

Masterclass

# Architectural Thinking

Wolfgang Goebel

Intersection Conference Lisbon, Sep 18th 2019



Architectural Thinking  
Association®

# Agenda

1. The Problem

2. Who we are

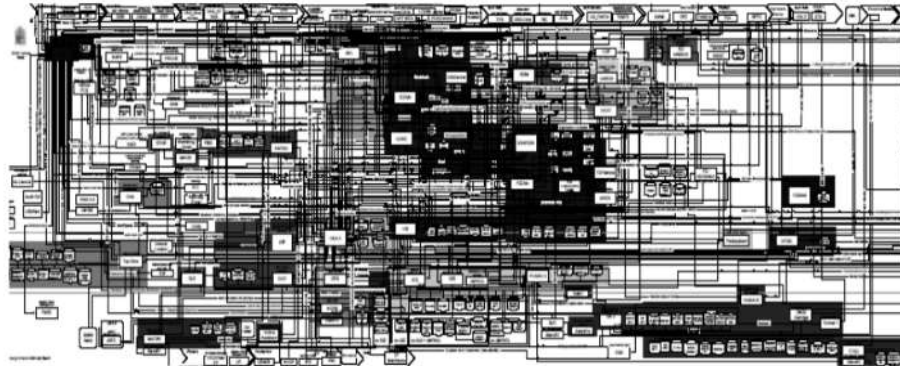
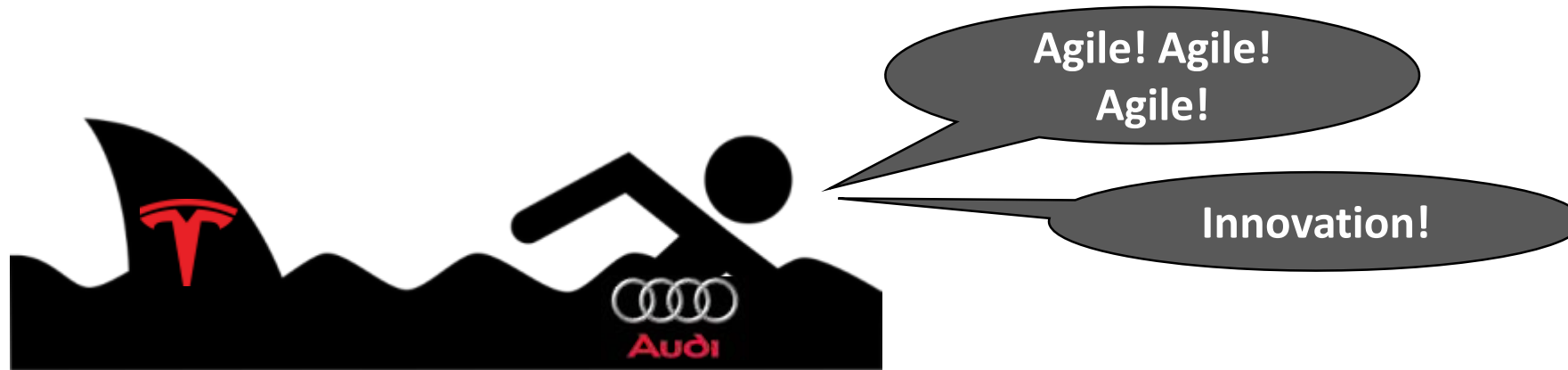
3. Conceptual Foundations of Architectural Thinking

4. Conclusion



# The Problem

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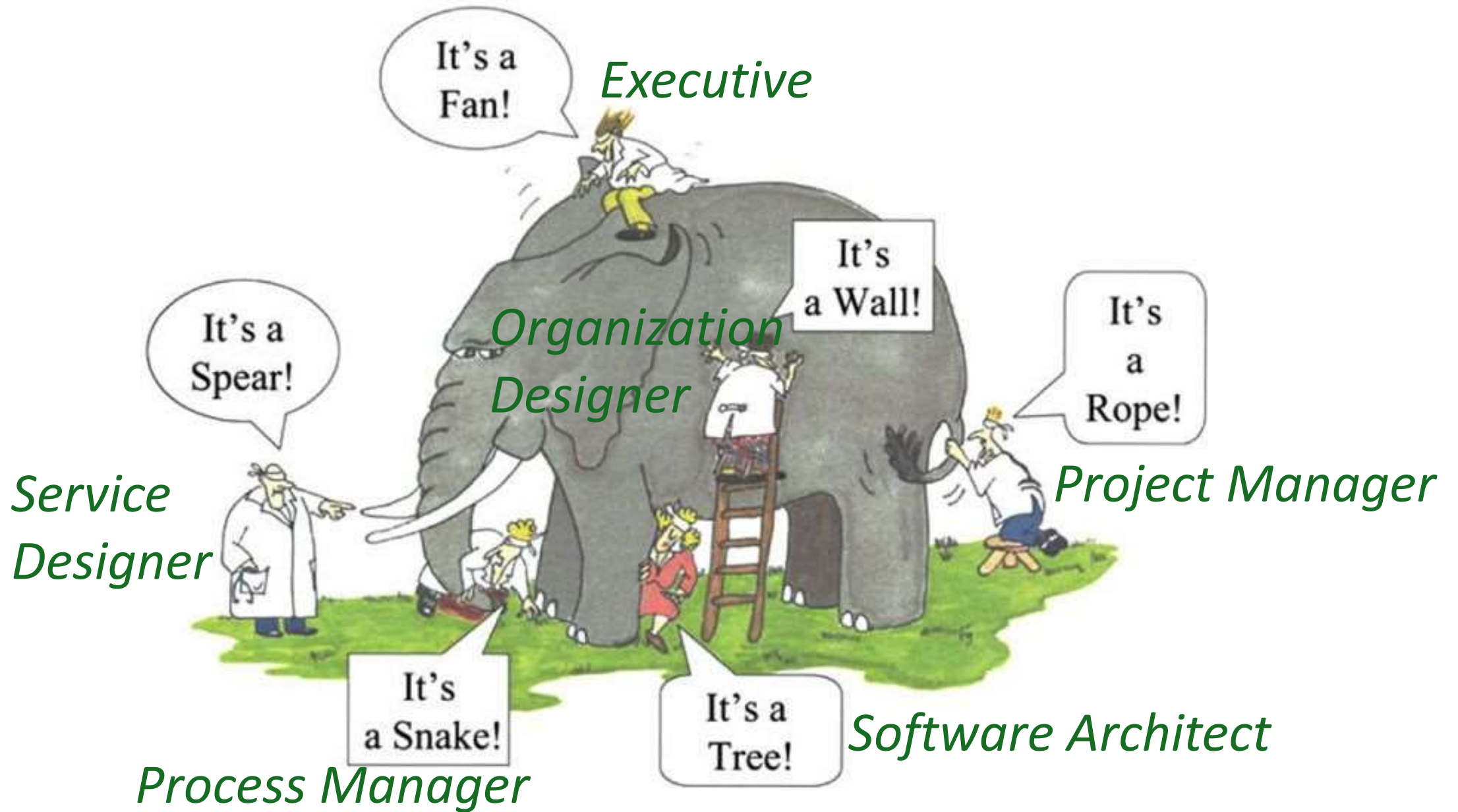
**Dark Waters of Legacy IT**

**Agile! Agile!  
Agile!**

**Innovation!**

**Vision?  
Strategic Management?  
Architecture?  
Reengineering?**

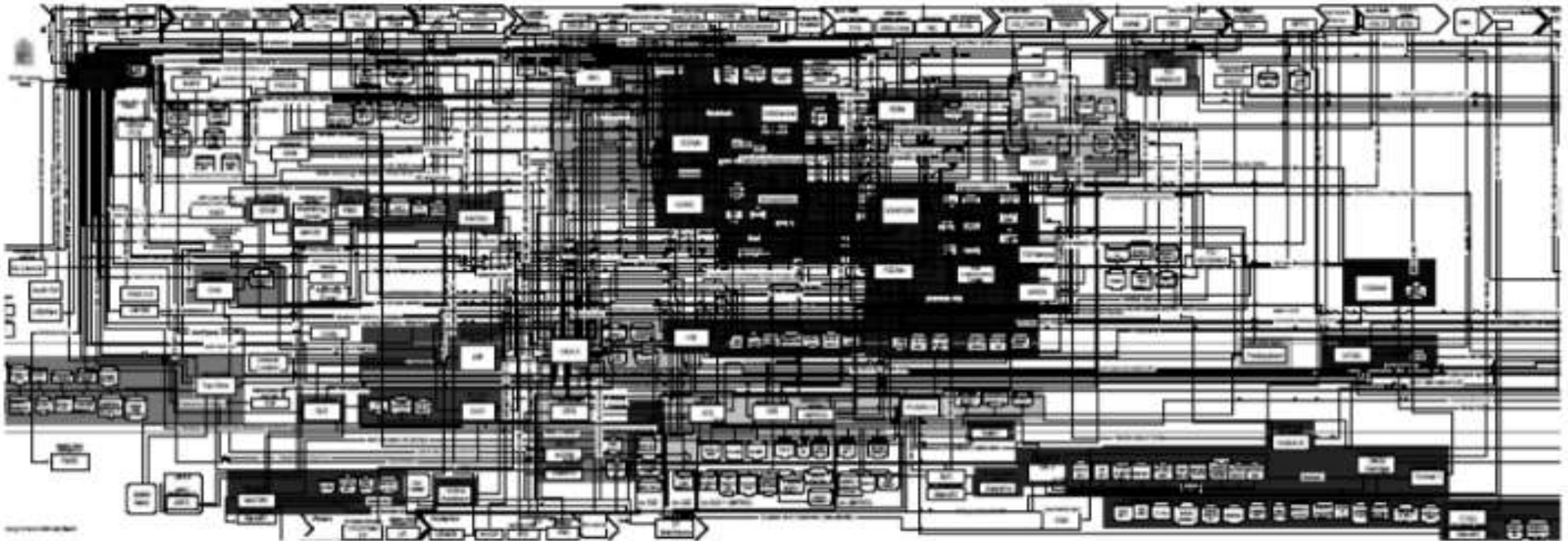
# Six Blind Men and an Elephant



# The Problem: “Six Blind Men and an Elephant”

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LEADS TO...



