

3rd Brazilian Swedish Workshop in Aeronautics and Defence



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Innovation Management

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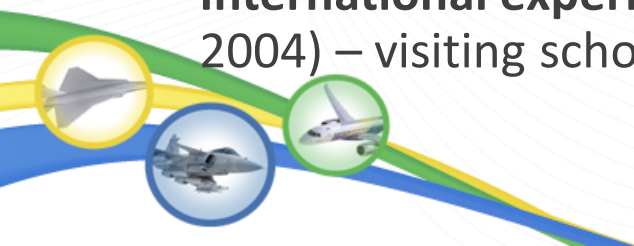
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Short about NL



- **Associate Professor** at Linköping University
- **Head of Division** Projects, Innovation and Entrepreneurship (PIE) at Institute of Technology ~ 25 employees
- Research in **Innovation Management** – special focus on innovation in inter-organizational settings, open innovation, supplier/customer involvement in product development
- + 20 **publications** in recognized scientific journals – Technovation, R&D Management, Research Technology Management, Industrial Marketing Management etc.
- **Teaching** in Innovation Management, Project Management, Organization Theory, Leadership
- **International experience** – Eindhoven University of Technology (2002-2004) – visiting scholar at Stanford University (2013)



Why innovation matters

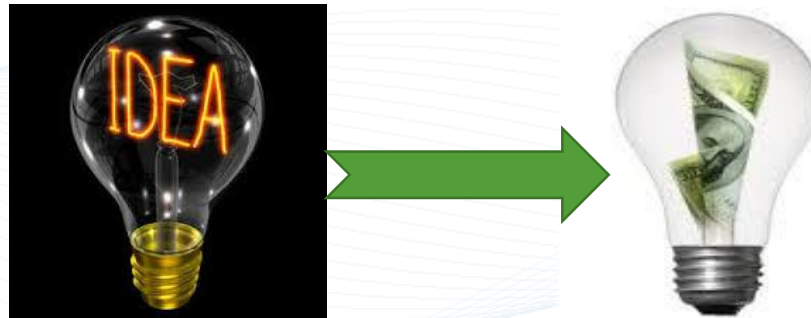
- Innovation is consistently found to be the most important characteristic associated with success
- Innovative firms achieve stronger growth than those that do not innovate
- Firm that gain market share and increase profitability are those that are innovative



What is innovation?

- Innovation is more than simply coming up with good ideas....

IT IS THE PROCES OF TURNING
THEM INTO PRACTICAL USE AND
CAPTURING VALUE FROM THEM



(Tidd and Bessant, 2013)

Schumpeter on innovation

- Innovation creates strategic advantage
- Five types of innovation:

