

Modeling Enterprise Architecture at Different Levels of Abstraction



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Agenda

- ① Introductions
- ② What is Abstraction?
- ③ Iteration and abstraction
- ④ Examples
- ⑤ Conclusions

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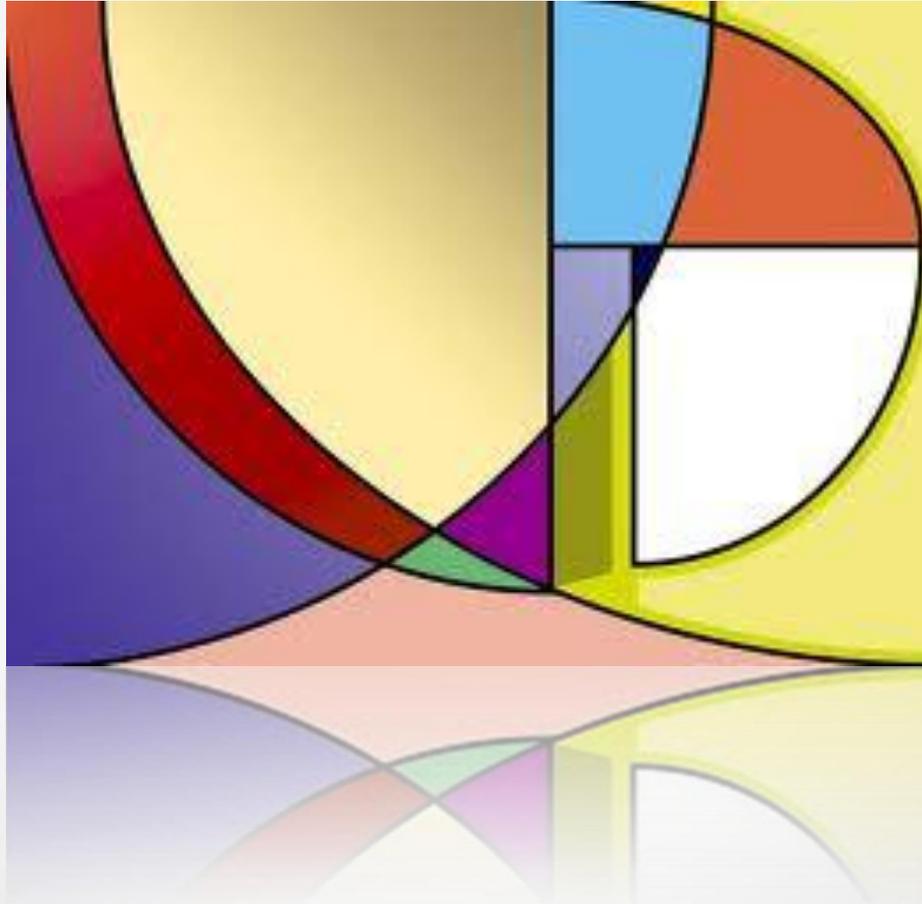


“OK – your budget is approved. I look forward to seeing your results”

Yikes...where do I start?



What is abstraction?



Abstraction - Definitions?

3.1 Abstraction

The technique of providing summarized or generalized descriptions of detailed and complex content.

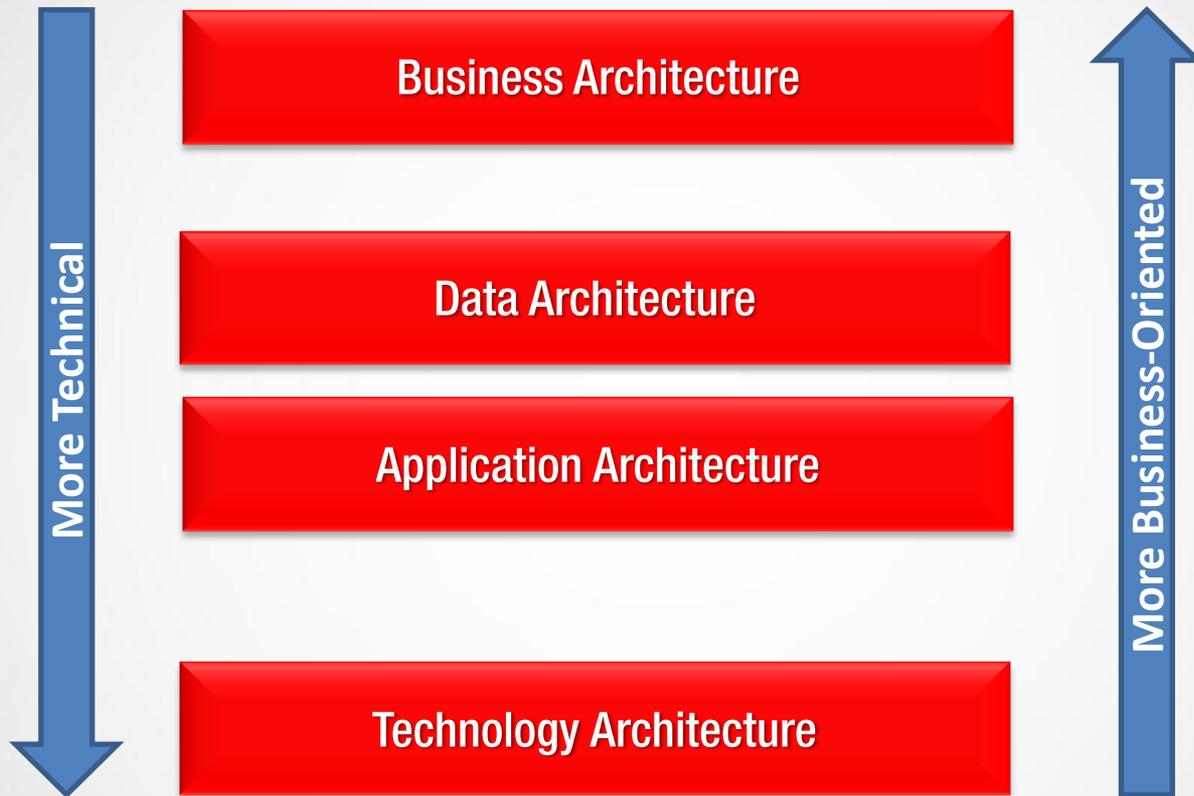
Abstraction, as in "level of abstraction", can also mean providing a focus for analysis that is concerned with a consistent and common level of detail or abstraction. Abstraction in this sense is typically used in architecture to allow a consistent level of definition and understanding to be achieved in each area of the architecture in order to support effective communication and decision-making. It is especially useful when dealing with large and complex architectures as it allows relevant issues to be identified before further detail is attempted.

