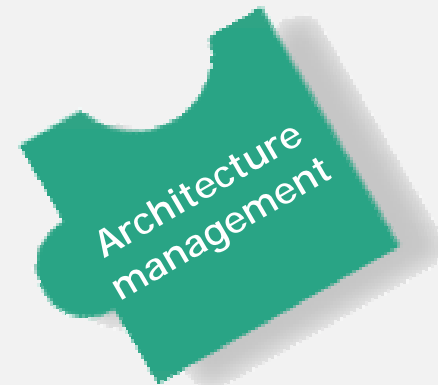




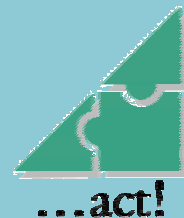
Enterprise Architecture Process, Structure and Organization

t-eam* - a framework derived from project experience



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*toolbox for enterprise architecture management



Content

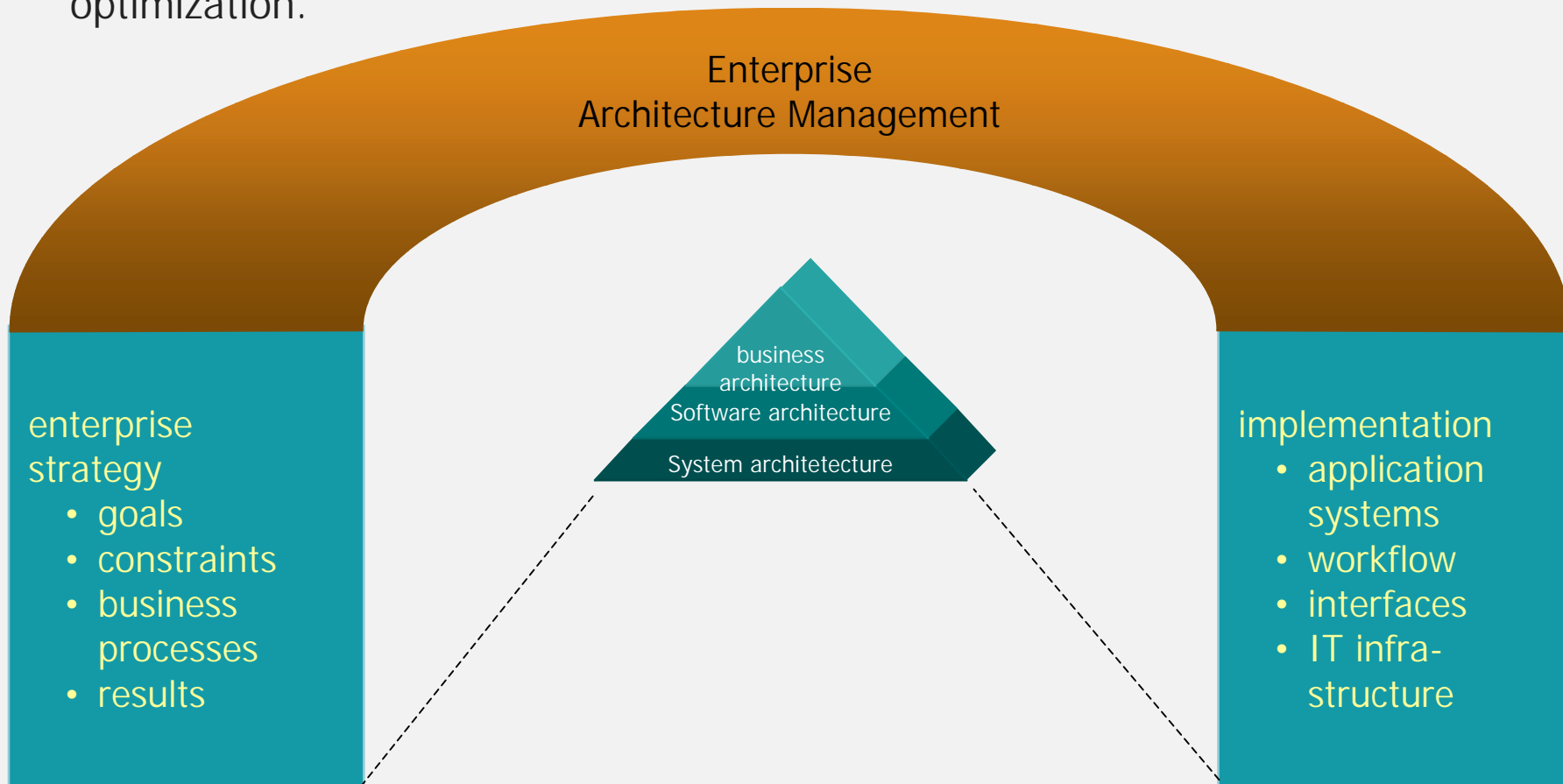
- ❑ The EAM dilemma: the gap between strategy and implementation
- ❑ The answer: filling the gap
- ❑ The benefits: lessons learned



From strategy to implementation

Architecture management aligns IT to business and so must do the splits between strategy and implementation.

- ⇒ The alignment is based on navigation from business artifacts (e.g. business units or processes) to IT artifacts (e.g. applications or infrastructure)
- ⇒ Architecture management processes ensure continuous controlling and optimization.



Bridging the gap

The EAM House

Structure

(EA entities, relationships between strategic and operational topics, stakeholder specific views)

Process

(strategic processes (e.g. application portfolio planning), operational processes (e.g. software architecture design), linking between processes)

Organization

(principles, roles, functions, committees, work load balancing)

