

EDUCATION AND TRAINING – A VIEW TO THE FUTURE

Prof. Johan Stahre

Head of division Production Systems

Chalmers University of Technology

Codirector Produktion2030, Strategic Innovation Programme



BBC Sign in News Sport Weather Shop Earth Travel More - Search

NEWS

Home Video World UK Business Tech Science Magazines Entertainment & Arts Health In Pictures More -

Advertisement

Technology

Will a robot take your job?

11 September 2015 Technology

Type your job title into the search box below to find out the likelihood that it could be automated within the next two decades.

About 35% of current jobs in the UK are at high risk of computerisation over the following 20 years, according to a study by researchers at Oxford University and Deloitte.

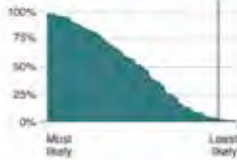
I am a...

Production and process engineer

Production and process engineers

Likelihood of automation?
It's quite unlikely (3%)

How this compares with other jobs:
329th of 366

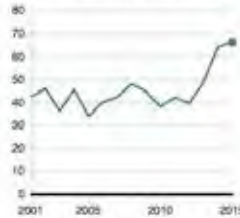


Share my result

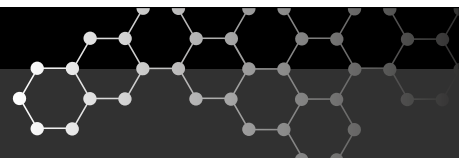


Your job in 2015

Number employed in thousands

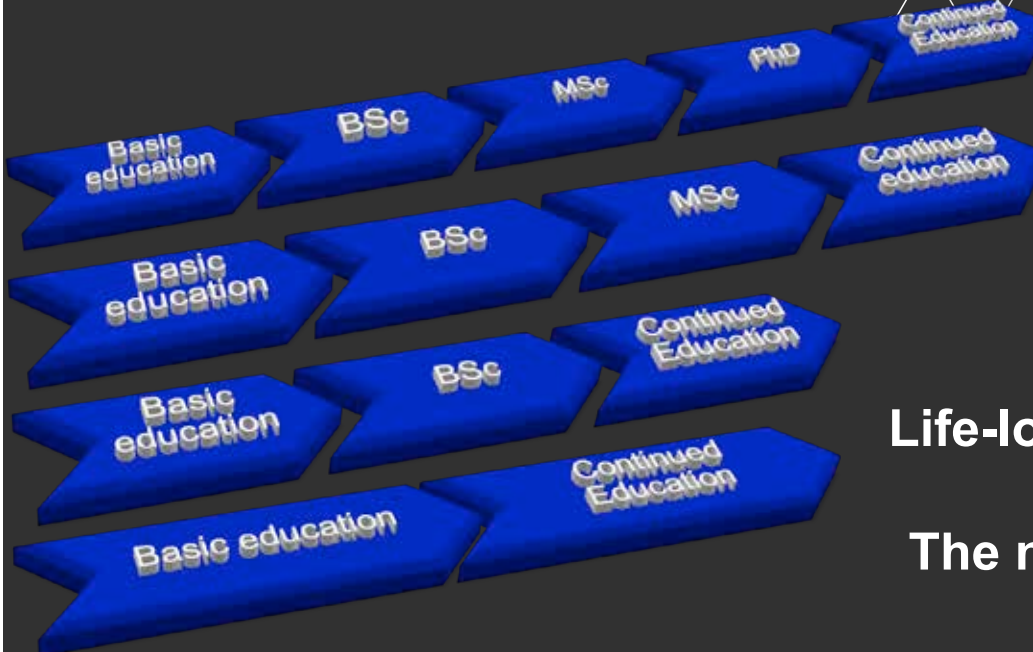


There are currently an estimated **66,000** production and process engineers working in the UK.



Collaboration – or physical and cognitive competition for work





Life-long learning — The new normal

Life-long learning



Awareness
and interest
of industry

Fundamental
knowledge for
engineering

Specialised
knowledge &
employability

Research &
industrial
collaboration

Reinforcing
and renewing
competence

Basic education – creation of interest



CHALMERS
UNIVERSITY OF TECHNOLOGY

PRODUCTION EDUCATION PROGRAMMES

MSC ENG (CIV ING) PROGRAMMES (5 YEARS)	MASTER PROGRAMMES (2 YEARS)	BSC ENG (HING) PROGRAMMES (3 YEARS)
Mechanical engineering	Production engineering	Mechanical engineering
Automation and mechatronics engineering	Product development	Mechatronics engineering
Industrial design engineering	Industrial design engineering	Product design engineering
Industrial engineering and management	Materials engineering	Economics and manufacturing technology
	Systems, control and mechatronics	
	Supply chain management	
	Quality and operations management	
	Applied mechanics	
	Technology, society and environment	

