



Trends in Enterprise Architecture

How are Organizations Progressing?

Web-form & E-mail Based Survey 2004

Report of the Second Measurement November 2004

Edition 1.0
Composed by: J. Schekkerman



Institute For
Enterprise Architecture
Developments

Your - Return On Information

Report of the Second Measurement

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1 Introduction

This report presents the results of the second 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 2004 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 April till September 2004.



In the following chapter, the context and scope of this study are elaborated. Afterwards, the result of the second measurement and the progress that has been achieved compared to the previous measurement is presented. In chapter 4 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.



The following symbol is used in this report to remember the differences in size and Enterprise Architecture maturity of the participating organizations, when comparing the 2004 results with the 2003 results.

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¹ Book 'How to survive in the jungle of Enterprise Architecture Frameworks', Schekkerman Jaap, Publisher Trafford Canada, 2004, ISBN 141201607-X.

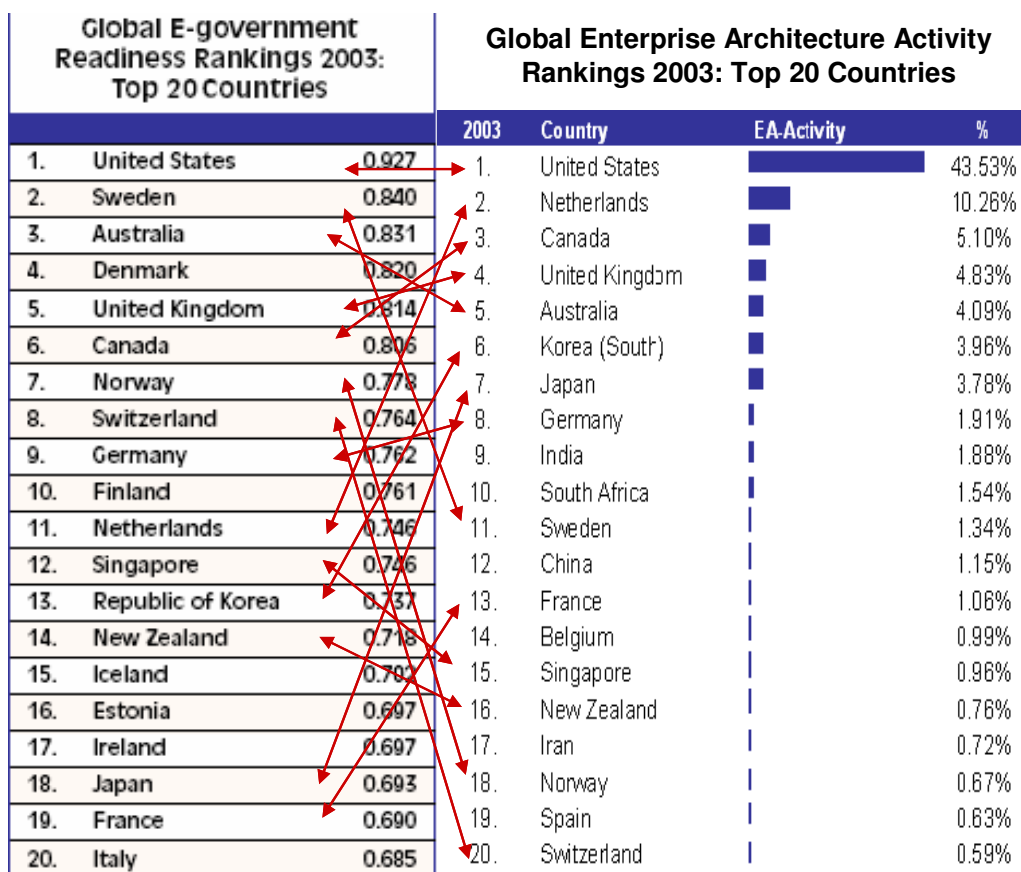
2 The Enterprise Architecture Survey 2004 - Study

This second 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. 57 respondents filled in the EA 2004 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 2004 and 2003 executed by the Institute For Enterprise Architecture Developments (IFEAD) 2004.

2.1 E-Government & Enterprise Architecture

The next figure shows the United Nations e-Government rankings 2003 and the related IFEAD 2003 Enterprise Architecture top 20 rankings. A strong correlation can be seen between both rankings, where E-Government is driving Enterprise Architecture and vice versa.

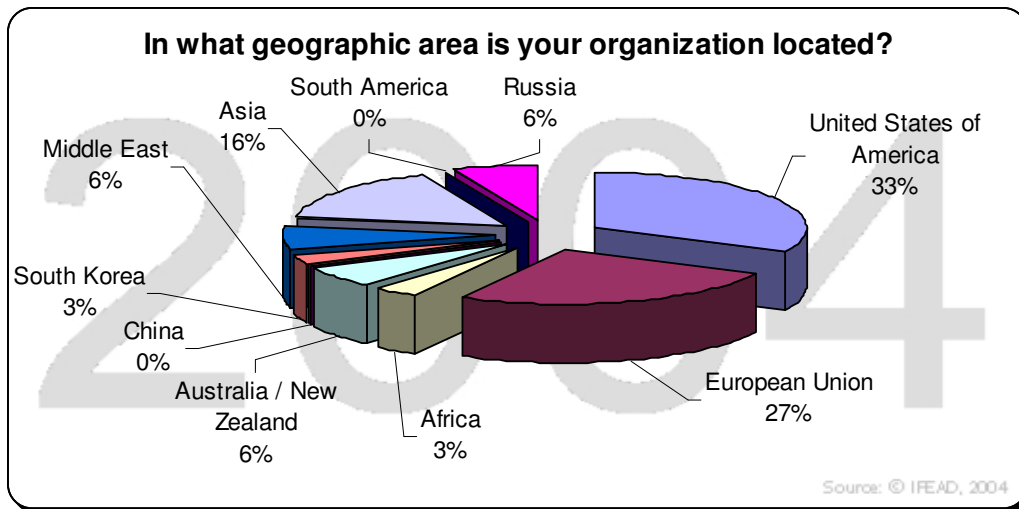


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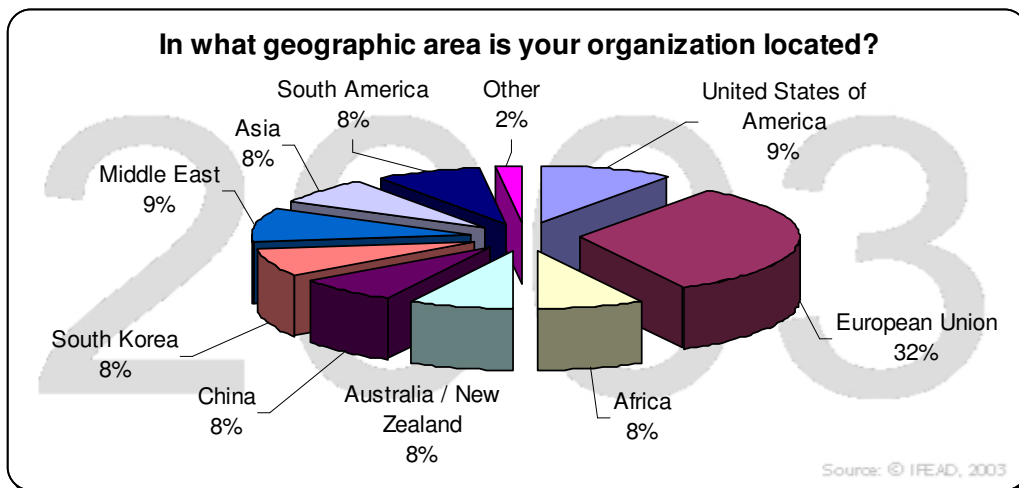
Percentage of Enterprise Architecture page views during 2003
 from: <http://www.enterprise-architecture.info>
 Source: IFEAD

3 Trends in Enterprise Architecture 2004: How are Organizations Progressing?

3.1 Question 1: In what geographic area is your organization located?



This diagram is showing the geographic spread of the participating organizations in the EA survey 2004.

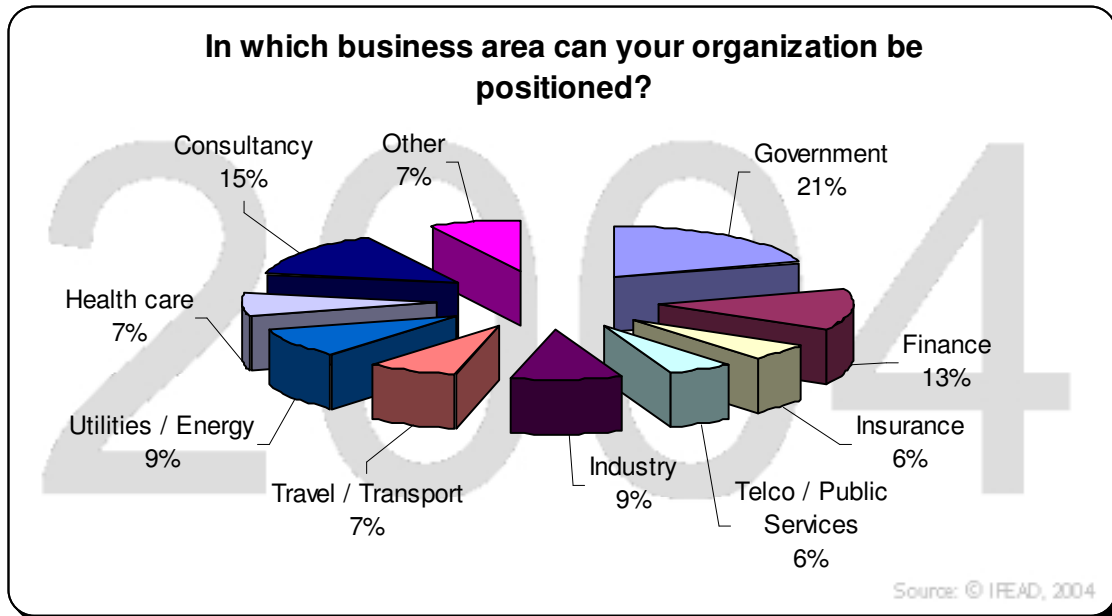


3.1.1 Q1 - Analysis

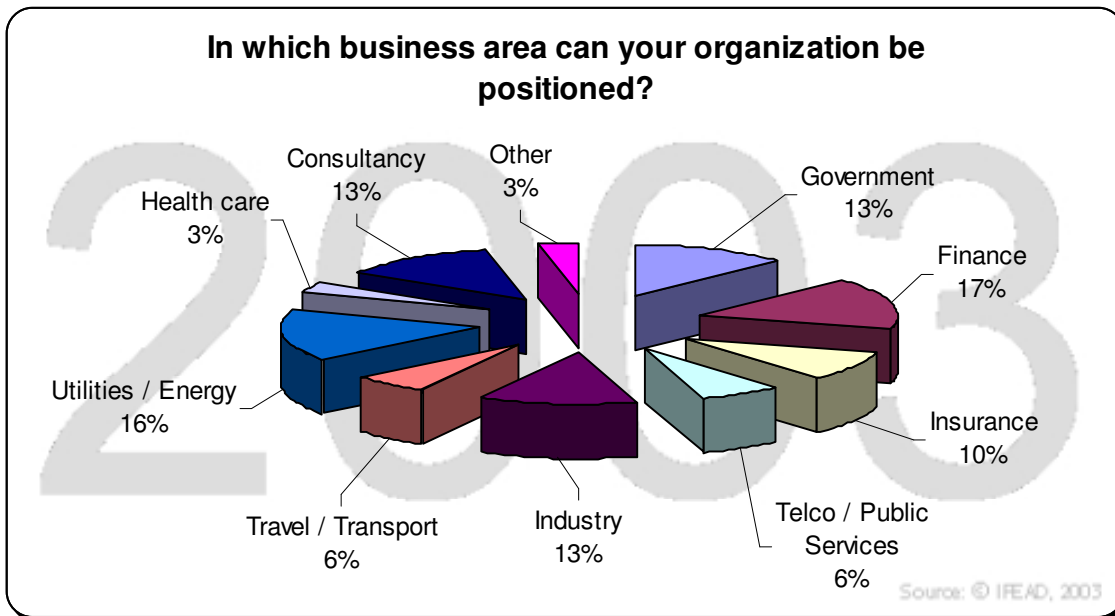


Related to the 2003 results a larger presence from organizations of the United States of America, Asia and Russia can be seen in the EA survey 2004. South America and China are not anymore present in the 2004 survey. Due to higher EA activities in the USA, Europe and Asia, the 2004 results represents better the overall status of EA in the world.

