

## Wellcome to the DTU PhD E'ship Class 2010 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*

*The element of madness in entrepreneurship: readiness for risk.*

***If you think, risk can be worthwhile -***

***- you are an entrepreneur***

## AGENDA

- 13:10 – 13:25 **The Venture Cup Competition**  
Michael Bak, regional manager. [mb@venturecup.dk](mailto:mb@venturecup.dk)  
Emil Hovgaard Jensen project coordinator. [je@venturecup.dk](mailto:je@venturecup.dk)
- 13:25 – 13:40 **Startupbootcamp – and [www.startupdenmark.dk](http://www.startupdenmark.dk)**  
Alex Farcet. [af@startupbootcamp.dk](mailto:af@startupbootcamp.dk)
- 13:45 – 14:15 **Who is Who: individual introduction**
- 14:20 – 14:35 **The teacher's universe**
- 14:40 – 15:00 **The Importance of Entrepreneurship**
- 15:05 – 15:25 **The DTU Ph.D. E'ship course: rationale, contents, lecture plan etc**
- 15:30 – 15:55 **The entrepreneur's universe**
- 16:00 – 16:30 **Success and non-success in knowledge based start-up**

13:10 – 13:25 **The Venture Cup Competition**



**Winners 1,2,3 2007**

*Former students*

3 DTU Management Engineering,  
Technical University of Denmark

## WHO ARE YOU ?

13:45 -14:15

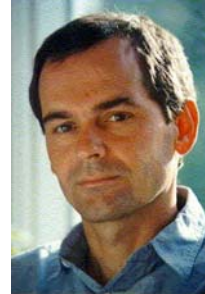
- 2 minute personal presentation of anyone - to - everybody.
- **Name**
- **Field of interest**
- **Part of a group allready ?**  
– or **looking for one ?**

Please take notes

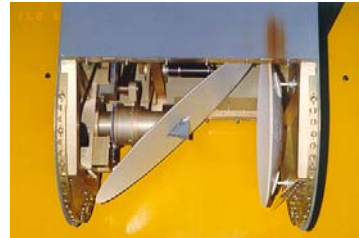
4 DTU Management Engineering,  
Technical University of Denmark

## The Teacher

- 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, IPL, 1992 ->



- CEO, Gastrotechnology, 2004 -> 2006
- Boardmember, app 15 Start-ups
- Chairman, Swantec ApS
- Own company: Danish Product Development ApS



## AGENDA

14:40 – 15:00

### The Importance of Entrepreneurship

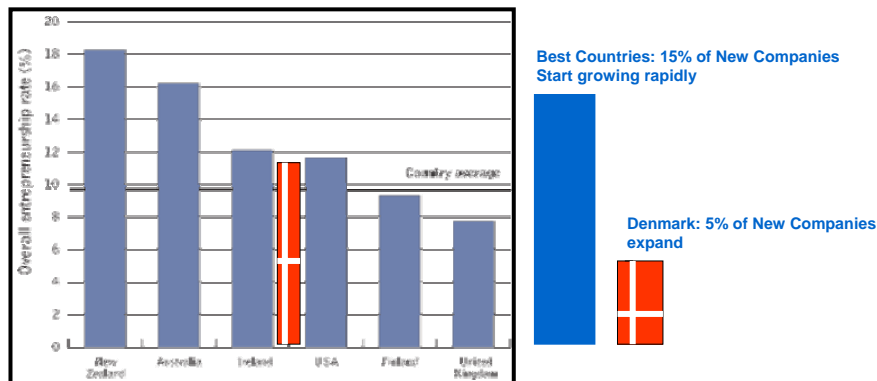
## The Importance of Entrepreneurship

- **Germany's and Japan's recession, early ninety-nineties** in spite of massive investments in industrial development was partly due to a poor business birth rate: a lack of the enterprising and competent cambrium of young talentet 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*)
- **Germany, 1870-ties:** die Gründerzeit: French war reparations are invested in new German industry to create an economical lead that gave Germany a overwhelming competitive strength (later to be wasted in wars).

## 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 2010:

- New industrialized nations take over classic industry. Massive outsourcing of jobs from west to east still ongoing
- Large companies locked in heavy investments 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 recouperation.  
*(Change is the fuel of entrepreneurship)*
- The paradox: economical crisis: we need e'ship but everybody move away from risk and enterprise

## The Importance of Entrepreneurship Teaching

### Effects on National-Level High-Growth Entrepreneurship Entrepreneurial Framework Condition Effect

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 (p&lt;0,05)</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

### Massachusetts Institute of Technology

- One in four faculty involved in technology venturing
- 5.000+ companies founded by graduates and faculty since 1861 (in av.: 35/yr. DTU: probably 5 – 10)
- Employees at MIT– companies > 1.000.000
- Turn-over of MIT- companies > \$250 Billion/yr (Denmark 2005 GNP: \$285 Billion)
- If a nation: MIT Business Community the 24th largest in the world

## 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. Enterprising traits and competencies are very popular personal qualifications in today's industries

## The Entrepreneurial Course: something for the mindset & the skillset

*15:05 – 15:25*

rationale

contents

project & milestones

lecture plan etc.