- 3+2 year structure for 5-year Civil engineer programmes
- 2,300 students -1,600 on bachelor level, 700 on master level
- All master programmes in English
- 25 % international master students

cdio
CONCEIVE DESIGN IMPLEMENT OPERATE™

About
About CDIO

Implement
Implementing CDIO

Participation
Participating Members

Knowledge Library
Publications & Presentations

Meetings
Open Meetings & Conferences

CDIO Academy 2015

A total of 11 different teams from China, Singapore and Russia participated in the project showcase. The showcase is an opportunity for engineering students to show their design-implementation projects. It is also a great opportunity for the students to meet their peers from engineering programs all around the world.

Wanted to know more?
Contact us How to join

Follow us:
f in yt

Basic Education BSc MSc PhD Continued Education

Johan Stahre, Chalmers University

30

The Swedish Production Academy

UNIVERSITY OF SKÖVDE

UNIVERSITY WEST

CHALMERS

wingquist

PRODUCTION
A CHALMERS AREA OF ADVANCE

HALMSTAD UNIVERSITY

LULEÅ UNIVERSITY OF TECHNOLOGY

The Fast Laboratory

XPRES

KTH

Linköping University

EINDHOVEN UNIVERSITY

Basic Education BSc MSc PhD Continued Education

Johan Stahre, Chalmers University

Navigation: [HOM](#) [KURSERNA](#) **ANMÄLAN TILL KURS** [ANMÄLAN TILL FÖRELÄSN](#) [ADMIN](#) [KALENDARIUM](#)

FORSKARSKOLAN PRODUKTION2030

PRODUKTION2030

0. Generella STYRKEOMRÅDESKURSER

1. HÅLLBAR och RESURSEFFKTIV PRODUKTION

2. FLEXIBLA TILLVERKNINGSPROCESSER

3. VIRTUELL PRODUKTIONS-UTVECKLING och SIMULERING

4. MÄNNISKAN och PRODUKTIONS-SYSTEMET

5. PRODUKTION och PRODUKTIONSTjänster

6. INTEGRERAD PRODUKT- och PRODUKTIONSUTVECKLING

M. Generella ERÖVNINGSTÄLLNINGAR

***P66 Multidisciplinary Design Optimization in Product Development 3hp**

***PM9 Get your paper published**

PM8 Theory of science and research methodology in product realisation 5HP

PM5 Research methodology, design of

Basic Education → BSc → MSc → **PhD** → Continued Education

Navigation: [HOM](#) [KURSERNA](#) **ANMÄLAN TILL KURS** [ANMÄLAN TILL FÖRELÄSN](#) [ADMIN](#) [KALENDARIUM](#)