enterprise strategy

- goals
- constraints
- business processes
- results

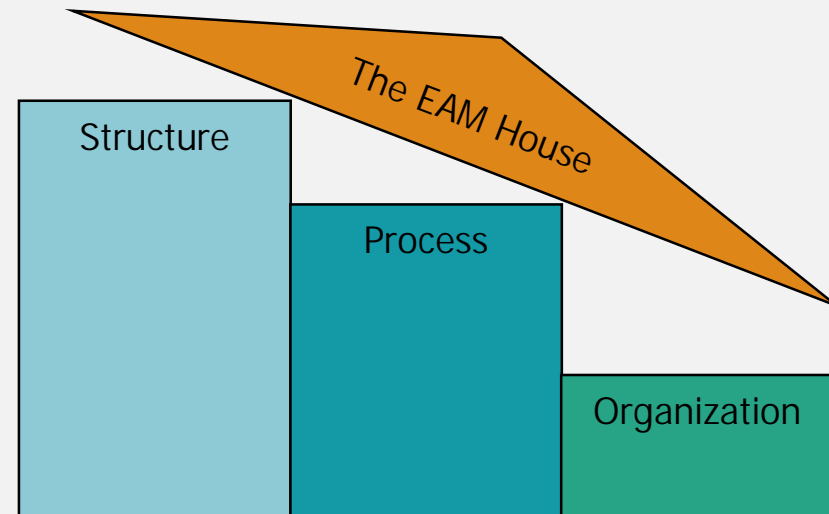
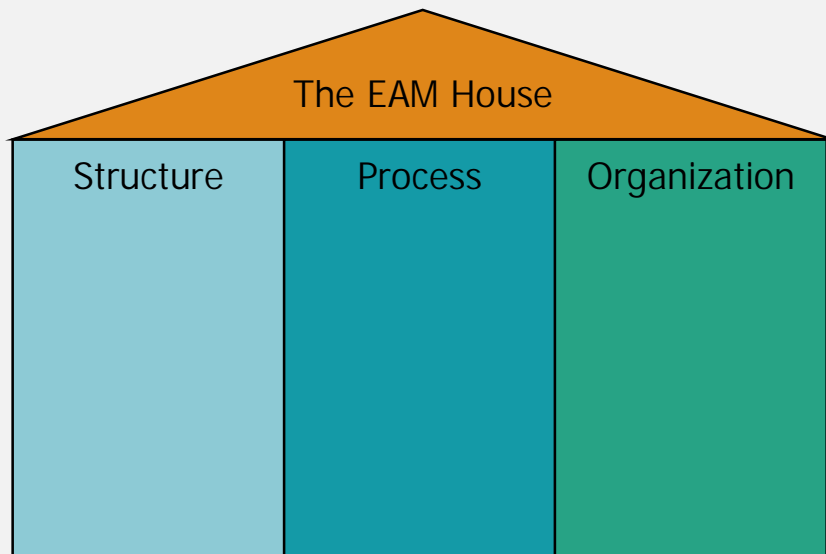
implementation

- application systems
- workflow
- interfaces
- IT infrastructure



Distribution of efforts in recent projects

- The columns of the EAM house (structure, processes and organization) are of equal value for being successful in enterprise architecture management
- As we learned from a survey* many recent projects focus on structure
 - collecting and analyzing data for application portfolio planning
 - defining reference architectures
 - structuring and refurbishing the system architecture
- Processes and organization get lower attention



*German Society for Computer Science, working group on EAM, 30.1.2003

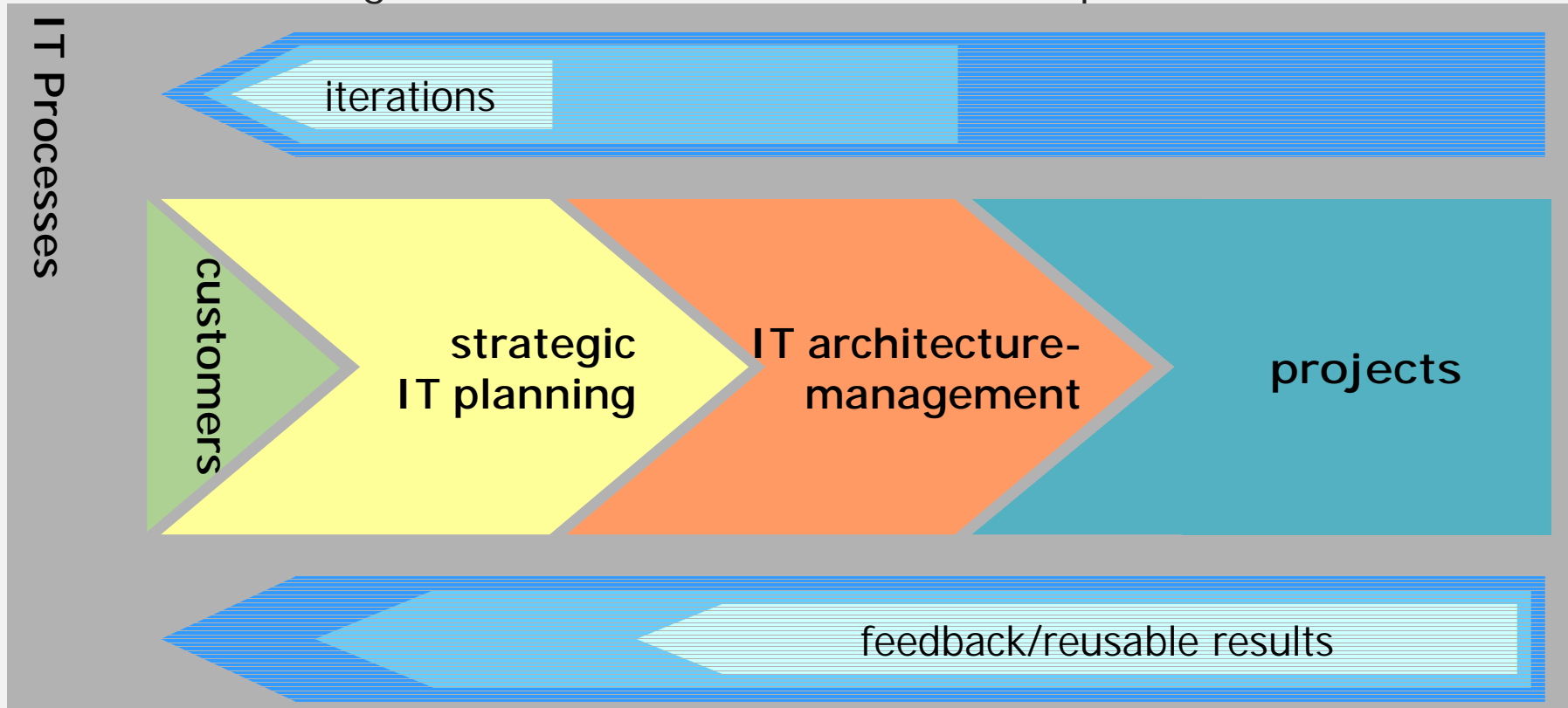
Content

- ❑ The EAM dilemma: the gap between strategy and implementation
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- ❑ The benefits: lessons learned



