



# Digital Transformation and sustainable business models

**Juergen Hecht** Vice President Technology Services, Banking & Insurance, NTT DATA

**Lena Bauer** Pre-Sales & Solutioning Consultant Technology Services, NTT DATA

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<b>CHAPTER 1</b> „New sustainable business models“	<b>CHAPTER 2</b> „Enablement of Business Models through technologies“	<b>CHAPTER 3</b> „Enablement of Business Models through technologies“	<b>CHAPTER 4</b> Execution of business models by people and processes“	<b>EXAM</b> „New business model marketplace“
<ul style="list-style-type: none"> <li>▪ Overview &amp; Administrative Things</li> <li>▪ Digital Transformation</li> <li>▪ Business Model Canvas &amp; Value Proposition Canvas</li> <li>▪ Exam Introduction</li> <li>▪ Sustainability &amp; Technology</li> </ul>	<ul style="list-style-type: none"> <li>▪ Recap</li> <li>▪ Cloud Computing</li> <li>▪ Persona Creation &amp; Design Thinking</li> <li>▪ Analytics &amp; Big Data</li> <li>▪ Customer Journey Method</li> </ul>	<ul style="list-style-type: none"> <li>▪ Recap</li> <li>▪ Artificial Intelligence &amp; Machine Learning</li> <li>▪ Internet of Things</li> <li>▪ Ecosystems &amp; Platforms</li> <li>▪ Digital Twin Concept</li> </ul>	<ul style="list-style-type: none"> <li>▪ Recap</li> <li>▪ Agile Development</li> <li>▪ Management of Change</li> <li>▪ Mindset &amp; Culture</li> <li>▪ Digital Talent</li> </ul>	Exam – presentation of each group work (business model created) with active discussion among all students

# People & Processes

Chapter 4

# Digital Talent/Skills

# Developers need more than just programming skills

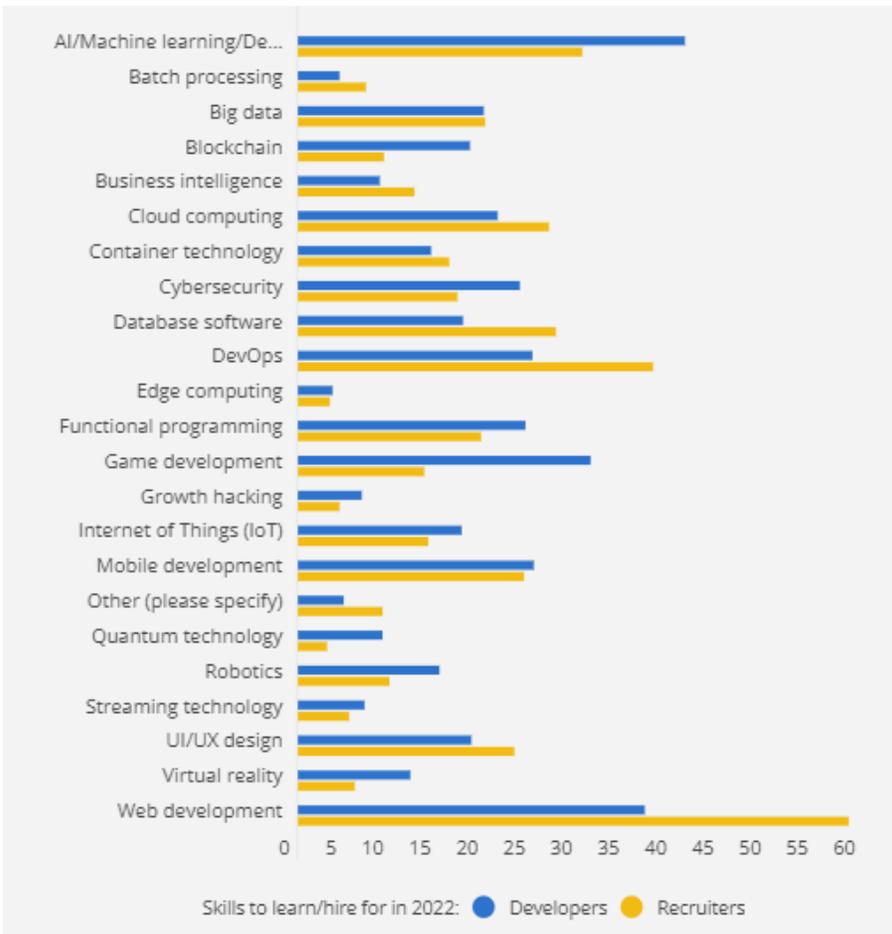
## Do your developer candidates have these 10 soft skills?



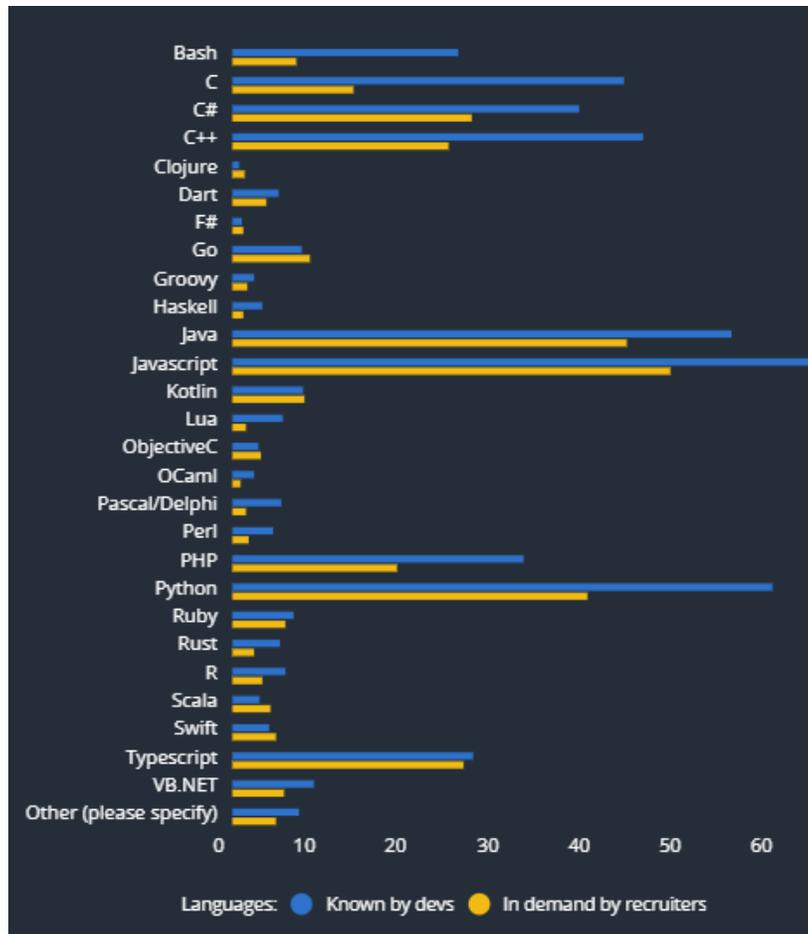
# Tech Hiring Survey 2022 by Codingame & Coderpag

>12k Developers and recruiters interviewed

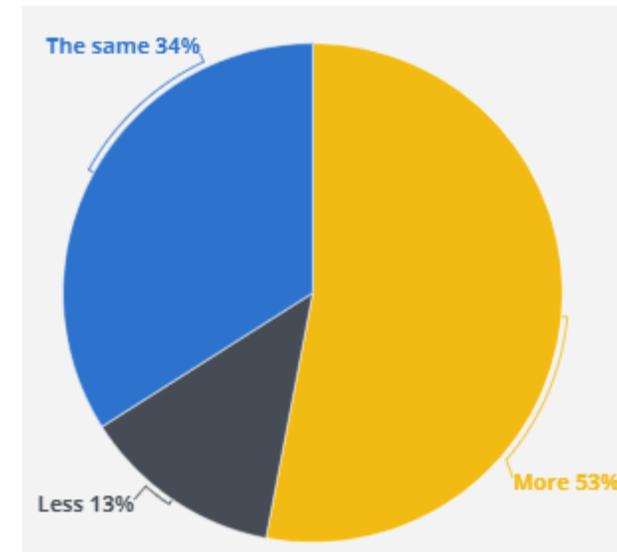
### Skills acquired/hired for in 2022



### Programming languages recruiters are looking for and learned by developers



### 2022 budget for recruiting developers compared to last year



# What's Your Personality Type?

Use the questions on the outside of the chart to determine the four letters of your Myers-Briggs type. For each pair of letters, choose the side that seems most natural to you, even if you don't agree with every description.

