Aalto University
Design Factory

Product Development Project

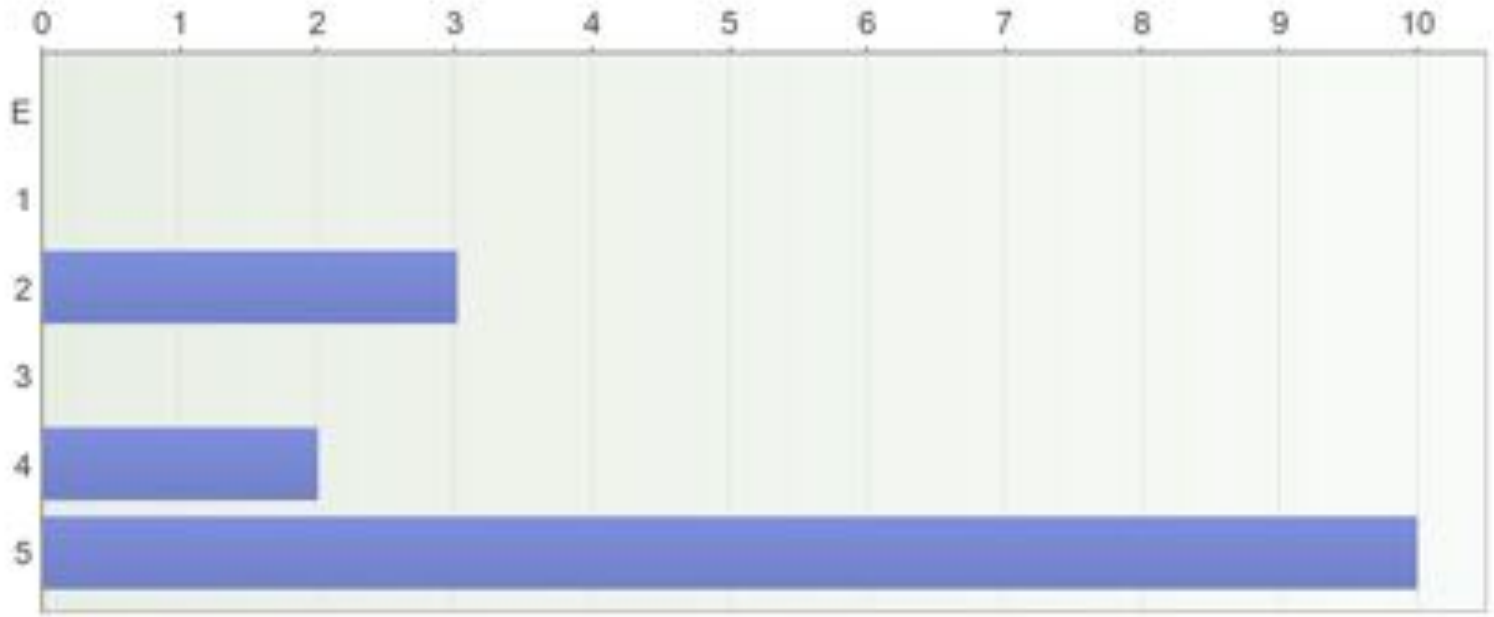
just before the teams get loose

16:15 Lecture
16:45 Team meetings
- Breakout rooms
17:30 Teams introduction
- Summary of discussions from each team
18:00 Wrap up
- What's next?
- Fill out team sheet and upload on Mycourses
- Sponsor matching

MEC-E3001 Product Development Project L, V (2019-09-11 - 2020-05-15)

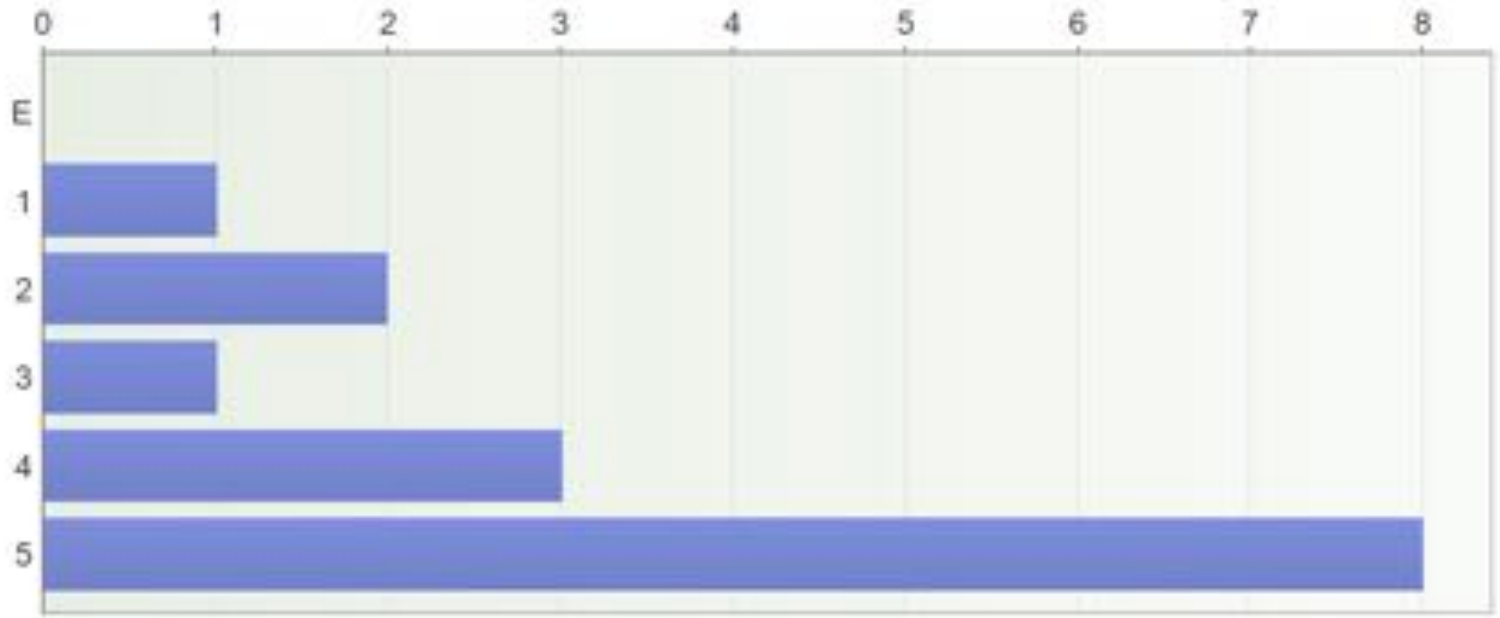
1. My overall assessment of the course E=Not applicable, 1=Fair, 2=Satisfactory, 3=Good, 4=Very good, 5=Excellent