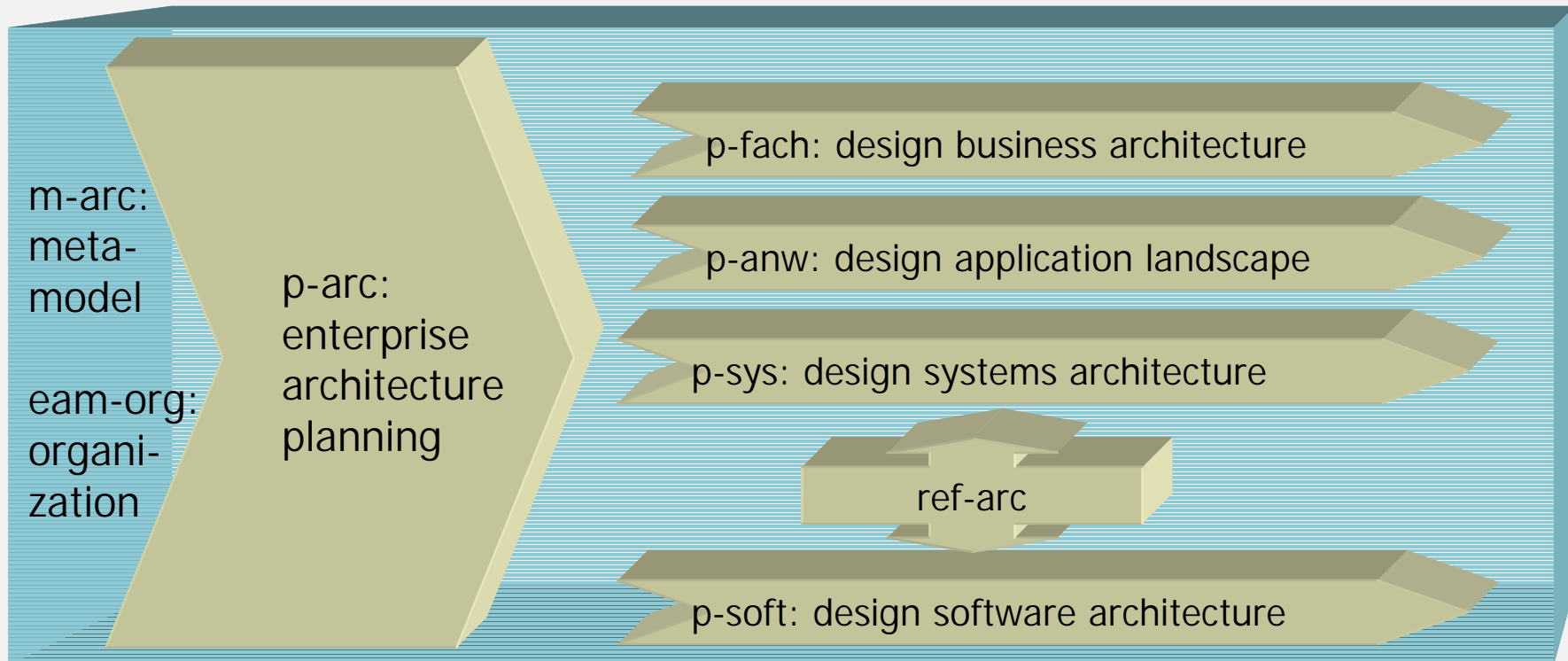
The environment of architecture management

- ❑ Architecture management is embedded into the other IT processes and cooperates directly with strategic IT planning and IT projects – therefore it has to provide the link between strategy and implementation.
- ❑ Quality enhancement is done through
 - ⇒ iterations: manage risks and take care of moving targets
 - ⇒ feedback: generate reusable assets and best practices

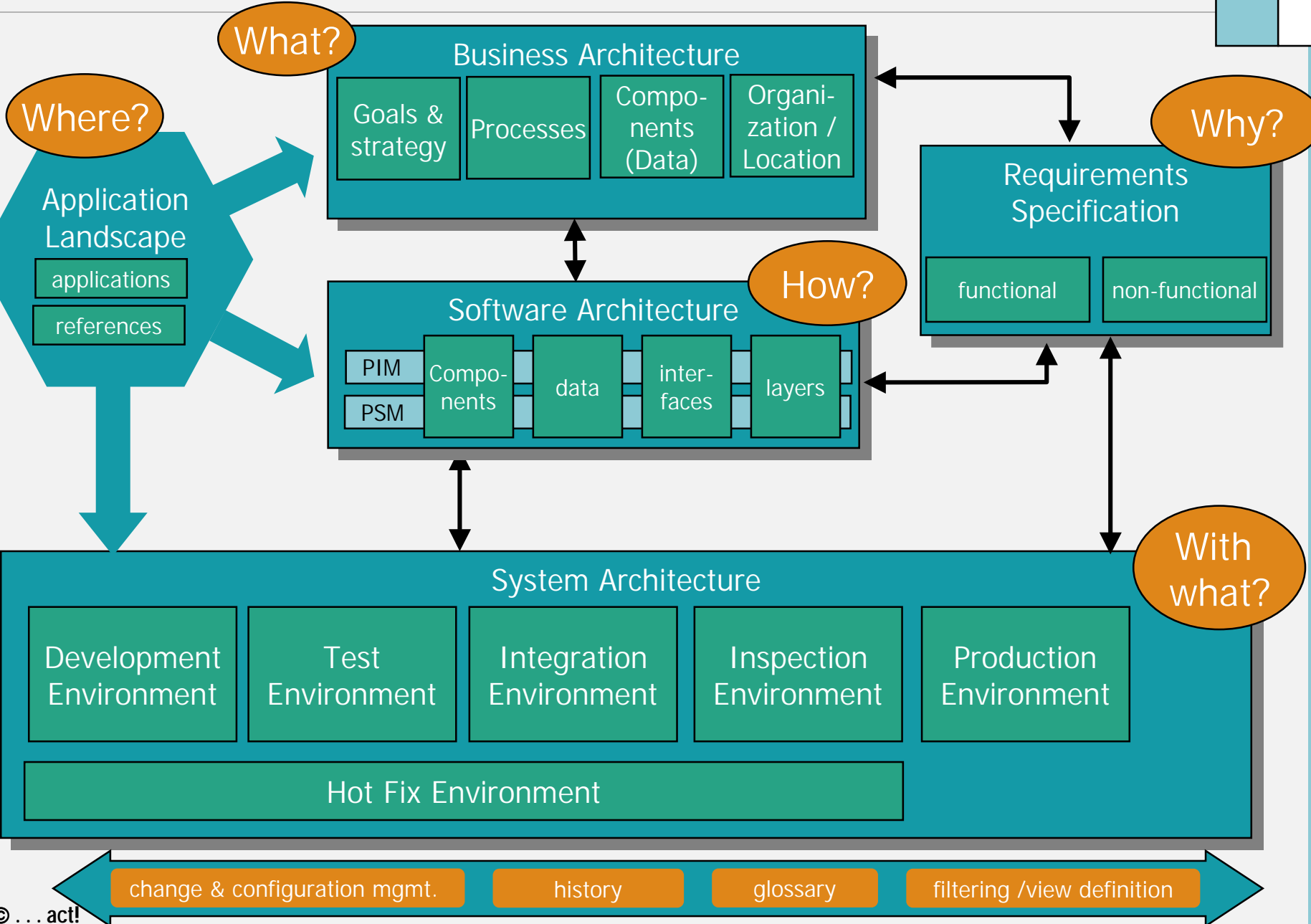
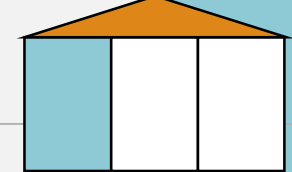


The act! – reference model for enterprise architecture management t-eam* is assembled from separately usable components :

- ⇒ process templates p-arc, p-fach, p-anw, p-sys und p-soft,
- ⇒ reference architecture („blueprint“) ref-arc,
- ⇒ meta model and enterprise architecture repository m-arc,
- ⇒ organizational patterns for implementation and operation of EAM.