3.2 Question 2: In which business area can your organization be positioned?



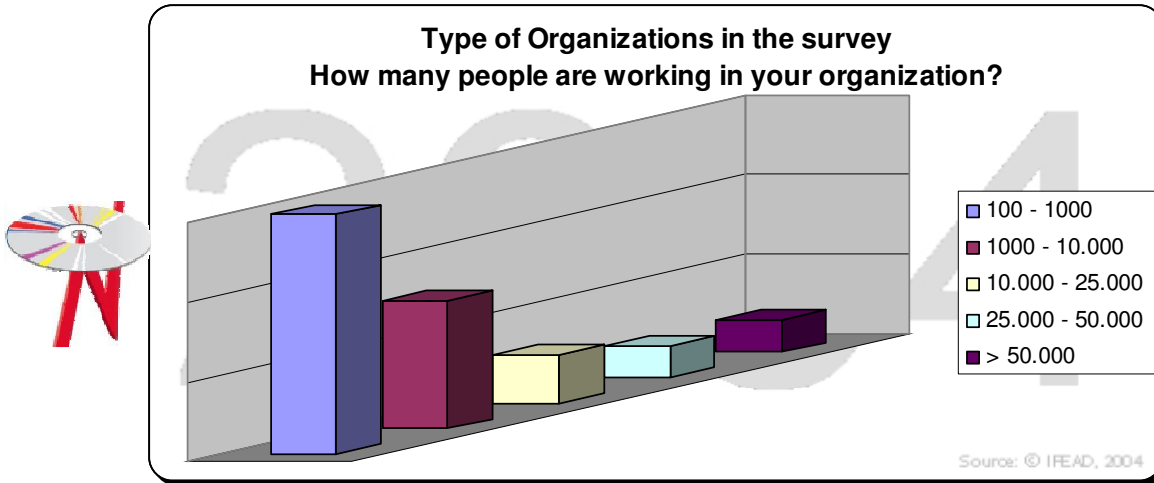
This diagram is showing in which business areas the participants are active.



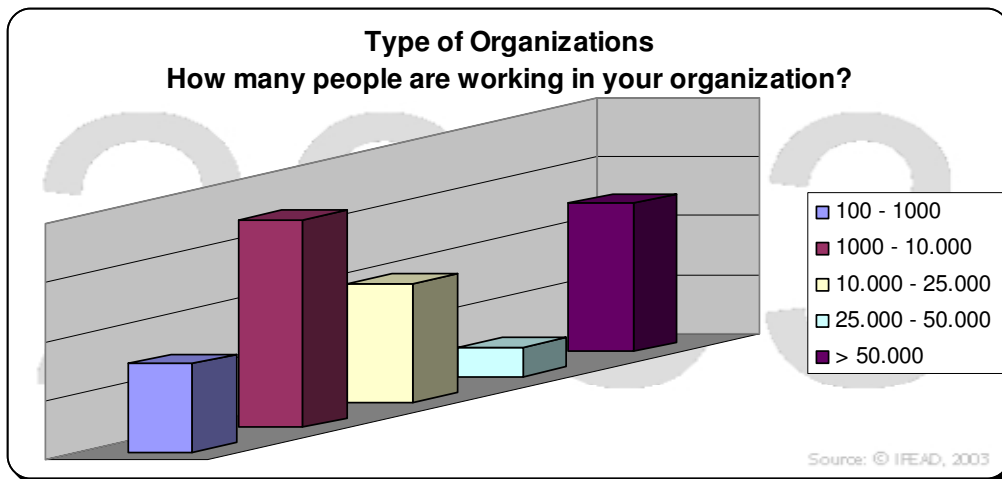
3.2.1 Q2 - Analysis

Comparing the 2004 results with the 2003 results, we can see that the prominent position from the finance industry and utilities / energy in 2003 is taken over by the Governmental sector. The overall conclusion is that Enterprise Architecture is now broad accepted in all the business areas.

3.3 Question 3: How many people are working in your organization?



This diagram is showing the categories of organizations participating in this survey. A significant difference can be seen when comparing the organizations that participate in the 2004 survey with the 2003 survey. In 2003 more multi-national organizations were participating and less smaller organizations. In 2004 we can see that Enterprise Architecture is also landed in smaller organizations with 100 till 1000 people.

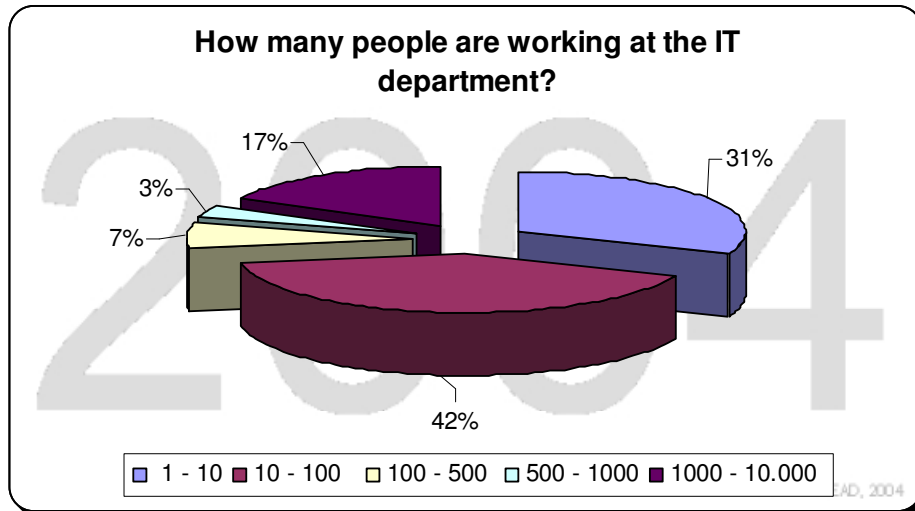


3.3.1 Q3 - Analysis

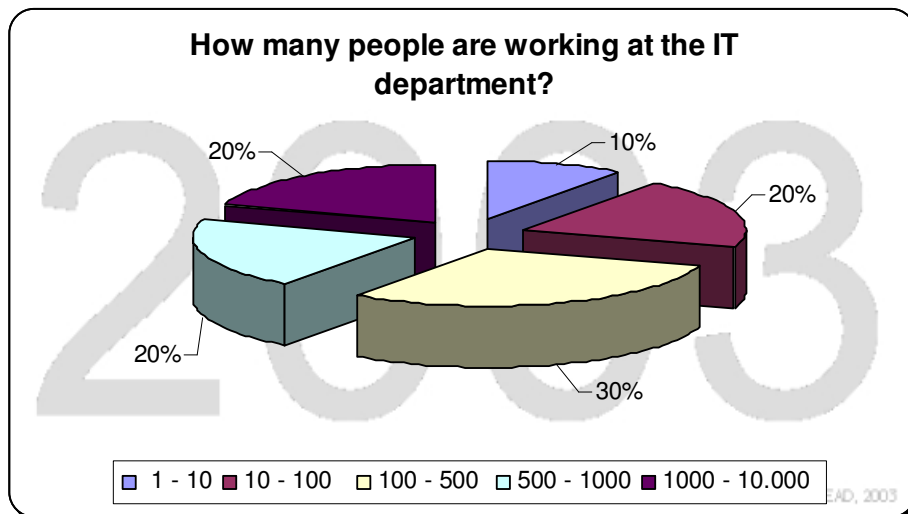


The difference in scale of the participating organizations between the 2003 and 2004 participants declares the changes in results between the 2004 and 2003. The good thing is that not only very large and multi national organizations have adopted Enterprise Architecture but also smaller organizations 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.

3.4 Question 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 Survey participants.



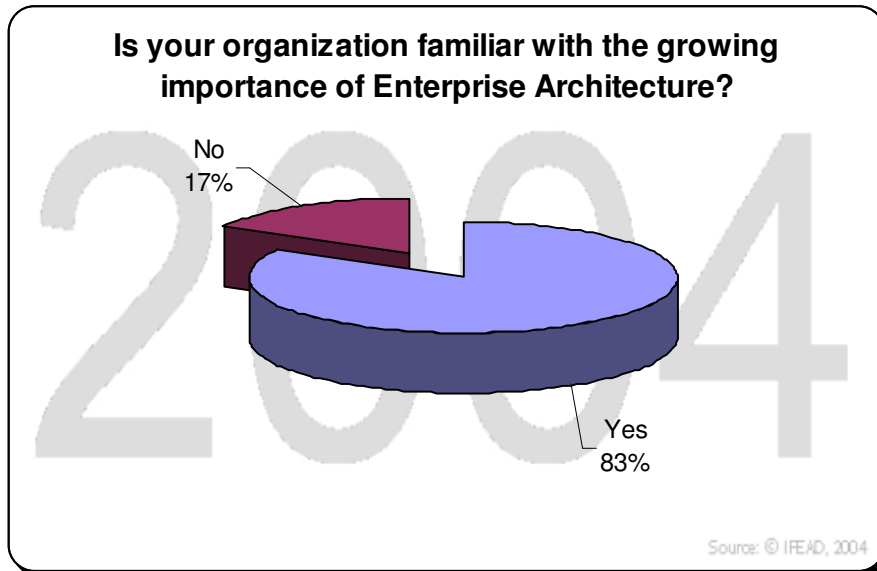
3.4.1 Q4 - Analysis



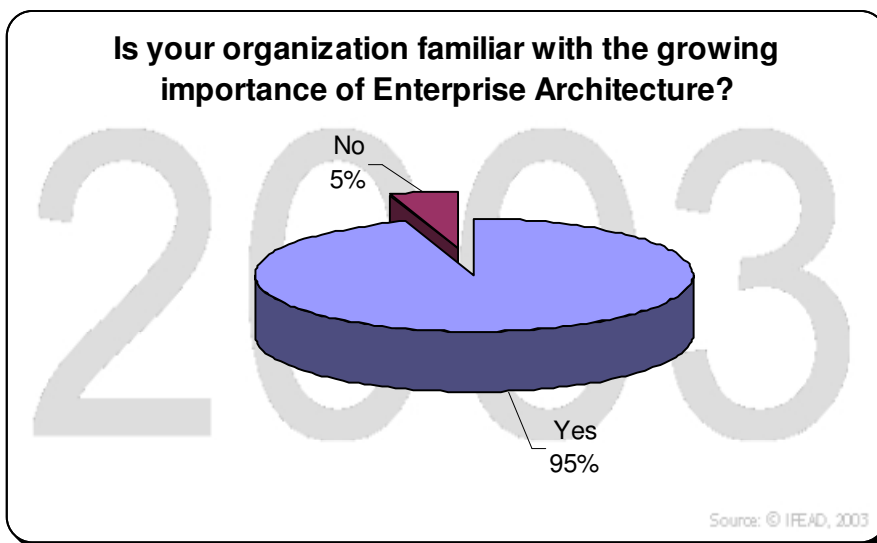
The average of IT people working at the IT department in the 2004 survey is slightly different compared with the results from the 2003 survey. In line with the number of smaller organizations even so the number of people working at IT departments is smaller.

73% of the participants in the 2004 survey have IT departments in the categories of 1-10 people (31%) and 10-100 people (42%) where in the 2003 survey 30% were in these categories. In 2003 there was a group of 50% in the categories 100 - 500 and 500 - 1000, while in the 2004 survey these categories together are only 10%.

3.5 Question 5: Is your organization familiar with the growing importance of Enterprise Architecture?



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

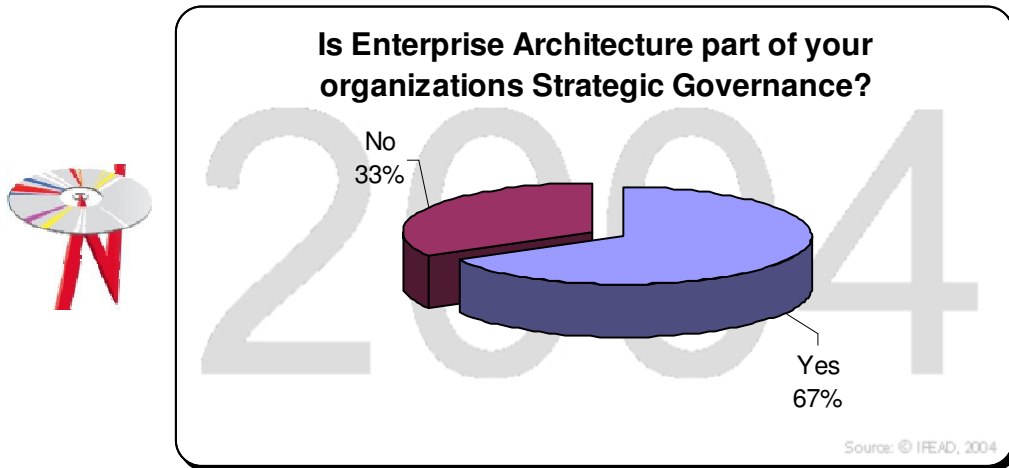


3.5.1 Q5 - Analysis

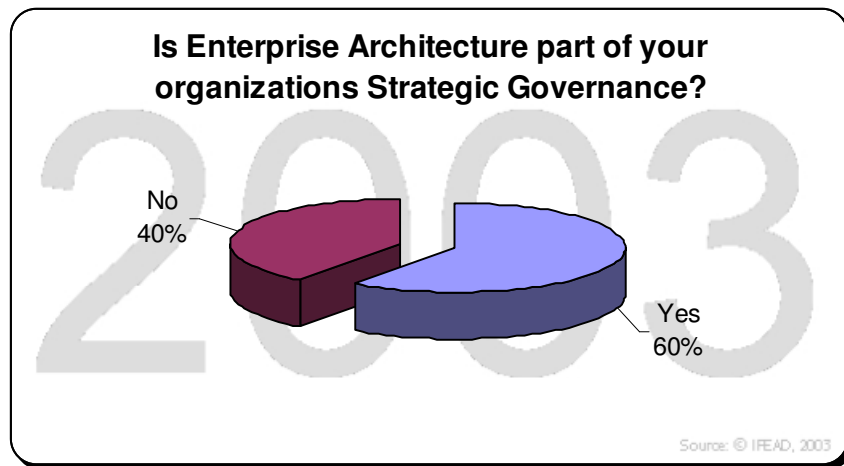


83% of the reflecting organizations are familiar with the growing importance of Enterprise Architecture in 2004. So even in smaller organizations the impact of EA is understood. In the 2003 survey 95% was telling that their organizations were familiar with Enterprise Architecture. The differences between both surveys can be declared by the fact that the maturity level of EA is lower in smaller organizations than in larger organizations.

