# EDGY: A visual language for collaborative Enterprise Design

**Wolfgang Goebl**
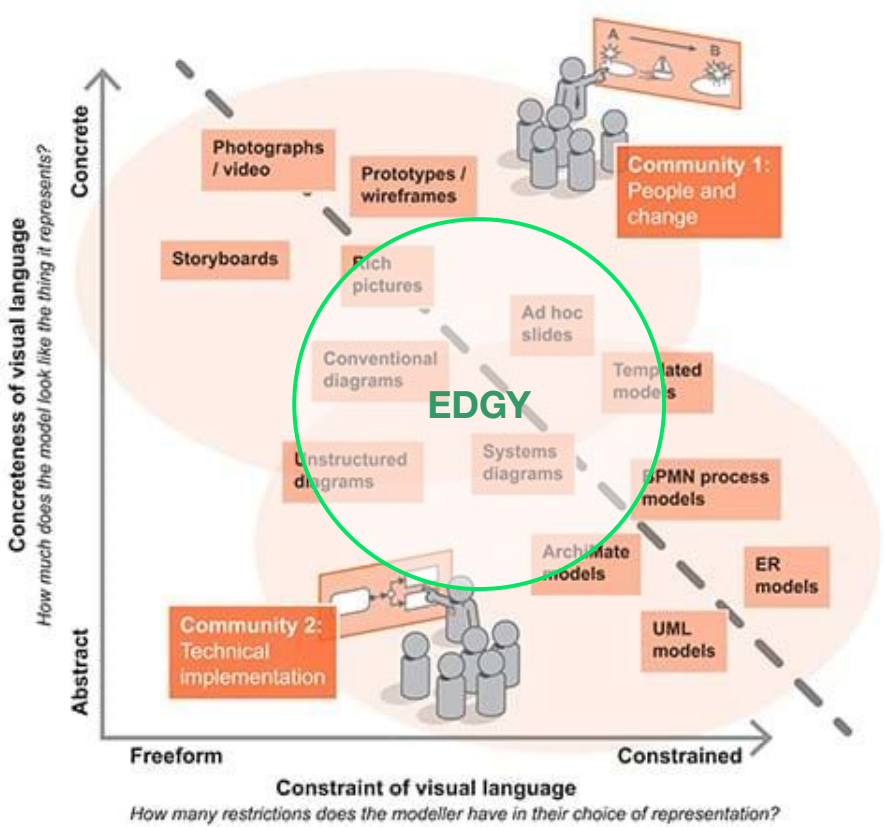**Milan Guenther**

# Enterprise Design

Enterprise Design is the **design of enterprises.**

EDGY is a **visual language** for **collaborative** Enterprise Design practice, connecting different Facets and Elements in a single model and visual representations.
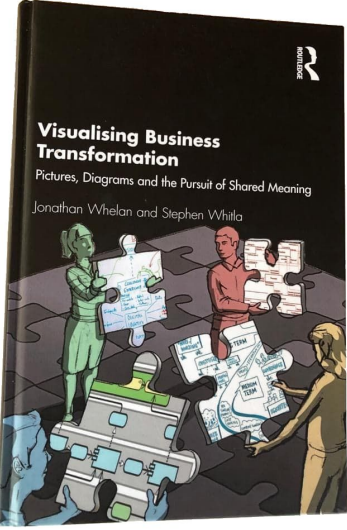
EDGY stands for **E**nterprise **D**esign **G**raphical morpholog**Y**.

# Visualisation in Enterprise Design

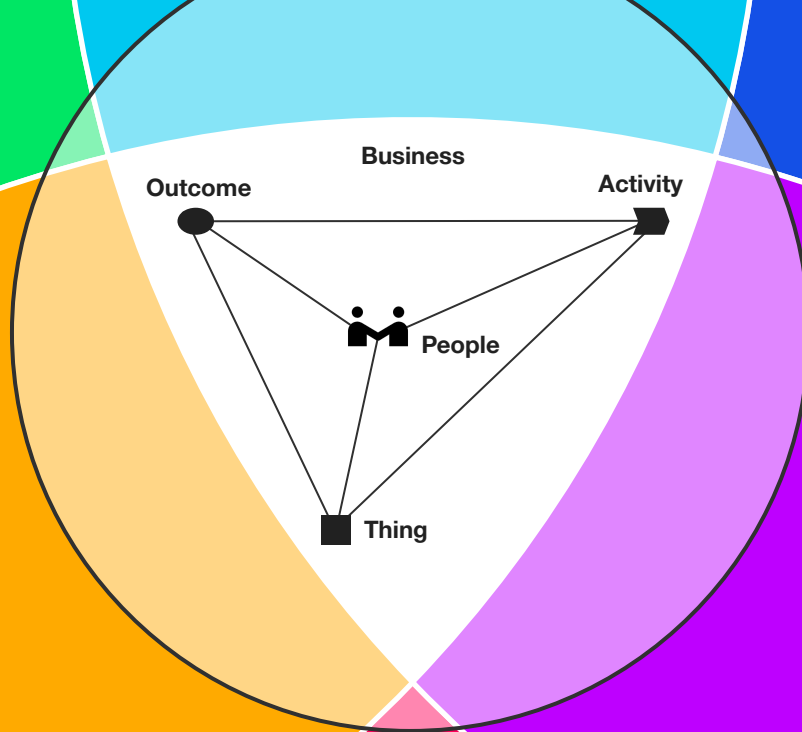

Steve Whitla

Jonathan Whelan

**Businesses**
**Outcomes**
**Activities**
**People**
**Things**

Core
Elements

Business

Outcome

Activity

People

Thing

EDGY

# Enterprise Design Facets

**Why** do we exist, who are we, what matters to us?
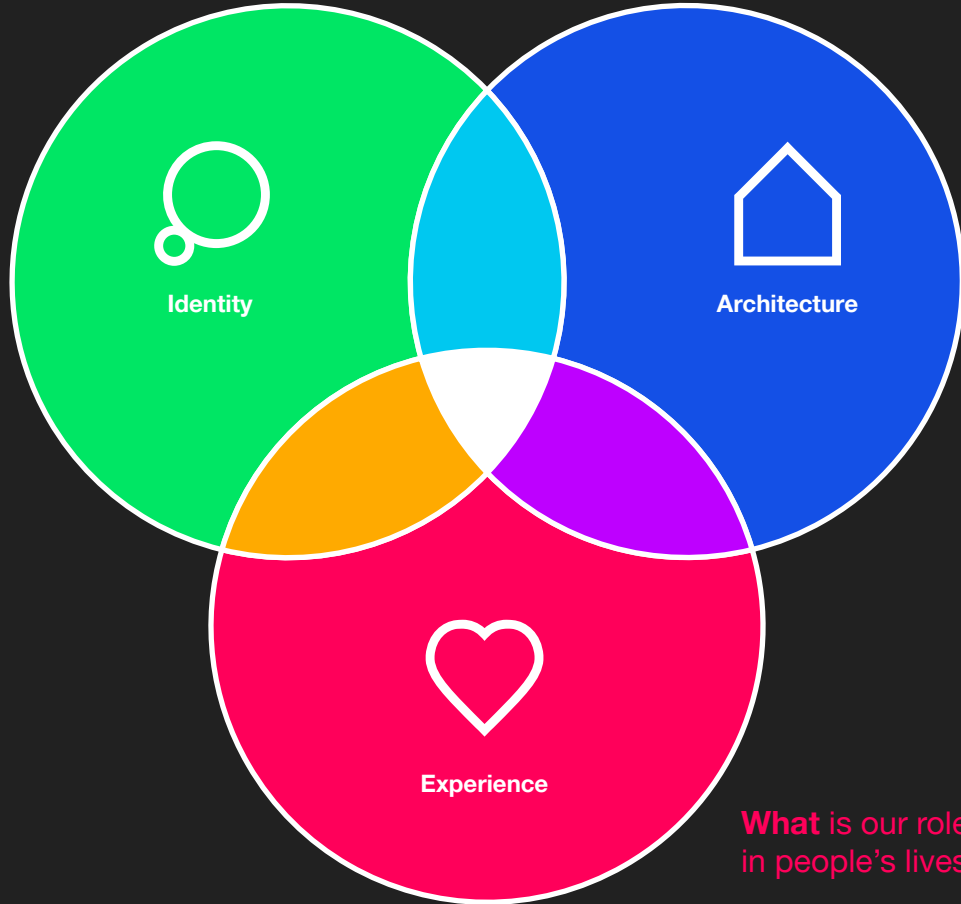
**Identity**

**How** are we operating and what are we capable of achieving?

**Architecture**

**What** is our role in people's lives?

**Experience**

# Intersections



How do we work together as a team?

