

Wellcome to *Ph.D Spring 2013*
42705 Knowledge based entrepreneurship



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Technical University of Denmark

AGENDA
Course Introduction

01:00 - 01:40	Individual presentations
01:50 - 02:30	The Importance of Entrepreneurship
02:35 - 2:50	The course: nuts & bolts
03:00 - 04:00	Experiences in knowledge based entrepreneurship

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42705 Knowledge based entrepreneurship
Important – Important - Important

Submit Your ID-form

via e-mail to johe@dtu.dk

NOW

Groups will be created and published
before Friday 5 April



42705 Knowledge based entrepreneurship
Who are YOU?

2 min individual presentations, covering:

1. **Name**
2. **Nationality**
3. **Institute**
4. **Ph.D project**
5. **Group status**

Take notes – use them for group formation

AGENDA

The Teacher
The Importance of Entrepreneurship

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*)

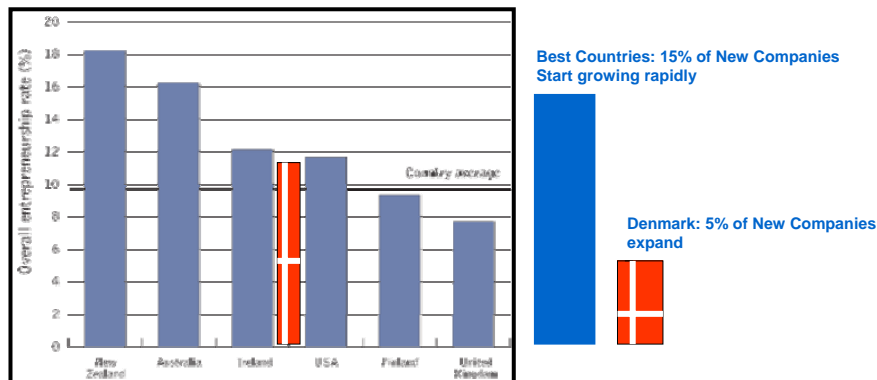
Google is a venture capital backed Stanford University spin-out

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

Challenges 2013:

- New industrialized nations take over classic industry. Massive outsourcing of jobs from west to east still ongoing.
- Now even knowledge based jobs are outsourced
- Large companies are locked by heavy investments and hence do incremental innovation. Radical break-through and expedient action is the entrepreneur's turf
- The shake-out of less capable companies during the economical recession opens new opportunities when things turn to the better – and hence we need a strong and skilled community of entrepreneurs standing ready to facilitate a rapid recuperation.
- The paradox: economical crisis: we need e'ship but investors move away from risk and enterprise.

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
Entrepreneurship education (universities)	Positive (p<0,05)

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

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



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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 qualifications in R&D staff in today's knowledge based industries

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The Entrepreneurial Course:

OBJECTIVE:

Develop your entrepreneurial
mindset & skillset

PEDAGOGICS & DIDACTICS

Lectures -> knowledge

Project => knowledge -> routine

(Teaching AND Training)

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 passionate,
identifies opportunities.*

Søren Kierkegaard, philosopher, 1816 - 55

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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 –

The entrepreneurial mindset can be provoked

Prof. Tanake, Tokyo, Japan, 1992

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SKILLSET:

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

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

Multiple Competencies	Teaching (7 lectures)
Business experience	Training (A business plan)
Networks	Group work, Venture Cup Mentor program

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

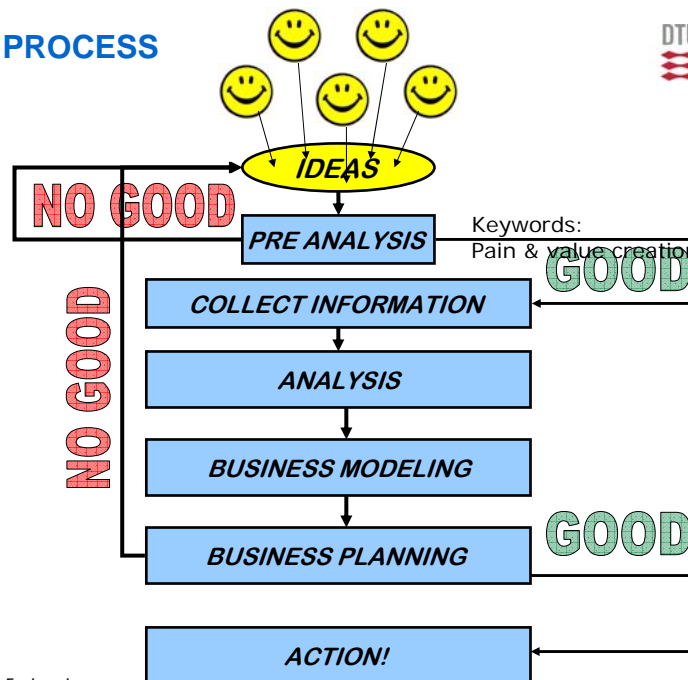


Idea: allow you to get started *ASAP* on idea generation -> business modeling -> business planning – and then top up the tool box. So:

- **First two 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

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COURSE PROCESS



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WORK PLAN

Reference is made to the [Course Manual](#)

Wednesday, 30 May 2012, 11.00 pm

Tentative time schedule:

Kick-off:	Team formed:	Week 15	9 April 2013
1. milestone:	Product /business concept OK:	Week 17	25 April 2013
2. milestone:	Market research finalised:	Week 19	8 May 2013
Project deadline:	Business plan completed:	Week 23	4 June 2013

Deadline, submitting business plan to johed@dtu.dk:

Tuesday, 4 June 2013 at 12:00 noon

Exams: ***Friday, 7 June 2013 from 08 am.***

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 and CampusNet



COACHING in 42705

Our organizer: Dorte Wiene dorte@wiene.net
Manual on entrepreneur.dk