Capability Maps
The Next Generation

Wolfgang Goebl

INTERSECTION GROUP

We help people create better enterprises.

What went wrong with capability maps?

What went wrong with capability maps?
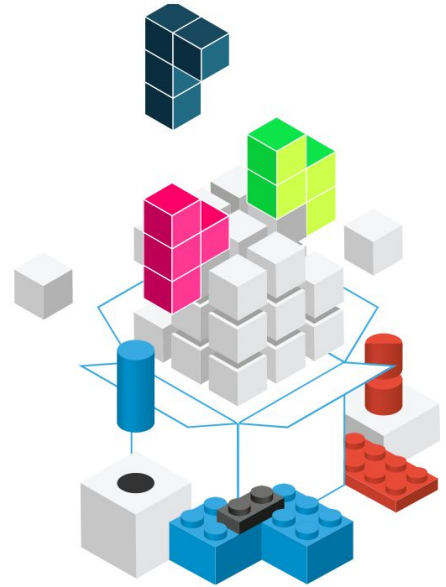

IT centered view

Few practical design patterns

Ugly

Not very present outside architecture communities

What we want to change…

Capabilities are central in organisation design, business components
used as a modular "master structure"
of the enterprise.

Organisational- and IT structures
can be derived from this
master structure.

"Modular business components."
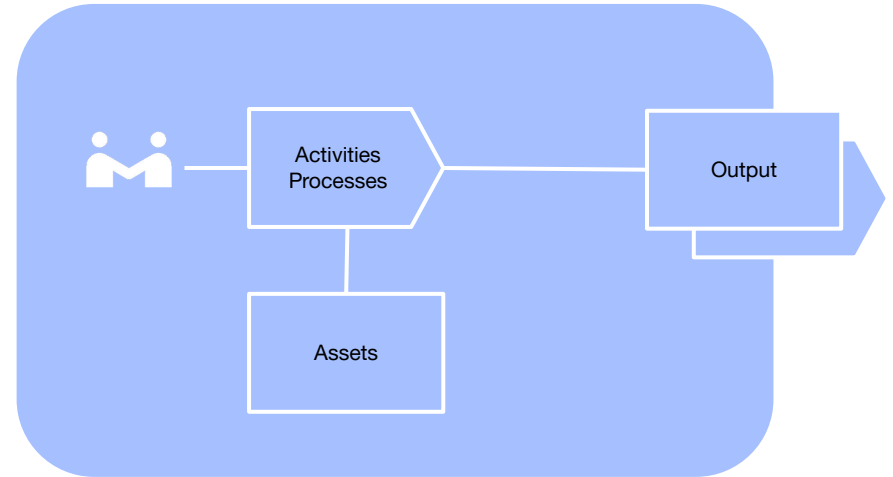Designed for Digital, J.Ross et.al

Capability

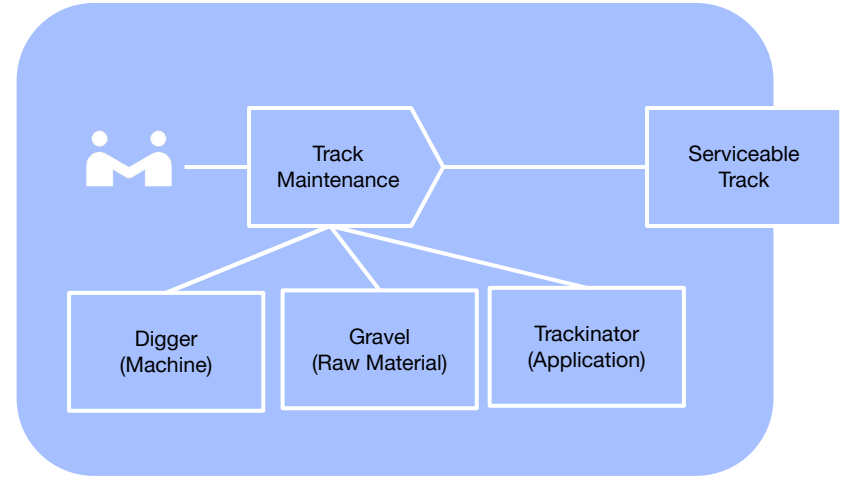**What we are able to do by orchestrating people and assets.**

Track Maintenance

Capability

What we are able to do by orchestrating people and assets.

Capability

What we are able to do by orchestrating people and assets.

