Using Innovation Games® and Visual Facilitation for Product Development at Scale

Peter Ferak

bwin

Alex Staenke

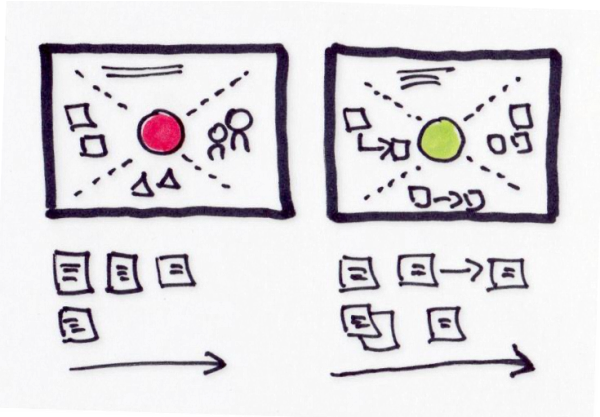
The Thinking Company

Hello

Alex Staenke

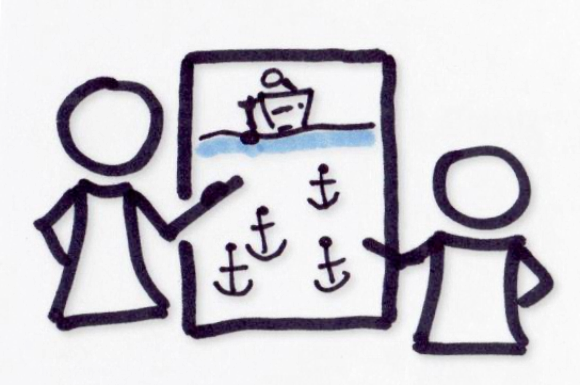
The Thinking Company

thinking-company.at



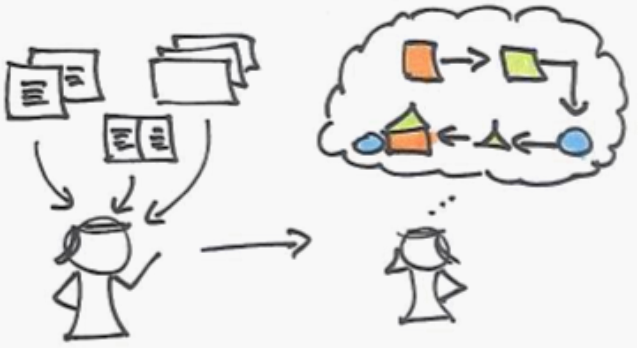
Effective Collaboration

in Projects & Teams



Innovation Games®

Innovation, Market Research, Agile Processes



Visual Thinking

Communication, Collaboration, Creativity

icons by Zlatko Najdenovski

Peter Ferak

Developer Lead, Agile Coach, DevOps

if ...
then...
else...

