Architectural Thinking

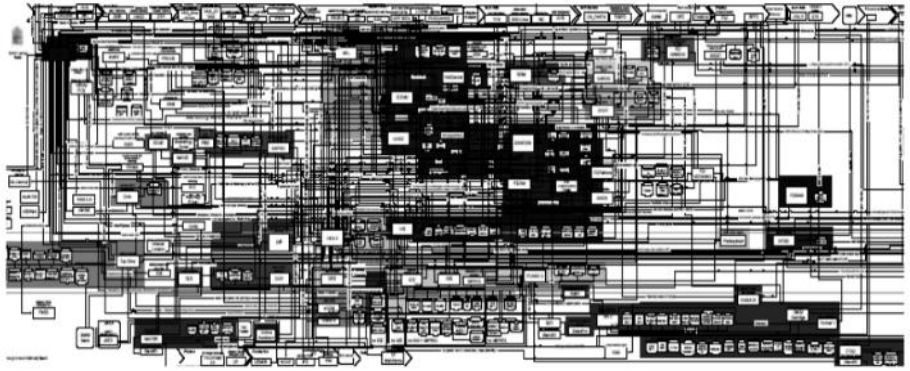
Dr. Wolfgang Goebl

DDD Meetup Vienna, Feb 22nd 2019

The Problem

Agile! Agile!
Agile!

Innovation!



Dark Waters of Legacy IT

Vision?
Strategic Management?
Architecture?
Reengineering?

Prologue:

What obviously does not work*

*when used in isolation

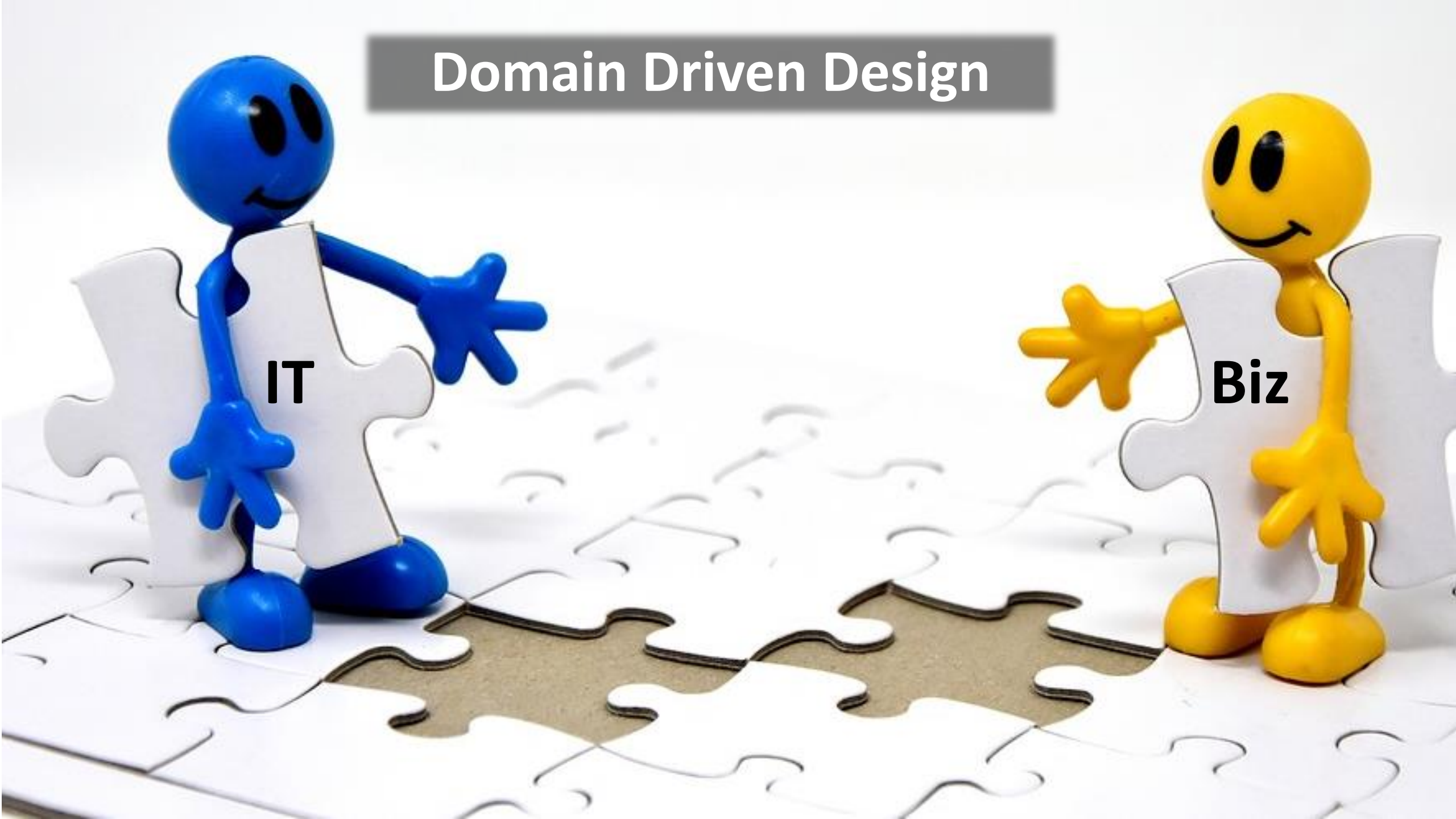
Hardcore Agility

Design Thinking

Let’s create yet another unrealizable point solution!

Software/System Architecture only

Domain Driven Design



Enterprise Architecture Management as Connector?

An isolated, bloated, Ivory Tower Discipline as Connector?

