

Session 3



Session Outlines:

Part A: Processes of Enterprise Architecture Practice

- Processes Constituting Enterprise Architecture Practice
- Relationship Between EA-Related Processes
- A High-Level Process View of Enterprise Architecture Practice

Part B: IT Initiatives and Enterprise Architecture

- The Role of IT Initiatives in Enterprise Architecture Practice
- Different Types of IT Initiatives
- The Flow of Different Types of IT Initiatives



- Processes Constituting Enterprise
 Architecture Practice
- Relationship Between EA-Related
 Processes
- A High-Level Process View of Enterprise Architecture Practice

- Processes Constituting
 (تأسیس) Enterprise
 Architecture Practice
- Relationship Between
 EA-Related Processes
- A High-Level Process View of Enterprise Architecture Practice

- Widely known process models barely resemble successful EA practices, then how can an EA practice be conceptualized and explained from the process perspective?
- Previously, we presented the CSVLOD model which conceptualize's the notion of enterprise architecture as a set of six general types of EA artifacts: considerations (e.g. principles and policies); standards (e.g. technology reference models and guidelines); visions (e.g. business capability models and roadmaps); landscapes (e.g. landscape diagrams and inventories); outlines (e.g. solution overviews and options assessments) and designs (e.g. various solution designs).
- Further analysis of established EA practices shows that an EA practice can be generally conceptualized as a set of three distinct but interrelated processes with different goals, participants and outcomes revolving around these six general types of EA artifacts:
 - 1. strategic planning,
 - 2. initiative delivery
 - 3. technology optimization (focuses on internal EA practices carried out inside organizations).
- These three processes are carried out simultaneously by different actors and interrelated with each other.
- Each of these processes implies developing and using specific types of EA artifacts.

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The Strategic Planning process revolves <u>around Considerations</u> and Visions EA artifacts.

- The goal of this process is to articulate the long-term future course of action for IT by means of answering the following question:
- 'How is the business environment changing and what should we do to react on these changes?'
- Organisations often run a single instance of the strategic planning process covering the whole business.

Strategic Planning is a continuous and largely unstructured process, which is tightly integrated with regular strategic management activities, e.g. environmental analysis, identification of competitive advantages and goals formulation.

From the temporal perspective, this process is often aligned to the annual business planning cycle, important business dates, periods and events, e.g. ends of the financial year, board meetings or updates of a business strategy.

Strategic Planning

Initiative delivery

- Relationship Between
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Strategic Planning is carried out collaboratively by senior business leaders and architects, who organize numerous meetings, workshops and presentations in <u>order to decide what to do in the future</u>, <u>develop shared global plans for both business and IT</u> and document these plans in considerations and visions.

For example, as part of *Strategic Planning*, business executives and architects may formulate:

- a set of principles and policies regulating how IT should work, create business capability models to 'heatmap' strategic capabilities and
- develop detailed IT investment roadmaps.

The overall meaning of **strategic planning process** can be best summarized as **strategy-to-portfolio**,

i.e. converting an abstract business strategy into more specific suggestions regarding the desired IT investment portfolio.

Strategic Planning

Initiative delivery

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Strategic Planning (Activities)

- Strategic Planning is driven by discussion between
 Business leaders and architects to answer the following questions:
 - How is the business environment changing?
 - What should we do to react on these changes?
- The Strategic Planning process is continuous in nature, loosely structured and cannot be reduced to a predefined sequence of steps
- Strategic Planning consists of numerous meetings, presentations, workshops and informal discussions
- Strategic Planning also implies periodical formal approvals and sign-offs of finalized Considerations and Visions by all relevant stakeholders, often on a yearly basis

Strategic Planning

Initiative delivery

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The Role of Considerations

Strategic Planning
Initiative delivery

- Considerations: help articulate and document the most general agreements on how an organization needs to work from the IT perspective in order to prosper in its environment.
- These decisions may include the answers to the following and similar essential IT-related questions:
 - What role should IT play in an organization?
 - Which IT capabilities should be provided organization-wide?
 - What IT-related policies should be complied with?
 - What level of business continuity (یستمر) and security is required?
 - Which IT-related innovations should be adopted?

- Relationship Between
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The Role of Visions

- Visions help articulate and document more specific agreements on what an organization needs to do in the long term from the IT perspective
- Decisions reflected in Visions may include the answers to the following essential IT-related questions:
 - What should IT deliver in the long run?
 - Where should future IT investments go?
 - What types of IT investments should be made?
 - When should IT investments be made?
 - In what sequence should IT investments be made?

Strategic planning

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Strategic Planning (Outcomes)

- Activities of Strategic Planning can be aligned to important business dates, periods and events, e.g. budgeting cycles, board meetings or updates of a business strategy
- As part of Strategic Planning senior business leaders and architects usually discuss the desired operating model, required business capabilities as well as specific business needs to be addressed with IT
- The result of Strategic Planning is a set of Considerations and Visions defining the general rules and long-term directions for IT

Strategic Planning

Initiative delivery

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Initiative Delivery: Translating specific business needs, or more rarely specific technical needs, into tangible IT solutions implementing these needs in an

Strategic planning
Initiative Delivery

The *Initiative Delivery* process revolves <u>around outlines and</u> <u>designs EA artifacts.</u>

- The goal of this process is to deliver optimal IT solutions for specific needs by means of answering the following question: 'What is the best way to address the requested need and all the associated requirements?'
- Organisations run multiple instances of the *Initiative Delivery* process simultaneously, i.e., one instance for each active IT initiative, project or program (most IT initiatives actually represent business initiatives with IT components).

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Strategic planning

Initiative Delivery

Technology
optimization

Initiative Delivery is a sequential process consisting of two inherent steps: *initiation and implementation*.

Initiative Delivery is integrated with regular project management activities and follows a typical step-wise project delivery lifecycle with several sequential phases and gates, e.g., scope, evaluate, plan, build, test and deploy

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The first step of initiative delivery (i.e., Initiation) is carried out collaboratively by business leaders and architects, who

- organize discussions and presentations in order to analyze possible solution implementation options,
- select the most preferable ones,
- document these options in outlines and make formal investment decisions.

For example, as part of the initiation step,

- business managers and architects may develop initial options assessments to evaluate the available options from the business point of view,
- then create more elaborate solution overviews with respective business cases for the preferred options
- and finally approve the corresponding IT investments.

