

Enterprise Architecture Governance Executive Summary

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1 What is Enterprise Architecture?

Information Systems (IS) are everywhere: you cannot improve your agility or your productivity without IS. But IS decisions cannot be isolated from Business, Organization and HR management. Asking “Why is IS expenditure so high?” is like asking “Why is HR expenditure so high?” It must be explained according to business and organizational consequences.

This is why **Enterprise Architecture (EA)** has emerged, which covers a broader and more complex scope than IS. Instead of using the word “Application”, which is limited to software, people now tend to prefer the word “**Solution**”, which associates People, Processes, and IS to answer business requirements.

EA covers 2 domains:

- It describes **how** an Enterprise **Operates** to create its Products, produce them, sell them and deliver related Services: **Actors** (Persons and Computers grouped inside an Organization) execute Operation **Actions** (Process, Activities and Functions) with necessary **Information** (Product, Customer, Contract).
- It also describes **how to Transform** the Enterprise; other **Actors** (deciders, business analysts, developers, architects) execute Transformation **Actions** (make decision, manage project, train, deploy, maintain) with necessary **Information** (strategy, requirements, planning, components, delivered Model)

Operations and Transformation are executed according to an Enterprise **Model** (Software and Documentation) which covers **all** aspects of the Enterprise and delivers adapted views for each Role.

The Enterprise Model is based on main business concerns which are:

- Understanding Enterprise **Complexity** which means splitting the Real World from its Model.
- Increasing **Agility** which means to separate Operations Processes (the present) and Transformation Processes (the future).
- Finding the right **Synergy** level, the right balance between centralization (or mutualization) and decentralization (or subsidiarity): what to Reuse or Share.

2 What is EA Governance?

Governance is the art of making important decisions, which also means preparing decisions, communicating about decisions, following up decisions and checking results.

Operation Decisions do not change the Enterprise Model, they mainly focus on resource assignment: changing Organization chart, deciding who is responsible for which Unit, assigning Activities (but without changing Processes), replacing Computers (but without changing software).

Transformation Decisions change the Enterprise Model. They appear as being the most important decisions like: deciding to build Solutions which implement new Products, hiring new distribution partners, outsourcing, going for direct customer relations over the Internet...

Solution Building Projects are not sufficient. Managers know that adding individually optimized Solutions does not make for a globally optimized EA. They also have to address questions like:

- Reducing time to market
- Managing end to end Processes
- Creating synergies between Companies of the same Group
- Reusing the same business language to ease communication between Business and IT
- Delivering a global security system
- Offering a global vision of the Customer
- Increasing productivity by Sharing an Operations Unit between different Companies (Ex: Procurement or IT Operations)

All these topics cannot be addressed at Solution projects level, and yet must be addressed at some level within the Organization. We group them under the heading “**Architecture Projects**”.

Solution projects and Architecture projects are closely related: they reuse each other.

A **Global Road Map** must be defined which guarantees that projects are consistent together, and that mutual dependencies, priorities, reuse opportunities, etc. have been taken into account. EA Governance focuses on the 3 topics: “Global EA Road Map”, “Solution projects” and “Architecture projects”.

For a **Group** composed of Companies, these 3 Governance topics have to be addressed not only at **Company** level but also at **Group** level.

3 Key recommendations for EA Governance

EA Governance is difficult because

- Make Global decisions which combines Business Processes, Organization and Information Systems, means **global understanding** of the Enterprise: an EA Model is required to help make decisions.
- Among the most complex decisions are the decisions to **Share** or **Reuse** EA elements at Group level and at Company level: multiple stakeholders are part of the decision which makes it difficult.
- It involves **long term** decisions whose ROI is neither short term, nor straightforward to calculate.

We summarize the 10 key recommendations to help Enterprises improve their governance processes.

3.1 Align Business Strategy and EA Governance.

There is a debate today on interactions between Strategy and EA. Most people think that Strategy is defined first, and EA is a consequence of the Strategy. Others think that this model works in a stable world, but that, today, a strategy is very difficult to establish, that life cycle is much longer for EA than for Strategy, and that the Strategy could be simplified to “Define the EA which allows my Enterprise to move faster than my competitors, each time I decide a new strategic orientation”. It all comes down to the one the main concerns which is **Agility**.

A more balanced answer could be to define 3 levels of strategy:

Long-term strategy which is the input for the **Architecture project road map**

Ex: decide which Companies must reuse same Process Models, share same Information (on Customers, or End to End Processes), or which Agility is required for the future.

These Strategy inputs are translated into an **Architecture project road map** to provide Solution Models reused by all Company Operations, and to provide Data Models, Function Models, methodologies, reused by all Company Transformation Teams.

