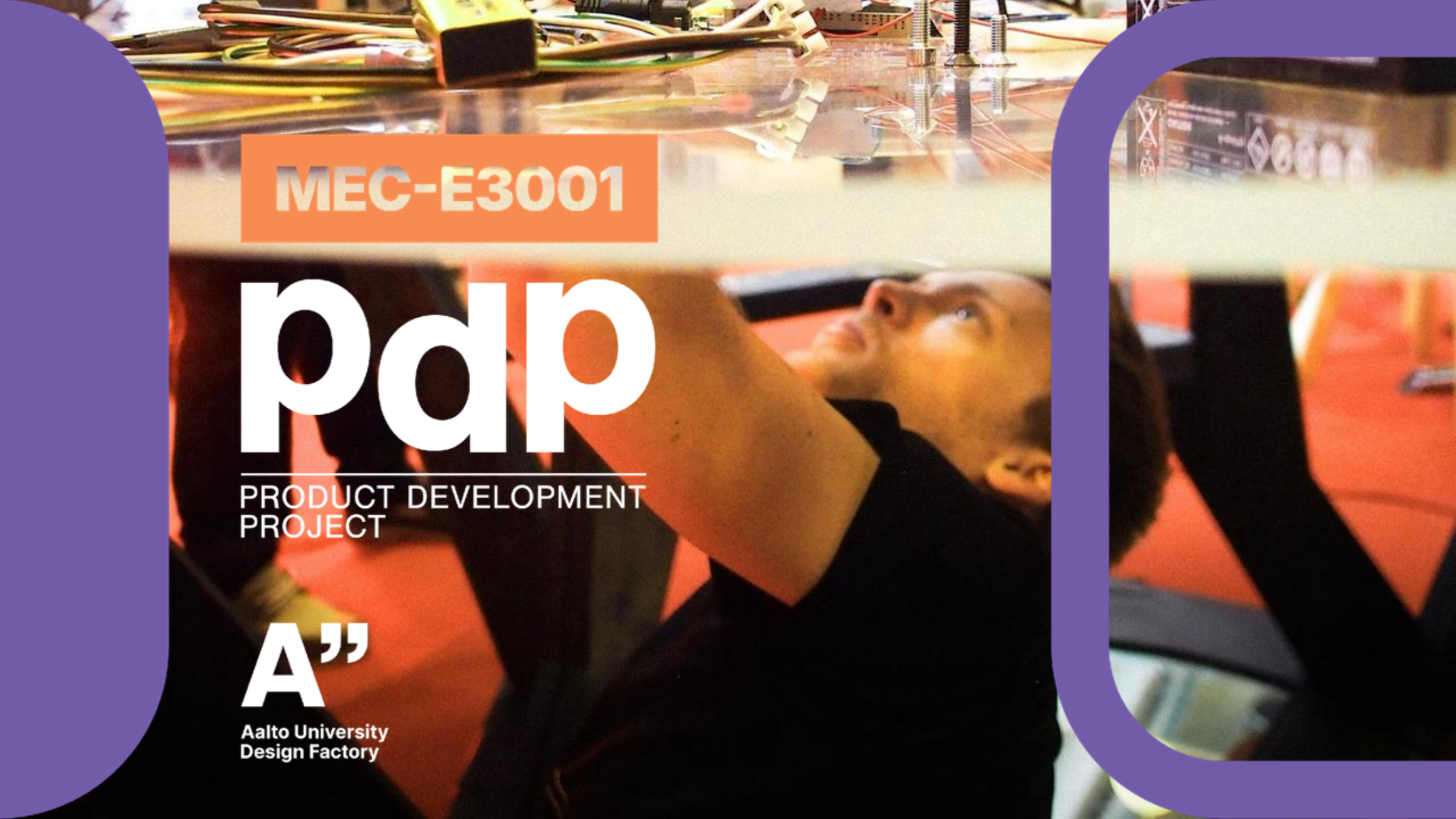

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# Pdp

PRODUCT DEVELOPMENT PROJECT

Aalto University
Design Factory

# PdP course staff

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# PD6 for PDP

## 2024

# WHAT IS PD6?

# PD6

- Product Development simulation in 6 hours
- Intensive day – throw yourself into it
- Thinking by doing, hands-on, testing
- Find your focus
- Use your radical creativity

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TEAM: Yellow
Our philosophy of Creation:
Be INTERESTED
Get your HANDS DIRTY
COMMUNICATE your ideas
Get it DOWN
BUILD on others ideas
QUICK 'n' dirty
DEMO or die
Keep up the PACE
Have FUN!!!

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# Schedule

Introduction

09:15 Kick-start & plan

Headquarters
-masterplan
-roles

Checkpoint 1:
(we come to your place)

11:00 at your HQ

Checkpoint 2:
(1 person comes to us)

13:30 CP2: PDP corner (2nd floor)

