

A person in a black shirt is working on a complex electronic assembly on a production line. The assembly is mounted on a transparent surface, and various wires and components are visible. The background shows a factory setting with orange and black elements.

MEC-E3001

pdp

PRODUCT DEVELOPMENT
PROJECT

A”

Aalto University
Design Factory

INTRODUCTION TO PdP 24-25



PdP course staff



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Why are we doing this?

What are the expectations?

What roles are there?



Gala

16.5.2025

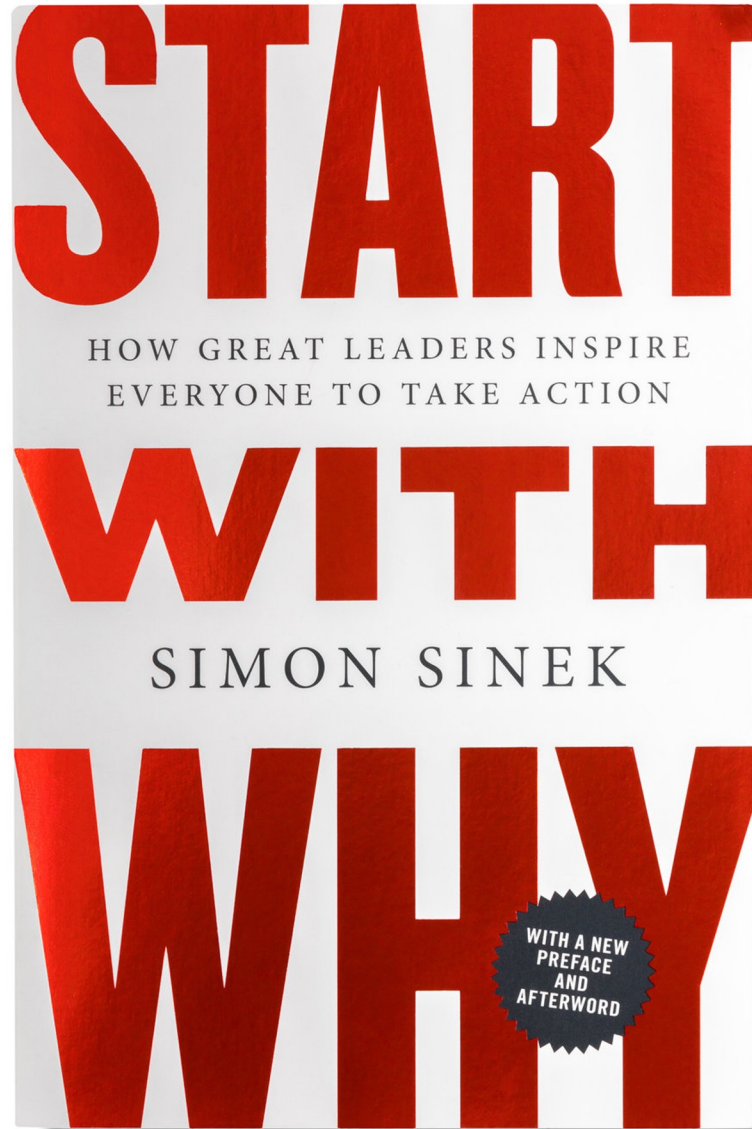
How the work is evaluated?

How are projects resourced and supported?

Day 1

Who makes the decisions?





