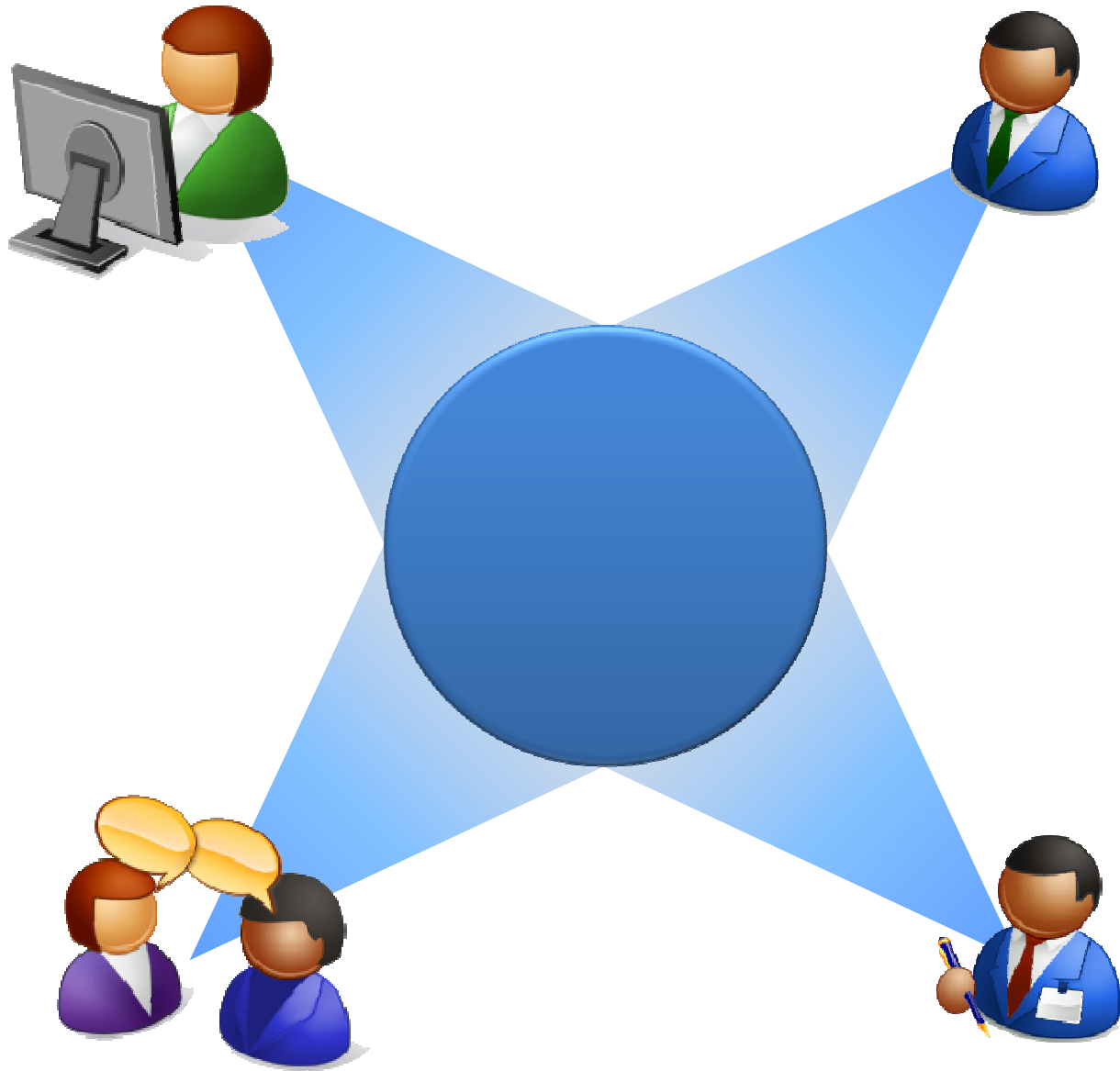


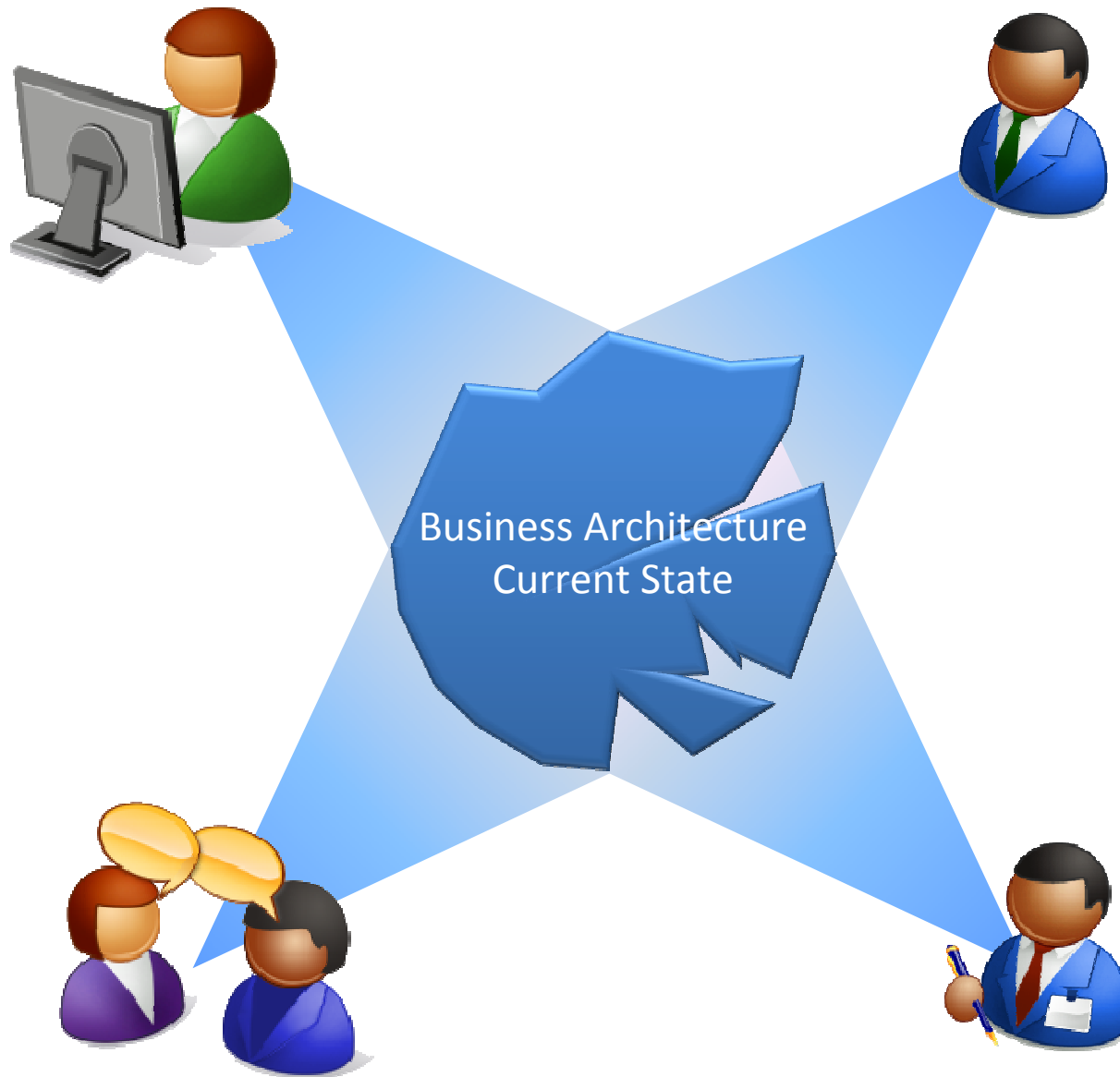
Business Architecture

Business Capability Modelling
Formalization using Eclipse EMF

Christian-R.Meier@ubs.com
kutter@montages.com