New products

New
production
methods

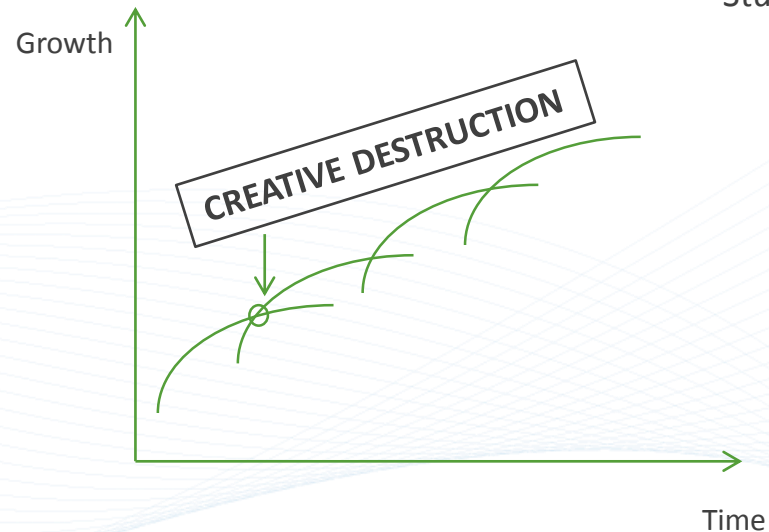
Exploitation of
new markets

New sources of
supply

New ways of
organizing



1883-1950
Studies of economic
development



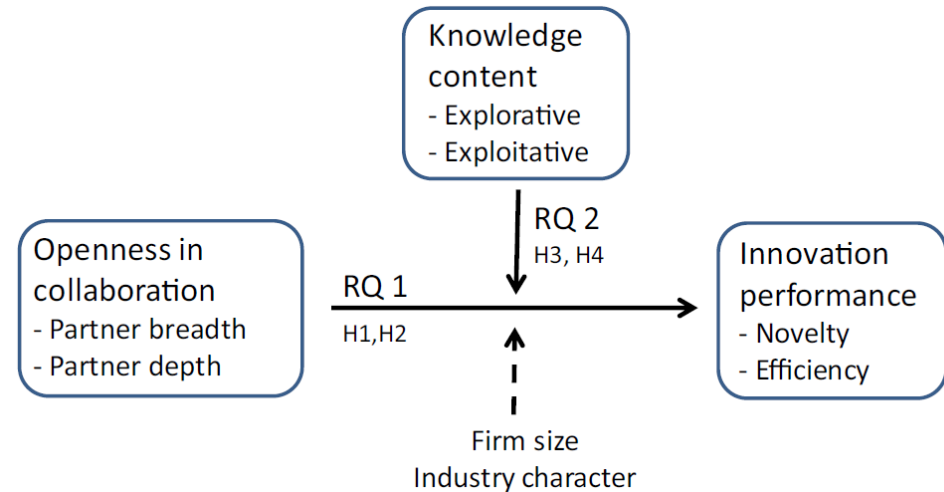
@ Department of Management and Engineering @ LINKÖPING UNIVERSITY

- Faculty staff performing research and teaching in fields of innovation management and entrepreneurship
- Strong research areas, e.g.:
 - Knowledge integration and innovation
 - Open and collaborative innovation
 - Entrepreneurship and regional development
 - Industry dynamics and energy renewal
 - Innovation and sustainable transitions
 - Innovation capability building & renewing in emerging economies firms



Open and collaborative innovation

Openness provides advantages...but only to a certain level



- Openness implies that organizational, knowledge-related and geographical borders must be crossed
- The costs of organizing knowledge integration with many partners can outweigh the benefits
- The knowledge content influences the outcome

Bengtsson, L., Lakemond, N., Lazzarotti, V., Manzini, R., Pellegrini, L., Tell, F. Open to a select few? Matching partners and knowledge content for open innovation performance (2014), *Creativity and Innovation Management*, vol. 24, issue 1, p. 72–86, DOI: 10.1111/caim.12098.

Open and collaborative innovation

The outcome of innovation is influenced by how knowledge integration is managed

- **Project management** – to minimize agent- and cooperation problems
- **Knowledge matching** – access to partner's technical resources, complementarity of knowledge bases and synergy created by combining knowledge allow implicit and informal coordination



Who is Solmaz Filiz Karabag?



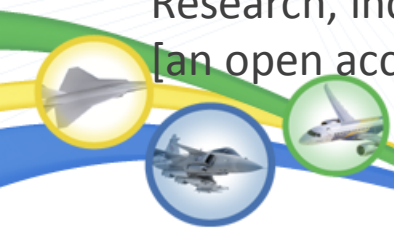
**Born in a poor village in the north eastern Turkey,
Started weaving carpets when she was 10 and stopped waving when she was 20.**

**Graduated as the best student at Cukurova University, Turkey in 2000
PhD degree in Business & Strategic management at Cukurova University,
Currently Associate Professor at Linköping University**

Research Area: Capability Building & Innovation Management –focus on emerging economies firms

Teaching Project Management & Organization Theory, Innovative Entrepreneurship, Strategic Management

Co-founder and the chief editor of Journal of Applied Economics and Business Research, indexed Emerging Science Citation Index (ESCI) by Thomson Reuter [an open access journal]



R&D Capability Building in Emerging Economies – A Tale of Two Trajectories (Karabag & Berggren, 2015)