## 1. Are you outwardly or inwardly focused? If you:

- Could be described as talkative, outgoing
- Like to be in a fast-paced environment
- Tend to work out ideas with others, think out loud
- Enjoy being the center of attention

then you prefer

**E**

Extraversion

- Could be described as reserved, private
- Prefer a slower pace with time for contemplation
- Tend to think things through inside your head
- Would rather observe than be the center of attention

then you prefer

**I**

Introversion

## 2. How do you prefer to take in information? If you:

- Focus on the reality of how things are
- Pay attention to concrete facts and details
- Prefer ideas that have practical applications
- Like to describe things in a specific, literal way

then you prefer

**S**

Sensing

- Imagine the possibilities of how things could be
- Notice the big picture, see how everything connects
- Enjoy ideas and concepts for their own sake
- Like to describe things in a figurative, poetic way

then you prefer

**N**

Intuition

**ISTJ**  
Responsible, sincere, analytical, reserved, realistic, systematic. Hardworking and trustworthy with sound practical judgment.

**ISFJ**  
Warm, considerate, gentle, responsible, pragmatic, thorough. Devoted caretakers who enjoy being helpful to others.

**INFJ**  
Idealistic, organized, insightful, dependable, compassionate, gentle. Seek harmony and cooperation, enjoy intellectual stimulation.

**INTJ**  
Innovative, independent, strategic, logical, reserved, insightful. Driven by their own original ideas to achieve improvements.

**ISTP**  
Action-oriented, logical, analytical, spontaneous, reserved, independent. Enjoy adventure, skilled at understanding how mechanical things work.

**ISFP**  
Gentle, sensitive, nurturing, helpful, flexible, realistic. Seek to create a personal environment that is both beautiful and practical.

**INFP**  
Sensitive, creative, idealistic, perceptive, caring, loyal. Value inner harmony and personal growth, focus on dreams and possibilities.

**INTP**  
Intellectual, logical, precise, reserved, flexible, imaginative. Original thinkers who enjoy speculation and creative problem solving.

**ESTP**  
Outgoing, realistic, action-oriented, curious, versatile, spontaneous. Pragmatic problem solvers and skillful negotiators.

**ESFP**  
Playful, enthusiastic, friendly, spontaneous, tactful, flexible. Have strong common sense, enjoy helping people in tangible ways.

**ENFP**  
Enthusiastic, creative, spontaneous, optimistic, supportive, playful. Value inspiration, enjoy starting new projects, see potential in others.

**ENTP**  
Inventive, enthusiastic, strategic, enterprising, inquisitive, versatile. Enjoy new ideas and challenges, value inspiration.

**ESTJ**  
Efficient, outgoing, analytical, systematic, dependable, realistic. Like to run the show and get things done in an orderly fashion.

**ESFJ**  
Friendly, outgoing, reliable, conscientious, organized, practical. Seek to be helpful and please others, enjoy being active and productive.

**ENFJ**  
Caring, enthusiastic, idealistic, organized, diplomatic, responsible. Skilled communicators who value connection with people.

**ENTJ**  
Strategic, logical, efficient, outgoing, ambitious, independent. Effective organizers of people and long-range planners.

## 3. How do you prefer to make decisions? If you:

- Make decisions in an impersonal way, using logical reasoning
- Value justice, fairness
- Enjoy finding the flaws in an argument
- Could be described as reasonable, level-headed

then you prefer

**T**

Thinking

- Base your decisions on personal values and how your actions affect others
- Value harmony, forgiveness
- Like to please others and point out the best in people
- Could be described as warm, empathetic

then you prefer

**F**

Feeling

## 4. How do you prefer to live your outer life? If you:

- Prefer to have matters settled
- Think rules and deadlines should be respected
- Prefer to have detailed, step-by-step instructions
- Make plans, want to know what you're getting into

then you prefer

**J**

Judging

- Prefer to leave your options open
- See rules and deadlines as flexible
- Like to improvise and make things up as you go
- Are spontaneous, enjoy surprises and new situations

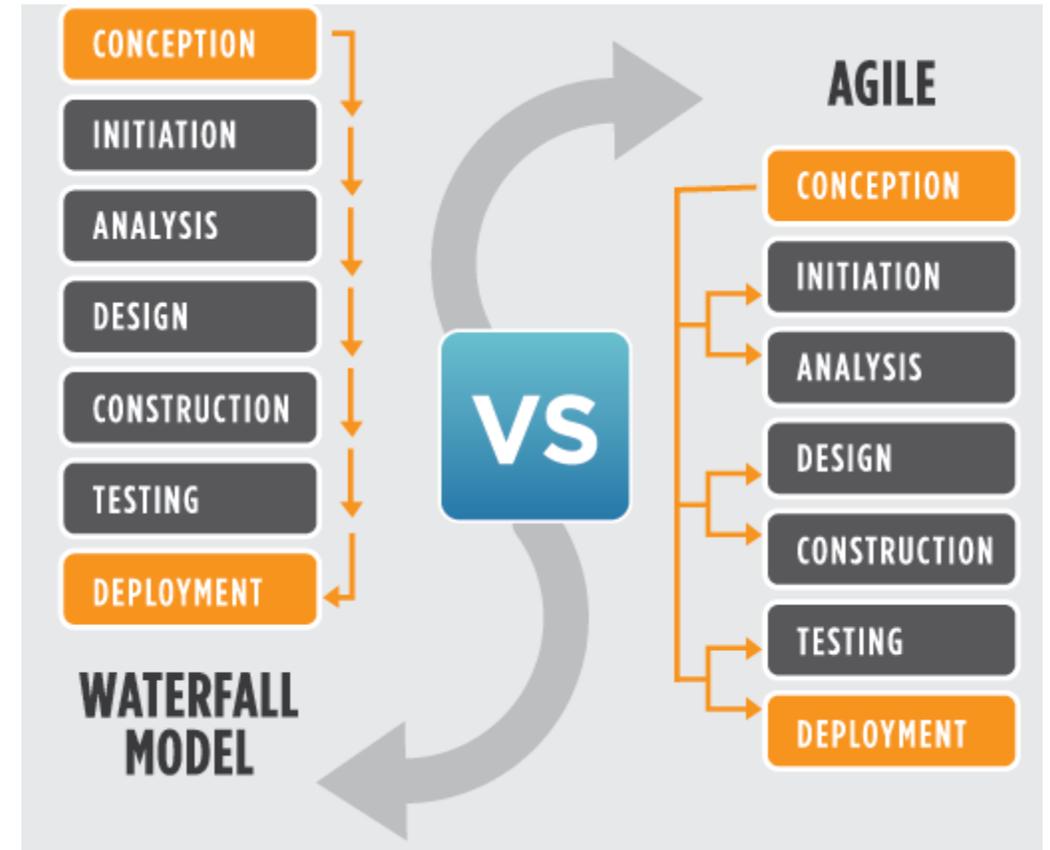
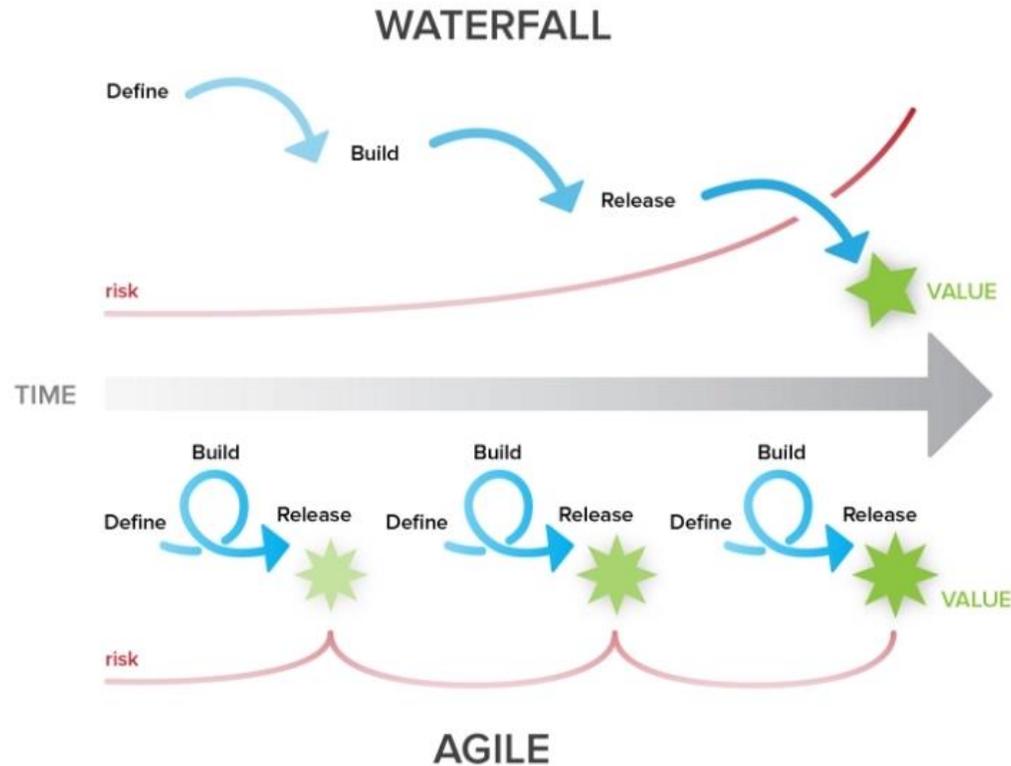
then you prefer

**P**

Perceiving

# Agile Development/Spotify

# Differences of software development approaches waterfall vs. agile



# Agile companies show superior operational, health, and financial results

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Time to market, months

**5–7× faster**

---

Productivity

**20–30%  
improvement**

---

Customer-satisfaction score

**20–30 p.p.  
improvement**

---

Employee-engagement score

**20–25 p.p.  
improvement**

Note: p.p. = percentage point.

