram is showing if there is any kind of regulations related to Enterprise Architecture in your country.

4.7.1 Analysis

What we can see is that more organizations are reporting that in their countries any EA related laws or regulations are active.
4.8 Is Enterprise Architecture, etc. established in your organization?

This diagram is showing what kinds of architectures are established in today's organizations.

4.8.1 Analysis

What we can see is a growth in establishing Security Architecture in today's organizations. Due to several law & regulations related to risks, like Sarbanes-Oxley, Basel II and IFRS, security is at the agenda of top management.
5 Enterprise Architecture Governance

5.1 At which level is Enterprise Architecture part of your organizations governance structure?

This diagram is showing at which the level, EA is part of the organization’s governance structure.
5.1.1 Analysis

There is a significant growth that EA becomes part of Top Managements governance structure, instead of IT Managements governance structure. That means that EA is shifting from the responsibility of IT management to business management.

5.2 Do you have your own architects?

This diagram is showing the presence of organizations its own architects.

5.2.1 Analysis

At the time that Enterprise Architecture is accepted as strategic governance tool and established in today's organizations, the need to have your own architects is crucial for the continuity of your organization.

In 2005 89% of the respondents declared that they have their own architects, in 2004 that figure was 80%.
5.3 What type of architects do you have within your organization?

This diagram is showing the different type of architects present in today's organizations.

5.3.1 Analysis

Comparing the figures from 2005 with the figures of 2004 and 2003 is showing still a growth of the presence of Enterprise Architects and a slow down in Information-System Architects. Even so the number of Governance Architects is growing and the number of Software Architects is slowing down a little bit.
5.4 Does your organization use support from External Architects?

This diagram is reflecting how many organizations are getting help from external organizations.

**5.4.1 Analysis**

Comparing the figures of 2005 and 2004 is showing a significant slow down in external support. This change can be explained by the growth in EA maturity in today organizations.
5.5 From which external organizations, do you get support in your enterprise architecture projects?

This diagram is showing the organizations that are delivering EA support / coaching and / or mentoring to today’s organizations.

5.5.1 Analysis

Analyzing the 2005 and 2004 results is showing that the combination Gartner + Meta together are leading in delivering EA support to today’s organizations, while IBM still have a strong position in this field. Accenture is showing a decline in the reports to 9%, while Deloite & Touche is showing some growth.
5.6 To whom is the architect's organization reporting?

This diagram is showing to whom the architects' organization is reporting.

5.6.1 Analysis

Looking at the figures of 2005 and 2004/2003, we can see a change in responsibilities for the architecture organization. In 2004 and 2003 0% was reporting to the Board of Directors while in 2005 10% is reporting to the board. In 2005 and 2004, 0% was reporting to the CFO and we can see a shift from reporting to the CIO to management.
5.7 How are your Enterprise Architects educated / trained?

This diagram is showing the way Enterprise Architects are trained and educated.

5.7.1 Analysis

There are no significant changes between the 2005 and 2004/2003 figures. There is in 2005 a slightly decline in Mentoring & Coaching by external architects as well as external courses / training. External EA certification programs are getting more attention as well as Self-Education and web based training.
5.8 Is Certification of Enterprise Architects by an official authority an issue for your organization?

This diagram is showing the need for Enterprise Architects Certification.

5.8.1 Analysis

What we can see is that there is no real demand for certification of Enterprise Architects. Analyzing the 2005 and 2003 figures is showing that consulting and service organizations are showing that certification is an issue for them; however most organizations that are using and implementing Enterprise Architecture are today not interested in certification for their own people.
5.9 Do you have planned any kind of coaching by experienced Enterprise Architects?

This diagram is showing the demand of coaching by experienced Enterprise Architects.

5.9.1 Analysis

What we can see is that the demand for coaching is growing, however it is depending of the situation, that’s why the answer sometimes is growing high.
5.10 How do you select a good Enterprise Architecture coach / mentor?

This diagram is showing the reasons for selecting an EA coach / mentor.

5.10.1 Analysis

There is a slightly difference between the 2005 and 2004 figures. The relevancy of publications is growing and becomes more important, while the focus on proven Experience is getting less attention.
5.11 How to get more information about Enterprise Architecture?

This diagram is showing the way Enterprise Architects get their information.

5.11.1 Analysis

We can see the growing interest in EA courses as well as books as sources of information and a decline in Enterprise Architecture seminars and workshops.
6 Enterprise Architecture Methods, Tools & Frameworks

6.1 What kind of Enterprise Architecture Framework does your organization use?

This diagram is showing the Enterprise Architecture Frameworks usage.