◯ Capability

Needed for product creation

Well-defined outputs

Modularisation of enterprise

Track Maintenance

Asset

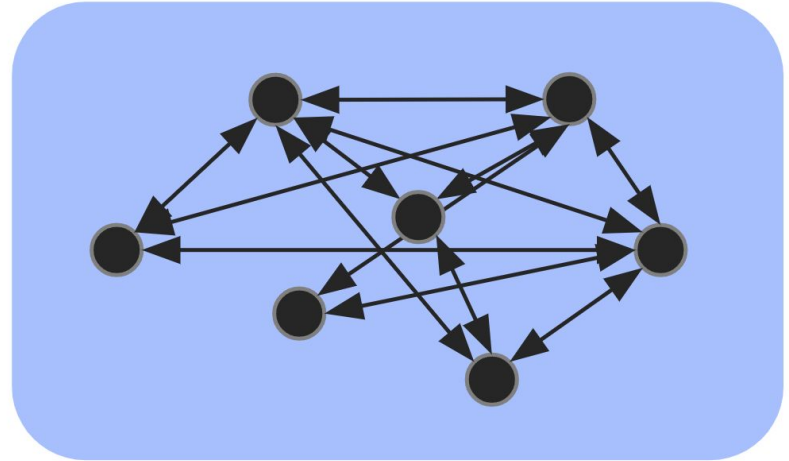## A structure we need and use to perform our capabilities.

Machines, Buildings

Cohesion ("together what belongs together")

Cohesion

Together what belongs together

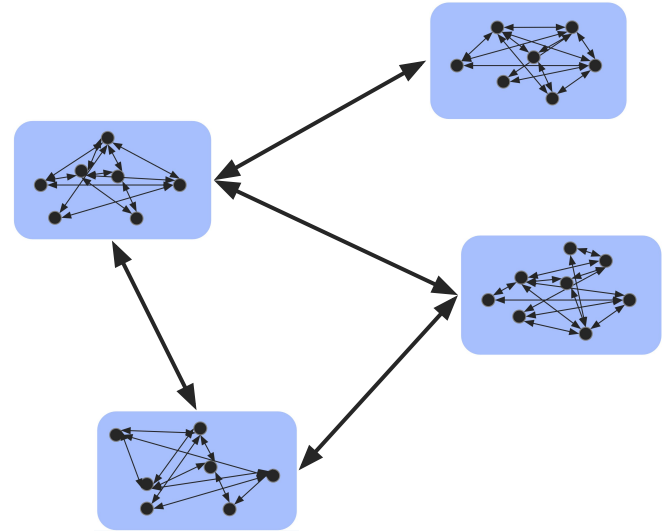**Many interactions between people and software applications within a capability**

Loose coupling

Clear accountabilities

Avoid redundancy

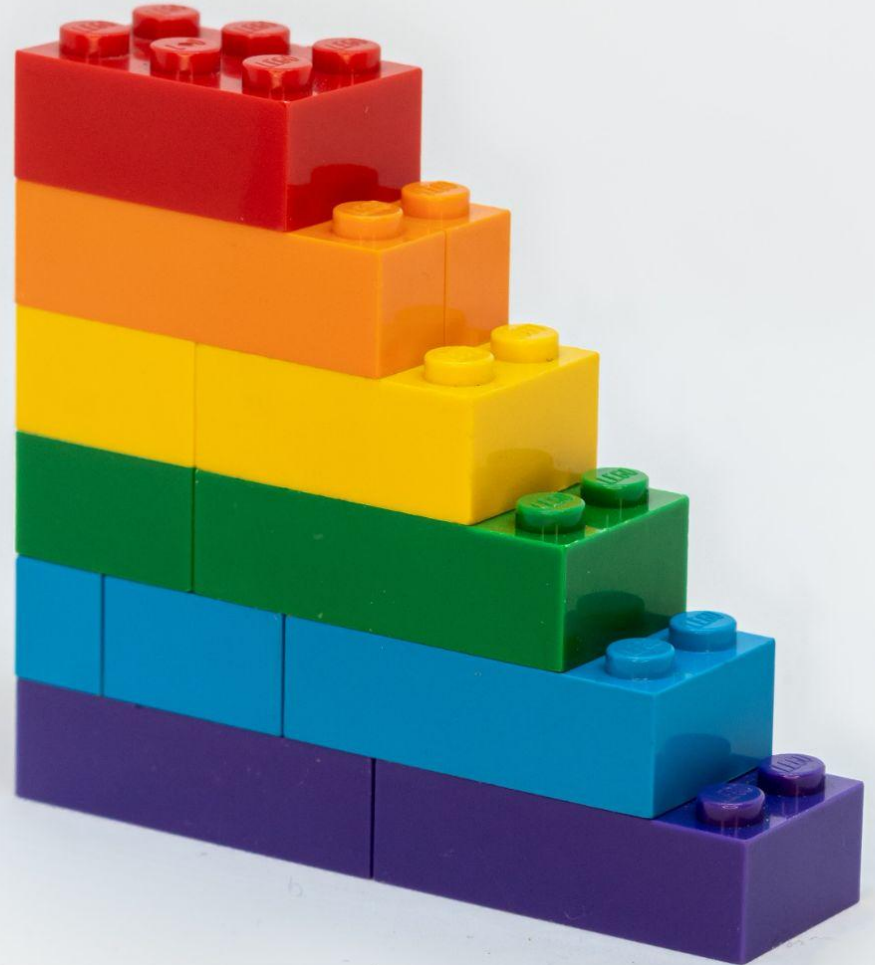**Minimise interactions between capabilities**