Identity

Organisation

Architecture

Brand

Product

How are we being perceived?

What are we making and offering?

Experience

What's our business?

# Core Elements

At the intersection of all three Facets, the generic set of Core Elements represent an unfiltered view on the Enterprise itself and how it manifests as one or multiple *Businesses*: *People* working towards *Outcomes,* dealing with *Things* as part of their *Activity.*

This simplified and generic model allows us to capture what is happening in an enterprise and its ecosystem, without focusing on a particular Facet or Intersection perspective.

**Thing**
Physical or intangible objects important for us (like machines, software or raw material)

**Activity**
something happening in and around our enterprise

**Outcome**
A result, goal or change we (want to) achieve

**People**
A person or a group of people to be designed for and with

**Business**
A self-contained area of our enterprise

Enterprise Design Scope

How do we work together as a team?

How are we operating and what are we capable of achieving?

Why do we exist, who are we, what matters to us?

How are we being perceived?

What are we making and offering?

What is our role in people's lives?
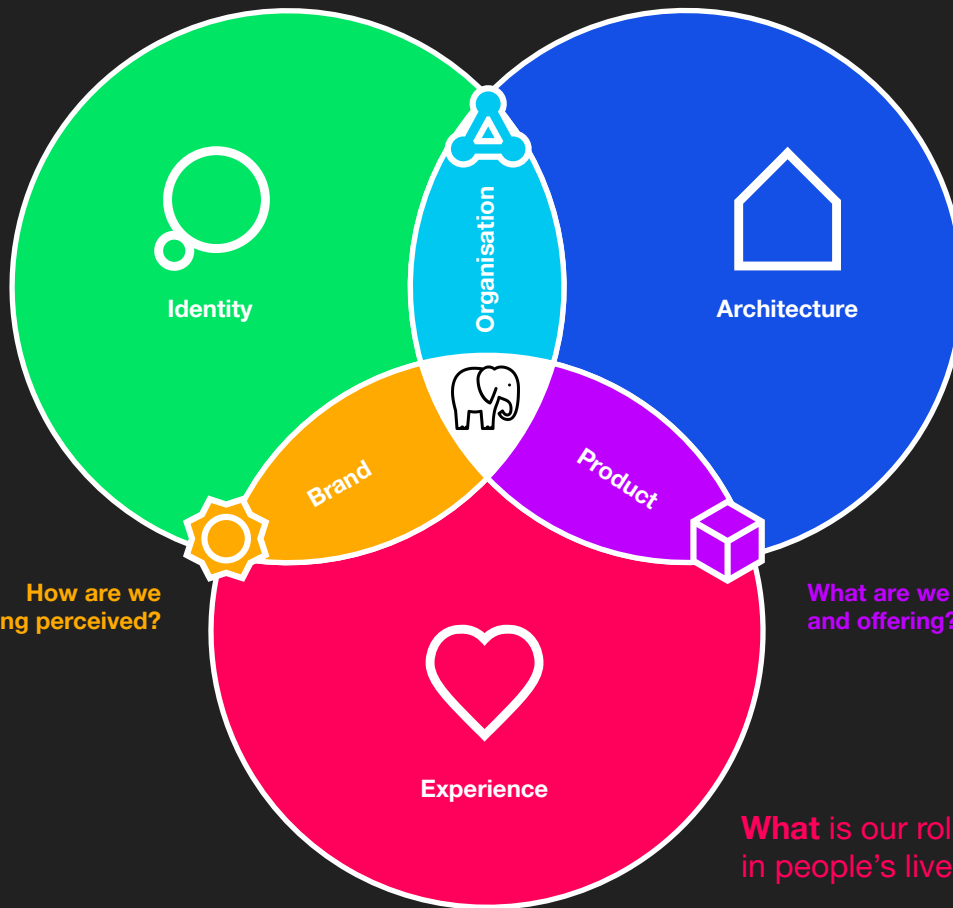
Identity

Architecture

Organisation

Brand

Product

Experience

# Focus Elements

Identity

Architecture

Content

Purpose

Organisation

Capability

Asset

Story

Process

Brand

Product

Task

Journey

Channel

Experience
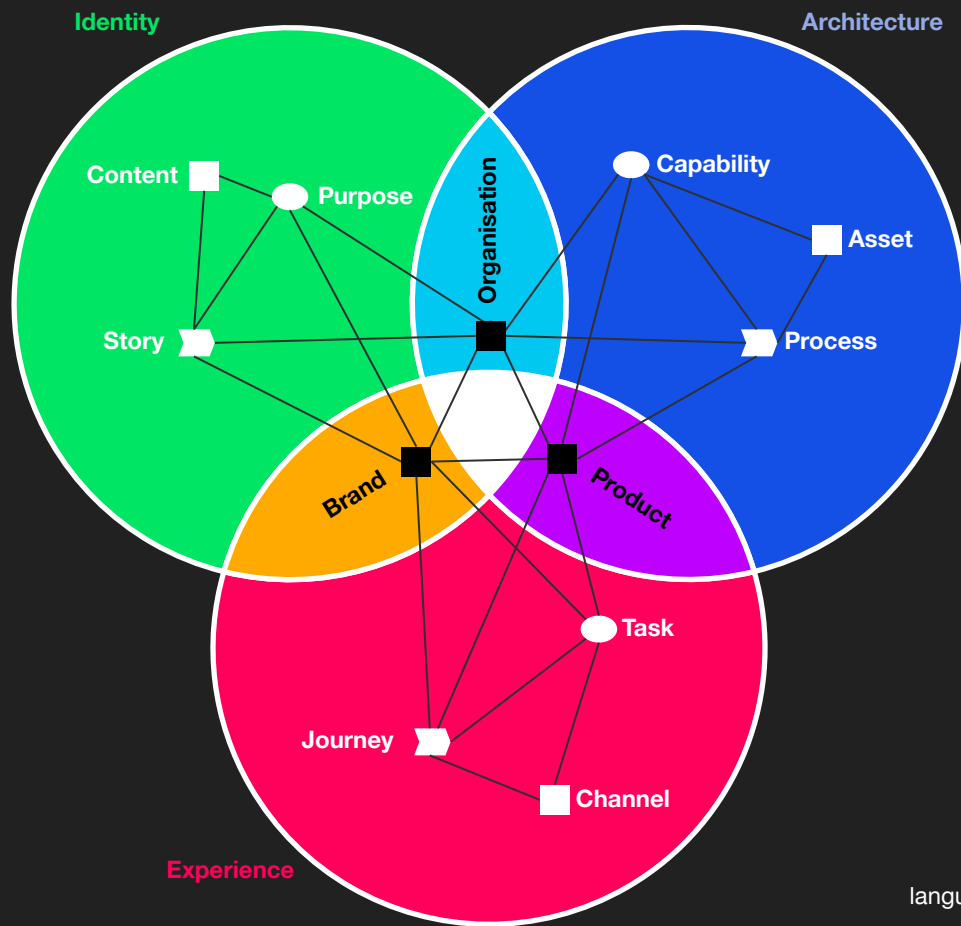
Outcome

Activity

Thing

Elements of the **EDGY** modelling language based on the FBS Ontology

# Facet Focus

## Identity

Who are we?

Why do we exist?

What matters to us?