Business Process Management

Business Analysis

Business Units

Vision/Strategy Management

Archimate®

Zachmann

TOGAF®

Programm Management

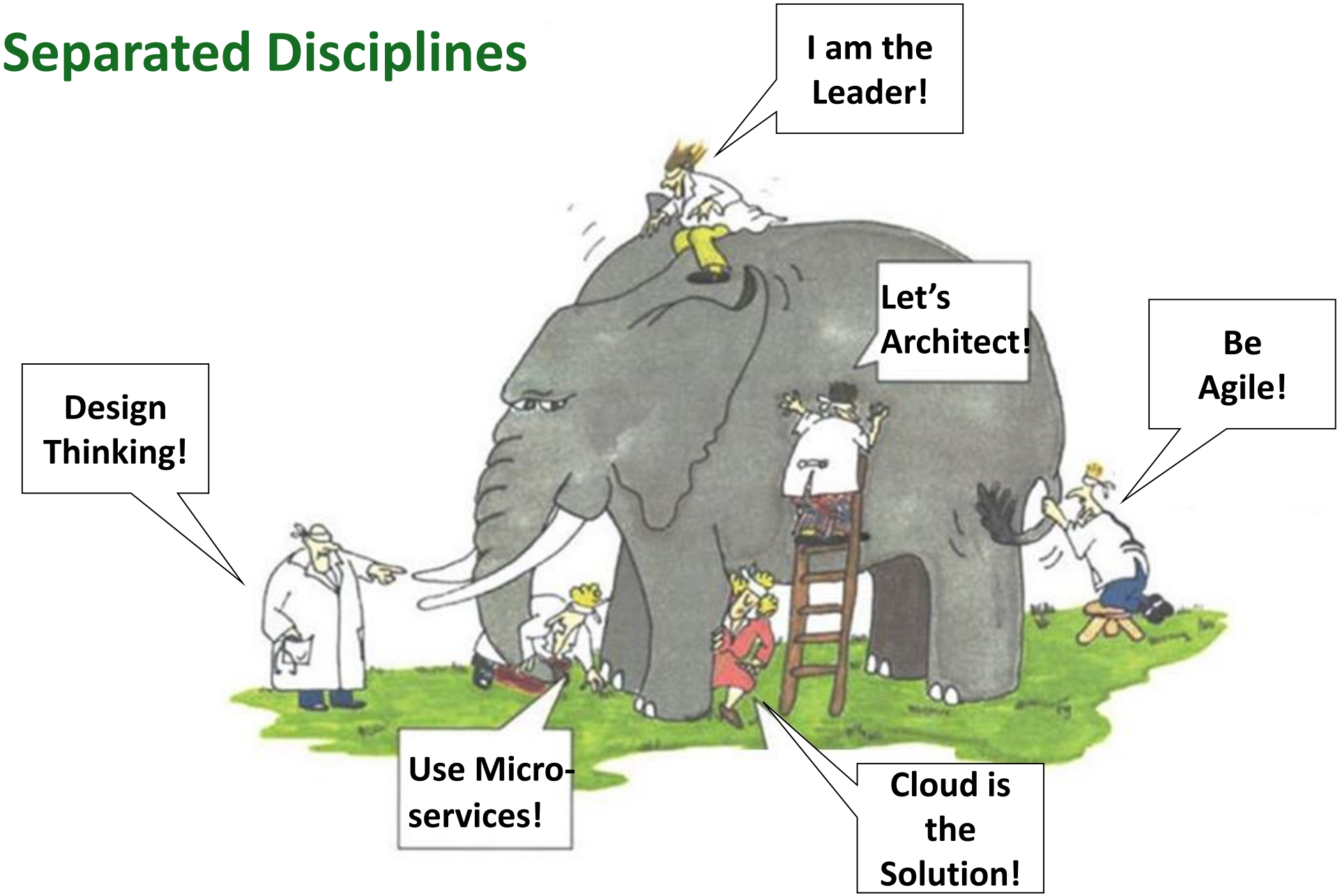
Project Management

Design Thinking

(Agile-)Solution Development

IT Operations

Separated Disciplines



Agenda

1. Architectural Thinking
    - 1.1 Customer centric over technocratic
    - 1.2 Lean over bloated Frameworks
    - 1.3 Collaborative & Iterativ over autocratic
4. Architectural Thinking and DDD

1. Architectural Thinking

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4. Architectural Thinking and DDD

Vision Statement

„We bring disciplines together
to build the missing bridges
that enable organizations to adapt and thrive.“

Architectural Thinking Association®

Architectural Thinking Association®

- Non Profit Association
- “Förderung des architekturellen Denkens in Unternehmen”
- Truly open Architectural Thinking Framework®
- architectural-thinking.com/participate

Architectural Thinking Association®

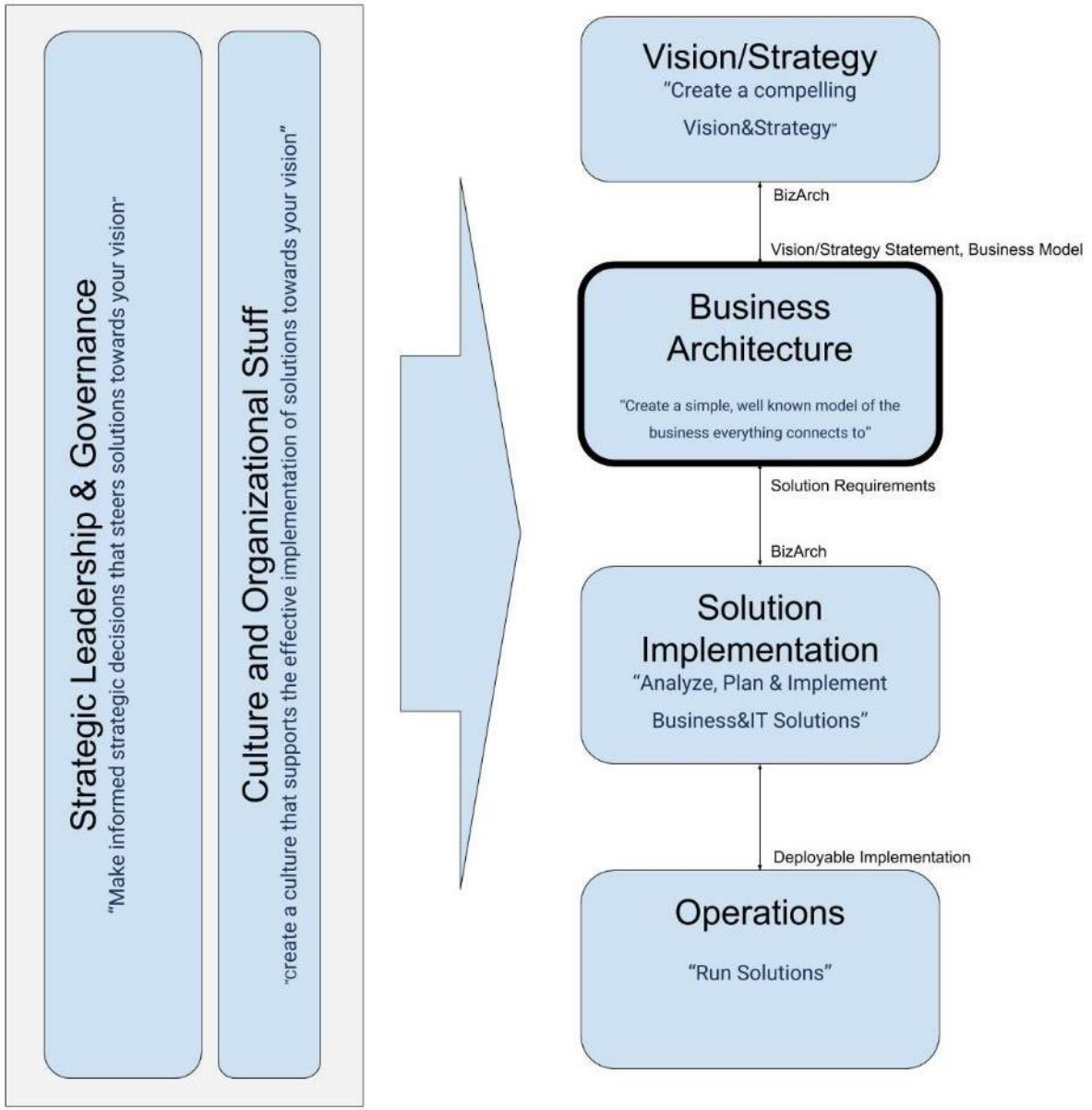
What we do

*“We form an **interdisciplinary leadership** team that creates wisdom how to connect disciplines.”*

*“We **bring in the thought leaders** of relevant disciplines to participate in our vision.”*

*“We define a **compelling, simple AT framework** where everbody wants to connect to.”*

Clusters of Disciplines to be connected



1.1 Customer centric over technocratic

1. Architectural Thinking

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2. Architectural Thinking and DDD

Who is the primary Customer of Architectural Thinking?

C-level Executives

Business Unit Leads

CIO / CDO

Innovation-management

IT Solution Architects

Process-management

Development teams

Computing Center

What‘s the Biggest Pain of Executives?

