

## OPPORTUNITY DRIVEN CREATIVITY

### Agenda:

- Conception of ideas
- Systematical generation of ideas
- From idea to business
- Cases

**NOTE: Groups have been created on CampusNet – with Author's rights**

## Meetings coming up!

Find a vacant slot and book it  
Use the list – or get it from entrepreneur.dk or CN  
and mail me.

### Agenda:

Your ideas – and their perspectives:

- as a case for the course
- as a business case

### Preparation:

For each preferred idea: please explain:

- What is the pain – the problem?
- Who is your customer (your jury)
- What is your value proposition

*Nothing in this World is stronger than  
an Idea whose Time has come*  
(Victor Hugo)

**Victor Hugo tells us, that preconditions define the strength of ideas:  
thus, timing is essential – and ideas are children of their time**

*Example: industrial revolution: everything is subject to mass  
production – including sewing – however, the thread messes up  
and early sewing machines are unreliable –*

*-- until 1854: Singer files a patent on the needle with the hole in  
the pointed end. He overcomes a major technical obstacle to  
mechanical sewing, and conquers the market for sewing machines  
for several generations.*

*Ideas emerge as a logic  
Consequence of Needs*

**This axiom explains why good ideas seem to pop up simultaneously –  
when we are ready for them**

*Example: The telegraph had been around for some years, when Graham Bell  
submitted his patent application on the telephone, February 14, 1876 same day  
but a little later than Elisha Gray.*

*Internet related inventions such as online auctions, matchmaking, dating,  
telephone, search engines, news streaming, booking, community services, chat  
fora etc. etc. pop up in less than a decade – all driven by an enabling telecom  
and IT infrastructure combined – just like the telephone followed as a logic  
consequence of the telegraph.*

## *It's the Early Bird that catches the Worm*



Ideas appear as a logic consequence of need =>

**The winner is the inventor and entrepreneur combined, who is**

- capable of perceiving needs
- convert them into solutions,
- bring them to the market

This statement emphasizes that you do not capture ideas unless you know what to look for – and are on the look-out => "The burning eye for opportunity"

This statement also underlines the importance of being able to execute quickly and efficiently

So the equation for creating a business is:

1. Look for pain
2. Generate a portfolio of pain-killers
3. Set up an appropriate business model
4. Act!

**Generating value-creating products/services that build on real pain is**  
*" OPPORTUNITY-DRIVEN CREATIVITY "*

5 DTU Management Engineering,  
Technical University of Denmark

## Elitist View on Creativity:

- A rare talent
- Unable to be taught
- Irrelevant to most employees
- An individual process

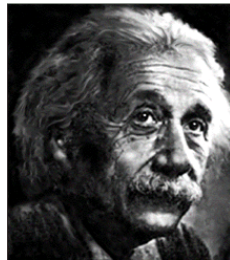
## Developmental View on Creativity:

- Available to all - within the scope of all jobs
- Released through training and development of personal potential
- Encouraged or discouraged within groups according to their climate
- Escapes from personal stuckness

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## Conceiving Ideas

- Problem is understood =>
- The "Pain" is recognized =>
- Demand is formulated =>
- Solutions occur