FORSKARSKOLAN PRODUKTION2030

PRODUKTION2030

P64 Advanced Engineering Surfaces 4HP

0. Generella STYRKEOMRÅDESKURSER

1. HÅLLBAR och RESURSEFFKTIV PRODUKTION

2. FLEXIBLA TILLVERKNINGSPROCESSER

3. VIRTUELL PRODUKTIONS-UTVECKLING och SIMULERING

4. MÄNNISKAN och PRODUKTIONS-SYSTEMET

5. PRODUKTION och PRODUKTIONSTjänster

6. INTEGRERAD PRODUKT- och PRODUKTIONSUTVECKLING

M. Generella ERÖVNINGSTÄLLNINGAR

Pris: 0 kr

Art.nr: P66Q22016

Typ: Q22016

Antal: 1

Lägg i varukorg

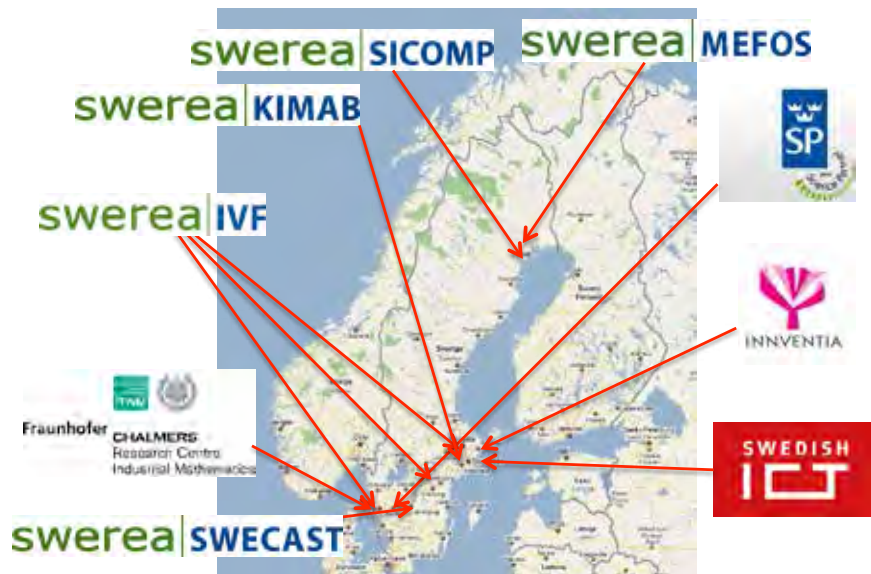
Finns i lager

The course focus on the manufacturing and characterisation of modern surface structures to enable low friction, wear-resistance and economically and sustainable production. Concepts of stratified surfaces, multi scale analysis, fractal approaches are recovered in depth world leading experts.

Basic Education → BSc → MSc → **PhD** → Continued Education

Swedish Institute infrastructure

Research Institutes in Manufacturing



produktionslyftet

”The Production Leap” – A national support program for sustainable lean development in SME:s