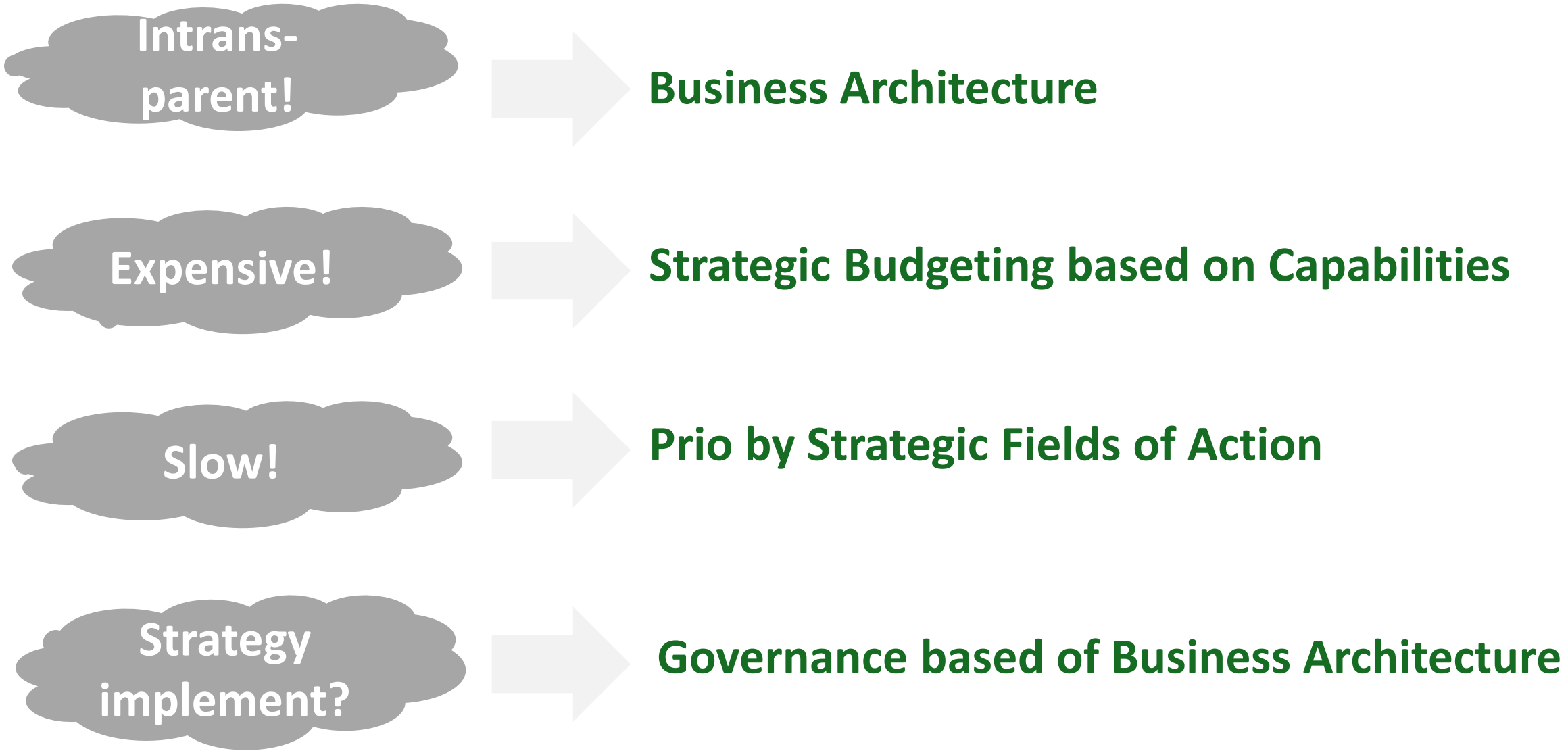
Too intransparent!

Too expensive!

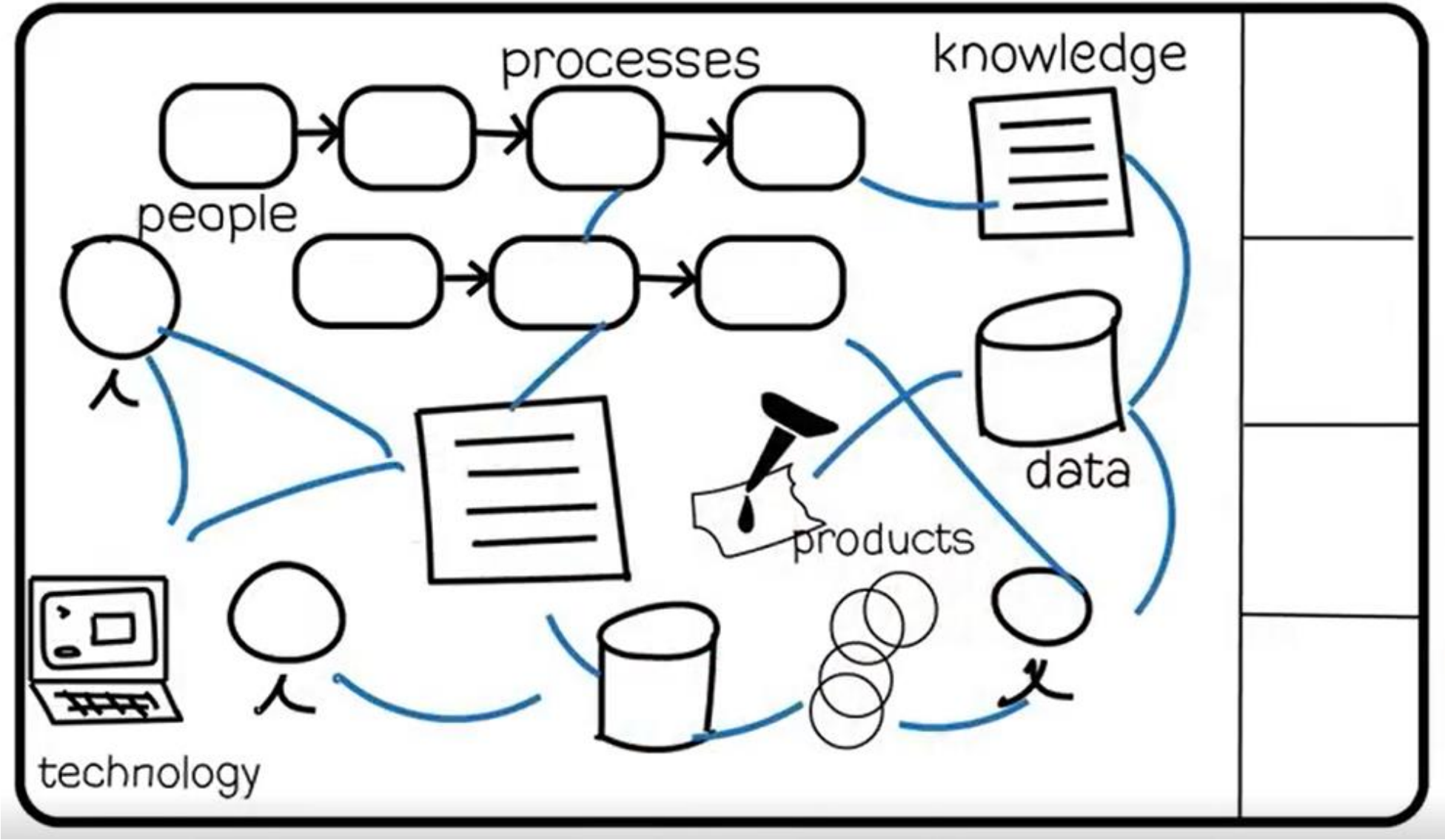
Too slow!

Strategy implementation?

How can Architectural Thinking help?