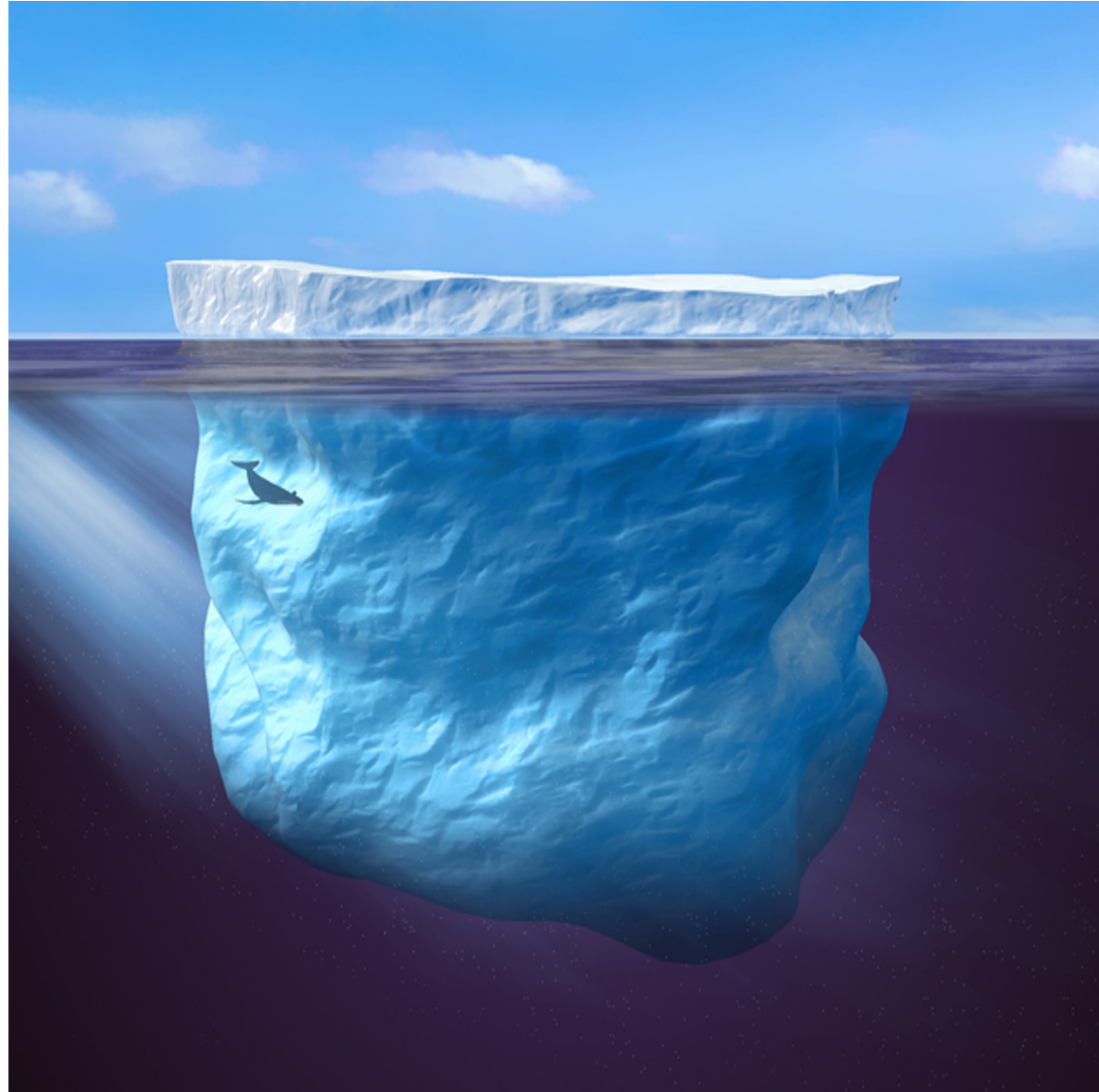
To learn

Long history

Track record

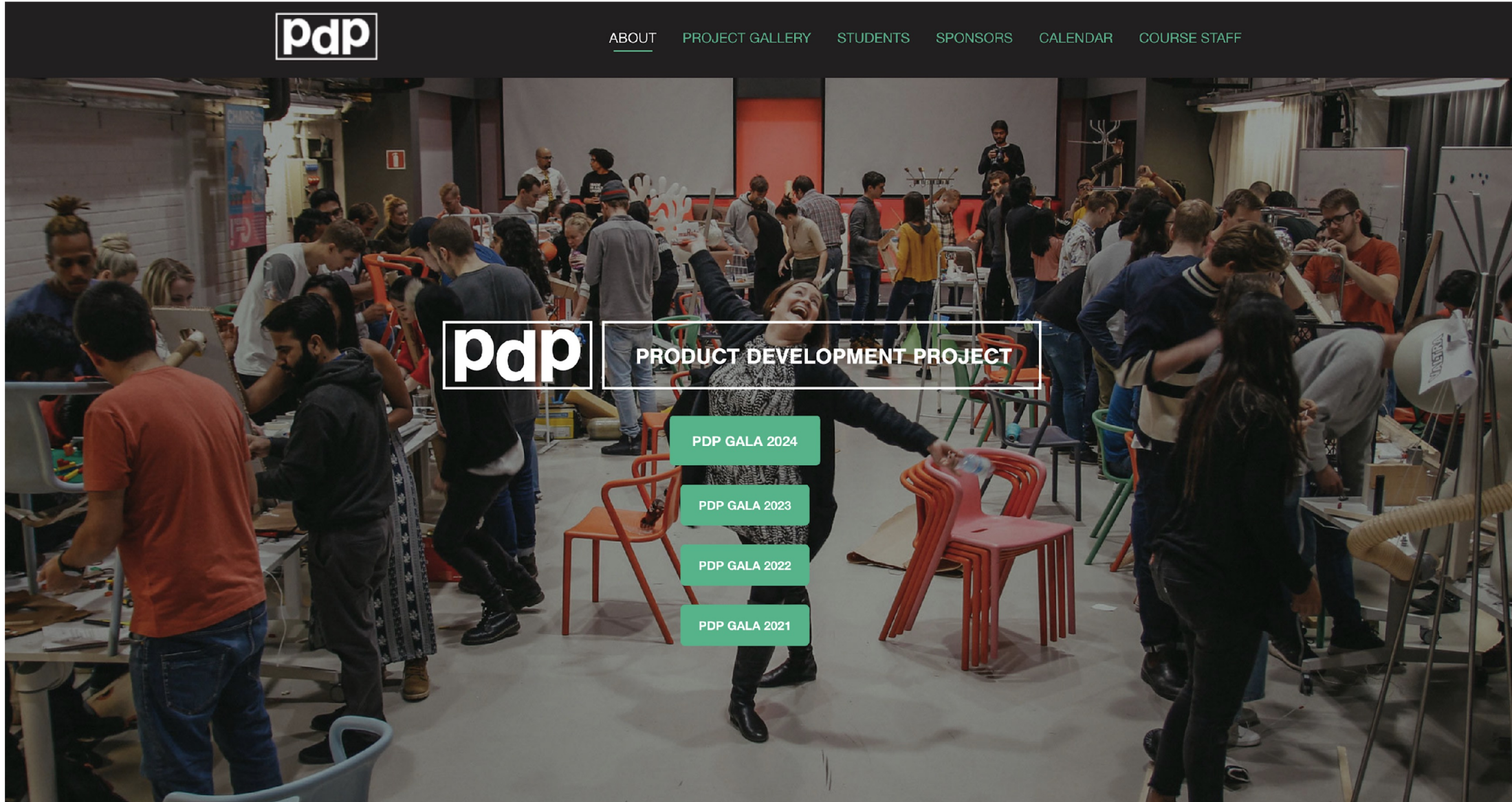
Alumni

Research





<https://pdp.fi>



PdP – 1997-2024

- **339** projects
- **3274** students
- **27** universities
- **152** partners



PRODUCT DEVELOPMENT PROJECTS

over 3000 STUDENTS

over 300 PROJECTS

here's the 27th EDITION

Team - Waterheads

Expanding well-dimensions for lower water supply of systems

pdP | Mariff

PolySculpt

Metso

SAAB | pdP

Overlook

Developing an immersive flight simulator experience

SAAB

CRANE POSSIBLE

KONECRANES | AI

AIRBUS

Team Airbus

pdP

AQUA/ENGERS

pdP | ClearMatters | ClearMatters

Mobility can be Circular!