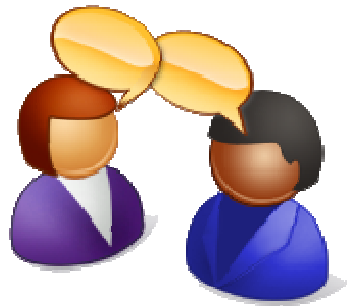
IT'S HARD TO STEP BACK

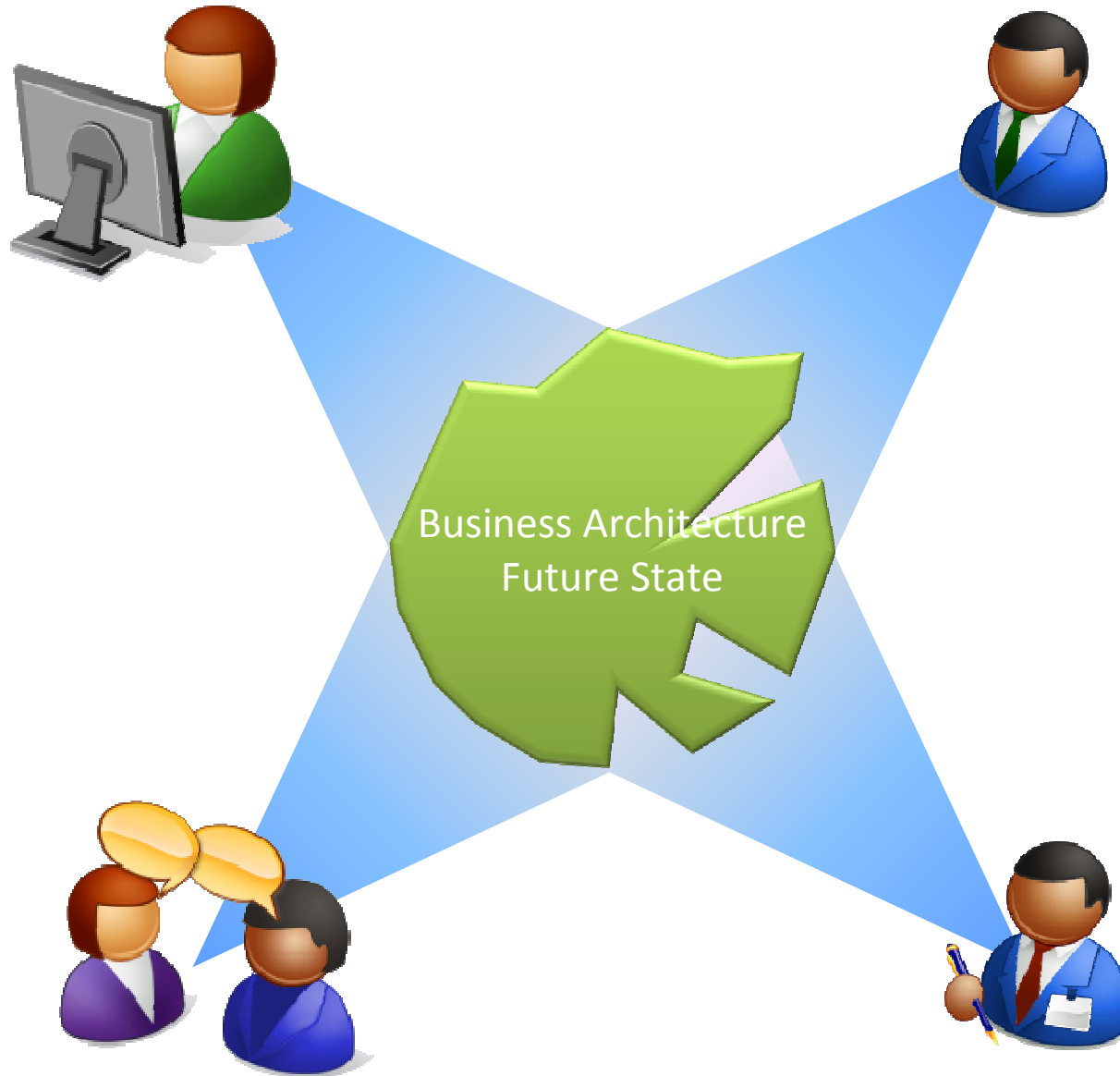


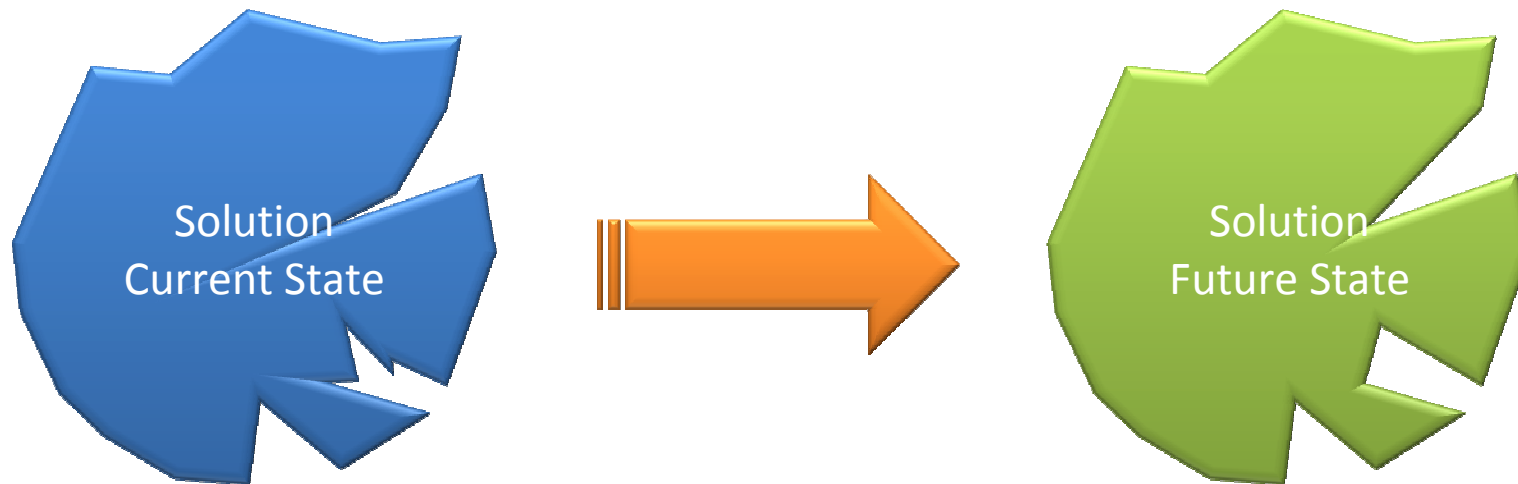




**Ideal
Business
Architecture
?**







Why does this usually happen?