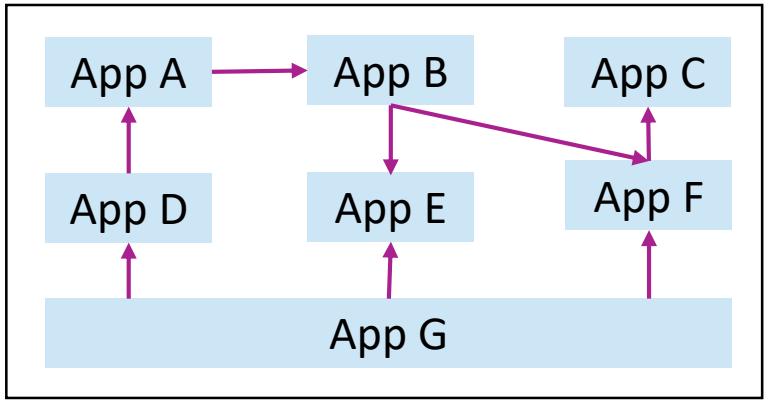
Business Architecture



Business Architecture

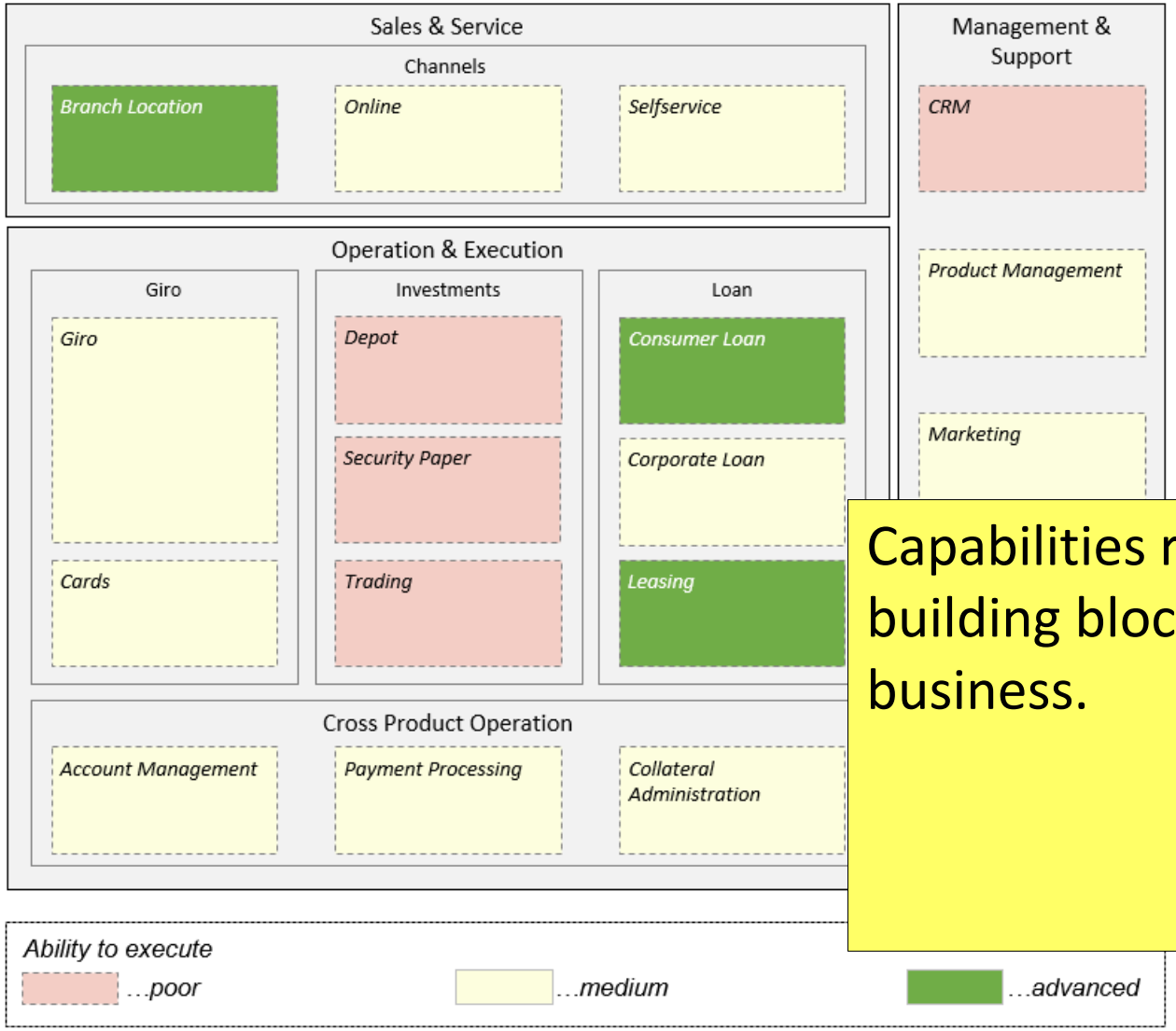
Makes Business People Accountable for Architecture and Drives IT

Business Architecture



Business Architecture

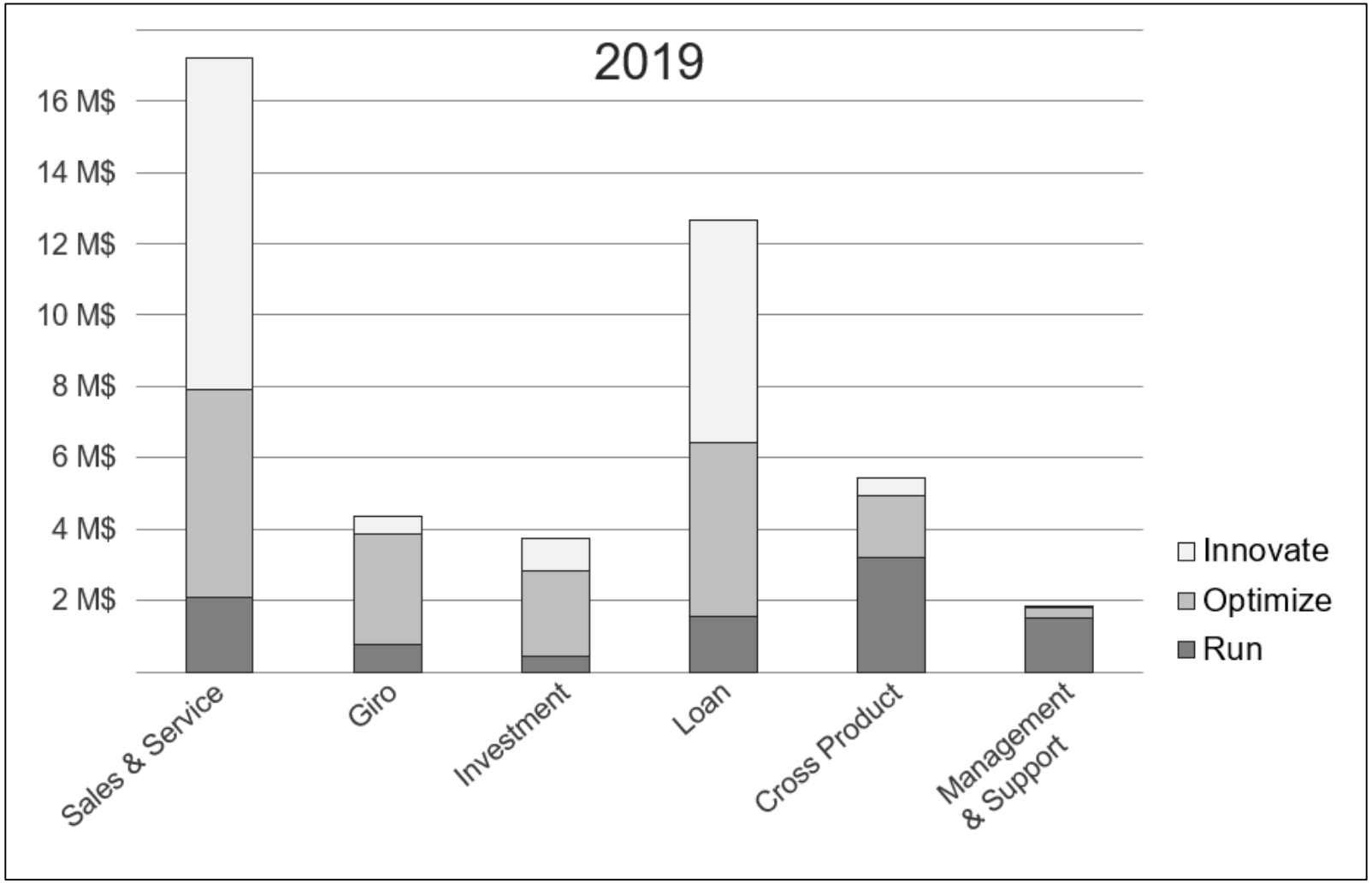
Capability Model



Capabilities represent the basic building blocks, or DNA, of a business.