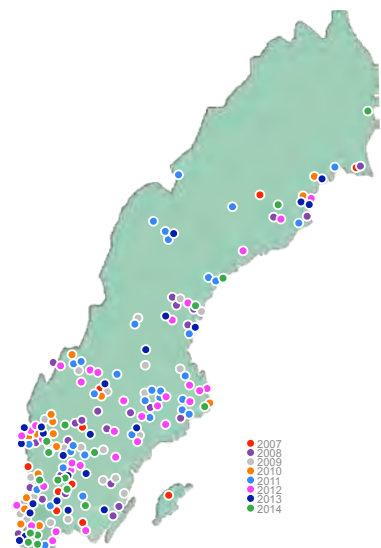


Seminaries and insight
18 000 people

Birgitta Öjmertz, Swerea



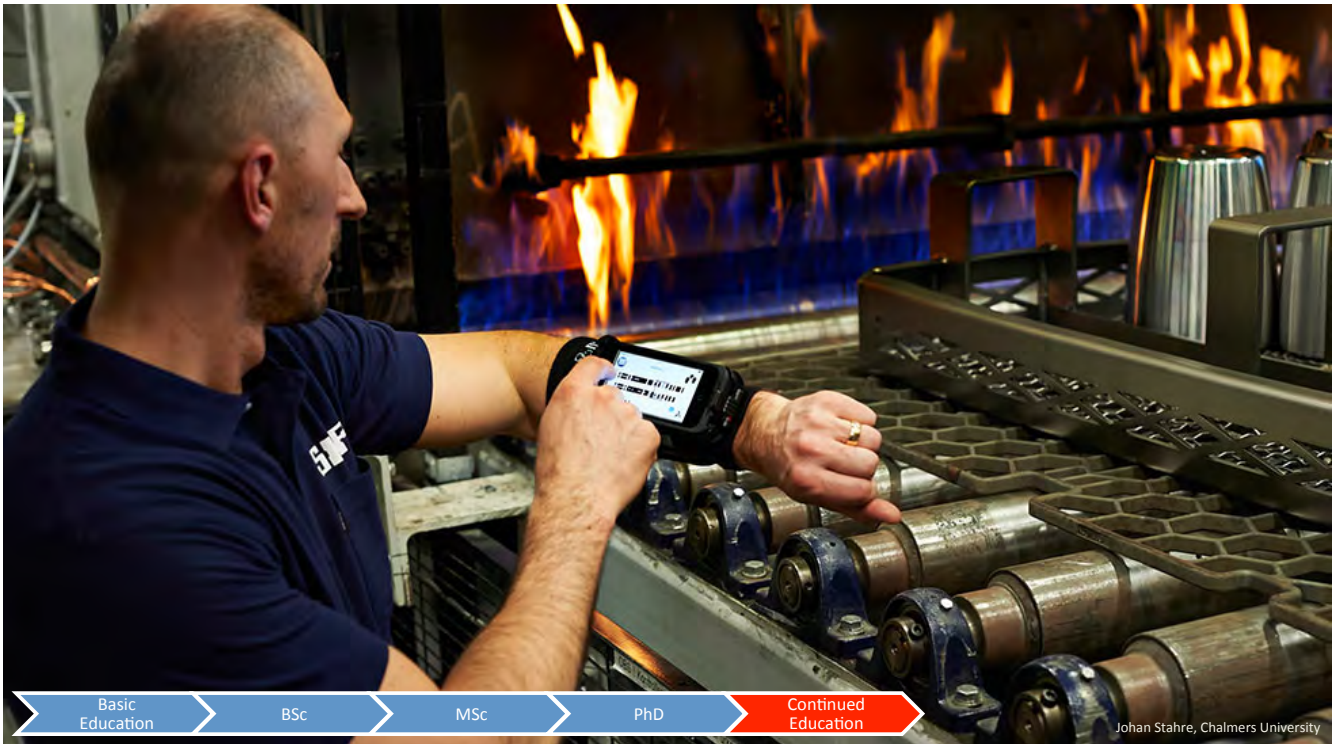
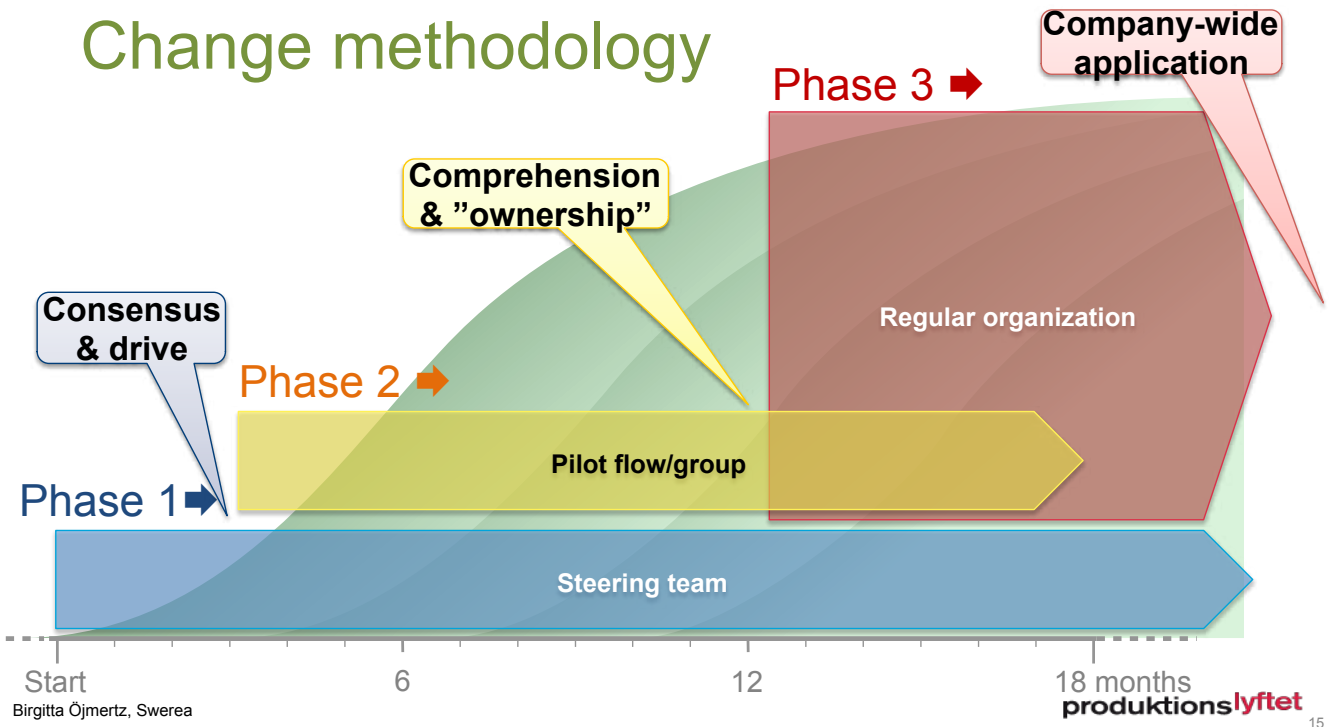
University education
Lean production 7,5 credits
1 800 people



The coaching program
18 months
220 companies

produktionslyftet

Change methodology



National Knowledge Brokeridge Platform

HOME SEMINARS PROJECTS RESEARCHERS PROGRAMMES AND FUNDING CALLS ABOUT US

Protecting IP: separating know-why from know-how
Protecting key competence in a global business environment requires control of intellectual properties (IP). The project will test how to specify the manufacturing of a product (Know how) without revealing the product IP.
⇒ More projects

Kunskapsförmedlingen is a meeting place for Swedish research in product realization.
⇒ Read more

SEMINARS
Digitalisering för trafiksäkerhet, miljö och

NEWS
produktionslyftet

CURRENT PROFILE
Johan Ölvander

Basic Education → BSc → MSc → PhD → Continued Education

PRODUKTION2030
Johan Stahre, Chalmers University

CHALMERS
UNIVERSITY OF TECHNOLOGY

Thank you!

Prof. Johan Stahre

Head of Production Systems Division
Codirector Production Area of Advance
Chalmers University of Technology
Codirector Produktion2030

johan.stahre@chalmers.se