People get used to the way they do things.

People get a tunnel view – it becomes hard to step back.

Its human nature that existing processes, technologies and structures strongly influence the target picture.

Conclusion

- Apply a modeling approach which abstracts from
 - existing processes
 - existing technologies
 - existing structures (organizations, roles, ..)

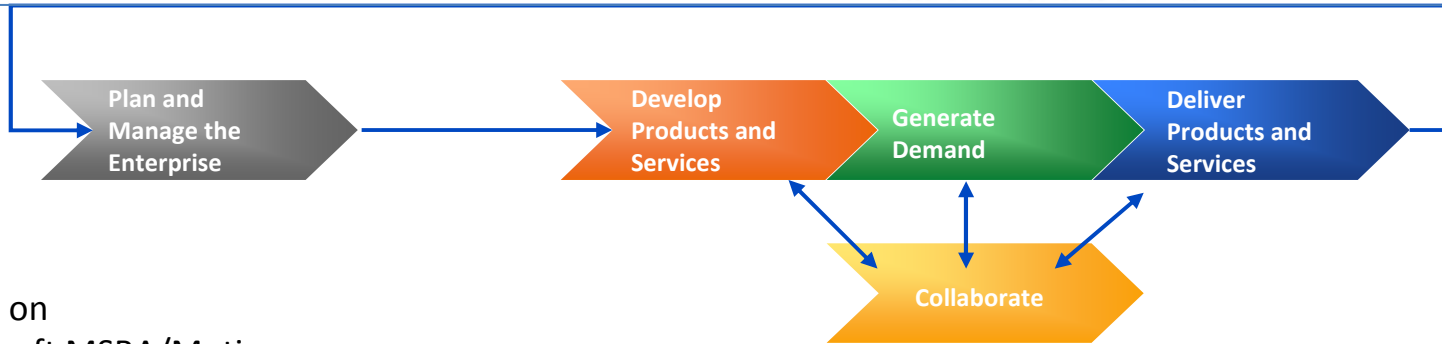
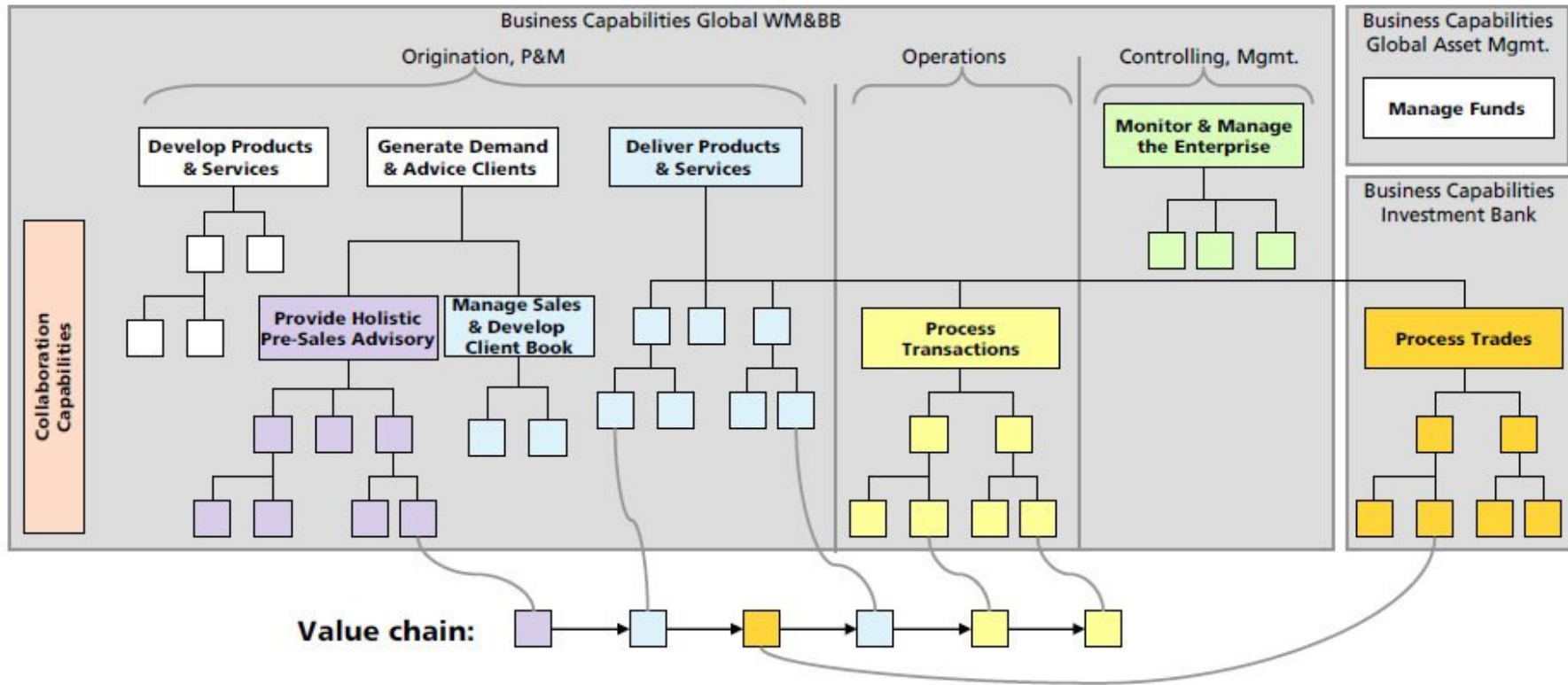
BUSINESS CAPABILITIES

