

**Wellcome to    Fall 2013**  
**42435 Knowledge based entrepreneurship**



1    DTU Management Engineering,  
      Technical University of Denmark

**AGENDA**  
**Course Introduction**

01:00 - 01:10	<b>Hello all <a href="#">John Heebøll</a></b> , lecturer, DTU-42435. (JH)	
01:10 - 01:30	<b>DTU Innovatorium <a href="#">Mikkel Sørensen</a></b>	
01:35 - 02:00	<b>Coaching at 42435 <a href="#">Dorte Wiene</a></b>	
02:10 - 02:45	<b>The Importance of Entrepreneurship</b>	JH
02:55 - 03:25	<b>The course</b>	JH
03:35 - 03:55	<b>The project work</b>	JH

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**42435 Knowledge based entrepreneurship  
Important – Important - Important**

**Submit Your ID-form**

via e-mail to [johe@dtu.dk](mailto:johe@dtu.dk)

before Tuesday, 3 September- 12:00 noon  
(tomorrow!)

***No ID-form received = not here to day  
=> no enrollment  
=> no course***

Download the ID-form from [www.entrepreneur.dk](http://www.entrepreneur.dk) or from [CampusNet](#)

**John Heebøll**



- M.Sc. CE. DTH, 1974
- Mil. service, Research Dept.
- VIP, DTH, 1976 – 1988
- DTU Incubator 1988 – 2000
- DTU Innovation 2000 – 2004
- Associate prof., E'ship, DTU Management, 1992 ->
  - CEO, *Gastrotechnology*, 2004 -> 2006
  - Boardmember, *app 15 Start-ups*
  - Chairman, *Swantec ApS*
  - Own company: *Danish Product Development ApS*

## Knowledgebased Entrepreneurship

Entrepreneurship is -

**The pursuit of opportunity –  
without regard to resources currently controlled  
for the creation of new economic value**

*Howard Stevenson, Harvard Business School*

An entrepreneur is -

**Someone jumping out from a cliff –  
trying to assemble an airplane on the way down**

*Ari Wegter, Founder, CEO, [GlibHippo](#)*

## The Importance of Entrepreneurship

### Germany and Japan stuck in an industrial recession

Early nineties: in spite of massive investments in industrial development to recover an industrial set-back, nothing much happened - partly due to a poor business birth rate and a lack of the enterprising and competent cambrium of young talented entrepreneurs and intrapreneurs.

### Entrepreneurs have brought USA to a leading position in the global economy.

By example: 8 out of the 25 biggest companies in US did not exist in 1960.  
In Europe all 25 biggest companies were big also in 1960 (FORA 2007)

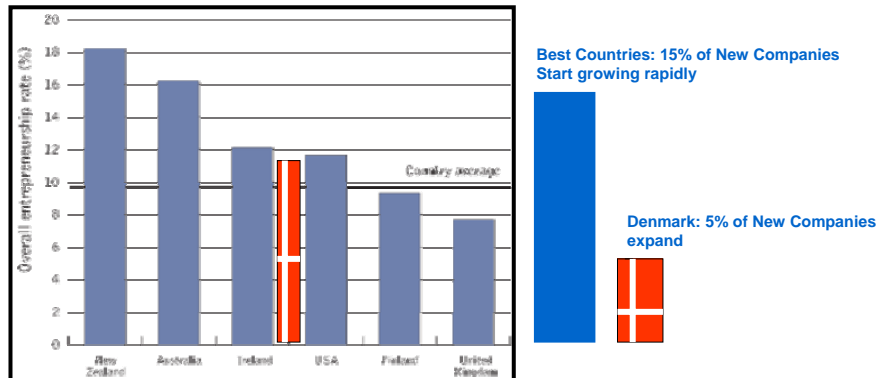
### Google is a venture capital backed Stanford University spin-out

Google maintains the corporate entrepreneurial culture – and a close relationship to the mother university - and others

## The Importance of Entrepreneurship

### The Global Entrepreneurship Monitor GEM:

Variation in rates of entrepreneurship may account for as much as one-third of the variation in economic growth