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The Initiation Step

Outlines are the key EA artifacts enabling effective communication between business executives and architects at the initiation step. Specifically, Outlines provide the answers to the following and similar essential questions regarding the proposed IT solutions:

- What do the proposed IT solutions look like conceptually?
- How will the proposed IT solutions modify established business processes?
- What is the immediate and long-term business value of the proposed IT solutions?
- What is the overall business impact of the proposed IT solutions?
- What is the cost of the proposed IT solutions and when can they be delivered?

By providing this and other critical information <u>Outlines</u> help business executives make informed approval decisions regarding the proposed IT solutions and ensure that each solution <u>brings</u> considerable strategic and tactical business value for a reasonable price.

Result is documented on **Outline** Artifacts enabling effective communication at the initiation step

Strategic planning

Initiative Delivery

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The Role of Outlines

Outlines provide the answers to the following essential questions regarding the proposed IT solutions:

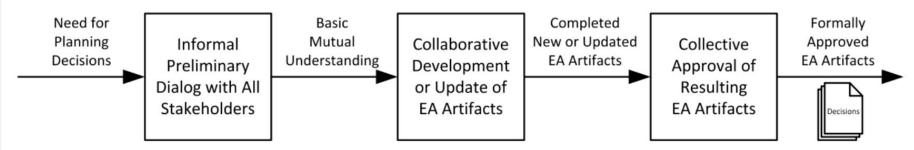
- What do the proposed IT solutions look like conceptually?
- How will the proposed IT solutions modify established business processes?
- What is the immediate and long-term business value of the proposed IT solutions?
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- What is the cost of the proposed IT solutions and when can they be delivered?

Strategic planning

Initiative delivery

Decisions EA Artifacts

(Represent made planning decisions)



Developed: Collaboratively by all stakeholders

Architects: Act as drivers and facilitators **Process:** Complex, creative and politicized

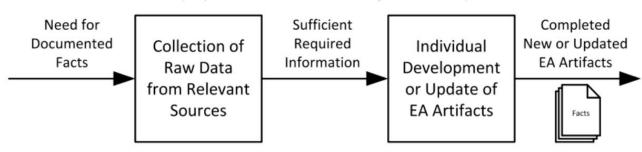
Value: Realized during the development process

Priority: Process over product

Success Factor: Involvement of all stakeholders

Facts EA Artifacts

(Represent documented objective facts)



Developed: By individual architects alone

Architects: Act as sole developers **Process:** Straightforward and routine

Value: Realized after development is completed

Priority: Product over process

Success Factor: Accuracy of all descriptions

Figure 2.7. Development of decisions and facts EA artifacts

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Outlines and Business Cases

- Business Cases for IT initiatives are complementary to Outlines
- Business Cases are business-specific documents providing detailed financial justifications for new IT initiatives
- Outlines are usually elaborated in parallel with the corresponding business cases and inform the time and cost estimates included in these business cases
- Outlines and business cases are the key documents approved by business leaders for all IT initiatives to start their actual implementation

Strategic planning

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The **second step of** *Initiative Delivery* (i.e., Implementation) is carried out together **by architects and project teams**, who

- collaborate on a daily basis to develop more detailed designs based on the <u>previously approved outlines</u>
- and then implement these designs.

Designs are the key EA artifacts enabling detailed planning and effective <u>collaboration</u> between architects, project teams and business representatives at the implementation step.

For example, as part of the implementation step,

- architects and IT specialists may create preliminary solution designs to confirm the expected project timelines and costs,
- then produce more technical implementation-ready solution designs
- and finally build tangible IT systems according to these designs.

Strategic planning
Initiative delivery
Technology

optimization

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The implementation step

The Role of Designs

In particular, **Designs** describe all architecturally significant decisions <u>related to the implementation of new IT systems</u> including the answers to the following and similar essential questions:

- What business requirements should be addressed?
- What new software should be developed or installed?
- Which data types and entities should be used?
- What servers and hardware should be deployed?
- How exactly should new IT systems interact with the existing systems?

By providing this and other critical information **Designs** help architects, IT project teams and business representatives **develop** optimal implementation plans for new IT systems **satisfying** both the business and architectural requirements

The overall meaning of the *Initiative delivery process* can be best summarized as <u>need-to-solution</u>,

i.e. converting a specific need into a concrete IT solution addressing this need in the most optimal manner.

Strategic planning

Initiative delivery

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Initiative Delivery (Outcomes)

Initiative delivery

Technology
optimization

- •Designs help architects, IT project teams and business representatives develop optimal implementation plans satisfying both business and architectural requirements
- •Designs are then used by project teams to deliver the approved IT solutions under the supervision of architects
- •<u>The result of each instance of the Initiative Delivery process</u> is a new working IT solution satisfying a particular business need and addressing specific business requirements

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The Technology Optimization process (عملية تحسين التكنولوجيا) revolves around Standards and Landscapes EA artifacts.

- The goal of this process is to improve the overall quality of the organizational IT landscape by means of answering the following question:
- 'What is wrong with the current IT landscape and what should we do to improve it?'
- Organisations often run a single instance of the Technology Optimization process embracing the entire IT landscape.
- Technology Optimization is a continuous and unstructured process in nature through meetings and informal discussions between architects, IT executives and technical subject-matter experts, but requires little or no involvement of business stakeholders
- Technology Optimization is an internal IT-specific process relatively independent from other organizational processes and carried out mostly by architects
- Technology Optimization process often implies periodical formal approvals of updated Standards and Landscapes by the CIO or other IT executives, often on a yearly basis

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Technology optimization involves **mostly architects**, though with some participation of senior IT leaders and technical subject-matter experts, and consists of numerous informal discussions within the IT department intended to analyze the IT landscape and its possible evolution and then reflect corresponding information in **Standards** and **Landscapes**.

Strategic planning
Initiative delivery

Technology Optimization

For example, as part of technology optimization architects may

- capture the structure of **the existing IT landscape** in a set of landscape diagrams and inventories,
- mark some IT assets (أصول) as strategic or redundant استراتيجية أو زائدة عن الحاجة
- create a technology reference model to indicate which technologies should be used in the future
- and formulate more detailed guidelines to specify how exactly these technologies should be used.

The overall meaning of this process can be best summarized as **structure-to-rationalization**, i.e. understanding the current structure of the IT landscape and formulating the rationalization strategy to guide its future evolution.

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Technology Optimization (Activities)

Strategic planning
Initiative delivery
Technology
Optimization

- Technology Optimization is driven by the question
 - What is wrong with the current IT landscape?
 - What should we do to improve it?