1	0	1
0	0	1
1	1	0

<1, 2, 3>
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Agenda

The bwin Software Eco-System

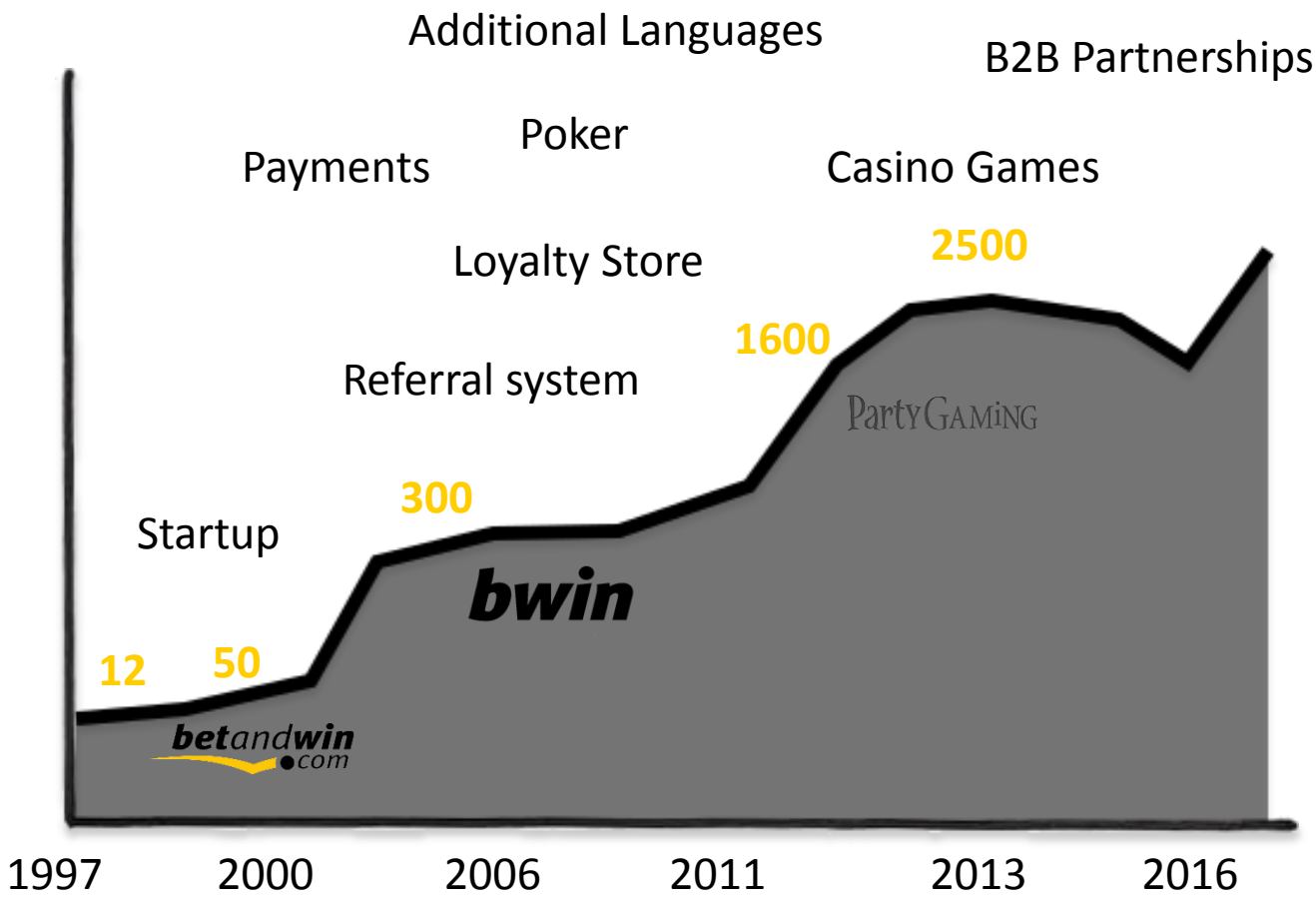
Agile Product Development at Scale

Problem Solving and Serious Games

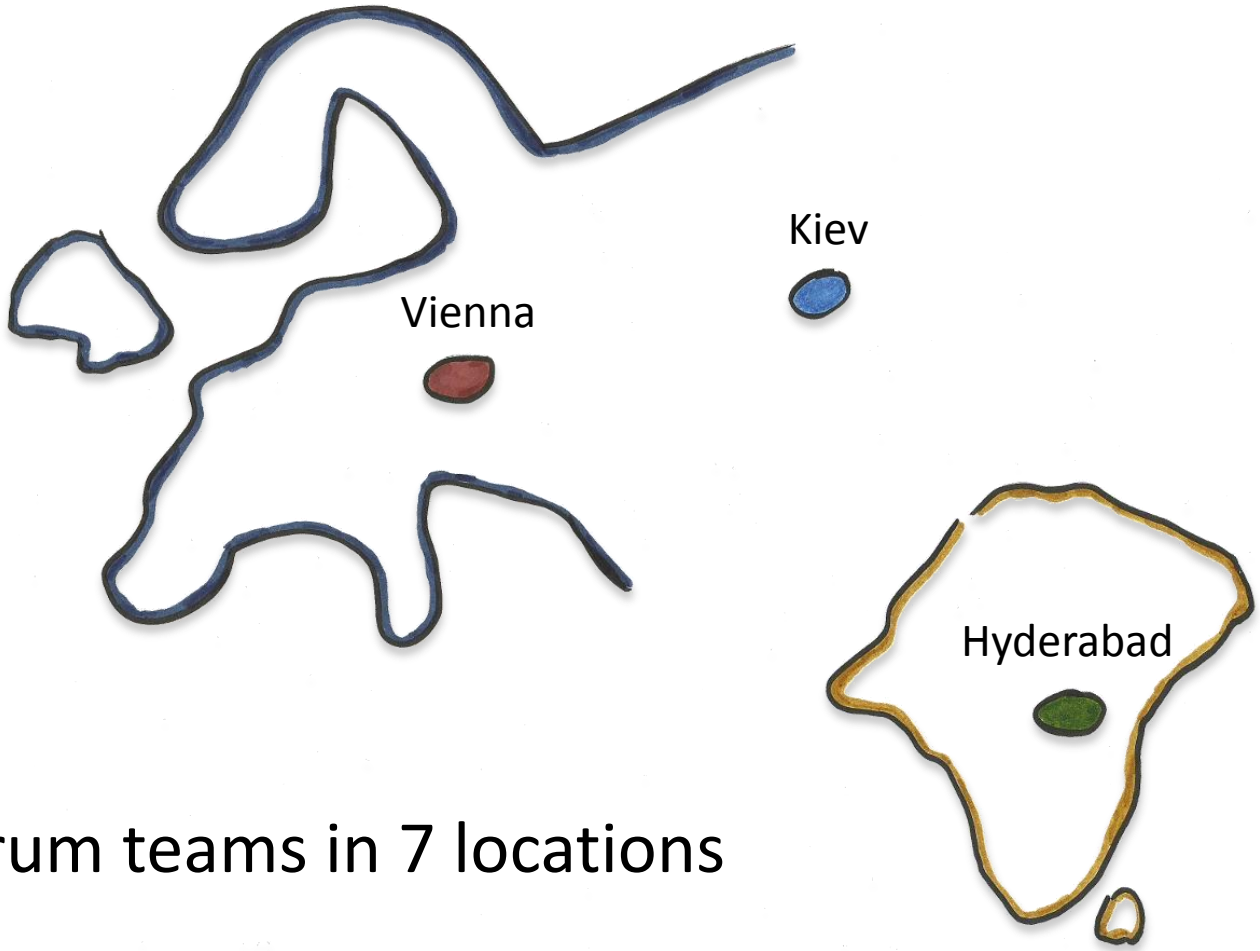
Innovation Games® at Scale

Evolution of the bwin software system

Addition of manpower



Distributed development centers



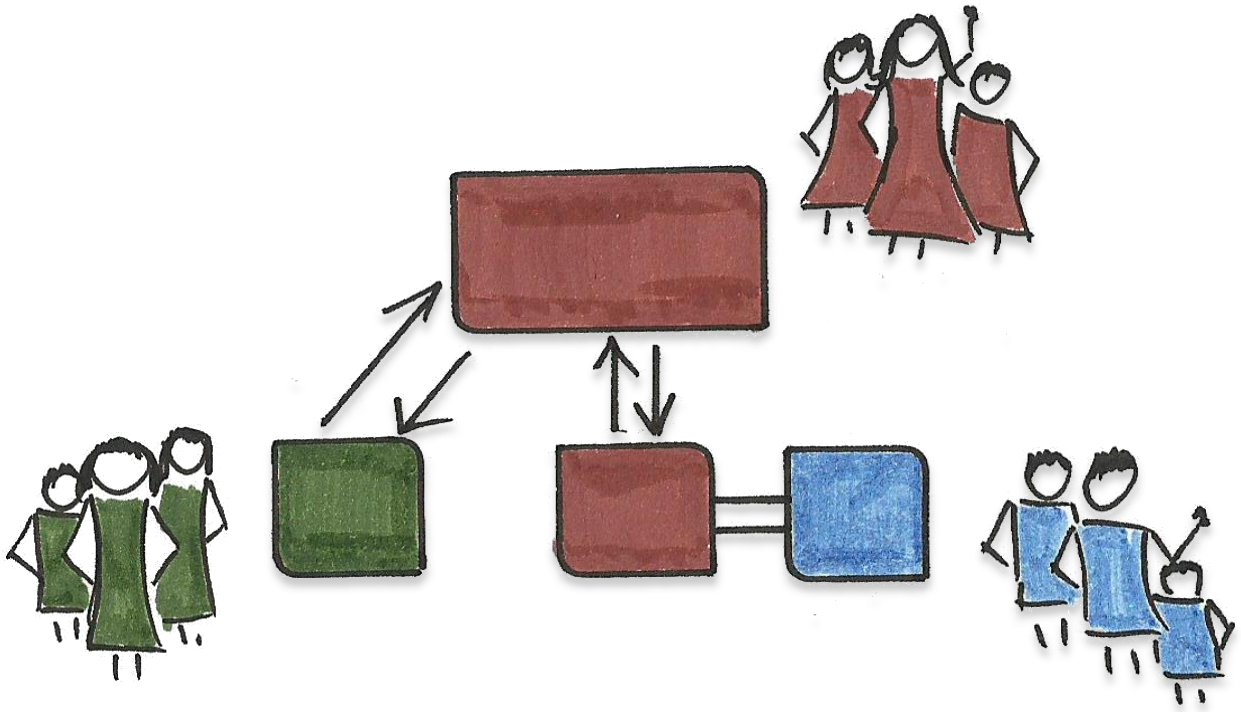
90 scrum teams in 7 locations

Conway‘s Law

“Organizations which design systems are constrained **to produce designs** which are **copies of the communication structures** of these organizations.”

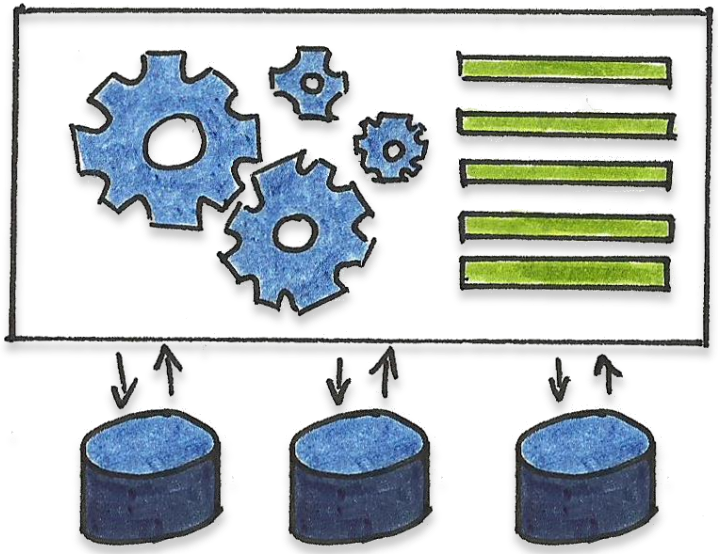
- Melvin Conway

Growing technical complexity through dependencies



Growing process complexity

One software system



More than **1m lines of code,** 2.500 servers

Betting Engine

- 50 independent deployable systems
- 120 components
- 20 independent database schemas

Sports Trading

- 30 independent deployable systems
- 15 independent database schemes

Government regulations

bwin.com

bwin.it

bwin.gr

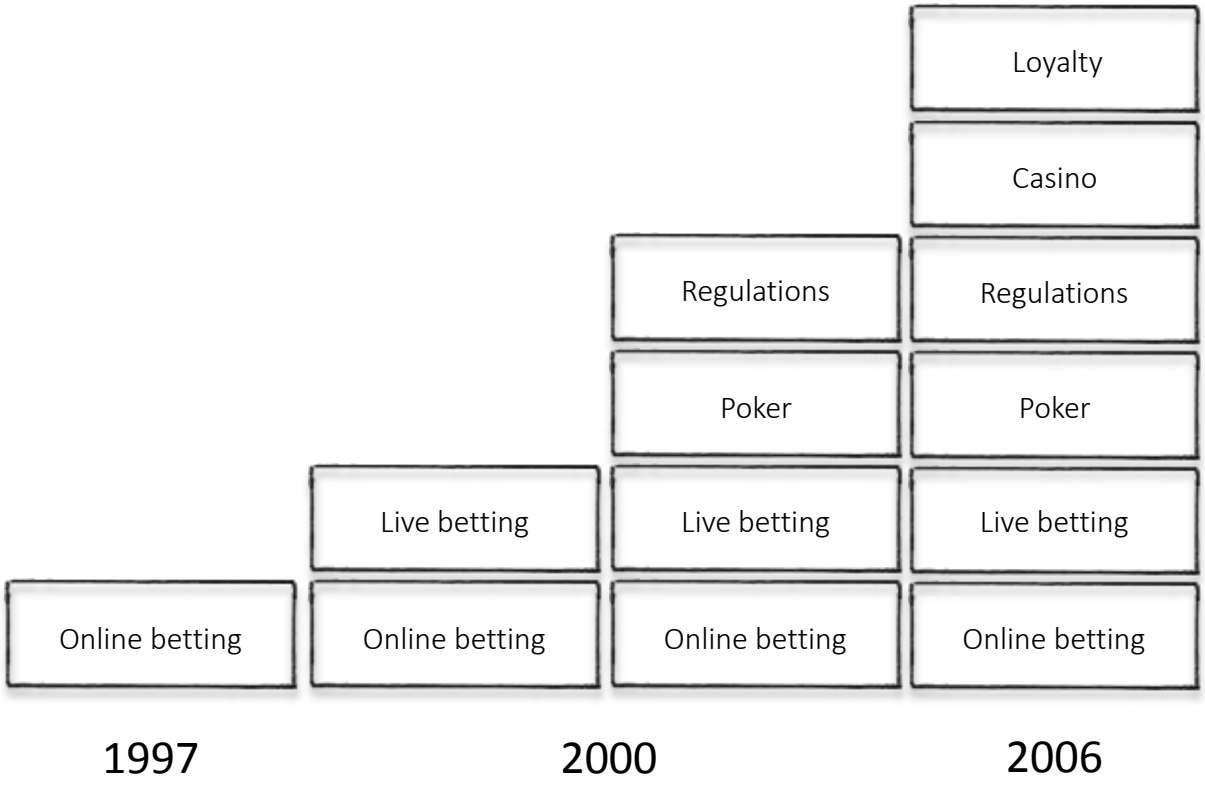
gamebookers.com

partybets.com

partypoker.com

Outages cost € in not wagered bets and bad customer experience!

Evolving system



- More than **1.000.000 € wagered** every day
- Typically **140.000 concurrent customers**
- Typically **1.3m** unique customers a day
- Up to **2500 login requests** per minute

- Up to **1.5m bet placements** per day
- 30.000 different Sports bets a day
- In **90 Sports**

- Up to **50.000 Tournaments** a day

- Average **383.000 hands of Blackjack** per day
- Average **704.000 Roulette spins** a day
- Average **10.6m Slot spins** a day

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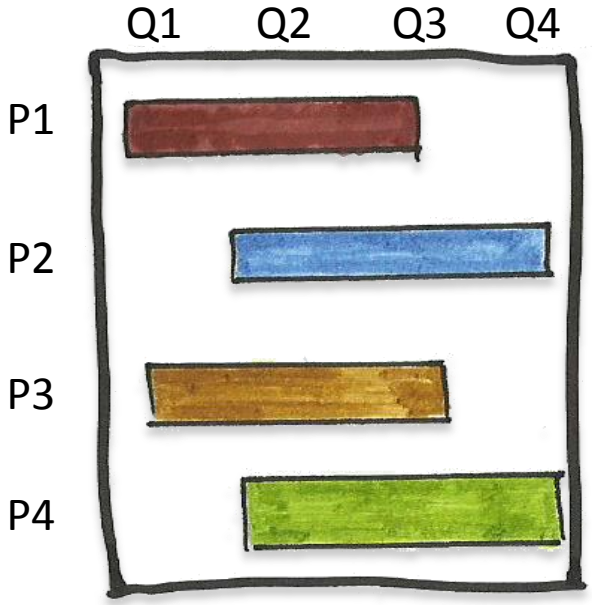
Innovation Games® at Scale