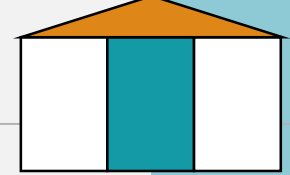
Meta Model Structure



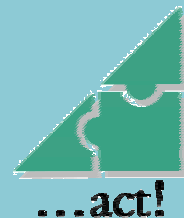
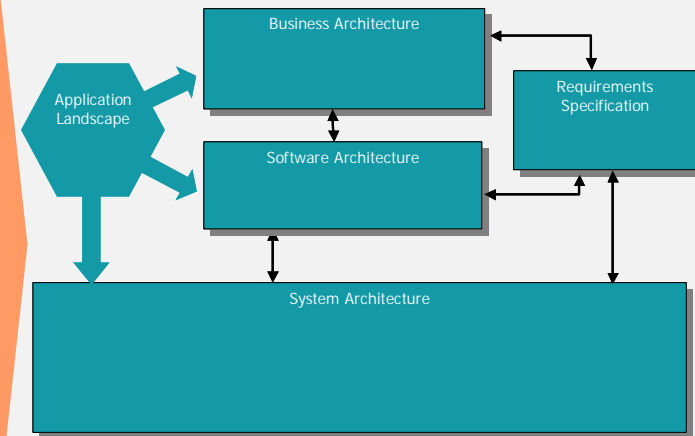
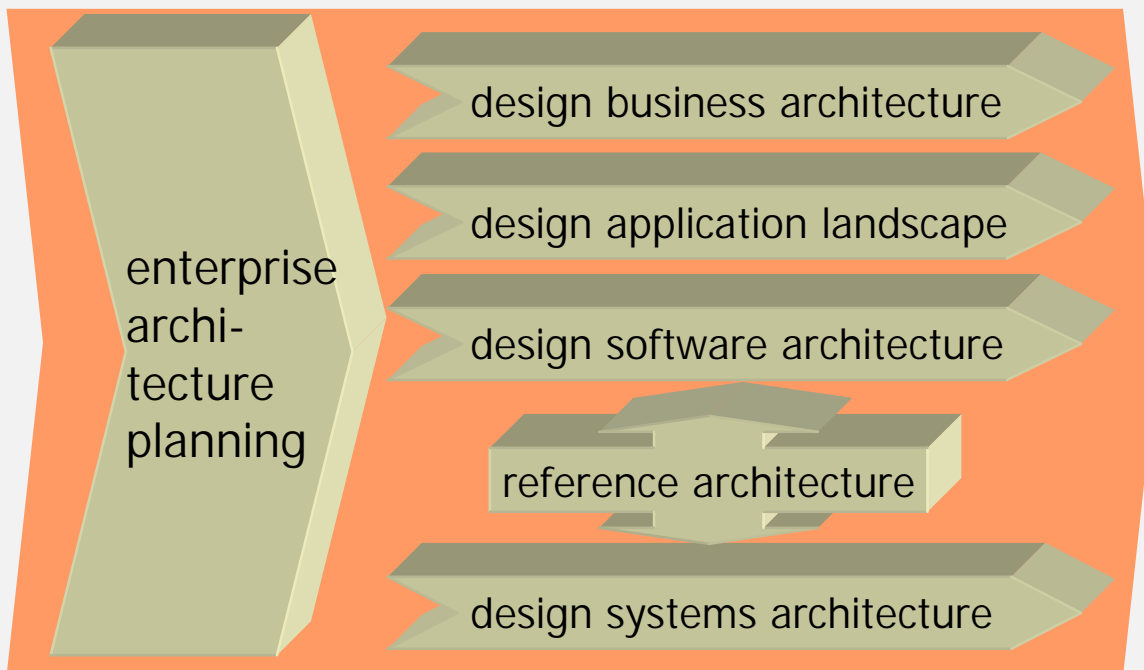
change & configuration mgmt. history glossary filtering /view definition



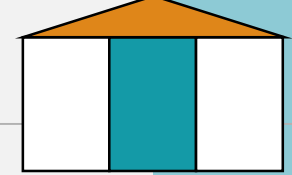
Architecture management processes



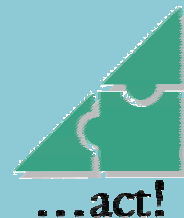
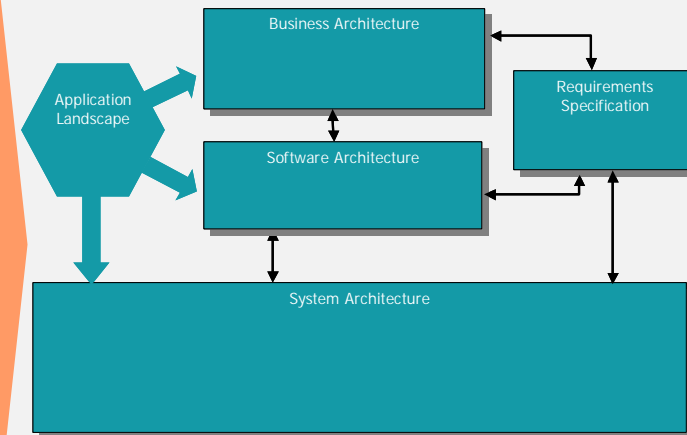
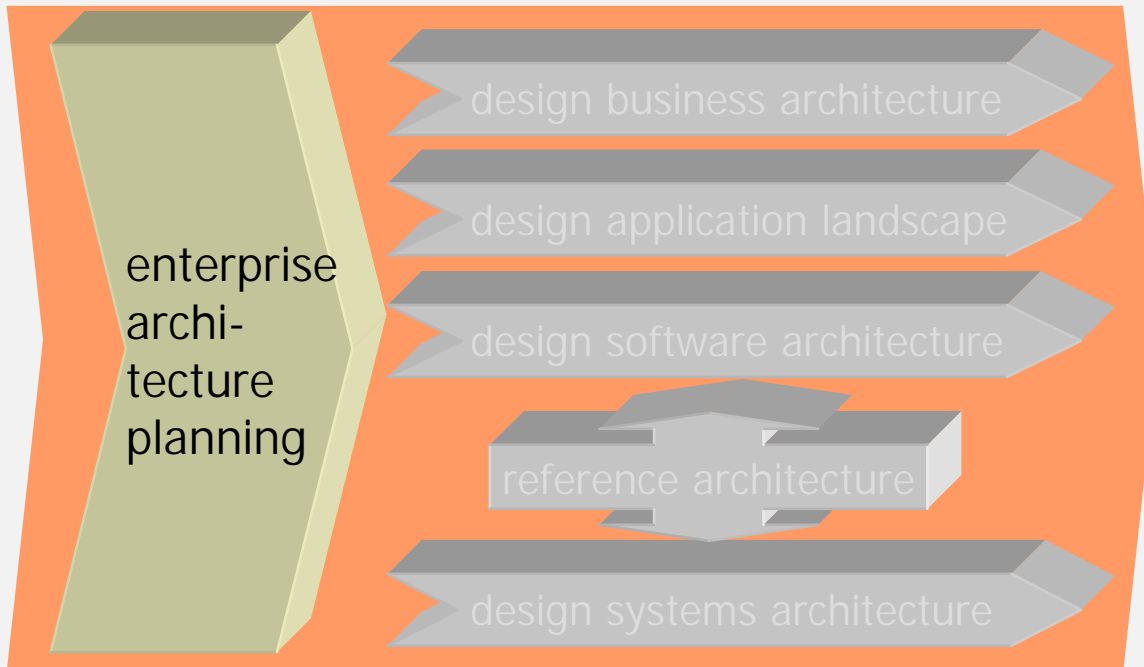
- The EA processes within t-eam are directly linked to the meta model,
 - ⇒ activity inputs and outputs are specified in the meta model
 - ⇒ Methodology is based on the meta model (e.g. data analysis for application landscaping)
 - ⇒ Semantics is specified through the meta model