3.6 Question 6: Is Enterprise Architecture part of your organizations Strategic Governance?



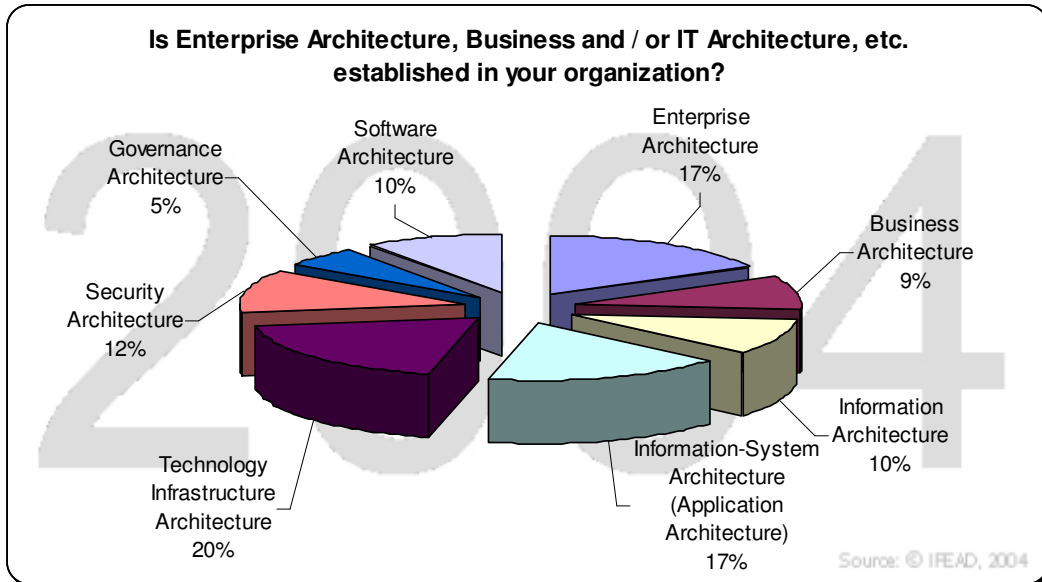
This diagram is showing how Enterprise Architecture is part of organizations Strategic Governance.



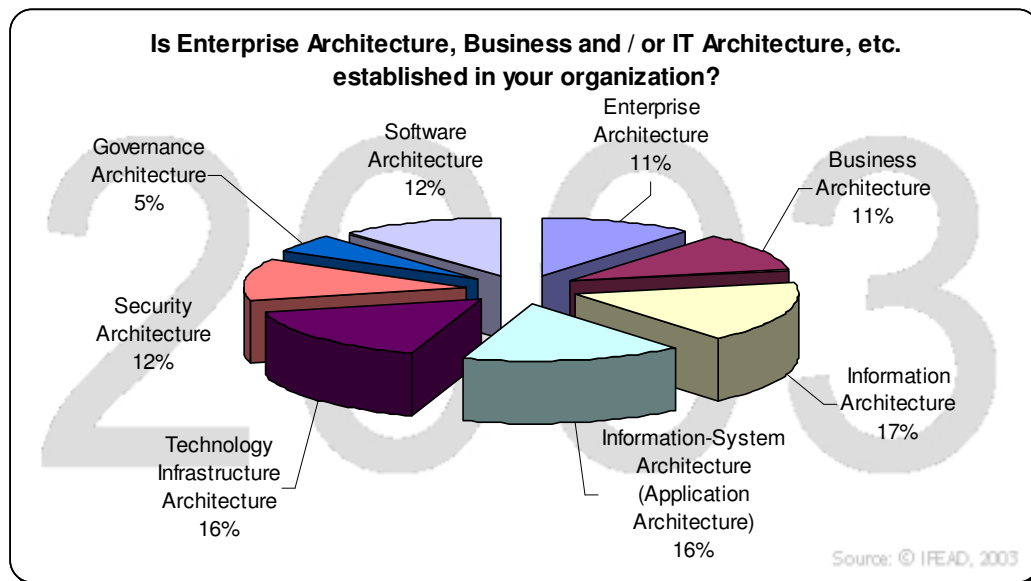
3.6.1 Q6 - Analysis

What can see that Enterprise Architecture becomes more and more part of the organizations Strategic Governance. There is a growth of 7 % between the 2004 results and the 2003 results. Even in smaller organizations Enterprise Architecture becomes part of the organizations Strategic Governance.

3.7 Question 7: Is Enterprise Architecture, Business and / or IT Architecture, etc. established in your organization?



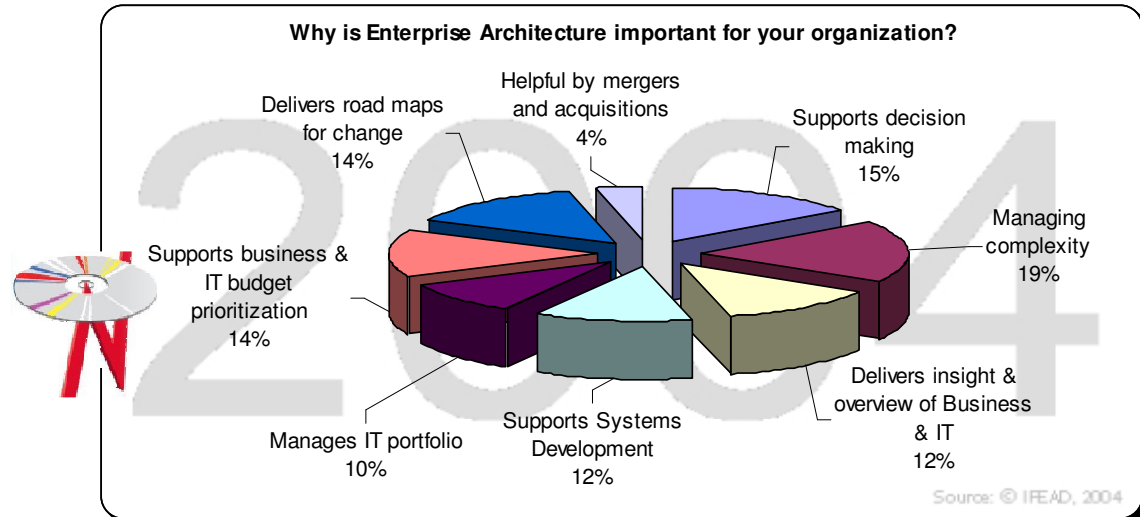
This diagram is showing what kinds of architectures are established in today's organizations.



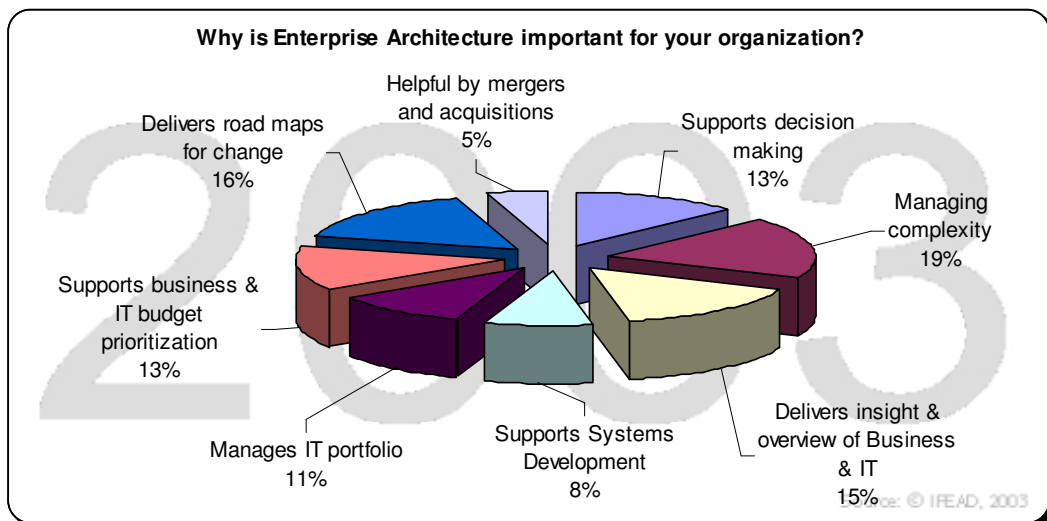
3.7.1 Q7 - Analysis

What we can see is a growth in establishing Enterprise Architecture in today's organizations. So architecture is not the issue, what we can see is a booming change in the acceptance and implementation of Enterprise Architecture. Enterprise Architecture is growing from 11% in 2003 to 17% in 2004 even in smaller organizations.

3.8 Question 8: Why is Enterprise Architecture important for your organization?



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

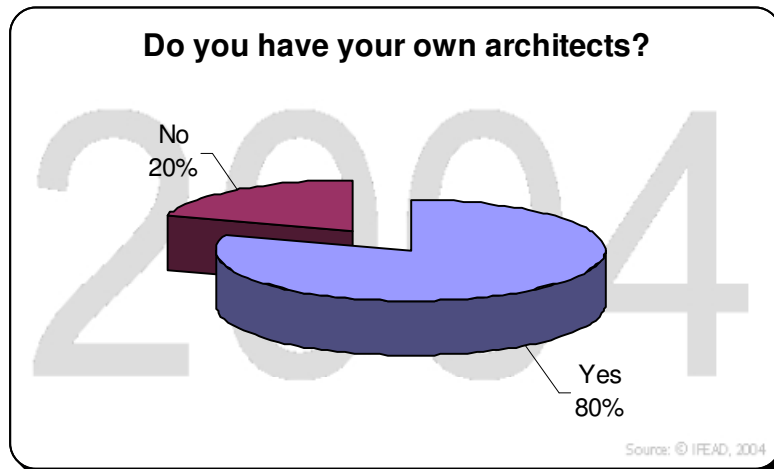


3.8.1 Q8 - Analysis

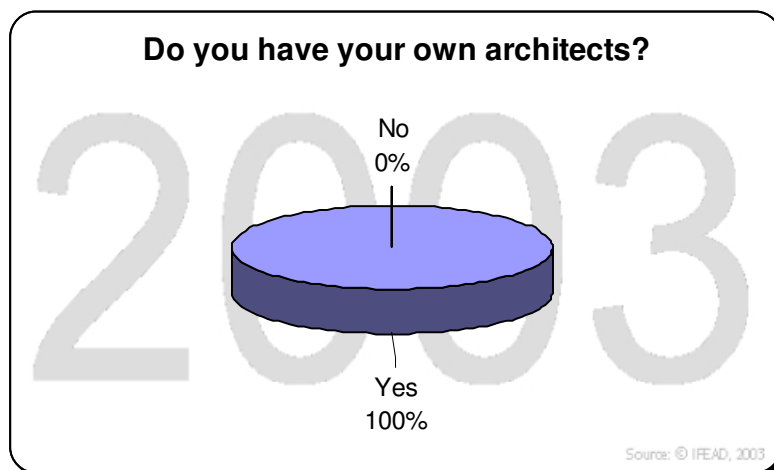
Looking at the 2004 figures, there is no significant change between the 2003 and 2004 results.

The only remarkable change is the growth for Support of System Development, which can be declared that smaller organizations are more technology focused than larger organizations. Managing Complexity is still the most important reason for Enterprise Architecture.