Key to adaptivity

Building blocks

Well defined outputs

Clear boundaries

Design for adaptivity

Reuse

Customer Interaction

Passenger Services
- Passenger Information
- Sell Tickets
- Train Restaurant

Night Services
- Conciergerie
- Night Services

Train Operations

Train Scheduling
- Optimise Capacities
- Route Planning
- Train Scheduling

Run Trains
- Clean and Prepare
- Drive Train
- Shunting

Night Trains
- Luggage
- Furnishing

Energy Mgmt.
- Operate Powerplant
- Trade Energy
- Distribute Energy

Train Routing
- Railway Signaling
- Control Railway Switches
- Billing and Booking

Railway Infrastructure Management

Planning
- EU Coordination
- Strategic Planning
- Budgeting

Building & Maintaining
- Project Management
- Construction Site Planning
- Powerplants
- Stations
- Tracks
- Powerlines

Resource Management
- Procurement
- Logistics
- Asset Accounting
- Machines
- Material
- Crew

Support
- Executive Management
- HR
- Facility Management
- Legal Compliance
- Risk Management
- Marketing & Communication
- IT Operations
- Finance

Change
- Strategic Management
- Research & Development
- Enterprise Design
- Innovation
- Product Management
- Investment
- Customer and Market Analytics
- IT Change

When are groupings "good"?
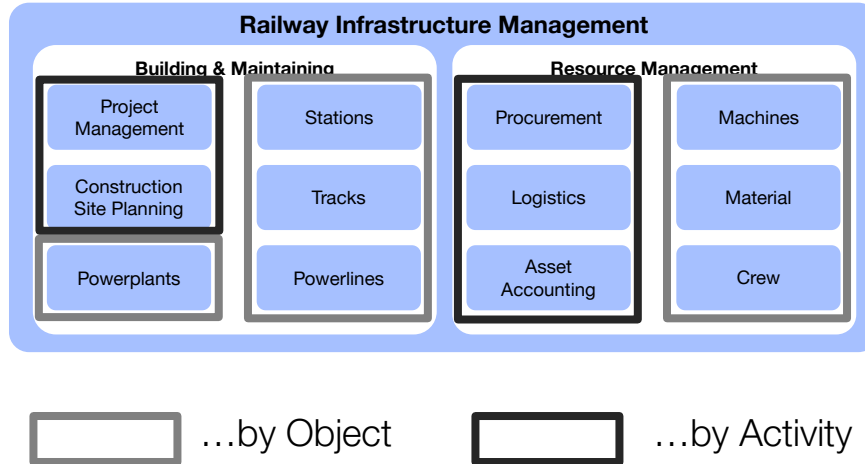
By color?

By size?

By shape?

By species?

"Belongs together" in an enterprise context

By object (powerlines)

By activity (logistics)

Make an intentional design decision based on specialisation.

"Belongs together" in an enterprise context

Railway Infrastructure Management

Building & Maintaining

Project Management	Stations
Construction Site Planning	Tracks
Powerplants	Powerlines

Resource Management

Procurement	Machines
Logistics	Material
Asset Accounting	Crew

...by Object   ...by Activity

Make an intentional design decision based on specialisation.