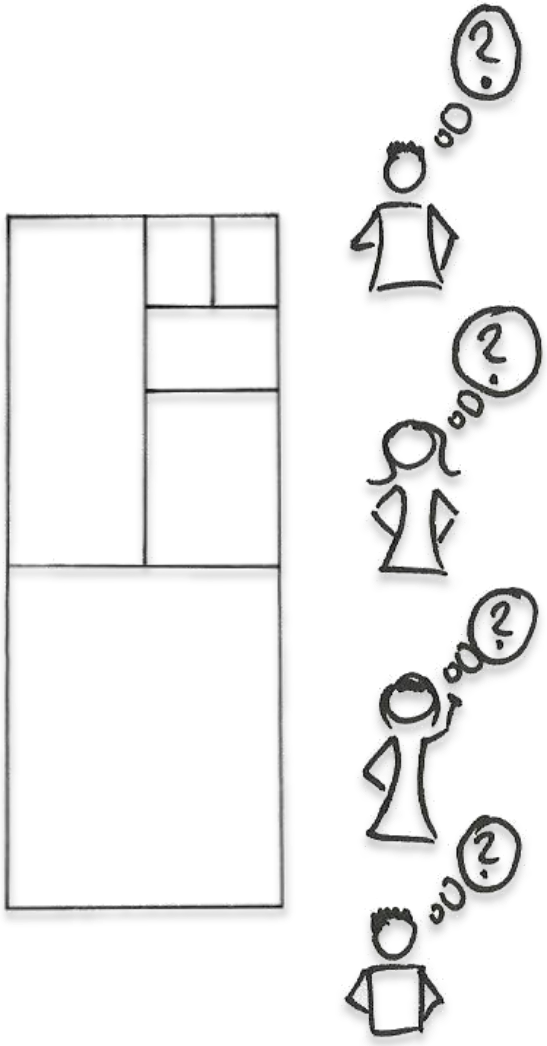
bwin

Agile product development at scale

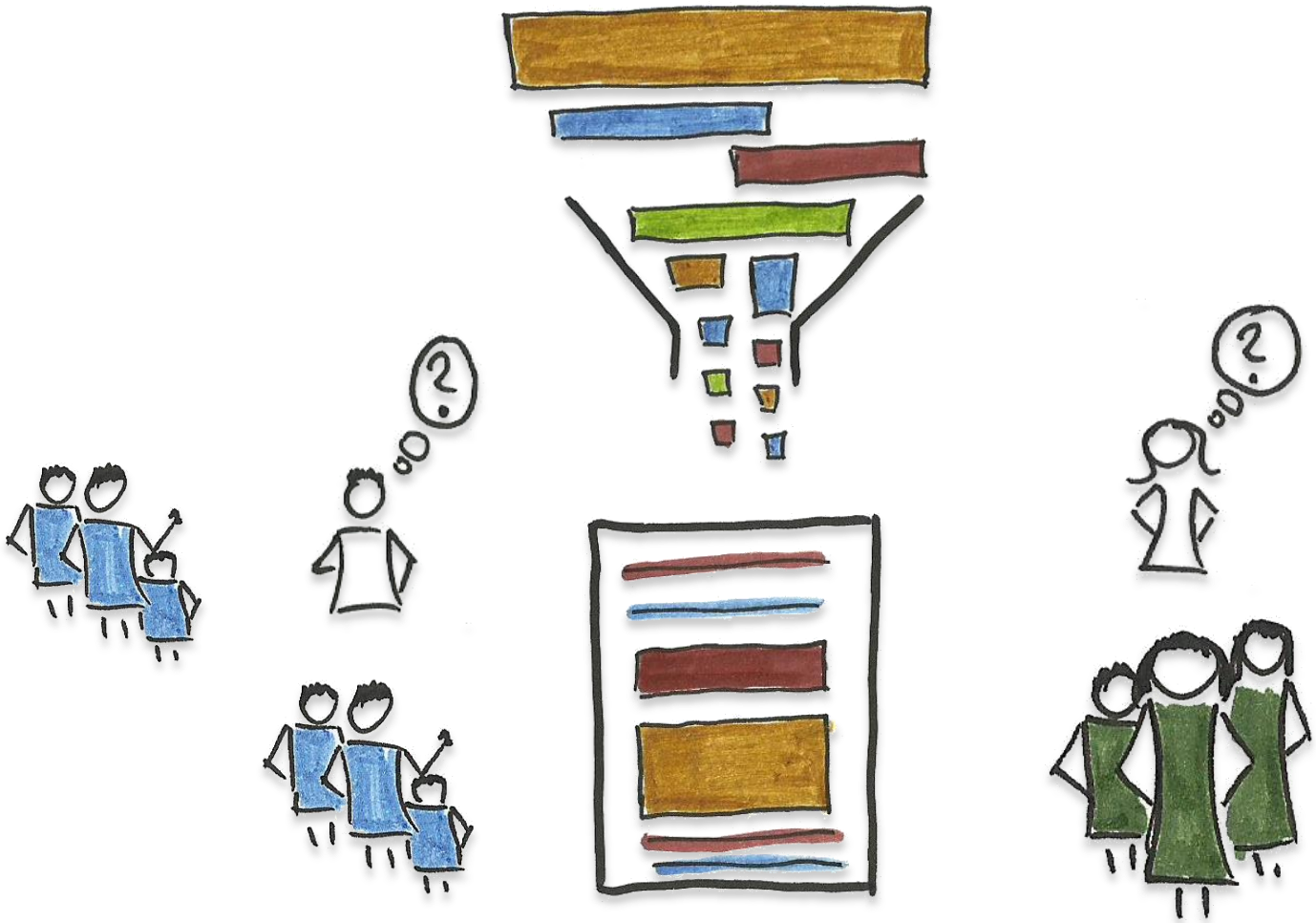
Steering



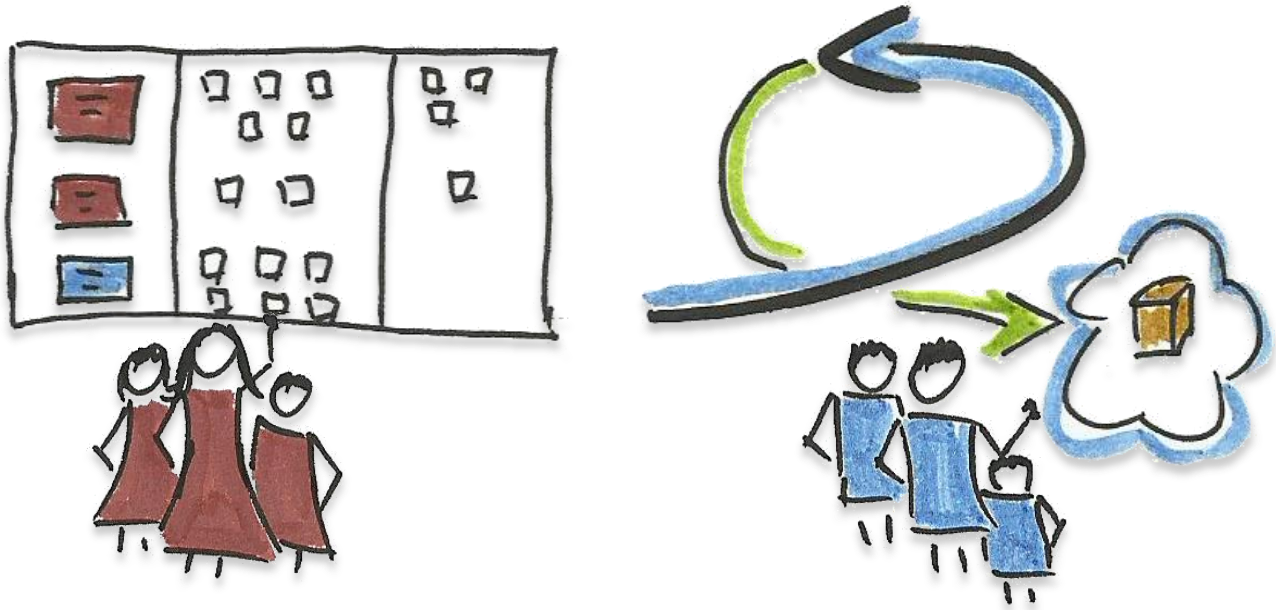
Sizing



Refinement



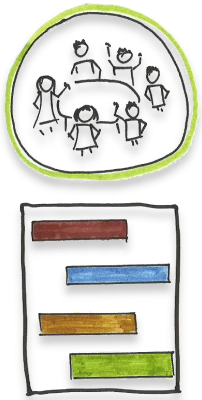
Delivery



Happy Customer

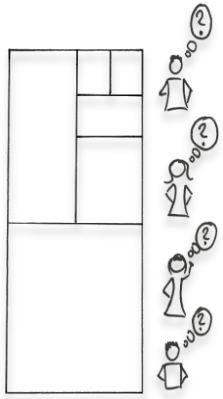
Feedback loops

ROI



Epics

Customer usage

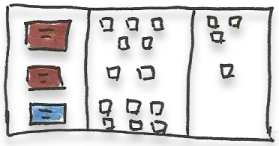


Items

Features

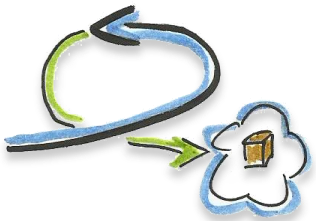
Requirements

Bugs

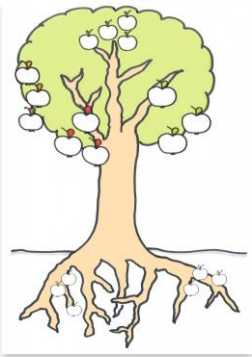


Implementation

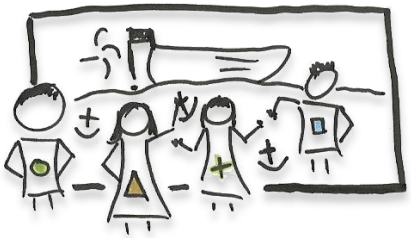
Incidents



Software



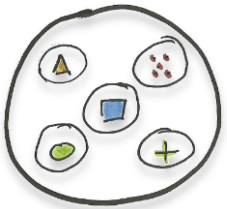
Visual



Collaborative

Engaging

Scalable

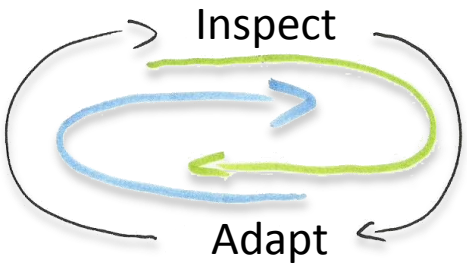


Diverse Teams

Customer
And Product First

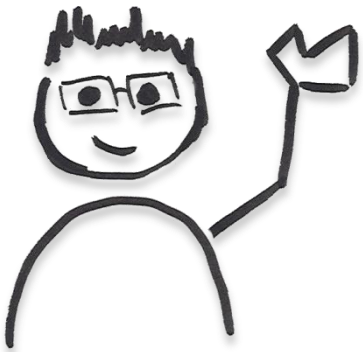
Face to Face

Simplicity



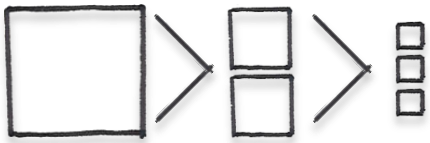
Changing the Organization

Through more focus on Agile



Deployment and iteration speed

Break down silos



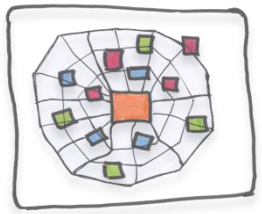
Smaller batches

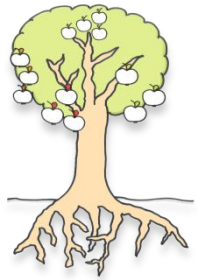
More reliable and robust system

Engage entire company in the transition

And new ideas

Luke Hohmann





"Traditional retrospectives focus on a **single co-located team**. They can produce results that **improve the performance of the team**, but often **fail to address the needs of the enterprise** – the issues affecting multiple teams or beyond the scope of control of and single team."

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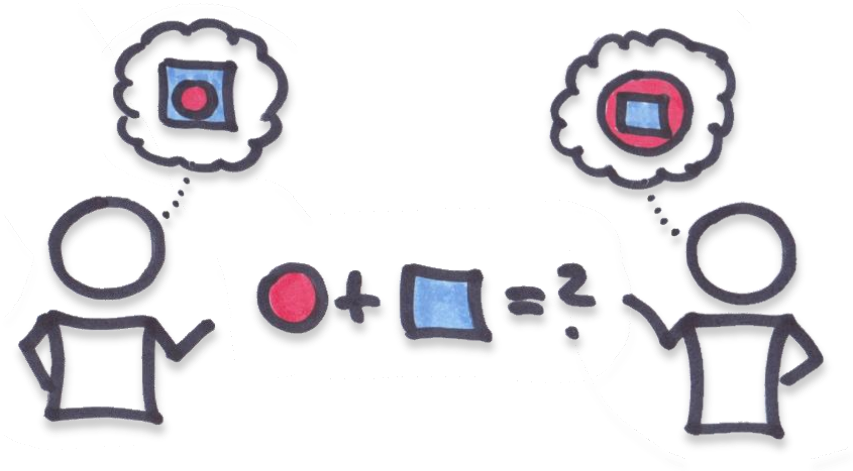


Solving Problems in Teams

Challenges During Development

In every phase of the development cycle we are confronted with different challenges:

- Find the right **vision** & **strategy**
- Create a good **roadmap**
- Understand what the **customer needs**
- **Define requirements** & create user stories
- **Prioritize features**

Software Development

is

Problem Solving

Software development is a complex process that **requires a team** to collaboratively solve many problems over an extended period of time.

What makes teams powerful?

Different **backgrounds** & **expertise**

Different **perspectives**

Different **understandings** and

Different **intentions** and **motivations**

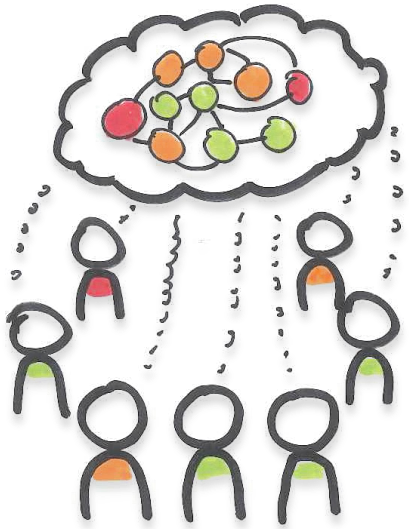
Teams exhibit Diversity

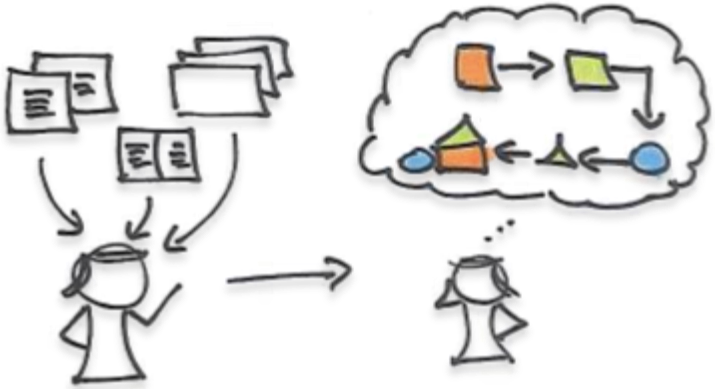
Diversity increases the **social complexity** of a team.