## Zero Adaptive Business&IT-Architectures

**To survive the speed of business change  
enterprises need to become  
adaptive  
to their surrounding.**





# Agile



# Adaptive



**Adaptivity needs  
collaborative design of  
business architecture.**





# **Collaborative design needs Architectural Thinking.**



## But what is “Architecture” all about?

*“Architecture is the fundamental organization of systems embodied by their elements, their relationships to each other and to the environment, and the principles guiding their design and evolution.”*

IEEE



# What is “Design” all about

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*“Design is the process of creating architectures that have desirable quality characteristics.”*

Wolfgang Goebel  
Sept. 18<sup>th</sup> 2019



# The Solution?

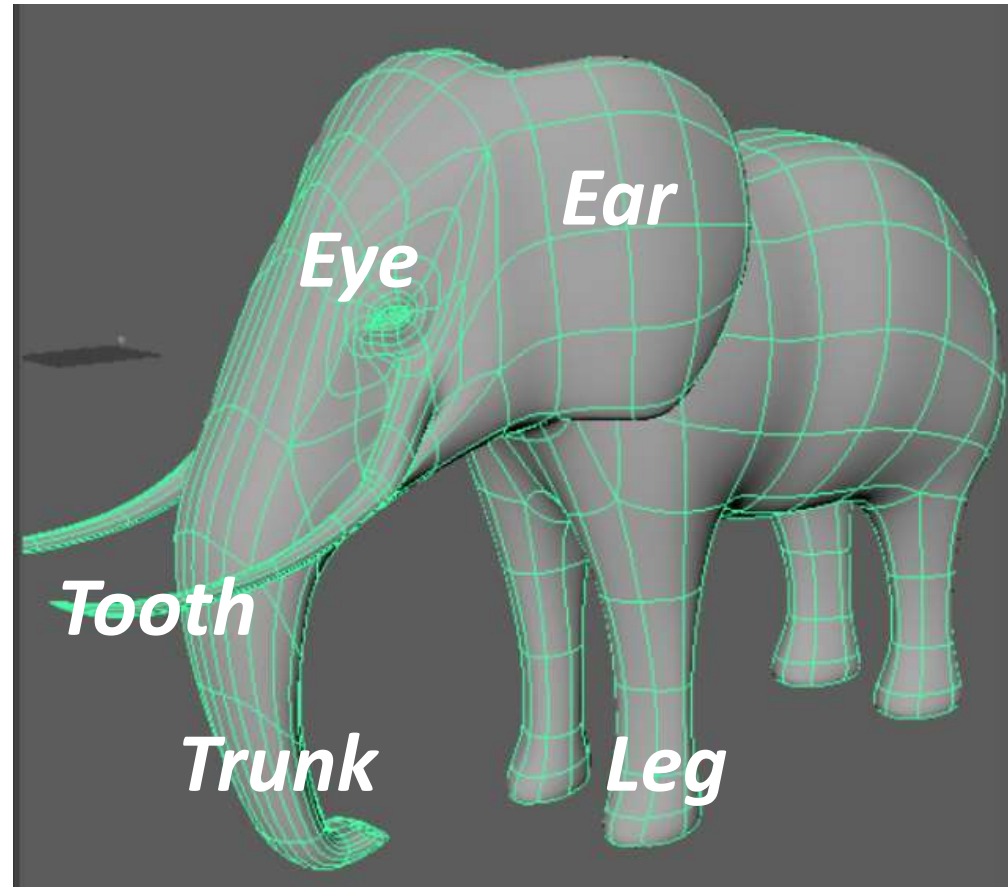
Four Core Concepts of the  
Architectural Thinking Framework® ....

# #1 –Enterprise Core Model

= Simple Enterprise Model Everybody Understands

simple UX, concise

business-  
oriented



used&accepted  
by “everybody”

# #1 –Enterprise Core Model

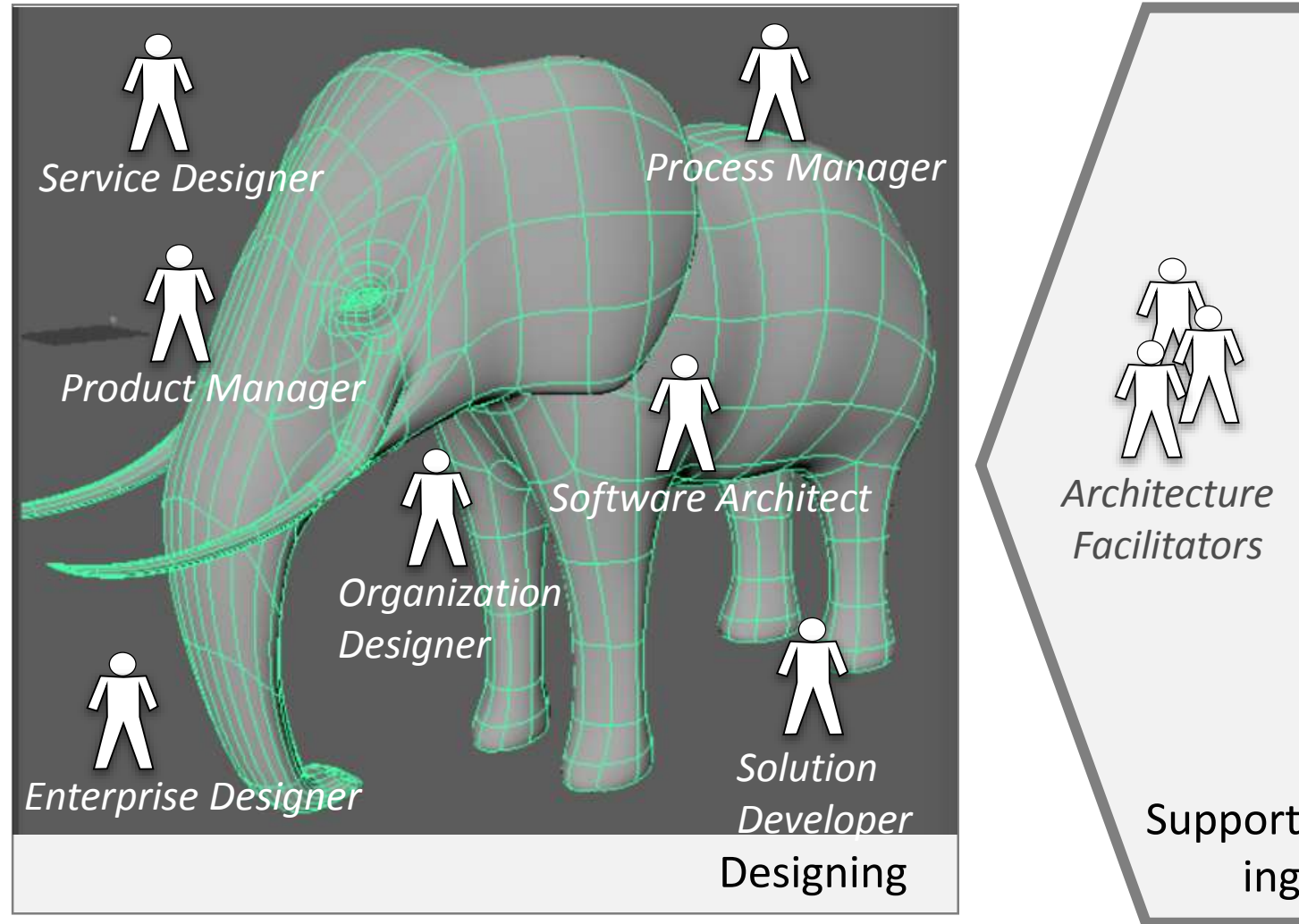
Enterprise Architecture – as usable as an iPhone