What makes us
different and unique?
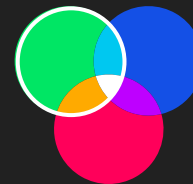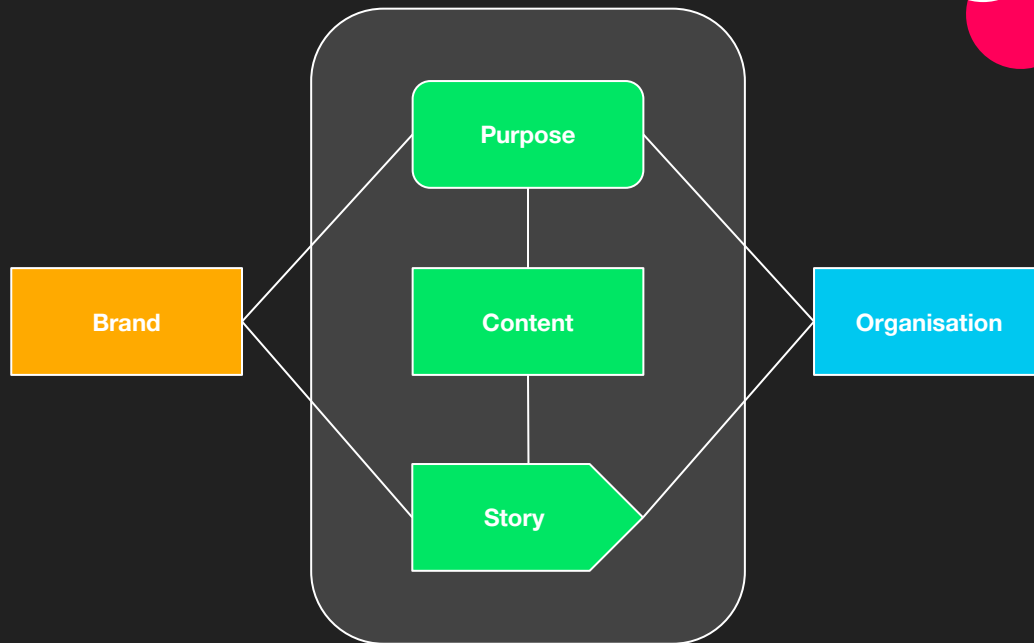
# Identity Example

# Identity Statement Example

Content

Story

Purpose

**Welcome to ÖBB-Infrastruktur**

We are pioneers of modern and customer-oriented rail transport in Austria. We plan, develop, maintain and operate rail infrastructure and ensure punctuality, security, cleanliness and open access to the rail system. We thereby provide the right conditions for an efficient and reliable passenger and freight service by rail.

# Purpose/Goals Examples

Seamless mobility

Punctuality

Adaptive for new transportation technologies

Safety

Environmental Friendly

Bring people together

New data-driven services

Comfort and convenience

Cost efficiency
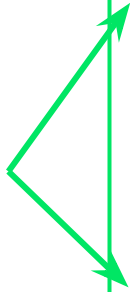
Reach small villages

# Facet Focus
♥ **Experience**

What is our role in people's lives?

What value do we create for people?

Where and when do people interact with us?
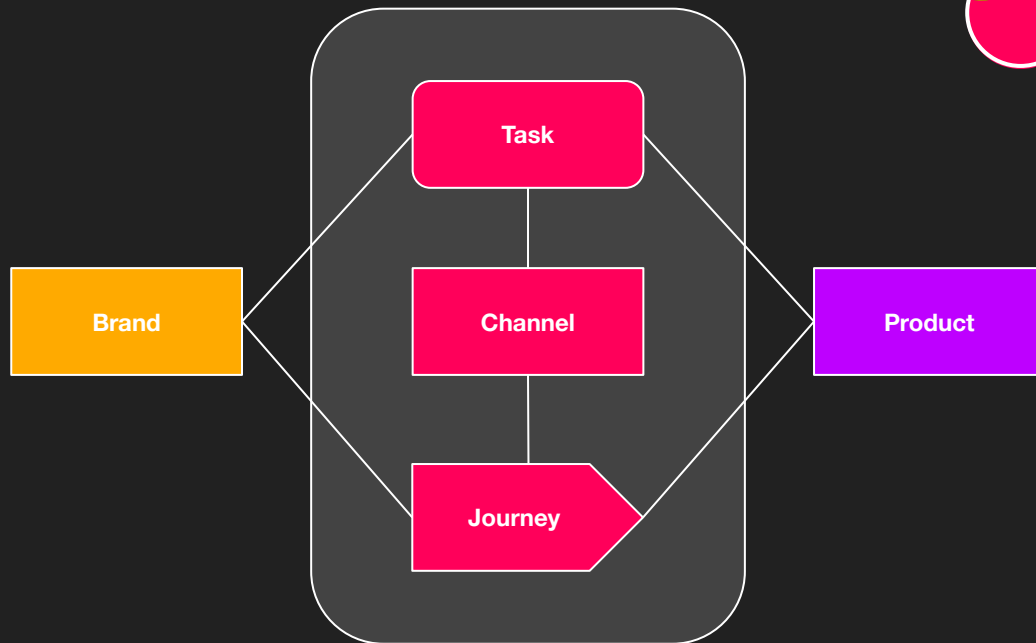
Experience Example

# What?
## Experience

# Rail Europe Experience Map

## Guiding Principles

| People choose rail travel because it is convenient, easy, and flexible. | Rail booking is only one part of people's larger travel process. | People build their travel plans over time. | People value service that is respectful, effective and personable. |
|---|---|---|---|

## Customer Journey

**STAGES**

Research & Planning | Shopping | Booking | Post-Booking, Pre-Travel | Travel | Post Travel

Research destinations, routes and products | Enter trips / Select pass(es) / Review fares | Confirm itinerary / Delivery options / Payment options / Review & confirm | Wait for paper tickets to arrive | Activities, unexpected changes | Share experience / Follow-up on refunds for booking changes

**DOING**

Consider destinations

Destination pages — raileuro

Plan with interactive map

Look up time tables

Look up routes & times

Live chat for questions

Review fares

Talk with friends

Blogs & Travel sites

Research hotels

Kayak, compare airfare

Research hotels

Pay

Trouble-shoot

Print e-tickets at home

Change plans

Check ticket status

Get tickets

Plan activities — Web
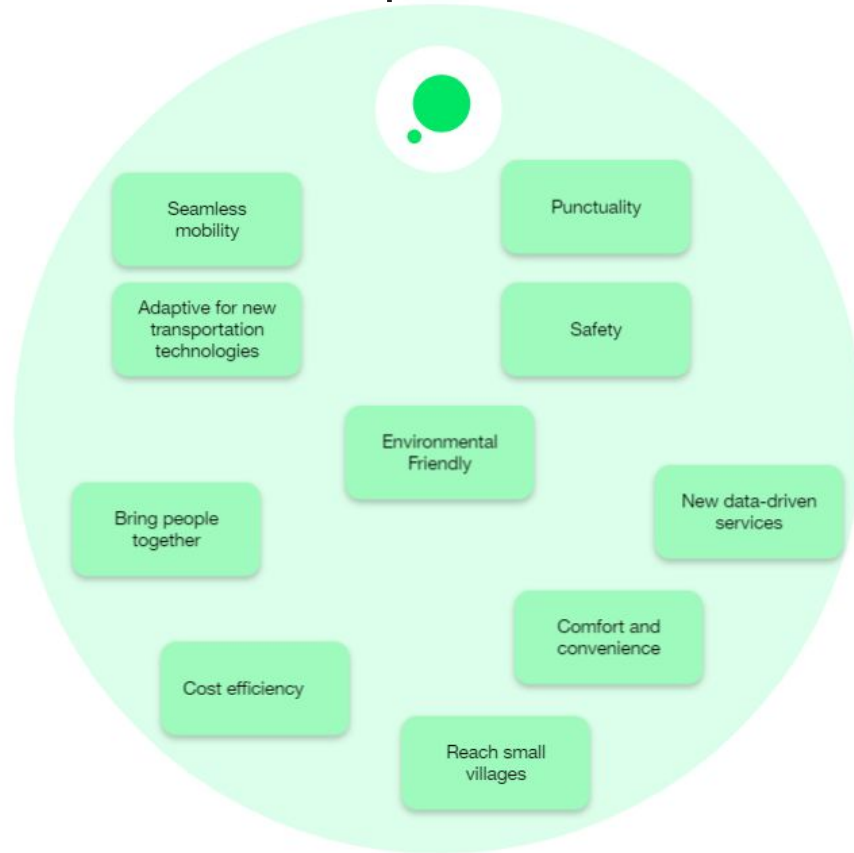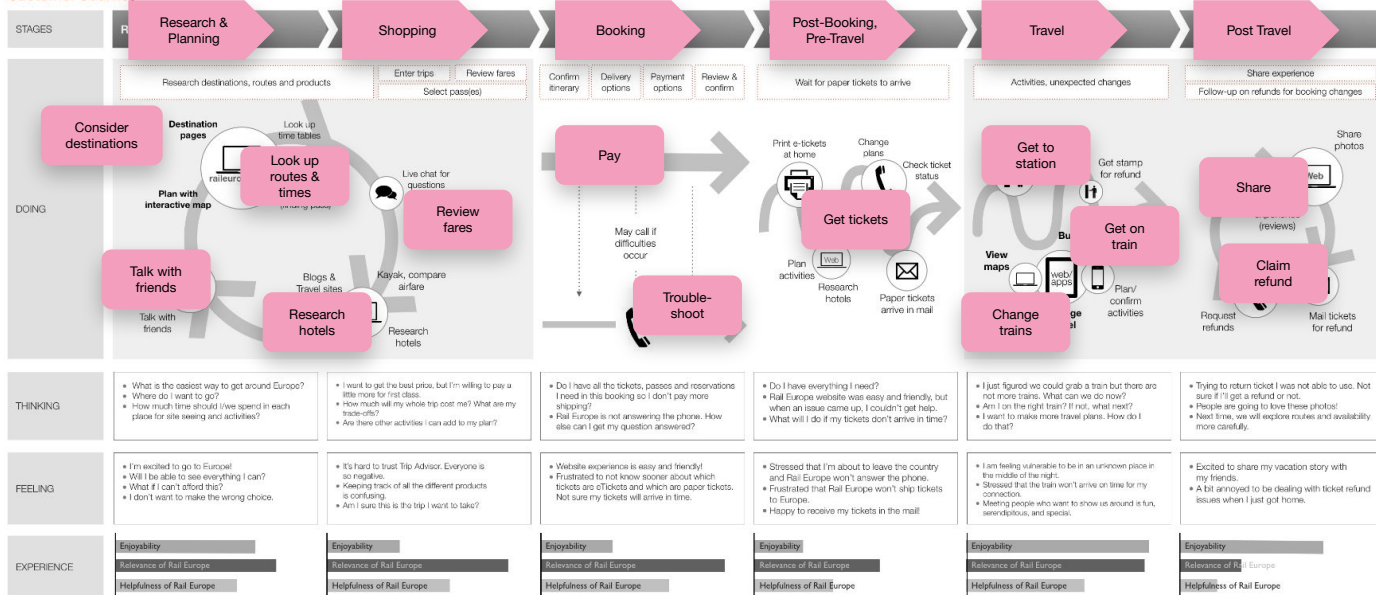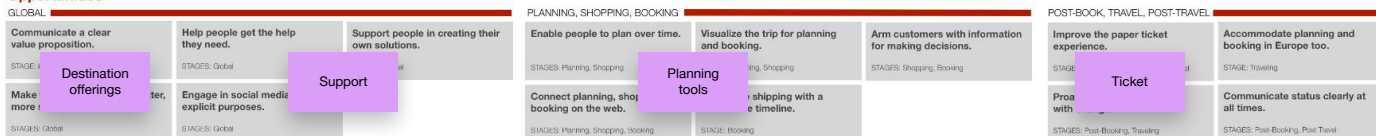
Research hotels