3.9 Question 9: Do you have your own architects?



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



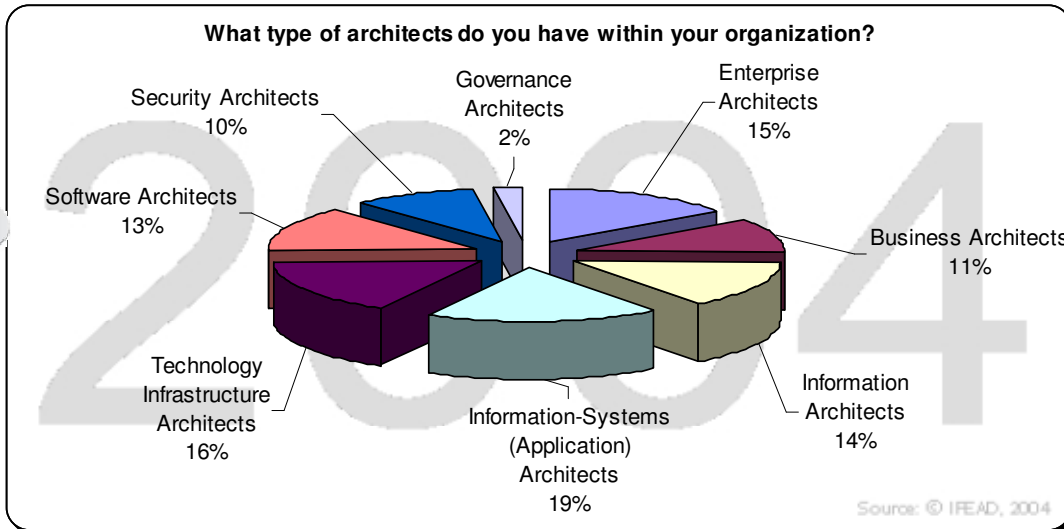
3.9.1 Q9 - Analysis



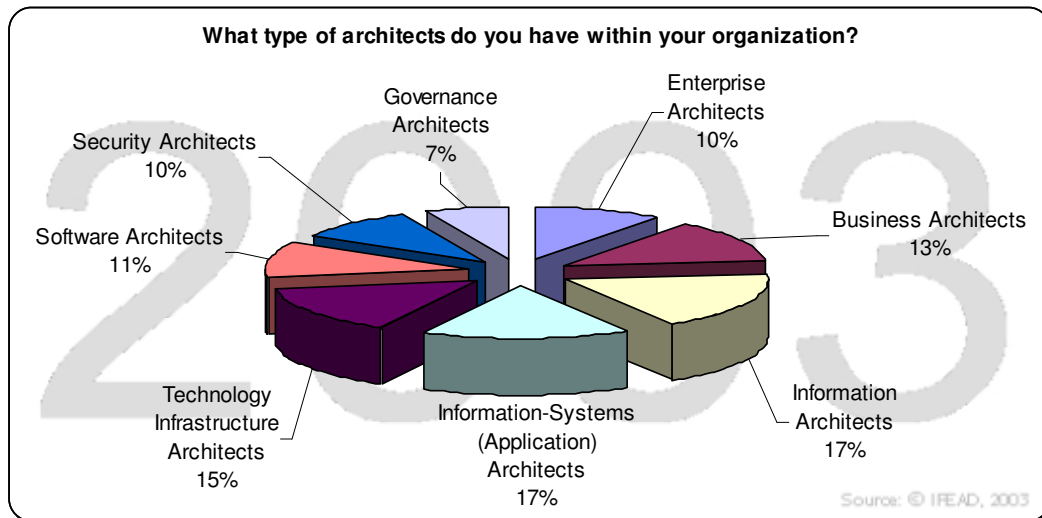
At the time that Enterprise Architecture is accepted as strategic governance tool and established in today's organizations, the need to have your own architects is crucial for the continuity of your organization.

In 2003 all the respondents declared that they have their own architects, in 2004 80% have their own architects. The differences can be explained by the fact that smaller organizations not always have their own architects.

3.10 Question 10: What type of architects do you have within your organization?



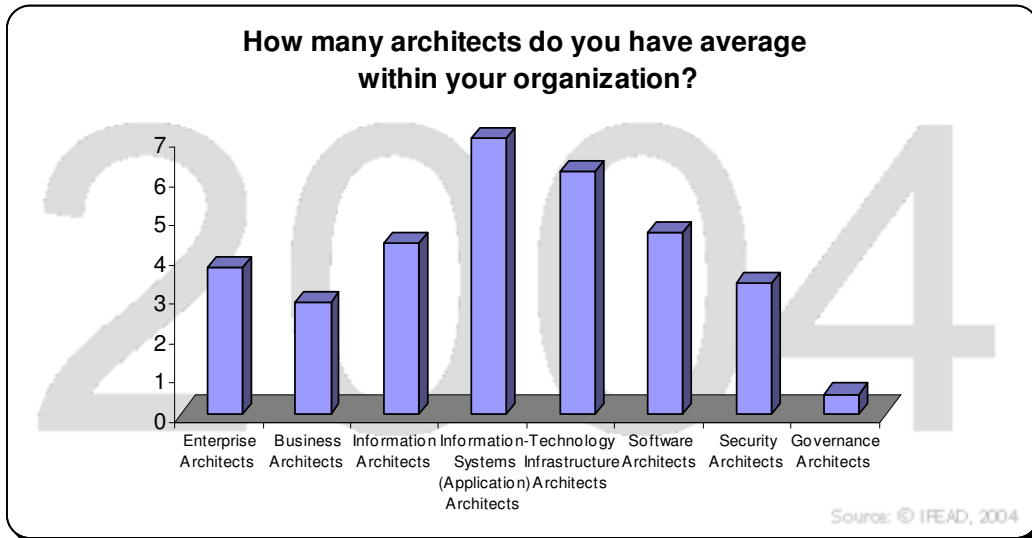
This diagram is showing the different type of architects present in today's organizations.



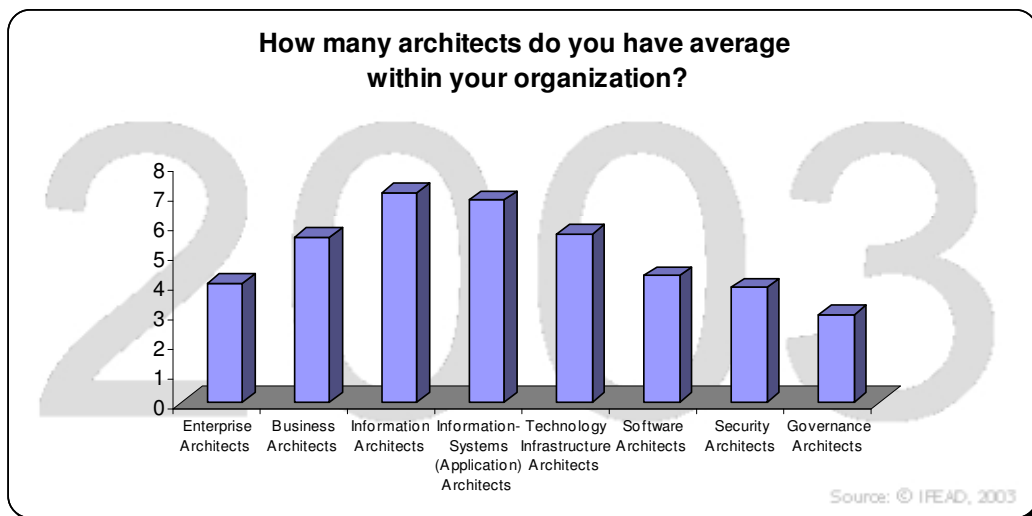
3.10.1 Q10 - Analysis

Comparing the figures from 2004 with the figures of 2003 is showing a significant growth of the presence of Enterprise Architects and a slow down in Business and Information Architects. Even so the number of Information-Systems Architects is growing and the number of Governance Architects is slowing down to a percentage of 2%. Software Architects are growing as well as Technology Infrastructure Architects. So Governance Architects are most of the time not present in smaller organizations.

3.11 Question 11: How many architects do you have average within your organization?



This diagram is showing the average number of several kinds of architects in today's organizations.

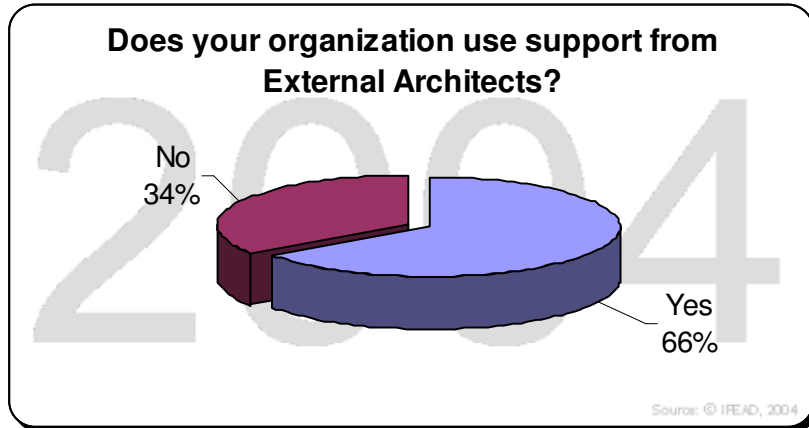


3.11.1 Q11 - Analysis

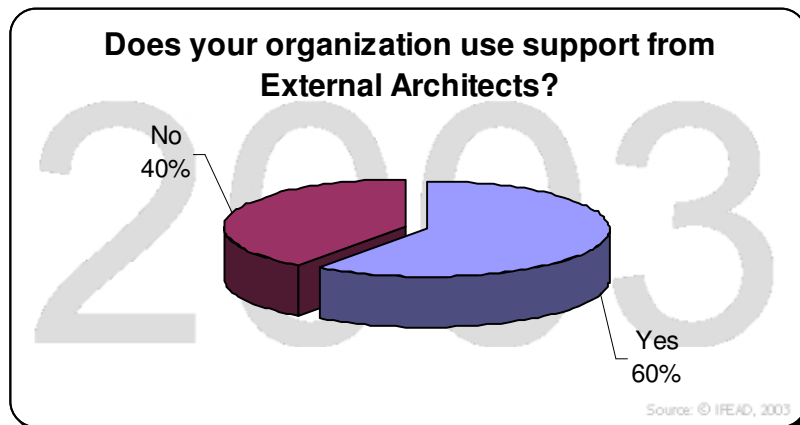


What we see, analyzing the 2004 results, is that the spread of the number of architects in smaller organizations is focused on two areas: Enterprise Architecture and Information-Systems Architecture. As an average most organizations have twice the number of Information-Systems Architects versus Enterprise Architects.

3.12 Question 12: Does your organization use support from External Architects?



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

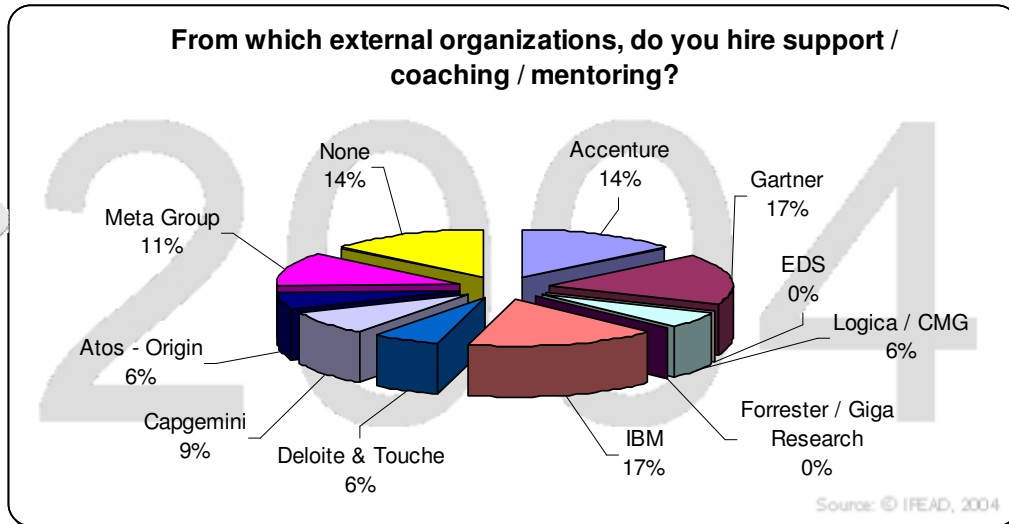


3.12.1 Q12 - Analysis

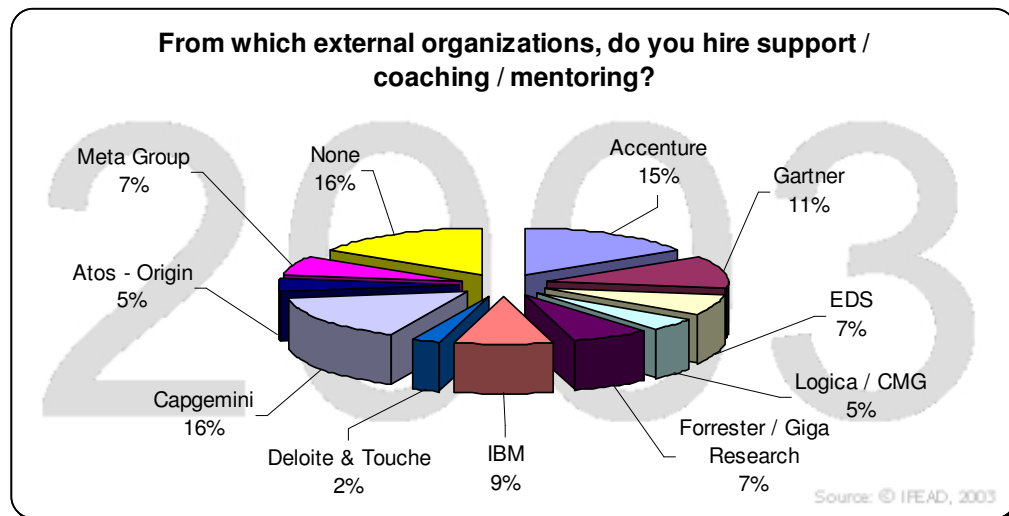


Comparing the figures of 2004 and 2003 is showing a growth from external support. This change can be explained by the fact that smaller organizations will ask sooner for external support than large organizations.