# Scrum Roles



## Stakeholder/ Customer

Provides requirements to  
Product Owner

Receives value from deliverables  
(End) User



## Product Owner

Owner of Requirements  
(Product Backlog)

Definition and acceptance of  
deliverables



## Scrum Master

Ensures proper work  
environment for team

Removes challenges

Ensures compliance with agiles  
methods, principles etc



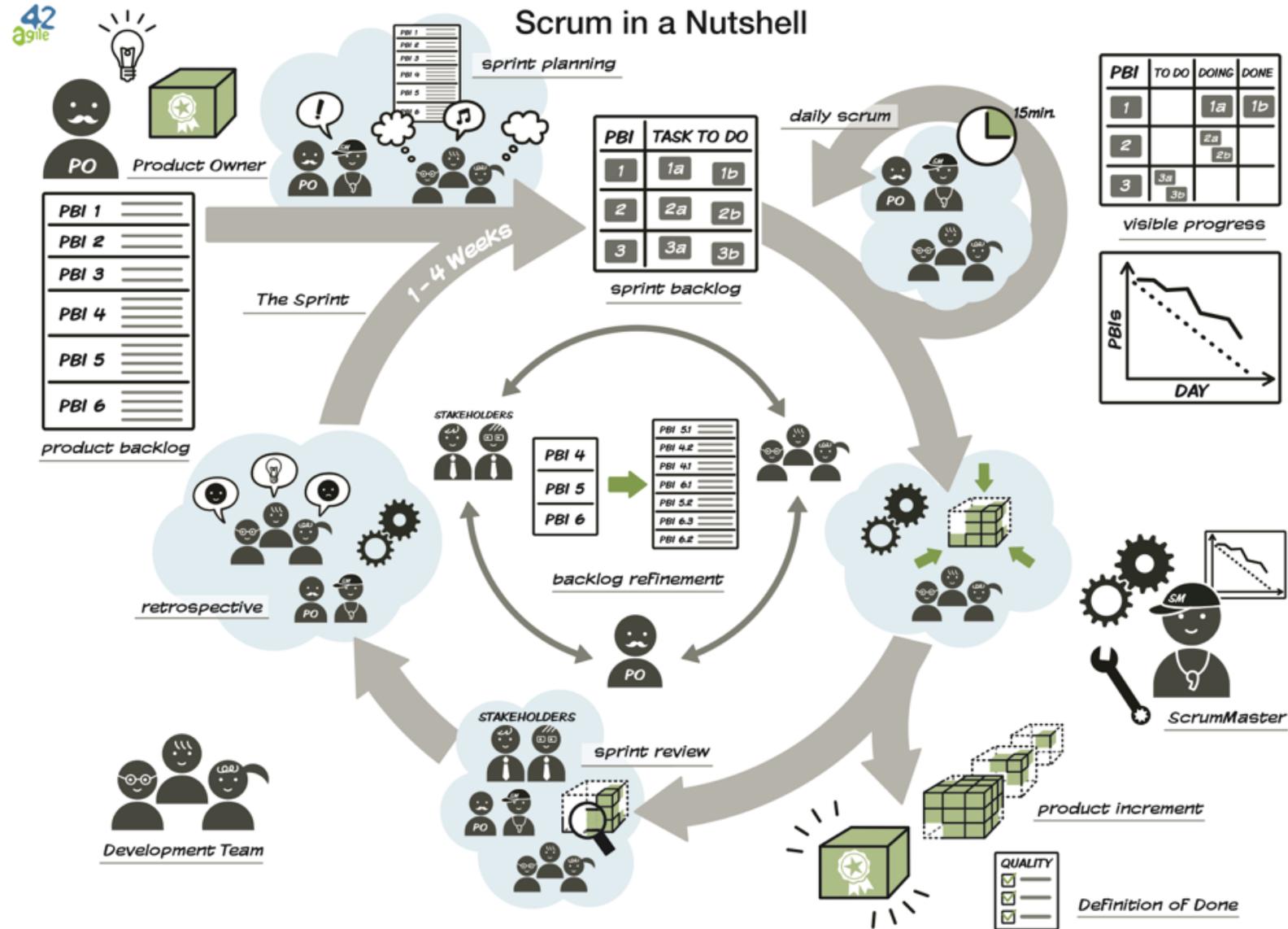
## Development Team

Creates the project deliverables

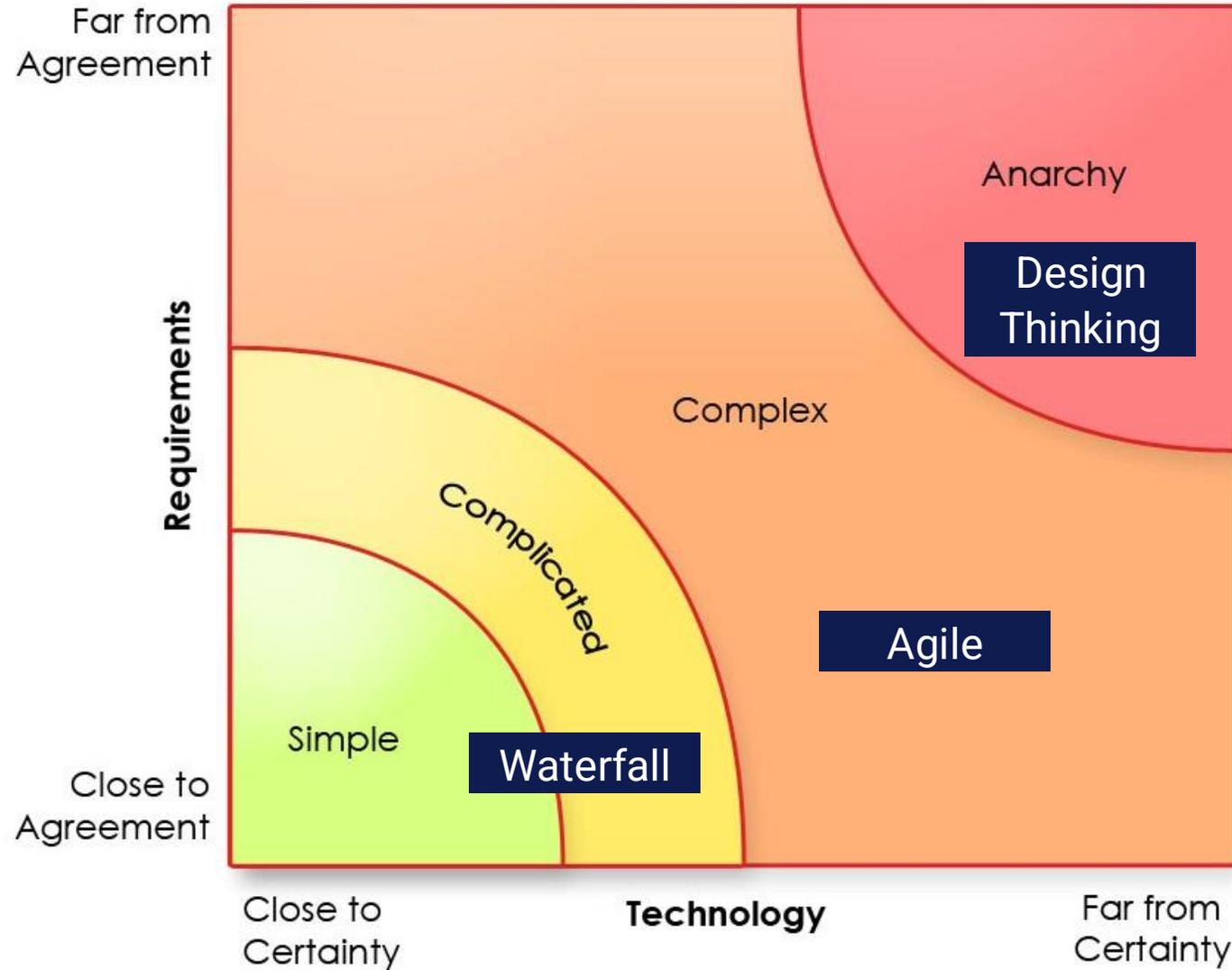
Developers, Tester, Business  
Analysts etc.