Paper tickets arrive in mail

Get to station

Get stamp for refund

Change trains

View maps — web/apps

Get on train

Plan/confirm activities

Request refunds

Share photos

Share — Web (reviews)

Claim refund

Mail tickets for refund

**THINKING**

| What is the easiest way to get around Europe? / Where do I want to go? / How much time should I/we spend in each place for site seeing and activities? | I want to get the best price, but I'm willing to pay a little more for first class. / How much will my whole trip cost me? What are my trade-offs? / Are there other activities I can add to my plan? | Do I have all the tickets, passes and reservations I need in this booking so I don't pay more shipping? / Rail Europe website was easy and friendly, but when an issue came up, I couldn't get help. / What will I do if my tickets don't arrive in time? | Do I have everything I need? / Rail Europe won't answer the phone. How else can I get my question answered? | I just figured we could grab a train but there are not more trains. What can we do now? / Am I on the right train? If not, what next? / I want to make more travel plans. How do I do that? | Trying to return ticket I was not able to use. Not sure if I'll get a refund or not. / People are going to love these photos! / Next time, we will explore routes and availability more carefully. |

**FEELING**

| I'm excited to go to Europe! / Will I be able to see everything I can? / What if I can't afford this? / I don't want to make the wrong choice. | It's hard to trust Trip Advisor. Everyone is so negative. / Keeping track of all the different products is confusing. / Am I sure this is the trip I want to take? | Website experience is easy and friendly! / Frustrated to not know sooner about which tickets are eTickets and which are paper tickets. Not sure my tickets will arrive in time. | Stressed that I'm about to leave the country and Rail Europe won't answer the phone. / Frustrated that Rail Europe won't ship tickets to Europe. / Happy to receive my tickets in the mail! | I am feeling vulnerable to be in an unknown place in the middle of the night. / Stressed that the train won't arrive on time for my connection. / Meeting people who want to show us around is fun, serendipitous, and special. | Excited to share my vacation story win with my friends. / A bit annoyed to be dealing with ticket refund issues when I just got home. |

**EXPERIENCE**

| Enjoyability / Relevance of Rail Europe / Helpfulness of Rail Europe | Enjoyability / Relevance of Rail Europe / Helpfulness of Rail Europe | Enjoyability / Relevance of Rail Europe / Helpfulness of Rail Europe | Enjoyability / Relevance of Rail Europe / Helpfulness of Rail Europe | Enjoyability / Relevance of Rail Europe / Helpfulness of Rail Europe | Enjoyability / Relevance of Rail Europe / Helpfulness of Rail Europe |

## Opportunities

**GLOBAL**

| Communicate a clear value proposition. STAGE: Global | Help people get the help they need. STAGES: Global | Support people in creating their own solutions. |
|---|---|---|
| Make ... more ... STAGES: Global | Engage in social media for explicit purposes. STAGES: Global | |

Destination offerings

Support

**PLANNING, SHOPPING, BOOKING**

| Enable people to plan over time. STAGES: Planning, Shopping | Visualize the trip for planning and booking. STAGES: Planning, Shopping | Arm customers with information for making decisions. STAGES: Shopping, Booking |
|---|---|---|
| Connect planning, shopping, booking on the web. STAGES: Planning, Shopping, Booking | ... shipping with a ... e timeline. STAGE: Booking | |

Planning tools

**POST-BOOK, TRAVEL, POST-TRAVEL**

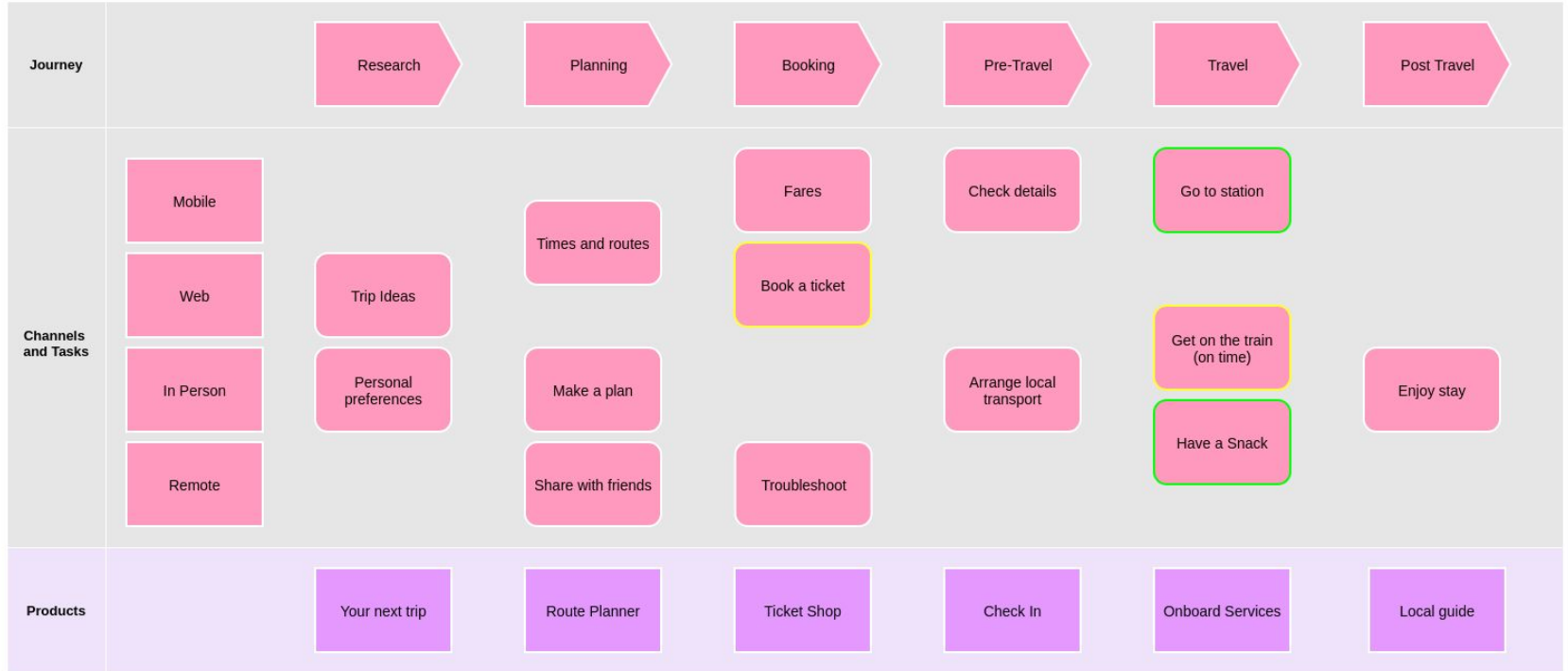| Improve the paper ticket experience. STAGE: ... | Accommodate planning and booking in Europe too. STAGE: Traveling |
|---|---|
| Proa... with ... | Communicate status clearly at all times. STAGES: Post-Booking, Post Travel |