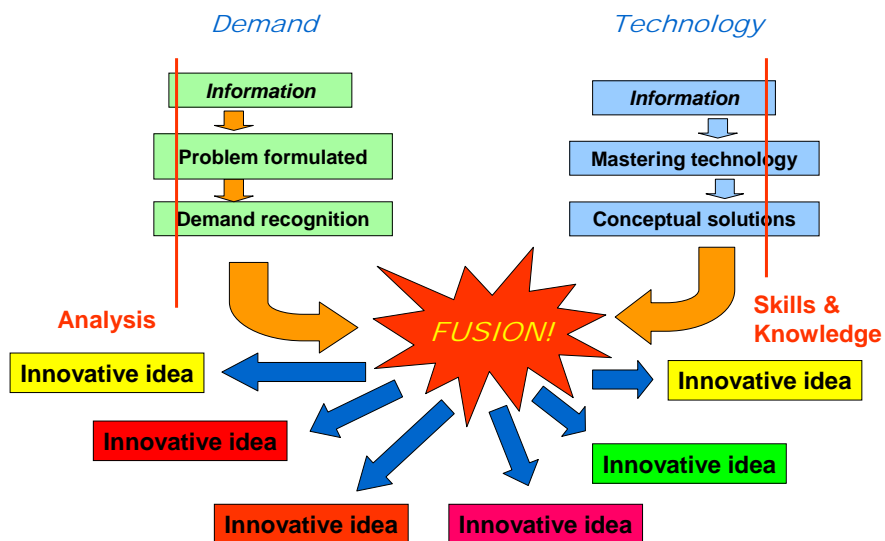
The World will end in One hour. *What will you do?*

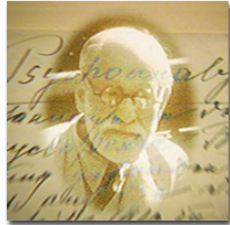
I will spend fifty minutes figuring out what is the problem and ten minutes in solving it

*Einstein stresses, that understanding the problem is the hard part!*

## The Engineering Approach

(Systematic product development)



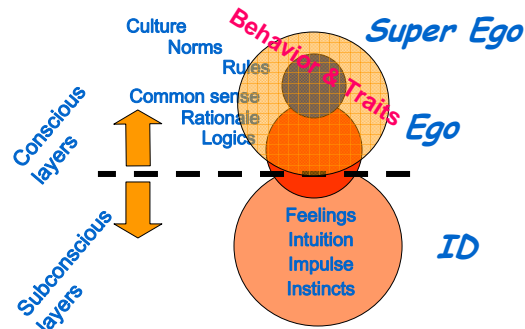


## Sigmund Freud 1865 - 1939

### Sigmund's Personality Model

Ideas are created when the unconscious layers are provoked by the conscious layers not being able to produce solutions to specific urgent problems.  
(*Frustration and anxiety prevails*)

The unconscious layers return myriads of ideas which are filtered in the boundary layers between the conscious and the unconscious



*Freud's major achievement: the existence of - and relationship between the conscious and the subconscious layers of the human brain*

### Points from Freud's Personality Model:

#### **Theorems** (*Unprovable statements – but accepted as truth*)

- The subconscious layers can be provoked into generating ideas by being fed with problems
- Unconscious material cannot be made available voluntarily
- Ego (rationale) is the Guard Dog

#### **Creativity as related to our objective requires -**

- A correct formulation of the problem
- Stimulation (*frustration and stuckness prevails*)
- An open filter (*a receptive ego = apply common sense, logics and rationale gently*)
- Time

## An appropriate filter:

Keep the mesh open: don't kill strange ideas

### Suitable criteria for filtering, first run:

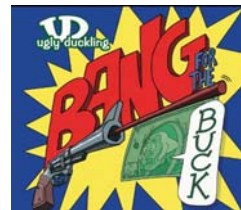
- There must be a customer with real pain – and money
- Build upon your personal competencies
- Must be interesting: an idea that you are willing to invest your life in. *(more specifically: this course = 125 hours)*
- Eccentric, funny and crazy - is OK at this point.