~6-9 People

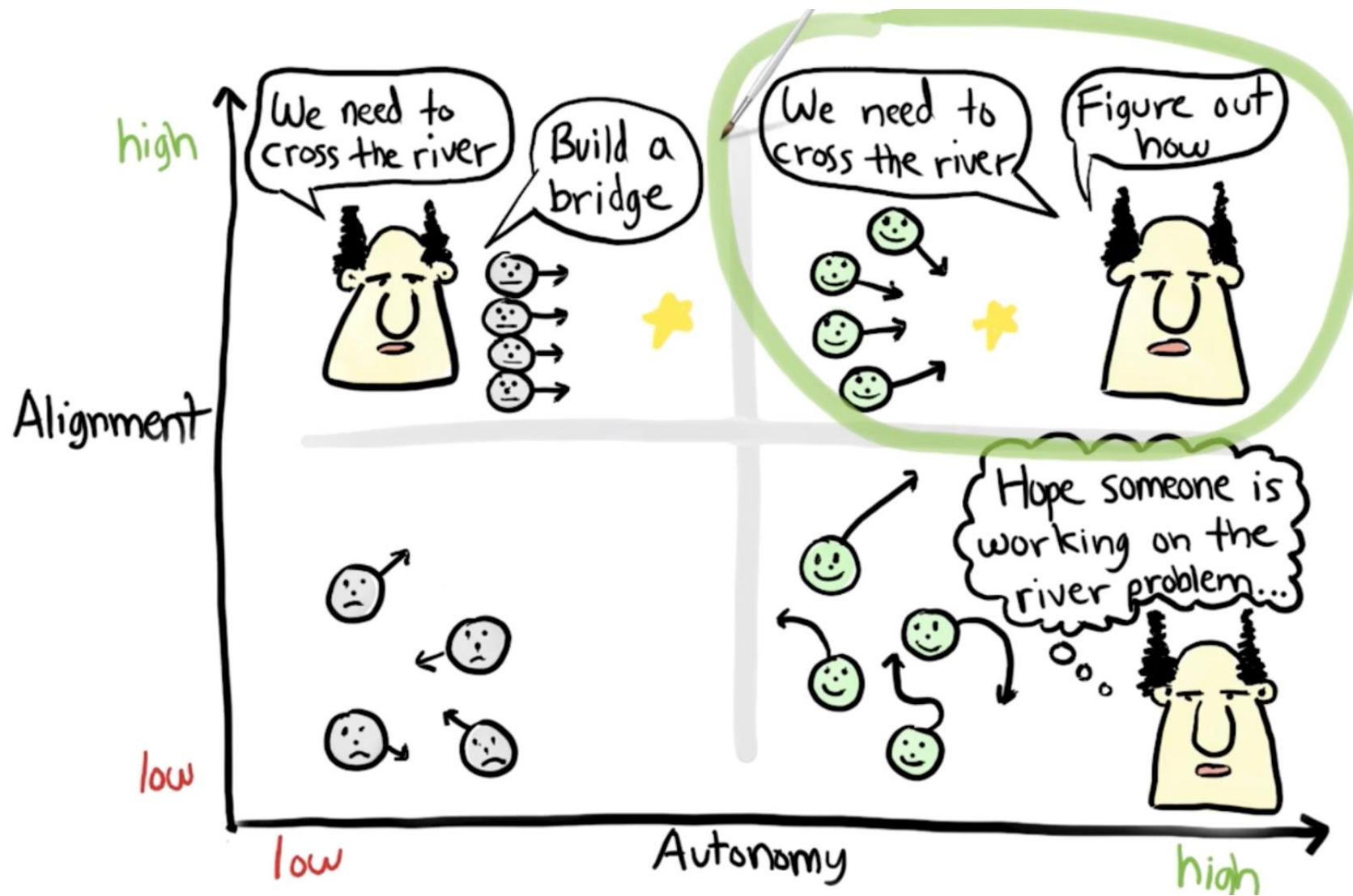
# Scrum in a nutshell



# Waterfall vs. Agile: When to choose which method?



# Spotify Engineering Culture



# Spotify Engineering Culture (1/2)

## Spotify Engineering Culture

Part 1 of 2

Horrik Kniberg  
Jan 2014

Agile > Scrum  
Principles > Practices  
Servant > Master

OPTIONAL

Task, Velocity, Estimation, Burndown chart

Scrum meets!  
Rules are a good start, then break them when needed.

Agile Coach, Scrum Master

**Autonomous Squads**  
Be autonomous, but don't suboptimize!

### Community > Structure

Tribe

Chapter

### Cross-pollination > Standardization

Consistency vs Flexibility

How does Spotify X?

Depends on which squad

Loosely coupled, Tightly aligned squads

Alignment enables Autonomy

Leader's job: Communicate what problem needs to be solved. And why.

### Focus on Motivation

Hi everyone, Our employee satisfaction survey says 91% enjoy working here, and 4% don't.

This is of course not satisfactory, and we want to fix it.

If you're one of those unhappy 4%, please contact us. We're here for your sake, and nothing else.

91% → 94%

1200+ employees  
30+ countries

### Trust > Control

Agile at scale requires Trust at scale

~~Politics~~ ~~Fear~~

### Internal Open-source model

Alignment

low

high

low

high

Autonomy

We need to cross the river. Build a bridge.

We need to cross the river. Figure out how.

Hope someone is working on the river problem.

Squads' job: Collaborate with each other to find the best solution.

### People > \*

My colleagues are awesome!

~~Ego~~

### Small & frequent releases

Releasing is hard  
Drama  
Release seldom

Releasing is easy  
Routine  
Release often

### Decoupled releases

### Self-service model enable > serve

Infrastructure squads

Client App squads

Feature squads

enable + support

Handoffs

enable + support

### Release Trains + Feature Toggles

Feature A

Feature B

Feature C

Feature D

Week 1

Week 2

Visibility

# Spotify Engineering Culture (2/2)

## Spotify Engineering Culture

Part 2 of 2  
Hovik Krikorian  
Apr 2016

### Continuous Improvement

Driven from below, Supported from above.

What's built used in it?  
What did we learn?  
What will we change?

### Fail Fast → Learn Fast → Improve Fast

Fail-friendly environment

Failure Penalties > Failure Avoidance

David Eb: We aim to make mistakes faster than anyone else.

Celebrate failures

How we shot ourselves in the foot - Web Edition

### Limited Blast Radius

via Decoupled Architecture

via Gradual Rollout

If everything is under control, you're going too slow! - Mario Andreoli

### Experiment-friendly Culture

A or B?

Let's try both and compare.

What's the hypothesis?

What did we learn?

What will we try next?

opinion driven... ego driven... authority driven...

**Data-driven decisions**

### Waste-repellent Culture

aka Lean

If it works, keep it. Otherwise dump it.

Keep

- Retrospectives
- Daily Standup
- Google Docs
- Git
- Gold Unconferences

Skip/dump

- Time reports
- Handoffs
- Separate test teams or test phases
- Task estimates
- Useless meetings
- Corporate BS

Chaos > Bureaucracy

Agile

### Lean Startup

Idea/problem

Narrative → Prototypes

Build MVP

Tweak → Release

Analyze Data

\*Radio you can save!

### Innovation > Predictability

100% predictability = 0% innovation

Focus on innovation

Focus on predictability

Value delivery > Plan fulfillment

### Impact > Velocity

Backlog | Developing | Released

Impact achieved

Impact A/B Test

### You are the culture

Model the behavior you want to see

Storytelling

### Boot Camp

### Culture-focused Roles

People Operators (Pops)

Agile Coaches

### Healthy Culture heals Broken Process

Paints + Challenges

- FIELD
- SPREAD

### Hack Time

= 10%

People are natural innovators

### Spotify Hack Week

Do whatever! With whoever! In whatever way!

Make cool things real!

Demo = Party on Friday!

### Minimize the need for Big Projects

Big Project = Big Risk

Test lead

Project lead

### Visual Progress

GETTING SHIT DONE

### Weekly Demo

### Daily Sync

### Toyota Improvement Kata

Now

Not Target

Awesome!

IMPROVEMENT THEME: BUILD COMPANIES AFTER THE BOOK

PROBLEM STATEMENT

GOAL STATEMENT

### Awesome Architecture

= Lean build, test, and ship the feature within a week.

...I use data to learn from it and my improved version is live in week two.