Ticket

Information sources: Stakeholder interviews / Cognitive walkthroughs / Customer Experience Survey / Existing Rail Europe Documentation
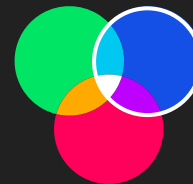
Ongoing, non-linear | Linear process | Non-linear, but time based

Mapping Experiences — adaptive path

Experience Map for Rail Europe | August 2011

# Experience Example

| | Journey | | | | | | |
|---|---|---|---|---|---|---|---|
| | | Research | Planning | Booking | Pre-Travel | Travel | Post Travel |

| | Channels and Tasks | | | | | | |
|---|---|---|---|---|---|---|---|
| | Mobile | | | Fares | Check details | Go to station | |
| | Web | Trip Ideas | Times and routes | Book a ticket | | | |
| | In Person | Personal preferences | Make a plan | | Arrange local transport | Get on the train (on time) | Enjoy stay |
| | Remote | | Share with friends | Troubleshoot | | Have a Snack | |

| | Products | | | | | | |
|---|---|---|---|---|---|---|---|
| | | Your next trip | Route Planner | Ticket Shop | Check In | Onboard Services | Local guide |

# Facet Focus

**Architecture**

What makes all the
parts in our enterprise
work together?

What are we capable
of achieving?

How do we make use
of our assets and
resources?

# Capability

"What our enterprise can achieve by orchestrating its people and assets"

Billing Officer

SAP FI          Office

**Bill**

Traveled          Computer
Route

Electricity

"Billing"
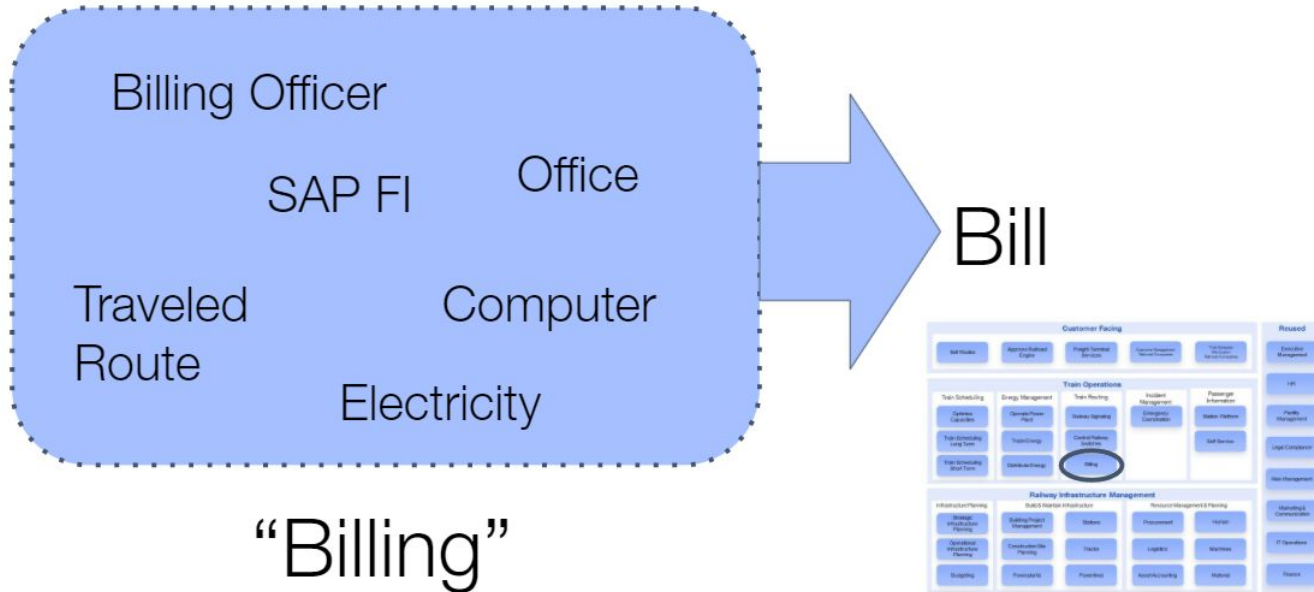
# Process

"Related activities our enterprise carries out."

## Process "Track Lifecycle"

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

# Assets

"Things we need to perform activities."

**Physical**
- Machine
- Building
- Raw Material

**Information**

**Software**
- Application
- Software Technology

# Assets - IT Applications



**Railway Infrastructure Management**

**Infrastructure Planning**

Strategic Planning
- Stratapp
- Confluence

Operational Planning
- Planfritz

Budgeting
- SAB FIN
- Budgator

**Build & Maintain Infrastructure**

Project Management
- Planfritz
- ObenText
- Synis

Construction Planning
- Constructor
- ObenText
- Conplan

Powerplants
- Energybuilder

Stations
- Constructor

Tracks
- Trackcal
- Asset DB
- Gradecal
- Mathlob

Powerlines
- Cableplan
- Asset DB
- Planca

**Resource Management & Planning**

Procurement
- SAB FIN
- Buyit
- MarketDB

Logistics
- SAB LO
- Logistica

Asset Accounting
- SAB AM

Human
- Peopleplanner
- SAB HR

Machines
- Machplan
- Mainmach

Material
- StoreMat

...Strategic   ...Replace in 3 to 5 years   ...Replace in 1 to 2 years

# Assets - IT Applications

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

| Stratapp | | SAB FIN | Trackcal | | |
|---|---|---|---|---|---|
| Confluence | | Budgator | Gradecal **2** | | |

| Planfritz **1** |
|---|

| Mathlob |
|---|

| Trackmaintainschedulerz **3** |
|---|

| Asset DB |
|---|
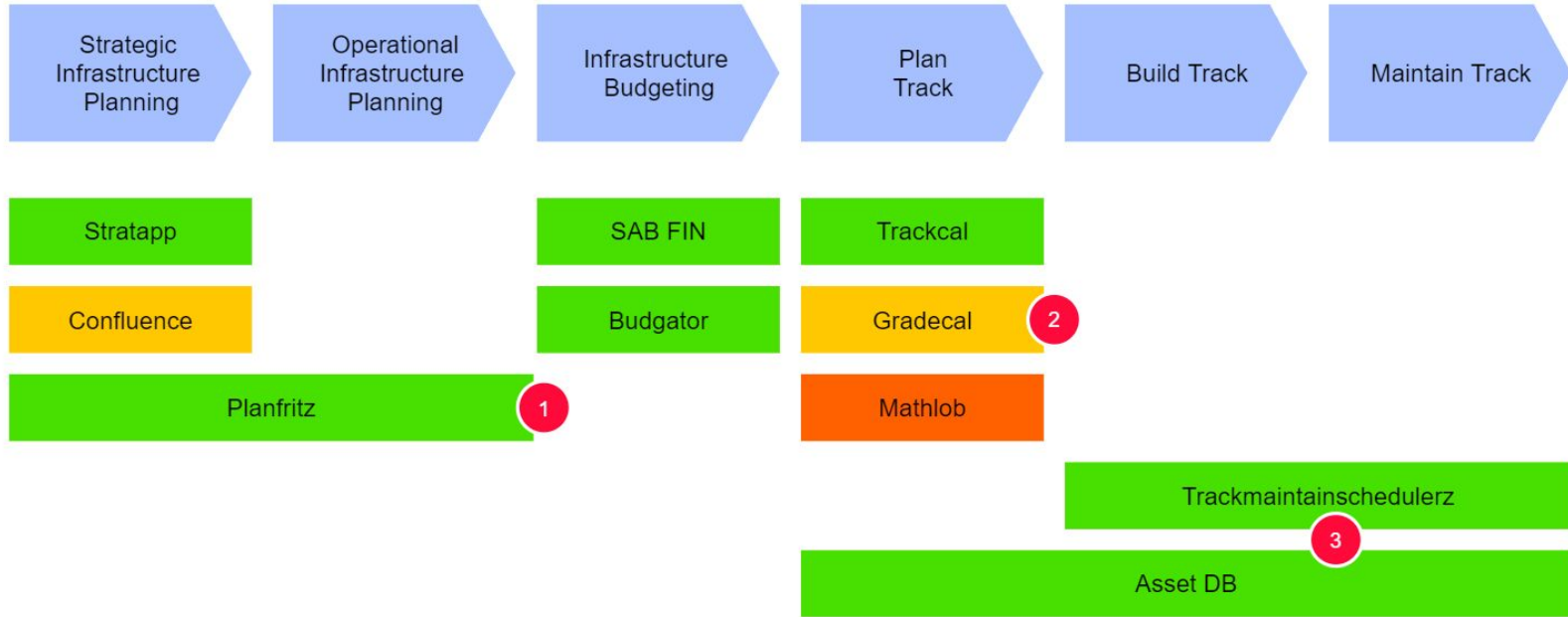
# Intersection Focus

## Organisation

How do we work together as a team?