Standards and Landscapes help architects conduct a "health check" of the current IT landscape, analyze its strategic capabilities and constraints, control its complexity, relevancy and diversity

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The Role of Standards

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Initiative delivery

Technology Optimization

Standards provide the information regarding the current technology stack, implementation approaches and best practices including the answers to the following questions:

- What technologies and vendor products are used?
- What approaches and best practices are followed?
- Which technologies and products are redundant or fulfill similar purposes?
- Which technologies, products or approaches cause problems?
- Do the current technologies and approaches meet the general business needs?

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The Role of Landscapes

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Technology Optimization

Landscapes provide the information regarding the existing IT assets, their status and interrelationship including the answers to the following questions:

What IT assets are maintained by an organization?

Which IT assets are not actively used or provide duplicated functionality?

Which IT assets are no longer supported by their vendors?

Which IT assets may cause problems in the future?

Are the existing IT assets adequate for the general business needs?

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Technology Optimization (Outcomes)

- As part of Technology Optimization architects review, analyze and update Standards and Landscapes
- In Standards architects mark some technologies and approaches as desirable, current or strategic, while others are tagged as undesirable, deprecated or retiring.
 - Architect can also introduce new promising Standards or remove some old and irrelevant ones.
- In Landscapes architects mark some IT assets as "health", reusable or strategic, while others are flagged as non-reusable or "unhealthy" or to-be-decommissioned
 - Architects can also develop more detailed improvement plans for Landscapes.
- The result of Technology Optimization is a set of technical rationalization suggestions for the IT landscape reflected in Standards and Landscapes

Strategic planning

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Properties of the Three Processes

Process	Strategic Planning	Initiative Delivery	Technology Optimization
Instances	Single, or several for highly decentralized organizations	Multiple, i.e. one instance for each IT initiative	Single, or several for highly decentralized organizations
Goal	Articulate the long-term future course of action for IT	Deliver optimal IT solutions for specific needs	Improve the overall quality of the organizational IT landscape
Meaning	Strategy-to-portfolio	Need-to-solution	Structure-to-rationalization
Question	How is the business environment changing and what should we do to react on these changes?	What is the best way to address the requested need and all the associated requirements?	What is wrong with the current IT landscape and what should we do to improve it?
Nature	Continuous and unstructured	Sequential with two main steps: initiation and implementation	Continuous and unstructured
Integration	Integrated with regular strategic management activities	Integrated with regular project management activities	Not integrated with any regular processes or activities
Actors	Business leaders and architects	Initiation step: Business leaders and architects Implementation step: Architects and project teams	Architects alone
EA artifacts	Considerations and Visions	Initiation step: Outlines Implementation step: Designs	Standards and Landscapes
Inputs	Fundamental factors of the external business environment	Specific business, and sometimes technical, needs	Current structure of the organizational IT landscape
Activities	Informal discussions, meetings, presentations and workshops as well as periodical formal approvals and sign-offs	Initiation step: Discussion of possible implementation options Implementation step: Actual technical implementation	Numerous informal discussions and periodical formal approvals
Discussion points	Operating model, business capabilities and specific business needs	Initiation step: Business processes Implementation step: Business requirements	Little or no discussion between business and IT
Outputs	High-level strategic plans for IT reflected in Considerations and Visions	New working IT solutions	Technical rationalization suggestions reflected in Standards and Landscapes

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Table 6.1. Strategic Planning, Initiative Delivery and Technology Optimization processes

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The three processes (Strategic planning, Initiative delivery, Technology optimization) provide a very abstract aggregate view of all the essential activities happening within established EA practices.

- **Strategic Planning** produces high-level rules and directions for IT helping articulate specific IT-related business needs,
- Initiative Delivery implements IT solutions addressing specific business needs,
- *Technology Optimization* produces technical rationalization suggestions to optimize the entire IT landscape.

The essential properties of the *Strategic Planning, Initiative Delivery and Technology Optimization* processes are summarized in **Table 6.1**.

Each of these processes represents an articulate and consistent 'story' in the context of an EA practice with its own:

- unique goals,
- meaning,
- involved actors and
- supporting EA artifacts.

These three processes are also closely interrelated with each other and together **produce a synergistic**(increased effectiveness) **decision-making system** constituting an EA practice as a whole, or a 'clockwork mechanism' of an EA practice.

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Strategic Planning

Goal: Articulate the desired future course of action for business and IT

Question: How is the business environment changing and what should we do to react to these changes?

Focus: Long-term and mid-term future

Instances: Single, or several in highly decentralized organizations, e.g. one instance for each line of business

Nature: Continuous and largely unstructured

Integration: Integrated with regular strategic management activities, e.g. environmental analysis, identification of competitive advantages and goals formulation.

Timing: Aligned to the annual business planning cycle, important business dates, periods and events, e.g. fiscal years, budgeting cycles, board meetings or updates of a business strategy

Actors: Business Leaders and Architects

EA Artifacts: Considerations and Visions, e.g. Principles, Policies, Business Capability Models and Roadmaps (see Enterprise Architecture on a Page)

Other Documents: Organizational mission and values, strategic goals, objectives and KPIs, balanced scorecards (BSCs) and strategy maps, business motivation models (BMMs), high-level strategic business plans and more detailed programs of work

Content: Development of rules and directions for business and IT and their explicit documentation in Considerations and Visions

Activities: Informal discussions, meetings, presentations and workshops, as well as periodical formal approvals and sign-offs

Techniques: SWOT and PEST analyses, Five Forces and other strategy frameworks

Inputs: Fundamental factors of the external business environment

Outputs: High-level strategic plans for business and IT reflected in

Meaning: Strategy-to-portfolio, i.e. convert an abstract business strategy into more specific suggestions regarding the desired portfolio of IT investments

Technology Optimization

Goal: Improve the overall quality of the corporate IT landscape

Question: What is wrong with the current IT landscape and what should we

Focus: Current situation with some future outlook

Instances: Single, or several in highly decentralized organizations, e.g. one instance for each business division

Nature: Continuous and largely unstructured

Integration: Not integrated with any regular processes or activities

Timing: May be carried out independently without any systematic schedule, often on an as-necessary basis or even opportunistically, e.g. in the absence of other higher-priority activities

Actors: Architects alone

EA Artifacts: Standards and Landscapes, e.g. Technology Reference Models, Guidelines, Landscape Diagrams and Inventories (see Enterprise Architecture

Other Documents: None

Content: Analysis of the existing IT landscape, update of Standards, maintenance of Landscapes and formulation of rationalization proposals