15:15 Final presentations

Feedback
Closing
Cleaning

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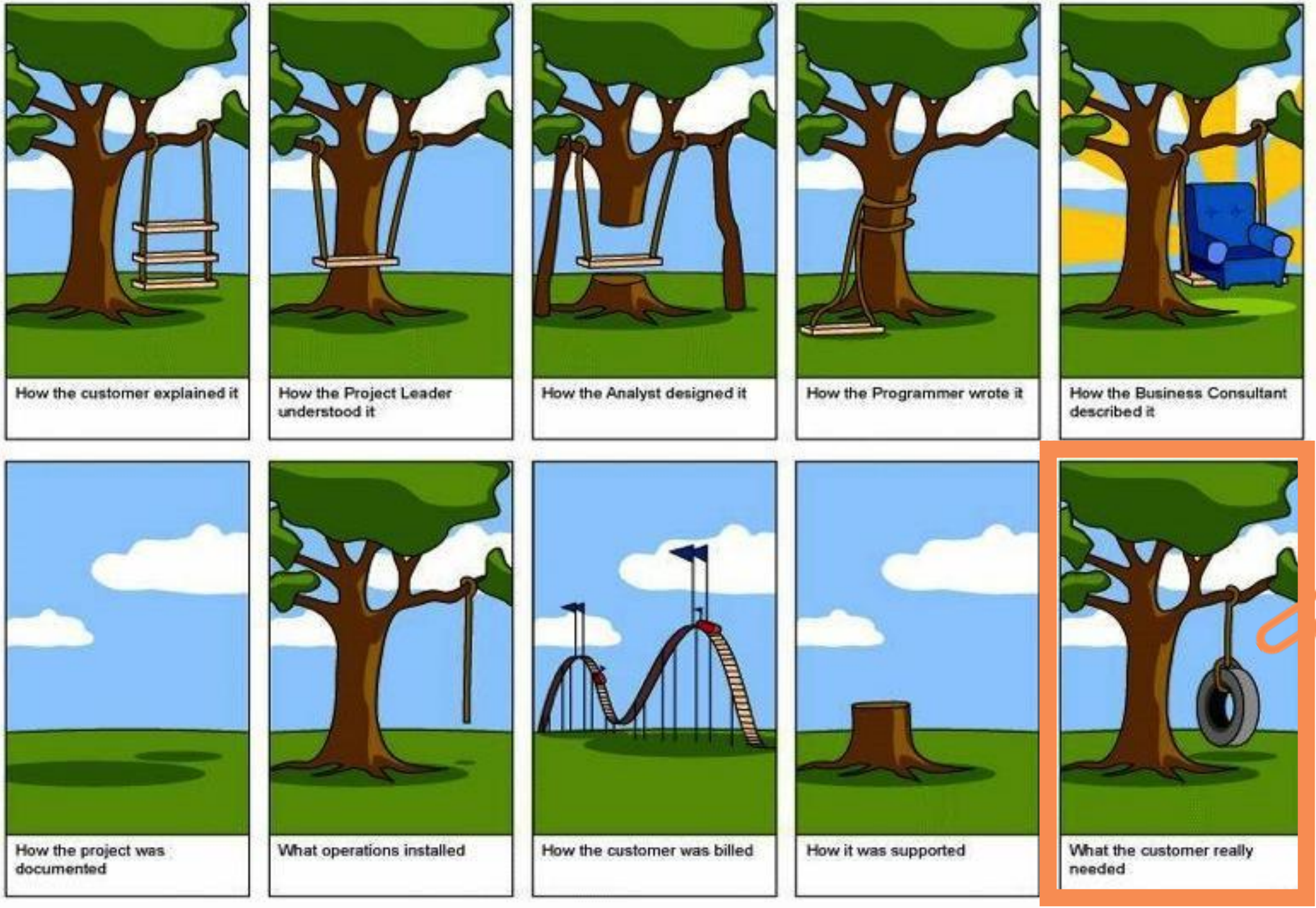
# Long history - research findings