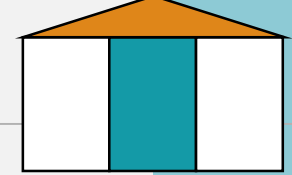
Enterprise Architecture Planning



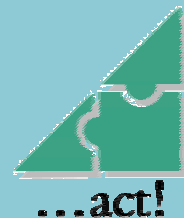
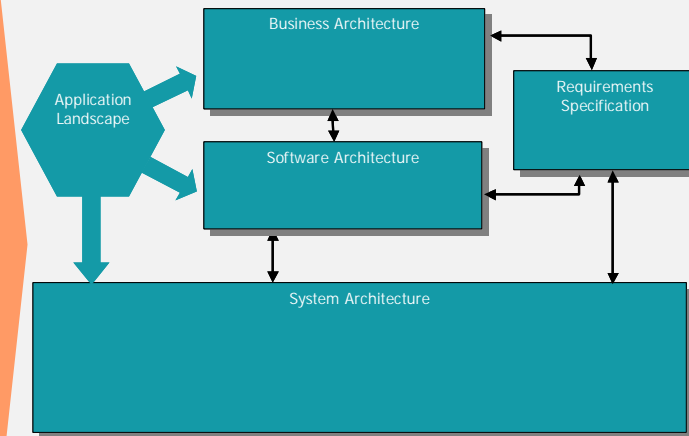
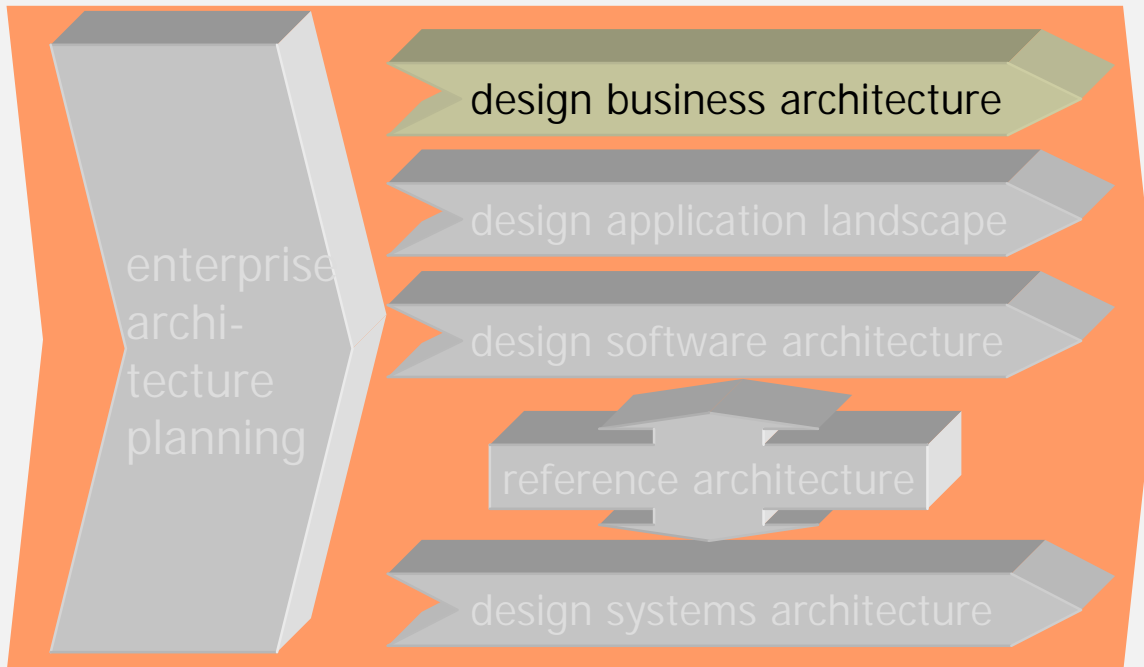
- Integrate and consolidate enterprise architecture
- Analyze enterprise and IT strategy
 - derive implications on enterprise architecture
- Analyze application and project portfolio
 - evaluate strategic impact
 - derive value production
 - evaluate (costs ↔ risks ↔ quality ↔ functionality)
- Market research
 - IT-technology
 - methods und tools
 - standards