Strategic Budgeting

Per Capability



Governance via Strategic Fields of Action

1.2 Lean Maps over bloated Frameworks

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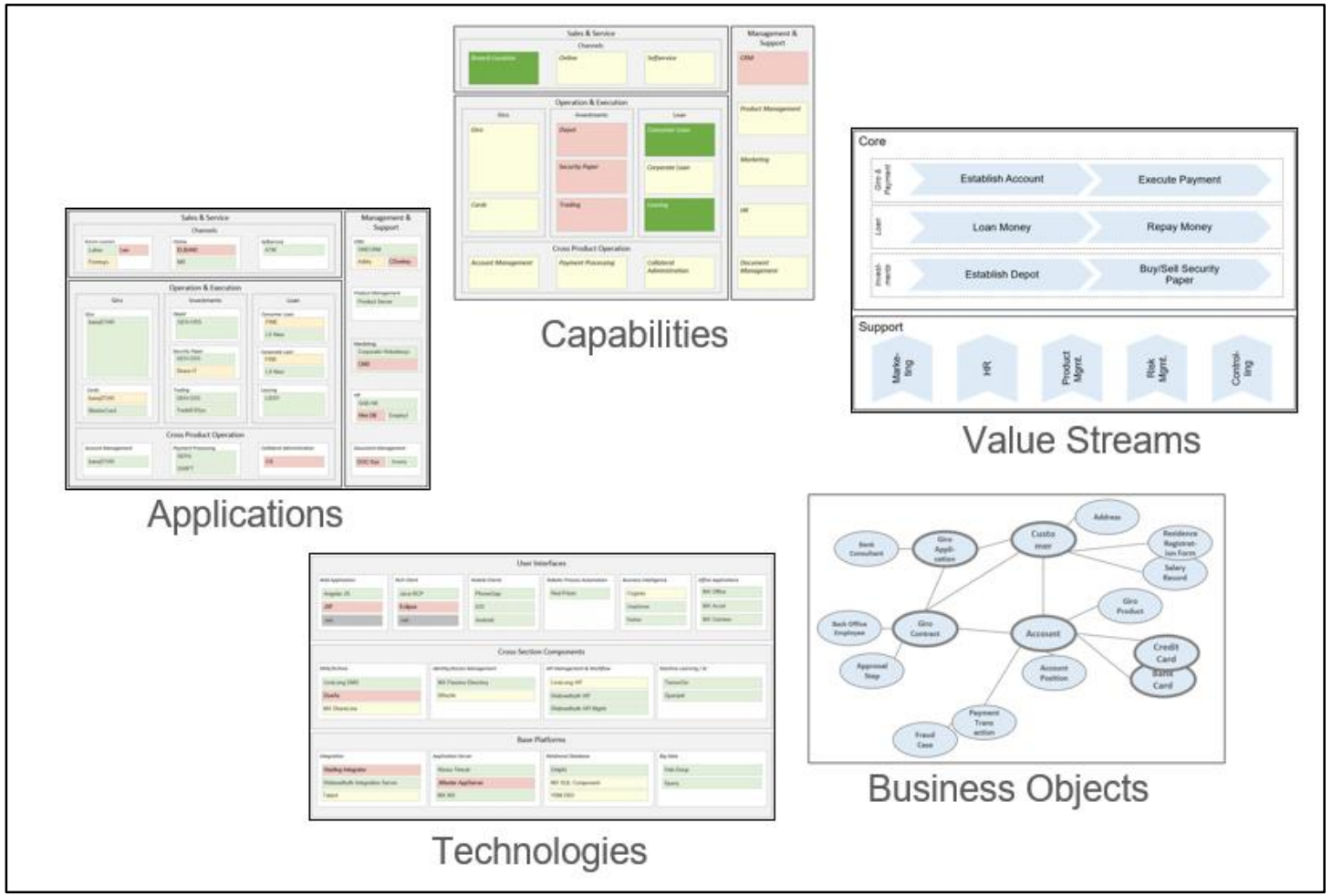
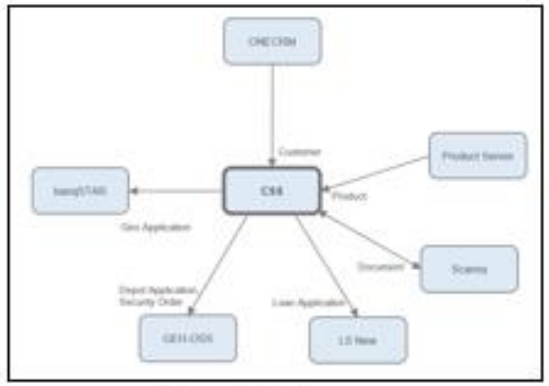
Lean Maps – Enterprise Level