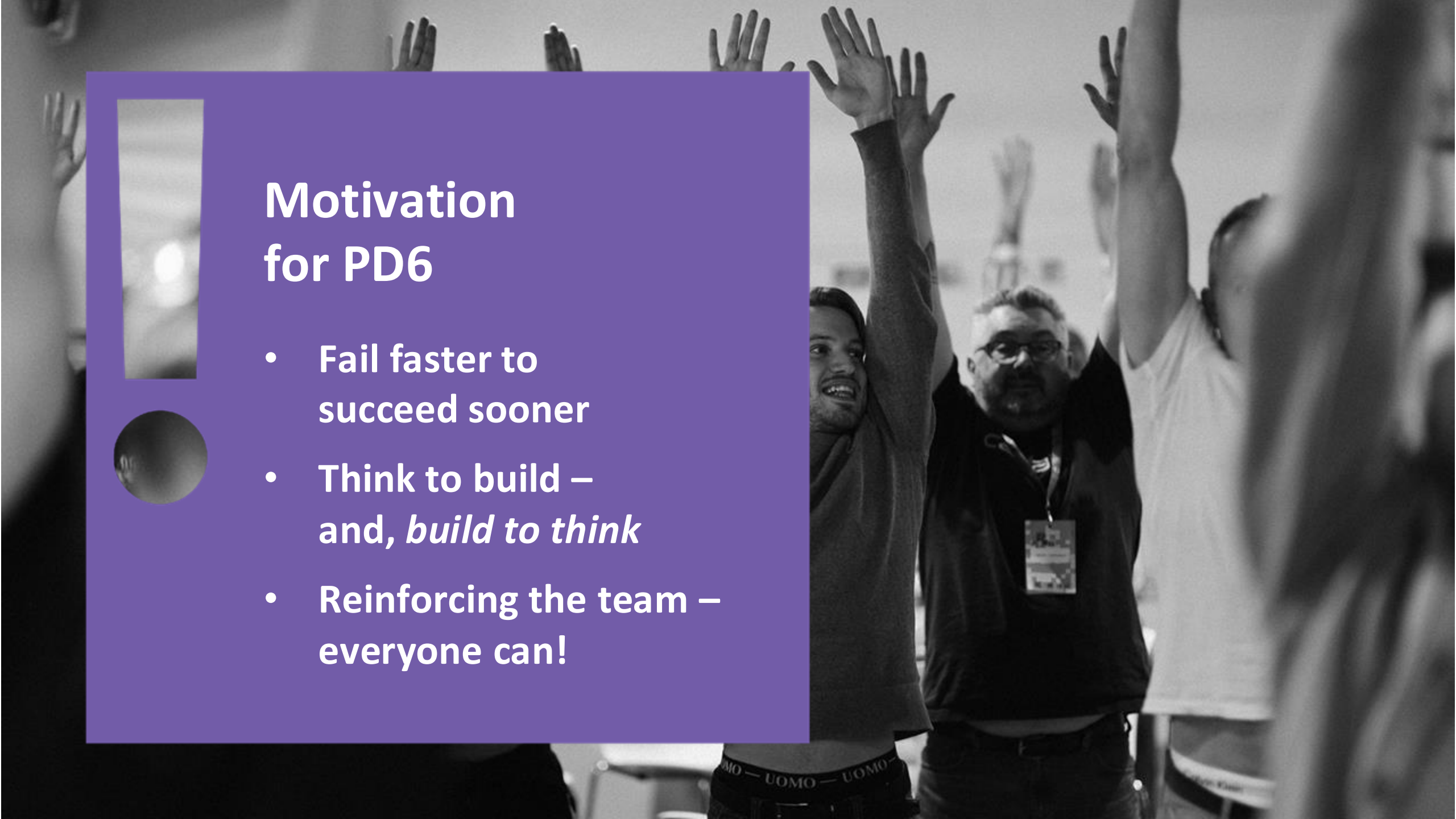
## Problems in industry

- Poor idea generation process
- Taking ideas further

## Problems in student projects

- Getting started in teams
- Clarification of the task
- Communication


How the customer explained it
How the Project Leader understood it
How the Analyst designed it
How the Programmer wrote it
How the Business Consultant described it
How the project was documented
What operations installed
How the customer was billed
How it was supported
What the customer really needed



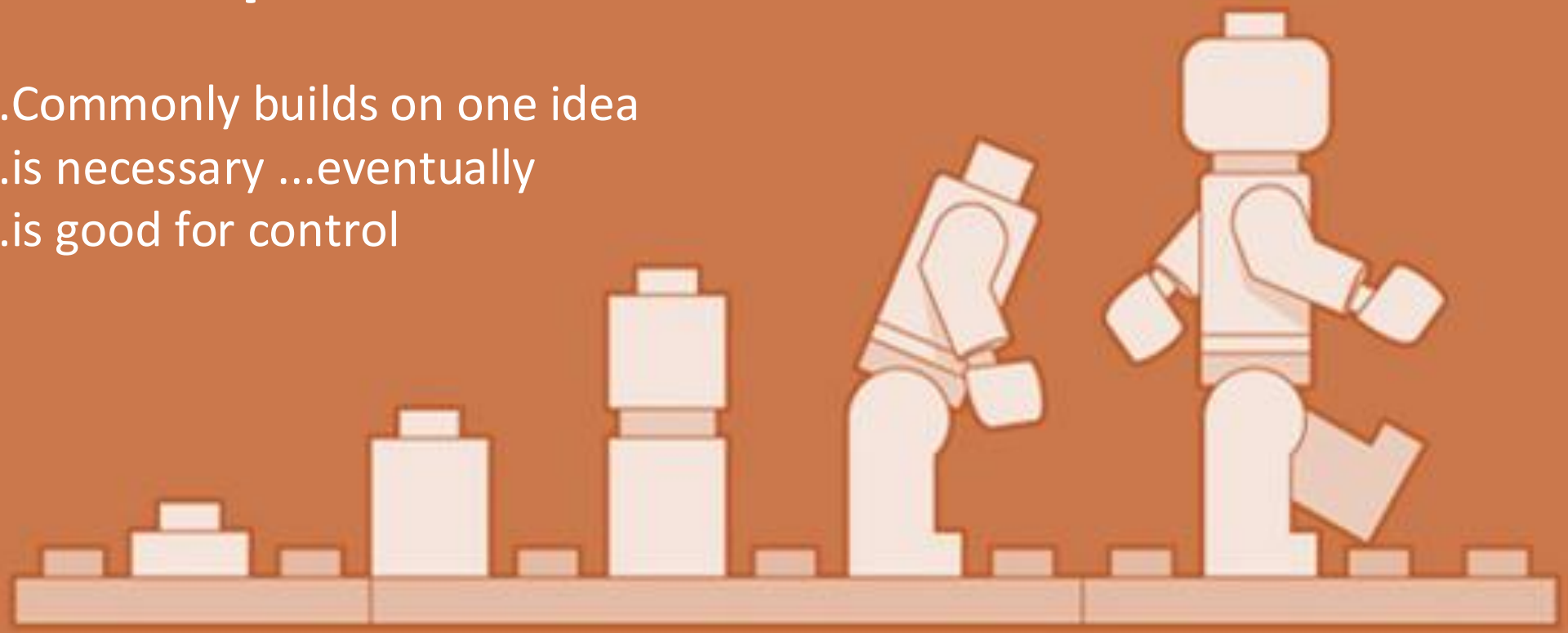
# Motivation for PD6

- Fail faster to succeed sooner
- Think to build – and, *build to think*
- Reinforcing the team – everyone can!