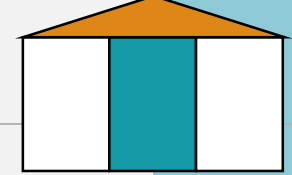
Design Business Architecture



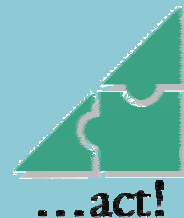
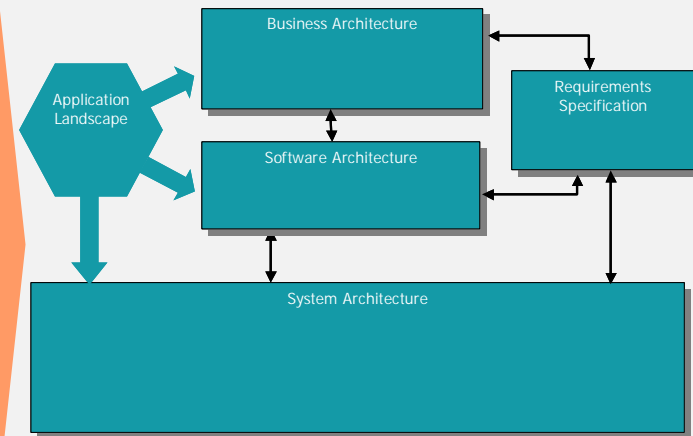
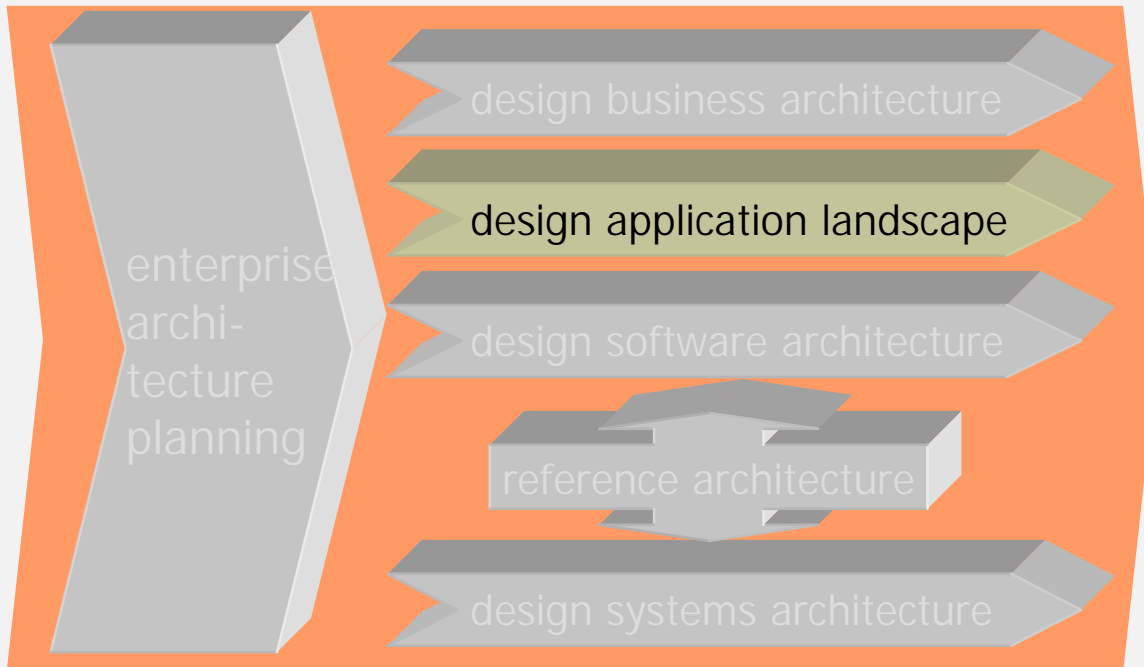
- develop and maintain enterprise wide business architecture as enterprise architecture module
- develop component portfolio (business components, business objects)
- develop process portfolio (business cases, deliverables, business processes, actors)
- goals and constraints
- specify requirements
- develop glossary
- supply business architecture for enterprise wide use



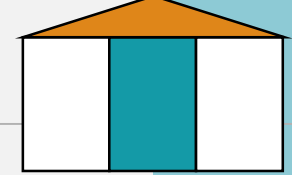
Design Application Landscape



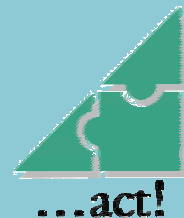
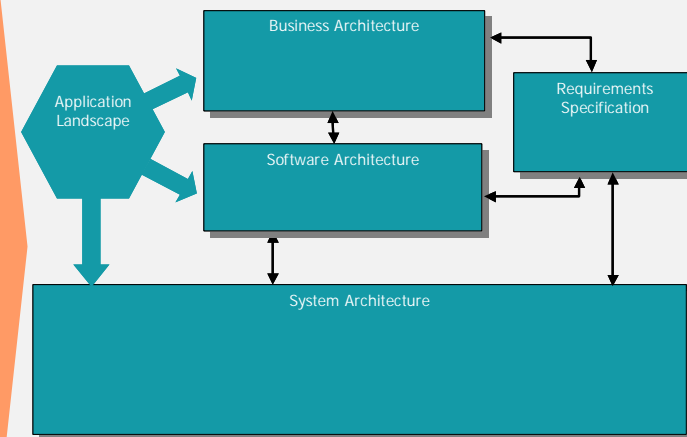
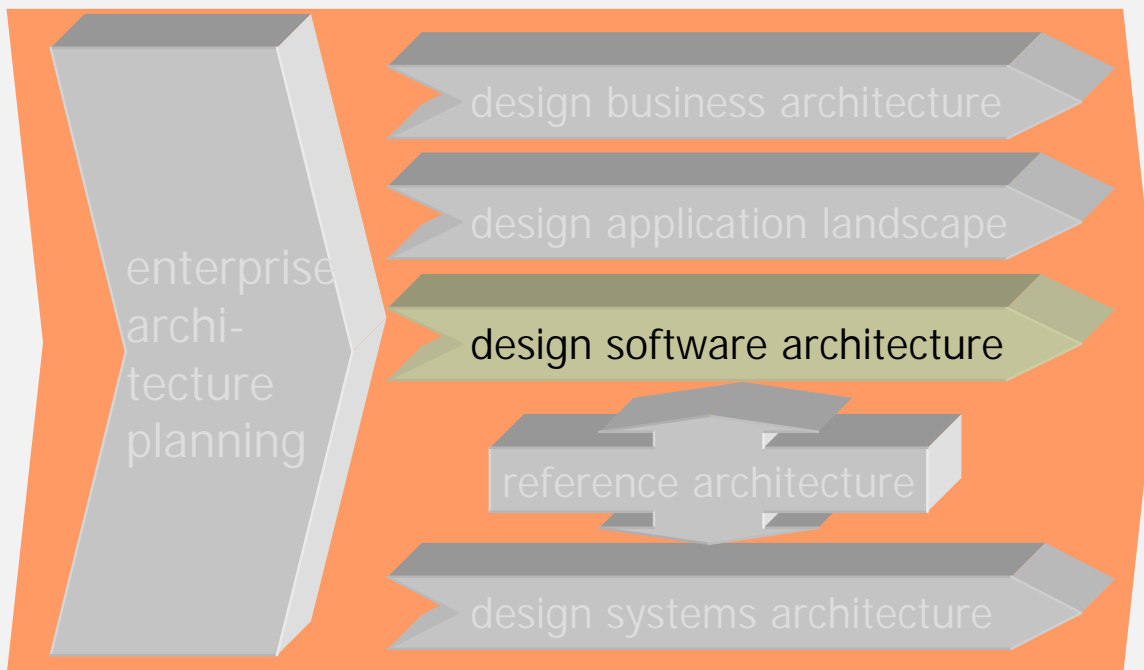
- Analyze existing application portfolio and develop application landscaping plan
- specify application systems
 - Define responsibilities
 - Reference business, software and systems architecture
- Develop and evaluate future application portfolio scenarios
- Derive application portfolio development plan
- Control development process
- Supply recent application portfolio and development plan for enterprise wide use