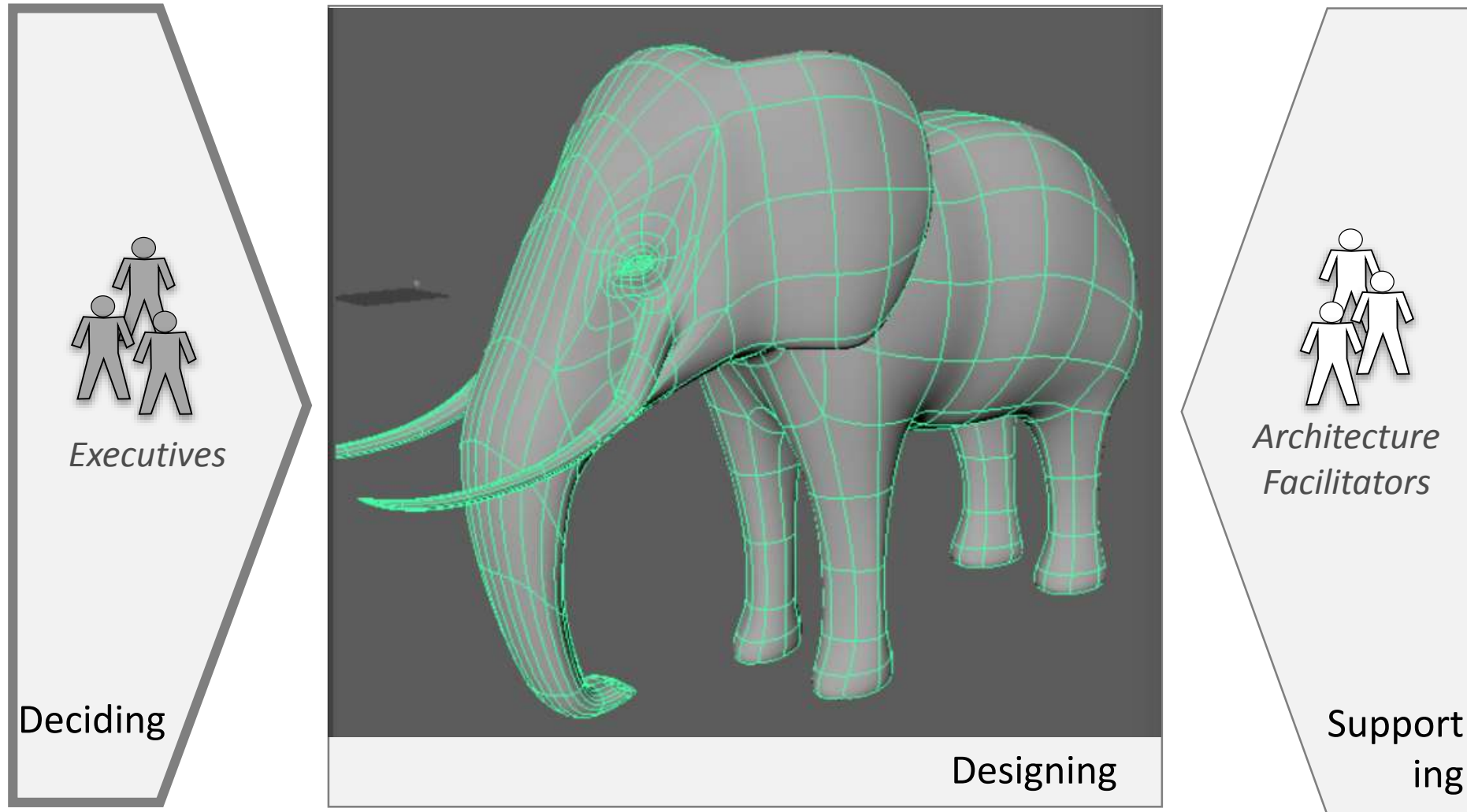
## #2 –Collaborative Modeling

Bringing the Concept & Mindset of “Architecture” to Everybody



# #3 –Architectural Model = Basis for Strategic Decisions

Connect Architecture with Business & IT Governance

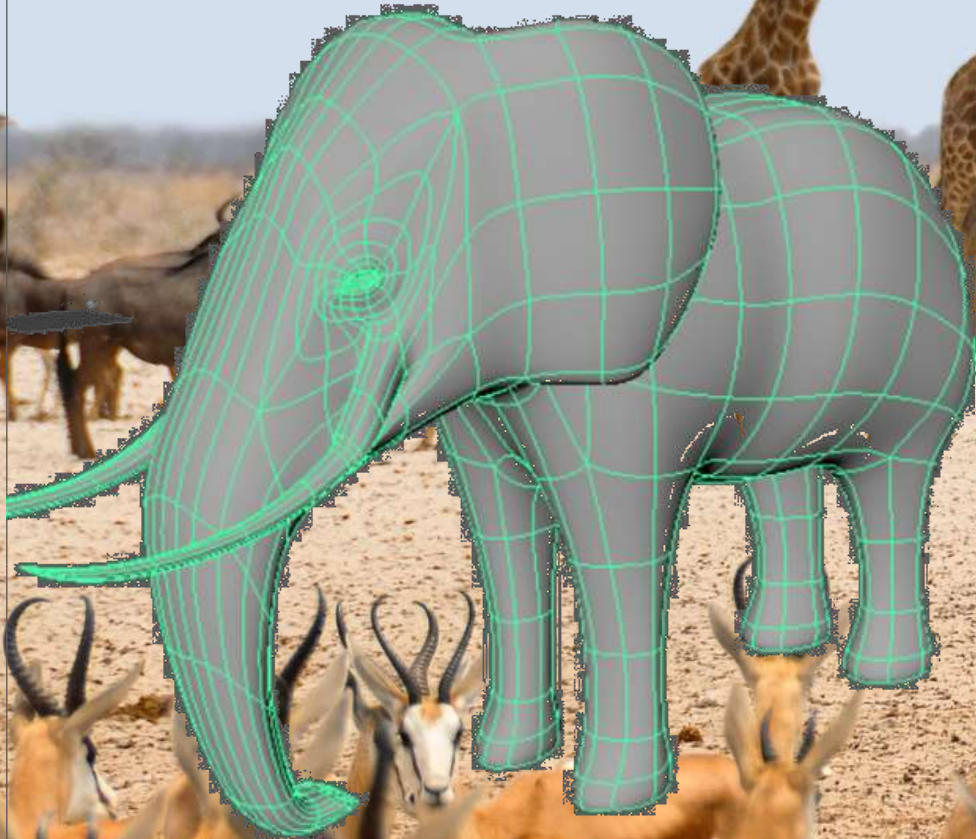




## #4 –Enterprise = Part of Surrounding Ecosystem

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ATF® includes early Ideas only  
Discussion in this Masterclass





# Who we are

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1. The Problem

2. Who we are

3. Conceptual Foundations of Architectural Thinking

4. Conclusion

# Architectural Thinking Association®

## Who we are...

- › Non profit association according to Austrian law
- › Goal: “Spreading vision of Architectural Thinking”
- › Open Source Architectural Thinking Framework® (ATF®)
- › [architectural-thinking.com/participate](https://architectural-thinking.com/participate)

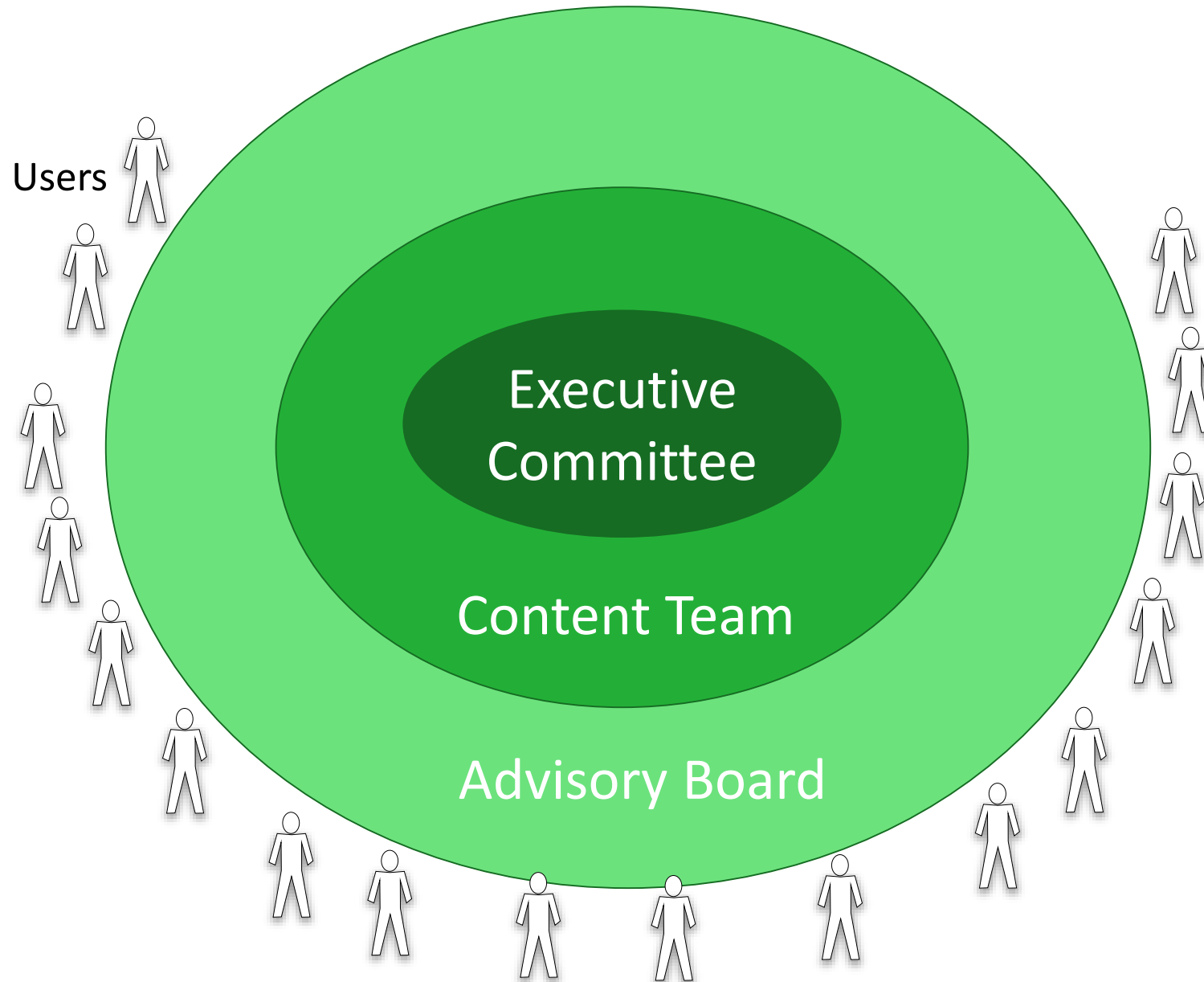


***„We help people to design  
sustainably adaptive enterprises.“***





# Organization of the Architectural Thinking Association®



# Architectural Thinking Association® (ATA®)

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Who we are...

## Leadership Team

The Architectural Thinking Association's Leadership Team consists of these architecture-passionate people:



Scott Ambler  
Disciplined Agilist



Marc Bastien  
Enterprise Architect



Darryl Carr  
Enterprise Architect



Wolfgang Goebel  
President



Milan Guenther  
Enterprise Designer



Susan Hasty  
Strategy Consultant



Mike Rosen  
Founder BA Guild

# What we do

We bring thought leaders and practitioners of relevant enterprise disciplines together.

We grow an Open Source **Architectural Thinking Framework**® where everybody **wants** to connect to.

We spread our vision of Architectural Thinking.



# Conceptual Foundations of Architectural Thinking

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1. The Problem

2. Who we are

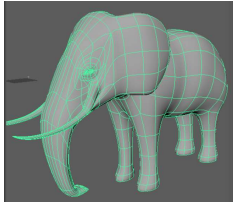
3. Conceptual Foundations of Architectural Thinking

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# Components of the Architectural Thinking Framework® (ATF®)

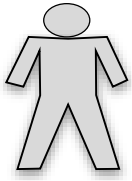
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Enterprise Core Model