# PRODUCT DESIGN AS WE OFTEN SEE IT

# A linear process

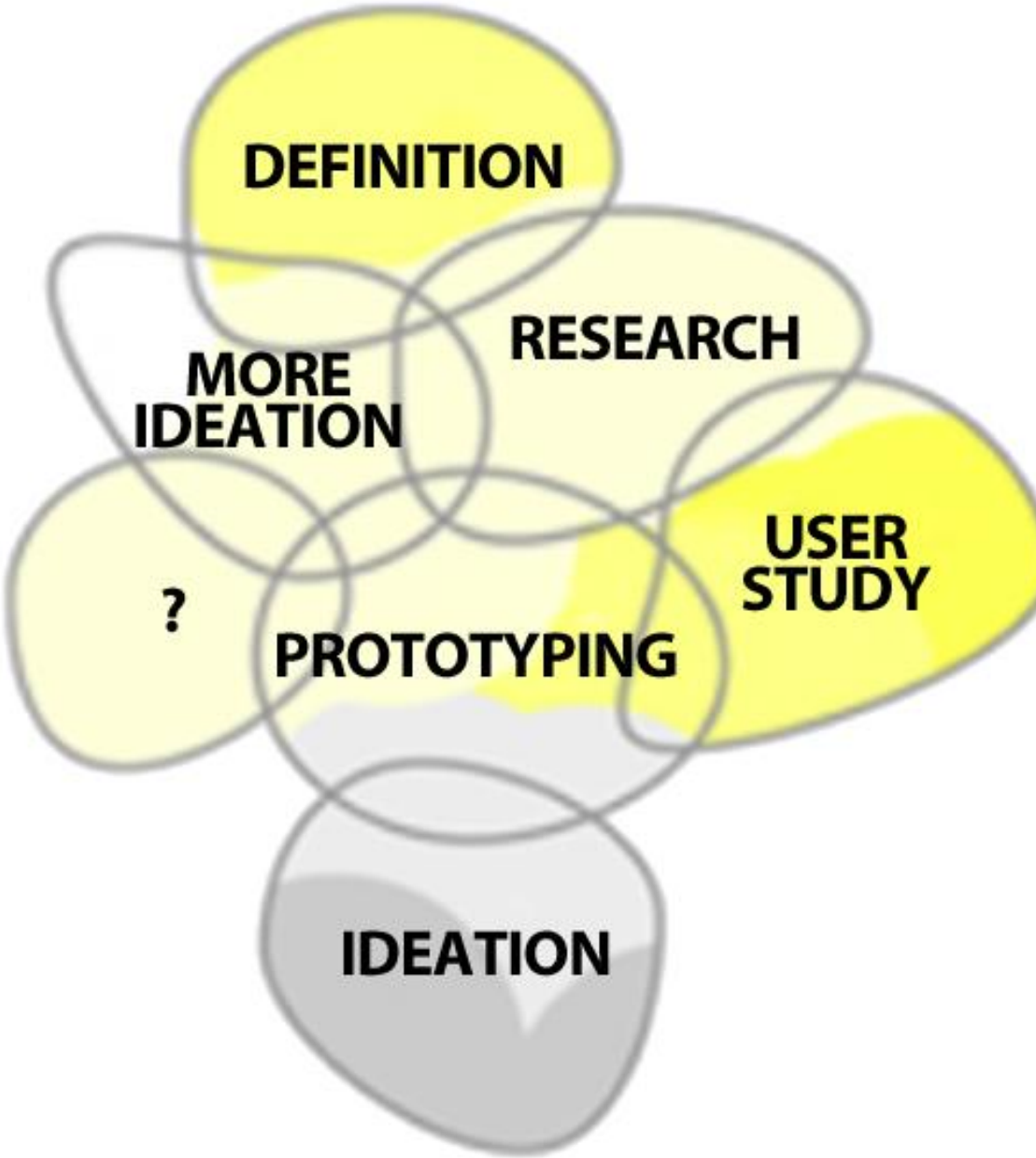
...Commonly builds on one idea
...is necessary ...eventually
...is good for control



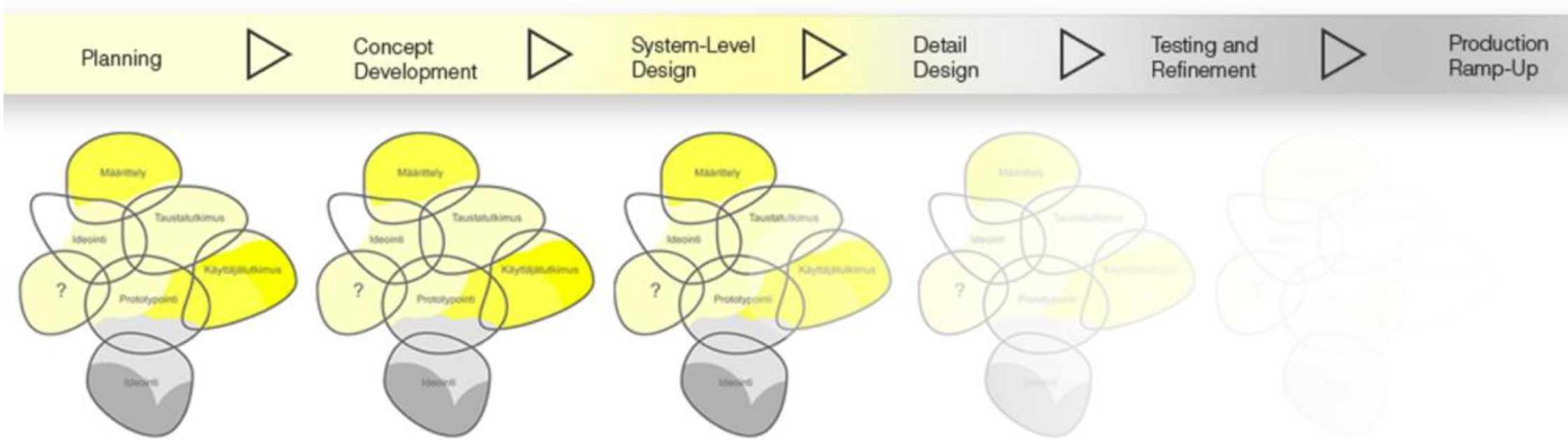
Planning ▷ Concept Development ▷ System-Level Design ▷ Detail Design ▷ Testing and Refinement ▷ Production Ramp-Up

