From zero to prototype in six weeks
- results from an international cross-disciplinary course on Innovation

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Technology Management – the recipe

INNOVATION

Joint venture - two schools at LU

Leadership and Personal Dev.

Subjects related to Tech and Mgmt

20 Swedish engineering students

20 Swedish business students

Pair teaching
International
Gender
Cross-disciplinary

Lund University, Sweden

Zhejiang University, China

Technology

LTH

Management

LUSEM

Joint Course Module & Research

ID CSE

SoM

Input = Students, Teachers, Subjects and Cultures
Innovation

Learn about innovation from a theoretical, practical and cultural perspective

Hands on experience:
- technical and business perspective

Students to work in teams:
- learn from each other; subject and culture
International Market-Driven Engineering
iMDE
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<tr>
<td>1</td>
<td>Anna KOLSTAD</td>
<td>Jacob SUSTAVSSON</td>
<td>Robin TENGHAG</td>
<td>Johanna LEONARD</td>
<td>MUR PHO</td>
<td>Lingzhi YUN</td>
<td>Hao YING</td>
<td>Jifang HU</td>
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<td>2</td>
<td>Helena VIKTORSSON</td>
<td>Keith MARKS</td>
<td>Sara HASTING</td>
<td>Stefan WEIDIAN</td>
<td>Kristoffer KONSTAD</td>
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<td>StefanINA RODON</td>
<td>Gustaf HENRIKSSON</td>
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<td>Grethe SCOTT</td>
<td>Pauline THEINE</td>
<td>Johan REDDING</td>
<td>Erik LINDEN</td>
<td>Grete LINDEN</td>
<td>Min JIANG</td>
<td>Xuehong SONG</td>
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<td>5</td>
<td>Emil WIKSTROM</td>
<td>Victor PETERSON</td>
<td>Knut ARTMAN</td>
<td>Michael KIST</td>
<td>Elisabeth MAM</td>
<td>YOling WANG</td>
<td>Xuechao ZHAO</td>
<td>Qiu WU</td>
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<td>6</td>
<td>Hans VINGRUP</td>
<td>Hugo MINERSON</td>
<td>Geanlind SEWARD</td>
<td>Per NEDERG</td>
<td>Mirena KAI</td>
<td>Weihong WANG</td>
<td>Xiao BAO</td>
<td>Haining WANG</td>
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<td>7</td>
<td>Nina GUSTAVSSON</td>
<td>EMMINSON</td>
<td>Thomas HALLSTROM</td>
<td>Susanne VIKER</td>
<td>Acacia CARRION</td>
<td>Yebo RAO</td>
<td>Yuxin ZHENG</td>
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<td>Erik HEMMEN</td>
<td>Sajjad MANA</td>
<td>Remy NOBBEN</td>
<td>Cristian GREEN</td>
<td>Jonathan NGOBIEN</td>
<td>Tingting MAO</td>
<td>Ping HOU</td>
<td>Li féi MOU</td>
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Teamwork

Andreas Larsson

Damien Motte

Anders Warell

Jun Jin

Qinmin Yang

Charlotta Johnsson

Carl-Henric Nilsson

Shijian Luo

Weiqing Wu
UniteMe is a service for foreign students coming to a Chinese university.

iMDE 2013
8 prototypes “Inclusion”
INNOVATIONS
INNOVATIONS

Helping every day life

iMDE

the 8 prototypes

INNOVATIONS
iMDE prototype - Film
Course content

10 lectures, each 3 hours:
  Inspiration, Ideation, Implementation, Production, Business Plans, Marketing and Sales, Innovation Cultures and (starting 2014) Entrepreneurship (BMoE).

1 project:
  2012: Helping every day life
  2013: Inclusion
  2014: Cars and Clean Air

2 company visits: Alipay and Supcon

3 coaching sessions: students and teachers

Examination:
  o Written report (incl. Business plan)
  o Oral presentation
  o Prototype
  o 3 minutes film ”This is how we did it”.
Additional outcome

Outreach in media: Chinese and Swedish Newspapers, and local Chinese TV stations.

1 Patent: Group5 iMDE 2012 filed and attained a patent in China for EA-Chair.

Academic publications written by teaching team:
• “SME creation facilitation process at the universities”
• “Fostering Automatic Control Students to Become Innovators”
• “Evaluation of a Cross-Cultural, Cross-Faculty Course – iMDE international Market-Driven Engineering Using Traditional Course Evaluation and PERTEX”.

New joint research collaborations: All involved professors do both teaching and research
Learnings (prior to course)

- Planning the course: a joint effort
- Cross-disciplinary courses have many stakeholders
- Support needed in first initial phase to set up the team:
  - formal introduction, intro to language and culture
- Frequent communication is vital:
  - 2 on-site visits and 16 Skype teleconf-calls during the dev.phase
- To assure academic engagement:
  - development of new course material is a team-work
- Administrative issues takes time:
  - Course credits, course period, legal aspects, economical aspect, etc
Learnings

• Diversity is a strength
• Reflection sessions with the students gives life-long learning
• Speak about cultural differences
• Reality is always present – see it as a learning opportunity
Thank you
Tack
Xie Xie

Special thanks to STINT for initial financial support