The growth-oriented start-ups create > 85% of the jobs



## The Importance of Entrepreneurship The Role of Universities

### Massachusetts Institute of Technology

- One in four faculty involved in technology venturing
- 28.500 companies founded by graduates and faculty since 1861
- Employees at MIT- companies ~ 3.300.000
- Turn-over of MIT- companies > \$2.000Billion/yr  
(Denmark, GNP app: \$ 350 Billion/yr)
- If a nation: MIT Business Community the 11th largest in the world

Source: Mandag Morgen Aug. 2010

## The Importance of Entrepreneurship Teaching

### Effects on National-Level High-Growth Entrepreneurship

<i>Entrepreneurial Framework Condition</i>	<i>Effect</i>
Availability of finance for entrepreneurial firms	Neutral
Policy support for entrepreneurial firms	Negative ( $p < 0,10$ )
Regulatory compliance costs	Negative ( $p < 0,05$ )
Entrepreneurship education (primary level)	Neutral
Availability of business services	Neutral
Market change and dynamism	Neutral
Physical infrastructure	Neutral
Entrepreneurial culture	Neutral
<b>Entrepreneurship education (universities)</b>	<b>Positive (<math>p &lt; 0,05</math>)</b>

**Source: Levie & Autio 2007**

Notes: Random-effects panel regression in 7-year panel of 48 countries. Controls: gdp per capita, gdp per capita squared, industry structure, gdp change (t-1), population growth rate. 2-tailed significances.

## The Importance of Entrepreneurship The Role of Universities



## From a personal perspective:

1. Chances of you setting up a business after having concluded a good e'ship course increase by X3
2. Chances that your business will survive and grow are significantly increased by good E'ship T&T.
3. In US: salaries of graduates with e'ship components in their course CV exceed those of their less entrepreneurial fellows by app. 30%
4. Basic business understanding combined with enterprising traits are highly appreciated R&D staff qualifications in today's industries

## The Entrepreneurial Course:

### **OBJECTIVE:**

Develop your entrepreneurial  
**mindset & skillset**

### **PEDAGOGICS & DIDACTICS**

Lectures -> knowledge

Project => knowledge -> skill

*(Teaching AND Training)*

*CDIO applies:*

*conceive, design, implement and operate*

## Entrepreneurial Mindset

- **The Near-Entrepreneurial Experience**
- Introduction to a Working Life
- Develop trust in own competencies
- Get inspiration from successful entrepreneurs

The MINDSET:

**To be an Entrepreneur, You need an Eye for Opportunities -**

*Skulle jeg ønske mig noget, da ville jeg ikke ønske mig  
rigdom eller magt, men mulighedernes lidenskab.  
Det øje som overalt, evigt ungt, evigt brændende ser  
muligheder.*

**Søren Kirkegaard**

*Enten – Eller, Diapsalmata, SKS bind 2, s. 50*

*Were I given a wish, I would not want wealth nor power,  
but **the passion of opportunities.***

***The eye that everywhere, ever young, ever burning,  
identifies opportunities.***

**Søren Kirkegaard, philosopher, 1816 - 55**

The MINDSET:  
**- But it is useless unless You Act!**

***Hvis Individet ikke vil handle, kan Skæbnen ikke Raade***  
*Søren Kirkegaard, filosof, 1816 - 55*

***If an Individual does not Act, Destiny cannot Prevail***  
*Søren Kierkegaard, philosopher, 1816 – 55*

***Luck is Earned***  
*John Heebøll, e'ship teacher, 1948 –*

## SKILLSET:

High Tech Venturing is a complex, demanding and multidisciplinary process.

Success depends on multiple competencies, networks, advanced technical knowledge, business experience, etc.

<b>Multiple Competencies</b>	<b>Teaching (12 lectures)</b>
<b>Business experience</b>	<b>Training (A business plan)</b>
<b>Networks</b>	<b>Group work, Venture Cup</b>
	<b>Mentor program</b>