What type of Enterprise Architecture framework do you use?
6.1.1 Analysis

It’s amazing to see the enormous growth of the usage of the Zachman’s Enterprise Architecture Framework compared to the 2004 results. Even so we can see that the organizations own EA frameworks are declining and that the presence of a well-known EA framework like the US Federal Enterprise Architecture Framework is declining dramatically. What you even so can see is that still a lot of organizations are defining their own EA framework, often based on existing ones. The use of TOGAF is growing slowly and new is the growth of the Extended Enterprise Architecture Framework. A lot of other EA frameworks are no longer present in the 2005 survey.

6.2 What kind of Enterprise Architecture tools is your organization using?

This diagram is showing the type of Enterprise Architecture tools in use.

[Diagram showing the usage of different EA tools]

This diagram is showing the type of Enterprise Architecture tools in use.

[Diagram showing the usage of different EA tools]
6.2.1 Analysis

What we can see is a growth in the presence of Telelogic’s System Architect tool. Even so Microsoft Visio still have a constant and prominent position as Enterprise Architecture tools, while the Microsoft office tools are showing a decline. The MEGA tool set is in 2005 present is the EA survey.

6.3 What kind of Business Modeling techniques is your organization using?

This diagram is showing the business modeling techniques used by organizations.
6.3.1 Analysis

New in the 2005 survey is the booming presence of BPML as business process modeling standard, while the IDEF family is coming back with a growth in 2005. There is even so a growth in organization own techniques compared to 2004 figures and a decline in other modeling techniques. Even the number of organizations that are not using any modeling tools is declining.

6.4 What kind of System Modeling techniques is your organization using?

This diagram is showing the type of System Modeling techniques used by organizations.

![Diagram showing the type of System Modeling techniques used by organizations.](image-url)
6.4.1 Analysis
There are no significant changes in the figures of 2005 compared to 2004.

6.5 What kind of System Development Methodology is in use in your organization?

This diagram is showing the system development methodology used by organizations.

6.5.1 Analysis
The 2005 figures show an enormous difference compared to the 2004 results, especially the growth of NONE methods as well as the high figures of Rational Unified Process. Rapid Application Development is showing a come back as well as Extreme Programming.
7 Trends in Enterprise Architecture 2005; Observations & Conclusions

7.1 Observations

- Enterprise Architecture is today widely spread among organizations all over the world. There is a strong progress in implementing Enterprise Architecture in countries like Japan, China, India, Iran, Russia and a lot of other countries.
- Enterprise Architecture is prominent present in large organizations as well as in small organizations (100 - 1000 employees).
- Enterprise Architecture is implemented in Governmental organizations as well as in several industries.
- E-Government is driving Enterprise Architecture progress and vice versa.
- Enterprise Architecture is used as Strategic Governance instrument, supporting decision making of management.
- Hot topics for using Enterprise Architecture are: Delivering road maps for change; Managing IT Portfolio; Managing Complexity and support of System Development.
- Enterprise Architecture is shifting from the responsibilities of the CIO to the responsibility of Board members and business managers.
- Every organization that is taken Enterprise Architecture serious has its own 'Enterprise' and other type of Architects.
- These Enterprise Architects can only be coached and mentored by external Enterprise Architects with a proven track record, knowledge of different kind of EA frameworks and a good reputation.
- Certification of Enterprise Architects is only an issue for consulting organizations and less at this time for organizations using Enterprise Architecture.
- More and more organizations are defining their own Enterprise Architecture Frameworks instead of adopting existing frameworks.
- The usage of Enterprise Architecture repository tools is growing; however most organizations still use Microsoft's office and Visio products for capturing their Enterprise Architecture results.
- The usage of standard business modeling techniques for modeling the results is broad accepted, where BPML is today the standard.
- OMG's Model Driven Architecture and UML are broad accepted for modeling Information-Systems.

7.2 Conclusions

Every organization that wants to manage its complexity is taken Enterprise Architecture serious. The added value of Enterprise Architecture is NO discussion at all. The measurement in financial terms of this added value is still hard to do but some progress is achieved. The acceptance of Enterprise Architecture is growing fast in small and large organizations, in industry and government. The Enterprise Architects profession is still evolving and moving from the technology spectrum to the overall business spectrum. The need for formal EA education and training is growing, while the need for EA certification is at this time only present at consultancy firms.

Analyzing the EA 2005 survey results and understanding the drivers and behavior behind these results can help organizations to define their own Enterprise Architecture strategies and focus points.