- TOGAF 9.1 specification

Abstraction is a process by which **higher** concepts are derived from the usage and classification of literal ("real" or "concrete") concepts, **first principles**, or other methods. "An abstraction" is the product of this process – a concept that acts as a super-categorical noun for all subordinate concepts, and connects any related concepts as a *group, field, or category*.

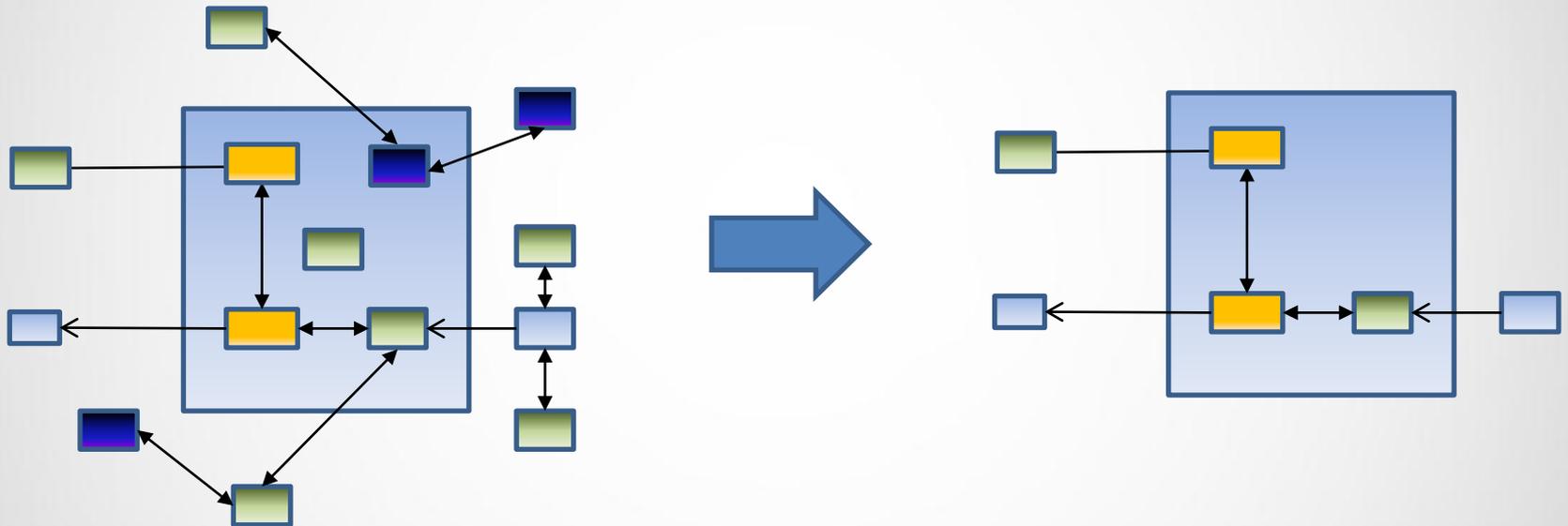
- Wikipedia

Abstraction in EA Modeling – Layers



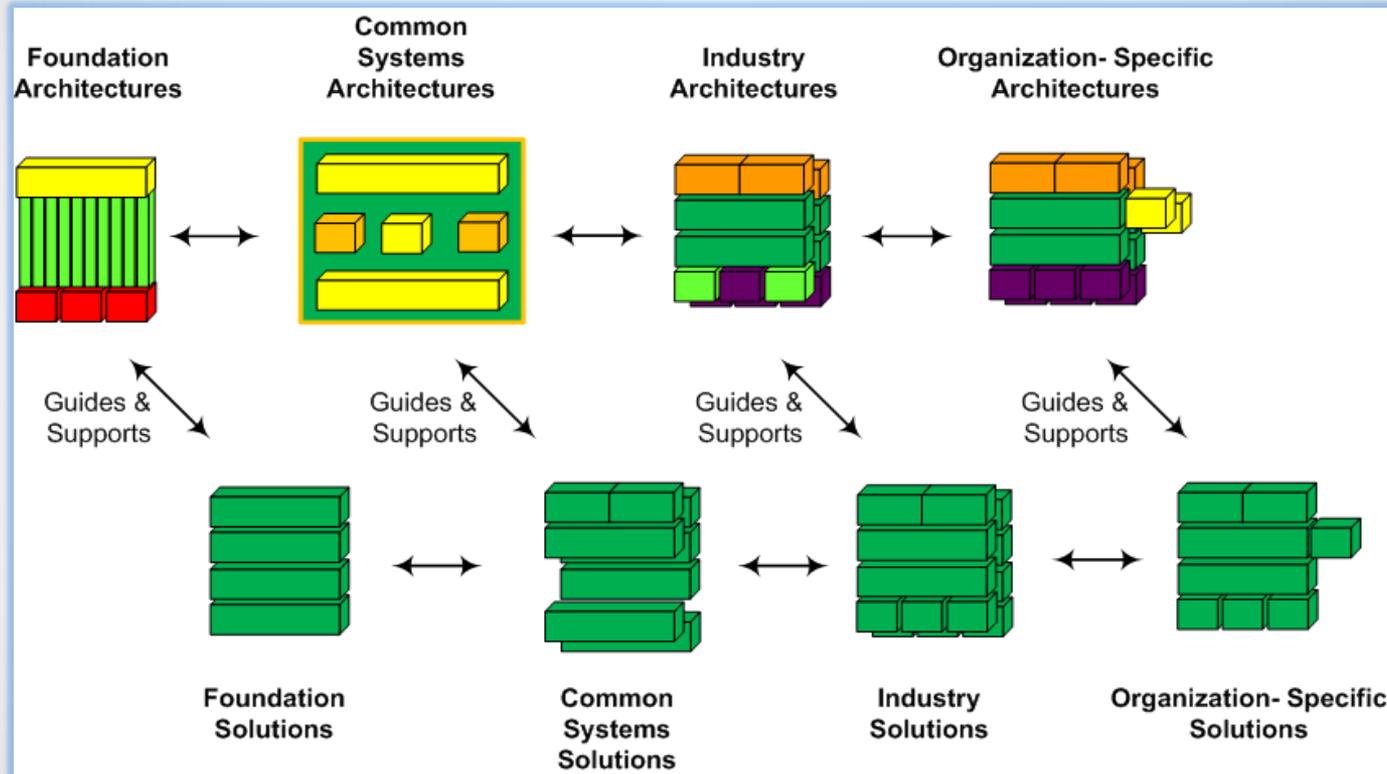
Abstraction in EA Modeling – Removing Details

Strip down to only that which is relevant



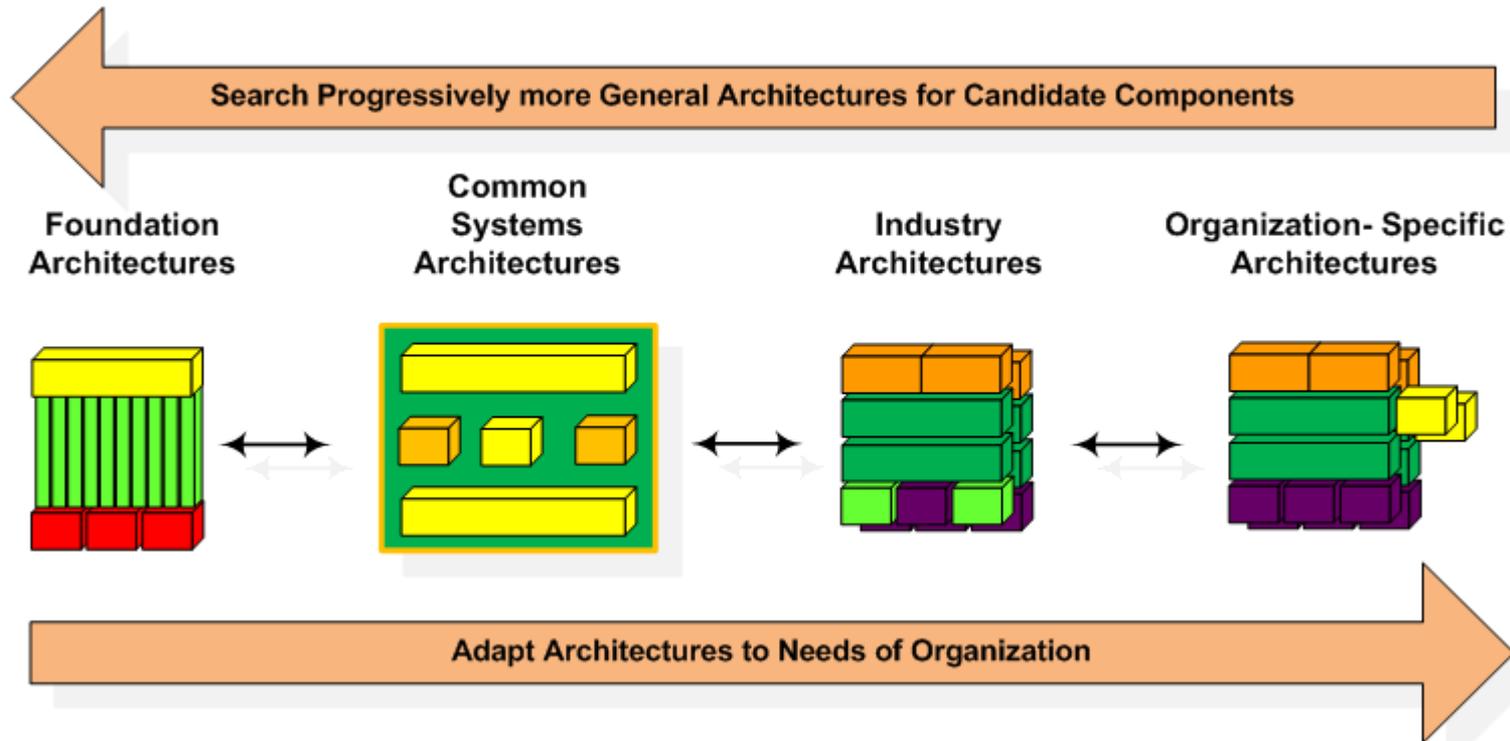
Abstraction in EA Modeling – The Enterprise Continuum