Number of respondents: 15



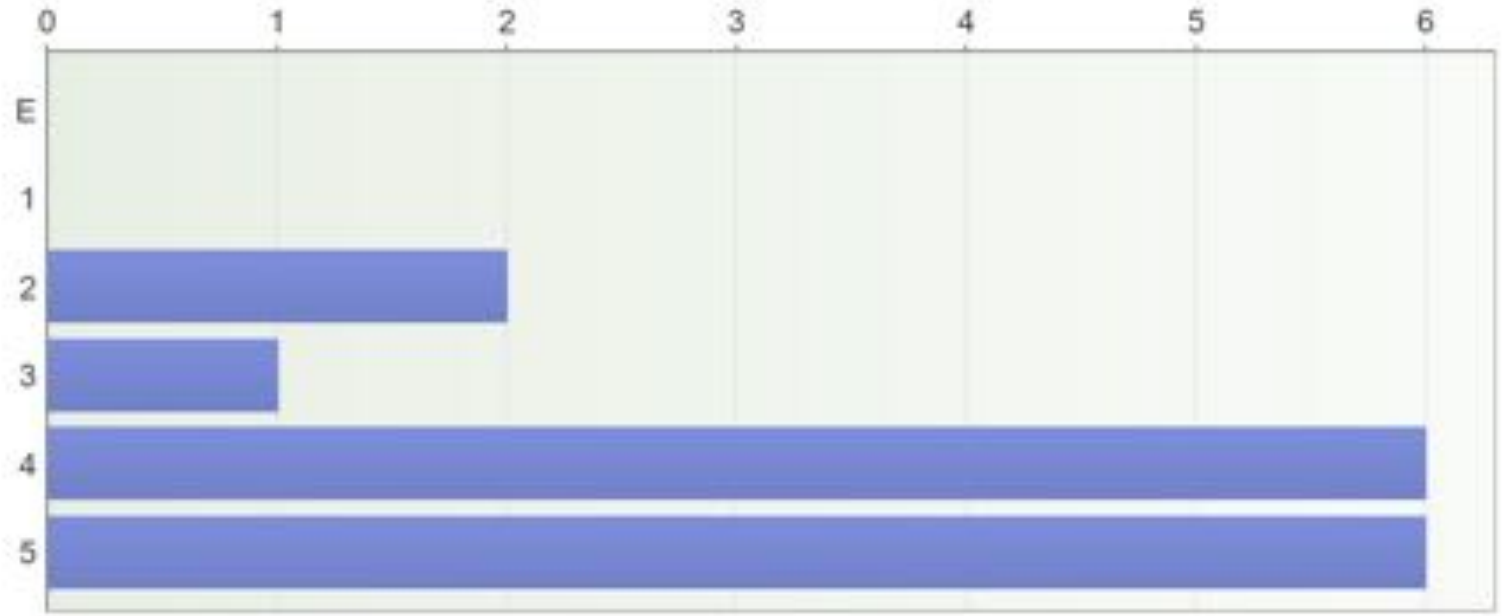
2. The teaching methods (lectures, labs, group work, online study, assignments etc.) supported my learning E=Not applicable, 1=Strongly disagree, 2=Disagree, 3=Neither agree nor disagree, 4=Agree, 5=Strongly agree