# Product design is non-linear!

- Prototype for purpose!
- Focus more on the problem
  ...than on the process
- Interaction (ask-watch-learn-try)



# The PD6 process



# The traditional (boring) roles

Project Manager *management, team building*

Industrial Designer *usability, appearance, form*

Mechanical Engineer *specs, CAD, manufacture, details*

Marketing & Business *sales arguments, distribution*

Life Cycle Expert *maintenance, life-cycle control*

Electrical Engineer *functions, sensors, microprocessors*

***"If you have a hammer in hand, just nails are catching your eye"***

# Role ideas

| | |
|---|---|
| Time Manager | *efficient and precise usage of time* |
| Story Designer | *make it big* |
| Data Mining Engineer | *obvious and unexpected sources* |
| Business Shark | *how do we make money* |
| User/Client Expert | *who are they and what motivates them* |
| Devils Advocate | *what if* |

***"If you have a hammer in hand, just nails are catching your eye"***

# Idea Generation

Brain storm rules

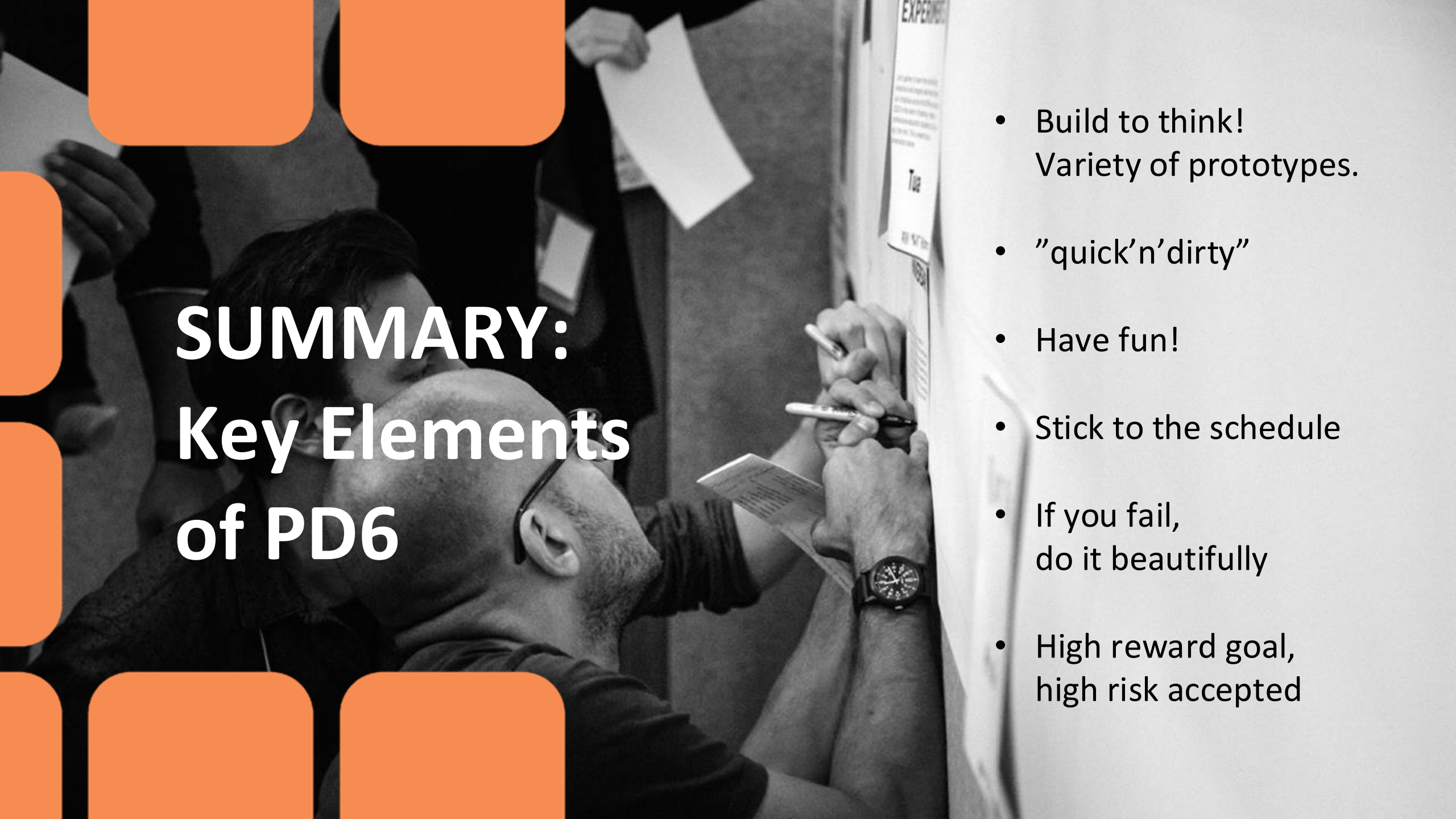
The **FLOW**

Variety of actions

Visualise & materialise ideas

# Demo or Die

- Radical viewpoints
- Choose your media
- Present ***also*** facts



# SUMMARY: Key Elements of PD6

- Build to think!
  Variety of prototypes.
- ”quick’n’dirty”
- Have fun!
- Stick to the schedule
- If you fail,
  do it beautifully
- High reward goal,
  high risk accepted

# Creativity in PD6

Perspectives to the problem?

How to harvest information?

How to experiment,
prototype or test [virtually]?

Presentation or demo
– what makes “it”?