*The distance between genius and madman is often short*

## An appropriate filter:

### Second run: tighten the knots

- **Many customers**
- **Wealthy customers**
- **A lot of pain**
- **A real pain-killer**
- **Knowledge** (yours and your team's)



## Preconditions that spur Creativity:

### Personal incentives:

- You desperately want to set up a company
- You want your company to become a success
- Hence you need good business ideas

*Urges, feelings and ideas that are tied to anxiety, conflict and pain, and you're completely stuck = everything that drives the ID*

### Opportunity-driven creativity further thrives on:

- Domain knowledge
- Business acumen
- Training
- Systematic diligence
- Repetition = production of ideas => more and better ideas

## Where do People get Their Ideas?

- **Start a company and see what happens**  
*The Job-shop*
- **Use your eyes and imagination - with a purpose**  
*Opportunity-driven Inventor*
- **Break out – make a spin-out**  
*Find opportunities in your domain*
- **Be disciplined and productive**  
*One idea per person per day*
- **Be a spy**  
*Build on others' success*
- **The top-down approach**  
*From mega-trends to idea*
- **The Forest Gump Approach**  
*Be there – be visible – be pro-active  
socialize – do good to others -  
and leave the rest to LIFE  
(Luck is earned, you know)*

## From Idea to Business I

### Get to know the market

Michael Porter's Market Model is a good entry

- The buyers
- The suppliers
- The competitors
- The threats, opportunities and trends
- **Competition: what is important?**
- **Where are your niches**
- **What strategies will work for you?**
  - The sleeping Lion
  - Riding the Tiger
  - The Trojan Horse
  - Let Mr. BIG lead you by the hand
  - Numskull Jack (Klods Hans)
  - The moving Target

## From Idea to Business II

### Assessing your business model:

The early indicators of business

- Sparring and consultancy
- Analysis: rough estimates and calculations
- Analysis of market and competitors: use the web
- Experimental work
  - *Technology: a prototype*
  - *Response: invite customers to your lab*
  - *Market: go out there, speak to customers, set up collaborative testing. See how your product really works!*
- Plan how to execute – and do it!  
*Entrepreneurs are doers - not planners!*



## Cases 1

### **Device for sleep apnea diagnosis:**

#### **Pain:**

Obstructive sleep apnea syndrome (OSAS) is a severe breathing disorder. An estimated 160.000 Danes suffer from OSAS. Presently, ambulant diagnosing of OSAS is not very accurate and is also troublesome for the patient. Hence large additional expenses are added due to re-diagnosis and treatment of healthy patients at hospitals.

#### **Value creation:**

We will manufacture and sell an affordable device for ambulant diagnosis of OSAS, able to provide point-of-care parameters of an unprecedented quality to the medical practitioner. This will reduce costs for the hospital by minimizing re-diagnosis and treatment of healthy patients. Furthermore, our method will be more convenient for the patient.

#### **Jury:**

Doctors, hospital management and patient associations

## Cases 2

### **Queue Management System**

#### **Idea:**

A SMS Queue Management System that predicts waiting time and notifies the user using mobile connectivity.

#### **Pain:**

The pain seems to be end user's waiting time, but the real pain is with major management queue system companies that fight for market shares in a highly competitive and stagnant market

#### **Value Creation**

Introducing our SmsQueue system is expected to increase the sales of ordinary queue management systems by 3%-5% simply because it draws buyers attention and kills the pain for the end users.

#### **Jury:**

CEO of management queue system company. Decision maker from authorities. local Authorities, post offices, banks, restaurants, and anywhere needing a queue management system.

## Cases 3

### **Digital audio amplifier**

**Idea:**

A digital audio amplifier for the (semi-)professional audio market with a state of the art electronic design.

**Pain:**

Today's analog amplifiers for (semi-)professional use are big and heavy and produce a lot of heat. People traveling with their equipment such as DJs and mobile sound crews suffer from back pains and overloaded vehicles and therefore have an interest in keeping the size and the weight at a minimum.

**Value creation:**

Lighter, smaller and also less heat producing amplifier, which means no fan is needed. All without compromising the sound quality or the power of the amplifier.

**Jury:**

Primarily DJs and companies renting out audio equipment. Secondly cinemas where the heat production is of interest.

## Cases 4

### **Mobile-free environments**

Mobile phones frequently ring at the most awkward moments, embarrassing 3. parties and making owners feel guilty and ashamed. We provide "radio-dead" anechoic environments where mobile phones do not work.