Number of respondents: 15



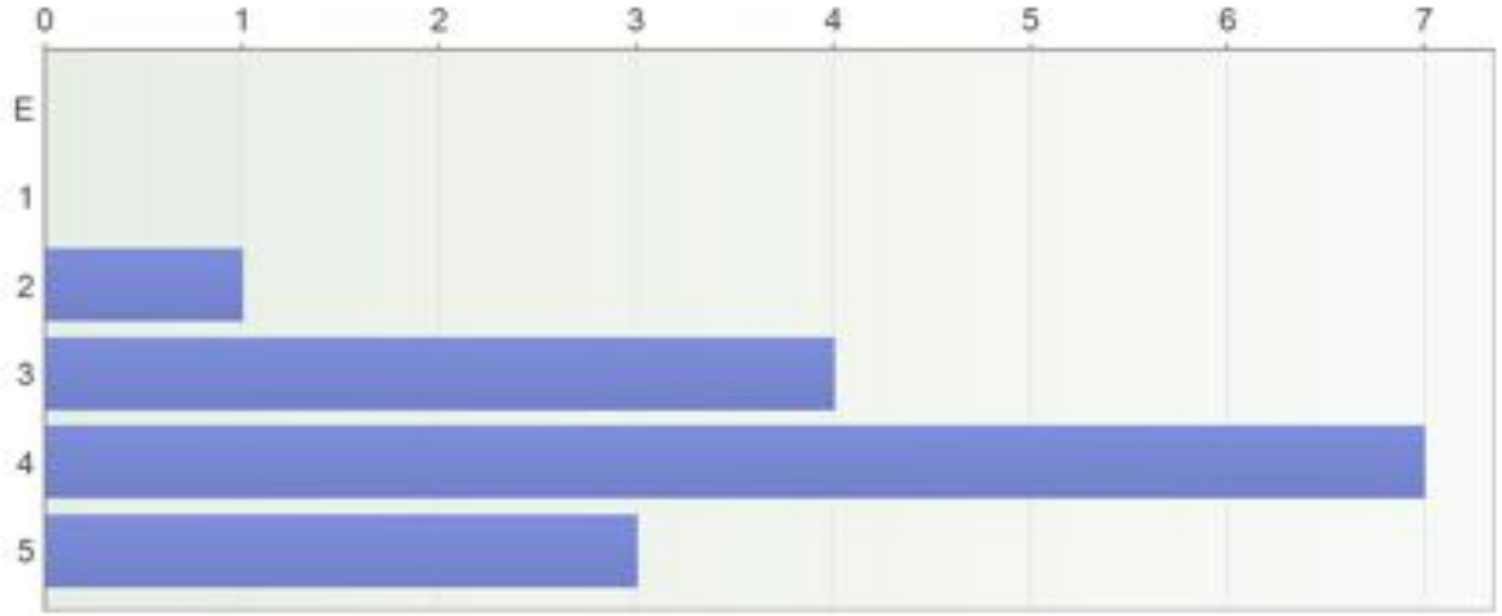
3. I am pleased with my study effort on this course E=Not applicable, 1=Strongly disagree, 2=Disagree, 3=Neither agree nor disagree, 4=Agree, 5=Strongly agree

Number of respondents: 15



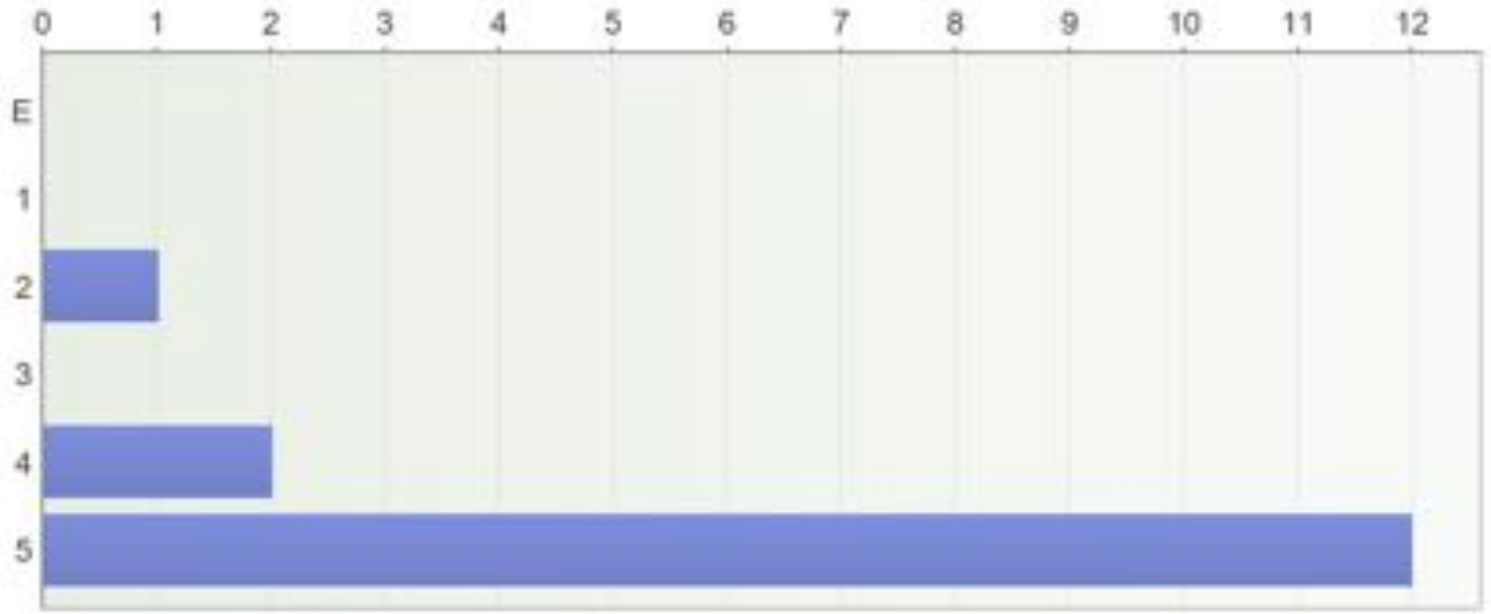
4. According to the guidelines, one credit (ECTS) requires 27 hours of student work. Compared with this, the completion of the course required E=Not applicable, 1=Considerably less time, 2=Slightly less time, 3=The right amount of time, 4=Slightly more time, 5=Considerably more time

Number of respondents: 15



5. I think I will benefit from the things learnt on the course. E=Not applicable, 1=Strongly disagree, 2=Disagree, 3=Neither agree nor disagree, 4=Agree, 5=Strongly agree

Number of respondents: 15



2020-2021

10 Projects
59 Aalto students
8 Student teams from distant locations

Aalto University
Design Factory

Design factories around the world

DESIGN FACTORY GLOBAL NETWORK

DESIGN FACTORIES LISTED BY YEAR OF FOUNDING

01 **AALTO UNIVERSITY DESIGN FACTORY**
Aalto University, Helsinki, Finland (2008)