The Steel Blue Phoenix arises to help KONE with their transition into circularity!

pdP Course in collaboration with KONE

Team Hero

pdP

TEAM MEGAMORPH

MEGAMORPH | ATTRACT

VALMET

ROLLERS

VALMET

ambrocio

Lopitech

pdP

Bio Insulateam

Unlocking the Sustainable Future of insulation with Phase Change Magic!

pdP | Our Sponsor PCMI

ancers

bounce

A? | pdP | MUMU | MUMU

SPOR

pdP | sako

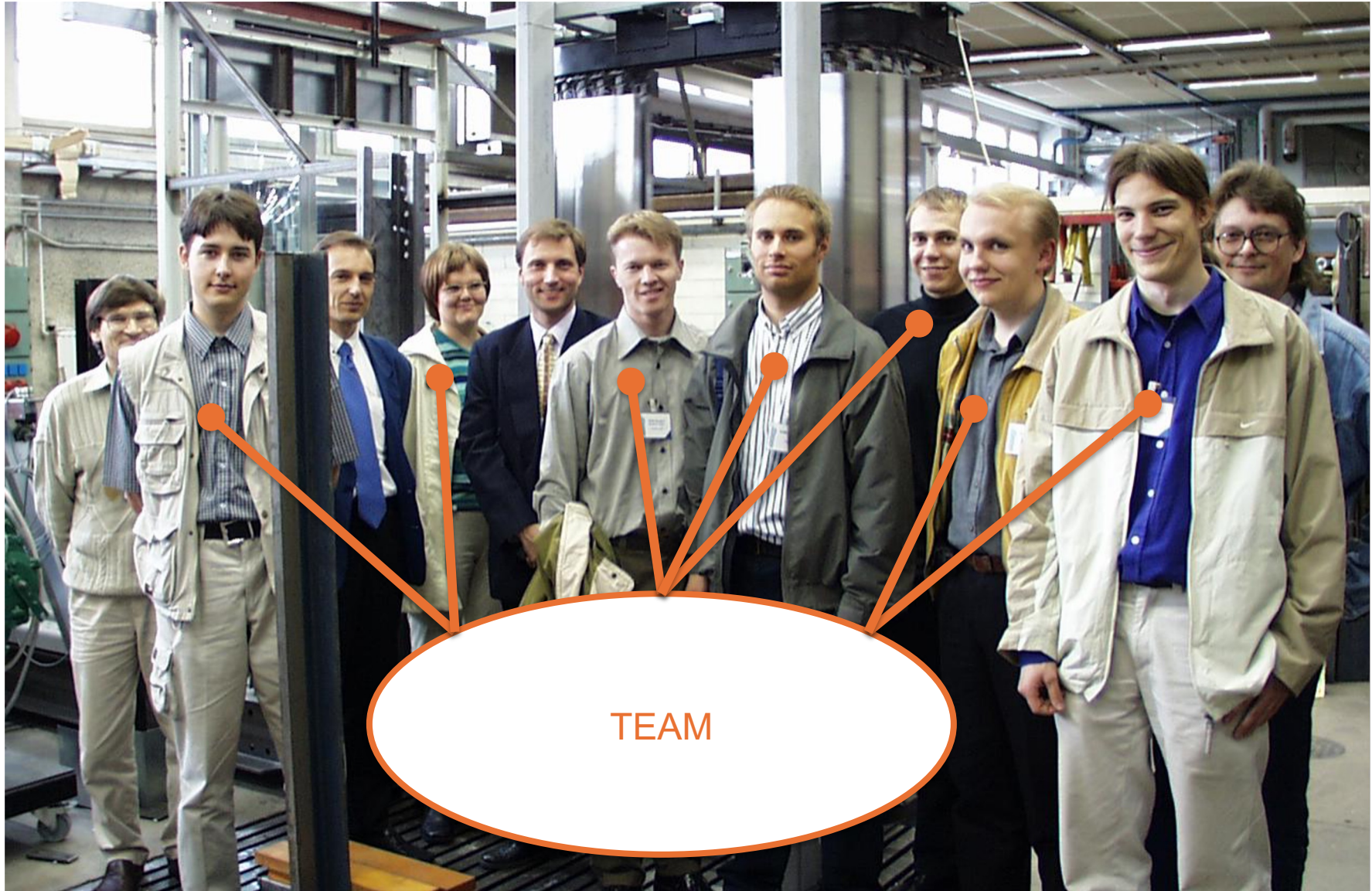
LET'S GET YOU WET

(by energy saving)

THE SHOWERHEADS

Aalto University Medical Center

otos





MEC-E3001





Resources



Demonstration

PdP basic – 10 ects



PdP extended – up to 15 ects



Project leadership

Completed workshops

Tracking hours

PdP Incredible =

up to 18 ects by combining the full PdP (15cr) + MEC-E3020 Methods (3cr)





Integrate other studies to PdP?