Customer Facing

**Get in touch with
our customer**

Sales via various channels
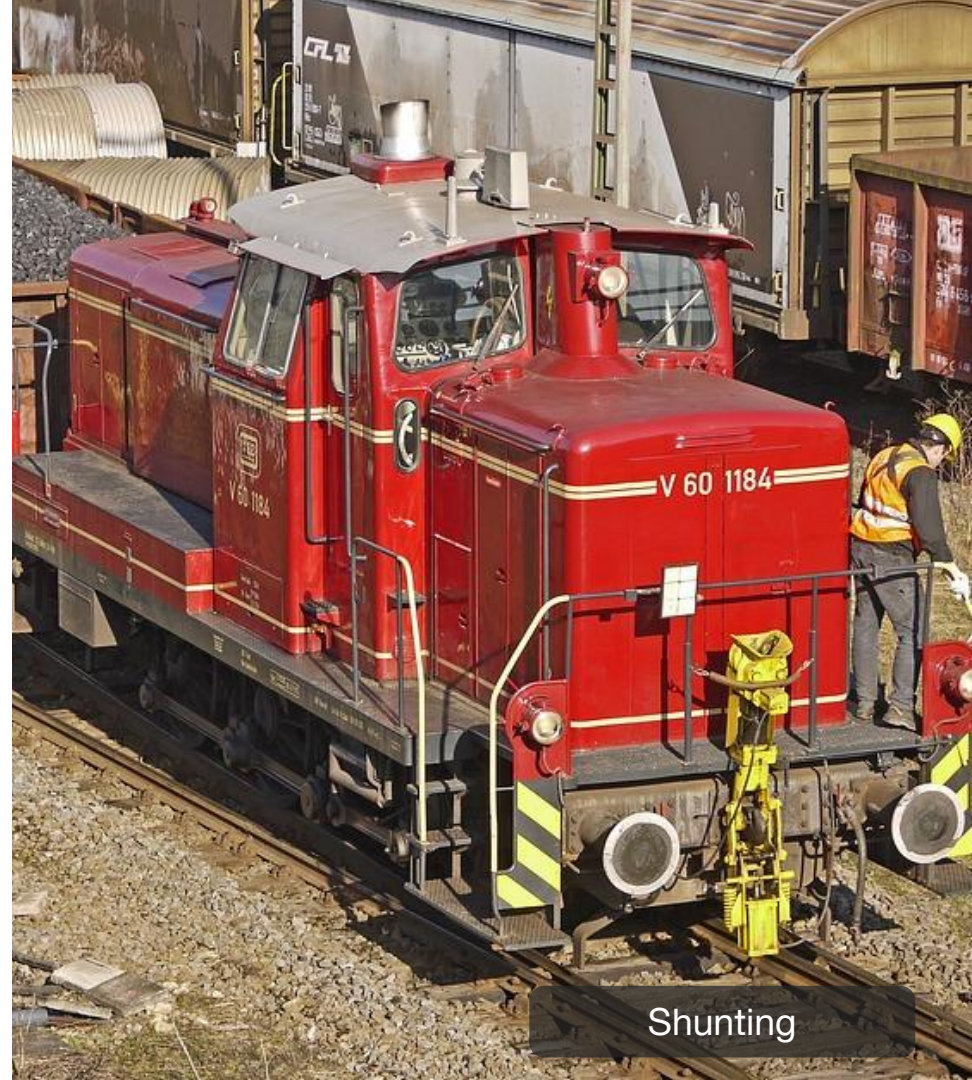
Customer services

Customer information

Ticket sales

○ **Operational**

Create our products

Manufacturing

Warehousing

Logistics

Order processing

Shunting

○ **Shared**

**Needed for
other capabilities**

Marketing

Legal

Human resources

Accounting
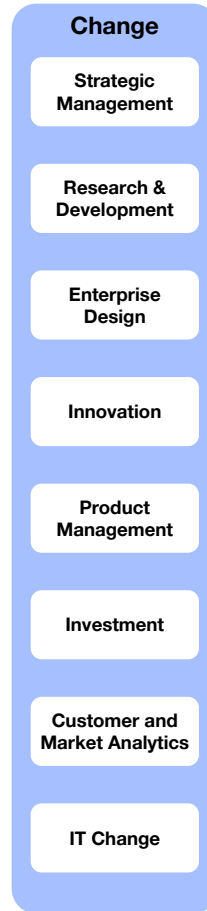
Finance

○ **Change**
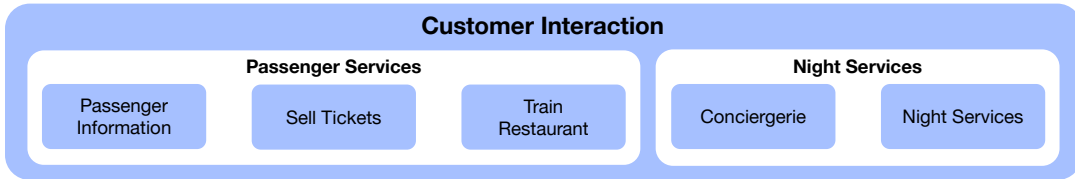
Innovate existing capabilities