02 **SINO-FINNISH CENTRE**
Tongji University, Shanghai, China (2010)

03 **DESIGN FACTORY MELBOURNE**
Swinburne University of Technology, Melbourne, Australia (2011)

04 **DUOC DESIGN FACTORY**
Duoc UC, Santiago de Chile, Chile (2012)

05 **IDEASQUARE @CERN**
CERN, Geneva, Switzerland (2014)

06 **DESIGN FACTORY KOREA**
Yonsei University, Seoul, South Korea (2015)

07 **PORTO DESIGN FACTORY**
Porto Polytechnic, Porto, Portugal (2015)

08 **NEXUS DESIGN FACTORY**
Thomas Jefferson University, Philadelphia, USA (2015)

09 **FRISIAN DESIGN FACTORY**
NHL Stenden University of Applied Sciences, Leeuwarden, the Netherlands (2015)

10 **METU DESIGN FACTORY**
Middle East Technical University, Ankara, Turkey (2016)

11 **DESIGN FACTORY JAVERIANA BOGOTÁ**
PUC Javeriana, Bogotá, Colombia (2016)

12 **NYC DESIGN FACTORY**
Pace University, New York City, USA (2016)

13 **RTU DESIGN FACTORY**
Riga Technical University, Riga, Latvia (Oct 2016)

14 **UPV DESIGN FACTORY**
Universitat Politècnica de València, Valencia, Spain (2017)

15 **DESIGN FACTORY SÃO PAULO**
Universidad São Paulo, São Paulo, Brazil (2017)

16 **DESIGN FACTORY NEW ZEALAND**
Wintec, Hamilton, New Zealand (2017)

17 **WARSAW DESIGN FACTORY**
Warsaw University of Technology, Warsaw, Poland (2017)

18 **FUSION POINT**
ESADE Universitat Politècnica de Catalunya and IED Barcelona, Barcelona, Spain (2017)

19 **KYOTO DESIGN LAB**
Kyoto Institute of Technology, Kyoto, Japan (2017)

20 **CALI DESIGN FACTORY**
PUC Javeriana Cali, Colombia (2017)

21 **INNO.SPACE**
Hochschule Mannheim, Mannheim, Germany (2018)

22 **UNIVERSITY OF TARTU DELTA SANDBOX**
University of Tartu, Tartu, Estonia (2018)

23 **SIT DESIGN FACTORY**
Singapore Institute of Technology, Singapore (2018)

24 **HAMK DESIGN FACTORY**
Häme University of Applied Sciences, Hämeenlinna, Finland (2019)

25 **ST. JOHN'S UNIVERSITY DESIGN FACTORY**
St. John's University, New York City, USA (2019)

26 **HANNAM DESIGN FACTORY**
Hannam University, Daejeon, South Korea (2019)

27 **SHENKAR DESIGN FACTORY**
Shenkar College, Tel Aviv, Israel (2019)

28 **OPEN SPACE**
University of Bologna, Bologna, Italy (2019)

29 **TECHNOVATION HUB**
KU Leuven, Leuven, Belgium (2020)

30 **DESIGN FACTORY LONDON**
Brunel University London, UK (2020)

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About myself

I am studying Mechanical Eng

I play football

I can do CAD

I trust in facts and logic

About myself

How do I react in situations…

What motivates me…

How do I organize myself…

I’m afraid of …

When I’m facing conflict…

- I’m not sure if this is the right team…
- My manager is an idiot…
- How will it go with the remote students…
- We have no XYZ skills…
- We failed to get our first priority project…
- The project turns to smth different…


Trends in Arranged and Love Marriages
(% of total)
87.1%
Love Marriages
Arranged Marriages
50%
9.9%
1920 -29
'30 -44
'45 -49
'50 -54
'55 -59
'60 -64
'65 -69
'70 -74
'75 -79
'80 -84
'85 -89
'90 -94
'95
Year of marriage