# PD6 WORKSHOP
# DESIGN BRIEF

# Develop a trap for collecting dung beetles

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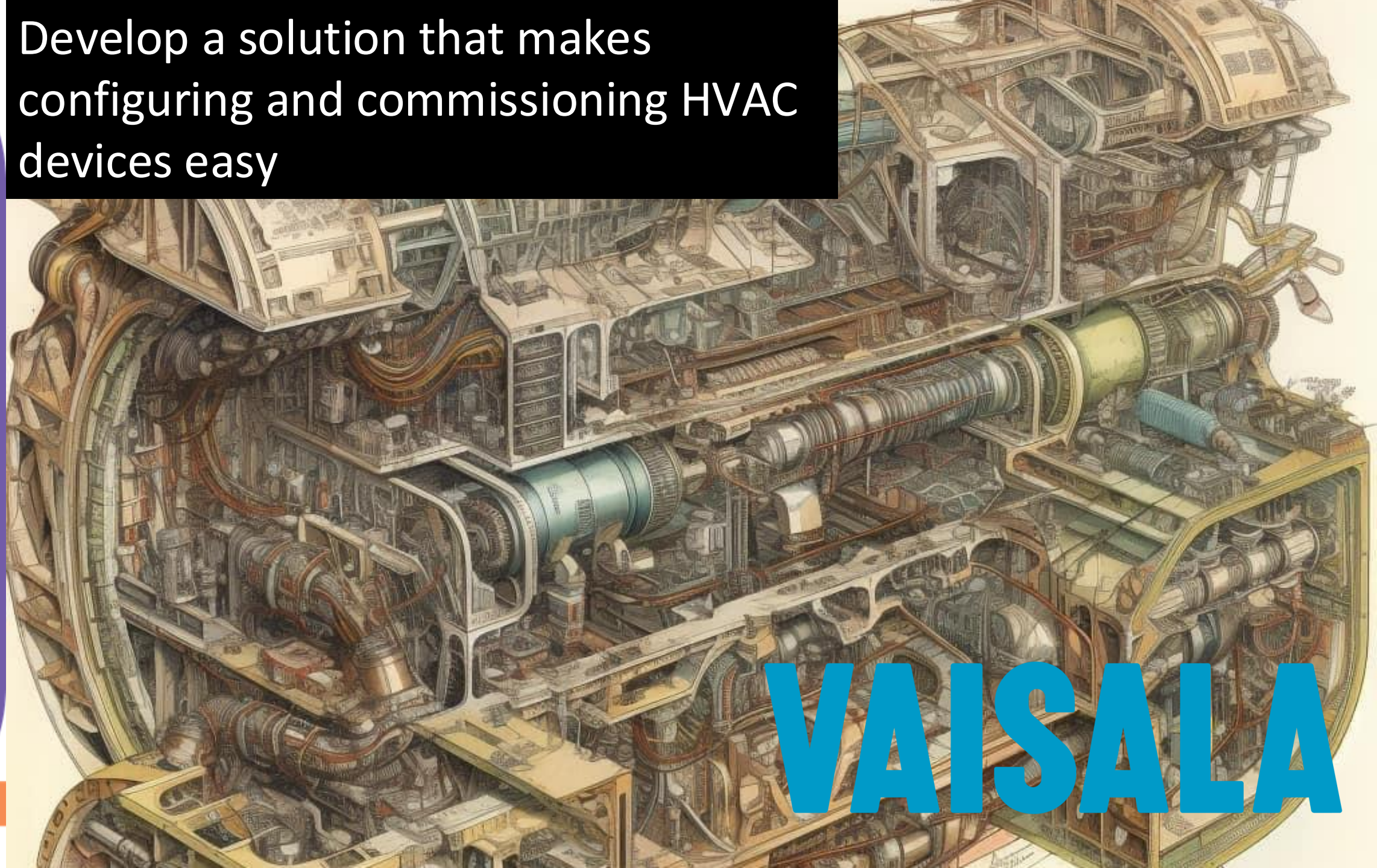
HELSINGIN YLIOPISTO

# Develop a solution that makes configuring and commissioning HVAC devices easy

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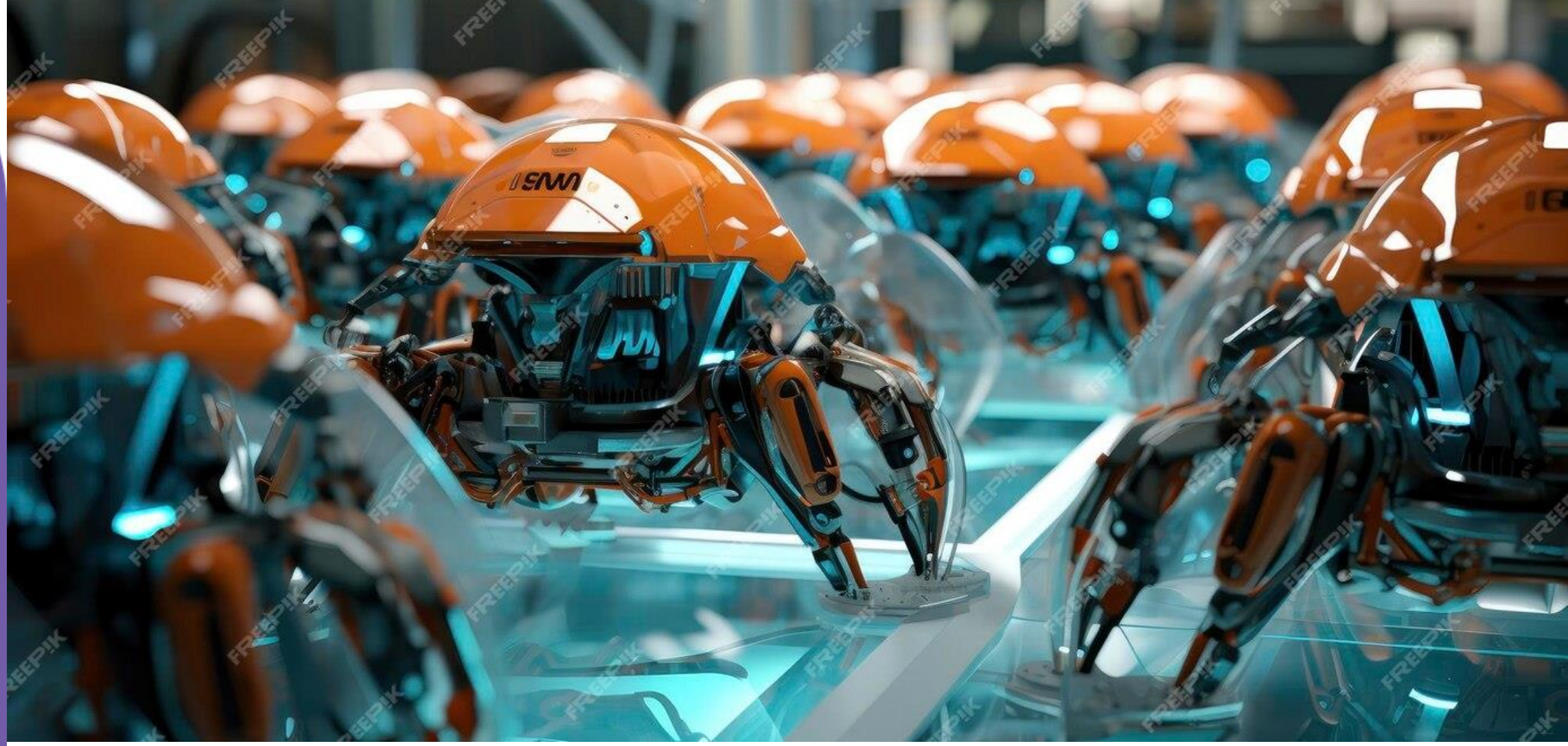