3.13 Question 13: From which external organizations, do you hire support / coaching / mentoring in your enterprise architecture projects?



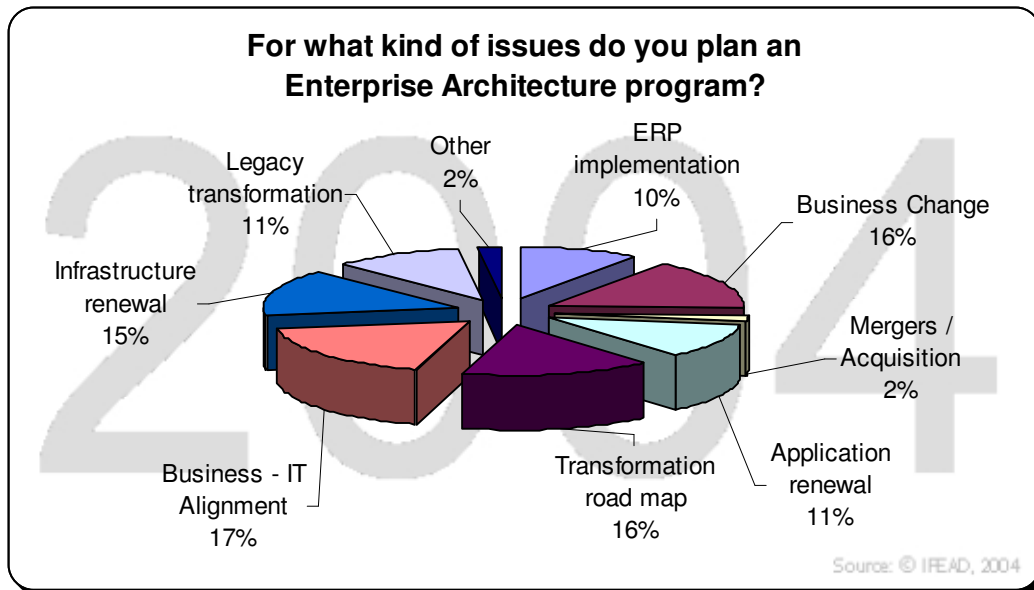
This diagram is showing the organizations that are delivering EA support / coaching and / or mentoring to today's organizations.



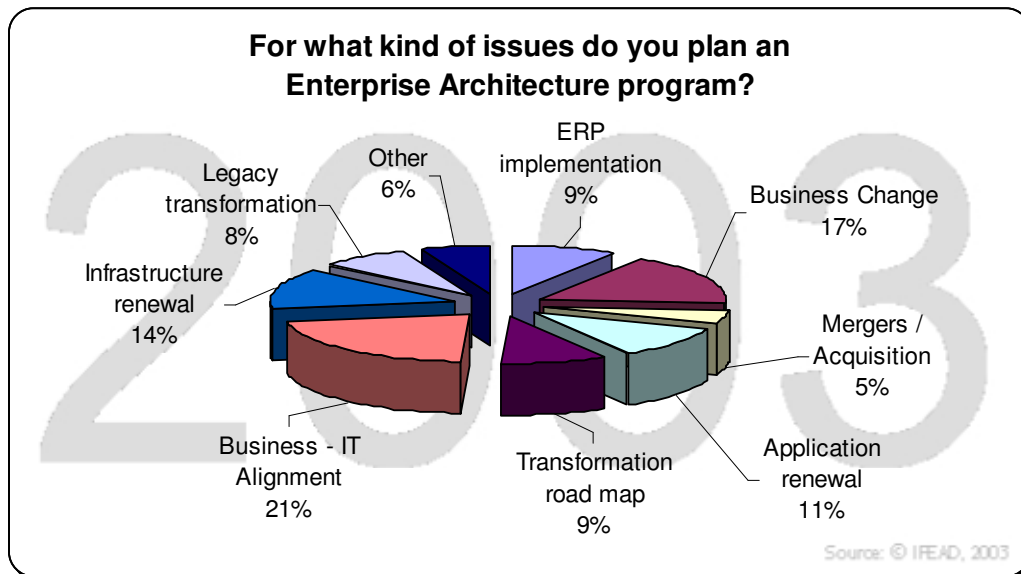
3.13.1 Q13 - Analysis

Analyzing the 2004 and 2003 results is showing some significant growth by IBM, Gartner and the Meta Group and a slow down to 0 % in support from EDS and Forrester / Giga Research. A decline can also be seen in the support from Capgemini from 16% in 2003 to 9% in 2004. Partly these changes in figures can be explained by looking at the geographical spread of the participant organizations. In 2003 a significant number of organizations were in the European Union, while in 2004 the geographical segmentation is more spread about the globe.

3.14 Question 14: For what kind of issues do you plan an Enterprise Architecture program?



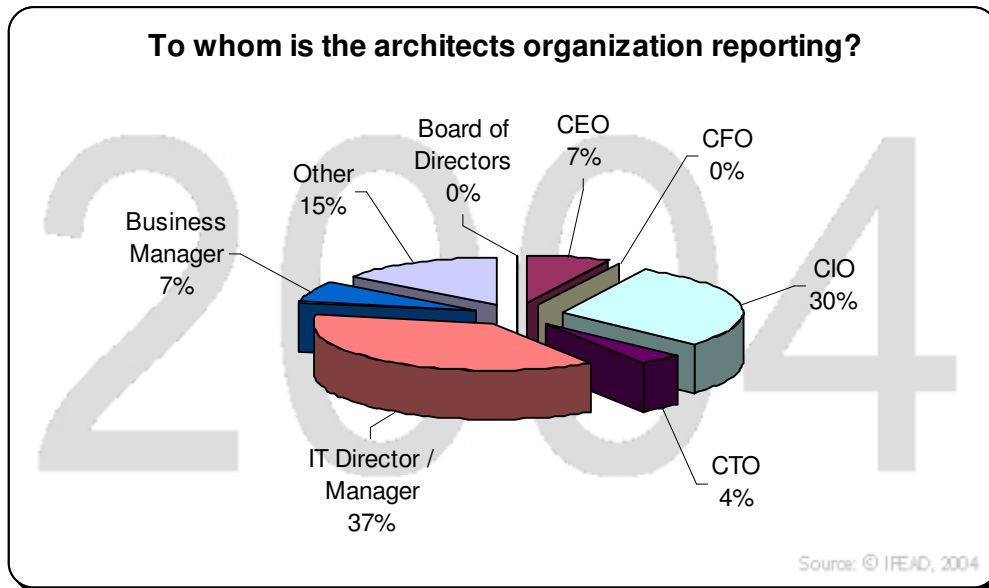
This diagram is showing the reasons for planning Enterprise Architecture activities.



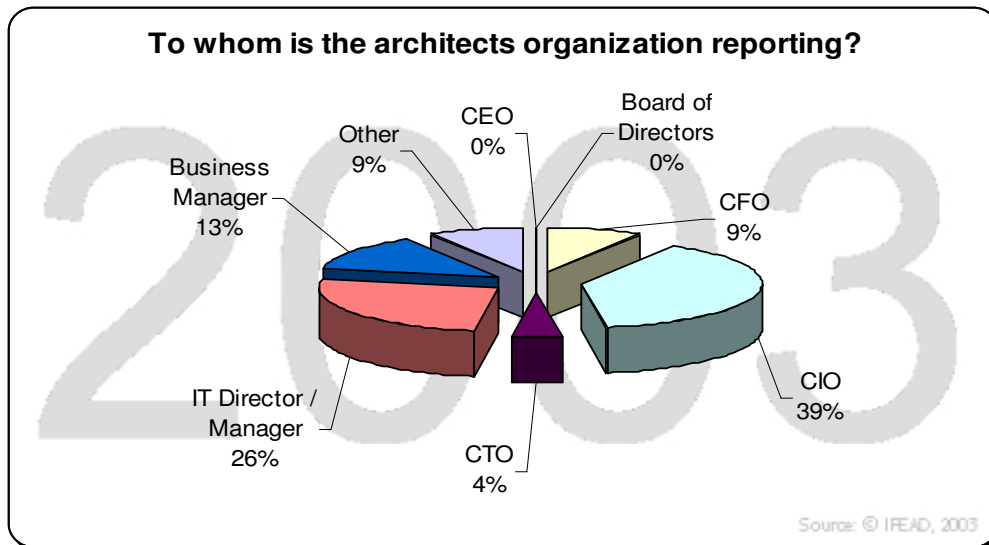
3.14.1 Q14- Analysis

There is some significant change in some reasons for planning EA. In the 2004 survey there is a strong growth for the item 'Transformation Road Map' as a reason for EA and a decline for the reason Business-IT Alignment. An explanation for this difference can be found in the more pragmatical way smaller organization are using Enterprise Architecture.

3.15 Question 15: To whom is the architect's organization reporting?



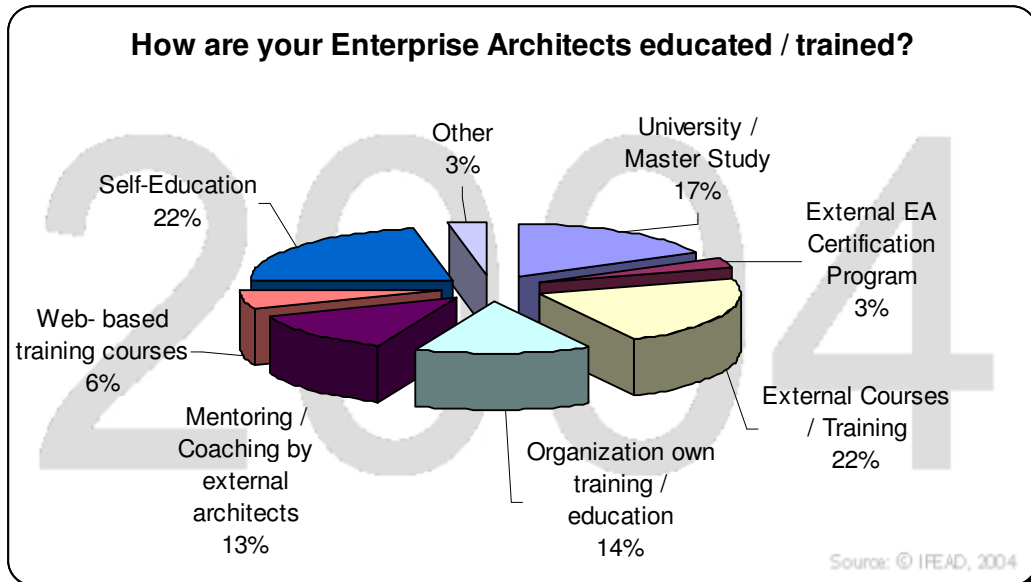
This diagram is showing to whom the architects' organization is reporting.



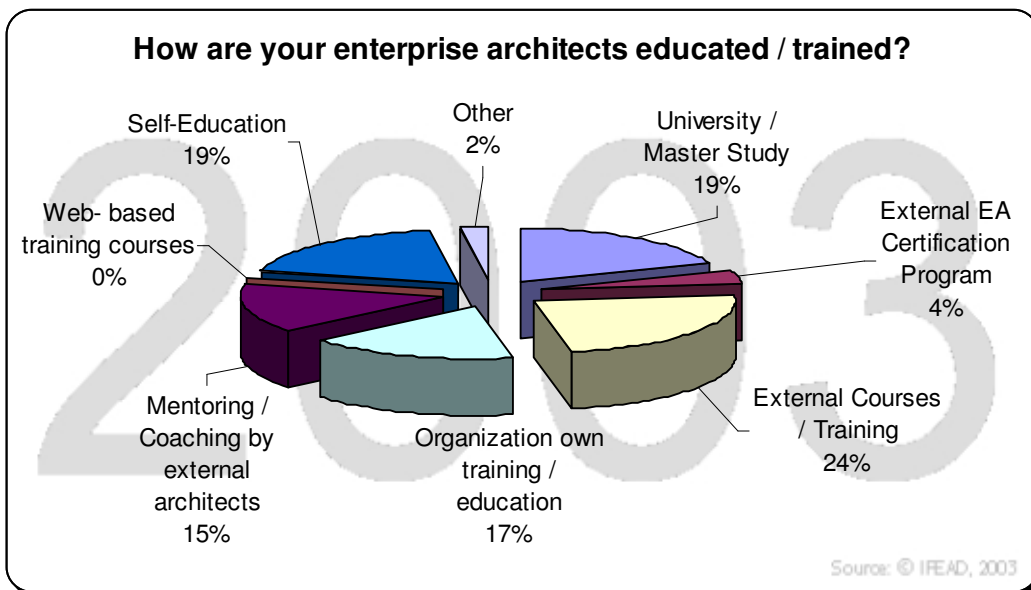
3.15.1 Q15 - Analysis

Looking at the figures of 2004 and 2003, we can see a change in responsibilities for the architecture organization. In 2003 0% was reporting to the CEO and 13% to business managers, while in 2004 7% was reporting to the CEO and 7% to business managers. When we cumulate the figures of IT Director / Manger and CIO we can see a stable situation of 65% in 2003 and 67% in 2004. Some of these changes can be declared by the fact that in smaller organizations the CEO will be responsible for EA, while in large organizations a business manager often is responsible for EA.