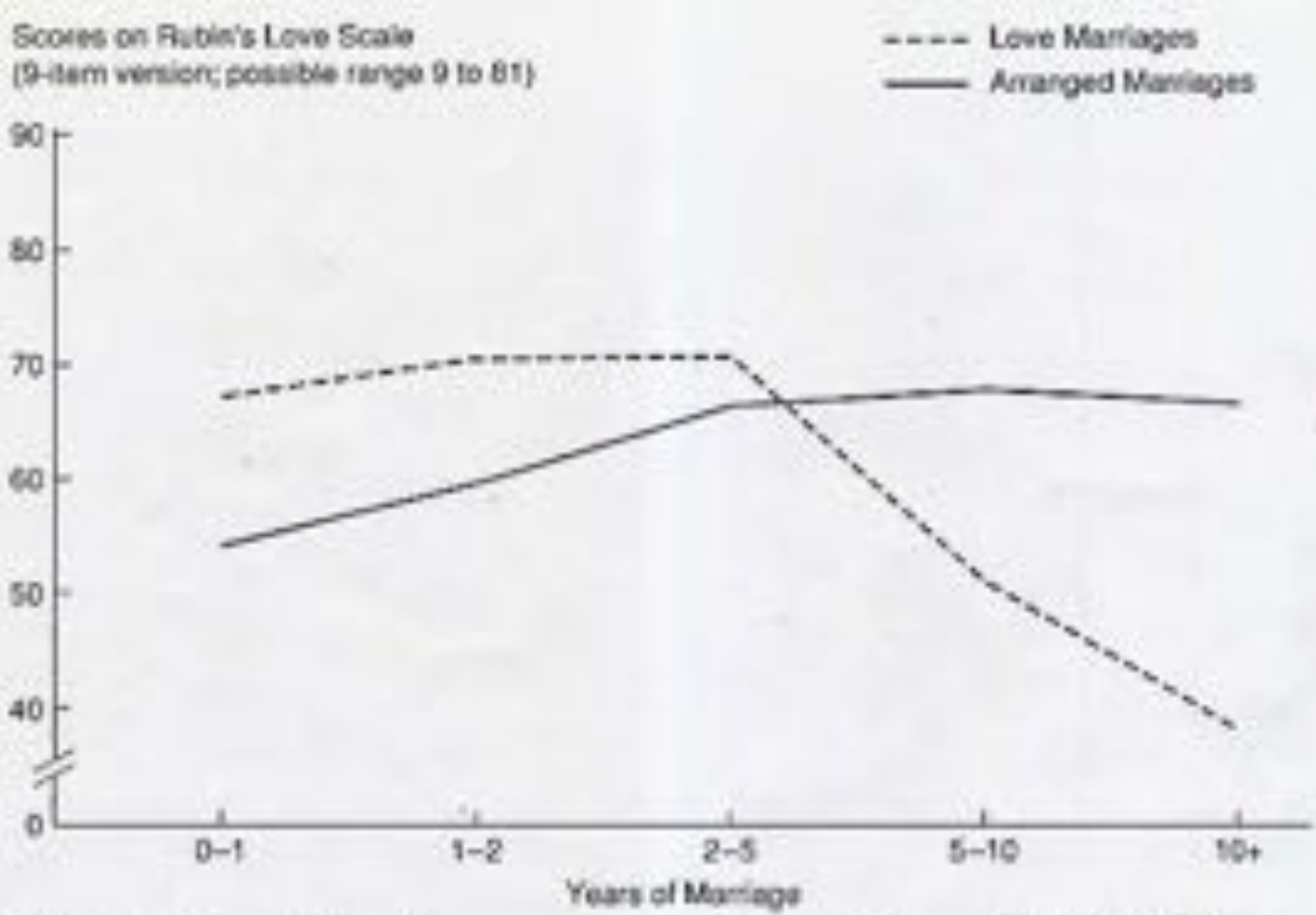
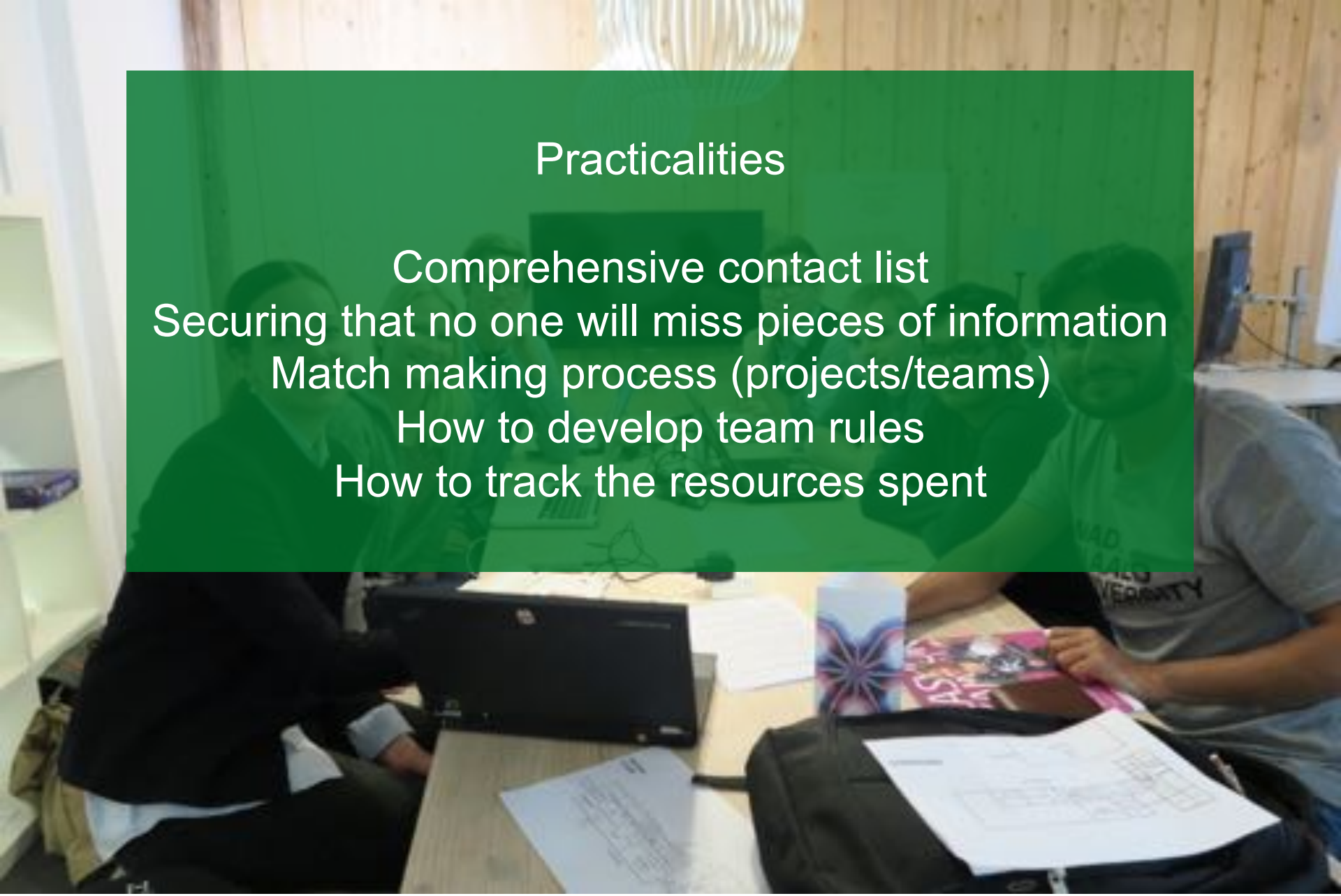