# Develop an overhead crane concept for self-assembly

KONECRANES

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TORNATOR
VASTUULLISTA METSÄOSAAMISTA

# Demonstrate how forestry operations can be automated

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Demonstrate how Auracast and Catchbox combined create best audio experience

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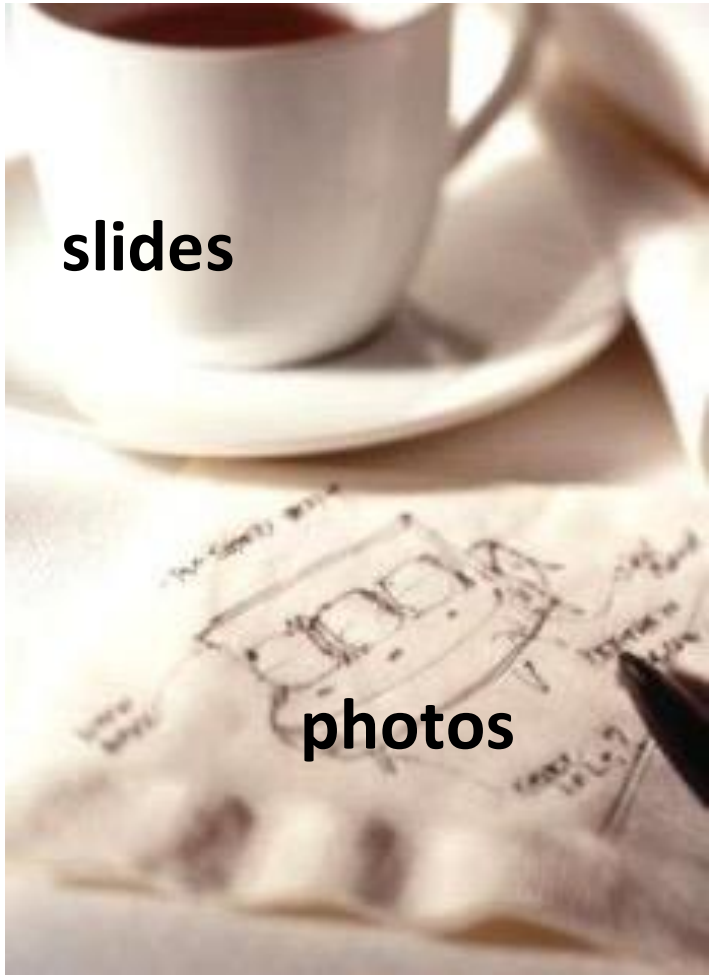
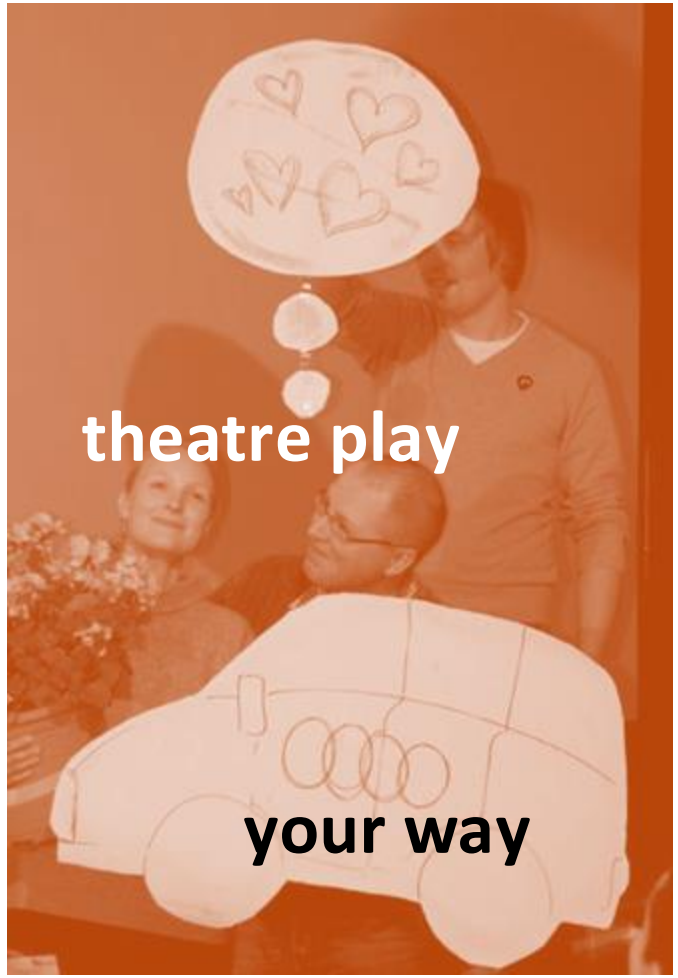
# Design electical switch for advanced monitoring and assembly