3.16 Question 16: How are your Enterprise Architects educated / trained?



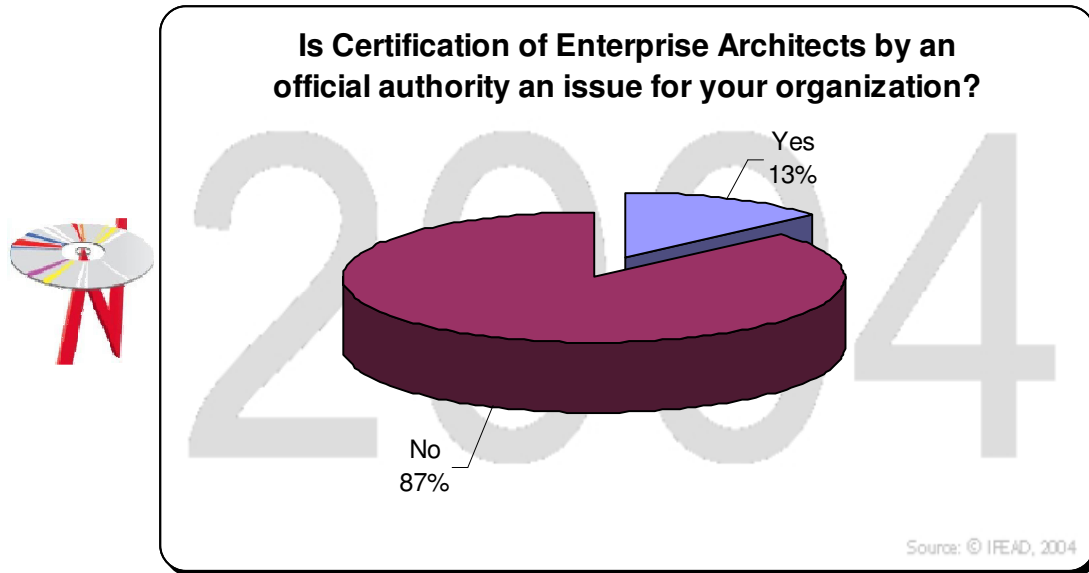
This diagram is showing the way Enterprise Architects are trained and educated.



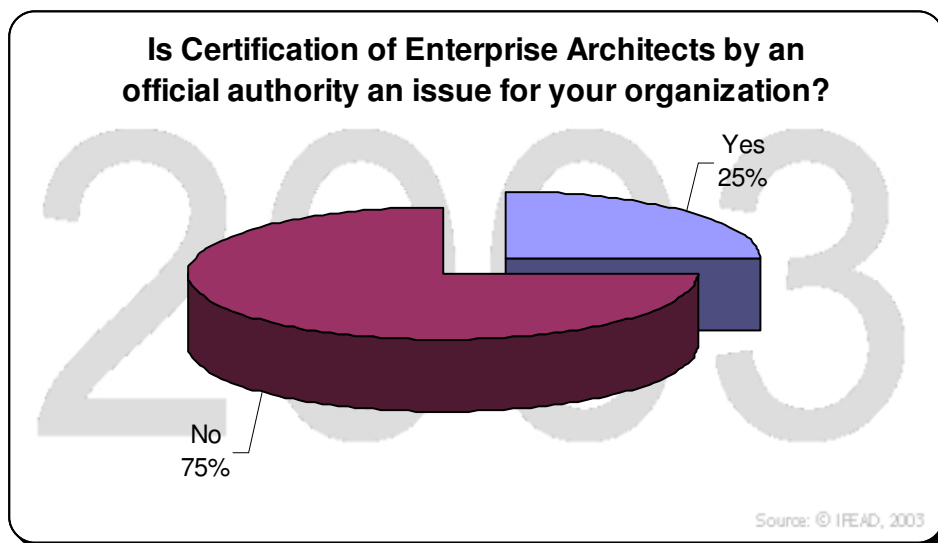
3.16.1 Q16 - Analysis

There are no significant changes between the 2004 and 2003 figures. There is in 2004 a slightly decline in Mentoring & Coaching by external architects as well as in the organization own training / education. Web based trainings are getting more attention as well as Self-Education.

3.17 Question 17: Is Certification of Enterprise Architects by an official authority an issue for your organization?



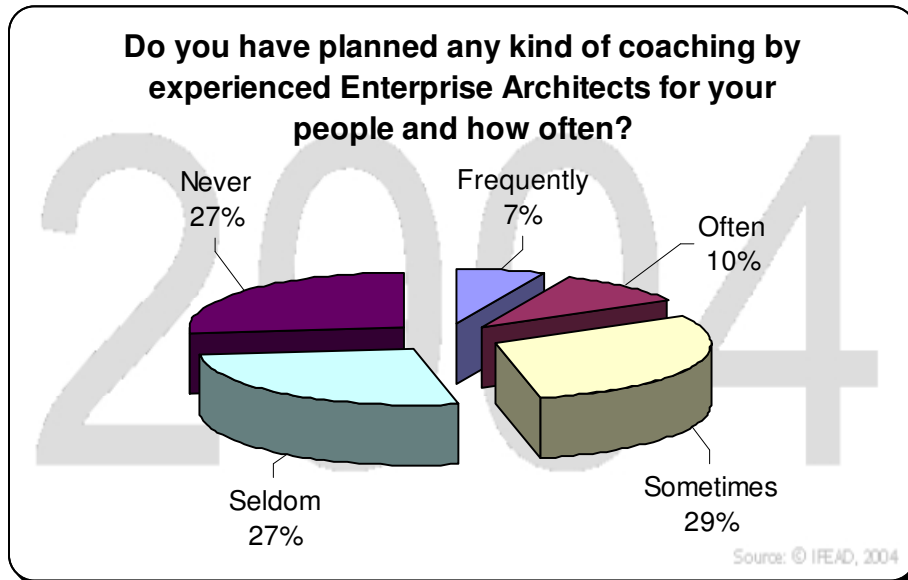
This diagram is showing the need for Enterprise Architects Certification.



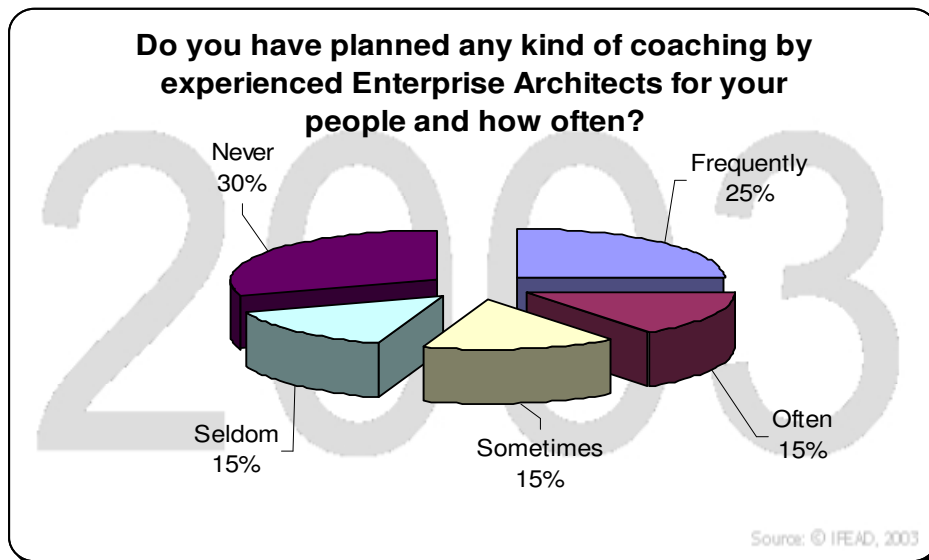
3.17.1 Q17 - Analysis

What we can see is that there is no real demand for certification of Enterprise Architects. Analyzing the 2004 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.

3.18 Question 18: Do you have planned any kind of coaching by experienced Enterprise Architects for your people and how often?



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

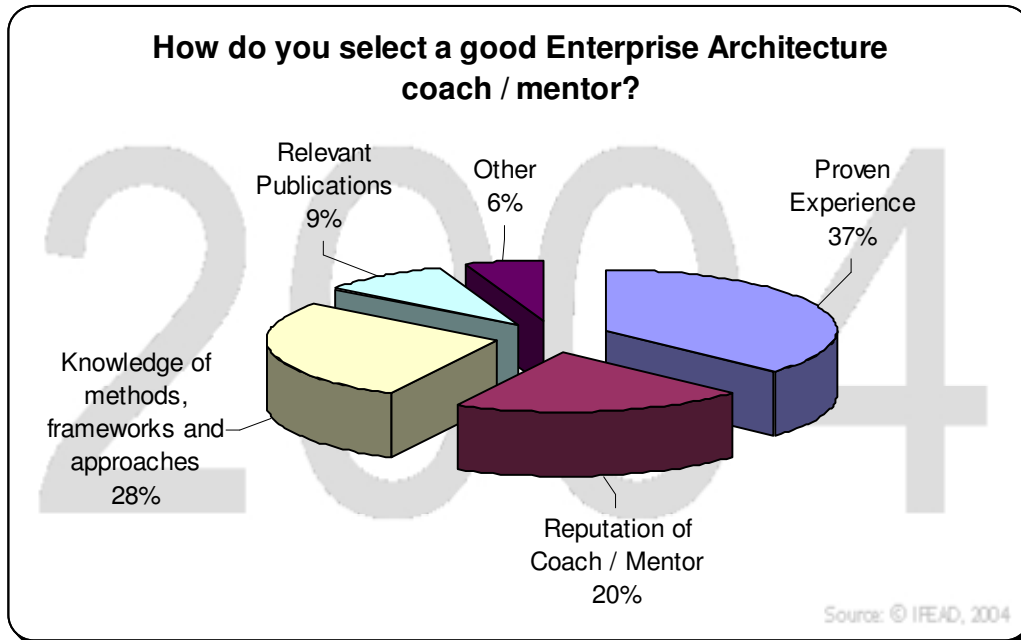


3.18.1 Q18 - Analysis

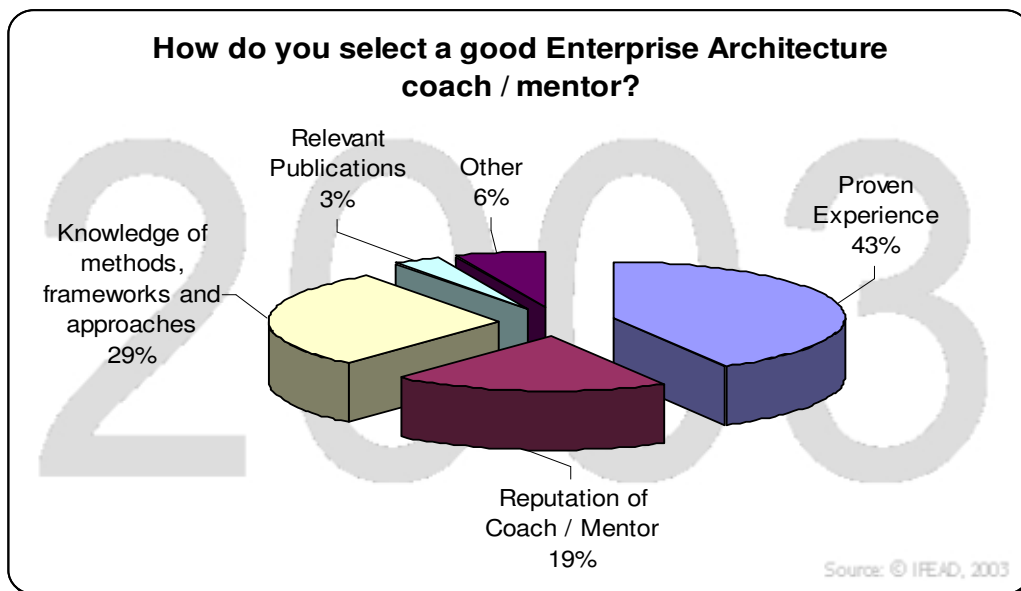


What we can see is that the demand for coaching is declining in 2004. An explanation can be given by the fact that smaller organizations who are less mature have a lower budget and therefore a lower demand for coaching than large organizations where Enterprise Architecture is more established.