FIGURE 8.3. Romantic love decreases after people marry for love. A study in India compared arranged marriages to those in which the spouses married because they were in

In teams it’s not anymore ”I”, but

Expectations
Motivation
Why here
What makes me tick
Capabilities
Personality
Why should everyone remember me



Practicalities

Comprehensive contact list
Securing that no one will miss pieces of information
Match making process (projects/teams)
How to develop team rules
How to track the resources spent

Being late
Email, sms, call
Rotation
Files and storages
Documentation
Backups
Supporting activities

Talk to strangers
Safety comes first
Fail fast succeed sooner

Aalto University
Design Factory

RÜM

"Using cutting edge design, technology and engineering to deliver innovation to social and commerical modular temporary accommodation for Kapseli OY."

OUR STRENGTHS
Plastics, materials strength, product design, visual communication design, chemical engineering, mechanical engineering, user centered design, ergonomics and international business.

PROJECT CONTACT
Anniina Mansikka-aho
Project Manager

m. +358 40 537 1966
e. rum.helsinki@gmail.com


Urban

Decision making

How to prepare for Match Making

-why?
-who are they?
-your interpretation?
-testing your first thoughts?
-any real and serious deal brakers?

GRID: A DTN based Localized Social Networking and Messaging Application

Authors: Karthik Budigere, Binoy Chemmagate, Junxi Yin, Markus Nurminen, Eero Martela (Aalto University, Finland), Ankit Kumar, Richa Khera, Nutan Sawant (Indian Institute of Technology, India)

Aalto University
Design Factory

- Metso Group articles
- Sustainability articles
- Mining and construction
- Energy articles
- Automation articles
- Recycling articles
- Pulp and paper articles

What will the Good Mill of the future look like?

How can you combine industry and city so as to give people a good life and an unpolluted environment? The answer lies with the Good Mill, a visionary concept, based on real needs and opportunities.

Global collaborations

Metso, in collaboration with Aalto University and Aalto Tongji Design Factory, is implementing the Good Mill project to create an eco-efficient urban planning model that embraces ethical values. The project integrates the urban environment, industry and sustainability in a new, innovative way. The model example used in the plan is Chongming Island, located in Shanghai, China.

"The goal is to create a foundation for an ecological, urban community in which industry is an integral element in the heart of the metropolis," says Pelleri Veneljoki from Metso Industrial Design Center.

No compromise on comfort or ecology

In the project the students photographed the environment, interviewed people, visited kindergartens, and workplaces. They studied the culture, waste management, industrial architecture, flow of goods, and alternative business models. In the plan, waste management, recycling and energy production are handled on the residents' terms without compromising comfort and ecology aspects.

At this point, the goal of the Good Mill project is concept planning. During the project the team created a bold, futuristic design of a mill that would take people's needs into account, a mill that would spring up in the middle of the conurbation. The mill is like an urban facility where the waste and wastewater produced by people are processed into energy or new products. The processing of waste produces value, "upcycling," which is more than just recycling.

Working together with Metso experts

contact us
- Metso locations
- Sales and service

find a product

Metso Sustainability Results 2010

related links

VAISALA www.vaisala.com

Vaisala QMD102M Handheld Terminal

General

The Vaisala QMD102M handheld terminal is a new generation terminal for the MAWS201M system. The QMD102M is specially designed for demanding military use in all weather

Modern Display Design

The QMD102M display layout is designed based on Vaisala's design guide to provide best usability factors and easy to use displays. The layout includes graphical wind

Features/Benefits

- Bright display visible in bright sunlight
- Easy to use
- Robust design


ABB
HELM

Tuotekehitysprojekteihin oppilastulva TKK:ssa

Opiskelijatyöt poikivat innovaatioita

Joka vuosi tuotekehitysprojektiensa syntyy lukuisia keksintöjä ja patentteja. Näin sanoili professori **Kalevi Ekman** Teknillisen korkeakoulun konetekniikan osaston Gala-projektin loppuseminaarissa, jossa opiskelijat esittelivät lukuvuoden tuotekehitystyön tuotoksia.

Ekman vetää tätä opintojen loppuvaiheeseen sijoittuvaa kurssia, johon osallistuu myös Taideteollisen korkeakoulun opiskelijoita.

Ongelmakeskeinen opiskelu on Ekmanin mukaan vetänyt vuosittain 70–80 opiskelijaa, viimeisimpänä lukuvuonna ennätyksellisen sata.

"Pitää ruveta miettimään, miten selvitään, jos määrä kasvaa."

Tänä vuonna kursilla oli kymmenen tuotekehitysprojektia. Ekman korostaa, että hyväksi suunnittelijaksi tullaan harjoittelemalla ja suunnittelemalla. Opiskelun aikana on mahdollista tehdä virheitä ja oppia niistä.

Kaikki aiheet eivät käy, sillä työn pitää vastata paitsi tilaajan myös opiskelun tavoitteita. Yrityksestä täytyy löytyä projektia varten myös yhtä innokas ihminen kuin opiskelijat ovat.

Yli 15 000 työtuntia hurahti Ekmanin mukaan tämän vuoden töihin, joihin opiskelijoita motivoitiin "uhkailulla, v...uilulla ja katteettomilla lupauksilla".

Protot eivät jää pölyttymään

Opiskelijoidenkaan huumoria ei projekti ollut vetottanut kokonaan. Heidän mukaansa homma onnistui, jos jaksoi unohtaa elämästä kaikki "pikkujutut", kuten kaverit, tyttöystävän tai muut elämän houkutukset.