ARCHITECTURE CONTINUUM

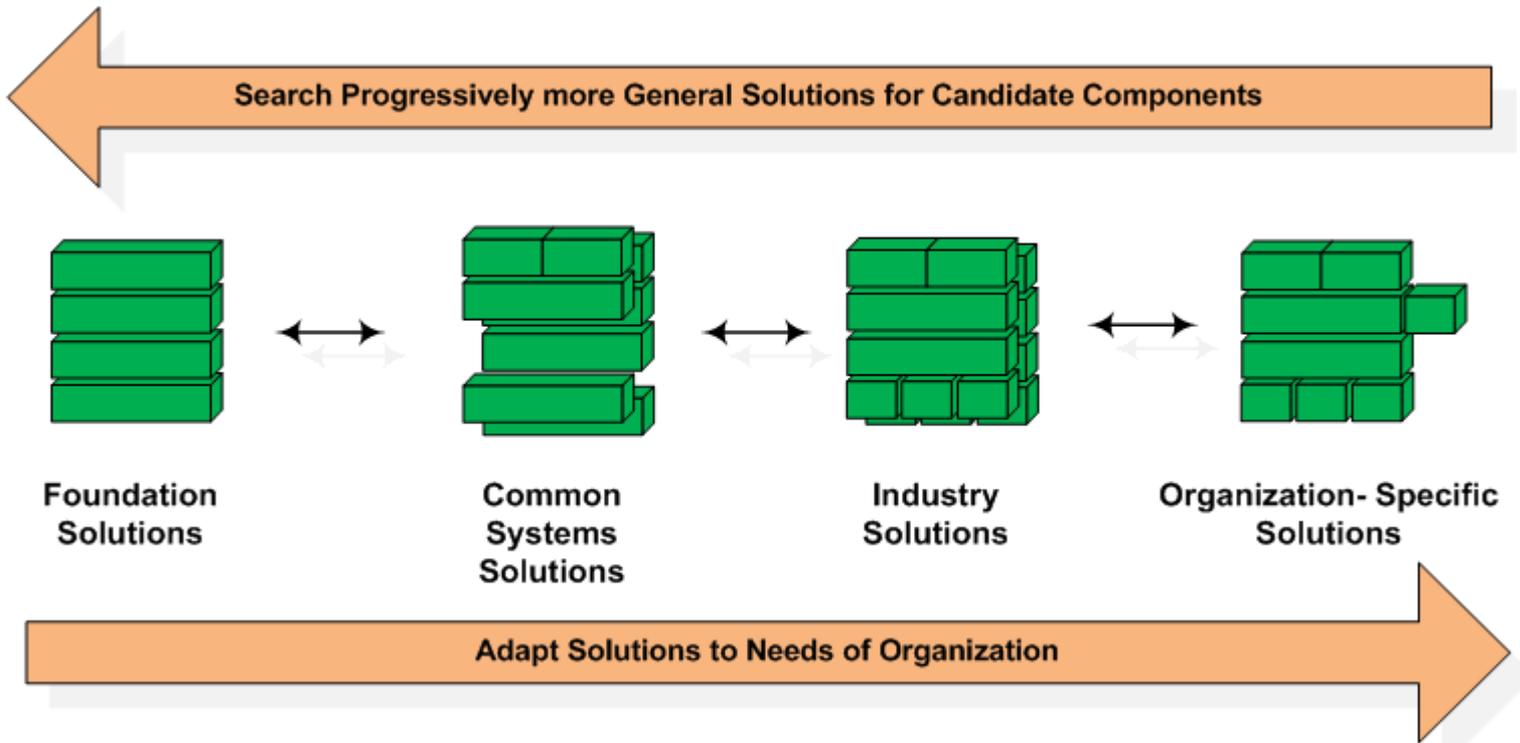


SOLUTIONS CONTINUUM

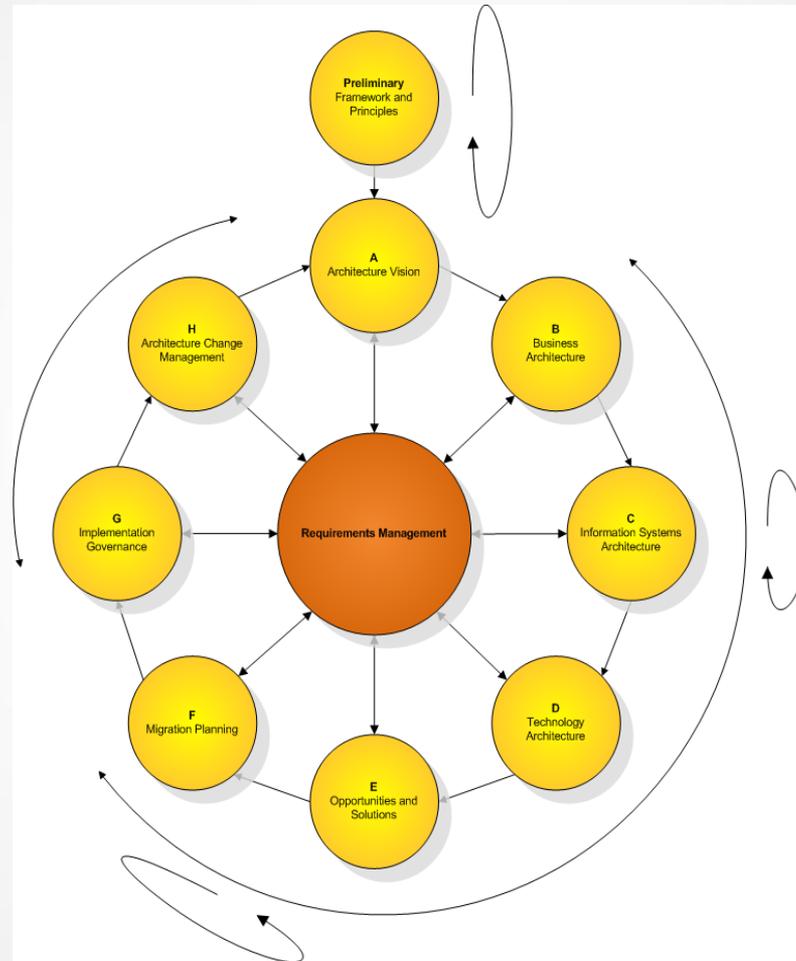
The Architecture Continuum



The Solutions Continuum



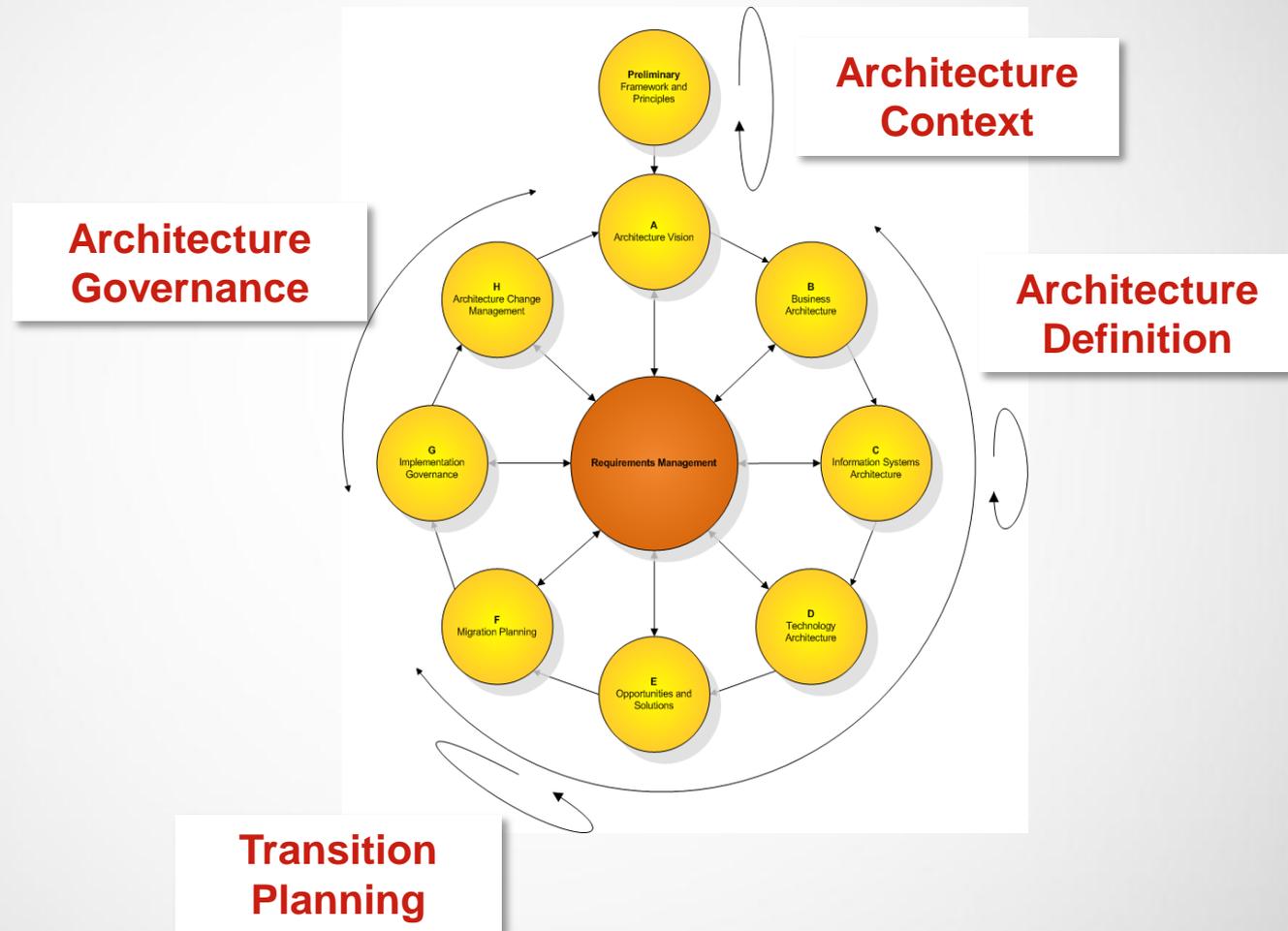
Iteration and abstraction



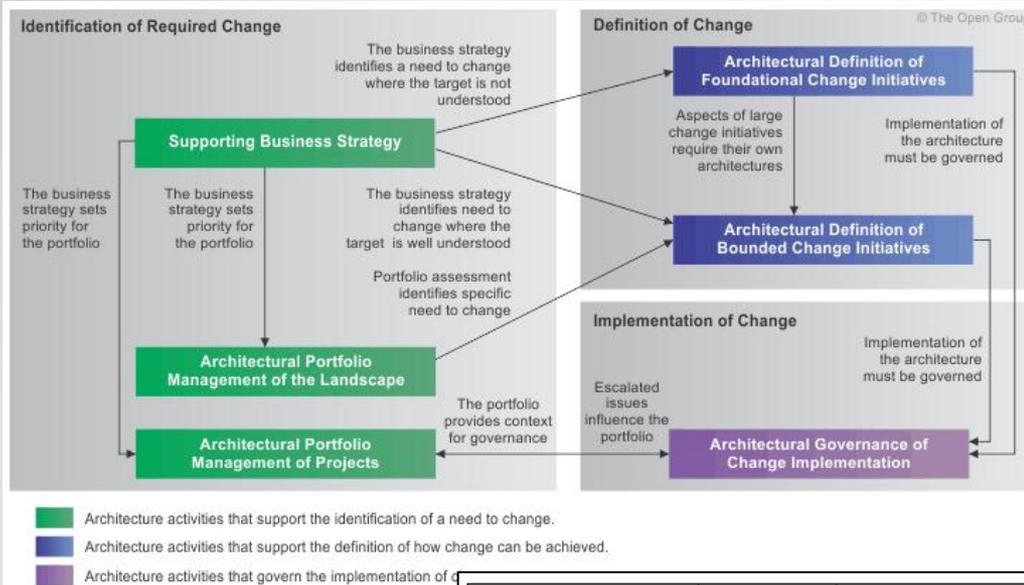
Iteration – part of the ADM

You are here: TOGAF® 9.1 > Part III: ADM Guidelines & Techniques > Applying Iteration to the ADM

[<<< Previous](#)

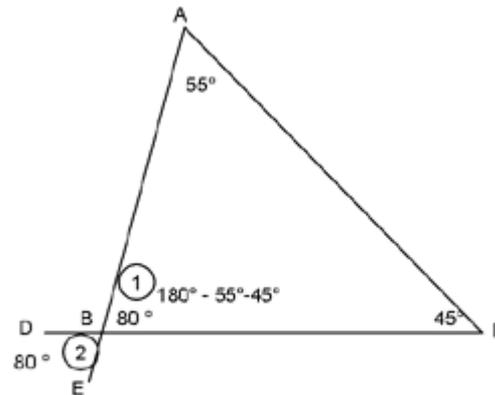


Different Use Cases



Engagement Type	Focus Iteration Cycles	Scope Focus