Strategic management

Product design

Enterprise design

Innovation

Strategy

Customer Interaction

Passenger Services

Passenger Information	Sell Tickets	Train Restaurant

Night Services

Conciergerie	Night Services

Train Operations

Train Scheduling	Run Trains	Night Trains	Energy Mgmt.	Train Routing
Optimise Capacities	Clean and Prepare	Luggage	Operate Powerplant	Railway Signaling
Route Planning	Drive Train	Furnishing	Trade Energy	Control Railway Switches
Train Scheduling	Shunting		Distribute Energy	Billing and Booking

Railway Infrastructure Management

Planning

EU Coordination
Strategic Planning
Budgeting

Building & Maintaining

Project Management	Stations
Construction Site Planning	Tracks
Powerplants	Powerlines

Resource Management

Procurement	Machines
Logistics	Material
Asset Accounting	Crew

Support

- Executive Management
- HR
- Facility Management
- Legal Compliance
- Risk Management
- Marketing & Communication
- IT Operations
- Finance

Change

- Strategic Management
- Research & Development
- Enterprise Design
- Innovation
- Product Management
- Investment
- Customer and Market Analytics
- IT Change

Broad elicitation process to get existing capabilities

Existing Orgchart

Existing Process/Product Model

Capability Model

Executive Board

B-Level Executives

Application Owners

Business Experts

Customer Interaction

Passenger Services
- Passenger Information
- Sell Tickets
- Train Restaurant

Night Services
- Conciergerie
- Night Services

Train Operations

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Capability design patterns

Involve broad range of business experts
Use common terminology
Make products visible
Use categories consciously
Clear outputs
Avoid overlaps
Focus on essence (3-4 levels, ~100 capabilities)
Align boxes well

Today

Capability maps use uncommon language and are used exclusively by Enterprise Architects.

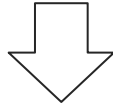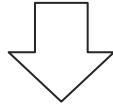**Tomorrow**

Capability Boards are co-designed by all relevant business experts and used throughout the company (for Management, Organisation, Finance, IT, Asset Management, ...)

What went wrong with capability maps?

"**Always based on information objects**"
call everything "management"
(product-, claim-, money-, track-, train,...)

⬇

Unnatural language

⬇

Capabilities present in IT only

⬇
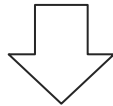
Extremely weak biz & IT alignment

"Tennis Racket Management"?
"Tennis Ball Acceleration Management"?

What we want to change…

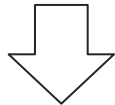**Based on highest cohesion**

"**Always based on information objects**"

⬇
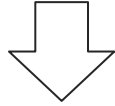
common

Unnatural language

⬇

everywhere

Capabilities present in IT only

⬇

Seamless busIT co-design

Extremely weak biz & IT alignment

Serve

Process

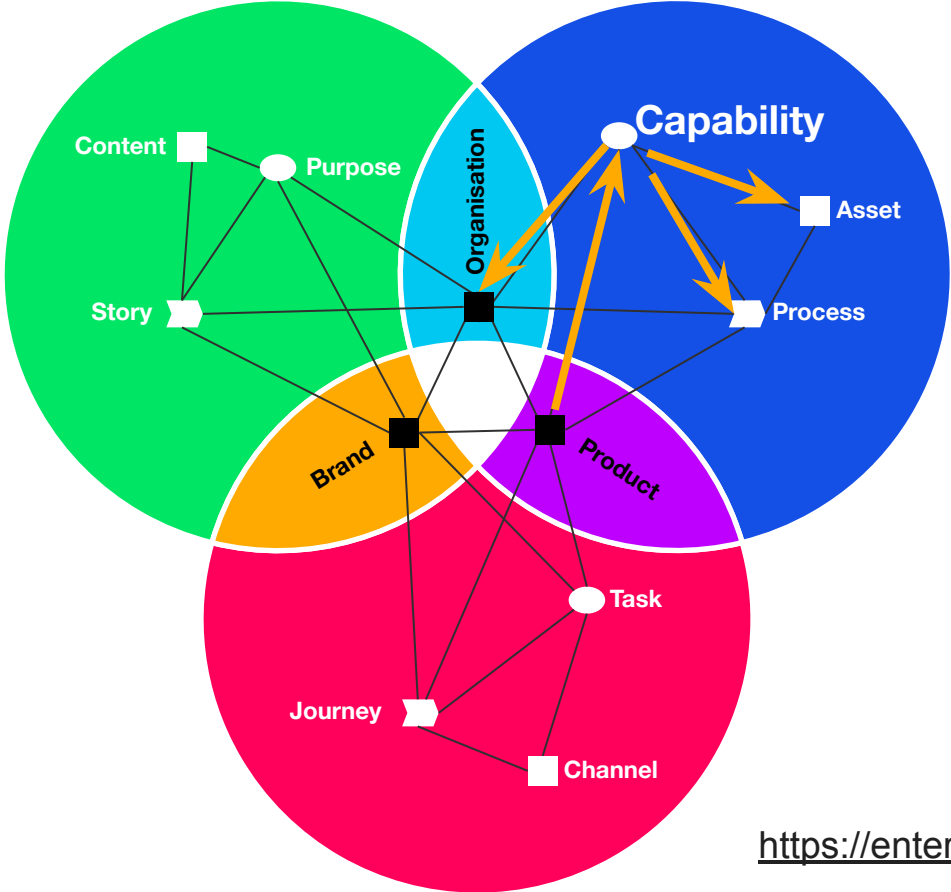"Related activities our enterprise carries out."

