

Welcome to Spring 2014

42435 Knowledge based entrepreneurship



AGENDA

Course Introduction

01:00 - 01:10	Hello all John Heebøll , lecturer, DTU-42435. (JH)	
01:10 - 01:50	The Regional e'ship ecosystem A (B to follow Monday 10 Feb)	
	DTU Skylab Mikkel Sørensen	
	Venture Cup Christian Østerbye	
02:00 - 02:35	The Importance of Entrepreneurship	JH
02:45 - 03:15	The course	JH
03:25 - 03:45	The project work	JH

42435 Knowledge based entrepreneurship
Important – Important - Important

Submit Your ID-form

via e-mail to johe@dtu.dk

before Tuesday, 4 February- 12:00 noon
(tomorrow!)

No ID-form received = not here to day

=> no enrollment

=> no course

Download the ID-form from www.entrepreneur.dk or from CampusNet

42435 Knowledge based entrepreneurship

DTU Innovatorium

Mikkel Sørensen

42435 Knowledge based entrepreneurship

Venture Cup

Christian Østerbye

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*)

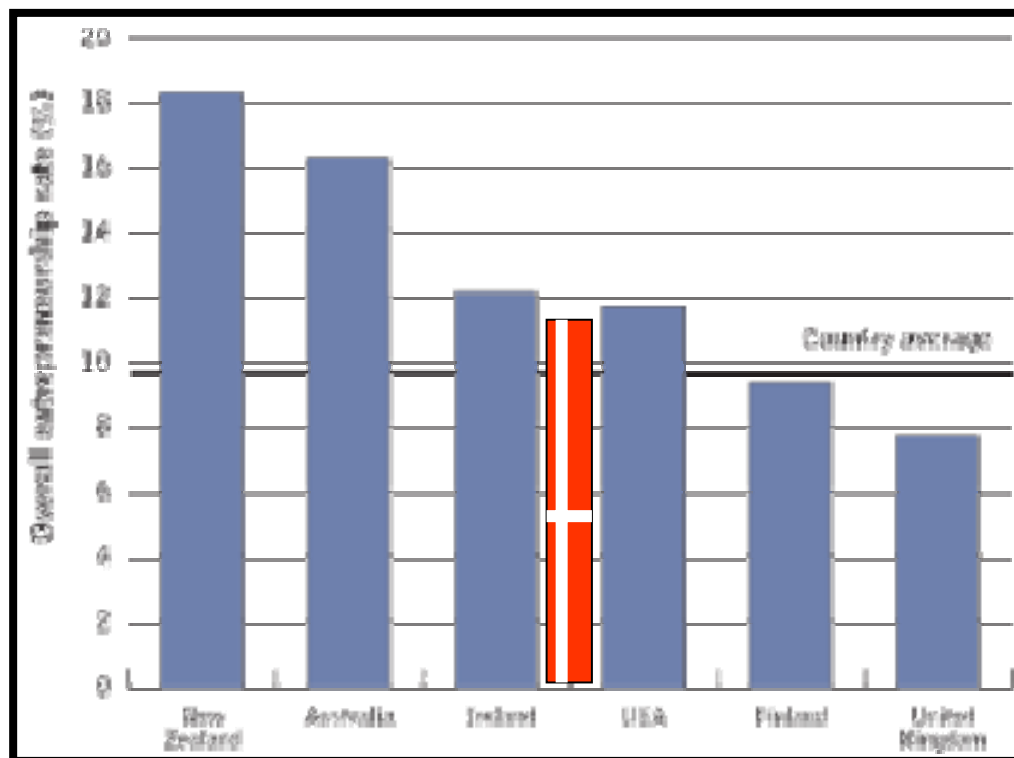
Google is a venture capital backed Stanford University spin-out

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



Best Countries: 15% of New Companies Start growing rapidly



Denmark: 5% of New Companies expand



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: \$ 500 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
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

Technical University of Denmark



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 Kierkegaard, 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.

Multiple Competencies

Business experience

Networks

Teaching (12 lectures)

Training (A business plan)