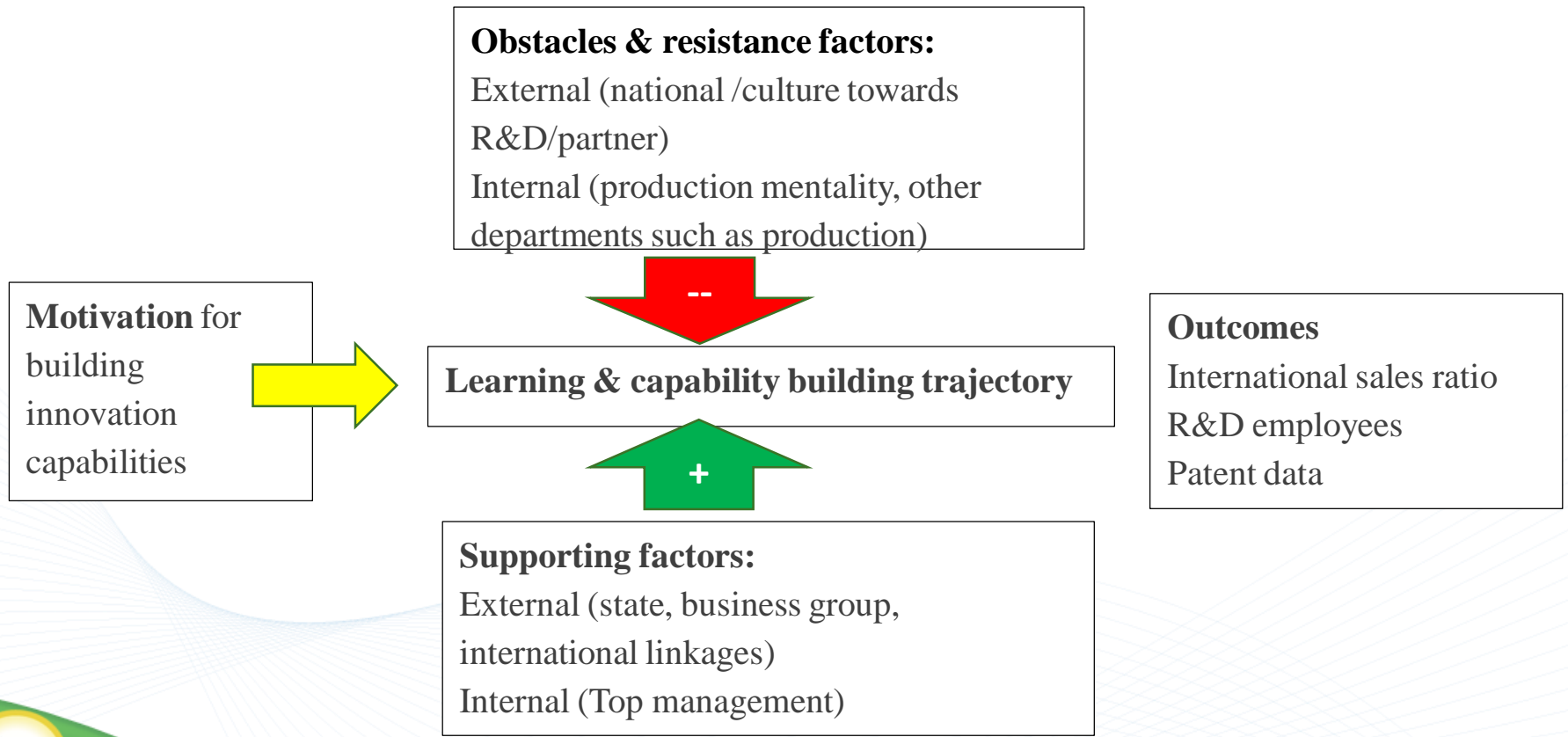


Figure . The tentative model of capability building

Innovation capability building in emerging economies

- Focus countries: China, Turkey, India, Brazil.
- Focus on different industries such as White goods, automotive, construction equipment, telecommunication & defense.
- Collaboration with Swedish and emerging researchers
- Welcome to the forthcoming international activity: Innovation in Emerging Economies Firm, special session at R&D Management, University of Cambridge, 4-6 July 2016