How do we make decisions, collaborate, repartition responsibilities and teamwork?

Purpose

Story

Organisation

Capability

Process
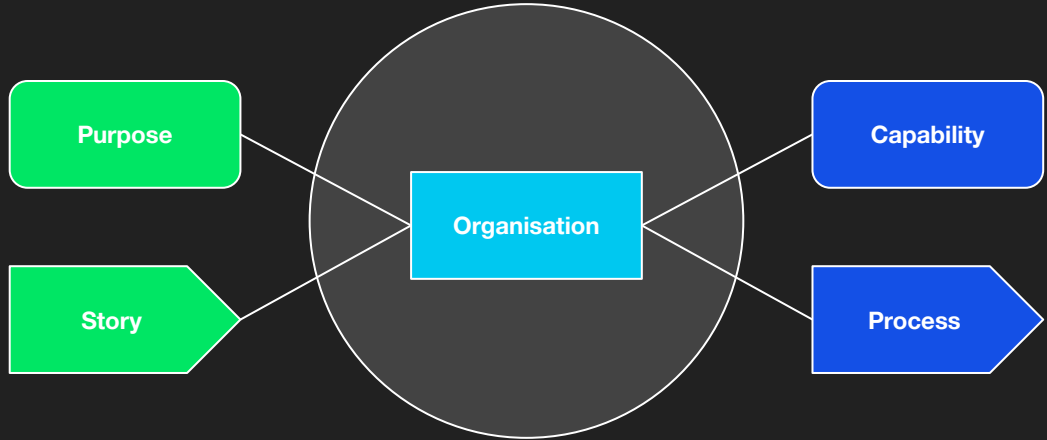
# Organisation
"A team or group of people working together."
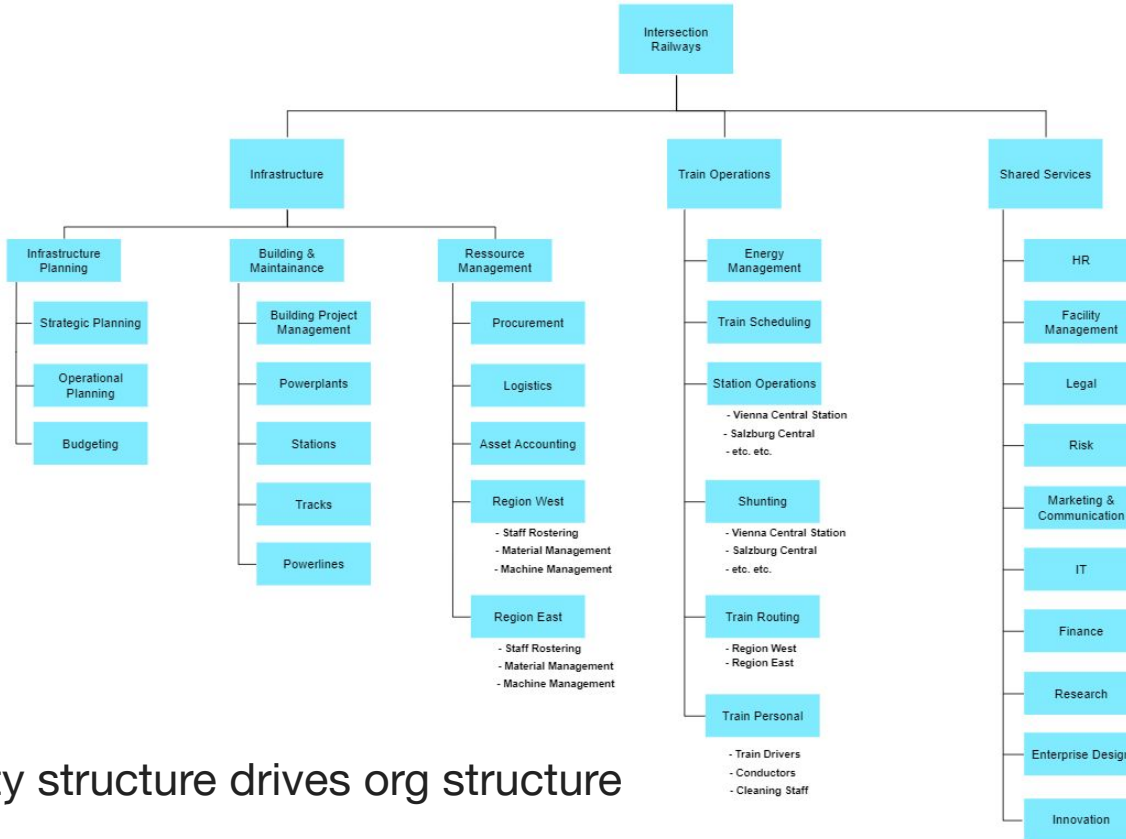


Capability structure drives org structure

# Intersection Focus

**Product**

What are we making and offering?

What products or services to we propose to people?

# Product

"Something our enterprise makes and offers."
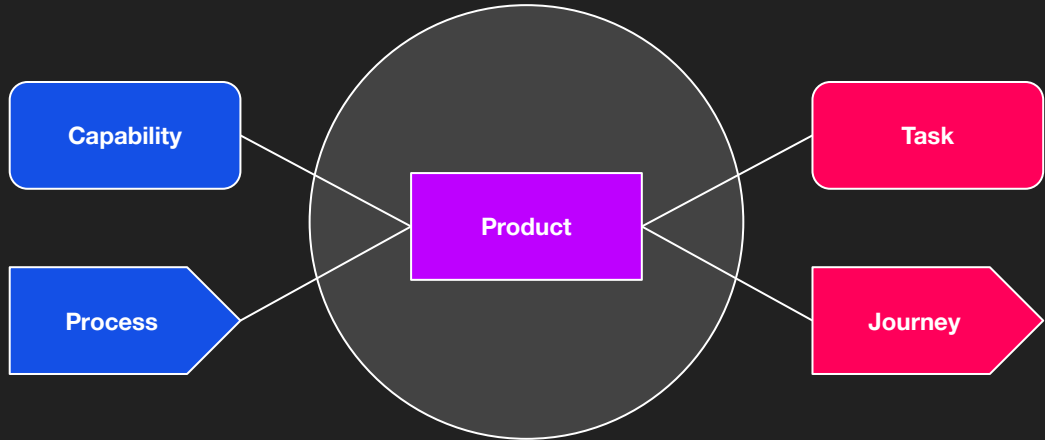
```
Product Portfolio
├── Passenger Services
│   ├── Loyalty Cards
│   │   ├── XCard
│   │   └── XtraX
│   ├── Standard Fares  +
│   └── XGO Special Fares
│       ├── Euro X
│       ├── Night X
│       └── Region X
├── Infrastructure Services  +
└── Freight Services  +
```
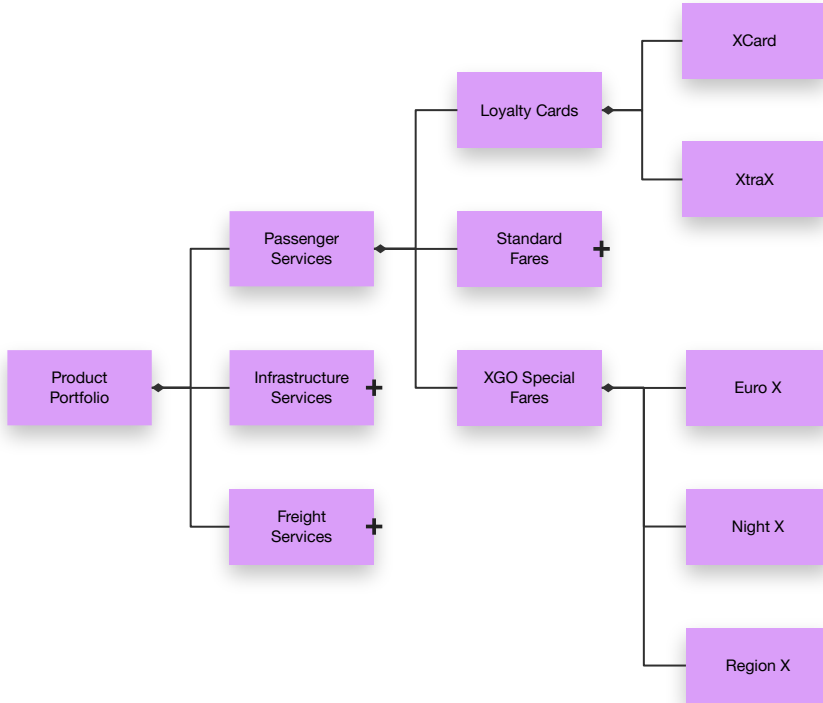
# Intersection Focus

**Brand**

How are we being perceived?