### Definition of Awesome

Definition of awesome

We believe, believe by

- Qualification why we do more after the fact
- Learn the number of it's in process
- Reduce Planning, Setup
- Enable early to show team members
- Enable everyone a few features forward
- By show some functionality

We think that the plan in the future release we

- Don't have any in production
- Use to see some features, tests and bugs

### Improvement Boards

IMPROVEMENTS	ACTIONS
1. [ ]	→ Show
2. [ ]	→ Learn
3. [ ]	→ Build

# Tribes are the delivery centers of the agile Company

	 <b>Tribes lead</b>	 <b>Agile coach</b>				
Example product tribe	New acquisitions squad	Renewals squad	Onboarding journey squad	Business development and innovation squad	Customer portfolio management squad	Other squads
Product and actuarial chapter	 	 				
Marketing chapter					 	
Data chapter	 			 	 	
Engineering chapter	  	 	 	  		
Other chapters						

## Product tribe

Is a fluid structure assembling and dissolving squads depending on where the value is coming from

**Tribes lead** is fully responsible for business results and established priorities, allocates budgets, and forms interfaces with other tribes

**Agile coach** coaches individuals and squads to create high-performing teams

## Squads

Comprise no more than 9 people, are self-steering and autonomous

Include representatives of different insurance functions

Have end-to-end responsibility for achieving commercial missions and specific set of objectives and key results

Work with start-up mentality in a nonhierarchical structure

**Product owner** is responsible for managing product vision and backlog, not teams

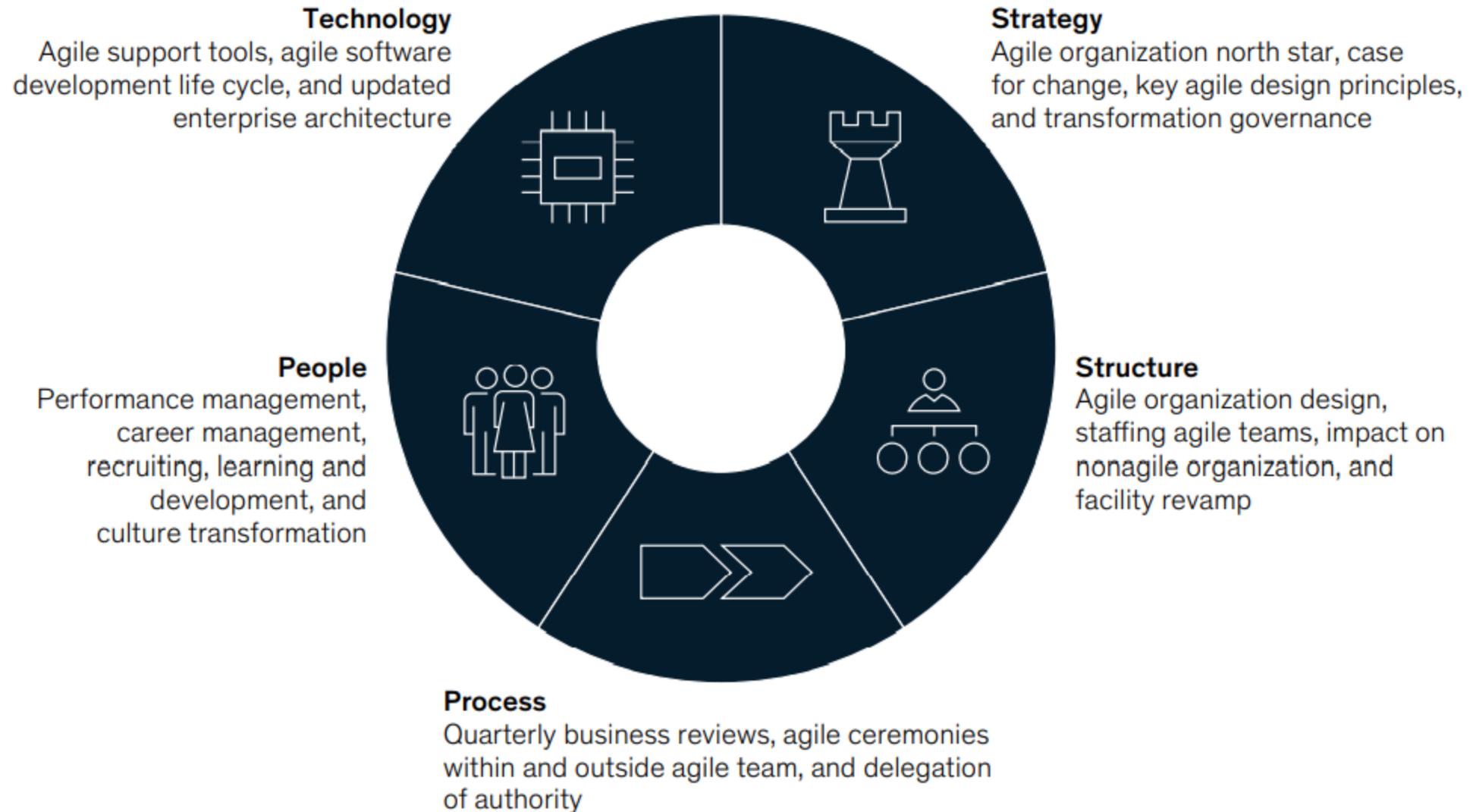
## Chapters

Drive craftsmanship development as well as best practices and controls across squads

Provide a stable community for functional experts to belong to

**Chapter lead** is responsible for personal development, coaching, and professional management, in addition to squad role

# Holistic enterprise-wide agile transformation needs to cover many dimensions



# Management of Change

MANAGEMENT

OF

CHANGE

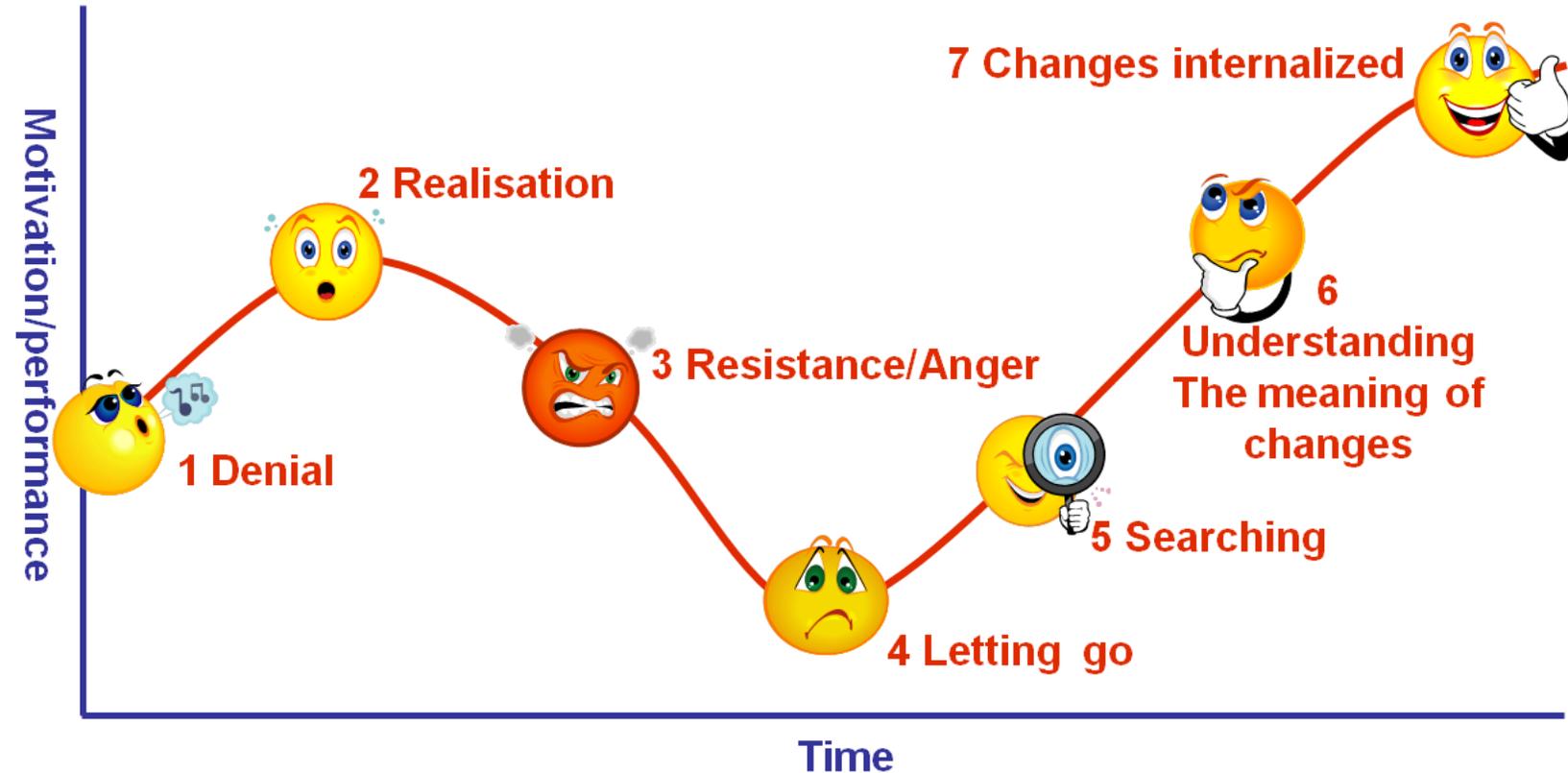


# Management of Change (MoC) vs. Change Management (CM)

MoC (Human Aspects)	CM (Technical Aspects)
Change Risk Analysis	Change Risk Analysis
Actively engaged Leadership	Review and Approval
Communication	Test and Validation
Training and Coaching	Implementation
Feedback and corrective Action	Post Implementation Review
Rewards and Reinforcement	Documentation

# Why Management of Change?

While Project Managers, Transition Managers and Transformation Managers concentrate on the technical change, Management of Change (MoC) is taking care of the people side of the change.