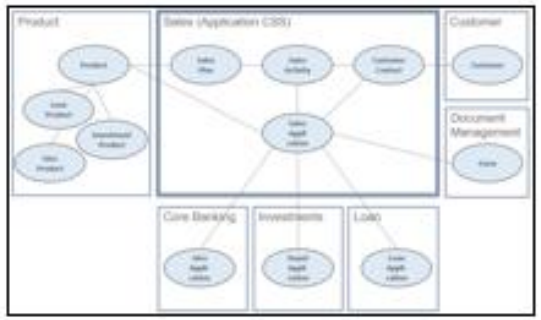


Lean Maps – Solution Level

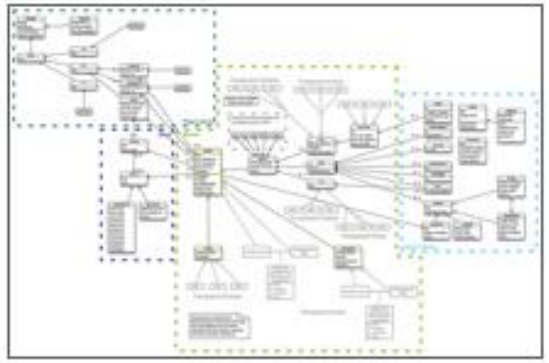
Requirements



Fachliche Anwendungsschnittstellen



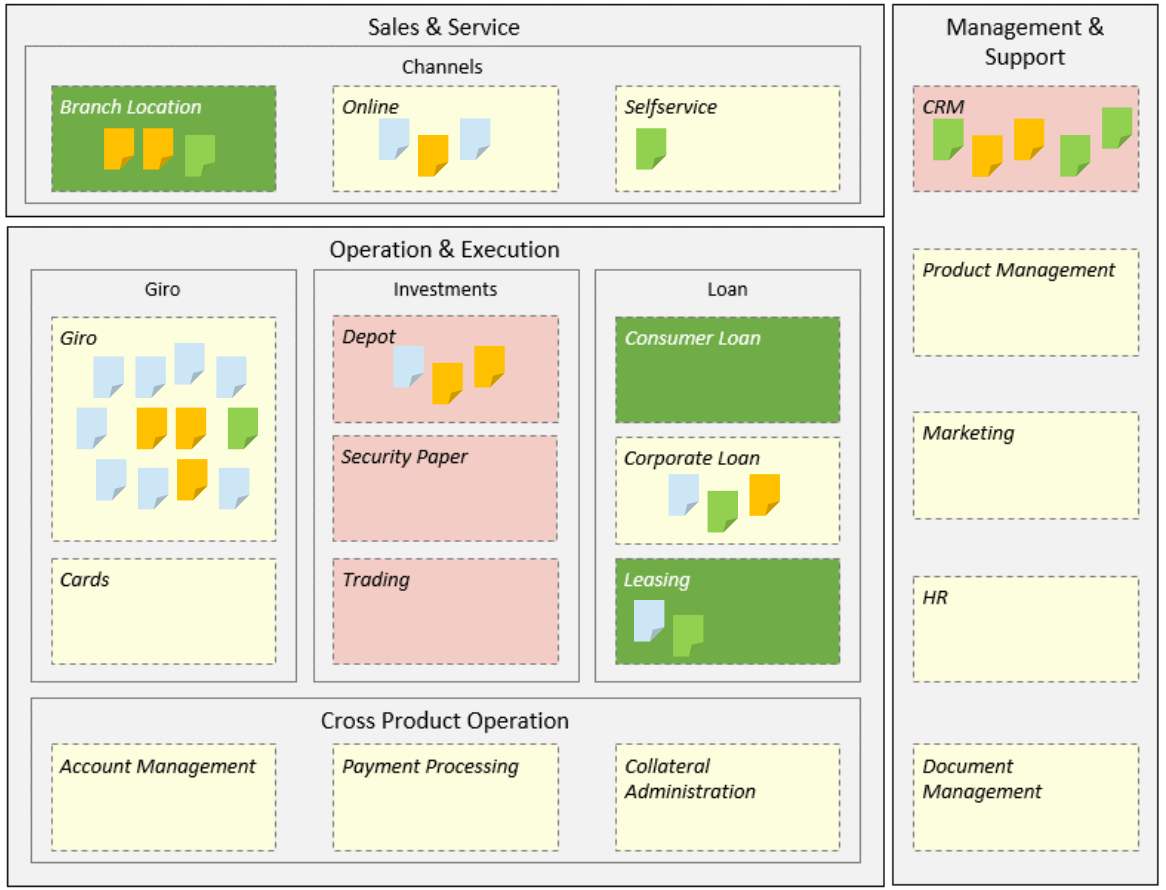
Geschäftsobjektmodell



Technische Architekturkarten

Connect Solution Requirements with Enterprise Level

Assign Requirements to Capabilities



1.3 Collaborative & Iterative over autocratic

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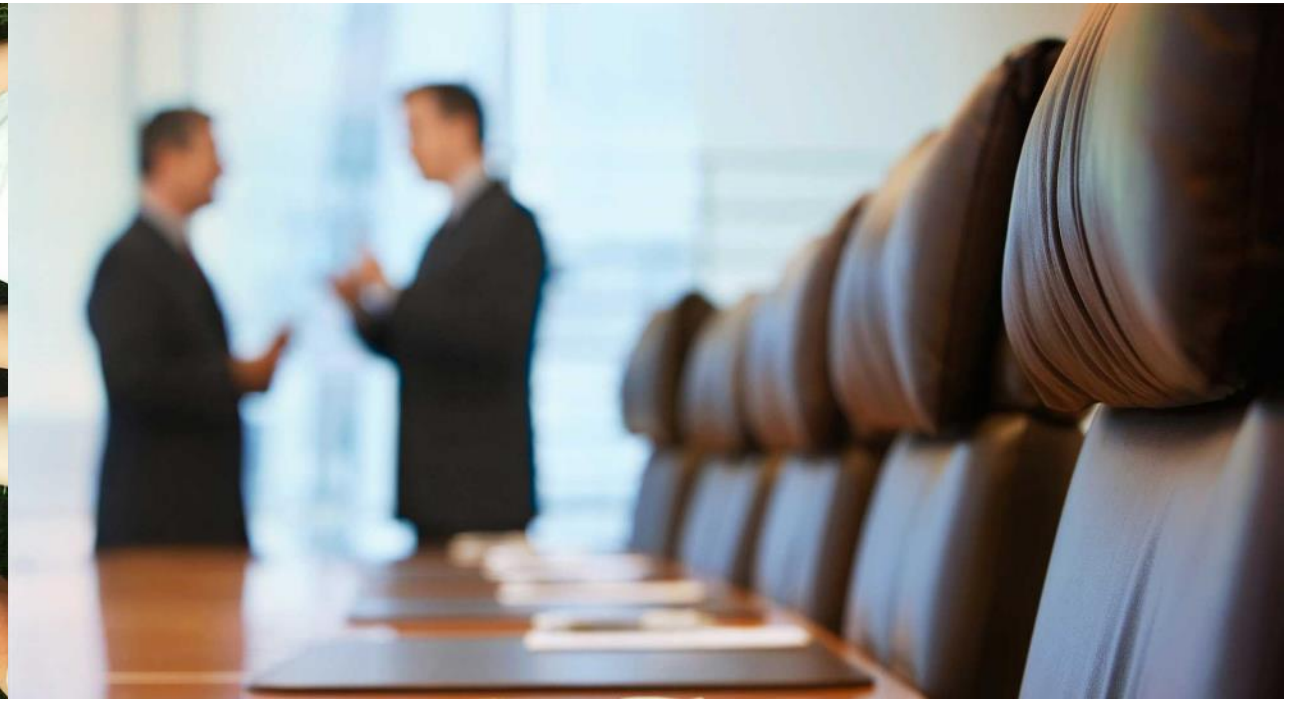
Grassroots Democracy?

Autocratic Leadership?

What's the Best Way to Make Strategic Decisions?

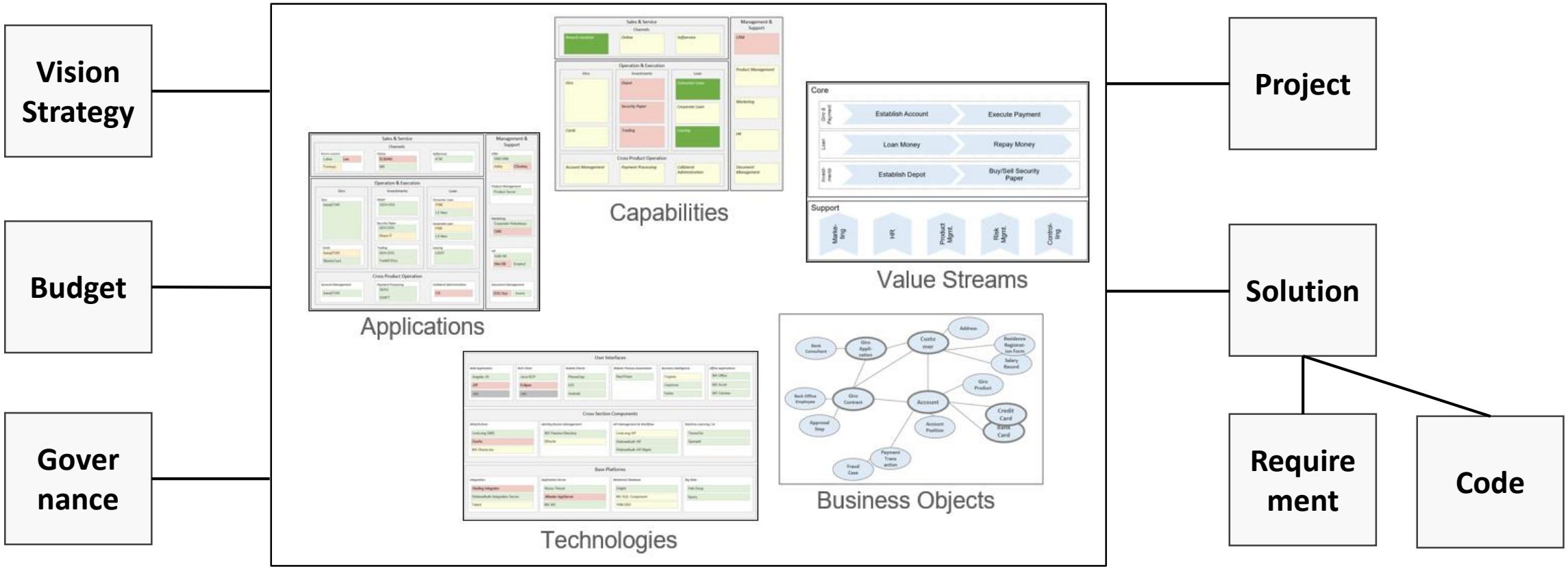
…its Always a Sound Combination!