What does our name stand for, what is our image and reputation?
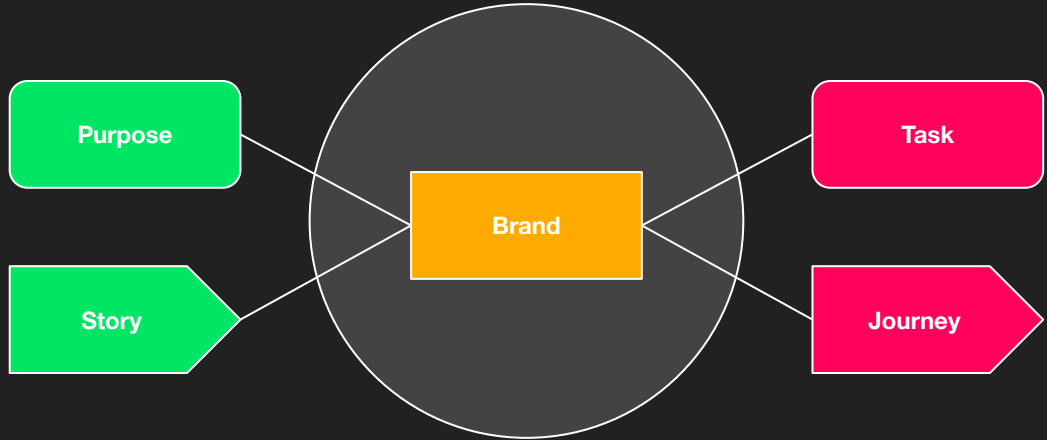
# Brand Example

ÉVOLUTION STRATÉGIQUE DU PORTEFEUILLE DE MARQUES

ANNÉE DE RÉFÉRENCE 2014

Téoz

Lunéa

Corail Intercités

Intercités

Transilien

TGV

SNCF

iDBUS

iDVROOM

iDTGV

OUIGO
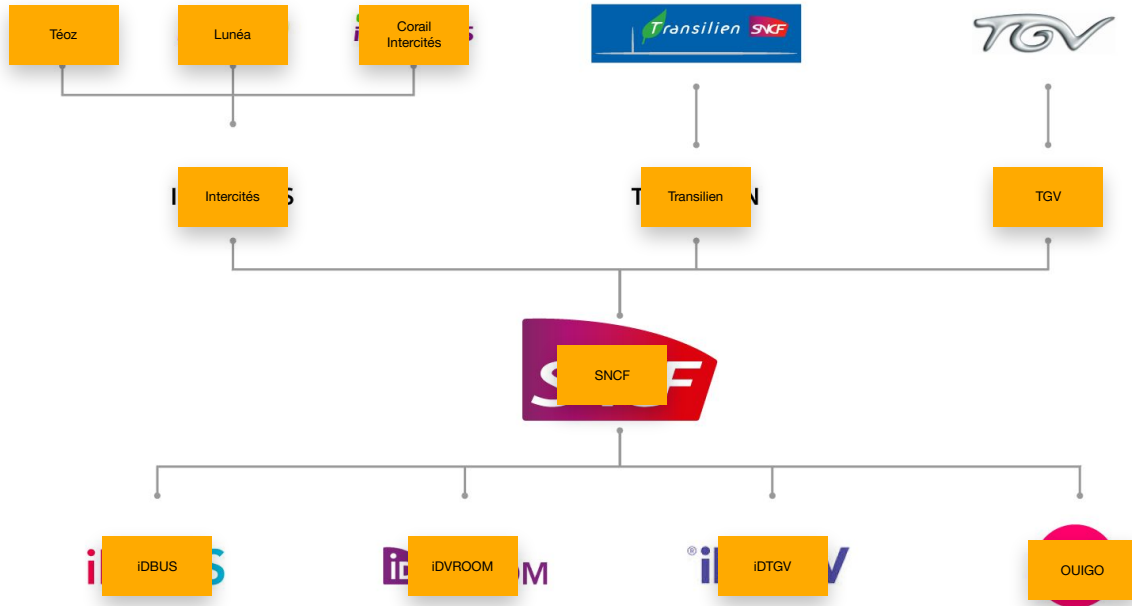
Comment devenir la marque du transport personnalisé porte à porte quand on est la marque du chemin de fer ?
Après avoir neutralisé ses marques ferroviaires en 2011, la SNCF met en avant ses innovations en développant des marques telles que Ouigo,
ou en s'appuyant sur le radical "ID" pour "idée".

## The World's Most Valuable Brands

Brand value of the most valuable brands in 2020 (in billion USD)

Growth compared to 2019 (in %)

| Brand | Value | Growth |
|-------|-------|--------|
| Apple | 322.9 | +38 |
| amazon | 200.6 | +60 |
| Microsoft | 166.0 | +53 |
| Google | 165.4 | -1 |
| SAMSUNG | 62.2 | +2 |
| Coca-Cola | 56.8 | -10 |
| TOYOTA | 51.5 | -8 |
| Mercedes-Benz | 49.2 | -3 |
| McDonald's | 42.8 | -6 |
| Disney | 40.7 | -8 |
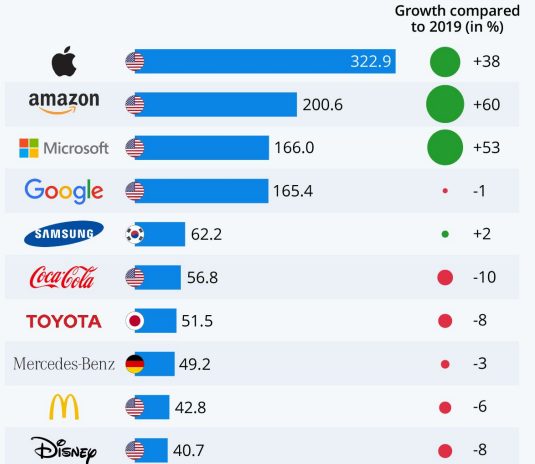
Source : Interbrand