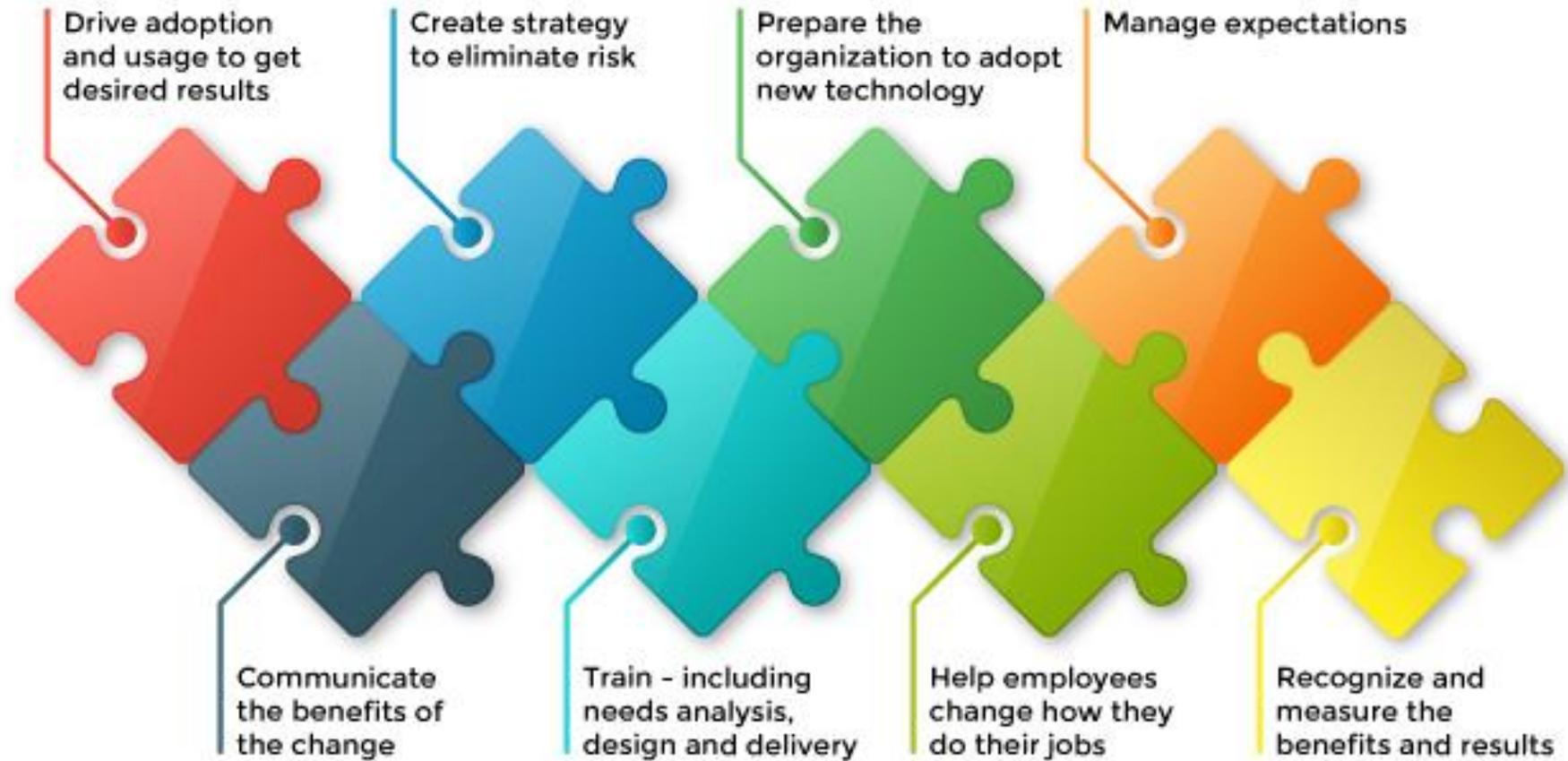
# Why Management of Change?

70% of the change projects fail because the people side of the change is not managed well. **Resistance** is a normal human reaction to change and can have several reasons.

Ignoring it will lead to **several barriers** for the project and the risk of not achieving the business goals and therefore losing precious time and money.



# How Changes could be managed



## 5 Building Blocks when Managing Change (ADKAR®)

1. **Awareness** – Understanding the Change and the reason for changing

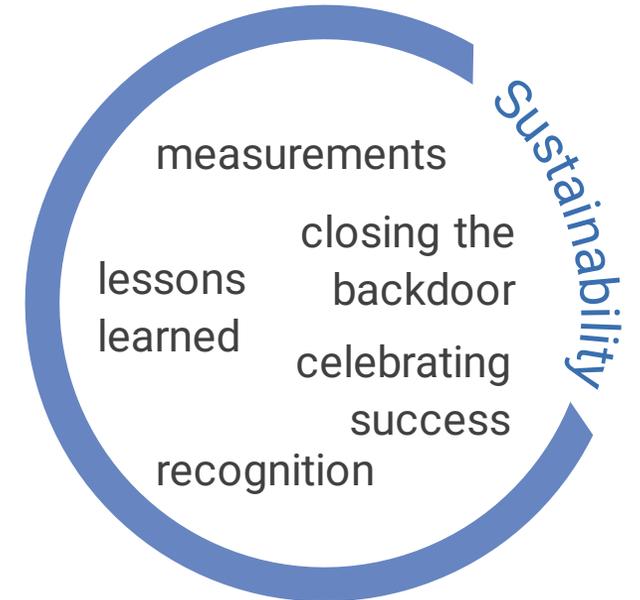
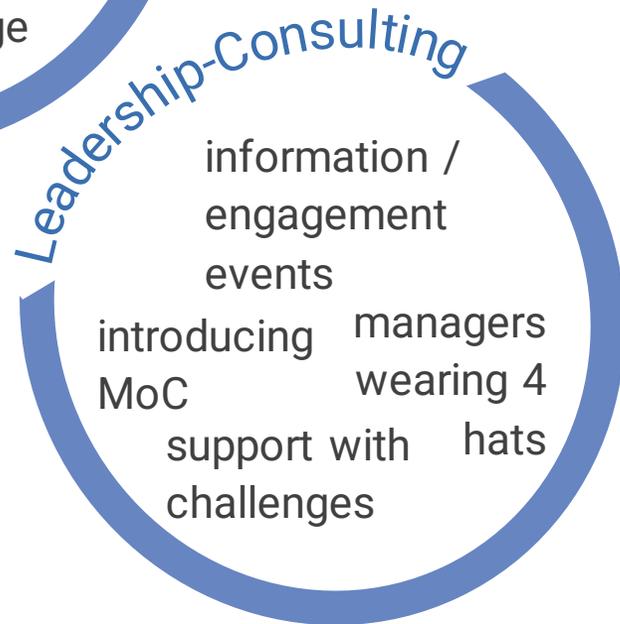
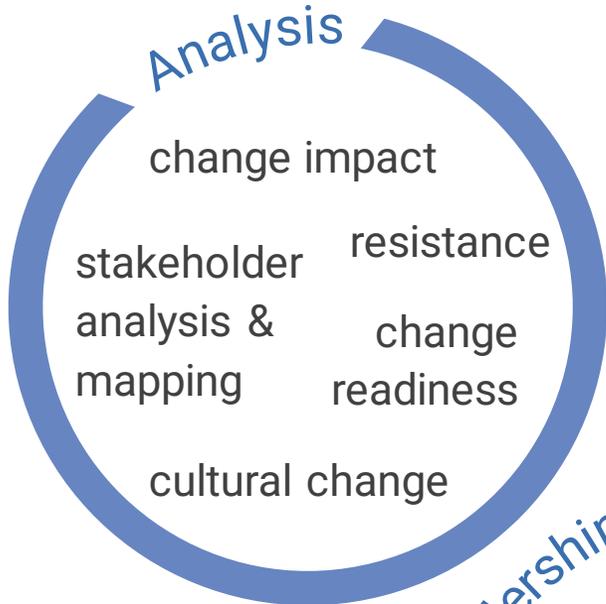
2. **Desire** – Understanding the benefits and the «what's in it for me»

3. **Knowledge** – Receive the necessary training to know how to use new tools, processes, etc.