Supporting Business Strategy	Architecture Capability Architecture Development (Baseline First)	Broad, shallow consideration given to the Architecture Landscape in order to address a specific strategic question and define terms for more detailed architecture efforts to address strategy realization.
Architectural Portfolio Management of the Landscape	Architecture Capability Architecture Development (Baseline First)	Focus on physical assessment of baseline applications and technology infrastructure to identify improvement opportunities, typically within the constraints of maintaining business as usual.
Architectural Portfolio	Transition	Focus on projects, project dependencies, and landscape impacts to align project sequencing in a

Sample way to abstract



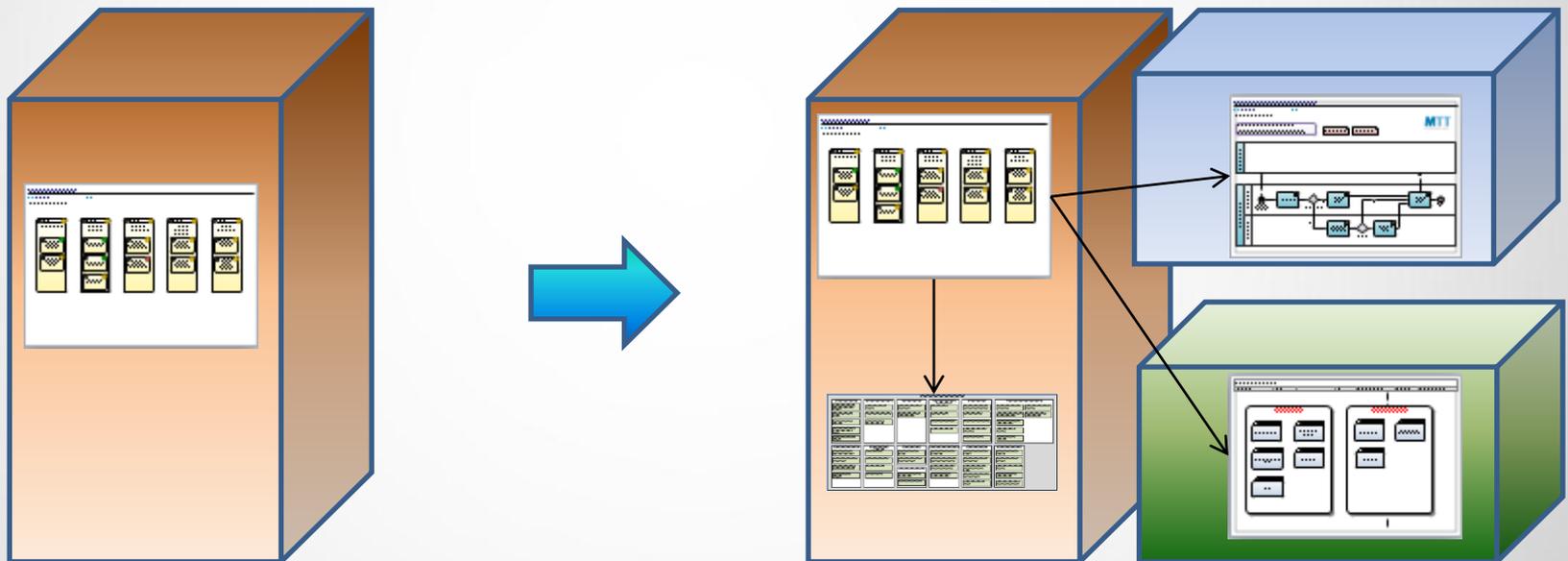
Angle DBE = Angle ABC (vertically opposite angles are equal)
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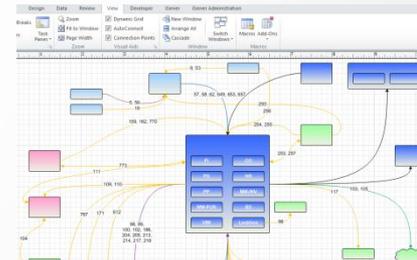
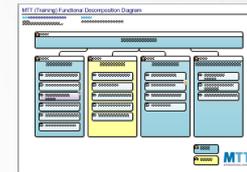
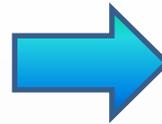
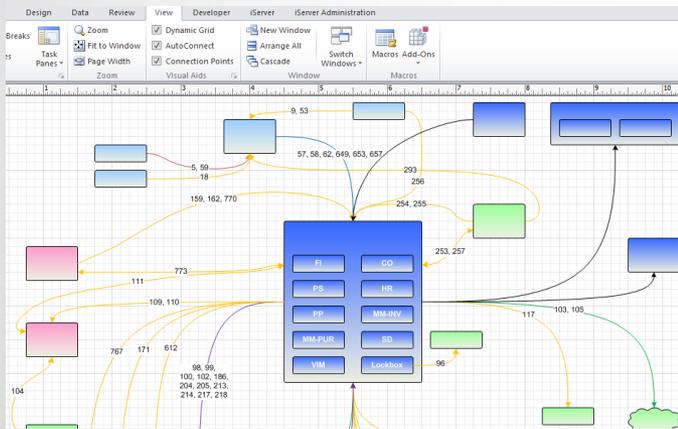
Capability Mapping