KATKO

# Communicate your results in the most touching way





# Practical Requirements

- a schedule for the day and roles defined (CP1)
- Minimum 3 phone calls made
- Talk to Vesku
- At least one meeting with an external party
- testing done (document & show!)

*And all of those in a way that makes sense!*

# Demonstration

”Demo” e.g. 3D model, tangible or visual concept;
a “prototype”, mock-up, scale model or any demonstration
that helps the audience to understand the value of your idea. Convince us!

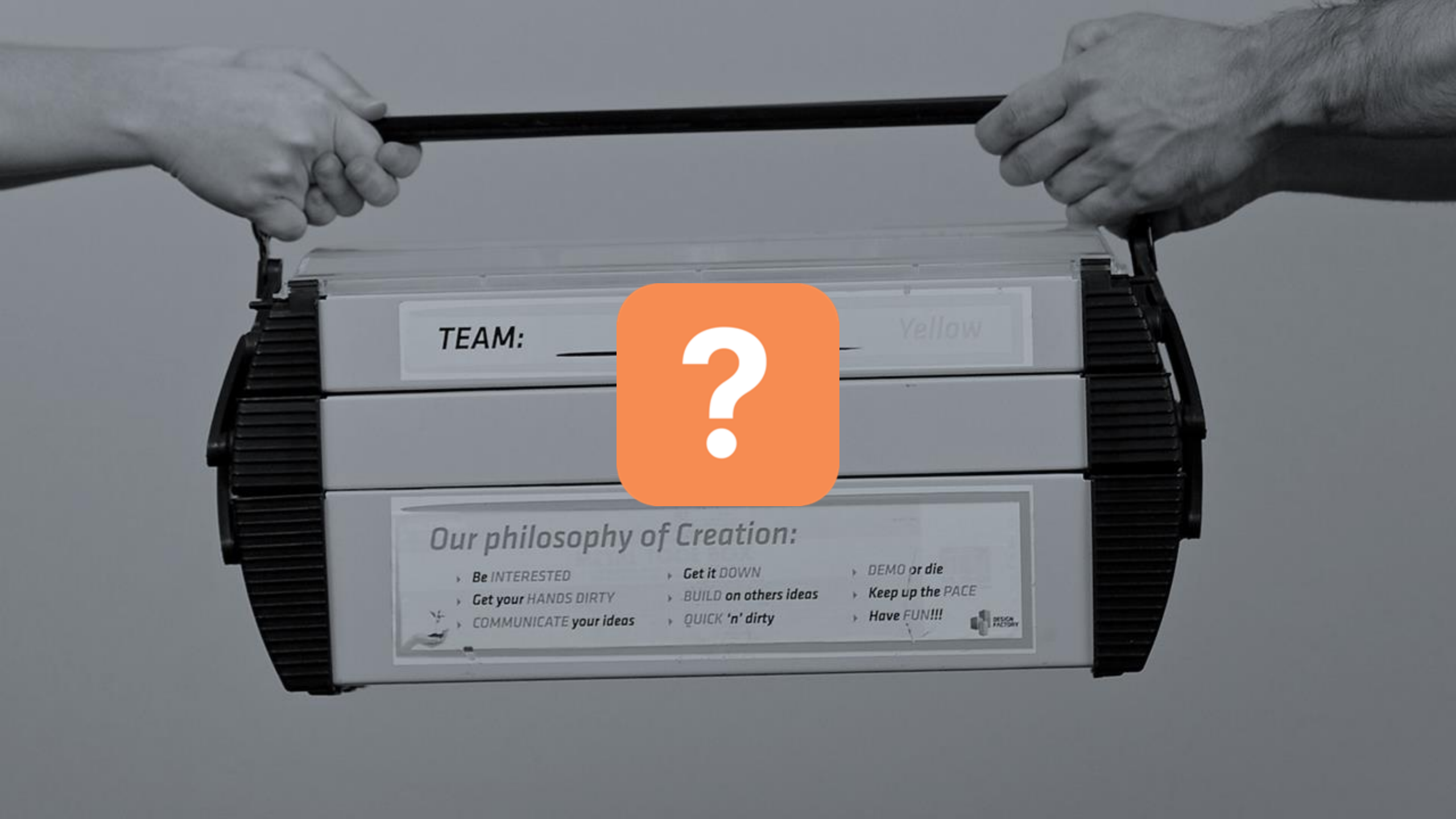
And related story telling / presentation
(altogether 5 min = 300 sec)

Practical advice:

- reserve little (enough) time for planning, designing & practicing
- no more than 3 powerpoints (if any)

# However, you shouldn’t forget

- ease of use, user experience
- (manufacturing) cost issues
- modularity
- safety
- variety of users (age, sex, size, profession, ...)
- statements against existing solutions
- what makes quality
- retrofit
- sustainability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BREAKS
ON THE GO!
Please sign our guestbook!

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