Diversity makes collaboration and problem solving harder.

Software development is collaborative problem solving with a diverse team.

Good Problem Solving needs…





Shared understanding of the problem and its possible solutions.

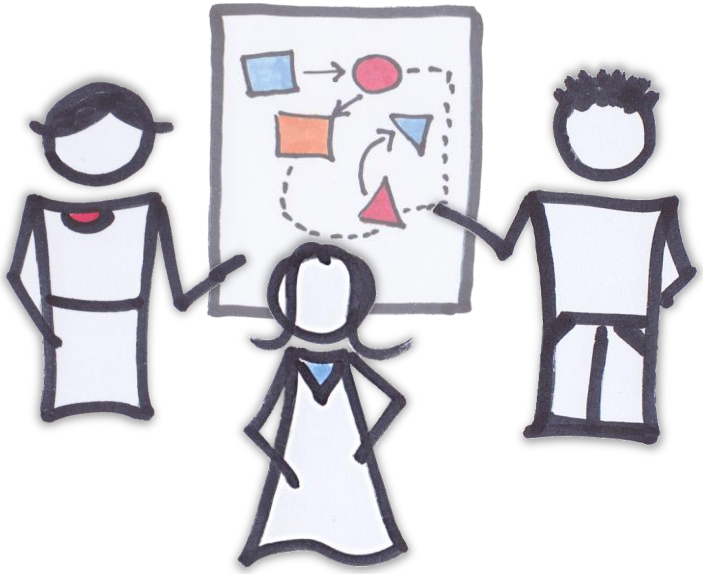
Effective idea exchange and **good communication** between all team members.

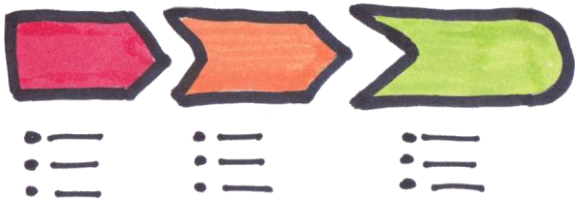
The

Agile Manifesto

Individuals & Interactions

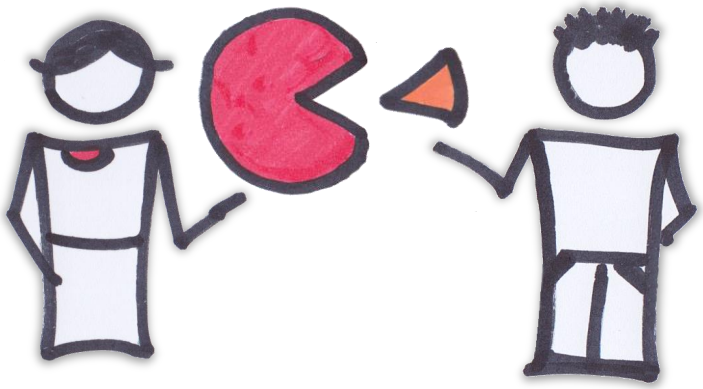
over Processes and Tools





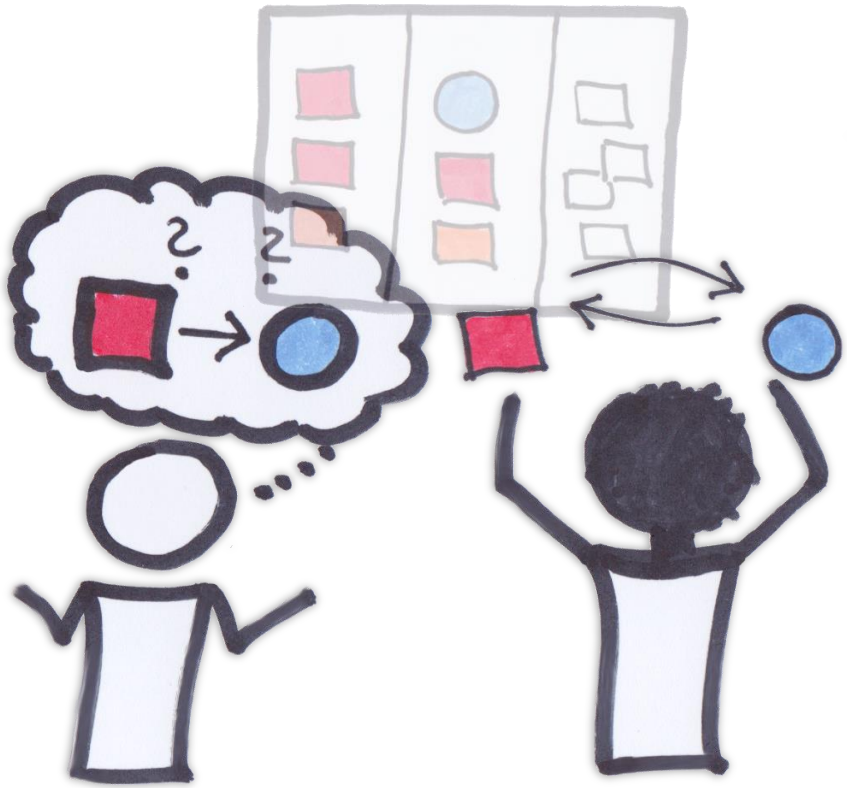
Customer Collaboration

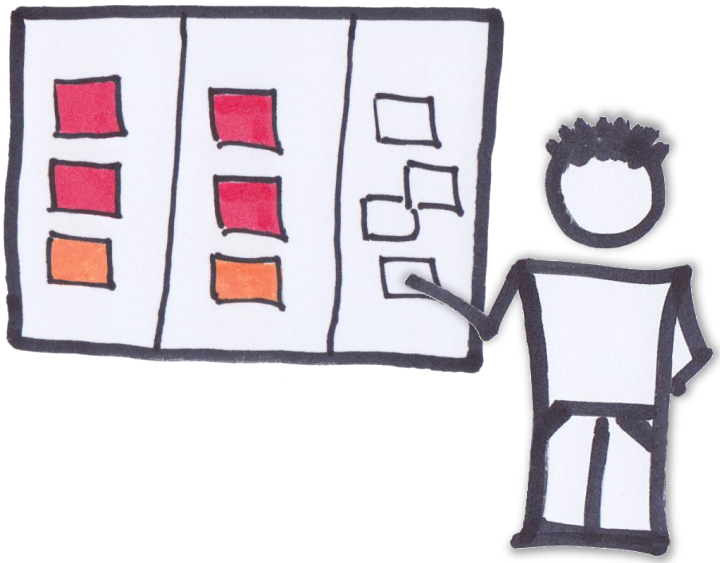
over Contract Negotiation



Responding to Change

over Following a Plan

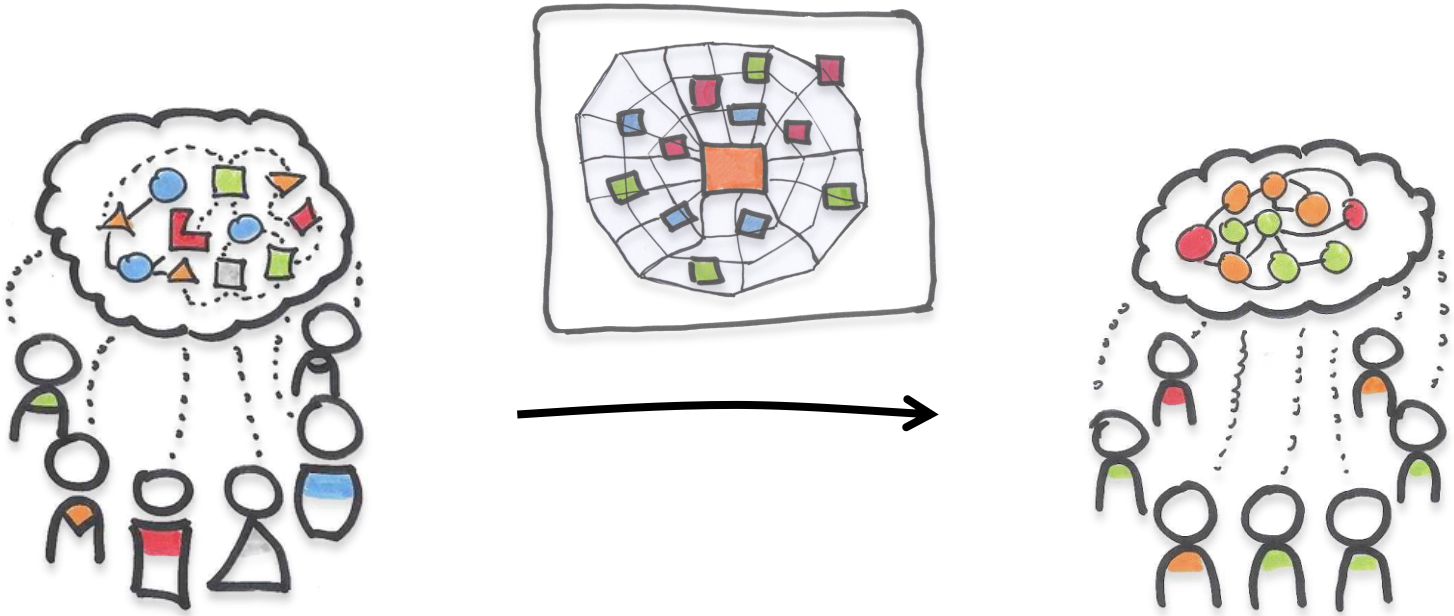




Serious Games & Problem Solving

Why use “Games”?

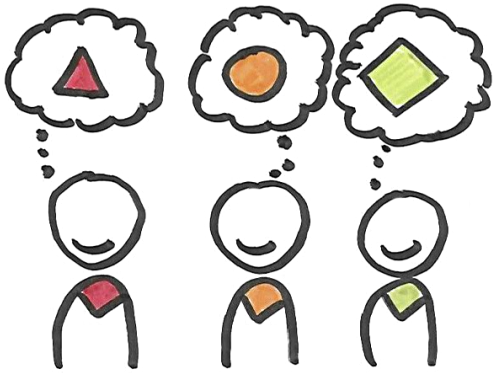
Because games are a **great way to create shared understanding** in teams with high **social complexity.**



Games Create a Safe Playground

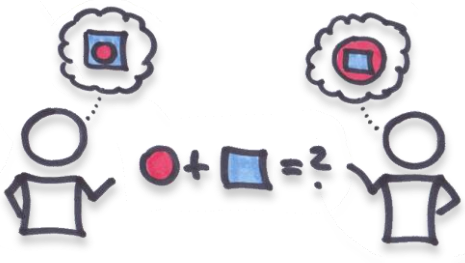
A game creates a **safe space for social interactions** and learning.

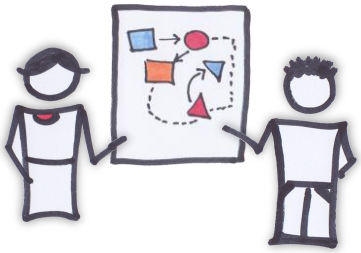
In a game we are able to **try out new things** without threatening our social standing.

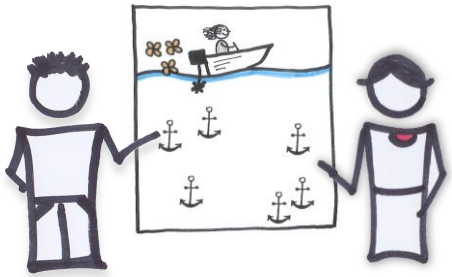


A game makes taking on **new perspectives** easy and fun.