=Connection to existing enterprise processes=

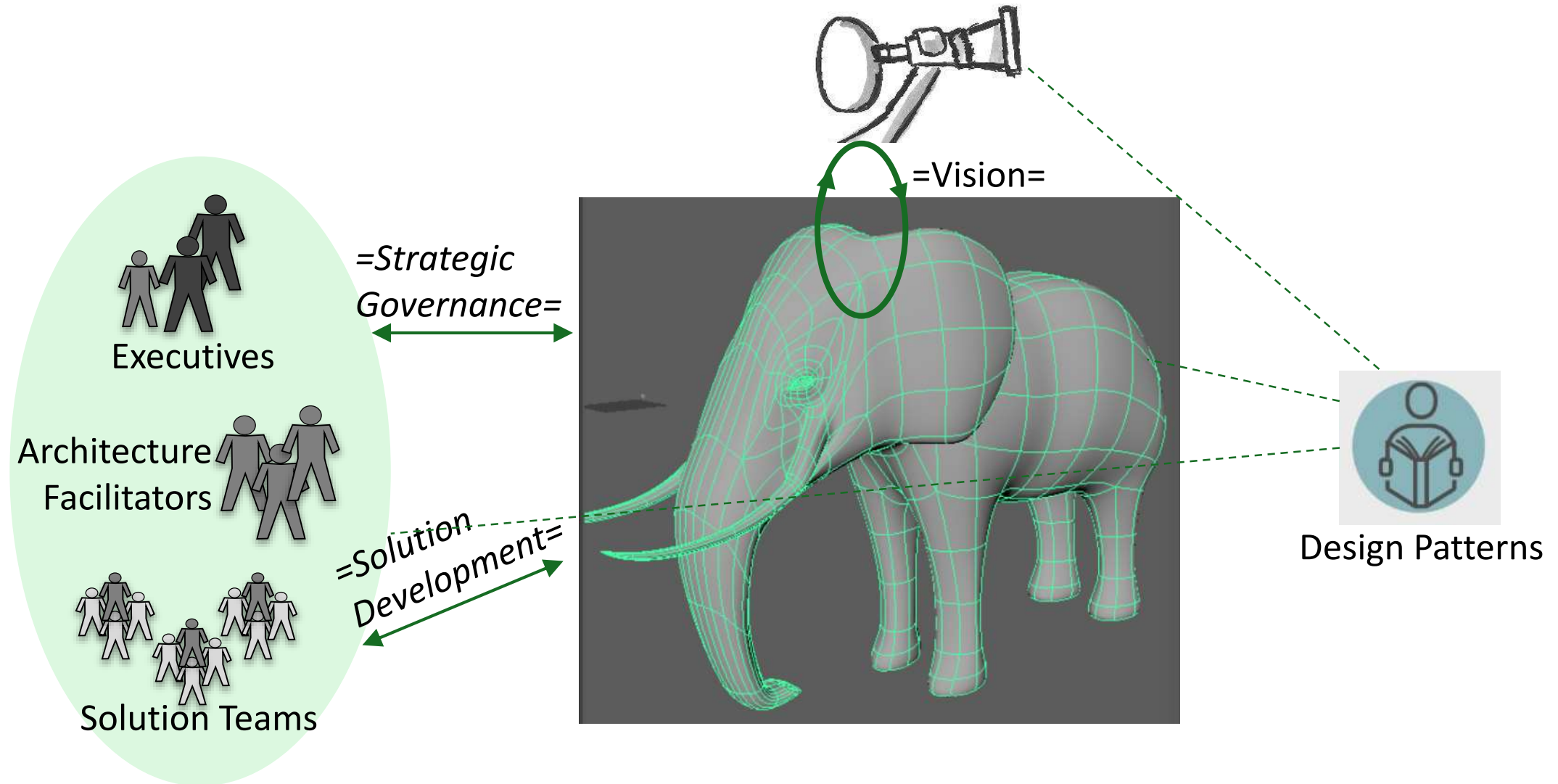


Roles



Design Patterns

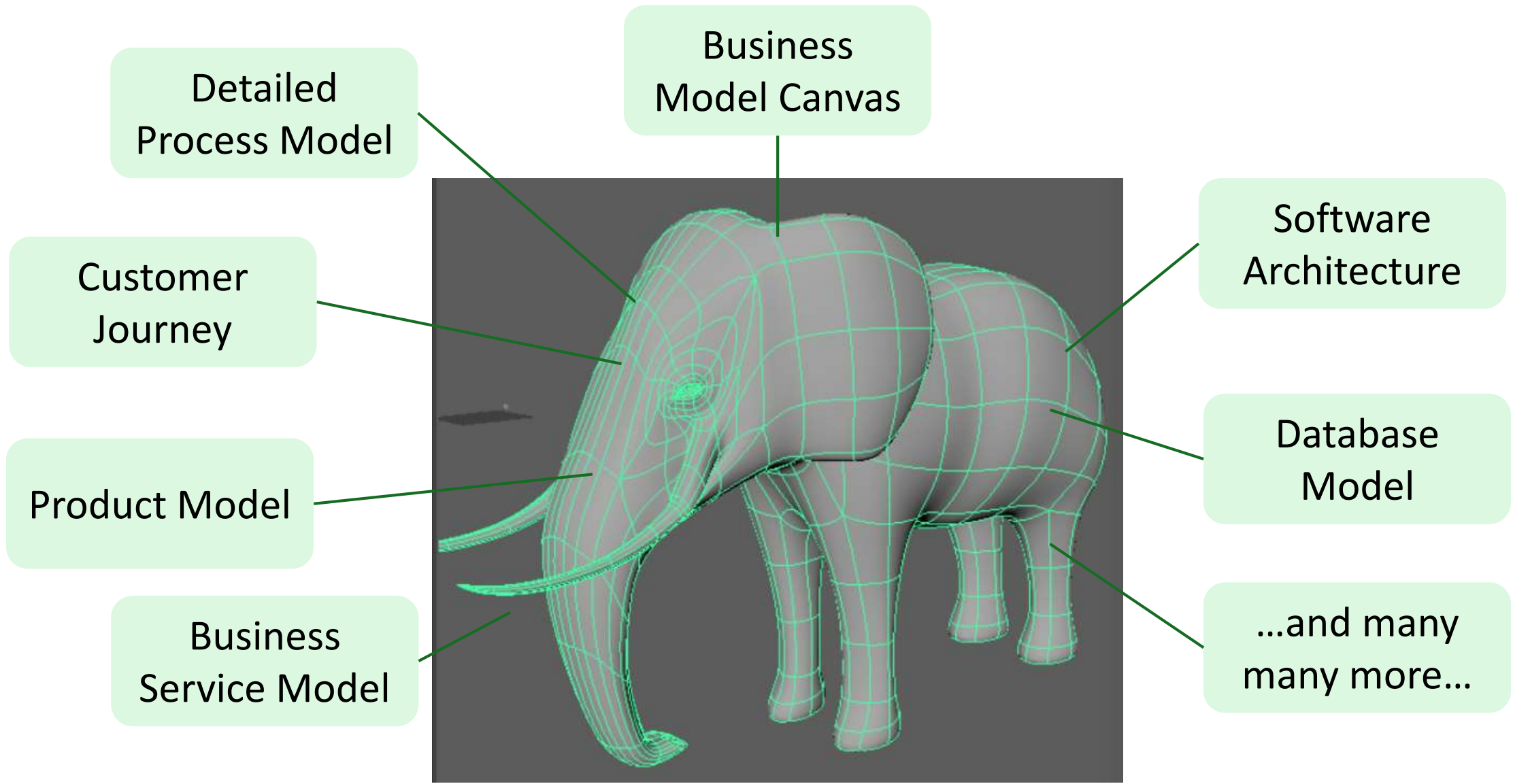
# Components of the Architectural Thinking Framework® (ATF®)



## 3.1 Enterprise Core Map

# Enterprise Core Map

Common “Language”, Glue Between Specific, Detailed Models

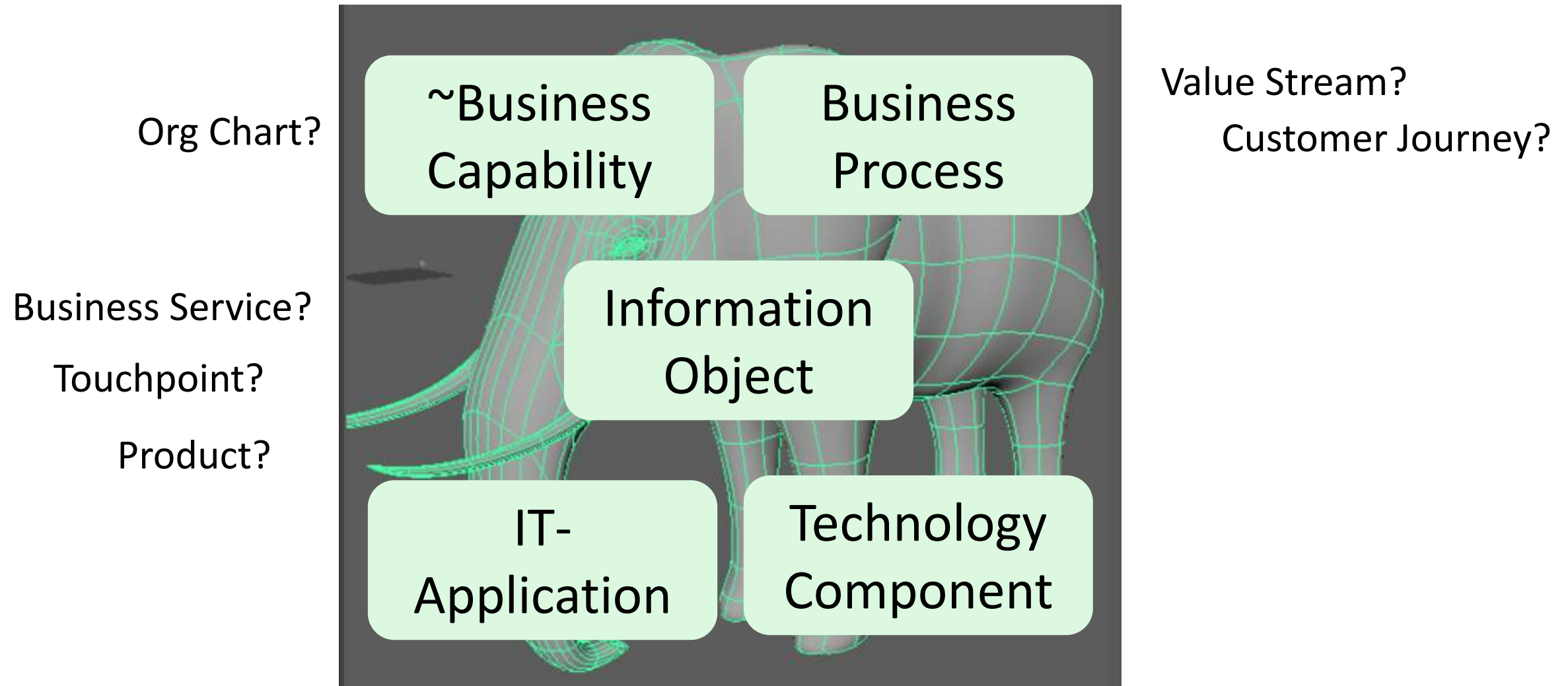




# Enterprise Core Map ATF® V0.1

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(i) widely known (ii) obvious & mature (iii) mandatory as glue concepts only



# Enterprise Core Maps ATF® V0.1

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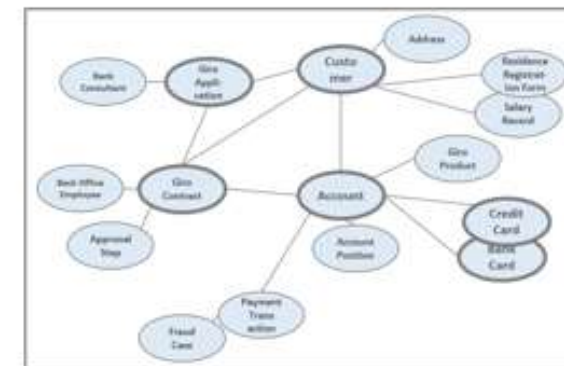
Applications



Technologies



Value Streams

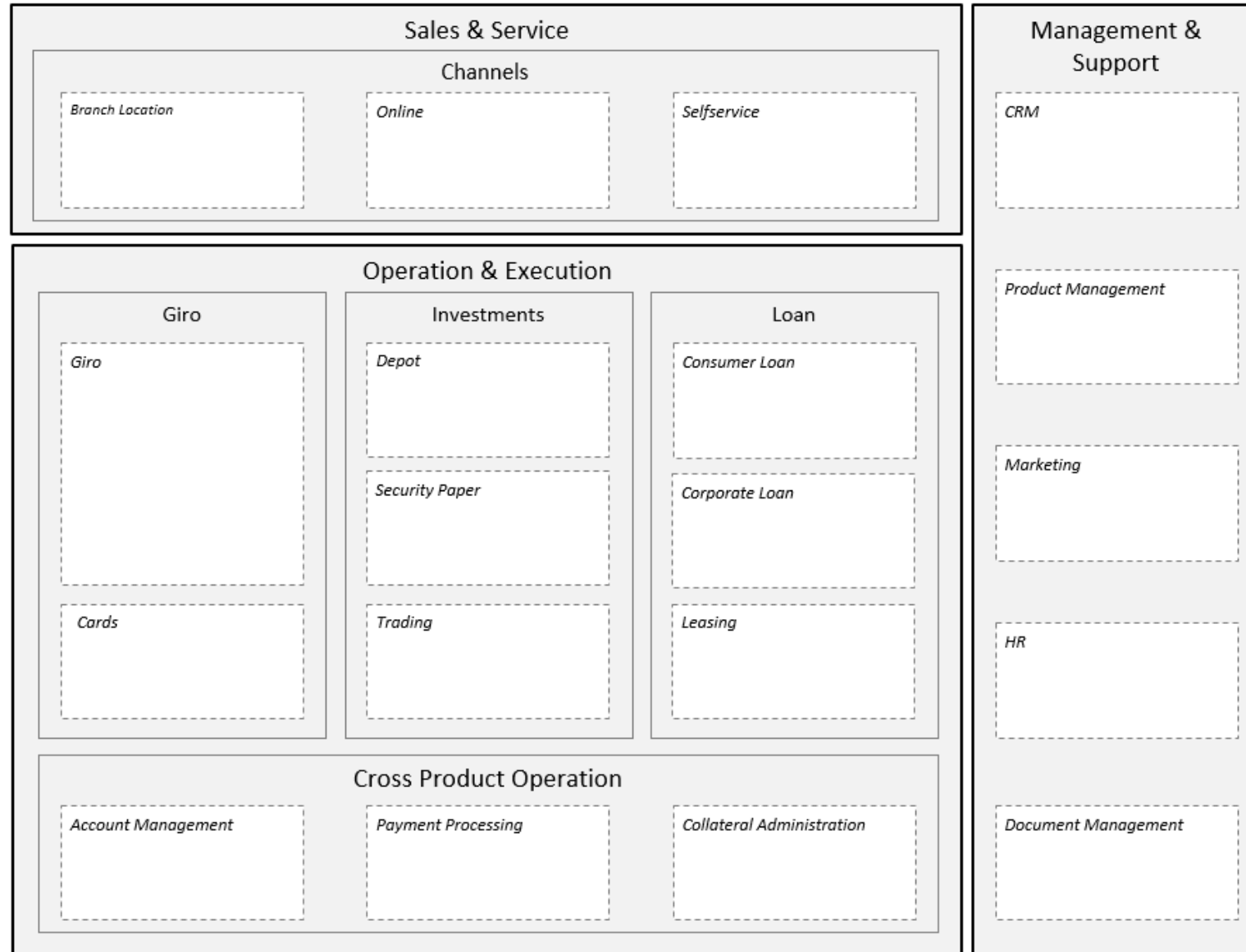


Business Objects

# ~Business Capabilities – Connector between everything

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## Hierarchical Breakdown of the Business