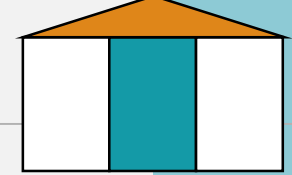
Design Software Architecture



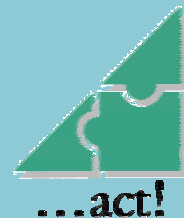
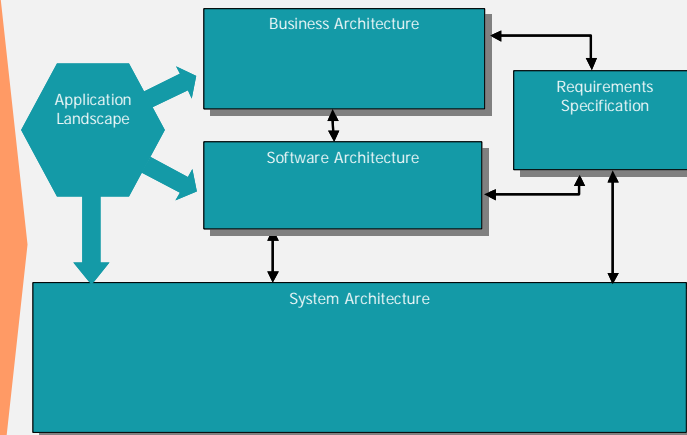
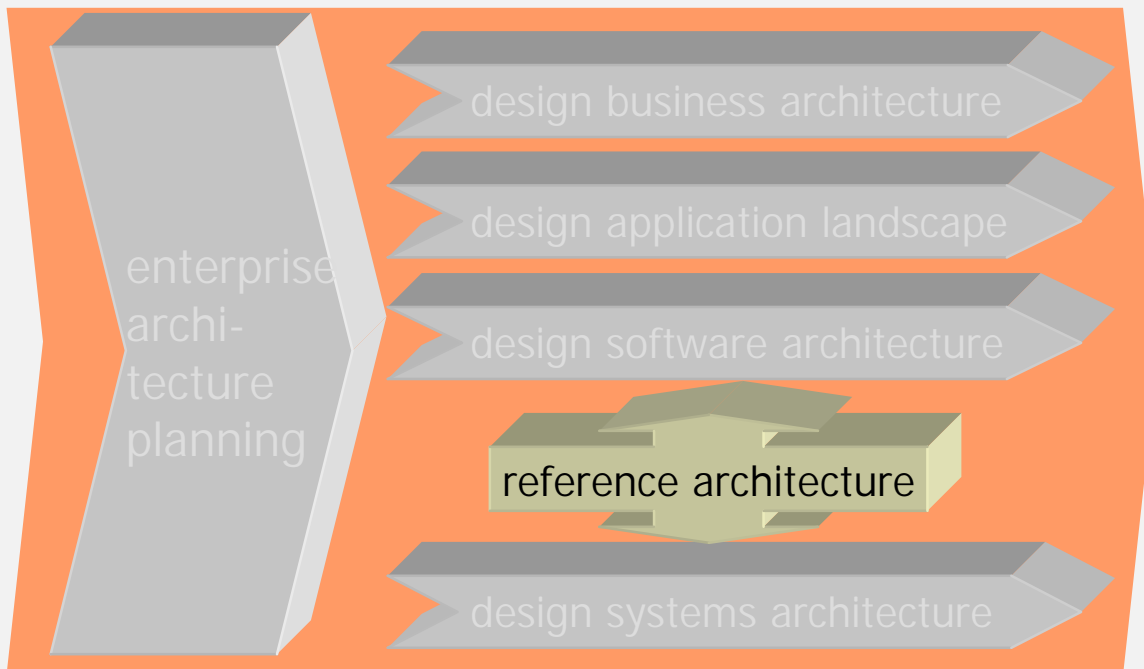
- Develop and maintain enterprise wide software architecture (reference architecture) as module of enterprise architecture
- ascertain requirements
 - non-functional / functional requirements
 - fundamentals
 - constraints
- develop and evaluate architecture scenarios
- test scenarios and derive reference architectures
- Specify and control development plan



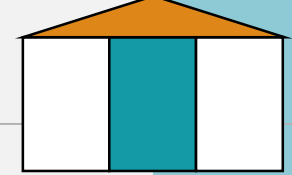
Reference Architecture



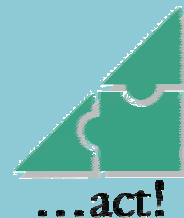
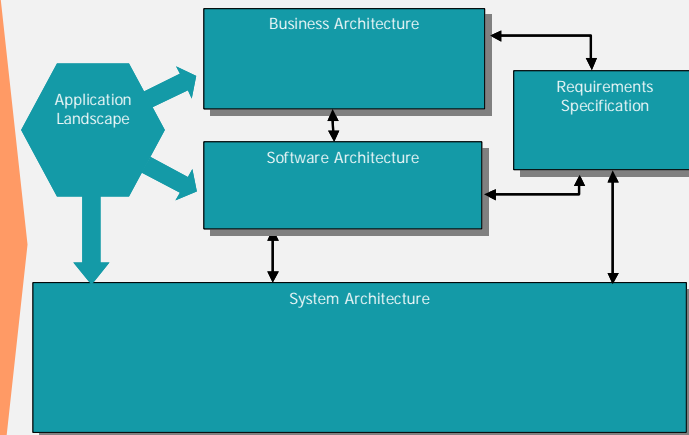
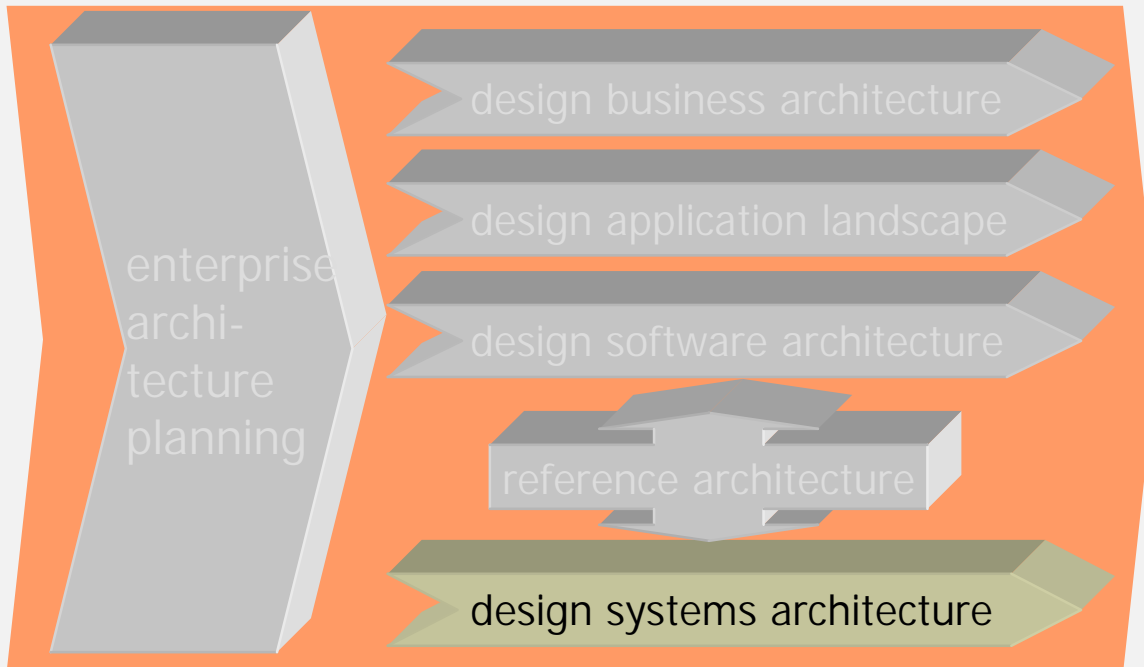
- Specification of valid reference architectures according to subject areas, e.g.
 - back office
 - mobile sales support
 - intranet
 - internet
 - data warehouse
- Definition of coverage to functional and non-functional requirements
- Specification of conformity with fundamentals and constraints
- Documentation of heuristics and patterns