Modeling Approach

- Model *Business Capabilities* which
 - encapsulate and abstract from roles, process/procedures and technology
 - focus on the “what”
 - represent the capabilities the business needs
- Avoid any discussion about the “how”
- Use the business capabilities as a cornerstone for the business architecture

For more details: MSBA / Motion resources from Microsoft

UBS Global Wealth Management Foundation Business Capabilities

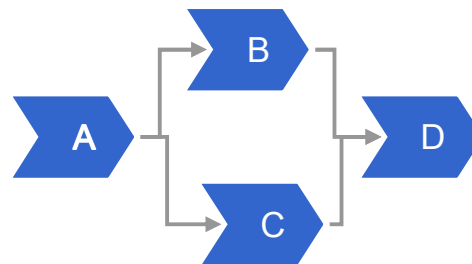


Based on
Microsoft MSBA/Motion

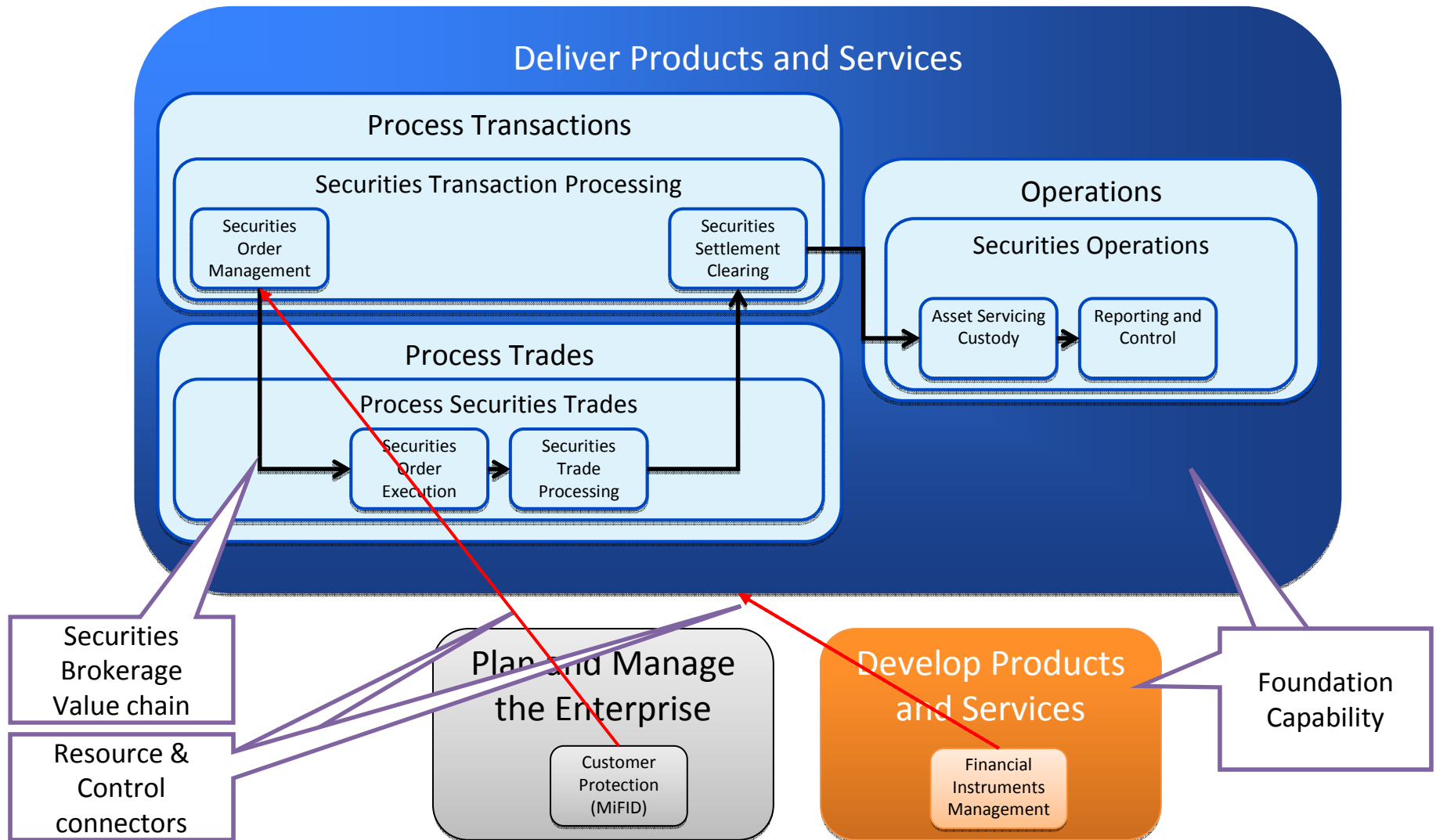
Value Chains

Just an example!

- “Securities Brokerage” value chain as an example



Containment View of the Value Chain in the Business Capability Tree



Business Capability Model

Definition: Business Capability (1/2)

A Business Capability

- is a particular ability or capacity that a business may possess or exchange to achieve a specific purpose or outcome
- describes what the business does (outcomes and service levels)
- abstracts and encapsulates the people, process/procedures, technology, and information into the essential building blocks needed to facilitate performance improvement and redesign analysis

Model Structure

- Business capabilities are organized in a hierarchy
- Capabilities can be assembled
 - Into Value Chains
 - As resource provider and consumer
 - As controlling and controlled capability
- The top level business capabilities are the called foundation capabilities.