1. **MINDSET:** Awake your dormant entrepreneur
  2. **SKILLSET:** Learn how to launch a business venture  
= acquire applicable portable competencies
- 1+2: Learn to identify business opportunities –  
to capture them and exploit them
- **Create new growth-oriented companies**  
**Develop new business areas**

*Business start-up is not for everyone: it takes an educated decision*  
**Acquire the qualifications needed – to decide and to act.**  
*And remember, that entrepreneurial skills and attitudes are applicable and rewarded in most aspects of life – so this is not just about starting businesses*

Important link:

**[www.entrepreneur.dk](http://www.entrepreneur.dk)**

Important hand-out:

**The Course manual**



**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 or power, but **the passion of opportunities.***

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

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

**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 Kirkegaard, philosopher, 1816 – 55**

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

*The entrepreneurial mindset can be provoked*  
**Prof. Tanake, Tokyo, Japan, 1992**

## SKILLSET:

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

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

**Multiple Competencies**

**Networks**

**Business experience**

*Education and Training*

*Group work, Venture Cup*

*Mentor program*

*Simulator training*

## 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

## Enable the Entrepreneur

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

- Enable the Entrepreneur
- Learn how to start
- Study experiences
- Train Methods and Principles
- Qualify Competencies
- Develop Business Talents
- Create New Companies

## Learn How to Start and run a Company

### Subjects covered

- Business planning
- Basic management

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## Study experiences

### Case Stories:

- Entrepreneurs
- Consultants
- Investors

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## Train Methods and Principles - 1

### Project-oriented Group Work

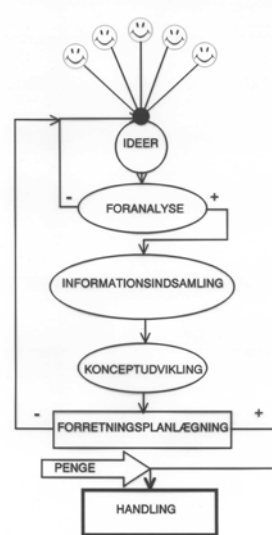
- Opportunity-driven Creativity
- Pre-analysis
- Information research
- Information analysis
- Business model development
- Business Planning
- Presentation & Pitching

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## Train Methods and Principles - 2

### Business Development

- Ideas
- Pre-analysis
- Information research
- Information analysis
- Business model development
- Business Planning
- Presentation & Pitching – or
- All over again (not on this course, however)



## Qualify Your Competencies

- Realistic interpretation of opportunities
- Qualifying your basis of decision
- Develop specific self-confidence
- Make a substantiated decision

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## Develop your networks

- Meet new people – in the group – and outside
- Start working with them in a start-up context
- Meet some of the players within financing and consultancy
- Meet your customers – your jury!

- Enable the entrepreneur
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- Study experiences
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- Qualify Competencies
- Develop Business Talents
- **Develop your networks**
- Develop your business talent
- Create New Companies

## Develop your business talent

- Get to know your marketplace
- Find out what can be sold and what not
- Develop your capacity for **sensing business opportunities**
- Develop "**the embedded merchant**": the continuous outlook for business opportunity (the burning eye) coupled with the continuous calculator, working resolutely somewhere in the deep of your mind, that enables luck.

- Enable the entrepreneur
- Learn how to start
- Study experiences
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- Qualify Competencies
- Develop Business Talents
- **Develop your networks**
- **Develop your business talent**
- Create New Companies

## Create New Companies

After the course →

- Basic competences acquired
- Insight into the knowledgebased entrepreneurial culture
- Relations to pre-seed venture capital developed
- A business idea ready to be launched – maybe -

**You earned your wings  
Now try if you can fly  
- once you've graduated**

- Enable interest i entrepreneurship
- Learn how to start
- Study experiences
- Train Methods and Principles
- Qualify Competencies
- Develop Business Talents
- Develop your networks
- Develop your business talent
- **Create New Companies**

## The LECTURE PLAN

Check [www.entrepreneur.dk](http://www.entrepreneur.dk) and [this link](#)

## 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)

## WORK PLAN

Reference is made to the Course Manual

### Tentative time schedule:

Kick-off:	Team formed.	Week 16	21 April 2010
1. milestone:	Product /business concept OK	Week 18	06 May 2010
2. milestone:	Market research finalised	Week 19	12 May 2010
Project deadline:	Business plan completed:	Week 21	28 May 2010

After deadline, you have two more days (excl. week-end) to prepare your presentation.

Submitting your Business Plan: Thursday 03 June at 12:00 noon

Exams: Tuesday 15 June 08:00 am to 05:00 pm