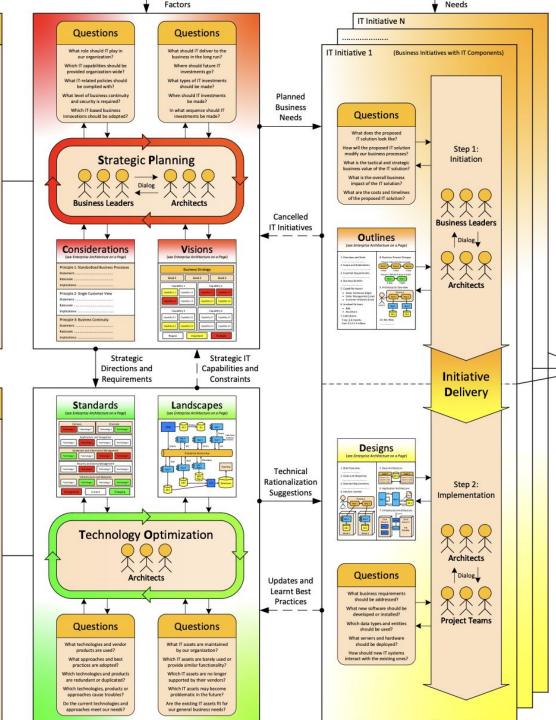
Activities: Numerous informal discussions and periodical formal approvals

Techniques: Total cost of ownership (TCO) and architecture debt

Inputs: Current structure of the organizational IT landscape

Outputs: Technical rationalization suggestions reflected in Standards and

Meaning: Structure-to-rationalization, i.e. understand the current structure of the IT landscape and formulate the rationalization strategy to guide its future evolution



Initiative Delivery

Goal: Deliver optimal IT solutions for specific needs

Question: What is the best way to address the requested need and all the associated requirements?

Focus: Short-term and immediate future

Instances: Multiple, one instance for each active IT initiative, e.g. project or program

Nature: Sequential with two inherent steps: Initiation and Implementation Integration: Integrated with regular project and program management

activities, e.g. scoping, estimating, scheduling, resourcing and monitoring Timing: Linked to the established initiative delivery phases and gates, e.g. scope, evaluate, plan, build, test and deploy

Step 1: Initiation

Actors: Rusiness Leaders and Architects

EA Artifacts: Outlines, e.g. Solution Overviews and Options Assessments (see Enterprise Architecture on a Page)

Other Documents: Business proposals and business cases

Content: Analysis of possible solution implementation options, their

explicit documentation in Outlines and official endorsement

Activities: Frequent discussions, presentations and approvals

Techniques: Business process modeling, customer journey mapping,

return-on-investment (ROI) and architecture debt estimation

Step 2: Implementation

Actors: Architects and Project Teams

EA Artifacts: Designs, e.g. Solution Designs and Preliminary Solution
 Designs (see Enterprise Architecture on a Page)

Other Documents: Business requirements and project management

Content: Development of Designs based on Outlines and then their actual technical implementation

Activities: Daily collaborative work

Techniques: User stories, requirements traceability matrices and MoSCoW prioritization framework

Inputs: Specific business, and sometimes technical, needs

Outputs: New working IT solutions

Meaning: Need-to-solution, i.e. convert a specific need into a concrete IT solution addressing this need in the most optimal manner

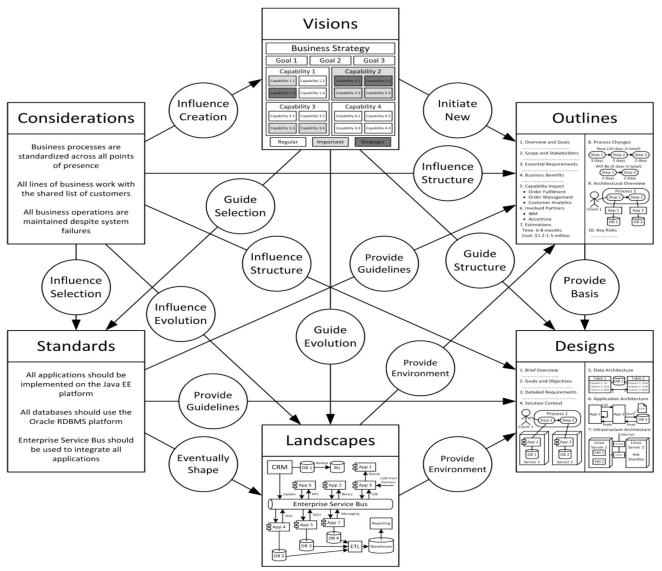


Figure 4.8. The relationship between different types of EA artifacts

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The Strategic Planning process

Takes fundamental factors of the **external** business environment (e.g. shifting customer preferences, new business opportunities and competitor actions) as an input and converts them into high-level strategic plans for IT reflected in considerations and vision, which in turn launch **new IT initiatives** (i.e. spawn new instances of the initiative delivery process) and also provide strategic directions and requirements guiding the **technology optimization process**.

The Initiative Delivery process

Takes as its input specific business needs incoming either from the strategic planning process (i.e. planned business needs) or directly from the external business environment (i.e. urgent business needs that have not been anticipated in advance) and converts them into new working **IT solutions**.

The Technology Optimization process

Takes the current structure of the organizational IT landscape as an input and converts it into technical rationalization suggestions reflected **in standards and landscapes**, which in their turn inform the initiative delivery process, e.g. suggest which IT assets, technologies and implementation approaches should be used in new **IT solutions**.

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Besides the direct and obvious relationships described above, somewhat less strong, reverse relationships between the three processes also exist

For instance, the *Technology Optimization* process informs the strategic planning process regarding strategic IT capabilities and constraints that can facilitate or inhibit the execution of certain business strategies.

Similarly, *IT initiatives* cancelled as part of the initiative delivery process (e.g. due to their technical infeasibility or lack of compelling business cases) feedback into the strategic planning process and may cause the change of a global strategic direction, while modifications of the IT landscape resulting from the initiative delivery process, as well as new best practices learnt as part of this process, inform the technology optimization process and may cause the update of respective EA artifacts.

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EA practice cannot be viewed as a single step-by-step process, where architects create numerous EA artifacts to describe all the layers of architecture from business to infrastructure.

But rather as a complex set of diverse and interacting processes happening simultaneously, where different planning decisions are made collectively by relevant actors at appropriate organizational levels.

In other words, successful EA practices do not resemble mechanistic step-wise processes (e.g. TOGAF ADM), but rather constitute organic communication and decision-making networks (spread through) entire organizations and involving various actors from senior business executives to project teams.