Innovation management and entrepreneurship in our programs'

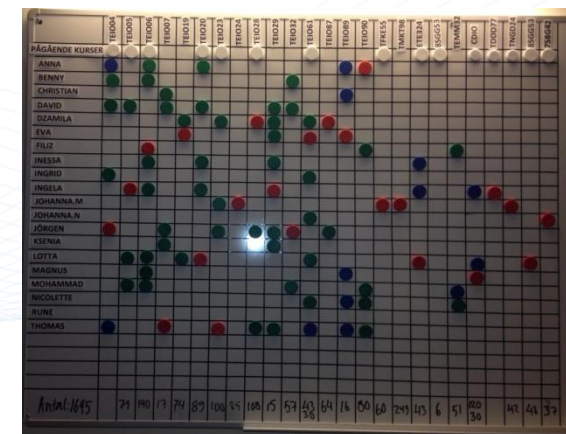
KOD	NAMN
TEIO04	Project Management
TEIO05	Entrepreneurship and business development
TEIO06	Innovative entrepreneurship
TEIO07	Project management and organization
TEIO08	Leadership
TEIO12	Industrial project management
TEIO13	Leadership and organizational change
TEIO16	Innovative entrepreneurship and business development
TEIO19	Organization theory
TEIO20	Entrepreneurship and start of new business
TEIO23	Industrial project management
TEIO24	Project management
TEIO27	Technical entrepreneurship
TEIO28	Integrated project management
TEIO31	Project methodology
TEIO61	Industrial organization, basic course
TEIO87	Project management
TEIO89	Innovation and entrepreneurship, project course
TEIO90	Innovation management
TFKE55	Protein engineering and project management
TMKT98	Introduction to design and product development
ETE303	Entrepreneurial business development
TEMM32	Corporate organization
CDIO	Entrepreneurship