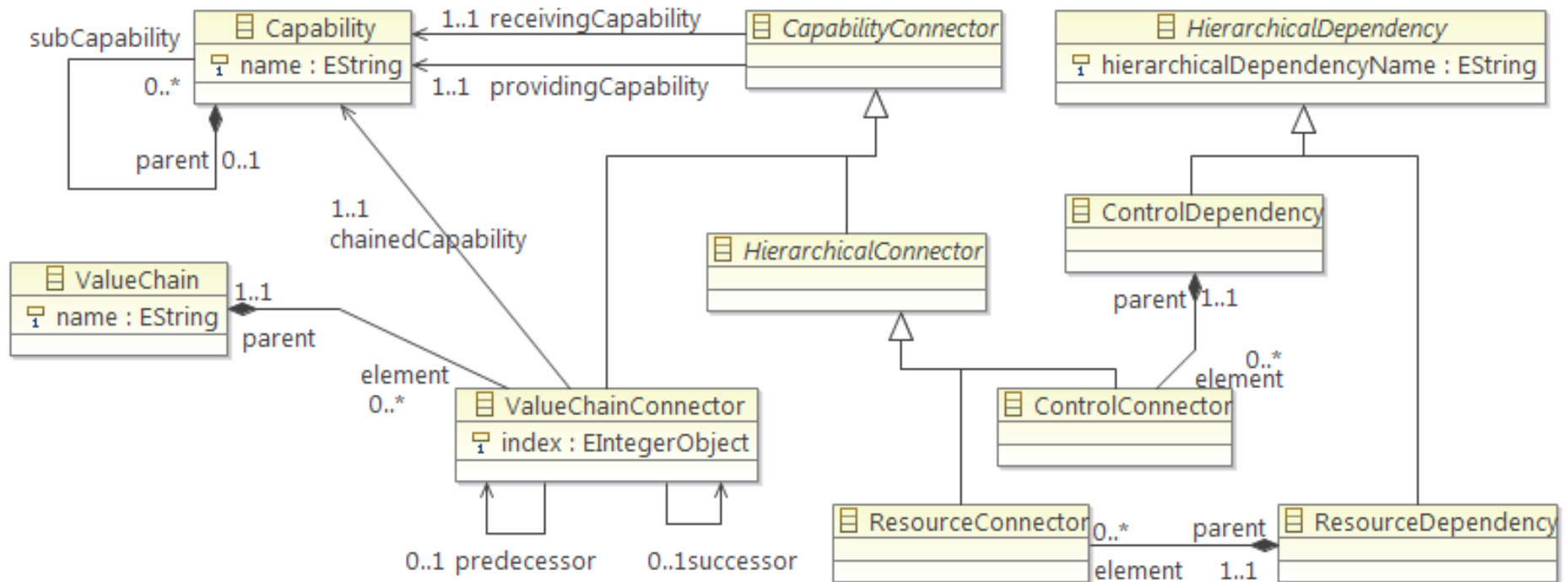
FORMALIZATION BASED ON ECLIPSE

Formalization

- The Meta Model is quite simple
 - Tree with Business Capabilities as nodes
 - Directed Connections between the nodes
 - Building value chains
 - Representing resource or control relationships
 - Natural constraints