With Serious Games it is easy to…





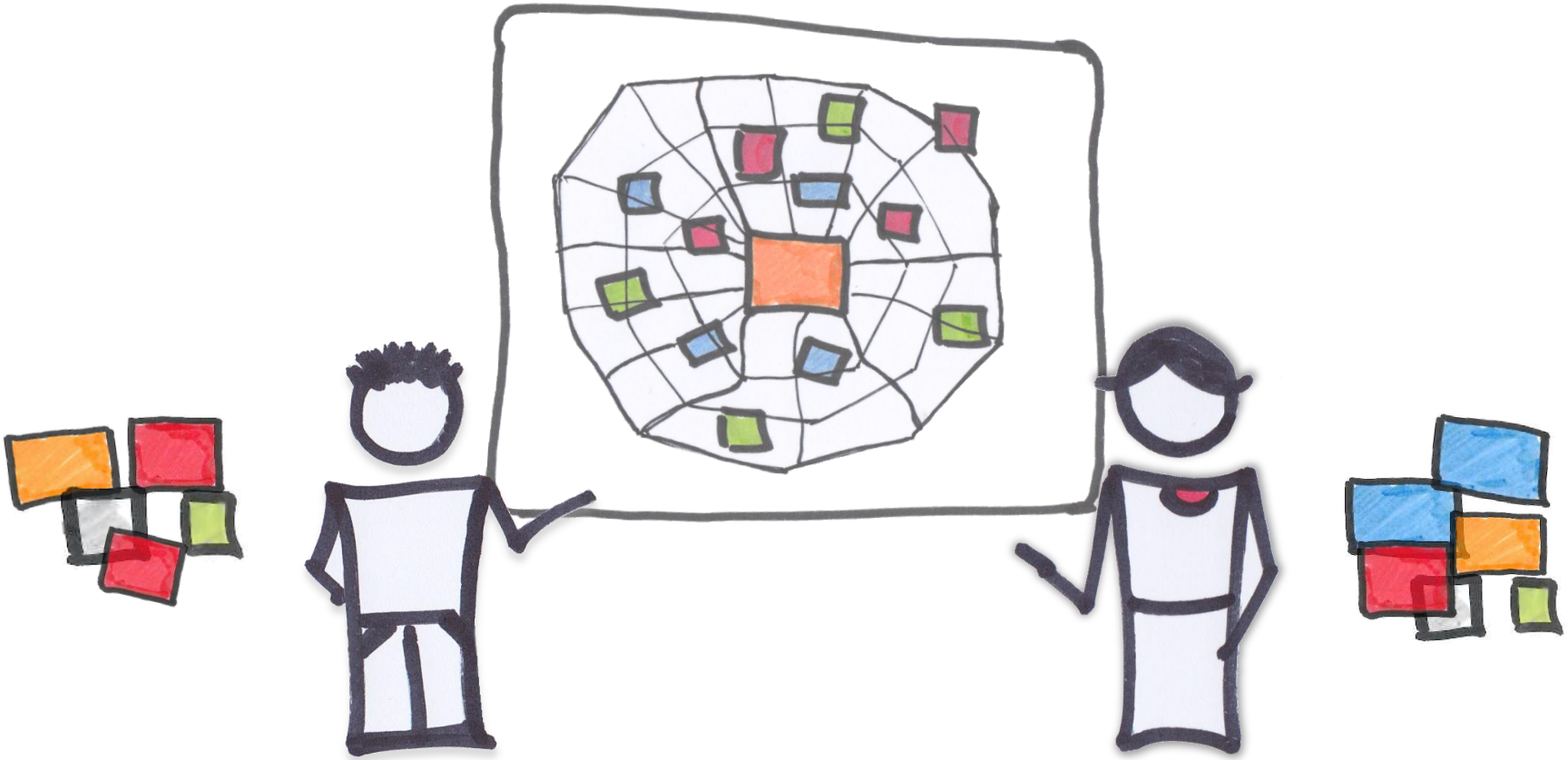


Develop shared understanding, involve and engage all team members, create and exchange new ideas effectively and have fun while doing so.

Examples

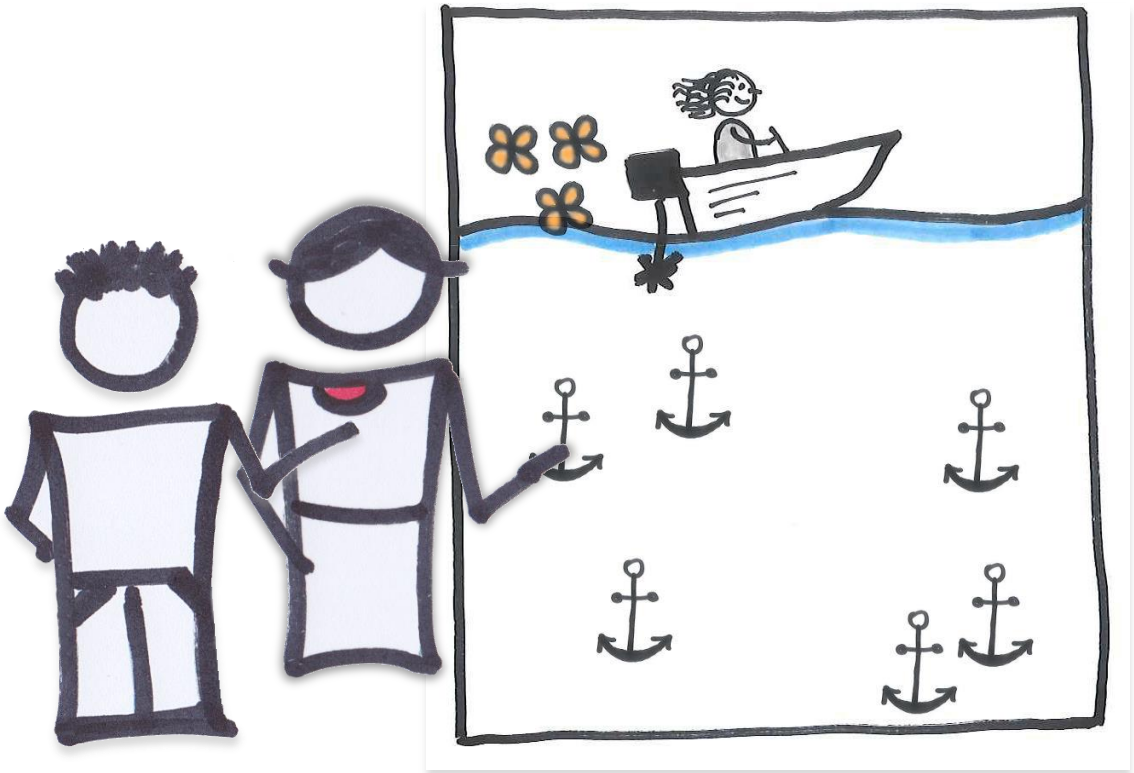
Spiderweb

Understand Product Relationships



Speedboat

Identify Pain Points (Areas of Improvement)



"What keeps you from using our service more often?"

A little

Quite some

Really strong

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Using Innovation® Games at Scale

Remember this?

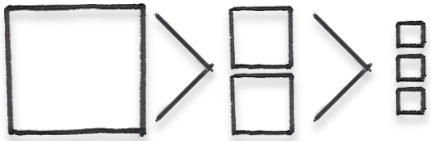
Luke Hohmann

"Traditional retrospectives focus on a **single co-located team**. They can produce results that **improve the performance of the team**, but often **fail to address the needs of the enterprise** – the issues affecting multiple teams or beyond the scope of control of and single team."

The goals

Deployment and iteration speed

Break down silos

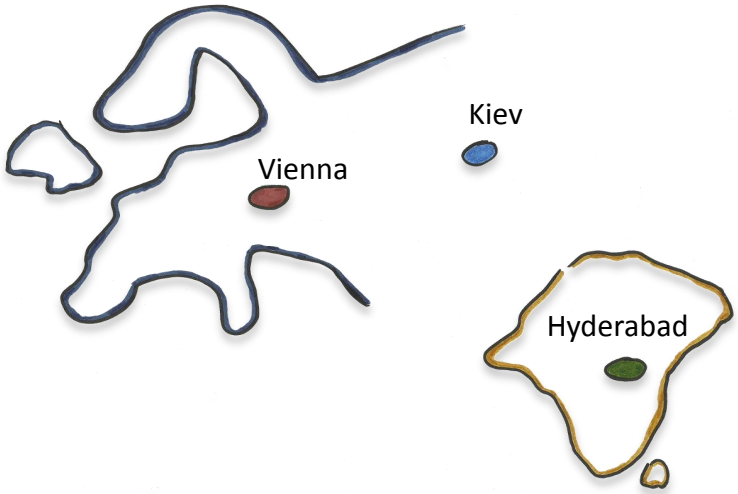


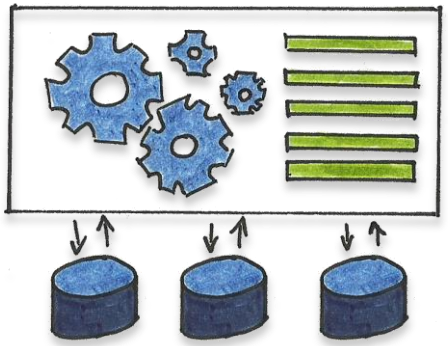
Smaller batches

More reliable and robust

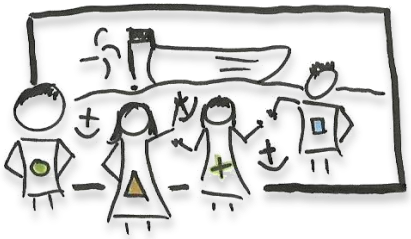
Engage entire company in the transition

How do you identify the really important issues in a large organization?





With Innovation Games



Easy to facilitate and play

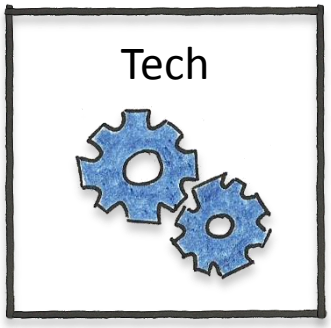
Include all the different perspectives

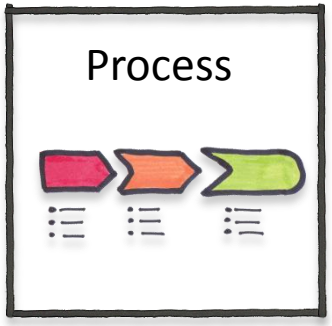
Generate many data points

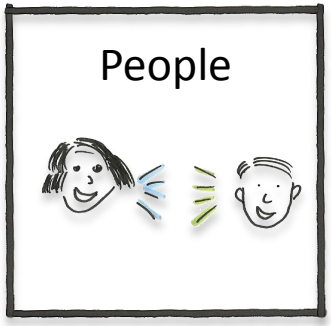
Steps

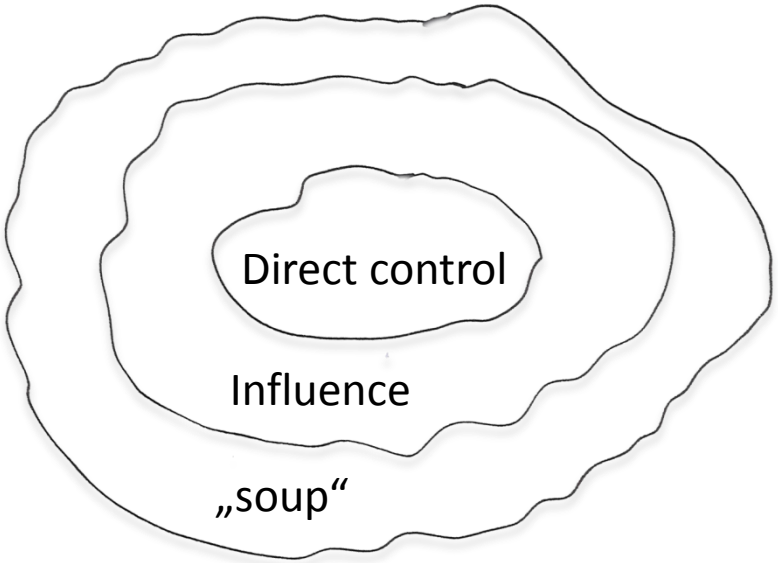
1. Define relevant categories and scope
2. Identify teams that should take part
3. Define the game
4. Train the facilitators
5. Schedule the games and play
6. Analyze data
7. Identify Iniatative