Tuotesuunnittelun lisäksi tavoitteena on Ekmanin mukaan oppia tiimi- ja projektityöskentelyä. Esiintymistäkin on jossain vaiheessa harjoiteltu. Nuorten tuote-esittelyt olivat niin ammattimaisia, että päähittivät monen työkseen esiintyvän puheet. Kielen vaihtaminenkaan ei näyttänyt tuottavan ikäihelmiä omalle.

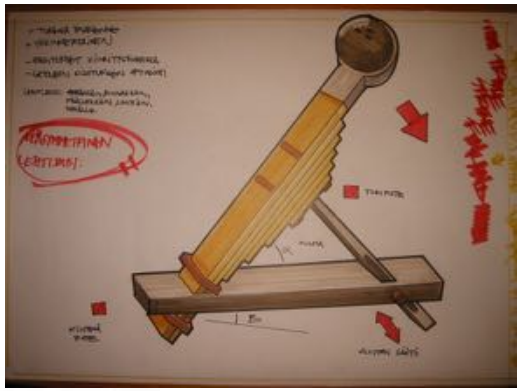
Tuotekehityksen tulokset eivät Ekmanin mukaan yleensä jää pölyttymään. Tyypillisimmillään yritykset käyttävät prototyypin jatkokehityksen 1–2 vuoden päästä opiskelijoiden osuuden päättymisestä.

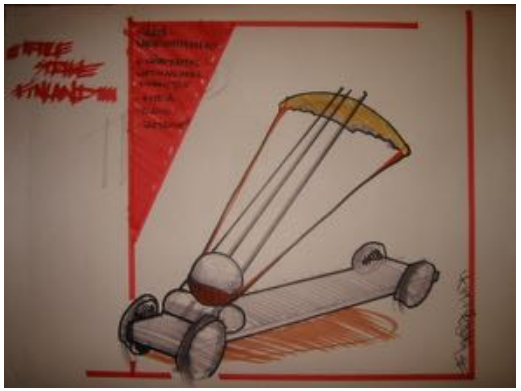
RAIJA HALLIKAINEN

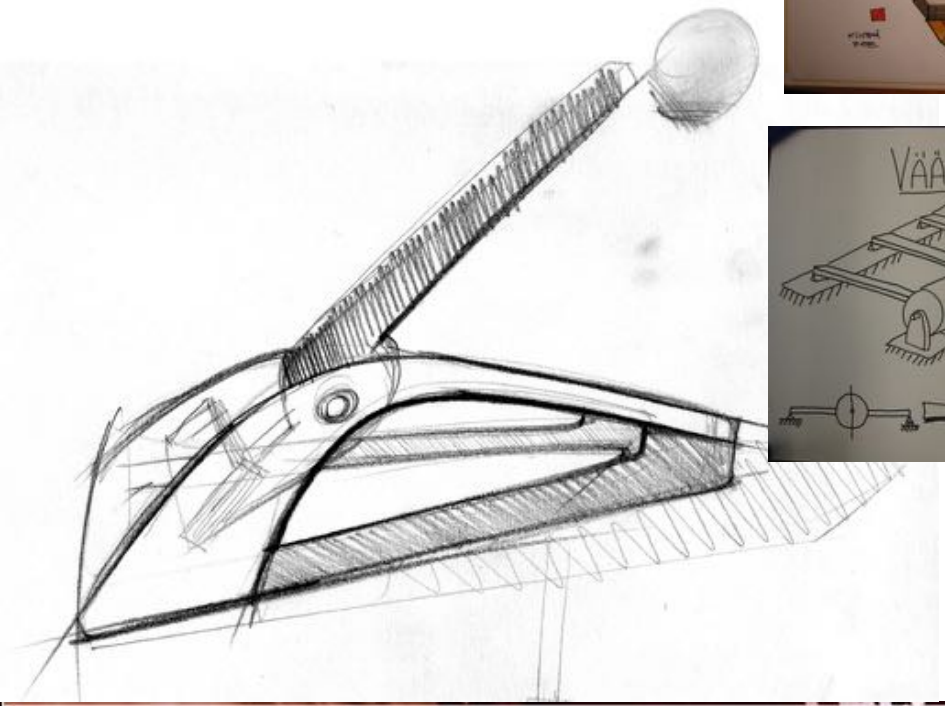
Kansainväliseen akateemiseen katapulttikilpailuun osallistuvan Triple Striken vierellä tuotekehitysprojektin johtaja Santeri Suoranta (vas.) ja ryhmän jäsen Jaakko Sotkasiira.

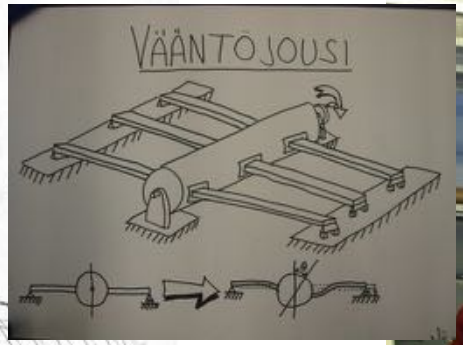
PROJECT TRIPLE STRIKE

EPTA CATAPULT ACADEMIC COMPETITION









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EPTA CATAPULT ACADEMIC COMPETITION