- UBS has teamed up with Montages to formalize the model using EMF leading to
 - Detailed and solid understanding of the model

Approach

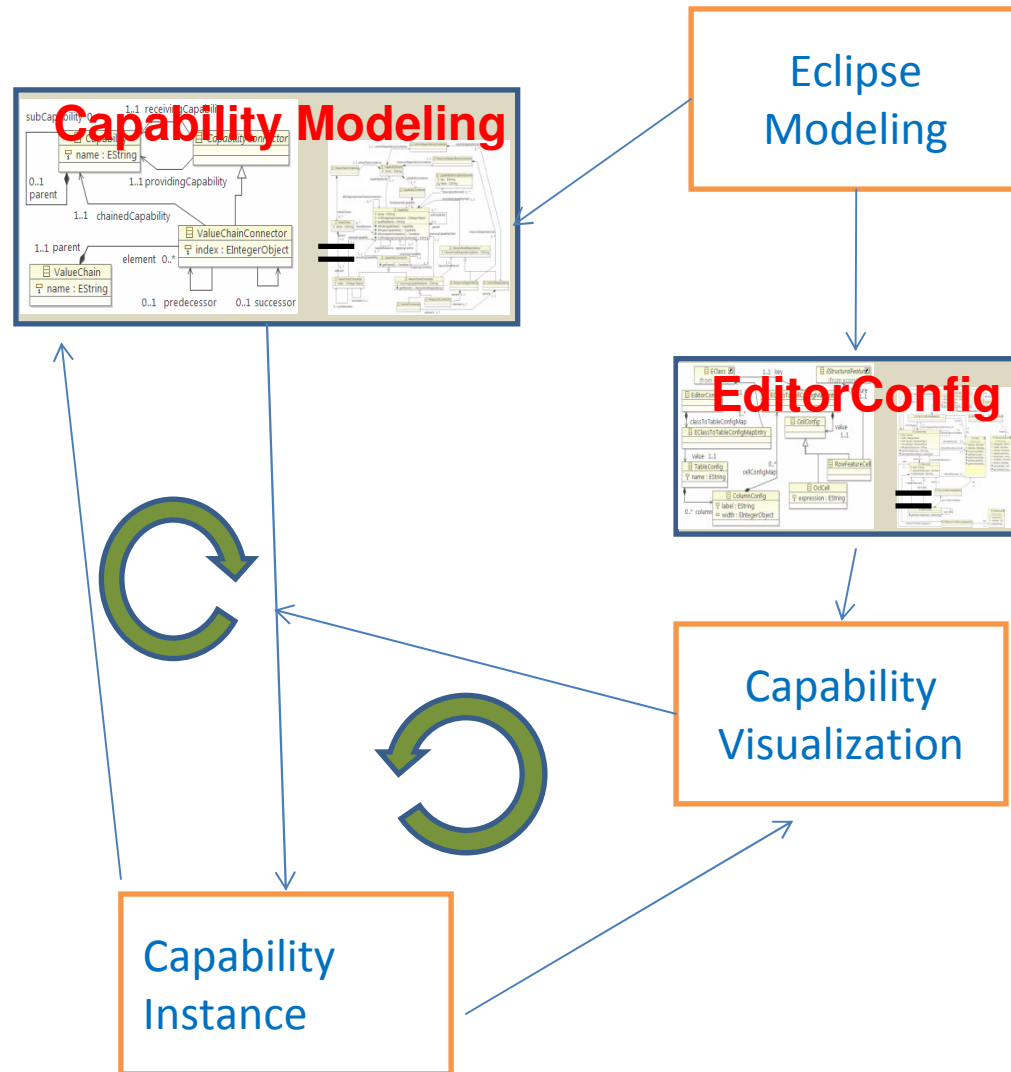
- Montages proposed to use Eclipse Modelling directly rather than vendor tooling
- Process to evolved and validate models as important as final model