statista

# Focus Elements



Content    Purpose    Organisation    Capability    Asset

Story    Process

Brand    Product

Task

Journey    Channel
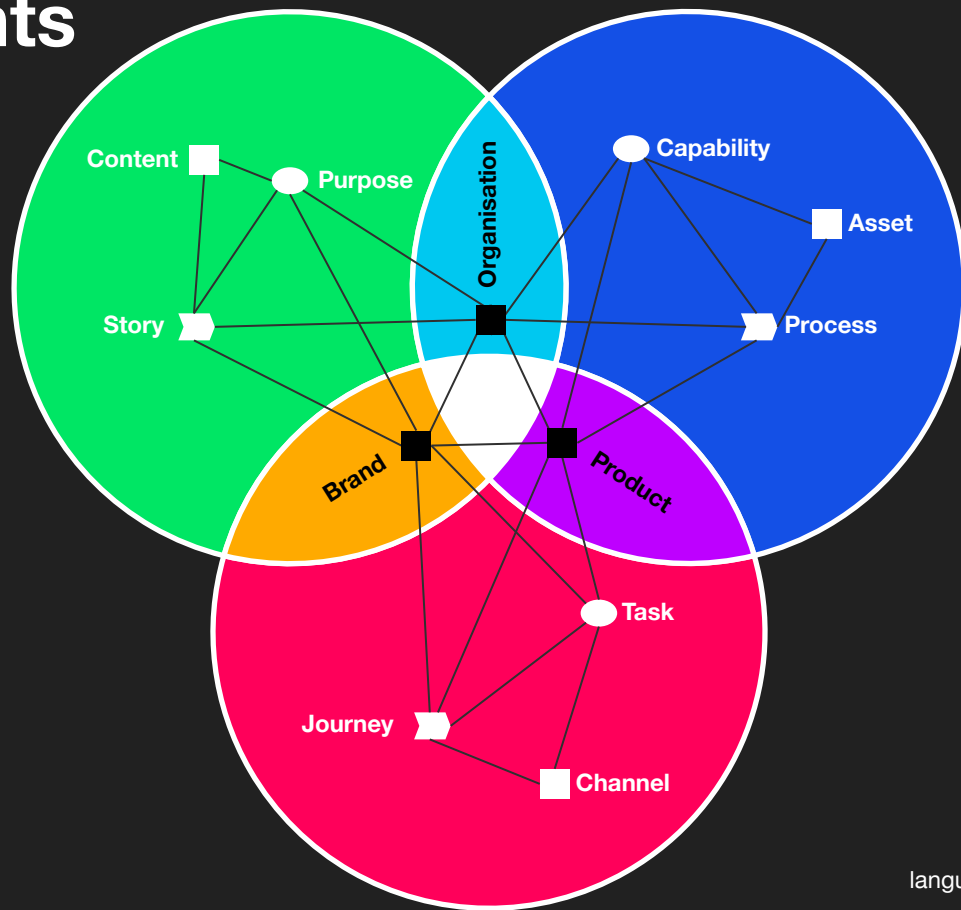
Outcome

Activity

Thing

Elements of the **EDGY** modelling
language based on the FBS Ontology

# EDGY Elements

Used to map enterprise elements and relations, trace their interplay, and express a future design.

**Product**
something our enterprise makes and offers

**Journey**
people's activities when interacting with our enterprise

**Task**
what people want to achieve with our help

**Channel**
the environment, context or means of interaction

**Brand**
our name and what it stands for

**Purpose**
what our enterprise pursues and believes in

**Story**
the way we understand and explain what we do

**Content**
what we communicate in text, picture or video

**Organisation**
a team or group of people working together

**Capability**
what our enterprise can do and achieve, with people and assets

**Process**
related activities our enterprise carries out

**Asset**
Things we need to perform activities
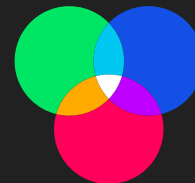
# An EDGY Service Blueprint

| Journey | | Research | Planning | Booking | Pre-Travel | Travel | Post Travel |
|---|---|---|---|---|---|---|---|

**Channels and Tasks**

| Mobile | | | | Fares | Check details | Go to station | |
|---|---|---|---|---|---|---|---|
| Web | Trip Ideas | Times and routes | Book a ticket | | | Get on the train (on time) | |
| In Person | Personal preferences | Make a plan | | Arrange local transport | | Enjoy stay |
| Remote | | Share with friends | Troubleshoot | | Have a Snack | |

**Products**

| | | Your next trip | Route Planner | Ticket Shop | Check In | Onboard Services | Local guide |
|---|---|---|---|---|---|---|---|

**Capabilities and Organisation**

| Marketing | Marketing and Communications | | | | | |
|---|---|---|---|---|---|---|
| Passenger Sales | | | Sell Passenger Tickets | Passenger Information | | |
| Customer Experience | | | Customer Support (new) | | | Customer and Market Analytics |
| Train Operations | | | | Local Transport coordination (new) | Drive Train | |
| Scheduling | | Scheduling (short term) | | | | |

An EDGY Milky Way enterprise map

# Our community

**700+** members on Slack

**3000+** newsletter subscribers

Enterprise Designers from various backgrounds:
About 30% Enterprise and Business Architects
About 30% Experience, Service and Business Designers

A diverse group of about 40% other, related profiles:
Business Analysts, Founders and Executives, Innovation or Change
Agents, Operations and Process Designers, Organisation Designers and
Developers, Branding and Marketing Experts, Agilists and Digital/IT
Experts, Product Owners, Industry Experts…

1686

286

Jan. 2020  März 2020  Mai 2020  Juli 2020  Sep. 2020  Nov. 2020
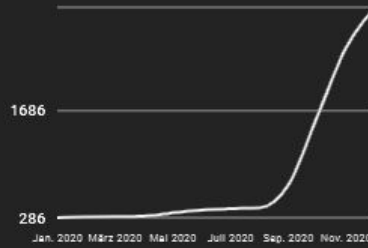
LISTENAUSBAU

↑1.166,4%

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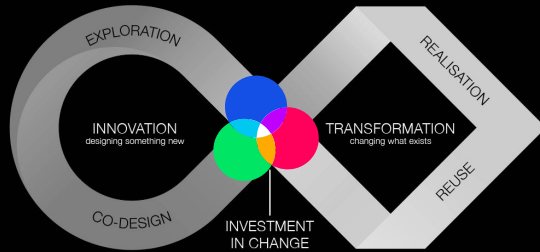


**EDGY approach
and tooset**

An open source set of
tools to do Enterprise
Design for key challenges
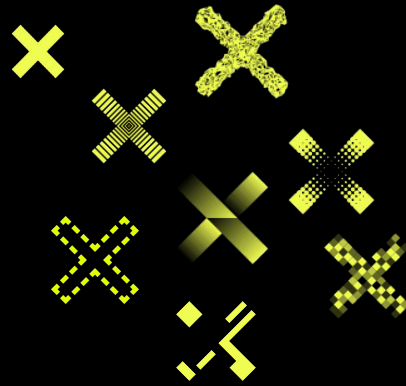
**Community
and Events**

A global community of
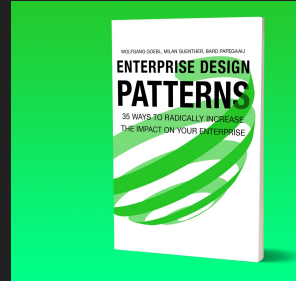skilled practitioners
and thinkers
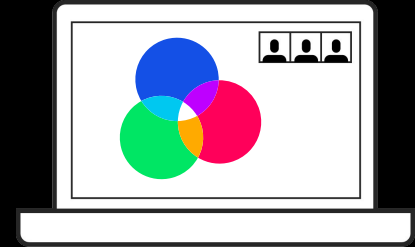
**Digital Tool
Support**

Software tools supporting
EDGY, the Milky Way and
other enterprise maps

# Creating **Knowledge Products**
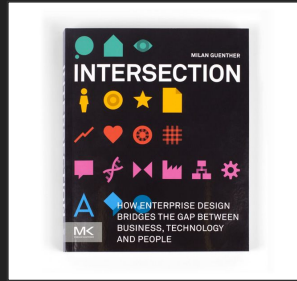


**Intersection: bridging the tech-biz-people gap**

2012: A primer for holistic and systemic design at enterprise scale

**A Pattern Language for Enterprise Design**

Just out! 35 instantly usable patterns
for enterprise design

**Training and tools for practitioners**

2021: Content, tools and courses delivered by our education partners

# You work very hard, but does it really make a difference?

**Buy the book**

www.enterprisedesignpatterns.com

WOLFGANG GOEBL, MILAN GUENTHER,
ANNIKA KLYVER, BARD PAPEGAAIJ

# ENTERPRISE DESIGN
# PATTERNS

35 WAYS TO RADICALLY INCREASE
YOUR IMPACT ON THE ENTERPRISE

INTERSECTION GROUP

# Intersection 22

Stockholm, September 26-27, 2022

▪▪ Conference     ▦ September 26–27, 2022,09:00     📍 Södertälje / Stockholm, Sweden

**More Details**

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100% LIVE

**EDGY V1.0α**
**A graphical language for collaborative Enterprise Design**

## EDGY

A graphical language for collaborative Enterprise Design

▪▪ Webinar
▦ March 16, 2022
📍 Online

Mar 16th, 4 pm Berlin, Paris - In this webinar, Milan Guenther and Wolfgang Goebl will be presenting the upcoming V1.0 of our graphical language for collaborative Enterprise Design.

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100% LIVE

The Story of
**Severin the Service Designer**

## Severin the Service Designer

With Milan Guenther

▪▪ Webinar
▦ March 30, 2022
📍 Online

March 30th, 4 pm Berlin, Paris - In this webinar, Milan Guenther tells the story of Severin as they start their new engagement as a Service Designer, aiming to deliver new offerings and a better experience to their client's customers.

https://intersection.group/events/

# Thank you!



**Wolfgang Goebl**
wolfgang@intersection.group



**Milan Guenther**
milan@intersection.group

www.intersection.group

"Intersection Group"

intersectionconf.com

enterprisedesignpatterns.com

hello@intersection.group