## Learning Objectives

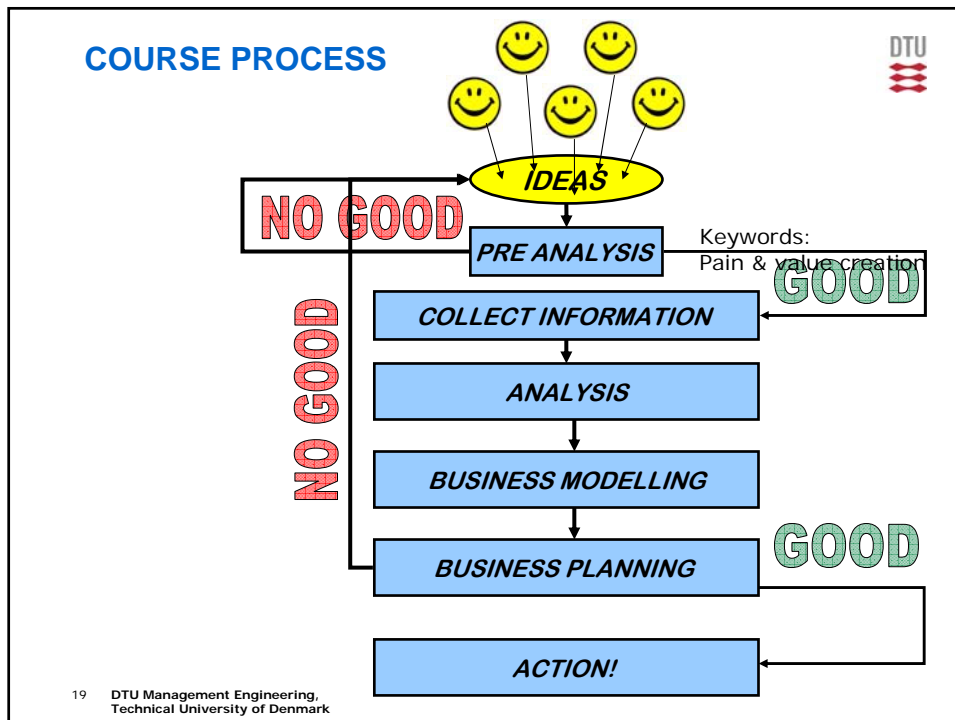
A student who has met the objectives of the course will be able to:

1. Identify business opportunities
2. Develop business ideas (Opportunity driven creativity)
3. Develop business models
4. Analyze markets for technological products and services
5. Interview customers
6. Analyze customer value creation
7. Plan the establishment of a company (Business planning)
8. Determine capital requirements
9. Establish cash flow projection
10. Establish budgets on profit/loss, assets/liabilities
11. Calculate an equity investment
12. Specify management competence profiles

## COURSE DESIGN

**Idea:** allow you to get started ASAP on idea generation -> business modeling -> business planning – and then top up the tool box. So:

- **First four lectures:**
  - **BASICS in Business Development**
    - Opportunity recognition + idea generation
    - Success- and non-success in business formation
    - Business modeling and - planning
- **The rest of lectures:**
  - Market research & analysis
  - Sales & Marketing
  - Business management & admin.
  - Budgeting and financing
  - Basic IP + legal stuff
  - Cases and entrepreneurs



## WORK PLAN

Reference is made to the **Course Manual**

**Tentative time schedule:**

Kick-off:	Team fully operational.	Week 37	9 September
1. milestone:	Product /business model OK	Week 40	30 September
2. milestone:	Market research finalised	Week 44	25 October
Project deadline:	Business plan completed	Week 50	13 December
Deadline, submitting business plan:	Friday 13 December 2013, 12.00 noon.		
Exams:	Thursday and Friday, 19 and 20 December 2013 from 08 am.		

Mandatory assignment:

**The 5-liner:** A summary note on Pain, Value Creation and Jury  
Deadline: Friday 25 October 2013 at 12:00 noon.

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## COURSE MATERIALS

1. Knowledge based Entrepreneurship (textbook)
2. Overheads
3. Hand-outs
4. Start-up Handbook (McKinsey)

Items 2 – 4 are available at  
[www.entrepreneur.dk](http://www.entrepreneur.dk) and CampusNet

## COACHING in 42435

Our organizer: Dorte Wiene  
Manual on [entrepreneur.dk](http://entrepreneur.dk)



Monday 9 September 2013

**Venture Cup:** the national business plan competition in further education  
**Christian Østerbye,** University Coordinator - DTU

- **The entrepreneur**
- **The entrepreneurial working life**
- **Success & non-success  
in business start-up.**

- AND -

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