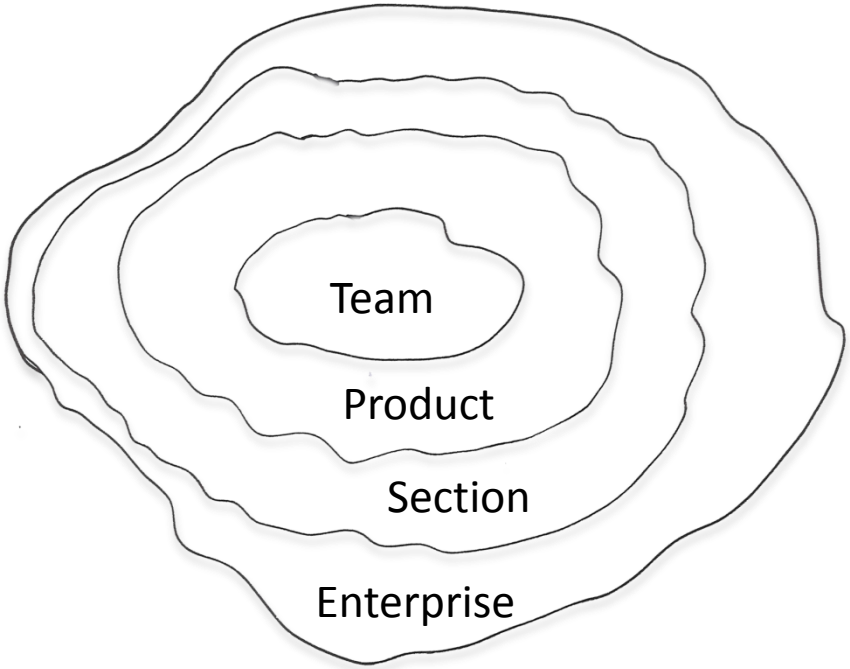
Setup categories and Team Scope



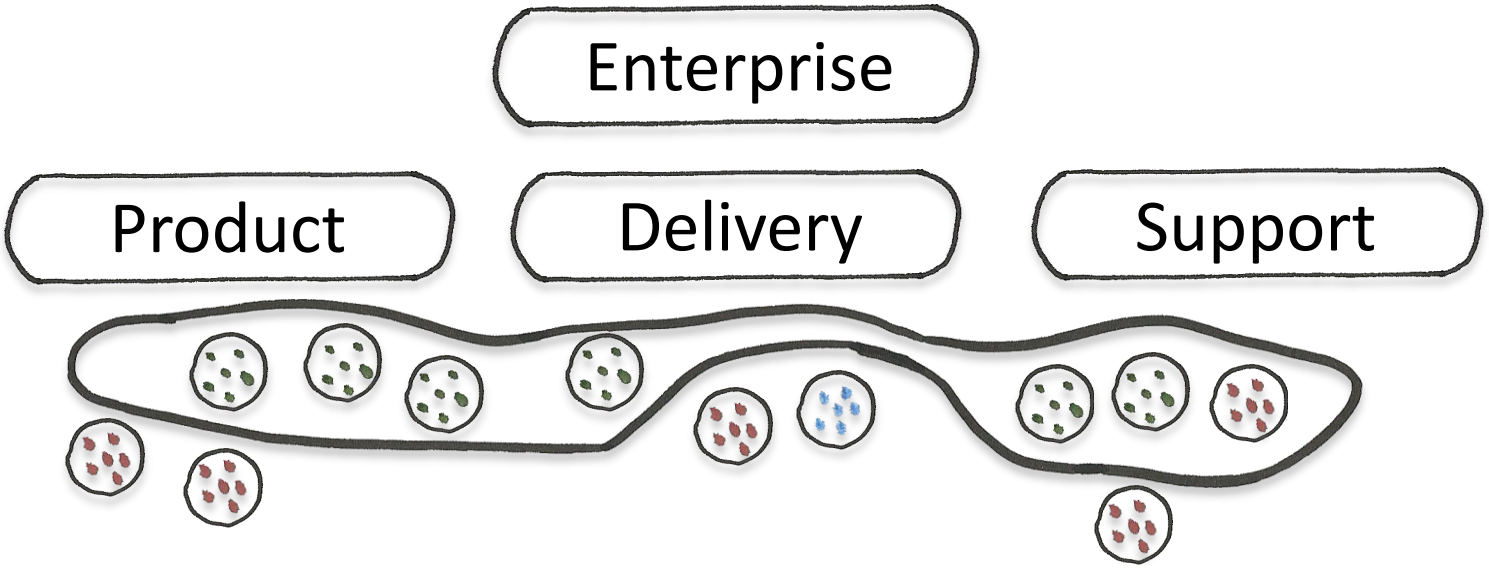








Identify teams



Total of 44 teams

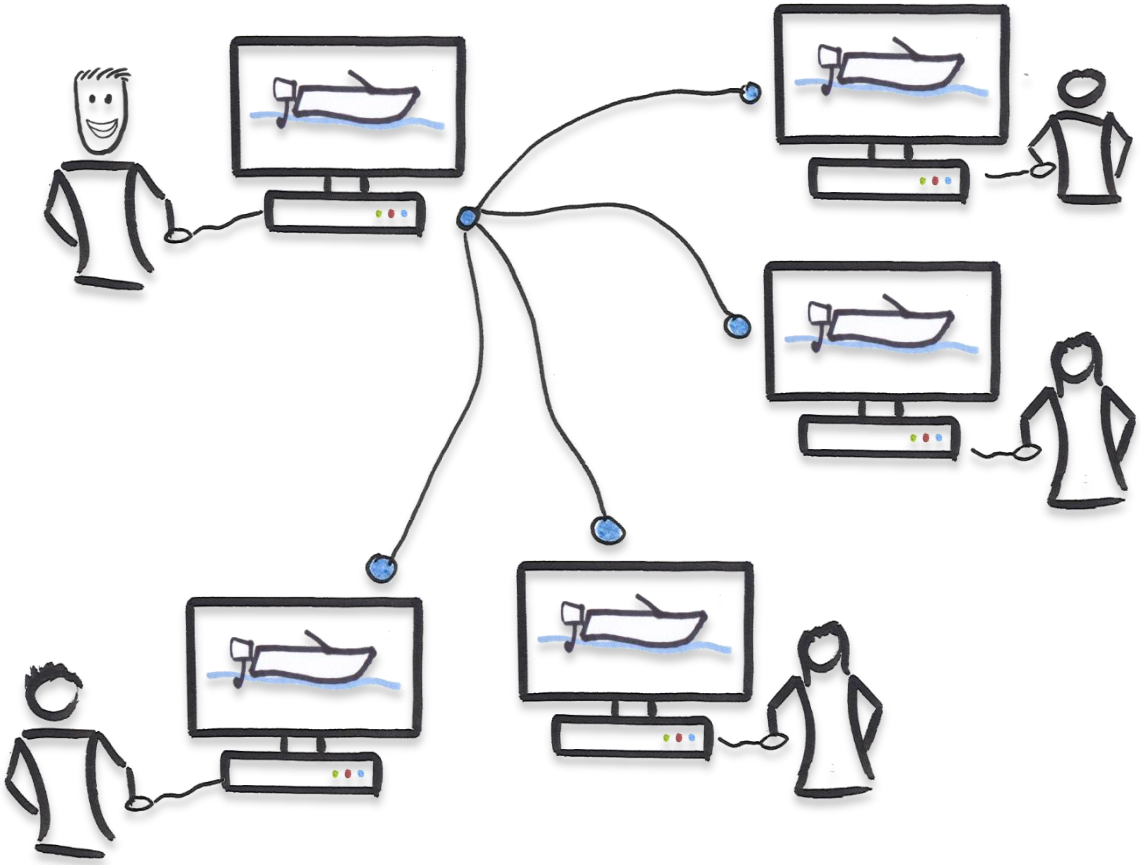
Team

- Analysts
- Testers
- Devs
- Designers

Not included

- ProductOwners
- Managers
- ScrumMasters

Train the facilitators



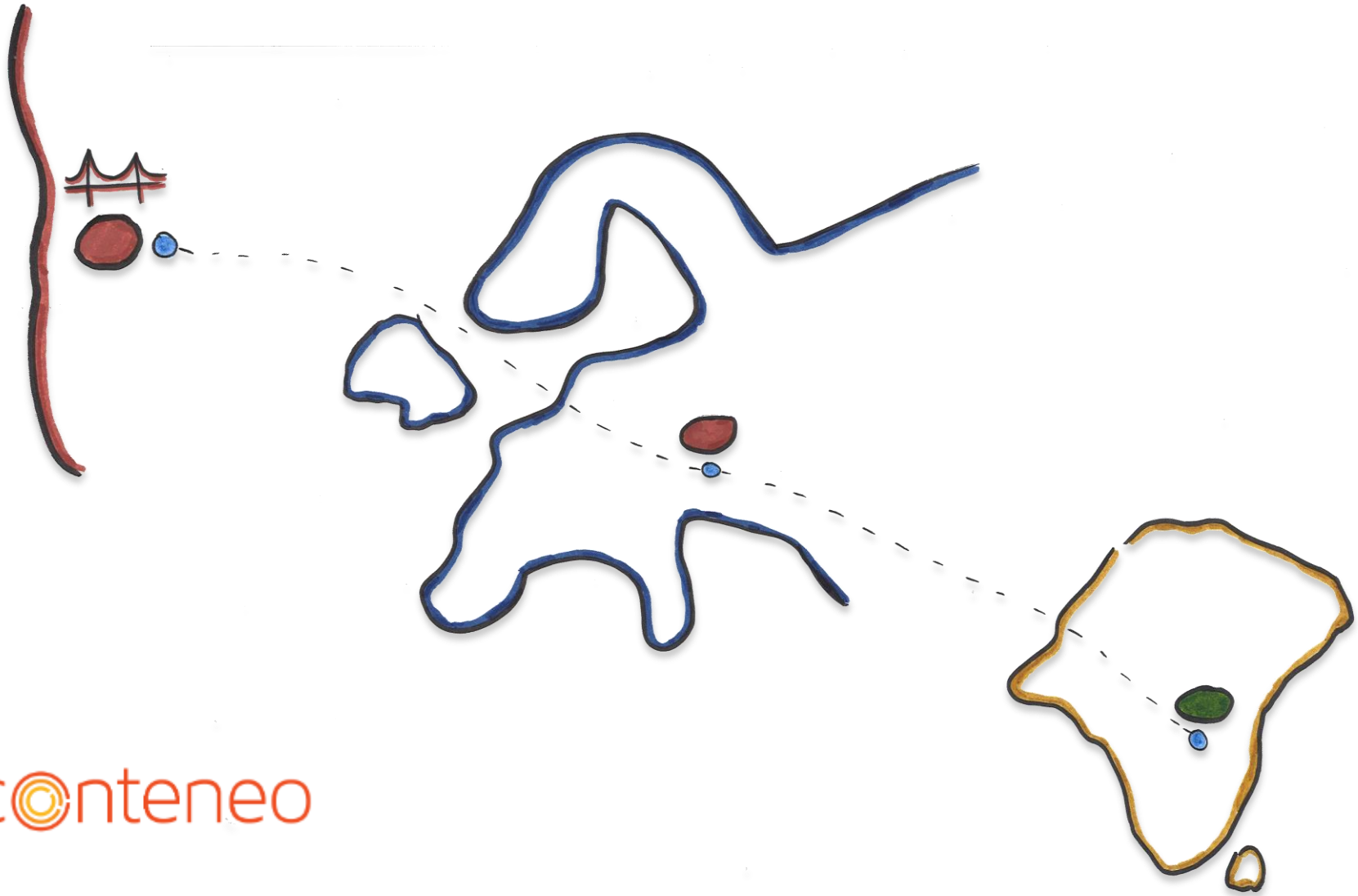
Schedule the games and create facilitation script

Schedule		
Team1	Apr 2	Peter
Team2	Apr 2	Juliana
Team3	Apr 4	Peter
Team4	Apr 5	Greg
Team5	Apr 5	Luke
Team6	Apr 6	Greg
Team7	Apr 7	Juliana
…		

Time Scope: Last 6 months or last release, whichever is greater.