# ~Capability Modelling Guidelines

## Understood by executives within seconds

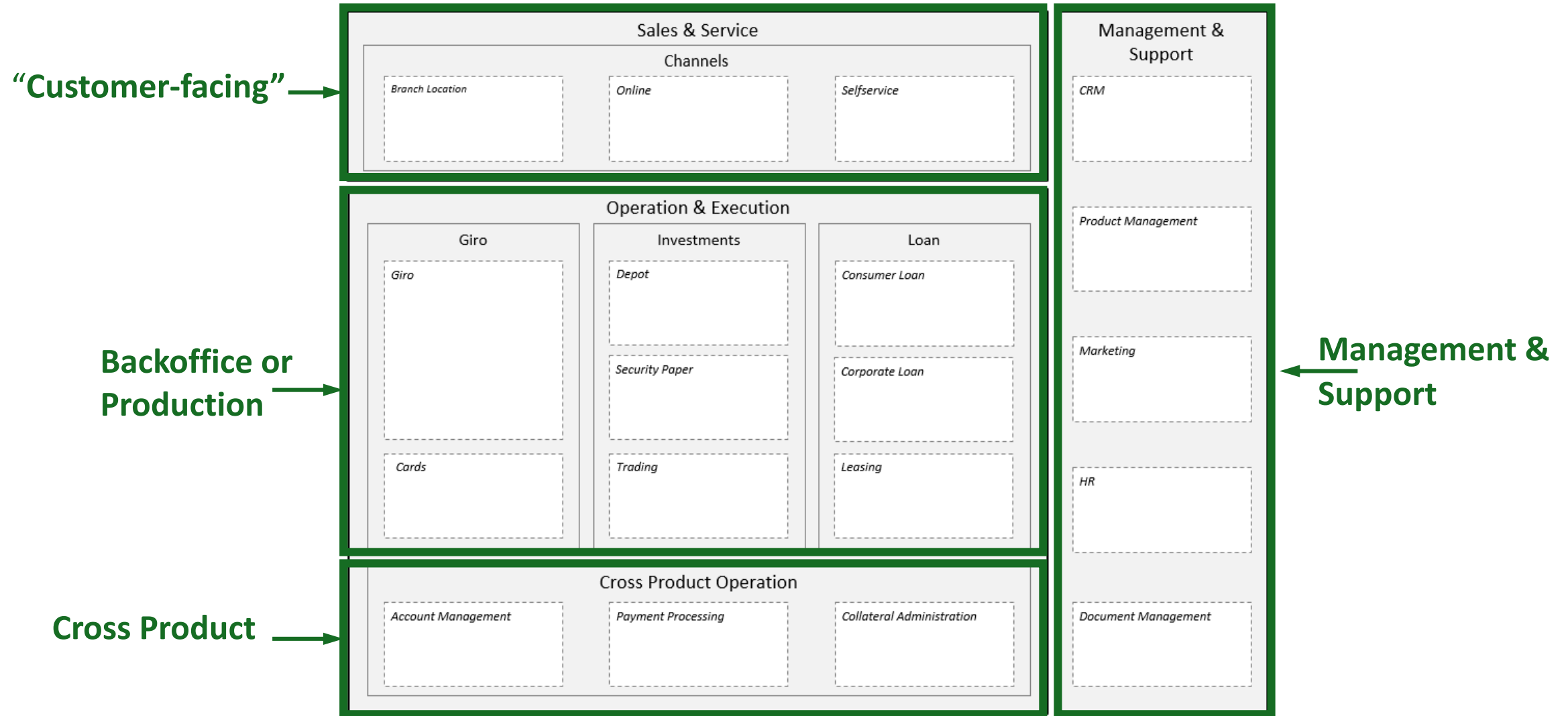
- Only whats needed for strategic decisions
- Courage for the gap
- Terminology accepted by business people
- Level 1: six to ten capabilities
- Two or three hierarchies
- Half a page of description per capability





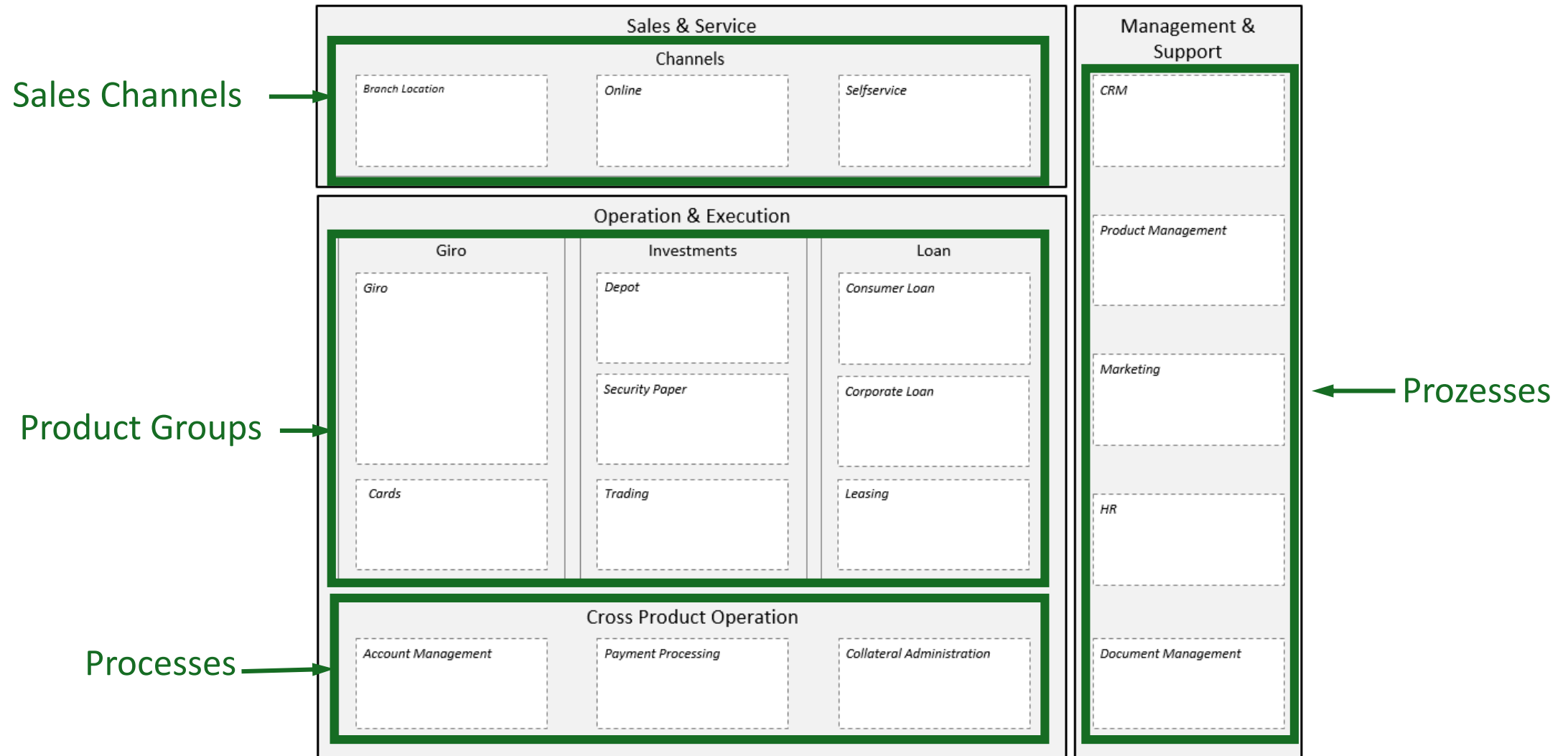
# Example ~Capability Model Level 1:

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# Example ~Capability Model Level 2:

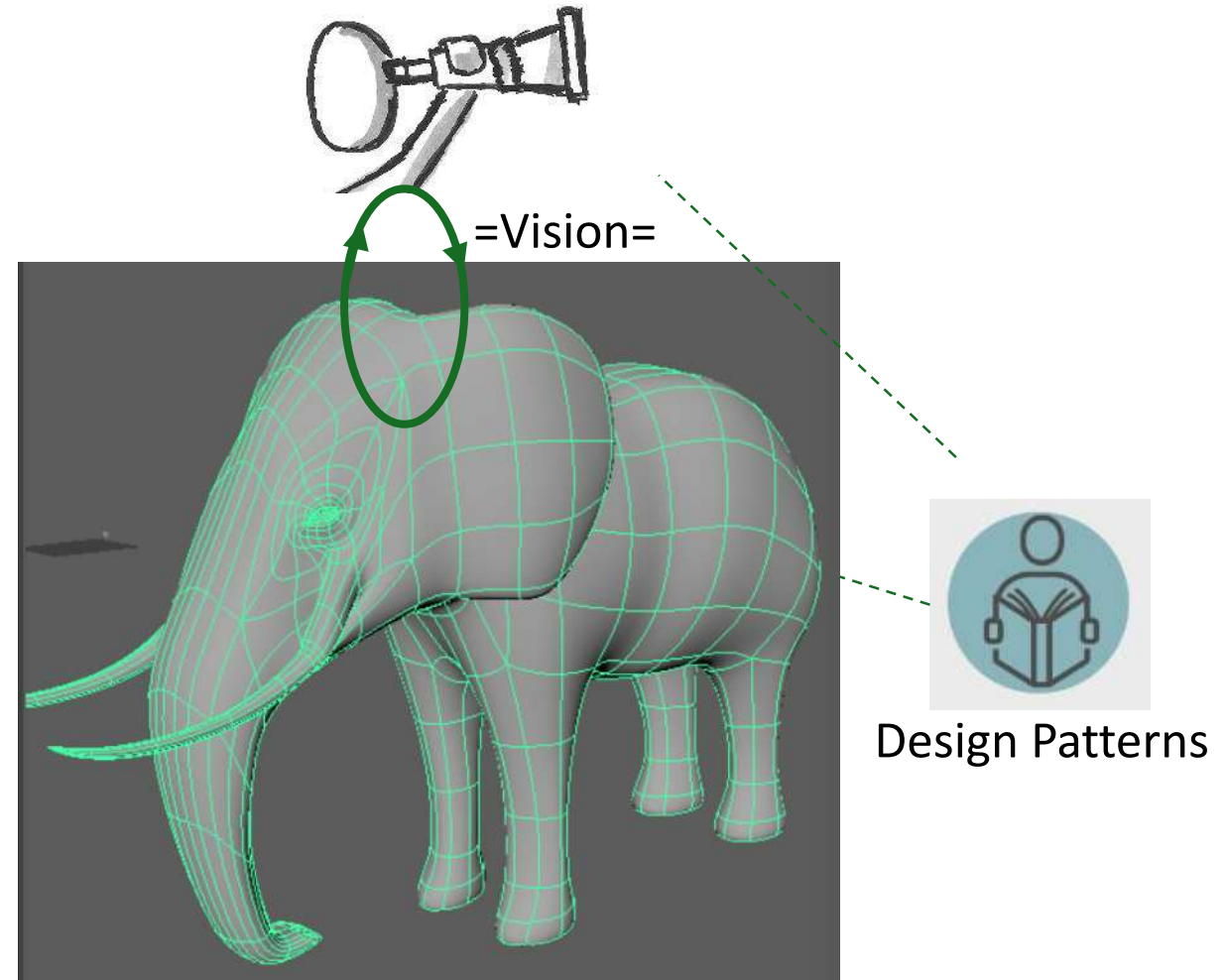
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## 3.2 Connection to ==VISION==