Process "Track Lifecycle"

| Strategic Infrastructure Planning | Budgeting | Plan Track | Build Track | Maintain Track |

Process/Activity = actually performed capability
Only ONE way to design boundaries (caps, orga, activities, processes)
Seamless connection of process management & capabilities & org design

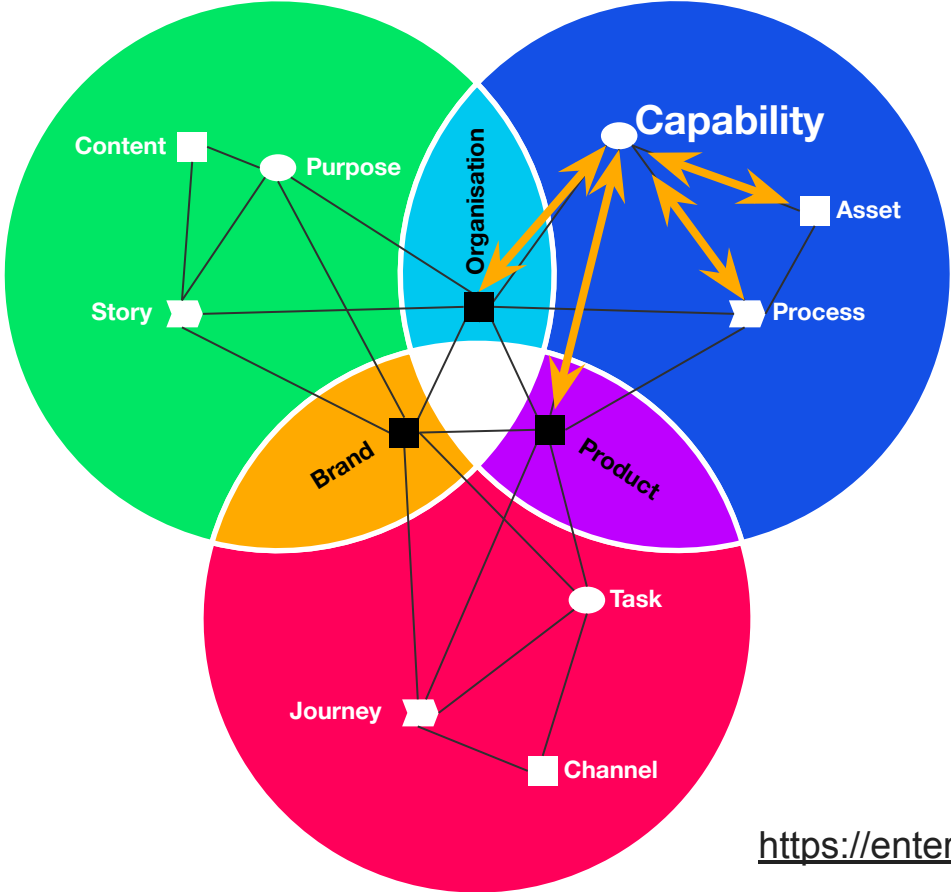# How to design capabilities? - Product oriented!


Startup

https://enterprise.design

How to design capabilities? - Driven by legacy

Existing Company

Content · Purpose · Organisation · Capability · Asset · Story · Process · Brand · Product · Task · Journey · Channel

What you've learned in this section..

