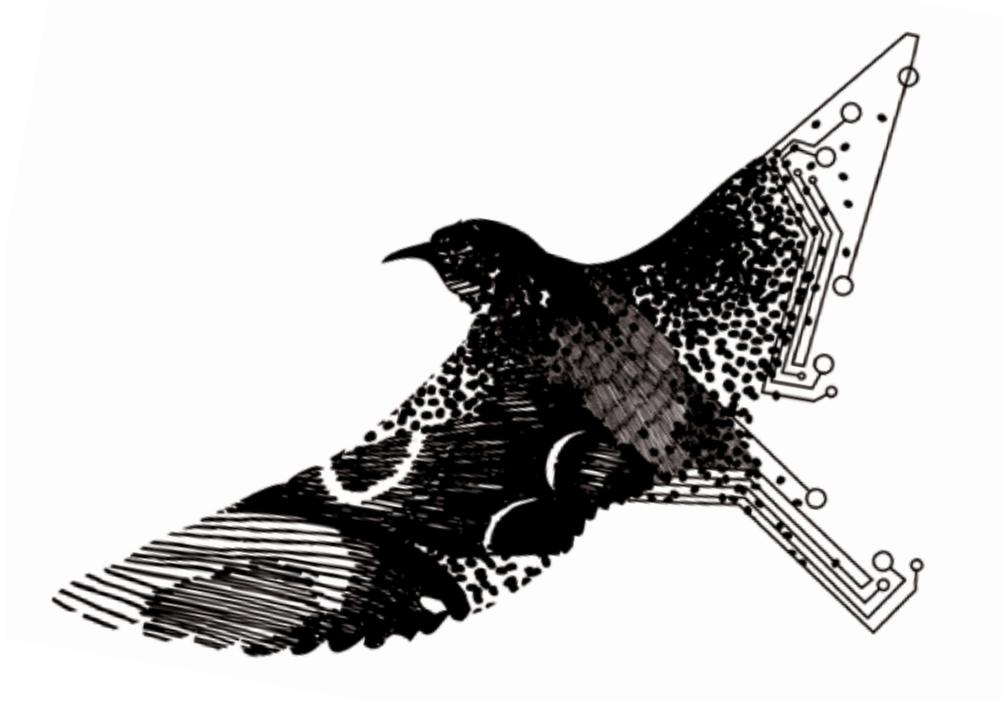




# EVALUATION REPORT INSIGHTS AND RECOMMENDATIONS



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Katapult, University of Copenhagen  
November, 2013

# Table of contents

Background of this Report.....	1
Structure of the Report.....	2
Organizing the Summer School.....	3
The Summer School 2013: Innovation Inspired by Nature.....	4
<i>The Summer School in Facts</i> .....	4
<i>A Theme that Embraces Multidisciplinary</i> .....	5
<i>The Course Literature</i> .....	5
<i>Process Design</i> .....	5
<i>The Camp Format</i> .....	5
<i>Kick-off Day</i> .....	5
<i>Course Program for Students</i> .....	6
<i>Internal Program for Staff</i> .....	6
<i>Double Diamond Process Model</i> .....	6
<i>Deliverables as a Steering Tool</i> .....	7
<i>The Student Teams</i> .....	7
<i>Communication Strategies</i> .....	8
<i>Working with Company Cases</i> .....	13
Conclusions and Future Suggestions.....	15
<i>The Academic Theme</i> .....	16
<i>Themes of Lectures</i> .....	18
<i>Process Design</i> .....	20
<i>Working with a Case</i> .....	22
<i>Collaboration with the Companies</i> .....	24
<i>The Role of Facilitation</i> .....	26
<i>Team Composition</i> .....	28
<i>The Organization</i> .....	30
<i>The Camp Format</i> .....	32
<i>The Internal Communication</i> .....	34
<i>Press</i> .....	36
Conclusion.....	38
Appendix: Table of Contents .....	39

# Background of the Report

This report is written by the staff of Katapult, who carried the main responsibility of organizing, developing, and coordinating the summer school Innovation Inspired by Nature in 2013. Before describing the summer school in detail, here is an outline of the context of the summer school:

Katapult is the Entrepreneurial Greenhouse at the Faculties of SCIENCE and HEALTH at the University of Copenhagen (UCPH) and a partner in the project Next Generation (NXTGEN).