3.19 Question 19: How do you select a good Enterprise Architecture coach / mentor?



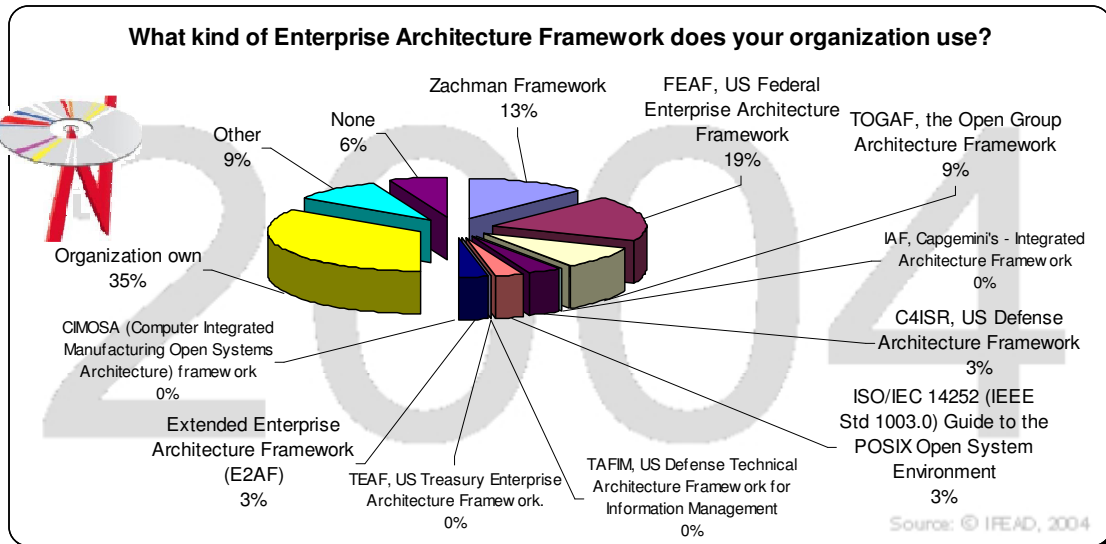
This diagram is showing the reasons for selecting an EA coach / mentor.



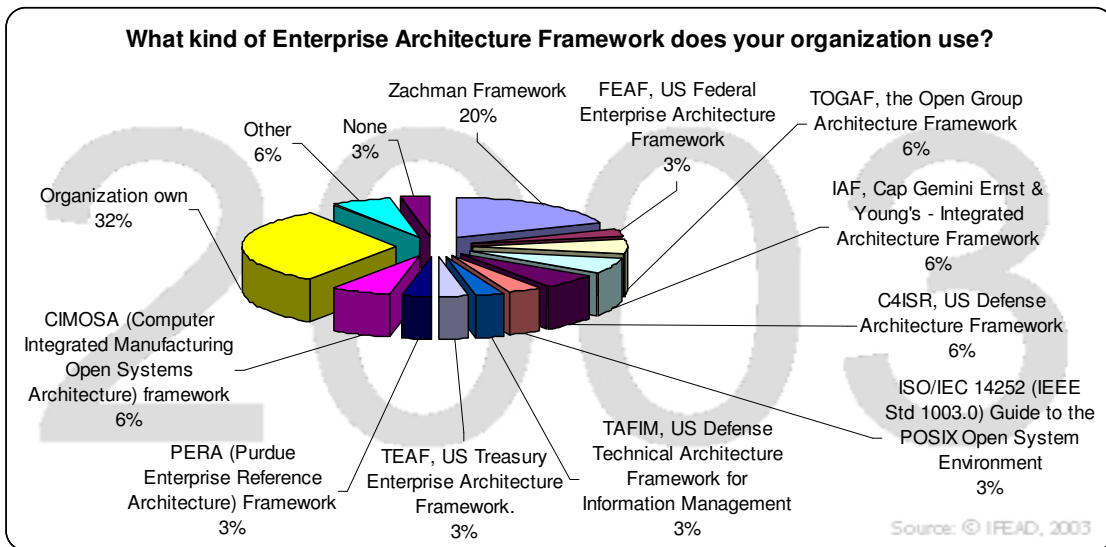
3.19.1 Q20- Analysis

There is a slightly difference between the 2004 and 2003 figures. The relevancy of publications is growing and becomes more important, while the focus on proven Experience is getting less attention.

3.20 Question 20: What kind of Enterprise Architecture Framework does your organization use?



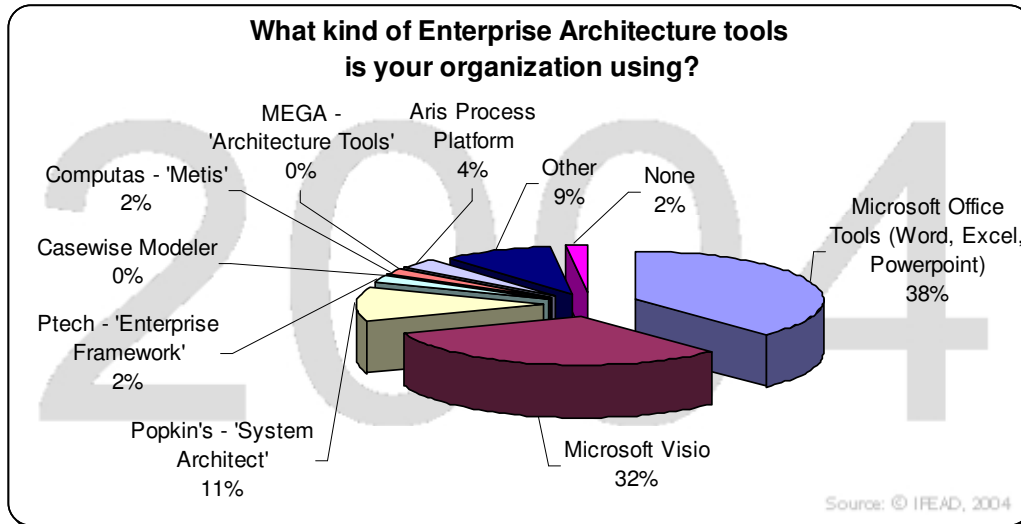
This diagram is showing the Enterprise Architecture Frameworks usage.



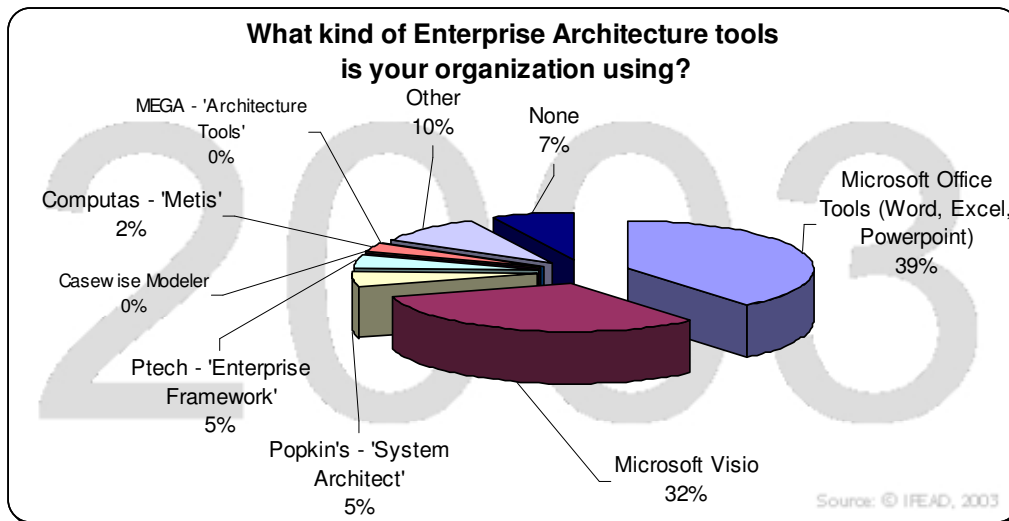
3.20.1 Q20 - Analysis

It's amazing to see the enormous growth of the usage of the US Federal Enterprise Architecture Framework. Even so we can see that the organizations own EA frameworks are prominent present and that the presence of a well-known EA framework like the Zachman is declining dramatically. What you can see is that 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 presence of the Extended Enterprise Architecture Framework. A lot of other EA frameworks are no longer present in the 2004 survey.

3.21 Question 21: What kind of Enterprise Architecture tools is your organization using?



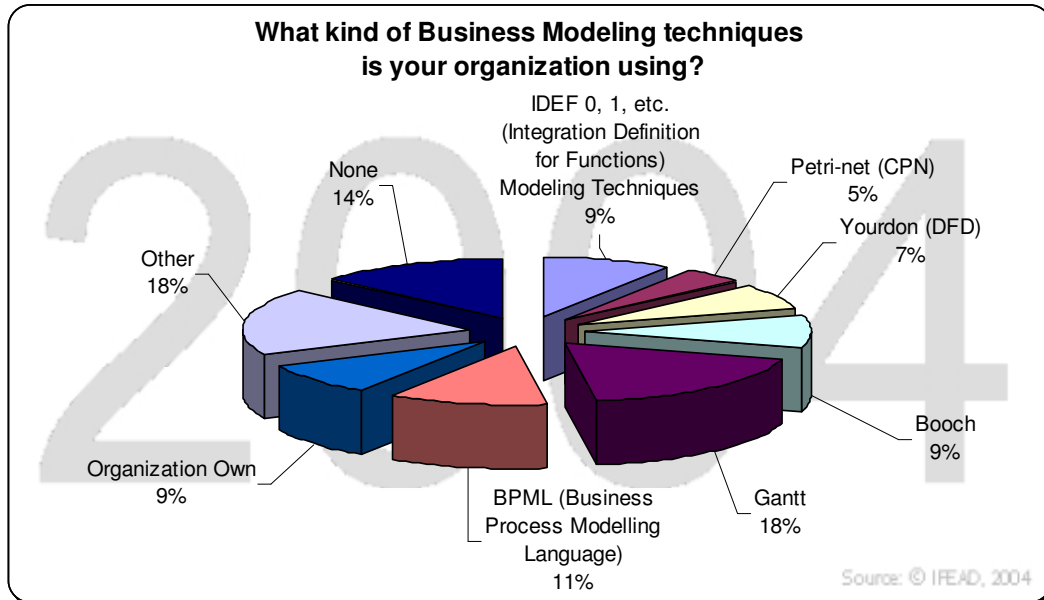
This diagram is showing the type of Enterprise Architecture tools in use in today's organizations



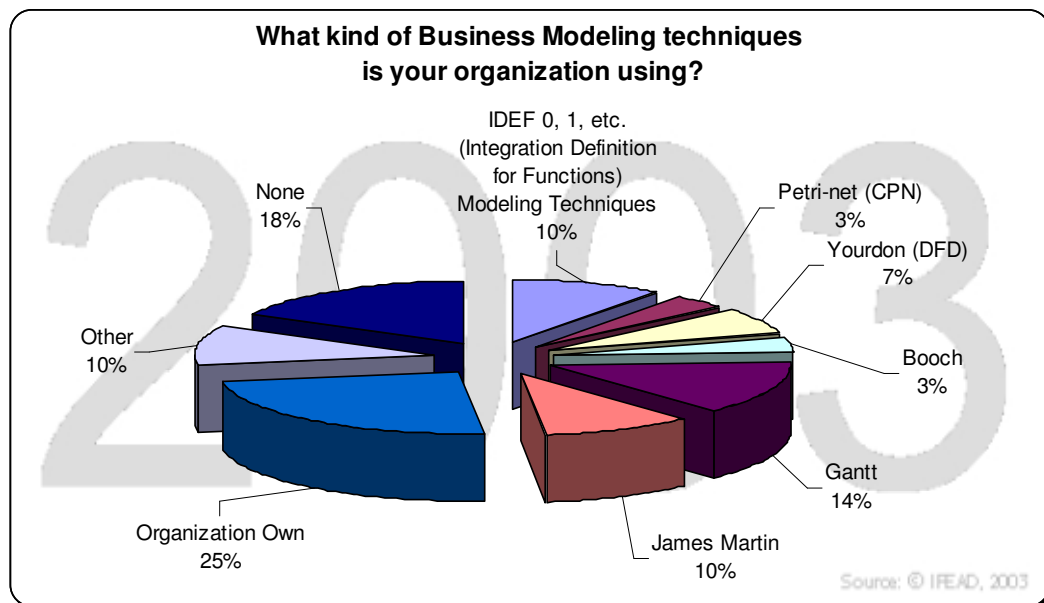
3.21.1 Q21 - Analysis

What we can see is a growth in the presence of Popkin's System Architect tool. Even so the Microsoft products still have a constant and prominent position as Enterprise Architecture tools. Other EA tool surveys are showing also a strong growth for the Computas 'Metis' and MEGA tool sets.