Executive Master of IT

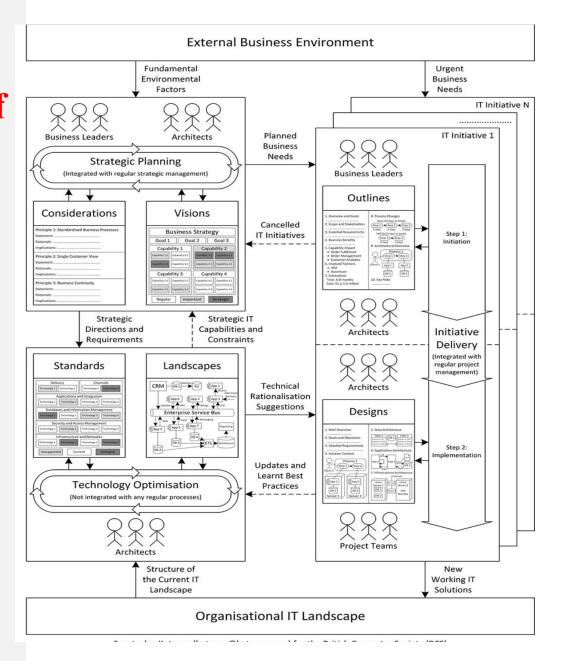
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Importantly, an *EA practice* is an inherently complex phenomenon that **cannot** be **described** or **explained** in any 'simple' way.

Moreover, an EA practice arguably represents one of the most sophisticated organizational practices

- where only certain **high-level patterns** can be articulated in a generic form (see Figure 1),
- while most **lower-level** details underlying these patterns (e.g., concrete EA artifacts, procedures and actors) are always highly organization-specific.
- It is also critical to understand that an EA practice is never a work of architects alone since most processes in an EA practice deal with <u>decisions EA artifacts</u> and require active participation of other actors, most importantly business leaders and project teams, to add real value.

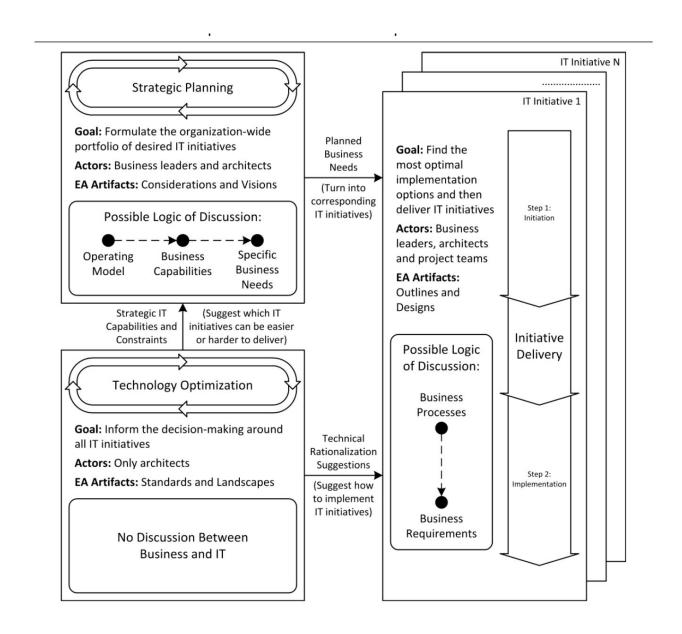
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The process view of an EA practice with the three processes described above, their key actors, relevant EA artifacts and mutual interrelationships:

Figure 1 The relationship between the three EA-related processes

The relationship between EA-Related processes, IT initiatives and discussion point



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The Key Success Factor of an EA Practice.

- •Although architects are the key actors of all EA-related processes, an involvement of other stakeholders in these processes is absolutely essential for success
- •Strategic Planning and Initiative Delivery cannot be carried out solely by architects and require conscious participation of relevant stakeholders
- •Considerations, Visions and Outlines developed without an adequate participation of business leaders will never be treated seriously, funded and acted upon
- •Designs developed without an adequate involvement of IT project teams will never be respected, committed to and complied with.

Part A: Processes of Enterprise Architecture Practice

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Essentially, an entire organizational EA practice consists of three main EA-related processes described above: Strategic Planning, Initiative Delivery and Technology Optimization.

These processes are interrelated with each other and exchange specific information enabling their (benefit) synergy.

These processes also interact with the external business environment and with the organizational IT landscape thereby establishing a desired dynamic connection between the external and internal environments.

The three main EA-related processes with **their essential actors**, underpinning **EA artifacts and mutual interrelationships** are shown in Figure 1.

Shows main EA-related processes

- describes who performs these processes,
- what EA artifacts are essential to these processes and
- what information these processes exchange with each other

Part A: Processes of Enterprise Architecture Practice

- Processes Constituting
 Enterprise Architecture
 Practice
- Relationship Between
 EA-Related Processes
- A High-Level Process
 View of Enterprise
 Architecture Practice

This process view explains how exactly an EA practice connects relevant actors involved in strategic decision-making and implementation of IT systems (see Figure 1.2).

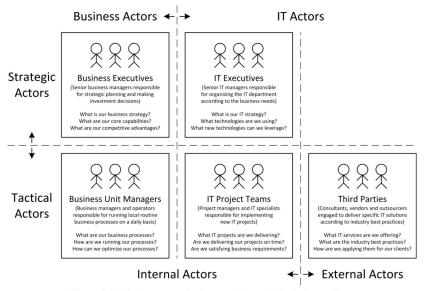


Figure 1.2. Main groups of actors and boundaries between them

On the other hand, this process view shows the general end-to-end information flow of an EA practice and explains how exactly an EA practice translates fundamental factors and urgent needs of the external business environment into the effective organizational IT landscape.

As noted earlier and now further clarified in Figure 6.1, a successful EA practice always implies complex and comprehensive organizational changes including various **people-related**, **process-related** and **technology-related** aspects.