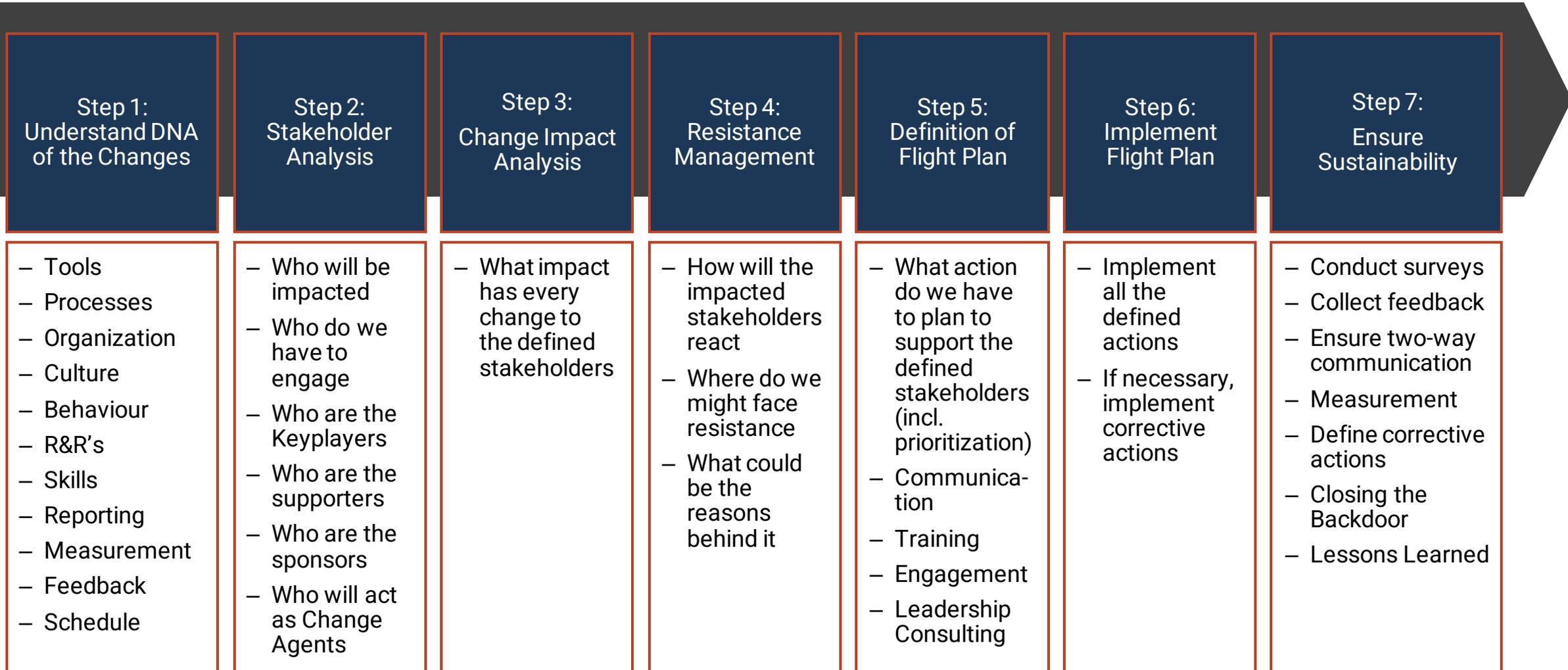
4. **Ability** – Change Behaviour, Stakeholder Engagement, Cultural Change

5. **Reinforcement** – Sponsorship, Work on Gaps, Measurements, ensuring Sustainability

# MoC Toolbox Examples

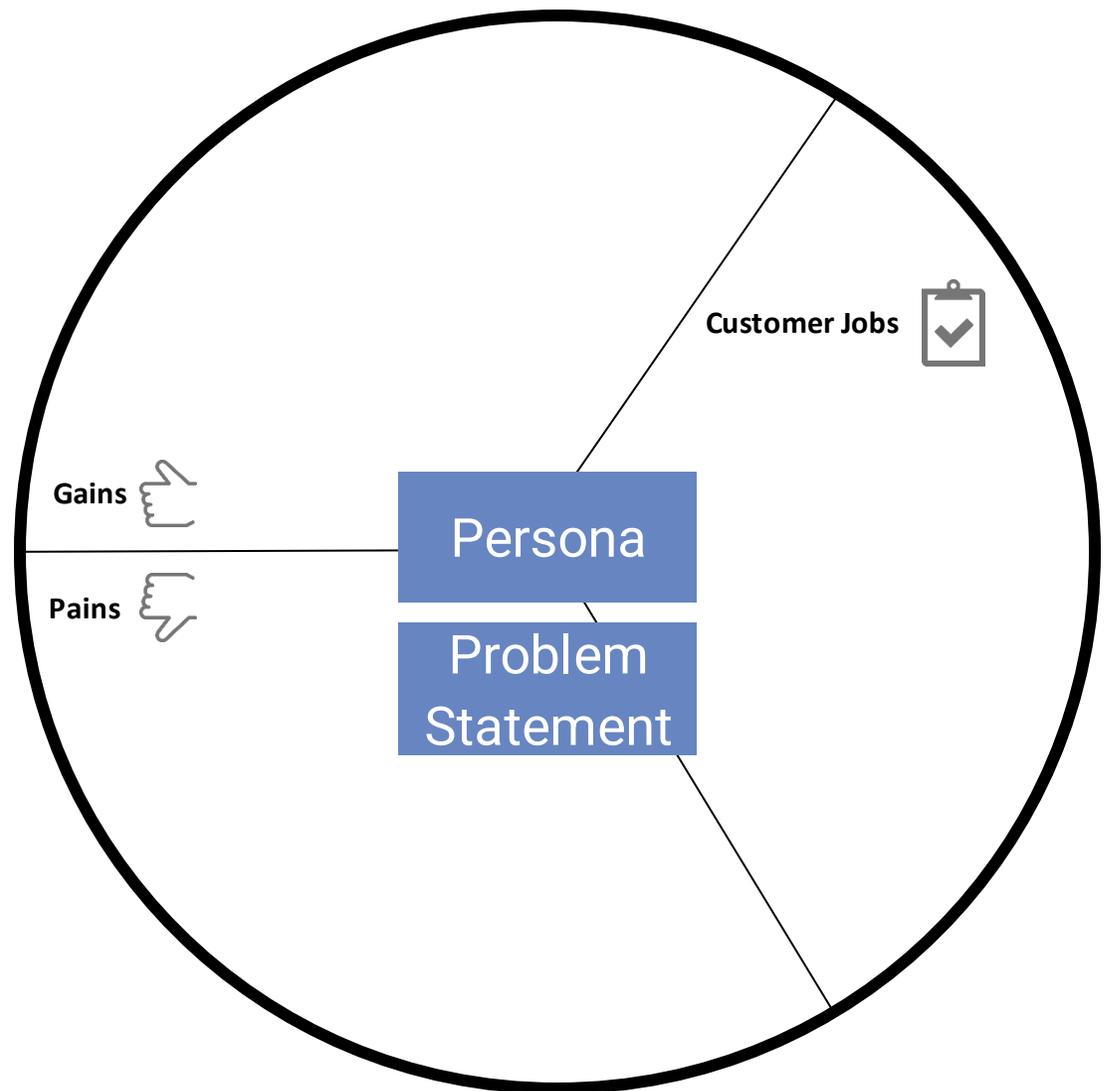
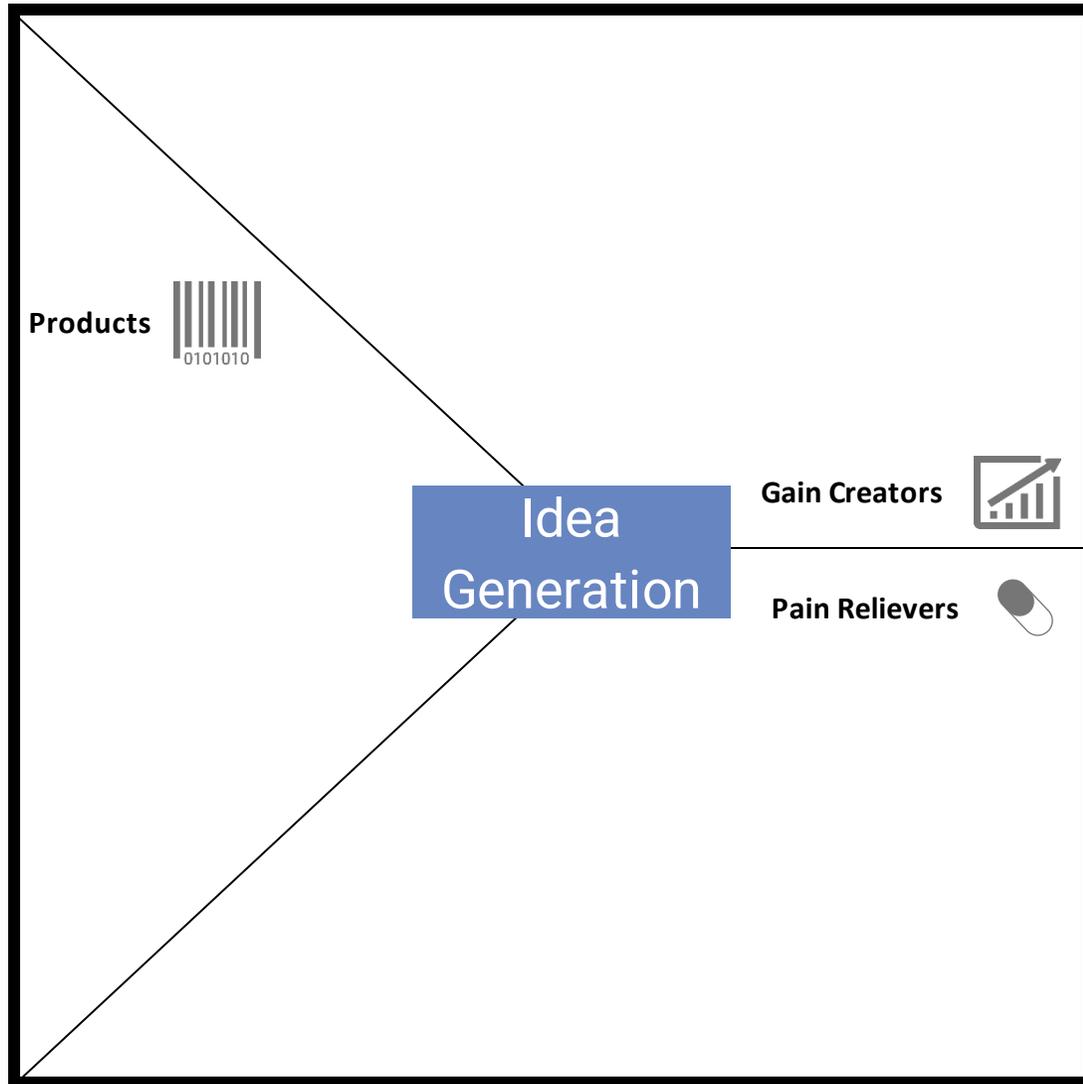