› Only ONE decomposition of the business
› Start from existing docs (org, processes, website..)
› Run a broad elicitation process
› Enable business to own their capability design
› Design for highest cohesion
› Select categories with care
› Consolidate Process Models with Capabilities
› Layout for beauty
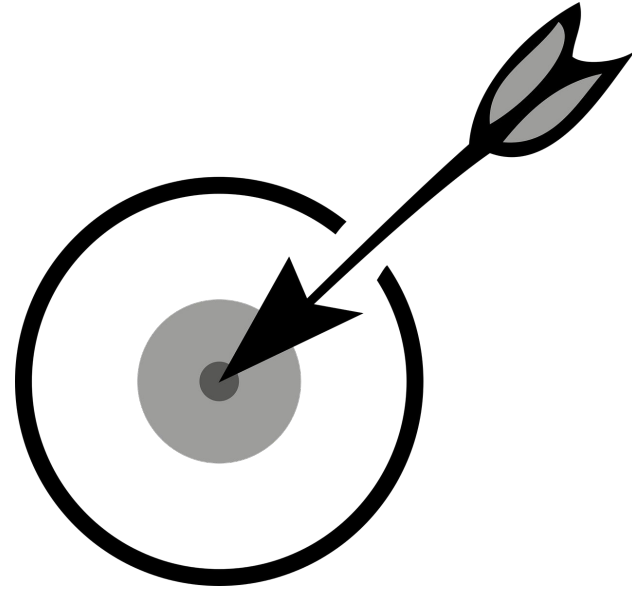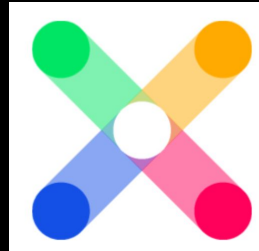
Business / IT Alignment -> BusinessIT Co-Design

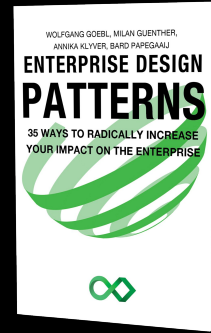# Intersection Group is a **Non Profit Association**
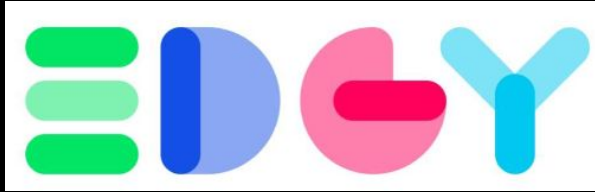
EDGY

www.enterprise.design
A set of connected Open
Source tools for your
Enterprise Design practice

**Community
and Events**

Events for a global
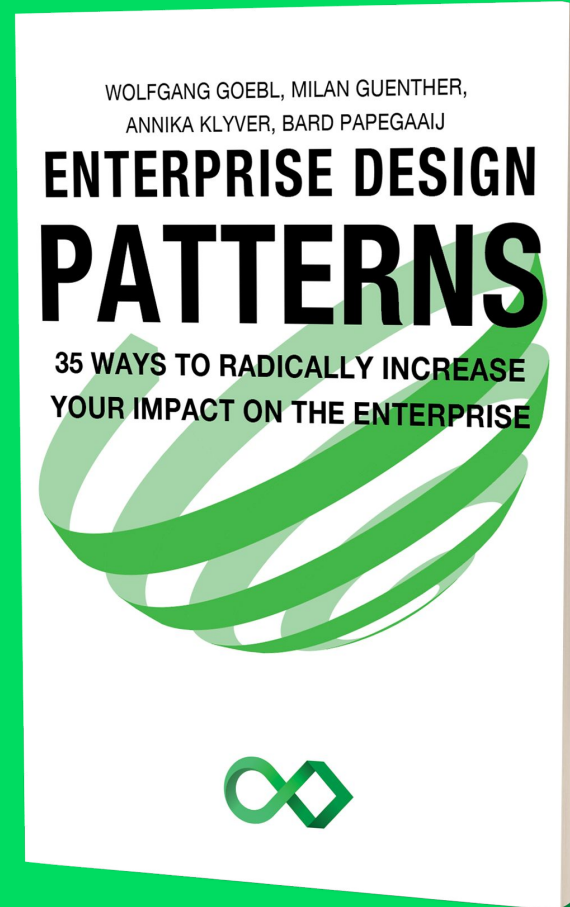community of thinkers
and practitioners