Democratic, Bottom-up



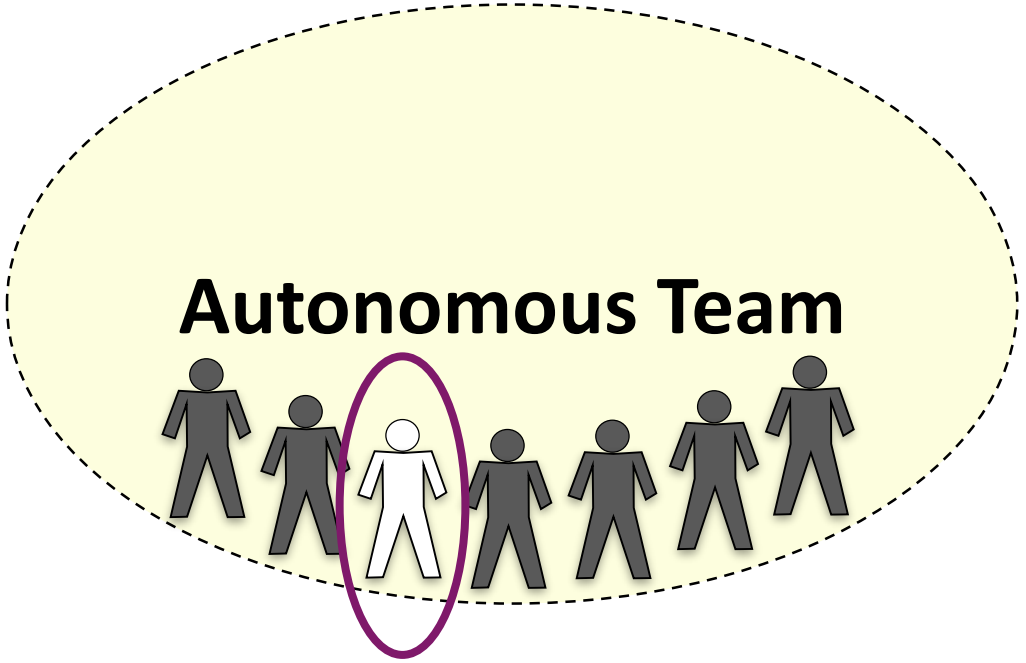
Management, Top-down

Connect “Managing Disciplines to Enterprise Maps



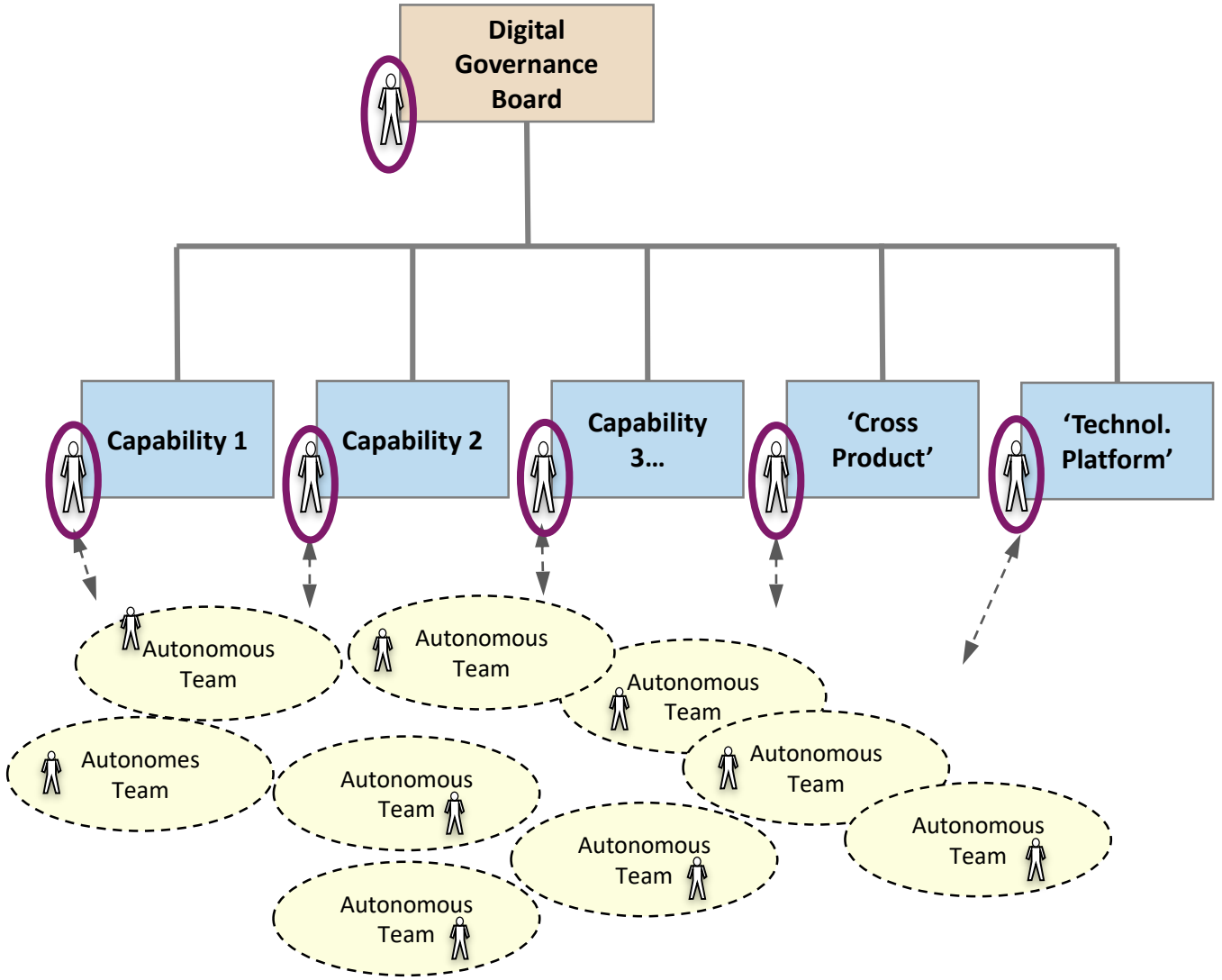
“Architecture Coordinator” im Entwicklungsteam

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



“Architecture Coordinator” Enterprise Level

- 20% of Architecture Work
- Optimizes across Solutions
- Enge Abstimmung mit AC Solution