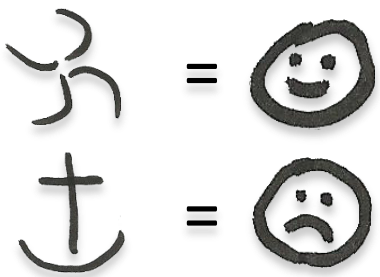
Process Scope: The complete development process from story creation, through development and into production deployment (release to customer).

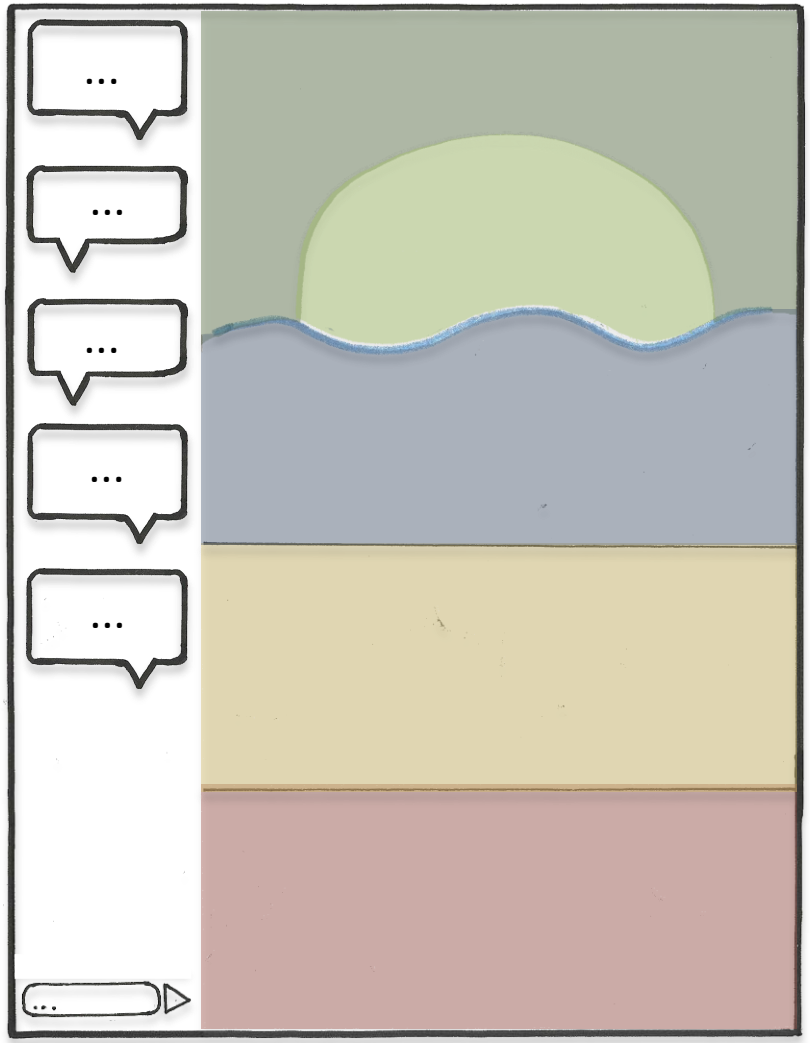
Online platform



conteneo

Game constraints





Really Good

Good

Somewhat Bad

Bad

Really Bad

Playing the Games

= Tech

= People

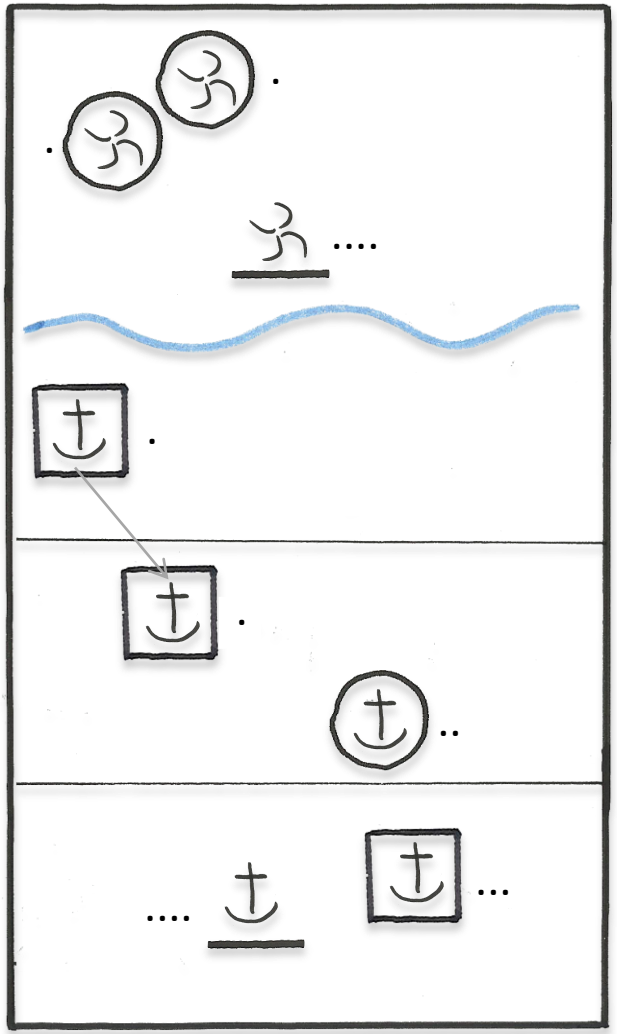
= Process

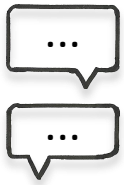
. = Team

.. = Product

... = Section

.... = Enterprise





whisper

Chat Conversation saved

API gateway was down due to network failure

This only happened once, but I think if it continues it could be a problem

Maybe we can create additional checks in the software

Agree, that would be good and easy to do

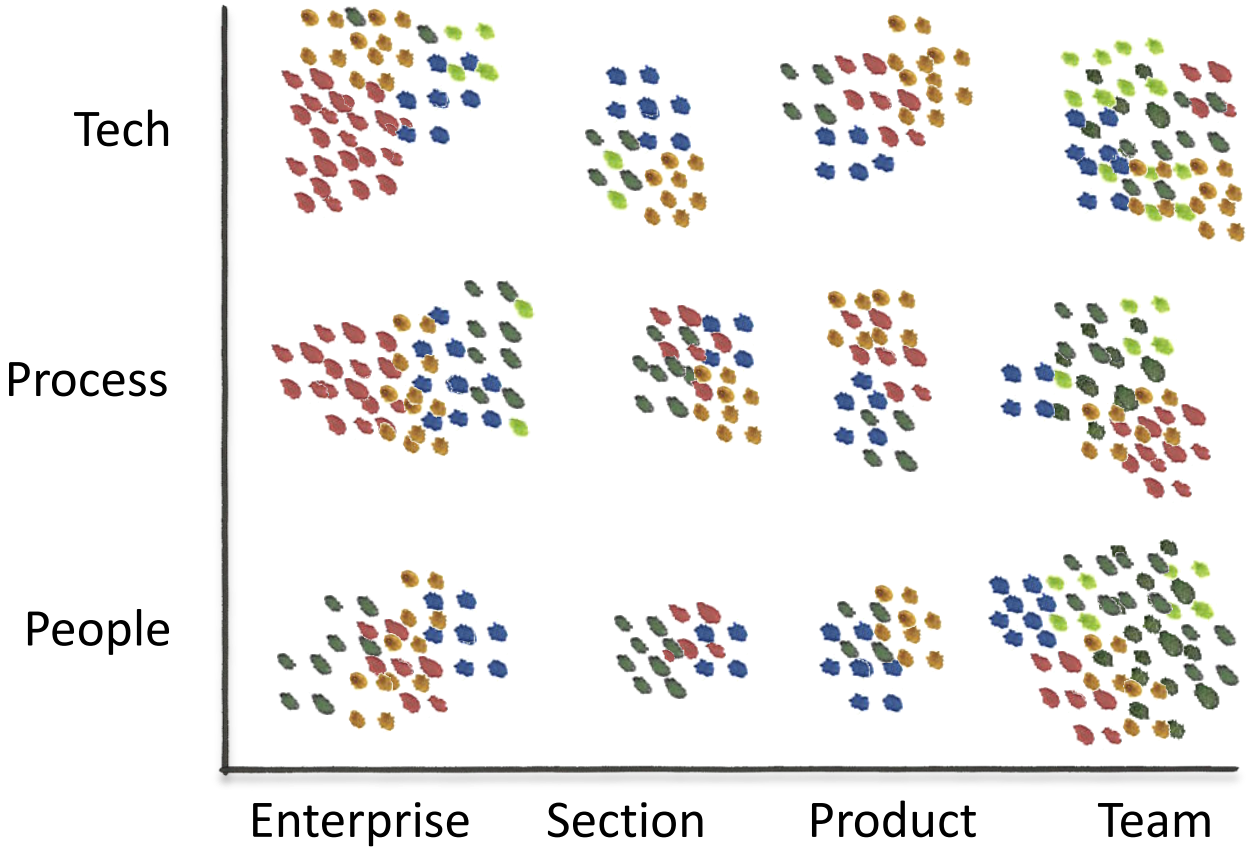
All hands meeting explaining upcoming initiatives