Medium-term Business strategy which is the input for the **Solution project road map**

Ex: decides new Products, new Processes, new Partnerships, new relations with Customers.

These Strategy inputs are translated into a **Solution project road map** to provide new Solutions with their Deployment plan.

Medium-term Organization strategy which does not modify the EA Model and is directly solved by the Operation teams.

Ex: open or closed Units, Outsource part of the activity, assign new Actors to Activities (persons or Computers).

3.2 Make comprehensive decisions which include Organization, Processes, IT and HR.

Most Decisions have consequences for Organization, Processes, software, information...

To take an easy example: if the strategic goal is to decrease costs, and you simply consider IT expenses, then the right answer is to cancel all IT expenses, which makes no sense.

So the decision process requires a clear comprehensive vision of all aspects. To clarify decisions, prepare decisions and communicate decisions, a **consistent EA Model** must be used to help EA understanding.

3.3 Explain EA to executives.

Most executives have 3 features: they lack **time**, they are not **IT experts**, they must deliver high **short term** profit, which does not facilitate EA decisions, which are complex decisions, which include technology, and which deliver long-term benefits.

Deciders must understand enough about EA to be able to control these elements.

The level of involvement in the Preparation phase is not the same for each decider: some are confident on their Sherpa (the manager who prepares decision) and just focus on decision committee, other are much more involved in the Preparation phase.

Many Strategic Objectives are translated into Sharing and Reusing:

- To decrease Transformation costs, **Reuse** the same Solution Model in different Companies.
- To increase agility, **Reuse** Software services to accelerate developments.
- To decrease Operation Costs, **Reuse** same user interface,
- To apply a consistent Procurement policy, group Procurement activities in a single centralized Unit which **Shares** its resources for all...
- To understand the Customer, **Share** Customer Master Data.

Deciding whether to **Share** or **Reuse** is the most difficult issue to address: sharing a Unit between different companies (like centralizing Procurement or IT Operations); sharing Information on the Customer across different business units of the Group; sharing **business language** to ease communication between Business and IT; sharing the same **user interface** to increase productivity and to facilitate internal moves; sharing **functions** like security functions; sharing same transformation Process and tools to reduce time to market and increase agility. Efforts must be made to explain to executives in simple terms the Value and conditions of success of an EA approach.

3.4 Ensure consistency and save time when many decisions must be made.

Management is not only Governance: it is also **decision execution**.

How to find the right balance between making good decisions and keeping time to manage Projects following decisions?

One answer is "Govern the Governance Process as you Govern the other Processes", to avoid any bureaucracy.

The other answer is "Group the decisions" in 3 parts:

Decide a "Comprehensive EA Road Map" which defines Solution and Architecture Projects for the next 3 to 4 years aligned with Strategy Objectives.

Decide "Solution Projects" with a Solution Project Portfolio vision.

Group Solution decisions in a **Solution Project portfolio**: budget constraints, business priorities, construction constraints and interactions between Solutions mean that decisions must be done on a set of Proposed Solution Projects and not on isolated Solution Projects.

Decide "Architecture Projects" with an Architecture Project Portfolio vision.

Do not isolate decisions on Security Projects, SOA projects, Master Data projects, UI standardization projects, tool selection projects... Ask that all these decisions be presented in a global **Architecture Project portfolio**.

3.5 Execute Enterprise Synergy.

Centralize Business Architects and IT Architects into a **unique Architecture team** which has responsibility over all elements reused by Solutions such as: "Security", "Quality", "Methodology", "Tools"...

Business Architects are not always identified. They represent a key resource which must take care of Reused business language, Process Models, Function Models, Reused user interface, Customer Master Data... important items, often not assigned to anyone.

The **responsibility** of this Architecture team is also to verify the **Enterprise Architecture compliance** of each Solution Project; it has the **authority** to stop the Project if it does not comply.

But, to avoid negative Compliance, it is necessary that this Architecture team helps Solution Projects by **supporting** the Project Team (supporting means: training, consulting, advice...) and, even more efficiently, by **transferring an Architect** into important Solution Project teams.

3.6 Define the right level of synergy.

3.6.1 Synergy in a Company?

Managers know that adding individually optimized Solutions does not make for globally optimized EA. Sharing Resources (People or IT) and Reusing Models (Process, Software or data Models) are crucial to good synergy.

All these topics cannot be addressed at Solution projects level, and yet must be addressed at some level within the Organization. We group them under the heading “**Architecture projects**”.

But how to define the right level of sharing or reuse? Enterprises need certain guidelines and models to better understand where they are and where they should go.

We suggest a model derived from the 4 stages of Architecture Maturity proposed by the MIT Sloan Center for Information Systems research.