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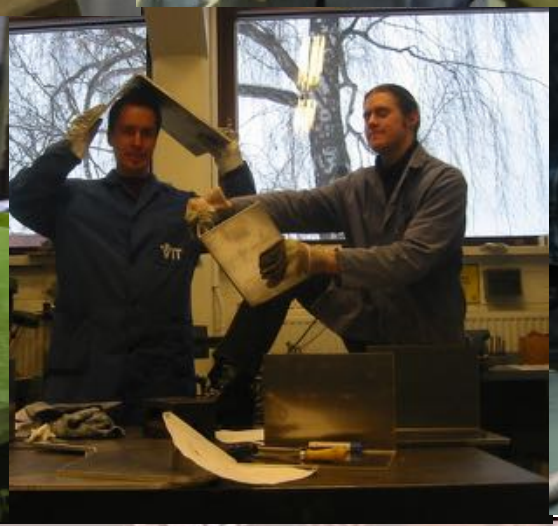
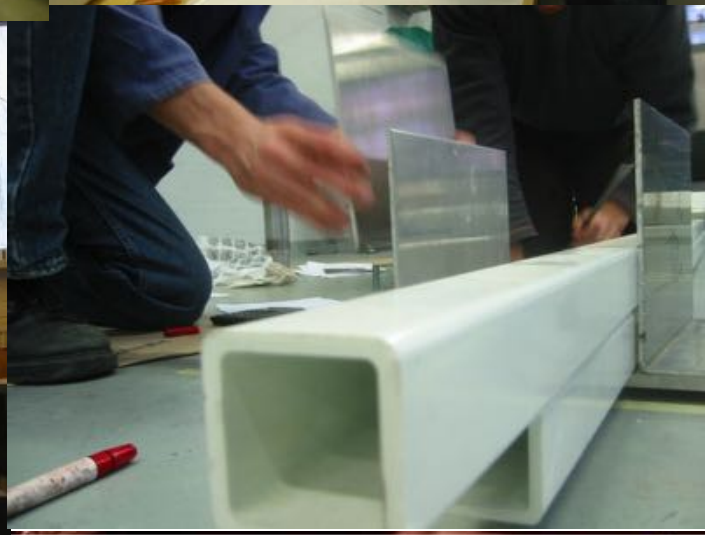
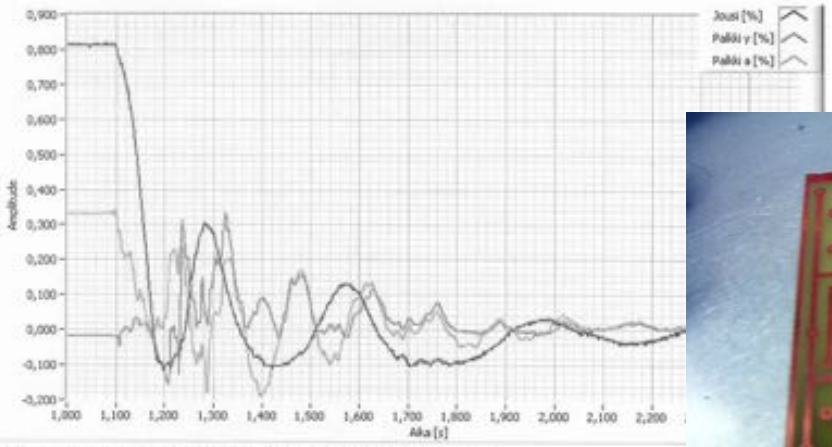
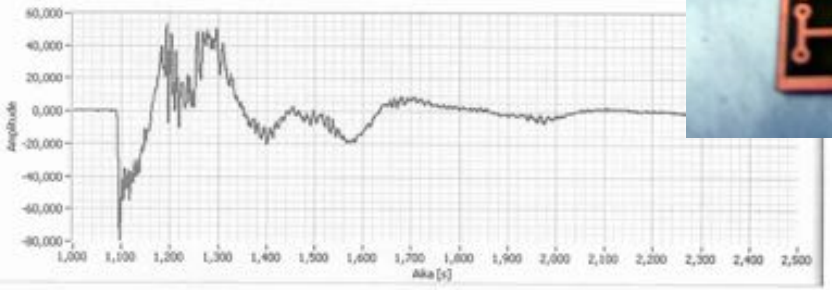


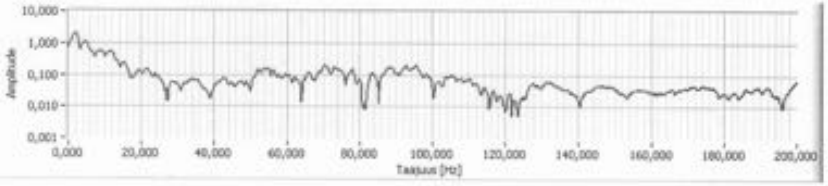




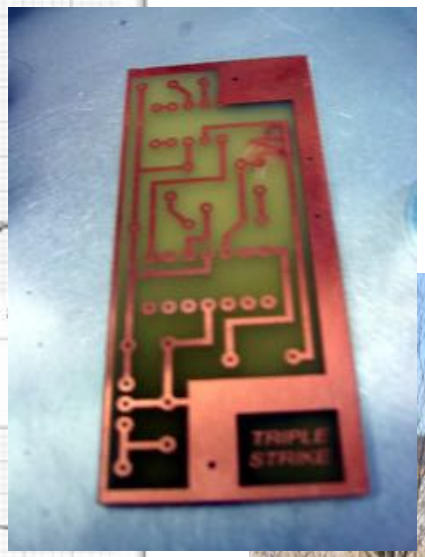
Kaavio 1. Jousesta ja rungosta mitatut venymät laukaisun aikana.



Kaavio 2. Heittovarren profiilin päästä mitattu kiihtyvyys laukaisuhetkellä.



Kaavio 3. Kiihtyvyyssignaalin amplitudispektri aikaväliltä 1,15 …5 s.



PROJECT TRIPLE STRIKE

EPTA CATAPULT ACADEMIC COMPETITION

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