Define the top, level capabilities, then the lower level ones, then link to process & applications



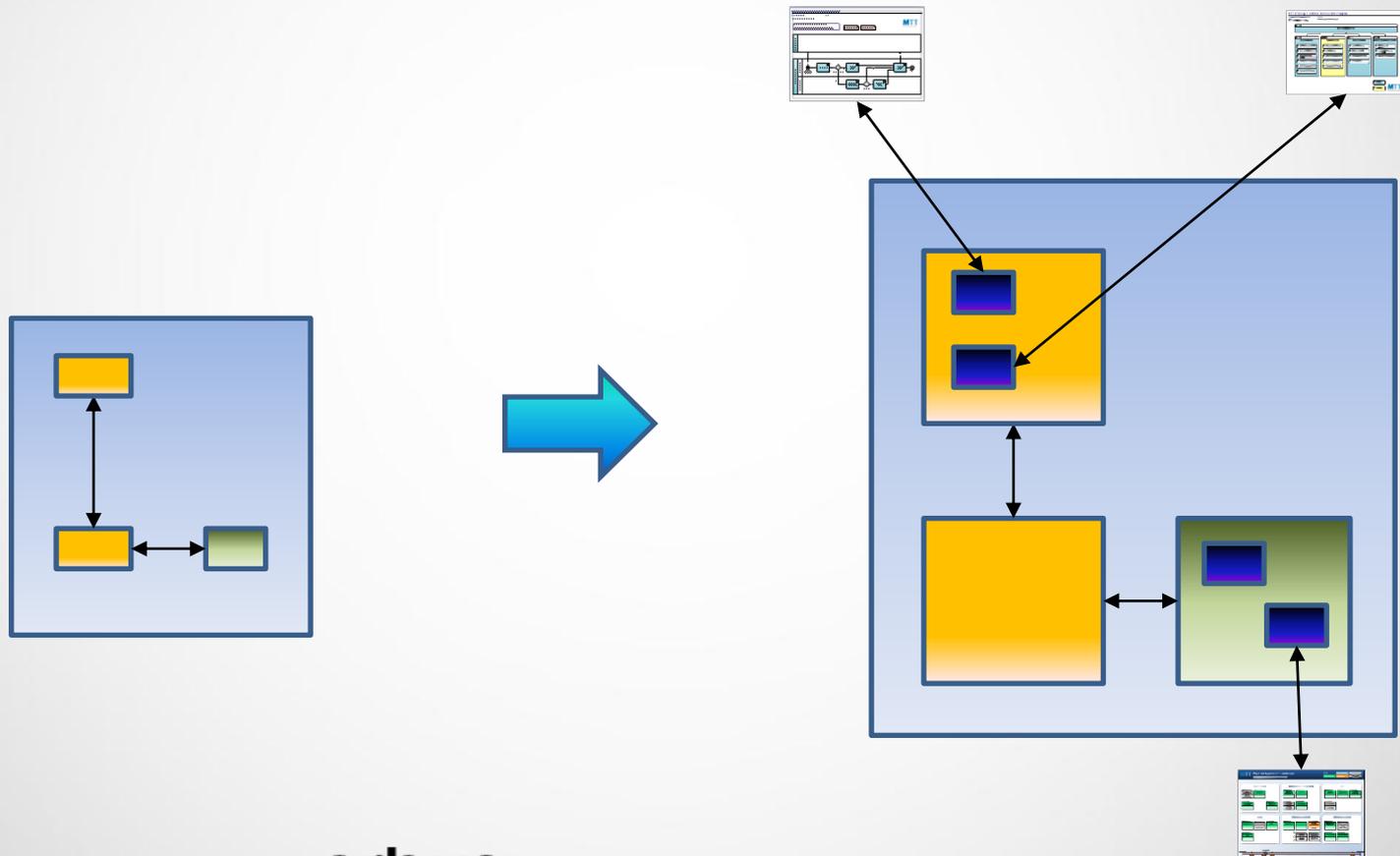
IT Portfolio Management

Define the key systems first, then lesser ones, and start linking the systems to functions and data