**The Pain:**

Audience and performers in theaters and cinemas are disturbed by ringing mobiles – and even by people answering or calling from mobiles during a performance. This reduces the experience and creates problems for the organizers, who involuntarily deliver a poorer product.

**Value proposition**

A guaranty to the audience of full value for the money. A safe environment for absent minded people. A quality stage for actors and musicians. A protection against ruthless mobile phone users. An asset that attracts more audience to theatres and cinemas

**Jury:**

Cinema-, theater- and opera house management. Artists and their audience as well.

## Cases 5

### **Garbage transportation**

Removing urban garbage from deposit locations and load it on trucks is a demanding job, which requires physically fit and strong persons. Sickness absence and early retirement is widespread.

#### **Pain:**

Garbage men have to pull many garbage trolleys every single working day. The garbage trolleys easily weigh about 100 kg, and the access roads are bumpy.

#### **Value creation:**

A smart hand truck with an electrical motor that helps garbage men to pull heavy loads will create a healthier working environment and thus reduce sick absence and early retirement

#### **Jury:**

Garbage collection companies fx: R98 and local companies.  
Industrial truck suppliers fx, Jungheinrich..

## Cases 6

### **Stock market consultancy service**

This start-up is working with software development of stock analysis.

#### **Pain:**

New investors need guidance about which stock portfolio is optimal for them.

#### **Value creation:**

Private investors can benefit from increased interest of their investments. They will explore what their true investment profile is. They will via simple graphs learn about the mechanisms in the stock market and how these mechanisms interact.

#### **Jury: (prioritized from left to right):**

Private investors, private investors' associations, investment brokers, banks, auditors and lawyers consulting private investors, companies seeking private investors or planning IPOs.

## Cases 7

### **Obesity combat**

We are in the field of web based fitness.

**Pain:**

Obesity is an increasing problem in society, and people can't find the time to go to the gym.

**Value creation:**

The company offers a membership website with professional and capturing training exercises and nutritional advice, aimed at weight loss.

**Jury:**

Obesive people and their organizations and families, medical advisors, doctors and politicians within public healthcare. professionals within fitness and nutrition.

## Cases 8

### **Navigating the CU-SCIENCE offerings**

We are in the field of matchmaking.

**Pain:**

It is a detective-like task, for students at the faculty of science to discover the options that they have available within bachelor's and master's thesis, company internships or projects.

**Value:**

Our simple web portal will allow students to easily find a project of interest, and to earlier make a decision of where and what they wish to work with. For employers and scientists, the web portal will give them a better chance of finding a qualified candidate, and of course exposure.

**Jury:**

Students, scientists and employers

## Cases 9

### **A Venture Cup winner:**

INVAC is working on vaccines enhancing technologies applicable to all cancers and infectious agents

### **Pain:**

Approximately half the population in the western world die from cancers and infectious agents

### **Value creation:**

INVACs technology has the promise to allow treatments of hitherto intractable infectious agents and tumors. It can also replace many existing technologies due to increased efficiency, reduced production cost and more practical administration.

### **Jury:**

The clinical scientific community. Health authorities and health insurance companies. Big pharma who would license the technology

## Cases 10

### **Smart bicycle cargo concept**

Denmark is the land of bicycles and foul weather. A high proportion of bicycle riders wear helmets regularly.

### **Pain**

Unfavorable Danish weather conditions easily spoil cargo transported on a bicycle. Further, a bicycle helmet is inconvenient to carry and store in between trips.

### **Value proposition**

A bicycle basket that protects cargo in foul weather in a locked compartment that allows the user to safely store items between trips. One such item is the bicycle helmet.

### **Jury**

Direct customers: retailers like bicycle shops and supermarket chains

Indirect customers: end users, in our case Danish cyclists, both male and female via their bicycle organizations.

End of the day

Coming up next:

**Business planning**

*- and meetings*