I got a good picture of what we'll have to deliver in the next few months

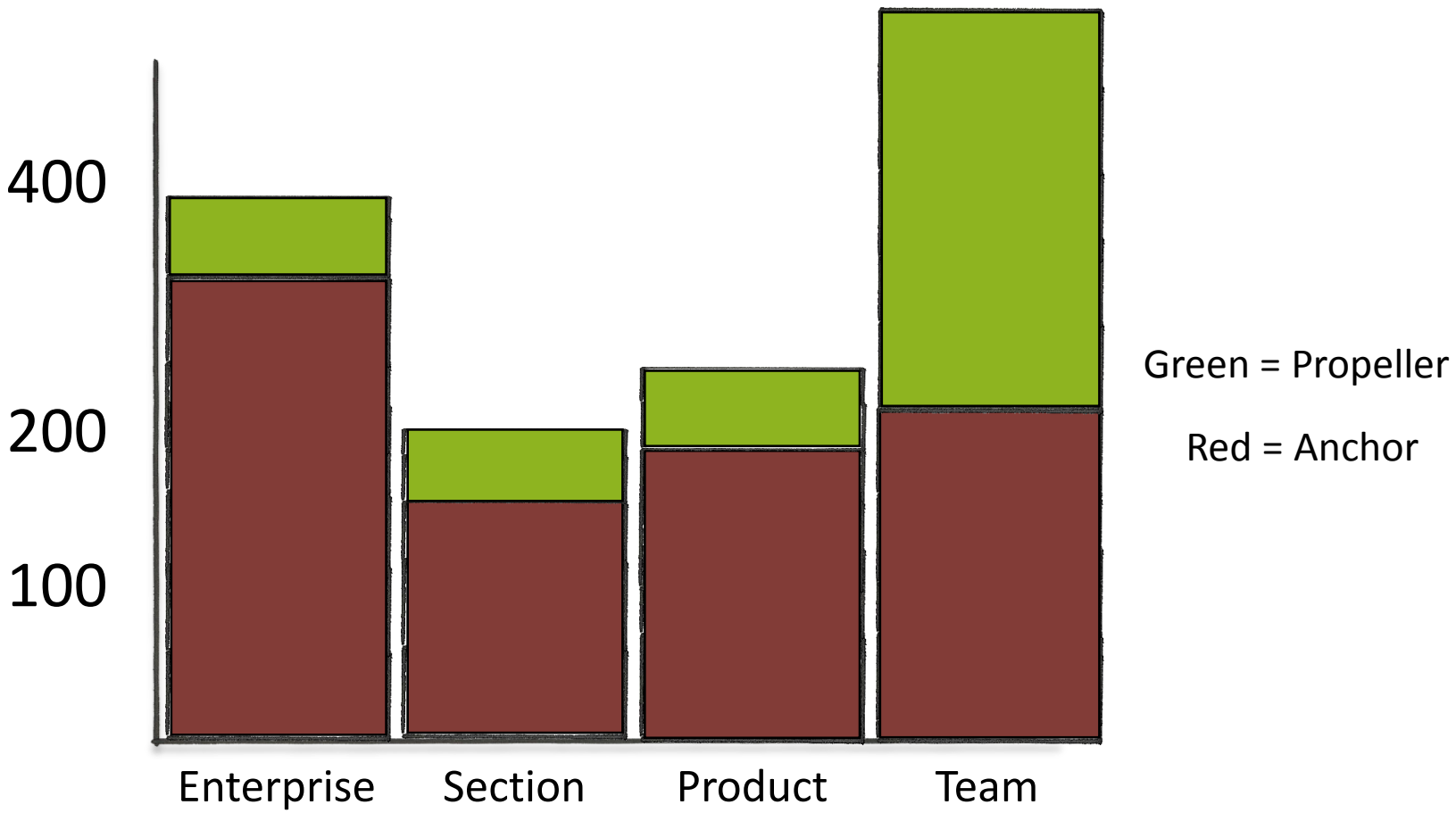
But they failed to explain the marketing strategy

Yes that would be a great addition next time

1000 Resulting Datapoints



Analyzing the Datapoints (Quantitave)



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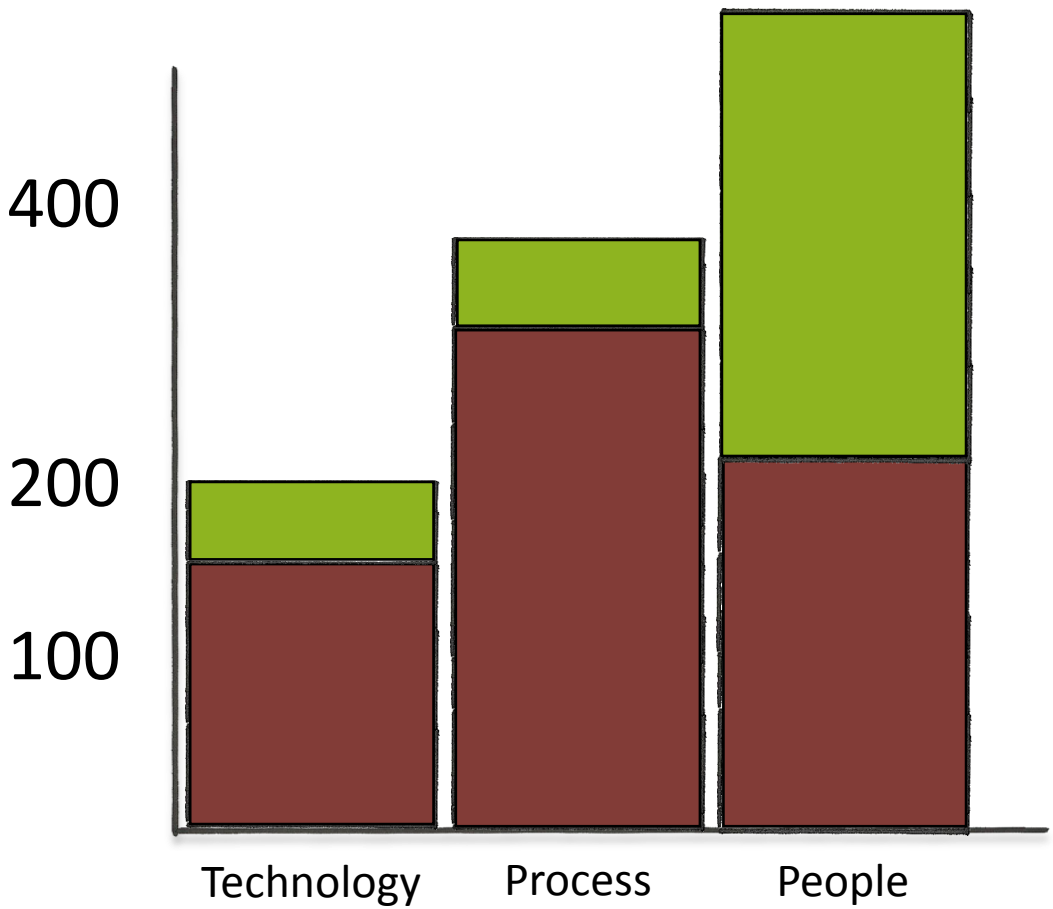


Green = Propeller

Red = Anchor

Analyzing the Datapoints (Qualitative)

Positives

Trust within Teams is high

Product Owners improved focus on technical debt

Negatives

Teams are unsure about some newly introduced roles

Insufficient test Automation and Test environments Not production-like

Identify follow up Initiatives

Technical on Enterprise level

- **Bug Burn** initiative
- “Big picture” **architecture Review with consultants**

Technical on Team level

- Initiate a program of **improving skills**
- Maintain pairing

Process on Enterprise level

- Maintain **focus on DevOps**
- Consider a maintenance team to handle existing bug backlog

Outcomes

Bug Burn Initiative

- Dedicated 50% of development
  to **quality improvements** for 2-3 Sprints
- 94 backlogs
- Defects (**159**) + backlog items (**107**)

Architecture Review

- Lego Models
- Caching component not stable
- Prototype of new Content delivery

Lessons learned

Keep the momentum

- How does perception of the enterprise change?
- The Retrospective gets people on the same page
- Outcomes must be linked to the Retrospective

Better internal communication

- More visibility of outcomes
- Reporting from other sites

Adoption may vary and fade with leavers

- Visual not easy for some people
- Need strong facilitators to drive adoption

Apply visual techniques with care

What worked for us

Scaling

- Easy to work with online edition of Innovation Games across entire company
- Cultural differences do not influence output
- Game Constraints directly influence the output

Games in the right context have higher adoption

- **Buy a Feature** popular with POs
- **Prune the Product Tree** used by senior management
- **Speedboat** and other visual techniques used by SMs/Agile Coaches

Summary

bwin

Through the **Enterprise Retrospectives** we were able to **uncover issues** at various scope levels and direct the attention of **Management as well as the Teams** to focus the IT organization on improving the quality of our Software products. Issues that were lurking since the time of the merger of bwin and Partygaming.

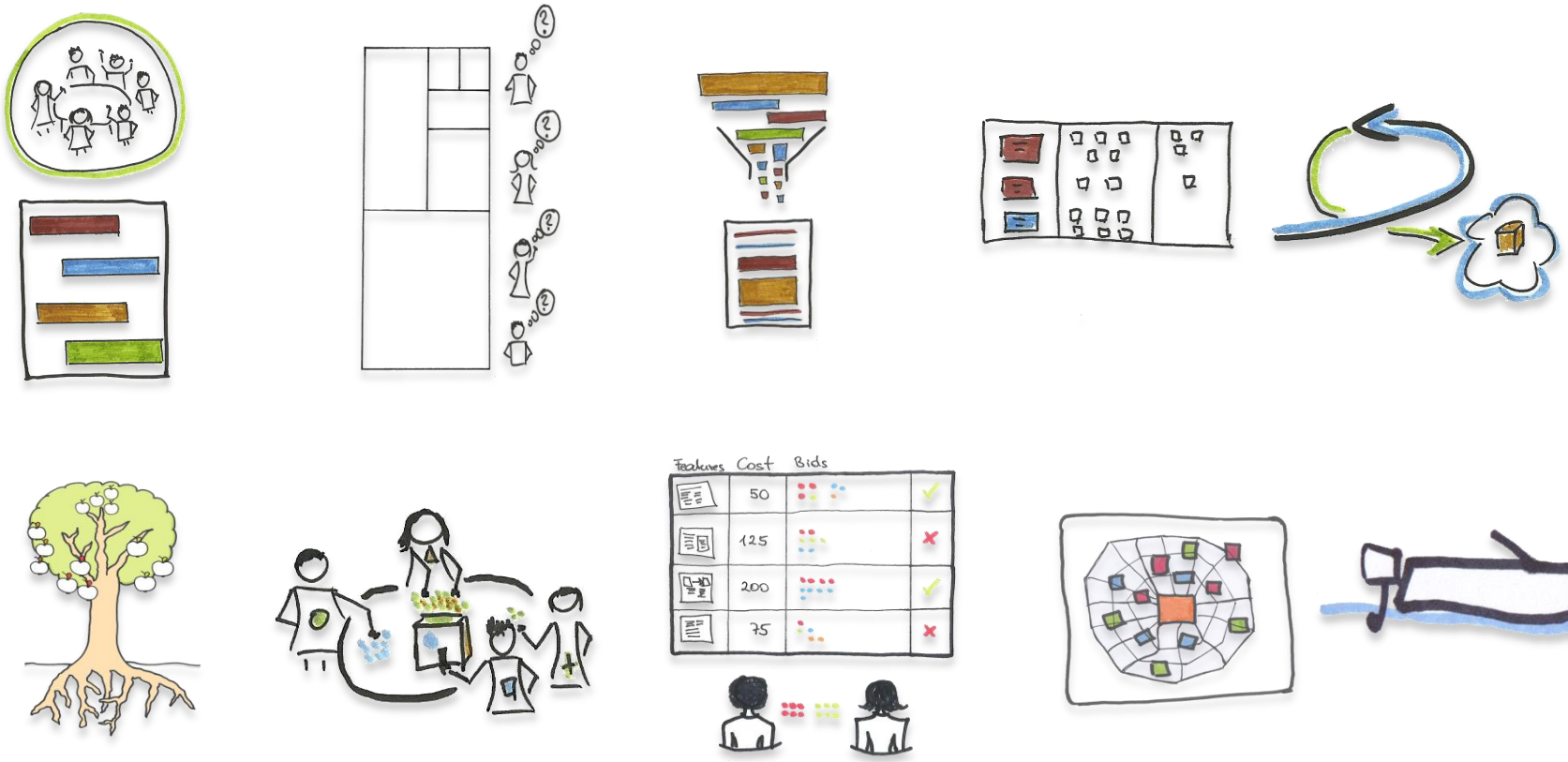
The Retrospective included **42 teams**, a total of **285 participants**, was run by **20 different facilitators**, and produced **1000 unique anchors and propellers**. The exercise had a lead time of roughly **4 weeks** till completion.

Innovation Games gave us an easy way to **gather, analyze, and archive** honest and insightful **feedback from teams** within the same context across **different cultures** and **different sites** in a company with worldwide operations.

Games give us a **context** in which we become **more open** to new things and are willing to **go beyond our boundaries**. This enhances creativity.

Innovation Games are **most powerful** when there are **lots of unknowns**.

Innovation Games facilitate and shorten feedback loops



Prune the Product Tree

Buy a Feature

Speedboat

Product Box

Spiderweb

Thank you