Lecture Summary

- •An EA practice consists of three distinct processes with different goals, participants and outcomes and revolving around different types of EA artifacts:
- •Strategic Planning translates relevant factors of the business environment into the general rules and directions for IT
- •Initiative Delivery translates specific business needs into tangible IT solutions implementing these needs
- •Technology Optimization translates the current structure of the IT landscape into specific technical rationalization suggestions
- •The three key EA-related processes are carried out largely independently, but synergistic and imply intensive information exchange between each other





- The Role of IT Initiatives in Enterprise

 Architecture Practice
- Different Types of IT Initiatives
- The Flow of Different Types of IT Initiatives

• The Role of IT Initiatives in

Enterprise Architecture

Practice

• Different Types of IT

Initiatives

The Flow of Different Types of

IT Initiatives

Introduction:

- The previous chapter addressed the process aspects of an EA practice and discussed in great detail three main EA-related processes.
- This chapter focuses specifically on the role of separate IT initiatives in the context of an EA practice and their flow through the key EA-related processes.
- Discussing the role of IT initiatives in an EA practice and their relationship to EA artifacts, discussion points and EA-related processes.
- Describes five different types of IT initiatives having a distinct meaning, origin, purpose and other important properties in the context of an EA practice.
- Explains the type-specific flow of these IT initiatives through the corresponding EA-related processes.

- The Role of IT Initiatives in
 - **Enterprise Architecture**

Practice

- Different Types of IT Initiatives
- The Flow of Different Types of
 IT Initiatives

IT Initiatives

- An IT initiative is the key unit of work in the context of an EA practice
- All IT-related plans can be materialized (تتحقق) only through executing concrete IT initiatives (تتفيذ مبادرات تقنية معلومات ملموسة)
- A successful execution of any IT initiative usually results in a deployed IT solution and ensuing business improvements
- The typical purpose of an IT initiative is to address a specific business need.
- Most IT initiatives actually represent business initiatives with significant IT components

- The Role of IT Initiatives in
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Properties of IT Initiatives

- Each IT initiative is characterized by a number of properties including, but not limited to, the following attributes:
 - Core business need or problem that the IT initiative intends to address
 - Main goals and objectives of the IT initiative
 - Specified and limited scope delineating the magnitude of expected changes (نطاق محدد ومحدود يحدد حجم التغييرات المتوقعة)
 - Business case describing the financial details associated with the IT initiative,
 - including required initial investments and anticipated future returns
 - Business sponsors interested in the implementation of the IT initiative and providing the necessary funding
 - Separate budget allocated to finance the implementation of the IT initiative
- Small IT initiatives may be equivalent to single IT projects, while larger initiatives might be considered as full-fledged change programs requiring multiple related projects to be implemented.

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An EA Practice and IT Initiatives

- The meaning of an EA practice can be reduced to addressing two different questions related to IT initiatives
- Firstly, an EA practice is intended to understand what IT initiatives should be implemented in the future
 - This question implies shaping the most optimal portfolio of desired IT initiatives to bring the maximum business value to an organization
- Secondly, an EA practice is intended to understand how exactly these IT initiatives should be implemented
 - This question implies finding the most optimal ways to deliver each of these IT initiatives technically

- The Role of IT Initiatives in Enterprise Architecture
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IT Initiatives as Discussion Points

- IT initiatives connect abstract plans and concrete actions
- IT initiatives correspond to specific business needs and represent "average" discussion points in terms of their scope, horizon and level of detail
- All discussion points more abstract than specific business needs are organization-wide,
- while all more detailed discussion points are initiative-specific
- Discussing an operating model and business capabilities
 helps decide what IT initiatives are desirable, while
 discussing business processes and requirements helps
 decide how exactly they should be implemented

- The Role of IT Initiatives in Enterprise Architecture
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An EA Practice and IT Initiatives

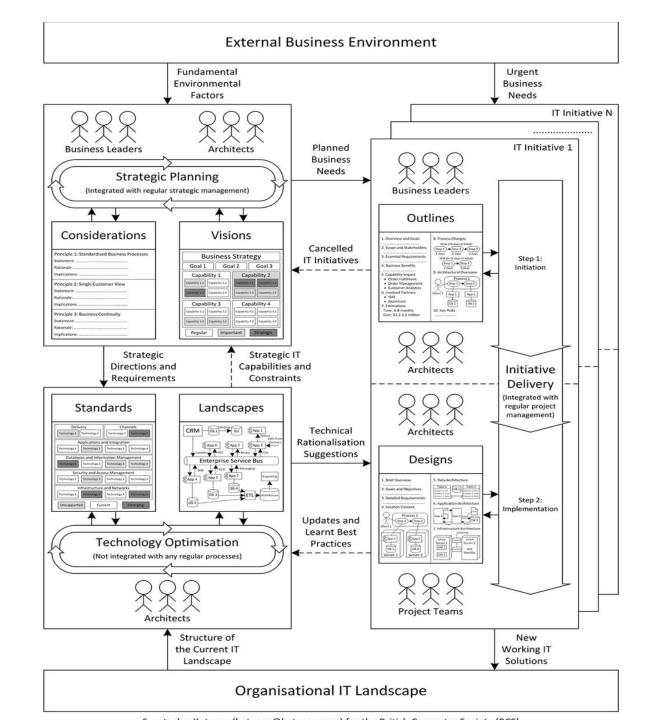
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Strategic Planning and IT Initiatives

- Strategic Planning can be considered as a joint effort of business executives and architects to shape the organization-wide portfolio of desired IT initiatives
- As part of Strategic Planning, they may select the target operating model, determine required business capabilities and eventually formulate, prioritize and schedule specific business needs to be addressed with respective IT initiatives in the future.
- All these planning decisions are reflected in corresponding Considerations and Visions

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Initiative Delivery and IT Initiatives

- Initiative Delivery can be considered as a joint effort of architects, business stakeholders and IT project teams to find the most optimal implementation options and then deliver the IT initiatives addressing the business needs formulated as a result of Strategic Planning
- As part of Initiative Delivery, they may identify the required changes in business processes, specify specific business requirements to new IT solutions and then implement these solutions
- All the planning decisions made for specific IT initiatives are reflected in their **Outlines** and **Designs**

• The Role of IT Initiatives in

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- Different Types of IT Initiatives
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Technology Optimization and IT Initiatives

- Technology Optimization can be considered as an effort of architects to inform the decision-making around all IT initiatives
- As part of **Technology Optimization**, they analyze the organizational IT landscape and identify its potential influence on future IT initiatives
- All significant facts on the current IT landscape and some plans regarding its future evolution are reflected in corresponding Standards and Landscapes
- Since the Technology Optimization process is carried out largely by architects alone and requires little or no involvement of business stakeholders Technology Optimization typically does not imply any specific discussion points between business and IT