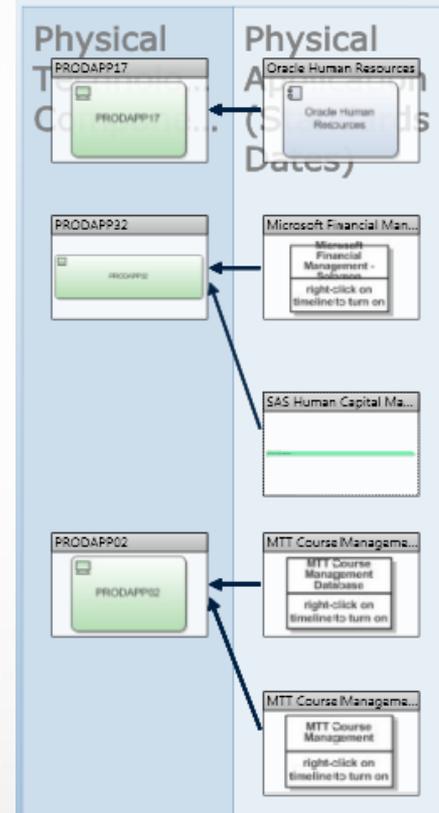
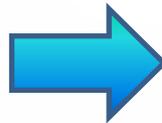
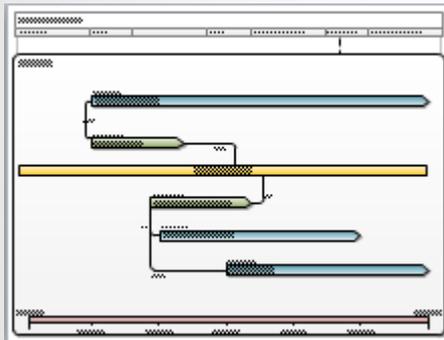
Major Systems Implementation

Define the key functions, modules and deployment of the system, decompose each of them, then link to the IT estate



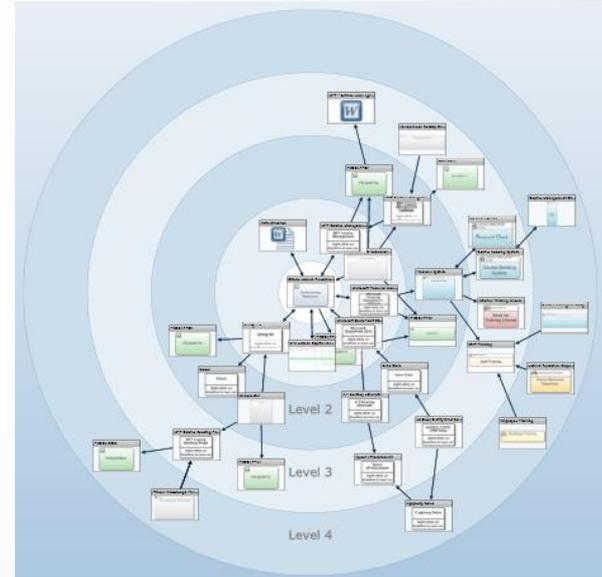
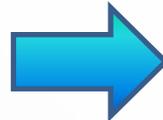
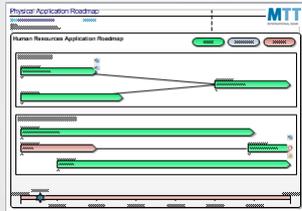
Roadmapping

Define roadmaps for key systems first, then lesser ones, and analyse dependencies



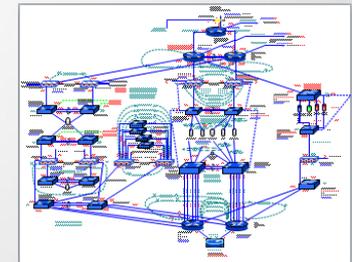
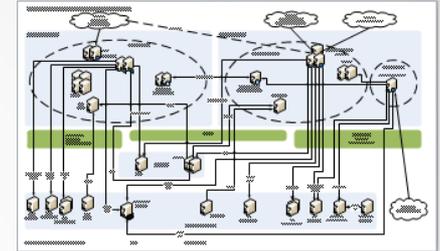
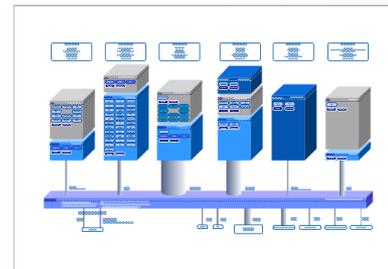
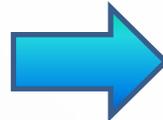
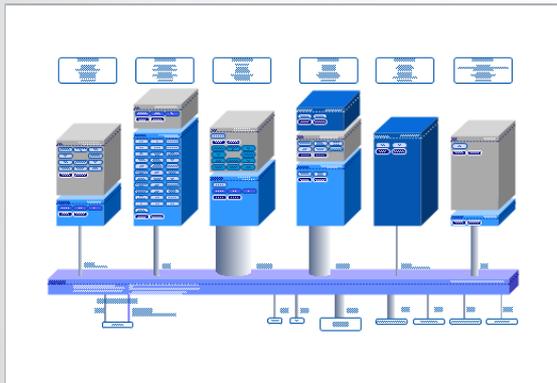
Project Portfolio Management

Define the key programmes, and projects, then link to systems and business functions



Infrastructure Mapping

Define the backbone architecture, then define subsidiary networks



Conclusions

- ★ Remember the purpose of abstraction - to enable focus
- ★ Two dimensions of abstraction
- ★ Identify what the goal is and define focus from that
- ★ TOGAF gives specific examples in the iteration chapter

Questions

Do you have any questions?



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