# How does a MoC process look like

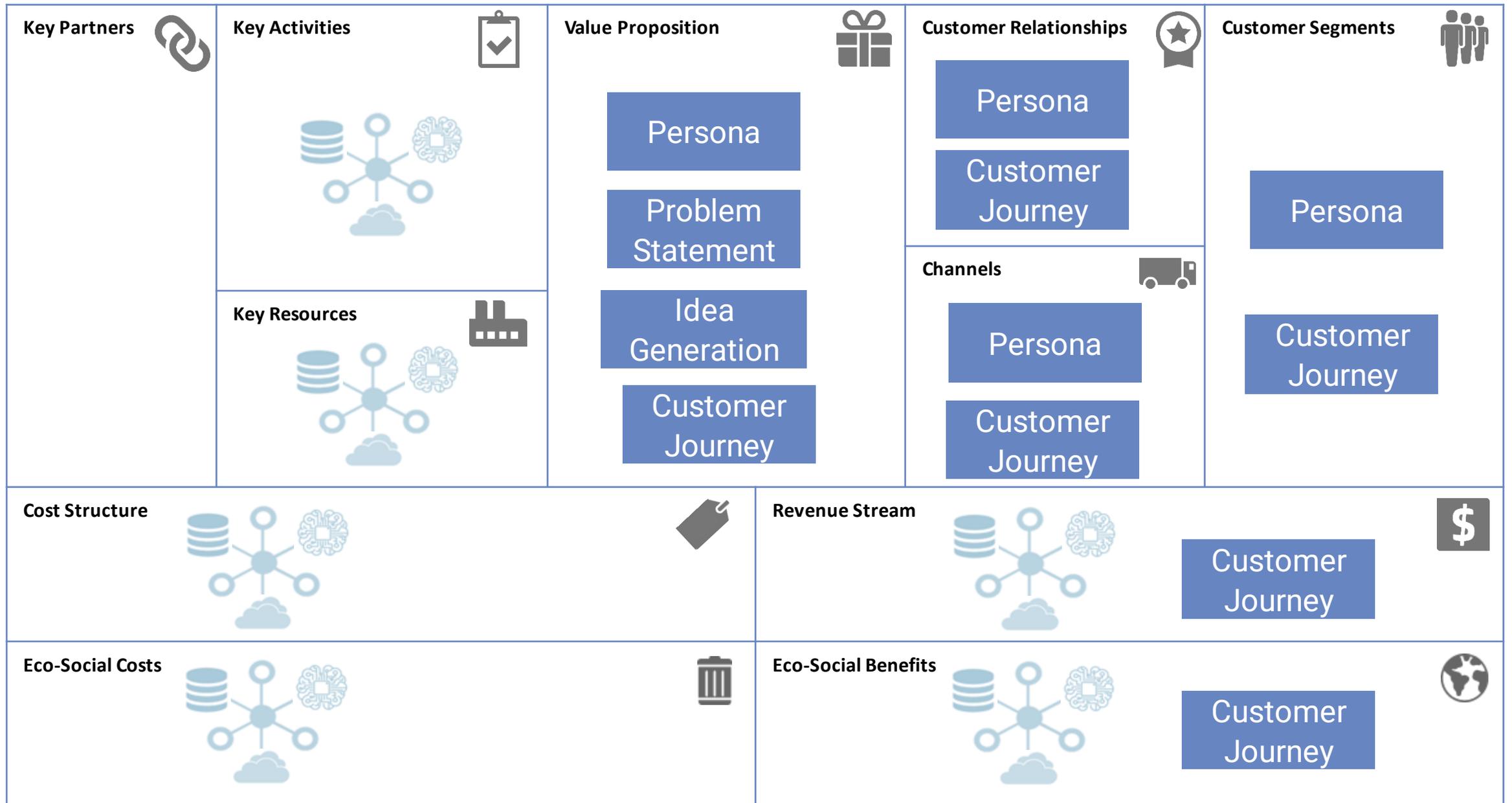


# Exam

# Value Proposition Canvas



# Recap - Business Model Canvas



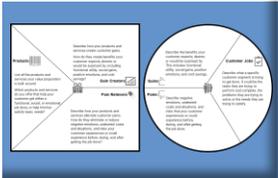
# Introduction to exam - Overview

- **Goal/Expectation: Create a business model for a new business idea in a context of a case story**
  - **Description of a new offering and outline of technical solution and related challenges**
- **Examination** will be done by a **Group Project**
- **Documentation** [e.g. MS Powerpoint] (**uploaded by 13.12.2023**) and verbal **Presentation of ~45 minutes (15.12.2023)**
- Presentations will be done within the **marketplace on 15<sup>th</sup> December 2023 10am**
- Each group will **present their business idea to the other students**. All ideas will be discussed and challenged in the round.
- To successfully create and hold the exam presentation, the **attendance in the previous lectures is needed and expected** as all needed topics for the exam will be elaborated within the lectures.

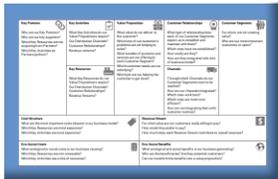
# Introduction to exam - expected content



**1. Case Story (Company, Market, Business Idea)**  
→ Chapter 2



**2. Value Proposition Canvas**  
→ Chapter 1-4



**3. Business Model Canvas**  
→ Chapter 1-4



**4. IT-Implementation Options and Technical Challenges**  
→ Chapter 2 & 3 & 4



**5. Sustainability aspects of business model**  
→ Chapter 1-4



We expect...

- That these 5 topics on the left will be covered by your presentation
- That Value Proposition Canvas and Business Model Canvas are used
- The other templates for case story, IT-implementation and sustainability aspects can be used but you are also free in being creative and create other/more slides for these topics to demonstrate and explain your business model
- Max. 20 Content Slides

**Good luck**  
**... for your preparation**  
**... and your exam 😊**