• The Role of IT Initiatives in

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Practice

Different Types of IT

Initiatives

 The Flow of Different Types of IT Initiatives

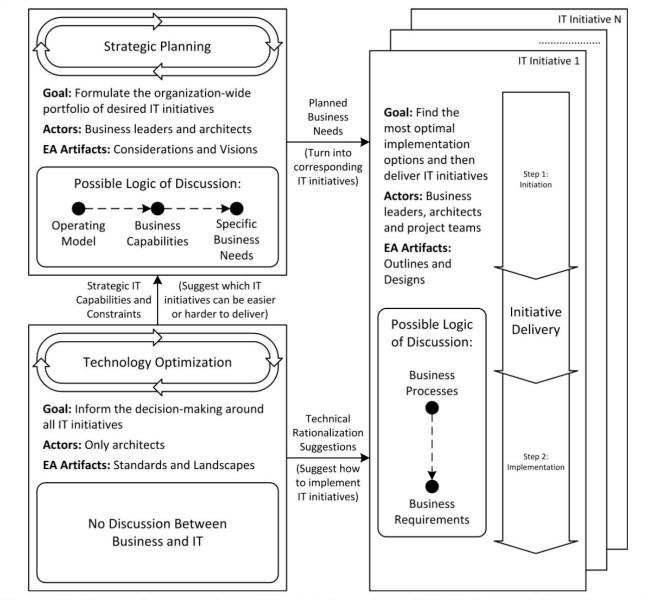


Figure 7.1. The relationship between EA-related processes, IT initiatives and discussion points

- The Role of IT Initiatives in
 Enterprise Architecture Practice
- Different Types of IT

Initiatives

The Flow of Different Types of
 IT Initiatives

Different Types of IT Initiatives

- All IT initiatives in an EA practice are delivered generally in the same way through the Initiative Delivery process
- However, different IT initiatives may have different origin and motivation
- Five general types of IT initiatives can be articulated from the perspective of their origin and motivation:
 - Fundamental initiatives المبادرات الأساسية
 - Strategic initiatives المبادرات الاستراتيجية
 - Local initiatives المبادرات المحلية
 - مبادرات عاجلة- Urgent initiatives
 - Architectural initiatives المبادرات التصميمية
- These IT initiatives are handled somewhat differently

- The Role of IT Initiatives in
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Initiatives

- Fundamental initiatives
- Strategic initiatives
- Local initiatives
- Urgent initiatives
- Architectural initiatives

• The Flow of Different Types of IT Initiatives

Fundamental Initiatives (Description)

- Fundamental initiatives are IT initiatives originating from the Strategic Planning process with an intention to address specific fundamental or "permanent" business needs
- Fundamental initiatives focus on some profound business needs that can be considered as important regardless of the current business strategy
- Fundamental needs are identified in a **top-down** manner by global business executives (e.g. C-level executives) and architects, often based on the requirements of the adopted operating model

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Fundamental Initiatives (Role)

- Fundamental initiatives are implementing something that will always be necessary and useful for the business
- Fundamental initiatives help organizations abstract from ever-changing business strategies and start growing permanent IT-enabled capabilities instead
- The periodical execution of fundamental initiatives allows building truly reusable digitized platforms supporting all further business strategies
- However, business executives and architects should ensure that fundamental initiatives also have positive business cases and bring some strategic and tactical business value

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Strategic Initiatives (Description)

- **Strategic initiatives** are IT initiatives originating from the Strategic Planning process with an intention to address **specific strategic business needs**
- Strategic initiatives are closely related to the current business strategy and address the key business needs required to execute it
- In other words, strategic initiatives stem directly from the business strategy as part of its execution
- Strategic business needs are identified in a top-down manner by global business executives and architects, often based on the required business capabilities

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Strategic Initiatives (Role)

- Strategic initiatives can be considered as key "workhorses" of the strategy execution helping organizations implement their business strategies
- However, business executives and architects should ensure that these initiatives will not become burdensome legacies for the potential next business strategies
- For this purpose, strategic initiatives might be aligned to some more stable planning considerations, e.g. to the target operating model
- If the business strategy is subject to **constant change**, then business executives and architects may consider retreating from strategic to fundamental initiatives

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Local Initiatives (Description)

- Local initiatives are IT initiatives originating from the Strategic Planning process with an intention to address specific local business needs
- Local initiatives focus on the critical tactical needs of specific business units
- Local initiatives are proposed in a **bottom-up** manner by local business leaders and then discussed with global business executives and architects, who decide whether these IT initiatives should be implemented based on their perceived business importance

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Local Initiatives (Role)

- Often proposed local initiatives are registered via formal business proposal forms capturing the general idea, intent and justification behind these initiatives
- Initiative proposal forms are filled by local business leaders and submitted for senior executive consideration
- All the proposal forms are collected in the common pool of proposed IT initiatives and then the most valuable of these initiatives are picked out by global business leaders to be further elaborated, funded and executed
- Approved local initiatives are prioritized and scheduled for implementation along with other fundamental and strategic initiatives as part of Strategic Planning

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Urgent Initiatives (Description)

- **Urgent initiatives** are IT initiatives implemented with an intention to address specific urgent business needs
- <u>Urgent initiatives are fundamentally unplanned IT initiatives</u>
- Urgent initiatives essentially originate directly from the external business environment
- Urgent business needs may be identified in a bottom-up manner by any business leaders and, if considered as critical, corresponding IT initiatives may be immediately kicked off to address these needs

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Urgent Initiatives (Role)

Urgent initiatives are change initiatives with business and IT components implemented with an intention to address specific urgent business needs.

- These urgent business needs may emerge due to a multitude of various reasons including the previously overlooked critical problems, new operational demands, recent changes in relevant government regulations or unexpected tactical moves of competitors.
- Urgent initiatives are usually dictated by compelling business needs and often considered as mandatory
- The best that business executives and architects can do is to try to align urgent initiatives to the general strategic direction and ensure that these IT initiatives do not undermine overall technical and business consistency
- Ideally organizations should avoid urgent initiatives and "sift" all identified business needs through the disciplined Strategic Planning process
- However, in real organizations urgent initiatives are common and often constitute a significant portion of all implemented IT initiatives

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Architectural Initiatives (Description)

- Architectural initiatives are IT initiatives implemented with an intention to improve the overall quality of the IT landscape
- Unlike all other types of IT initiatives, architectural initiatives do not represent any business initiatives
- Architectural initiatives originate as technical rationalization suggestions directly from the Technology Optimization process
- Architectural initiatives are proposed in a top-down manner by architects and then discussed with IT executives, who decide whether these IT initiatives should be implemented based on their importance

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Architectural Initiatives (Role)