Division Project, Innovation and Entrepreneurship

~1700 students/year

Teaching budget ~ 9 MSEK

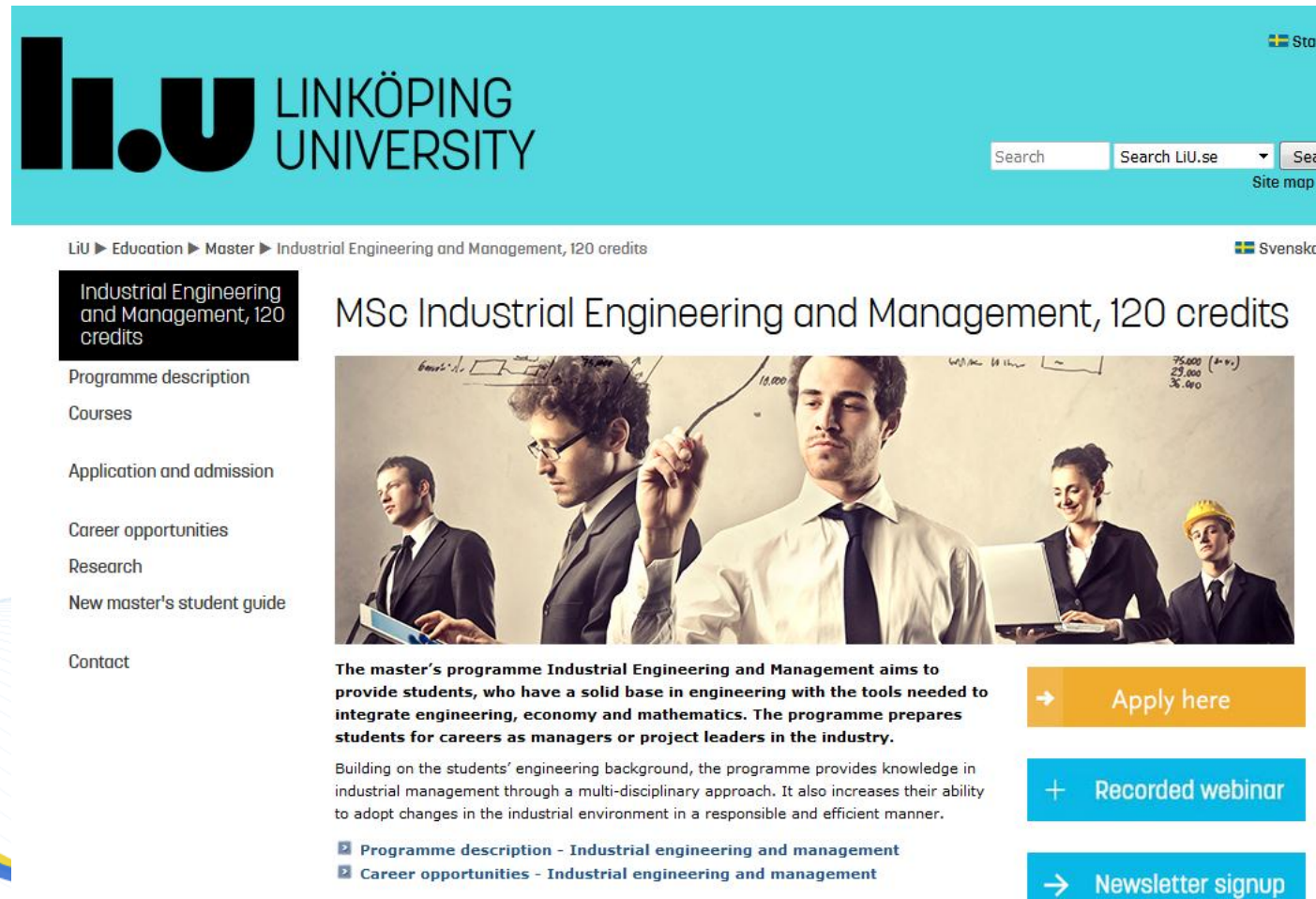
25 Courses for different, mostly engineering, programmes



Specialization in MSc Industrial Engineering and management

Courses, e.g.:

- Project management and organization
- Innovation management
- Innovative entrepreneurship
- Innovation and entrepreneurship – project course
- Leadership and organizational change
- Corporate social responsibility



The screenshot shows the official website for the MSc Industrial Engineering and Management program at Linköping University (LiU). The header features the LiU logo and navigation links. The main content area includes a breadcrumb trail, a list of program details, a description of the program, and a list of related resources. The program is described as a multi-disciplinary approach that integrates engineering, economy, and mathematics, preparing students for careers as managers or project leaders in the industry. The website also features a search bar, a site map, and a language selector.

LiU LINKÖPING UNIVERSITY


Search Search LiU.se Site map

LiU ► Education ► Master ► Industrial Engineering and Management, 120 credits

Industrial Engineering and Management, 120 credits

- Programme description
- Courses
- Application and admission
- Career opportunities
- Research
- New master's student guide
- Contact

MSc Industrial Engineering and Management, 120 credits



The master's programme Industrial Engineering and Management aims to provide students, who have a solid base in engineering with the tools needed to integrate engineering, economy and mathematics. The programme prepares students for careers as managers or project leaders in the industry.

Building on the students' engineering background, the programme provides knowledge in industrial management through a multi-disciplinary approach. It also increases their ability to adopt changes in the industrial environment in a responsible and efficient manner.

- Programme description - Industrial engineering and management
- Career opportunities - Industrial engineering and management

[→ Apply here](#)

[+ Recorded webinar](#)

[→ Newsletter signup](#)

Collaboration with Brazil, e.g.

- Involved in the Executive Course in Technological Innovation Management
- Several excellent Brazilian students in master of Industrial Engineering and Management
- Currently three PhD students in innovation management from DCT
- Ongoing collaboration with USP-FEA – exchanges
- Collaborative research on Saab-Embraer Technology Transfer program



FUTURE COLLABORATION ... ?