# Connect Enterprise Model with Business Vision

- › Vision should be based on current strengths (capabilities)
- › Formulate vision around new capabilities that arise with new partnerships&technologies





# Base Vision on Current Strenghts

## ...by Heatmapping of Your ~Capability Map



# Formulate Vision Around New ~Capabilities

...that arise with new partnerships&technologies



# Formulate Vision Around New ~Capabilities

## Example

Technologies

Capabilities

→ “The technologies we use in our daily lives, such as smartphones and tablet devices, could make a real difference in helping patients to manage their own health. We are exploring ways to use these tools to improve compliance rates and enable health-care professionals to monitor patient progress remotely”.

[Novartis 2012]

## **3.3 Connection to ==STRATEGIC GOVERNANCE ==**

# What's the Best Way to Make Strategic Decisions?

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Management, Top-down



Democratic, Bottom-up



## What's the Best Way to Make Great Enterprise Designs?

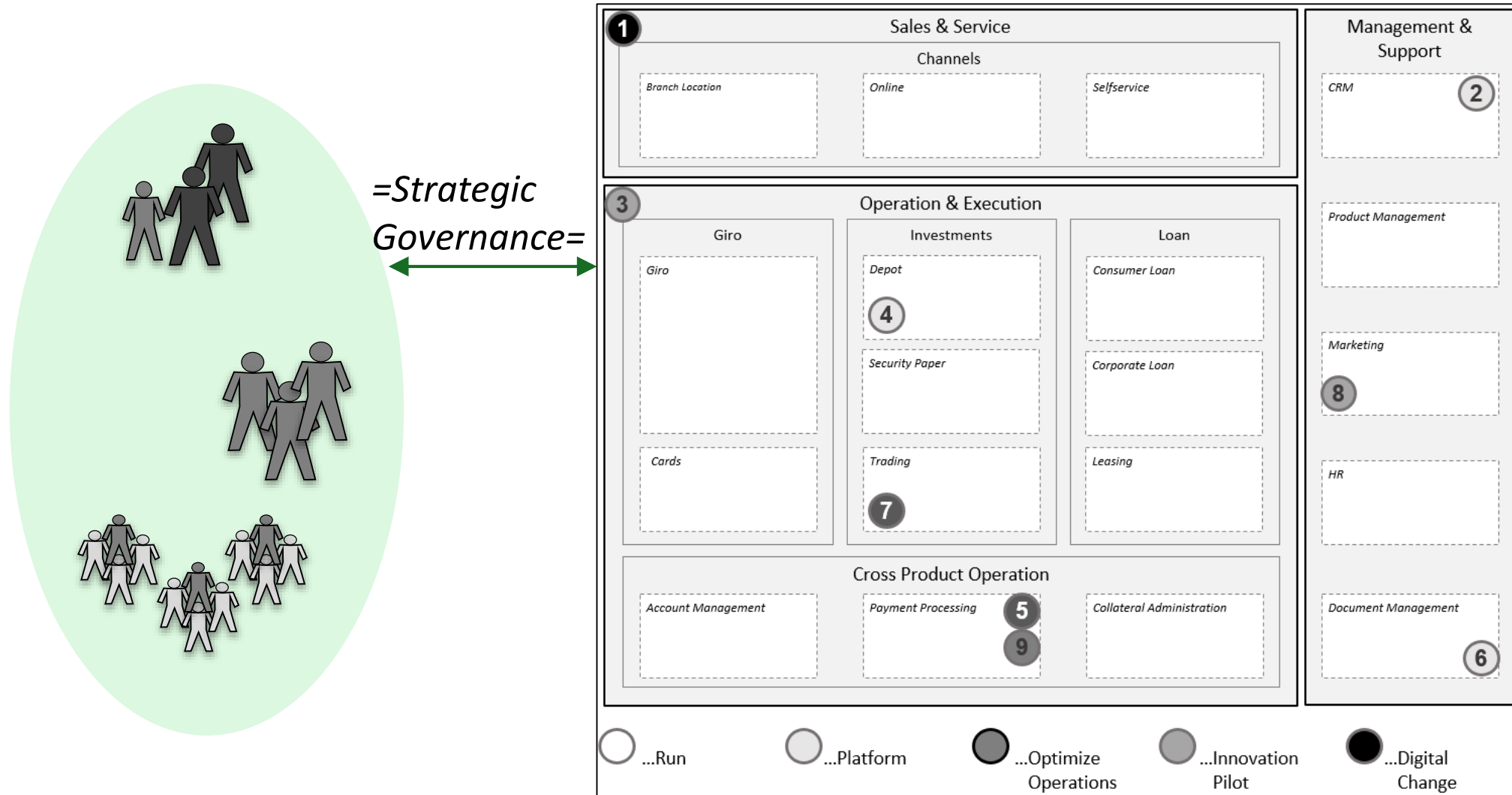
*“Most great works of the human mind have been made by one mind, or two working closely. But now, team design has become the modern standard, for good reasons. The danger is the loss of conceptual integrity in the product, a very grave loss indeed.*

*So the challenge is how to achieve conceptual integrity while doing team design, and at the same time to achieve the very real benefits of collaboration.”*

F. Brooks: *‘The Design of Design: Essays from a Computer Scientist’, 2010*

# Connect Strategic Governance to Enterprise Core Map

Collaborative Enterprise Design needs Strategic Decisions



# ~Capability Maps: the Perfect Management Tool

## Heatmapping

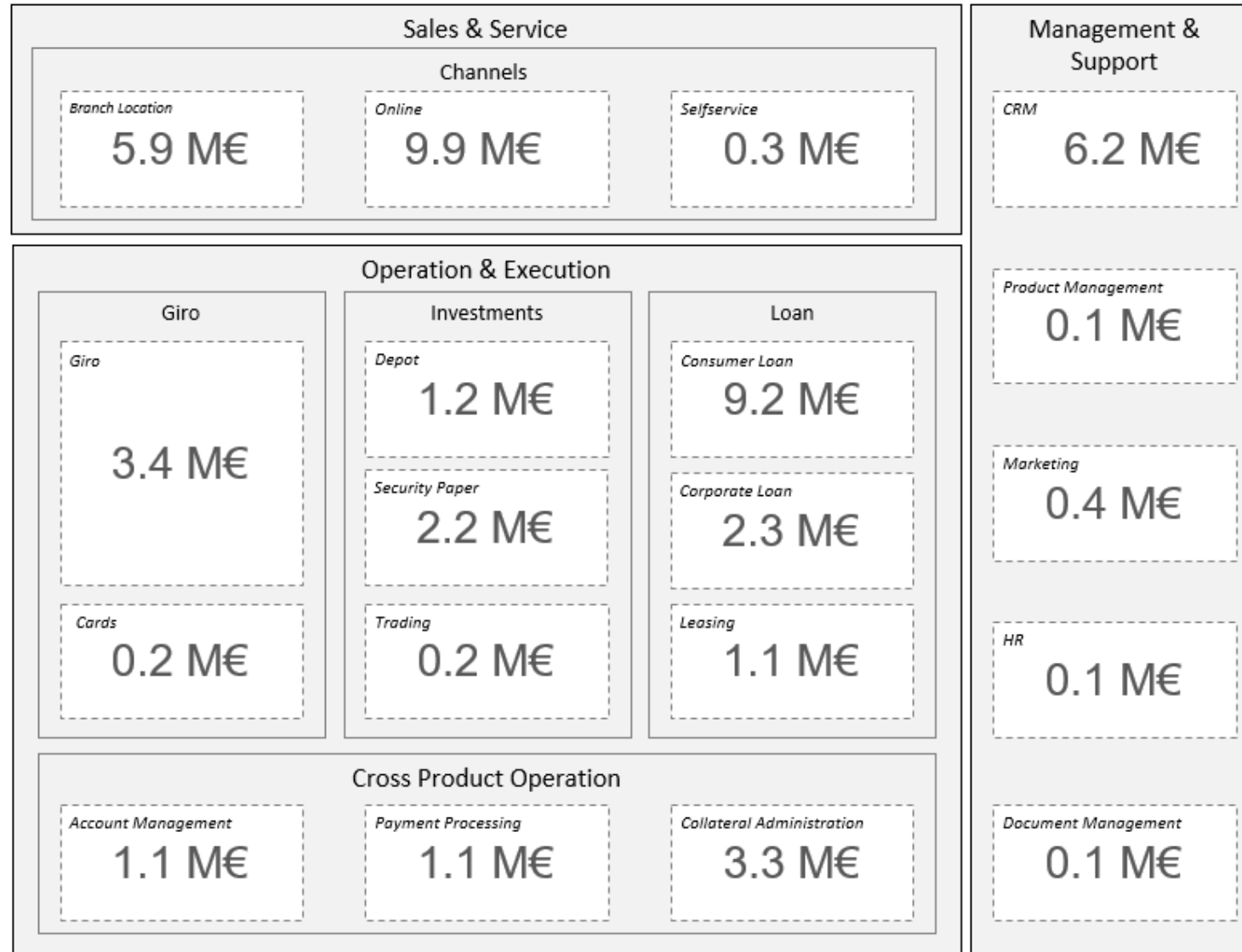
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# ~Capability Maps: the Perfect Management Tool