- Language
- CAD/CAM, 3D-printing
- Materials and production
- Communication
- Business and Marketing
- UX/UI
- Software development
- Electronics, integrated systems
- Signal processing
- User research
- FEM, simulations, XR
- Management
- Quality
- Use your imagination, talk to teacher

Learning objectives - Team

Completes all the necessary **development phases** and introduces a **prototype**

Practicing project work in an **interdisciplinary** setting, the team learns to

- Work out a **project plan** & schedules
- Manage **resources** & risks
- Complete a project successfully
- **Communicate** & document effectively



Learning objectives - Personal

- Becomes aware of the **quality of** her design, engineering or business **skills**
- Understands the **potential** and **challenges** of interdisciplinary teamwork
- Understands how successful PD is based on both traditional and exceptional **methods and tools**
- Understands PD **costs** and economy
- Is able to deliver high quality oral and written reports
- Is prepared for **negotiation** situations and dealing with agreements, NDA's and IPR's



Is there an "i" in TEAM?



TEAM

There is an "i" in TEAM.
Hidden in the A-Hole.

Grading – quality aspects

OUTCOME

(difficulty of the challenge, patents, inventions, creativity, attractiveness, quality...)

PROJECT

(planning, execution, risk management, keeping schedules, reporting...)

R&D

(demonstrated use of proper R&D methods, e.g. from course textbook)

COMMUNICATION

(CPM's, created material, presentations, Gala...)



Grading – Court of Justice

Judge

Responsible professor

Witnesses

*Teaching team,
sponsor*

Evidence

*Prototype, evidence-
based performance,
report, sponsor
statement*

Applicant for the decision

The team

Roles - team, sponsor, staff

Proper understanding of PDP

-what do we "sell" for companies

-responsibilities

Contract

Assignment of Rights

NDA

Project plan

Meetings

Decision making

Report

Prototype



How the teams are built?



Student profile

Who am I?

What can I do?

Interests?

Experience?

Something else?

Preferences!

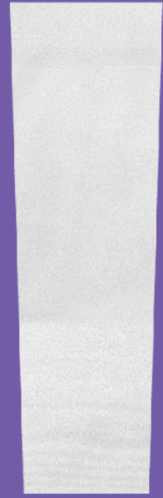


Should you become a team leader?



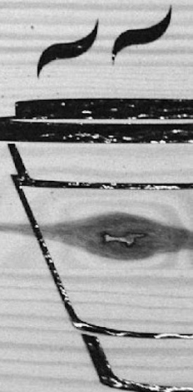
Schedule - first period

- 04.09. First lecture
- 06.09. Q&A session
- 08.09. DL: course registration
- 11.09. Lecture
- 15.09. DL: student profiles
- 18.09. Team-forming lecture
- 19.09. DL: Team-Sheet
- 20.09. Safety training
- 21.09. PM training
- 25.09. Dating Night - match making decisions
- 29.09. DL: Choose the PM
- 02.10. Teams meet sponsors
- 7.-11.10. PD6 week
- 16.10. Fruitful cooperation



- The project flyers 10.09.
- Student profiles 15.09.
- Team forming 18.09.

Take Away





What if ...?