- Architectural initiatives are often funded directly by the CIO or other senior IT executives
- Architectural initiatives typically follow the regular two-step Initiative Delivery process, but their IT stakeholders act instead of business stakeholders
- Ideally organizations should avoid executing purely architectural initiatives altogether and try to optimize their IT landscapes as part of regular business initiatives
- These initiatives do not address directly any specific business needs and do not provide any new business functionality, but instead deliver some highly desirable technical enhancements

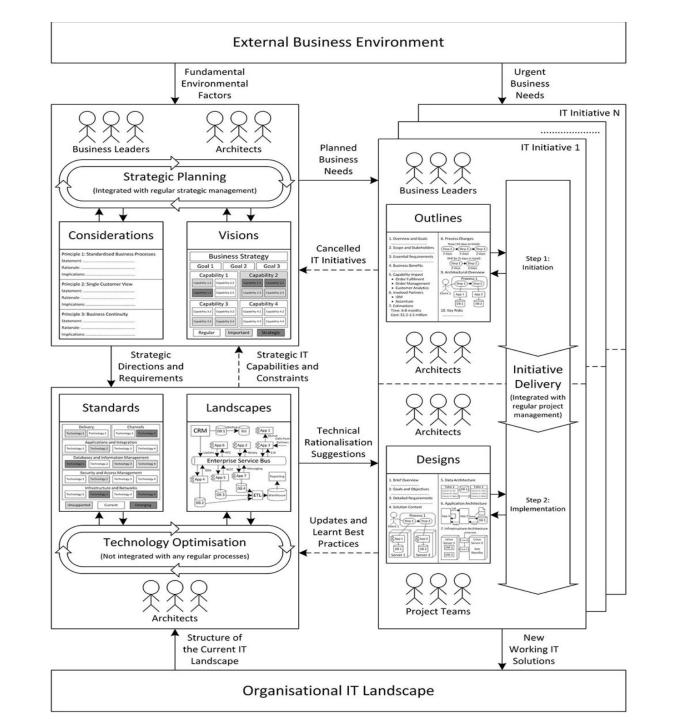
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Five Types of IT Initiatives

Initiatives	Origin	Motivation	Initiation	Nature	Concerns
Fundamental initiatives	Strategic Planning process	Grow permanent capabilities and build a reusable digitized platform	Initiated directly by global business executives	Top-down and planned	Ensure positive business case, strategic and tactical value
Strategic initiatives	Strategic Planning process	Execute the current business strategy	Initiated directly by global business executives	Top-down and planned	Ensure lasting business value beyond the current strategy
Local initiatives	Strategic Planning process	Address important tactical needs of business units	Proposed by local executives and approved by global executives	Bottom-up and planned	Ensure alignment to the business strategy and fitness to the organization
Urgent initiatives	External business environment	Address critical, unexpected and urgent business needs	Identified by any business leaders and immediately executed	Bottom-up and unplanned	Align to the general strategic direction as much as possible, ensure overall consistency
Architectural initiatives	Technology Optimization process	Optimize the structure of the IT landscape	Proposed by architects and approved by IT executives	Top-down and planned	Try to incorporate required architectural improvements into regular business initiatives

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- The **five types** of IT initiatives described above (i.e. fundamental, strategic, local, urgent and architectural initiatives) are the key types of initiatives distinguishable from the perspective of an EA practice.
- All these types of IT initiatives are implemented through the **Initiative Delivery process**, each of these types still has a unique flow in the context of an EA practice.
- The flow of different types of IT initiatives through an EA practice can be illustrated via mapping these types of initiatives to the process view of an EA practice (Figure 1.2)



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- <u>Fundamental initiatives</u>, <u>strategic initiatives</u> and <u>local initiatives</u> <u>arrive to the</u>
 <u>Initiative Delivery process</u> from the <u>Strategic Planning process</u>, which
 intends to <u>determine what IT initiatives</u> are required to support the
 <u>business of an organization</u>.
- <u>Urgent initiatives</u> arrive to the Initiative Delivery process directly from the external business environment, which is the primary source of uncertainty in organizations.
- Architectural initiatives arrive to the Initiative Delivery process from the Technology Optimization process, which intends to determine what IT initiatives are required to improve the technical quality of the IT landscape
- Finally, the role of the Initiative Delivery process for all types of IT initiatives
 is to determine how exactly these initiatives should be implemented and
 then implement the resulting IT solutions. The flow of different types of IT
 initiatives described above is shown in Figure 7.2.

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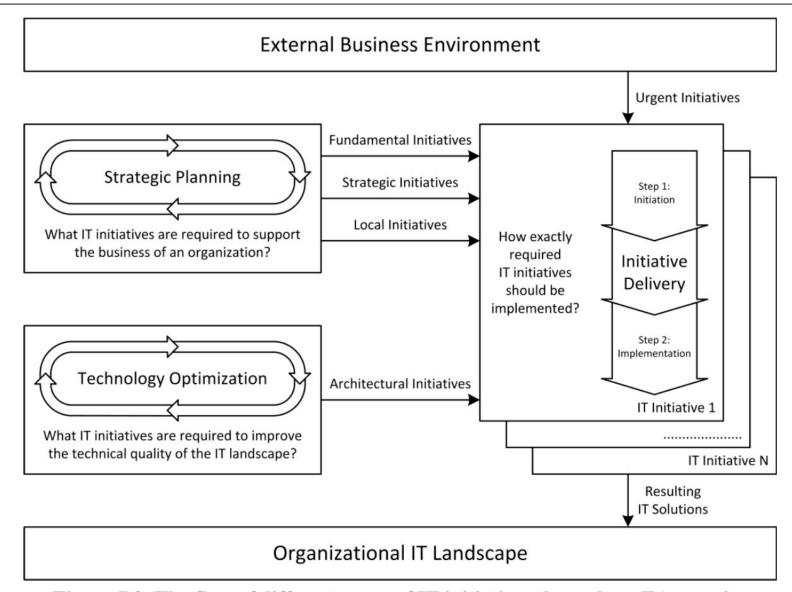


Figure 7.2. The flow of different types of IT initiatives through an EA practice

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Portfolios of IT Initiatives

- Organizations should maximize fundamental and strategic initiatives and minimize other less value-adding IT initiatives, e.g. urgent and architectural initiatives
- However, due to many practical reasons real initiative portfolios often include all the five types of IT initiatives
- Organizations should plan their initiative portfolios with an intention to improve their overall strategic position
- Many IT initiatives in organizations often combine the properties of multiple different types of initiatives
- The five types of IT initiatives should be considered only as pure archetypes of various possible IT initiatives

The end Thank you

See you next class