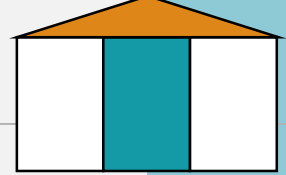
Design Systems Architecture



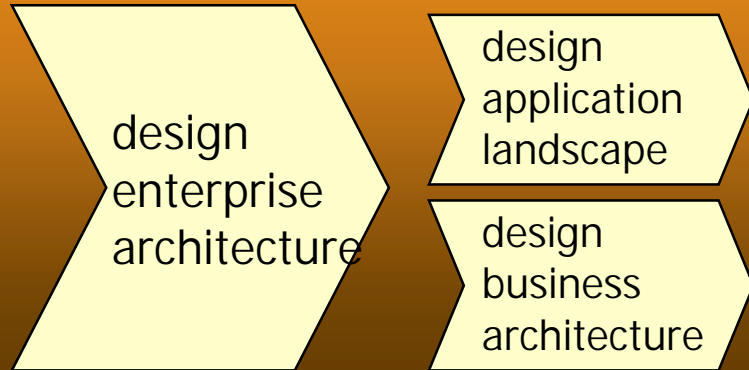
- Develop and maintain enterprise wide technology model as module of enterprise architecture
- Conduct technology projects (development, optimization, procurement)
- Create technology model („tool basket“)
- Supply technology model for enterprise wide use
 - „tool basket“
 - standards (e.g. guidelines for deployment and operations)
 - capacity specifications



Architecture management processes

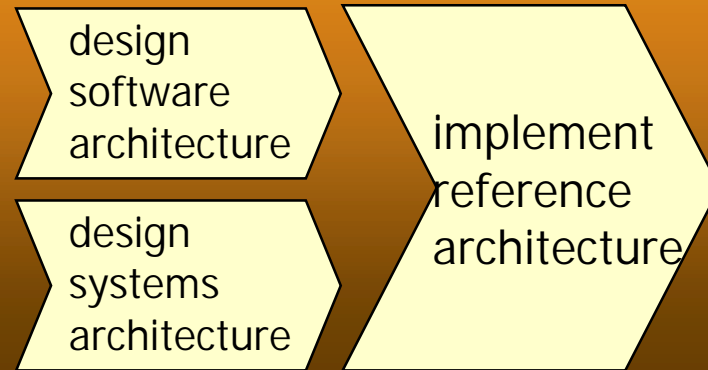


Strategic architecture management

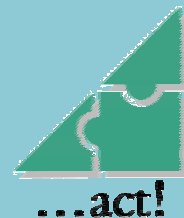


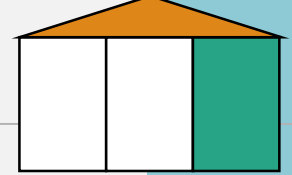
- enterprise strategy
- goals
 - constraints
 - metrics
 - ...

Operational architecture management



- implementation
- processes
 - application systems
 - organisation
 - infrastructure
 - ...





The EAM House

Organization

EA roles

- Enterprise Architect
- Software Architect
- ReUse Manager
- ...

Organizational principles & patterns

- Accountability
- Punctuality
- ...

committees

- Architecture board
- Sounding board
- ...

Marketing patterns

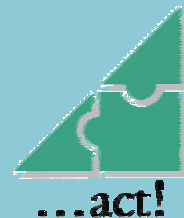
- EA motivation
- EA goal setting
- EA information
- ...

Critical success factors

- Bridging the gap –
- diversify / distribute EA functions
- ...

Best practices

- Find a mentor
- Decentralize architecture development
- Concentrate on low hanging fruits
- ...



Content

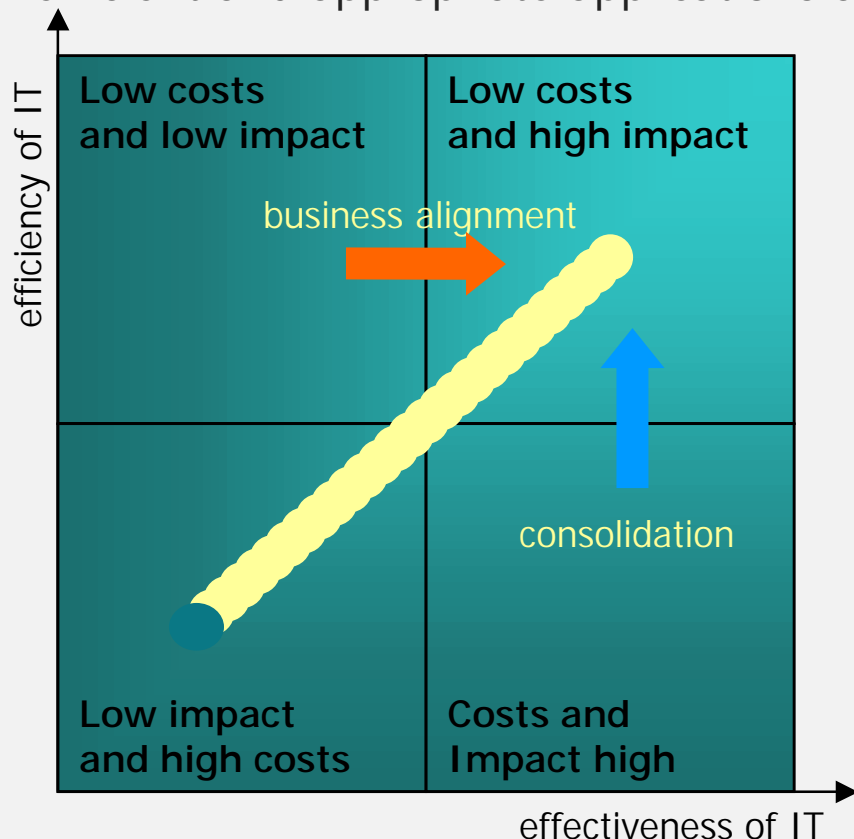
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- ❑ The benefits: lessons learned



Benefits of enterprise architecture management

... result from contribution to IT's efficiency and effectiveness:

- ⇒ effectiveness (**Do the right things.**): architecture management plans and develops business architecture and application portfolio aligned to enterprise strategy
- ⇒ efficiency (**Do things right.**): architecture management cares for cost efficient and appropriate applications and infrastructure.



An enterprise architecture management program needs a clear perspective:

➔ *The business approach. The red way needs an anchor in business, operationalized strategy. The initialization needs fairly stable targets.*

⬆ *The technical approach. The blue way needs a clear methodology, a database, able to deal with scale and different aspects (business, applications, infrastructure).*