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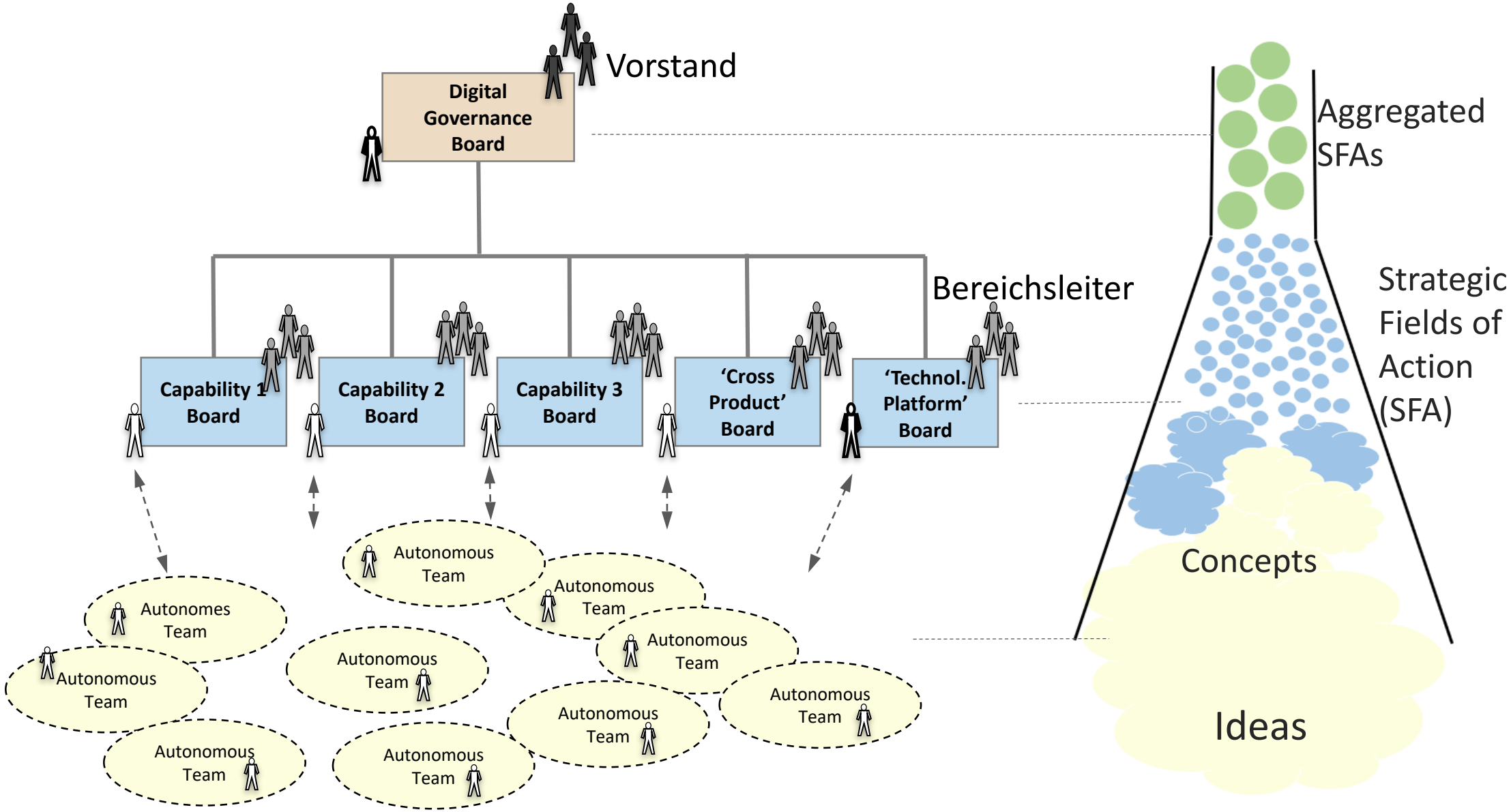
Architectural Map as Core of Company wide Governance



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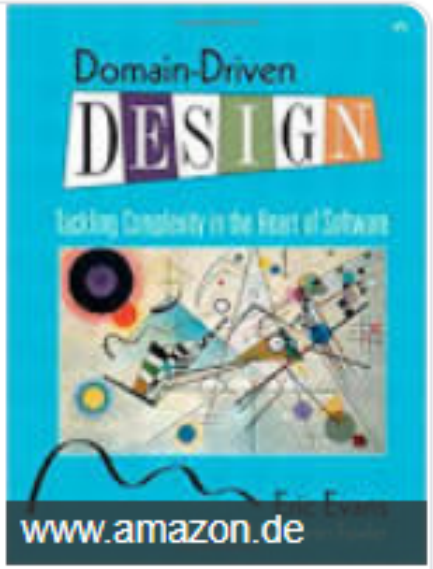
Domain Driven Design

Domain-driven design (DDD) is an approach to software development for complex needs by connecting the implementation to an evolving model.



Domain-driven design - Wikipedia
https://en.wikipedia.org/wiki/Domain-driven_design

“Model” Domain Driven Design vs Business Architecture

Domain =Enterprise

A sphere of knowledge (ontology), influence, or activity. The subject area to which the user applies a program is the domain of the software;

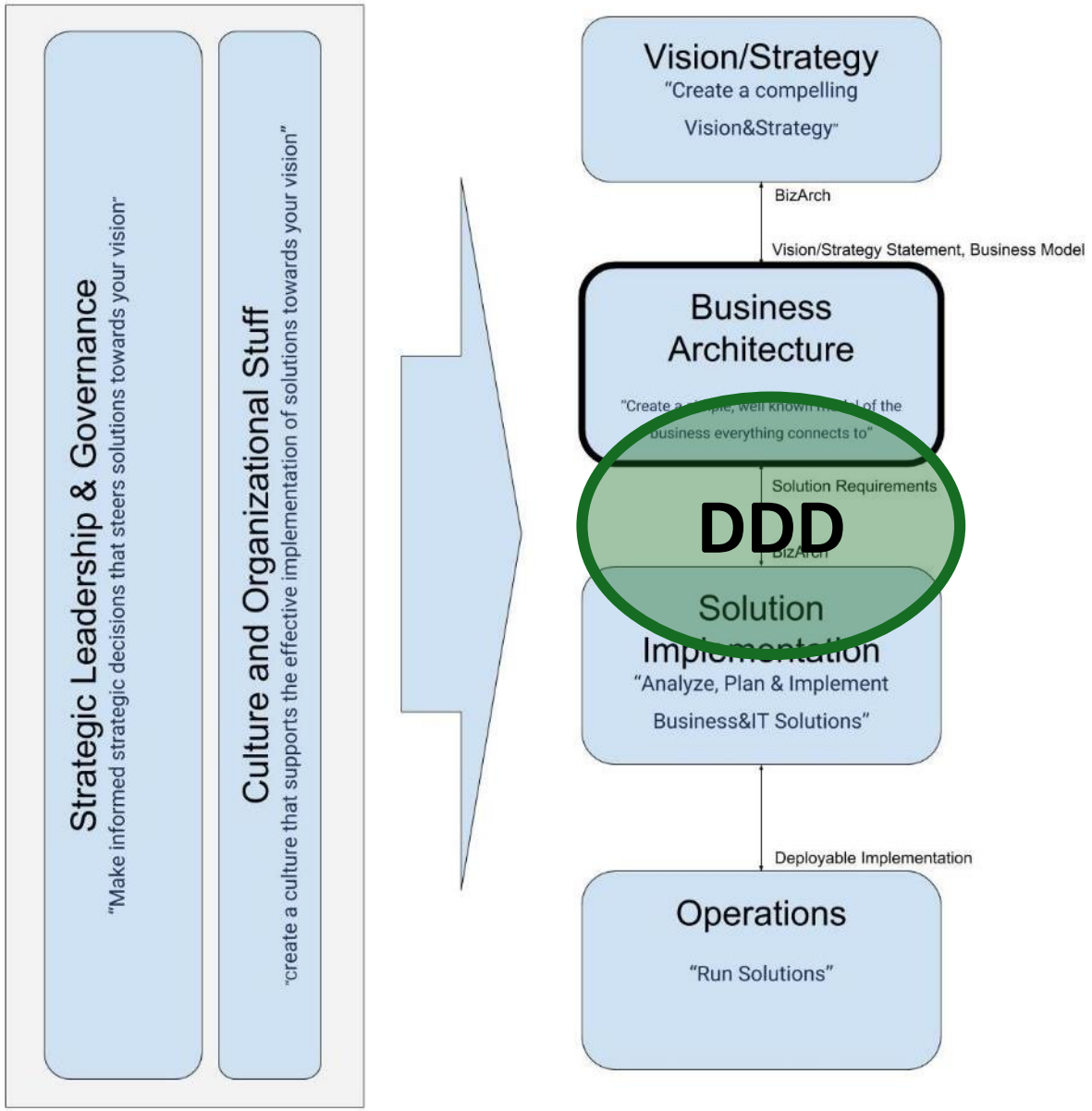
Model =Capabilities, Value Streams, Information Objects

A system of abstractions that describes selected aspects of a domain and can be used to solve problems related to that domain;

Ubiquitous Language =Nope…Focus on strategic Level

A language structured around the domain model and used by all team members to connect all the activities of the team with the software.

Positioning Domain Driven Design in Discipline's Cluster



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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'*