**Learning and
Knowledge**

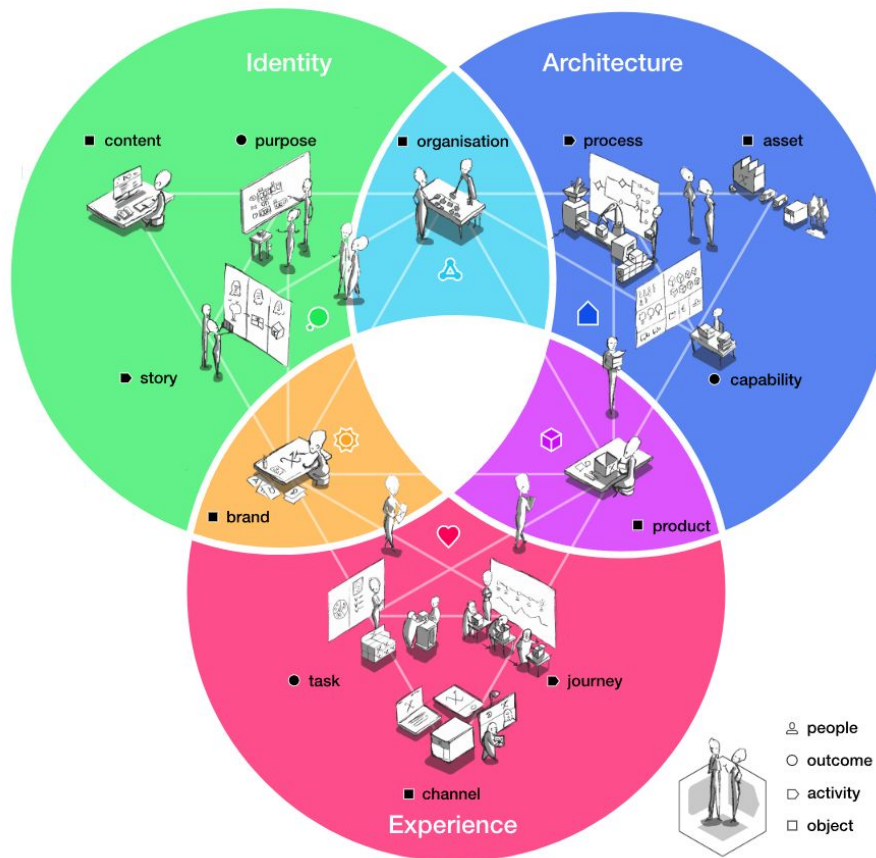Publications, content,
courses and digital
tools with our partners

Patterns

Journey to impact
Behaviour patterns
Practice patterns
Creations patterns

WOLFGANG GOEBL, MILAN GUENTHER,
ANNIKA KLYVER, BARD PAPEGAAIJ

ENTERPRISE DESIGN
PATTERNS

35 WAYS TO RADICALLY INCREASE
YOUR IMPACT ON THE ENTERPRISE

enterprisedesignpatterns.com

https://enterprise.design

Upcoming Events

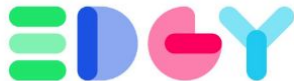## Capability Maps - the Next Generation!
With Wolfgang Goebl

- Webinar
- June 12, 2023
- Online

June 12th, 9am Berlin, Paris - In this webinar with Wolfgang Goebl we present the basic concepts of capability modeling.

Details **Register**

EDGY 23
A language for collaborative Enterprise Design

- Webinar
- June 19, 2023
- Online

June 19th, 9am Berlin, Paris - Bard Papegaaij and Milan Guenther will host an EDGY 23 presentation.

Details **Register**

Milky Way Enterprise Map
With Annika Klyver and Wolfgang Goebl

- Webinar
- June 26, 2023
- Online

June 26th, 9am Berlin, Paris - Annika Klyver and Wolfgang Goebl show you how to bridge the gaps across identity, experience and architecture with Milky Way enterprise maps.

Details **Register**

Intersection Conference: September 18-20
9th global conference on Enterprise Design

- Conference
- September 18-20, 2023, 09:00-17:00
- Vienna, Austria

9th Conference on Enterprise Design

EDGY User Day: September 20
Learn from the cases of EDGY practitioners!

- Conference
- September 20, 2023, 09:00-17:00
- Vienna, Austria

Learn from the cases of EDGY practitioners!

EDGY Language Foundations: Enterprise Design Facets and Elements October
Online cohort-based course

- Training
- October 12 to November 14, 2023, Tuesday & Thursday / 4pm-5:30pm Berlin / 10am-11:30am Montréal

https://intersection.group/events/intersection23

Thank you!

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www.intersection.group

INTERSECTION GROUP