3.6.2 Synergy in a Group?

Today Worldwide Groups are increasing synergy between their Companies.

Many industrial Groups are in the process of reusing same models (often called “Master Applications”) between the different Companies, or sharing Resources (Procurement Unit, IT Center Operations...).

This is more difficult for Service Companies like Banks or Insurance because:

- Scope is larger: their production is executed through IT, and not through plants
- National legislation has an impact on Products (ex: Life Insurance)
- Many Groups have grown via external acquisitions.

As Group synergy is the most Rewarding synergy for Groups composed of similar Companies, yet the most difficult to implement, we propose some elements to help decisions.

- **Group Top management** must be involved in this long term decision making which will require their ongoing support.
- To Make/buy a good Group target model, select the **best Architects** in the Companies
- Involve Companies: participation of Company managers and Company Architects
- Deploy the Group target model on a **Pilot** company/domain to prove its efficiency
- Before deploying the Group Solution, build a **Group Support team** which acts as a consulting enterprise to help each Company implement the Group Model.

We must be ambitious on Group decisions yet cautious with regard to their implementation.

3.7 Increase agility.

Operation Processes (sell, produce, deliver to customer) are reengineered to improve Operation productivity, to support new partnerships, to offer Internet access to Customers...

Transformation Processes (projects) are not always identified as Processes to reengineer, because it is difficult to imagine that Transformation time may be divided by 2 if the Transformation Process is in-depth redesigned, if new tools and methods are used.

If Agility is key, make it a key topic in Governance decisions, ask that the Architecture team present a project to **improve the agility chain**, from the moment when a new idea appears to the time when all Actors will be able to use it and **separate** Transformation and Operation activities, in IT and Business structures.

3.8 Decide and check results based on indicators.

The Decision Process must include what happens before (**preparing** decisions), and after (**promoting, following up** and **checking** at the end).

Transformation Decisions are mainly made on the basis of Value delivered compared to Cost: cost of Build/buy, cost of Adaptations, cost of Deployment.

EA value must be analyzed beyond the value of IT alone. Indeed, EA embraces business processes, organization and IT systems supporting these processes.

Evaluation of **Costs** is improving: Sponsors evaluate their costs with a global vision which includes all aspects which should be presented in a matrix comprising several dimensions:

- By **destination** such as: Management, Transformations, Operations
- By cost **nature** such as: people, hardware, software, communication, premises

- **Architecture** and specific: with sharing rule for architecture expenses

Evaluation of **project value** is difficult for **Solution** projects, and more difficult for **Architecture** projects. Measure must focus on Offered Functions, Agility, Productivity, Quality. Progression of EA **Asset Value** should be a good basis to evaluate project value: the project Value is directly linked to the increase of Asset Value. But how to evaluate the EA Asset Value? CEISAR proposes to take this discussion further in another White Paper.

3.9 Protect long-term decisions from current decisions.

As defined in the CEISAR Enterprise Model, Enterprise Processes belong to 2 categories: Operation Processes and Transformation Processes. For example, “execute an order” is an Operation Process, while “execute a project to launch a completely new Product” is a Transformation Process.

The frontier is simple: when the Enterprise Model is modified it is a Transformation Process, otherwise it is an Operation Process. **Most important strategic decisions** (new Product, new Process, new Distribution network, acquisitions) are translated into **Transformation decisions**.

The Present (Operations) “cannibalizes” the Future (Transformations): as **EA Governance** is mainly about Transformation, do not mix Operation decisions in the same committees where you discuss Transformation.

It may go well beyond Governance. When an Enterprise decides upon a leap forward, one success criteria is to **isolate the Transformation teams** (Business and IT) **from the Operation teams**, which does not prevent Operation Units from requiring Transformations.

3.10 Promote innovations.

Do not take risks on Operations: service quality must be optimal.

But taking risks on Transformations is acceptable. Be careful that Governance processes do not reward only compliance. Promote innovation, support the risk taking, reward those who succeed and do not discourage those who fail.

Accept a limited number of pilot projects which will not be constrained to comply with heavy procedures. Companies like Google or Apple allow free initiatives from their teams: why not mimic this culture to favor innovation?

Conclusion

As Machiavelli wrote in « The Prince » in 1500: “The person who decides to change a System must know that people who benefited from the old system will be against him, and the people who will benefit from the new system will not help him”. When you change a system, you are alone. You cannot afford to take bad decisions, thus you must establish good Governance rules.

Sharing and Reuse are difficult to implement and accept, but their benefits enhance agility and profitability.

EA Governance is a difficult path which requires long term vision, a lot of determination, courage and effort and yields a very low popularity score: people will always be reluctant to change. But those Enterprises which master it will acquire a decisive, strategic, competitive advantage.