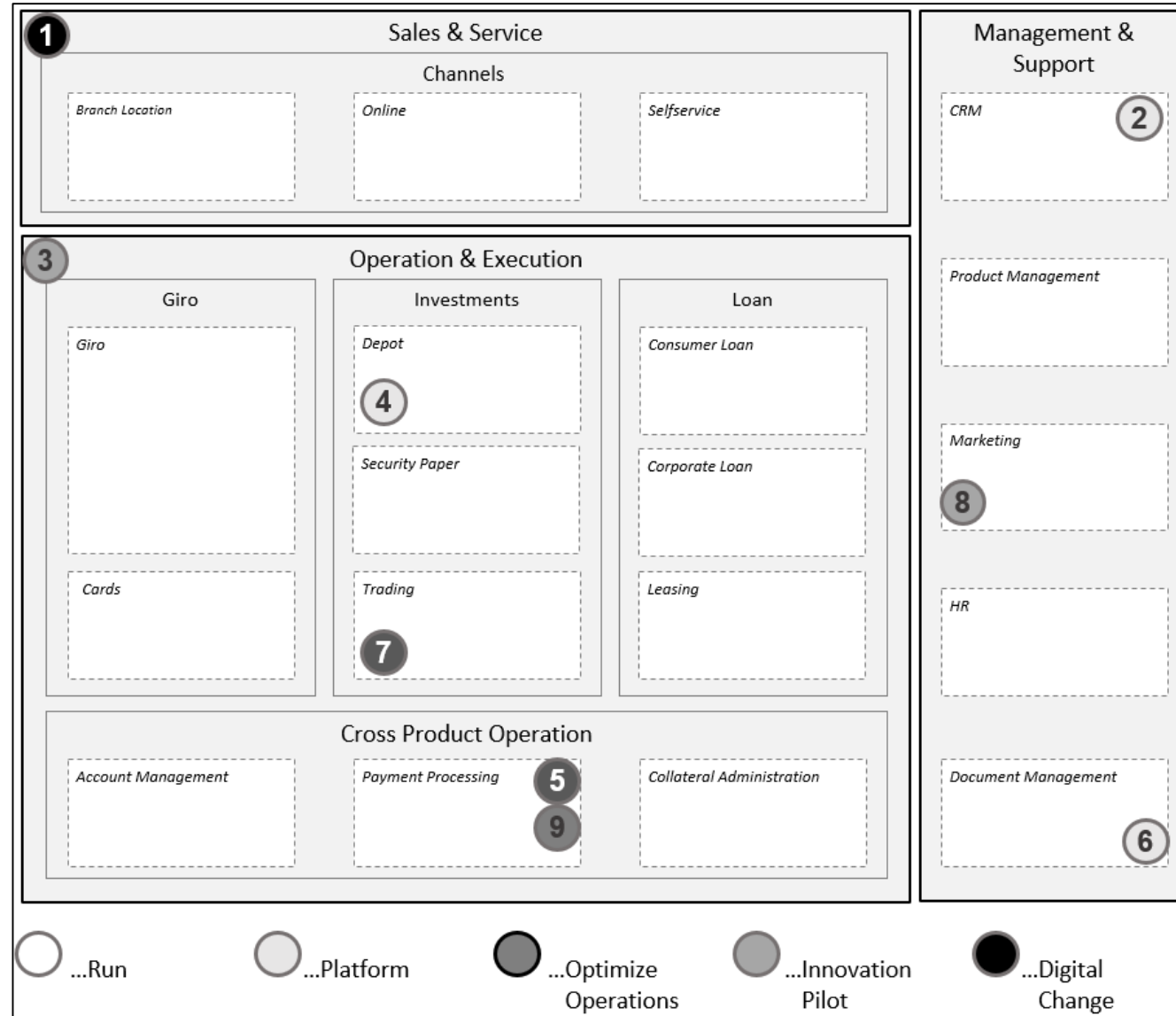
## Budgeting

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# ~Capability Maps: the Perfect Management Tool

## Strategic Fields of Action: Connector between Architecture and Initiatives





# Strategic Field of Action - Example

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## Strategic Field of Action: Seamless Multichannel Experience

Category: Digital Change

### Description:

The way that people buy bank products is changing significantly as it becomes easier to access information across a number of channels. We want to improve sales by offering a seamless customer experience across multiple channels.

### Solutions:

- Implementation of new 'Common Sales System' (CSS) that supports mobile, tablet, PCs
- Seamless User Experience between digital and physical channels (phone, branch)
- Pragmatic Integration with ATMs

### Capabilities:

- Sales & Service  
Channels  
Branch Location  
Online  
Self-Service

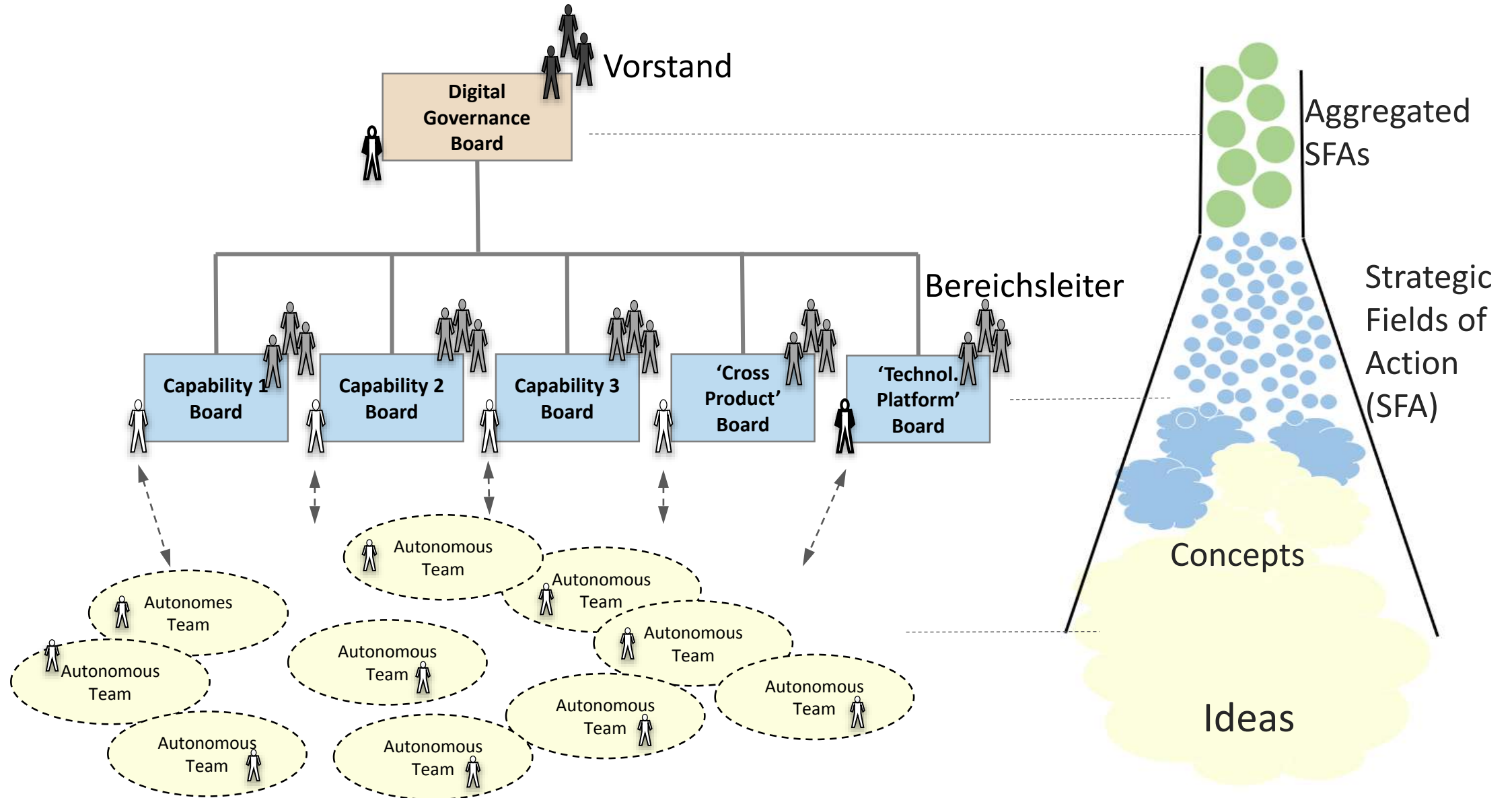
### Projects:

- CSS 1.0 (9.5 M\$)
- SST 2.0 (1.2 M\$)

Cost Indication: \$\$\$

Technical Debt: - 3%

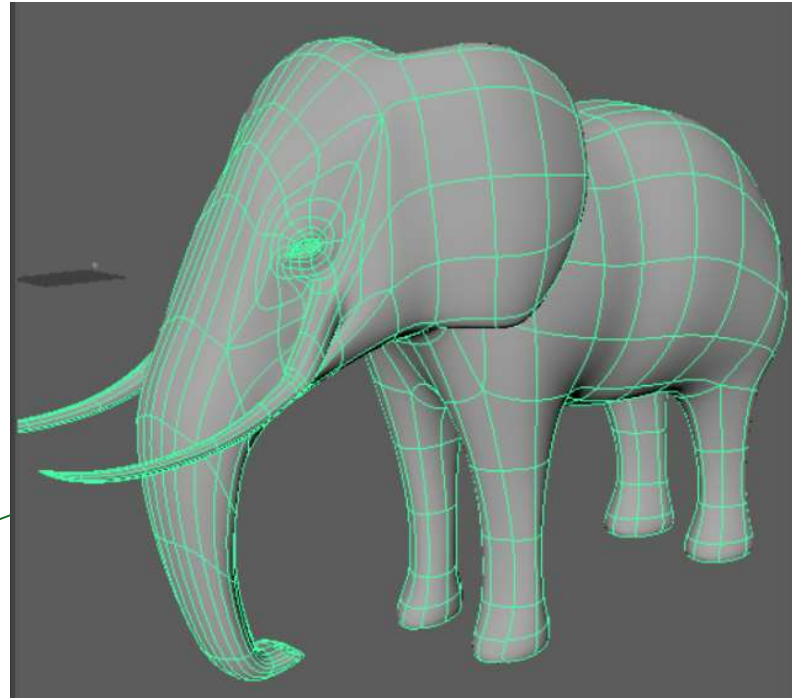
# Architecture as Core of Company-Wide Governance



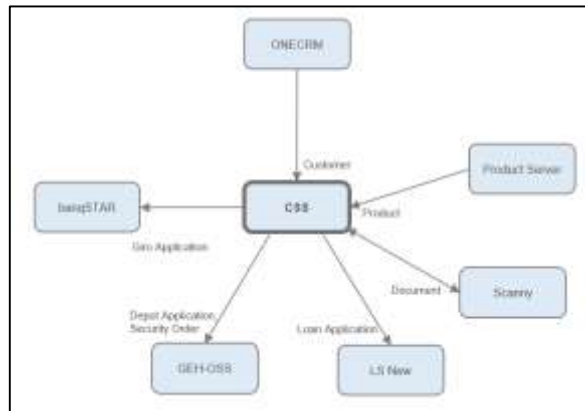
## **3.3 Connection to ==SOLUTION DEVELOPMENT==**

# Connect Solution- with Enterprise Architecture

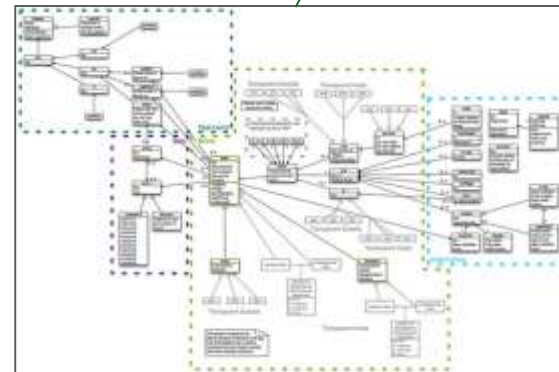
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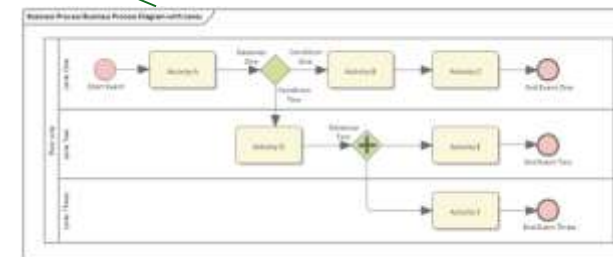
Etc...