Process

- Capability Modeling
- Visualization: EditorConfig
- Capability Visualization
- Capability Instance

Models: RED,
Instances: BLUE



Models

Domain



Visualization

*eclipseBankingDay.capabilitymodel

platform:/resource/test/eclipseBankingDay.capabilitymodel

<capability model>	
Capabilities:	
<i>Capability Name</i>	<i>Involved in Valuechains</i>
Bank	
Develop Products and Services	
Generate Demand and Advice Clients	
Deliver Products and Services	
HIDDEN DPS1	
HIDDEN DPS2	
Operations	
Process Transactions	
Securities Transaction Processing	
Securities Order Management	Securities Brokerage
Securities Settlement Clearing	Securities Brokerage
HIDDEN DPS2	
Process Trades	
Process Securities Trades	
Securities Order Execution	Securities Brokerage
Securities Trade Processing	Securities Brokerage
HIDDEN PT2	
Monitor and Manage the Enterprise	
Financial Instruments Management	
Valuechains:	
<i>Name</i>	<i># elements</i>
Securities Brokerage	6
<i>Chained Capability</i>	<i>Position</i>
<capability> Securities Order Management (1 connector)	1
<capability> Securities Order Execution (1 connector)	2
<capability> Securities Trade Processing (1 connector)	3
<capability> Securities Settlement Clearing (1 connector)	4
<capability> Asset Servicing Custody (1 connector)	5
<capability> Reporting and Control	6
Controls:	
Resources:	

platform:/resource/test/capabilitymodel_develop.editorconfig

<editor config>			
Table Configurations			
<i>Name</i>	<i>Default Col?</i>	<i>Header?</i>	
<table config> CapabilityModel	CapabilityModel	false	false
Column Definition:			
Name	Width:	200	
Table Configurations			
<i>Name</i>	<i>Default Col?</i>	<i>Header?</i>	
<table config> Capabilities	Capabilities	false	true
Column Definition:			
Capability Name	Width:	300	
Cell for Class:			
Capability -> CapabilityModelE...	Definition:	name : EString	
Cell Type:	Feature Cell	Width:	150
Column Definition:			
Involved in Valuechains:	Width:	150	
Cell for Class:			
Capability -> CapabilityModelE...	Definition:	self.xocl.toString(s...	
Cell Type:	Ocl Cell		
Column Definition:			
Needed Resources:	Width:	200	
Column Definition:			
Under Control of:	Width:	200	
Column Definition:			
Description Key:	Width:	150	
Table Configurations			
<i>Name</i>	<i>Default Col?</i>	<i>Header?</i>	
<table config> ValueChain	ValueChain	false	true
<table config> ValueChainContainer	ValueChainContainer	false	true
CapabilityModel -> CapabilityModelE...			
CapabilityContainer -> Capabilities			
Capability -> Capabilities			
ValueChain -> ValueChain			
ValueChainContainer -> ValueChain			

Demo

- Constraint (demo OCL editor, error generation)
- Derived attribute (show OCL, show result)
- Choices for references (show OCL, show pulldown)
- Table Editor

Lessons learned

- Generated Tree editor good for validation of meta model.
- Table editor much more useful for data entry.
- Graph-Layouting more important than GMF style visual editor.
- Setup for EMF/OCL based meta-model exploration provided to community as Eclipse member distro:
<http://eclipse.montages.com>
- Business Capability meta model as well as the UNIFI meta model will be included in the distro!