3.22 Question 22: What kind of Business Modeling techniques is your organization using?



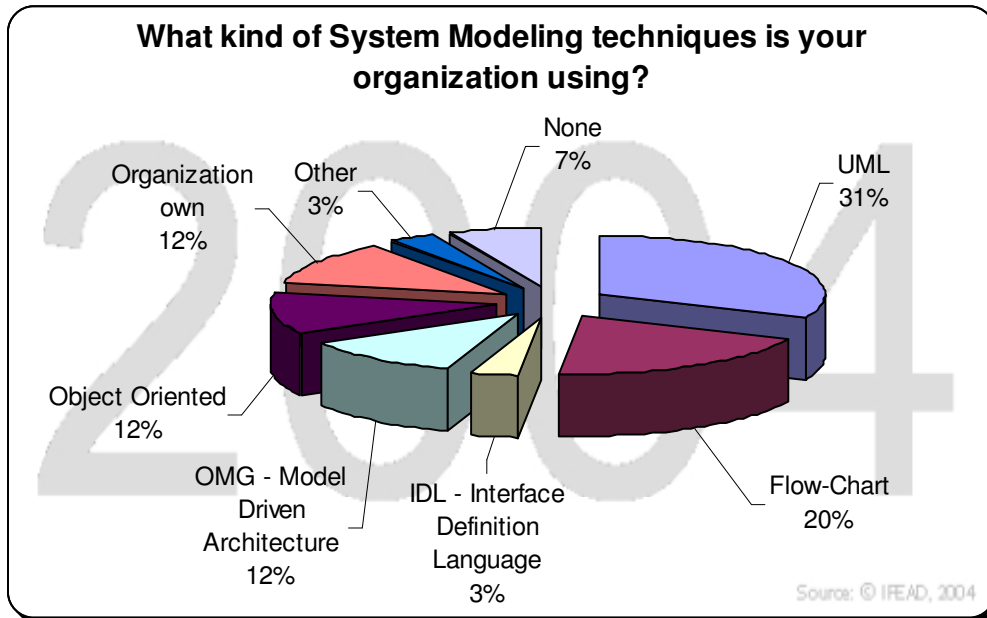
This diagram is showing the business modeling techniques used by organizations.



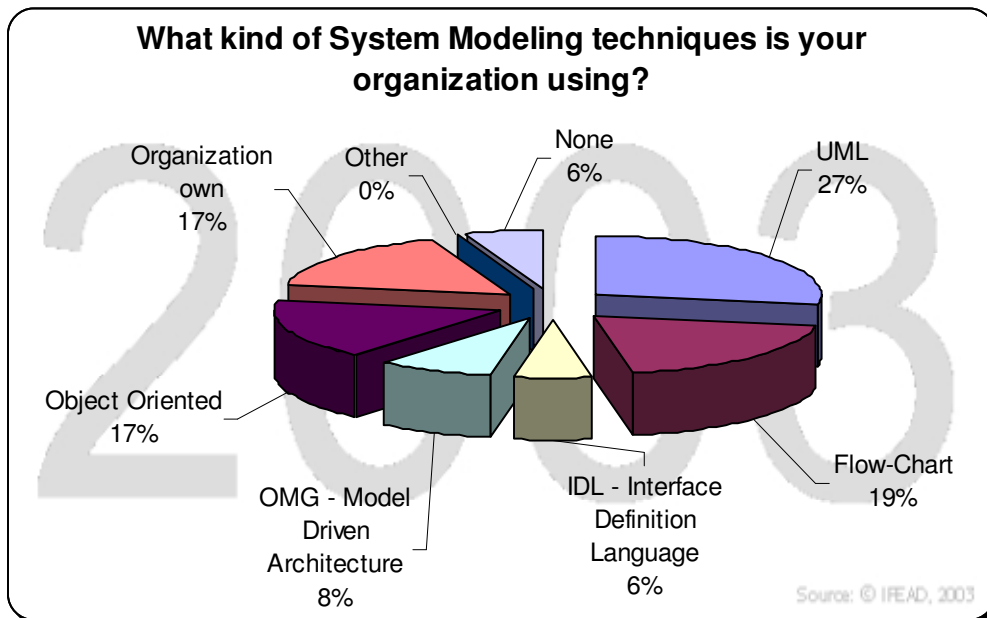
3.22.1 Q22 - Analysis

New in the 2004 survey is the booming presence of BPML as business process modeling standard, while James Martin was not longer noticed in the 2004 survey. There is a decline in organization own techniques and a growth in other standards. Even the number of organizations that are not using any modeling tools is declining.

3.23 Question 23: What kind of System Modeling techniques is your organization using?



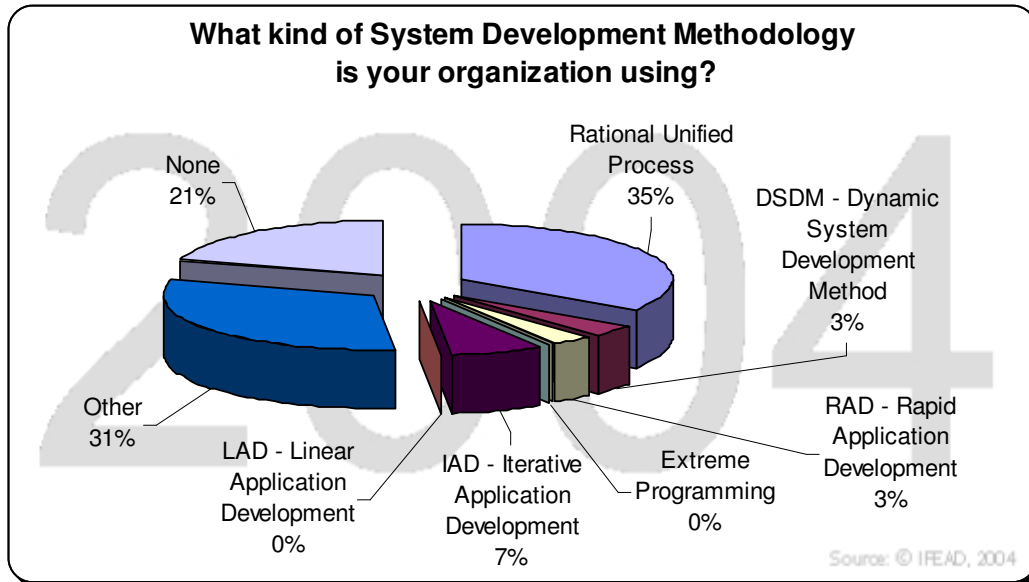
This diagram is showing the type of System Modeling techniques used by organizations.



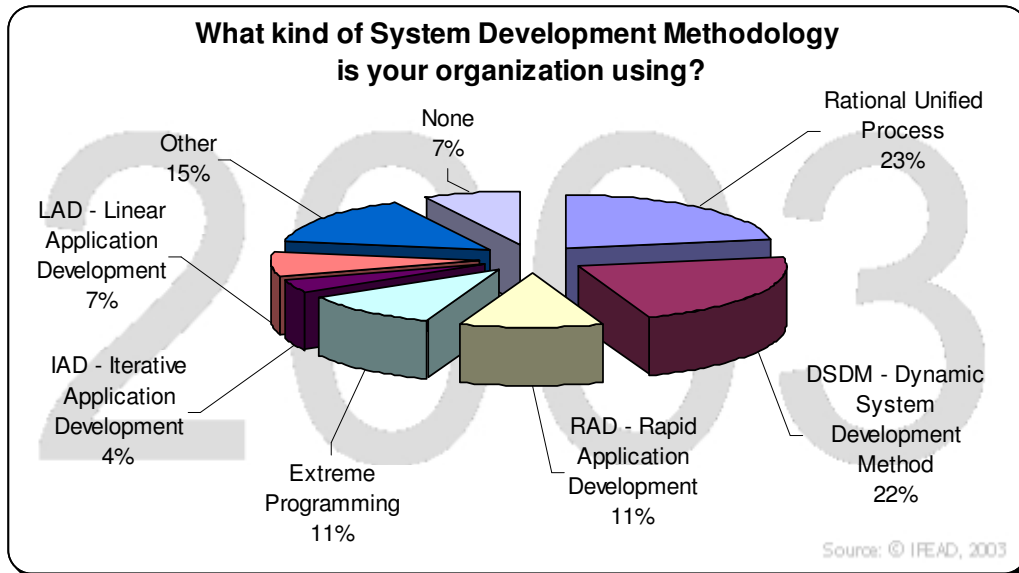
3.23.1 Q23 - Analysis

There is a significant growth in OMG's Model Driven Architecture as well as in the use of UML. The object oriented techniques as well as the organization own techniques are declining comparing the 2004 and 2003 results.

3.24 Question 24: What kind of System Development Methodology is in use in your organization?



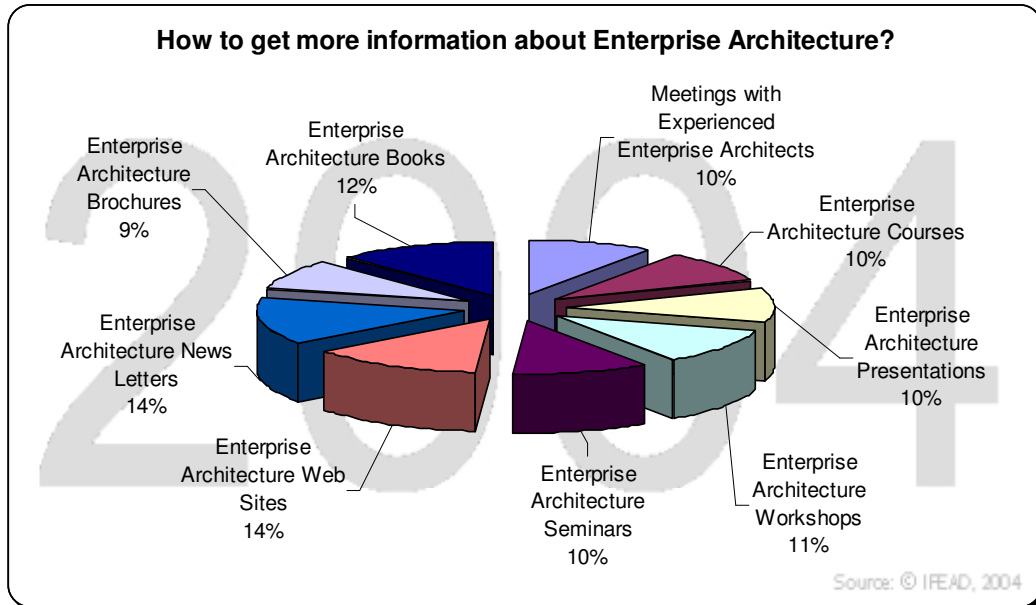
This diagram is showing the system development methodology used by organizations.



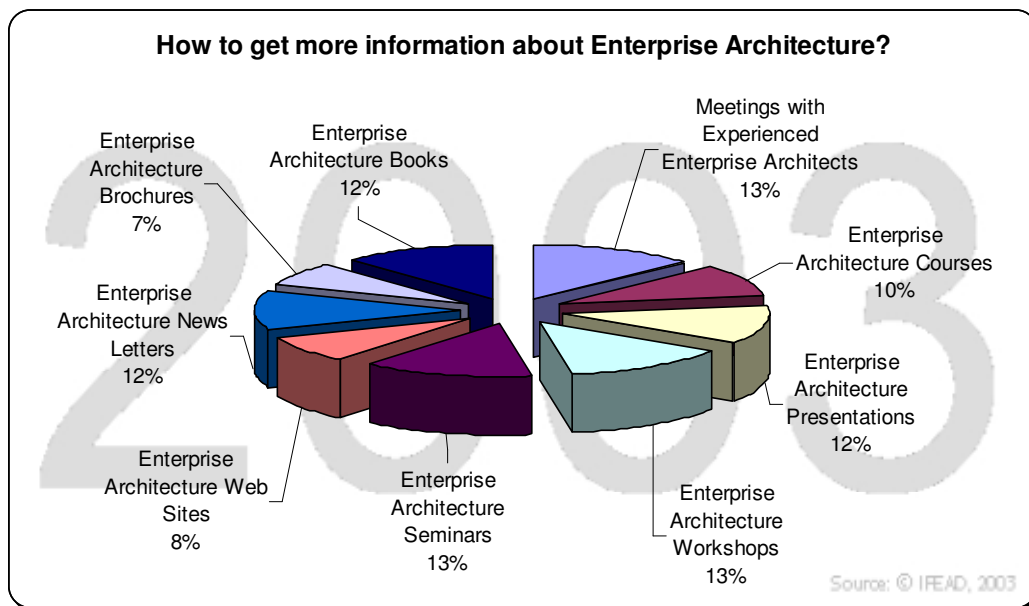
3.24.1 Q24 - Analysis

The 2004 figures show an enormous difference between the 2003 results, especially the growth of other methods as well as the growth of Rational Unified Process. DSDM is in the 2004 results much lower than in the 2003 results, which can be declared by the fact that the number of European organizations in the 2003 survey was much higher than in the 2004 survey and DSDM is largely established in Europe.

3.25 Question 25: How to get more information about Enterprise Architecture?



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



3.25.1 Q25 - Analysis

We can see the growing interest in EA websites as sources of information and a decline in Enterprise Architecture seminars and workshops.

4 Trends in Enterprise Architecture 2004; Observations & Conclusions

4.1 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 South Korea, 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 Complexity; Business & IT budget prioritization and support of System Development.
- ✚ Enterprise Architecture is too often related to the responsibilities of the CIO and IT managers instead of the responsibility of the CEO 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 not at all 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 marginal; 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 newcomer as standard.
- ✚ OMG's Model Driven Architecture and UML are broad accepted for modeling Information-Systems.

4.2 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. 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 2004 survey results and understanding the drivers and behavior behind these results can help organizations to define their own Enterprise Architecture strategies and focus points. For a more in-depth analysis and interpretation of the results, please contact the composer.