Group work, Venture Cup

Mentor program

Learning Objectives

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

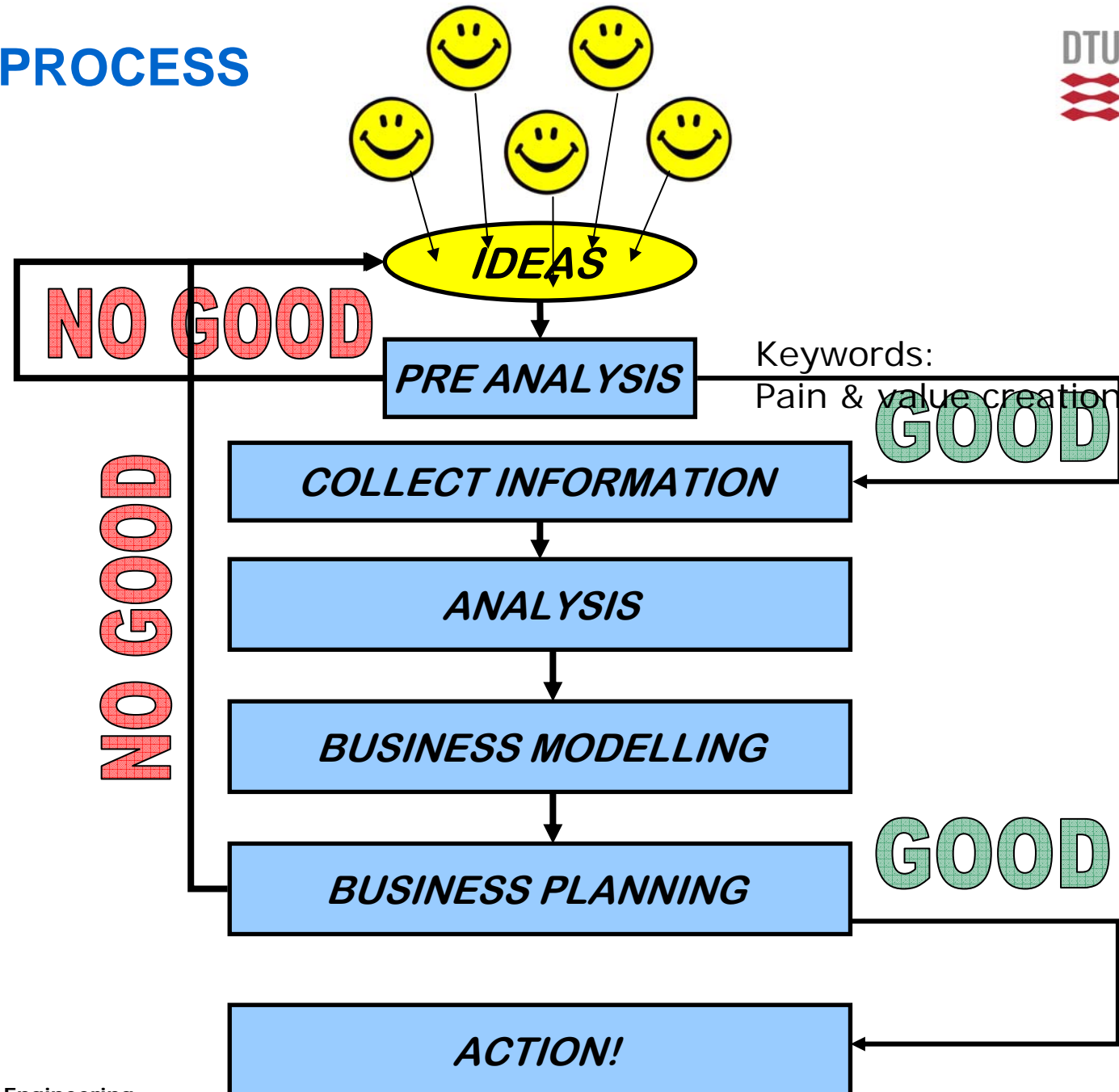
1. Identify business opportunities
2. Develop business ideas (Opportunity driven creativity)
3. Develop business models
4. Analyze markets for technological products and services
5. Interview customers
6. Analyze customer value creation
7. Plan the establishment of a company (Business planning)
8. Determine 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 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

COURSE PROCESS



WORK PLAN

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

Tentative time schedule:

Kick-off:	Team fully operational.	Week 7 - 14 February
1. milestone:	Product /business model OK	Week 10 - 7 March
2. milestone:	Market research finalised	Week 15 – 11 April
Project deadline:	Business plan completed	Week 21 – 26 May
Deadline, submitting business plan: Monday 26 May 2014, 12.00 noon		
Exams:	Monday and Tuesday	2, 3 June 2014 from 08 am

Mandatory assignment:

The 5-liner: A summary note on Pain, Value Creation and Jury

Deadline: Friday 21 March 2014 at 12:00 noon

(two weeks after completion of milestone1)

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

See you Monday
10 February 2014

Guest star:

Stardust DTU / Createch
Jesper Baltzersen
Managing director
Stardust-DTU

Themes:

Business planning
Coaching in 42435

External lecturer Dorte Wiene

Event:

Find your team.

- AND -

Submit your ID form to johe@dtu.dk before tomorrow at 12:00 noon.