- I find myself in a wrong team
- I find myself in a wrong project
- There is a major misunderstanding

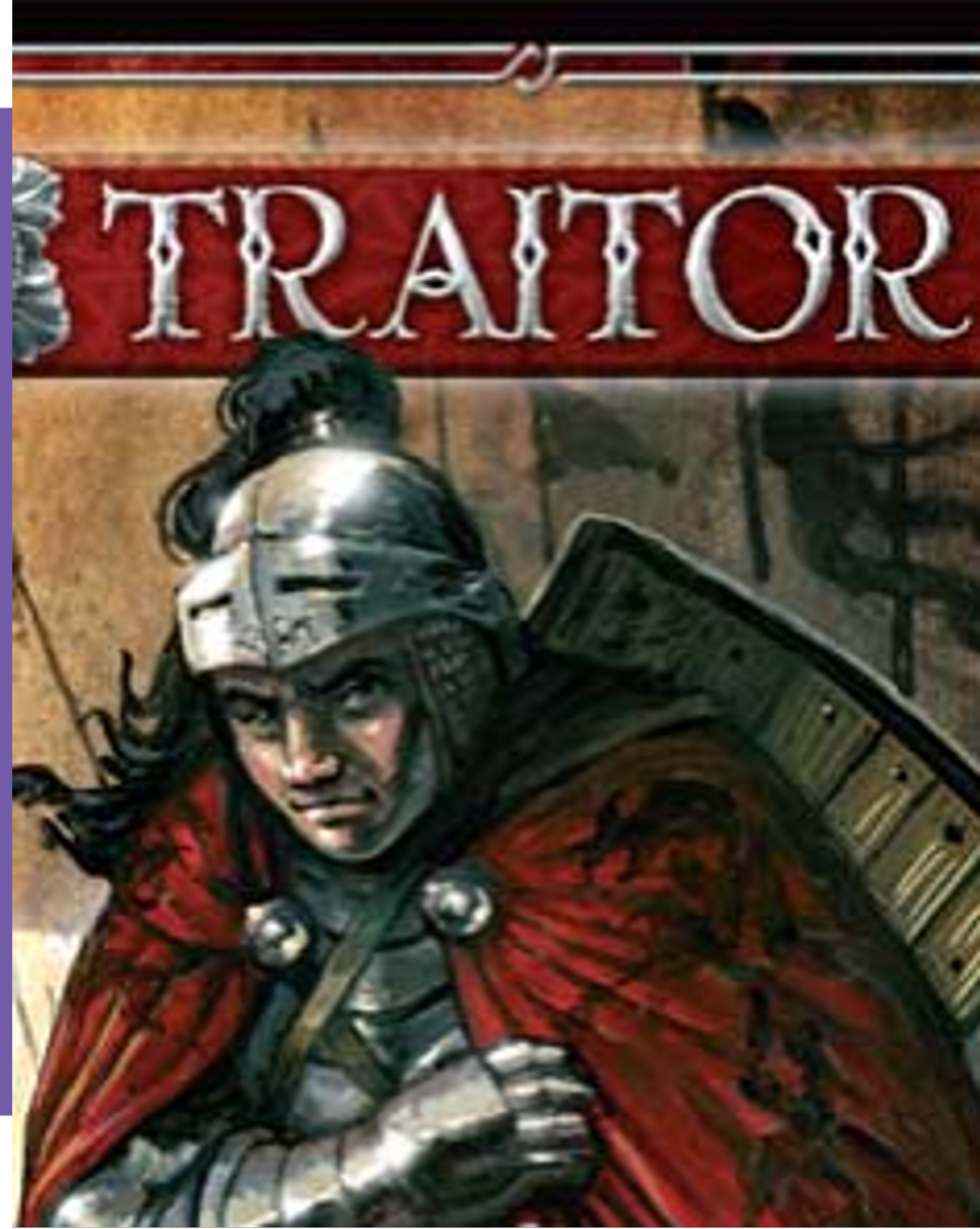


We promise that

- You will become a team member
- Your wish for projects will be considered
- Whatever happens is the right thing

One thing is not okay

- Face your moment of truth
- To quit now = OK
- When teams are set, it's not your private matter anymore
- To quit later = to ruin your reputation, to let your team mates, sponsor and teachers down





MEC-E3001

Awarded as the PROJECT of the YEAR in Finland



Any thoughts about

- Team leadership
- Being a Design student at PDP
- Going to exchange
- Overlapping Thesis
- Team forming process
- Company-Team matching

or

- Having issues with sisu, MyCo
- Not sure if I have enough time
- Want to hear more about IPR/NDA

or anything else; goto Kafis, now!