Interfaces



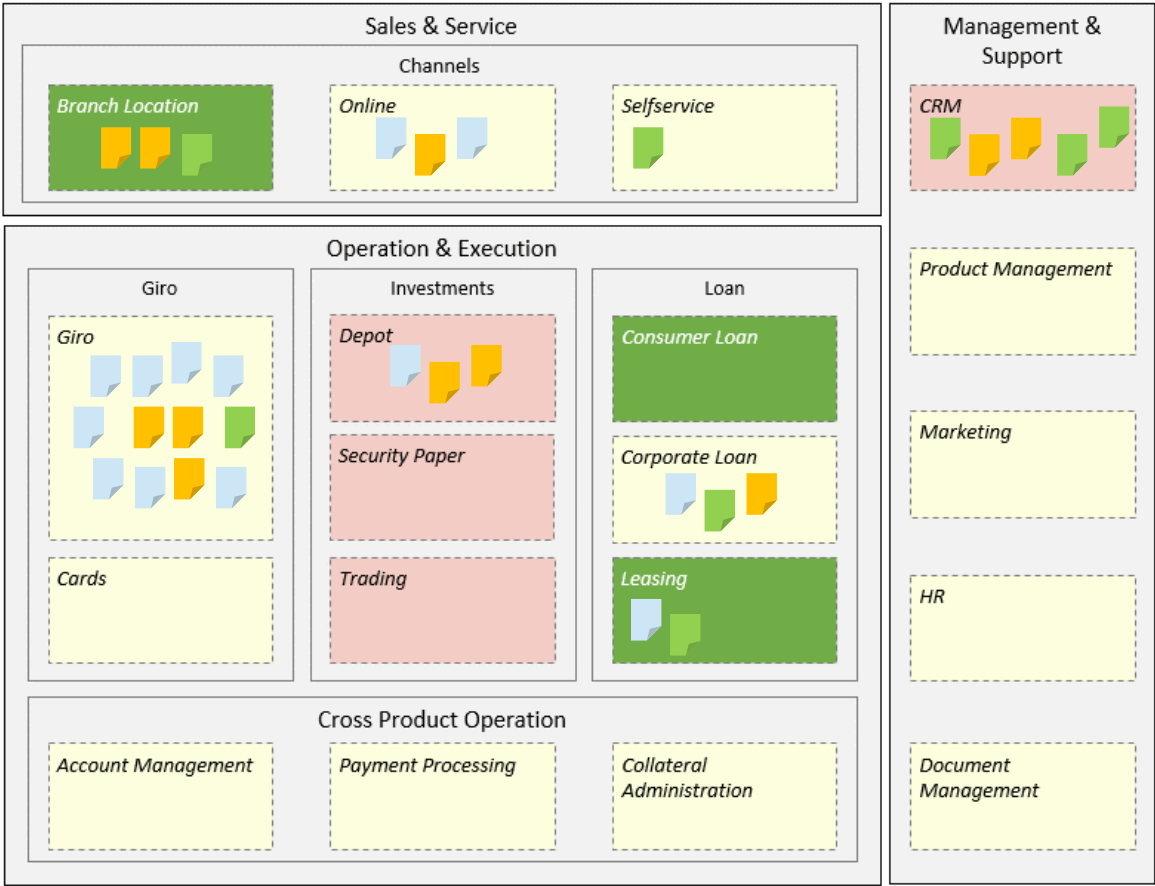
Software Architecture



Process Models of  
Solution

# Connect Solution Requirements with Enterprise Architecture

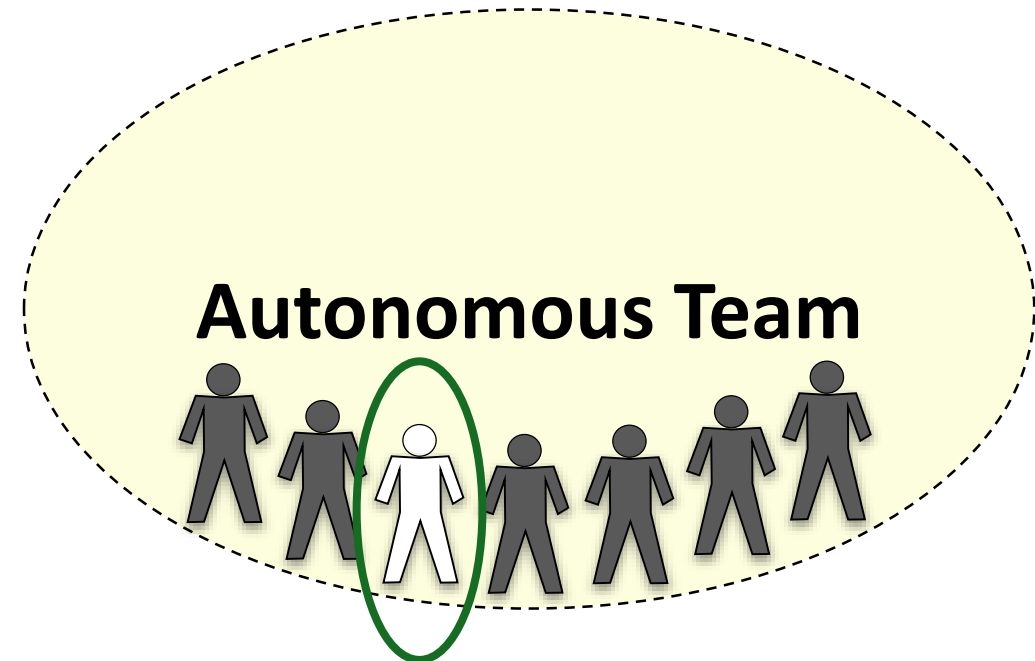
## Assign Requirements to Capabilities





# Architecture Facilitator: Part of Solution Team

- › 80% of architectural Work happens in Solution Team
- › Everybody is architect on micro level
- › Architecture Facilitator accountable for
  - › Solution Architecture as a whole
  - › Integration with Enterprise Architecture



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# Conclusion

Digital Transformation



Adaptive Enterprises



Well Designed Business Architectures



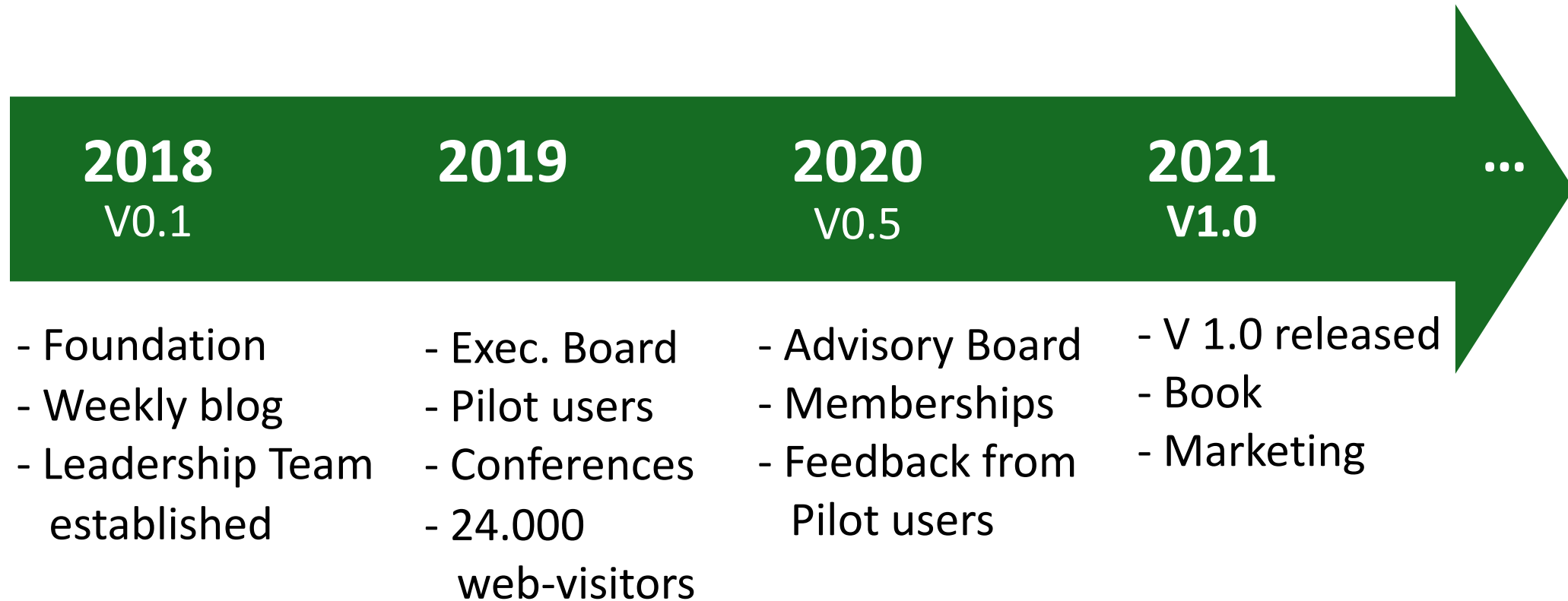
Collaborative Design & Strategic Decisions



Architectural Framework Usable for Everyone.

# Architectural Thinking Framework® Roadmap

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All Enterprises apply  
AT to be sustainably adaptive

# How to Participate in our Vision

Register and discuss at our [blog](#)

Follow us and discuss on [linkedIn](#)

Provide feedback in our [wiki](#)

Apply to become

- member of the Advisory Board
- pilot user
- reviewer of the Architectural Thinking Book





**Dr. Wolfgang Goebel**

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architectural-thinking.com



... let's create it together!



# Recommended Reading

[Ambler10]: S. Ambler: *'Disciplined Agile Delivery'*

[BAGuild16]: Business Architecture Guild, "A Guide to the Business Architecture Body of Knowledge®" (BIZBOK® Guide, v6.5), <http://www.businessarchitectureguild.org/>

[Brooks10]: F. Brooks: *'The Design of Design: Essays from a Computer Scientist'*

[Carr18]: D. Carr 'State of Enterprise Architecture Survey: Results and Findings' <https://eapj.org/wp-content/uploads/2018/05/EAPJ-Special-Edition-State-of-EA-Survey.pdf>

[Eckstein18]: J. Eckstein: *'Company-wide Agility'*

[Kostic 16]: N. Kostic: *'Demystifying Enterprise Architecture'* <http://www.entarchs.com/blog/demystifying-enterprise-architecture.html>

[Westerman15]: *'Leading Digital Turning Technology into Business Transformation'*