NXTGEN is a 4-year-collaboration between Copenhagen Business School (CBS), Technical University of Denmark (DTU), and UCPH. NXTGEN has been financially supported by the European Social Fund and Vaeksthus Copenhagen. The aim of the project is to enhance students' competencies in innovation and entrepreneurship in the above-mentioned universities.

From the outset multidisciplinary has been prioritized with regard to collaboration. Organizing and developing an innovation summer school, whose purpose was to help bridge the gap between the different academic staffs and the different students of the universities, has therefore been one of the key projects in Next Generation's portfolio.

In the duration of Next Generation there have been 4 summer schools, which have been hosted by the different partners in the project:

- 2010: Summer School in Entrepreneurship, hosted by the Department of Economics, UCPH;
- 2011: Service Innovation & Service Design, hosted by Department of Cross-Cultural and Regional Studies, Faculty of Humanities, UCPH;
- 2012: Cleantech Innovation, hosted by CSE-lab (Copenhagen School of Entrepreneurship), CBS;
- 2013: Innovation Inspired By Nature, Hosted by Department of Plant and Environmental Studies (PLEN), Faculty of SCIENCE, UCPH and Department Of Management Engineering, DTU

In developing the summer school of 2013, Katapult has used the experiences from the previous summer schools, especially the 2011 Summer School developed by Katalyst at The Faculty of Humanities at UCPH.

The purpose of this report is to give an insight into the comprehensive work of organizing an innovation summer school, which we hope can inspire both the academic and administrative staff who wishes to execute similar initiatives.

# Structure of the Report

The evaluation and conclusions presented in this report are based on qualitative interviews and quantitative data from surveys with students, lecturers, facilitators, and participating corporations of the periods before, during, and after the summer school.

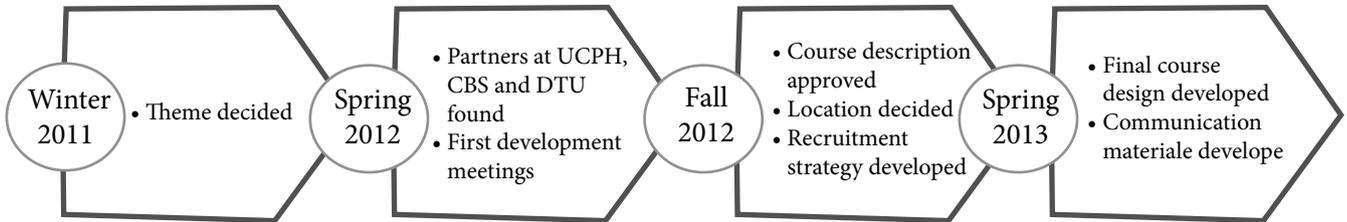
Firstly, we will get you acquainted with how we organized the summer school 2013 Innovation Inspired by Nature. On the next pages we will summarize the process – from the course description, to the process design, to the people involved, and the communication strategies.

Secondly, we will present you with some suggestions on the different parts of the summer school. These suggestions will be presented together with conclusions from the evaluation instead of retrospective reflections.

After these two parts you will find the data and appendixes with material from the summer school.

# Organizing the Summer School

The first meeting, which focused on the scope and theme of the summer school was held at Katapult in December 2011. As time progressed more people got involved in the development of the summer school. Here an extract of the timeline:



Find the detailed timeline and staff overview in appendix A.

Different departments and people were responsible for the organization of the summer school. An overview of the main partners involved:

**Next Generation  
Funding**

**Katapult, UCPH, SCIENCE**

Responsibilities:

- Coordination
- Course and process design
- Deliverables
- Recruitment of staff, students and companies
- Administration
- Communication
- Evaluation

**Dep. of Plant and Environmental Sciences, UCPH**

Responsibilities:

- Course responsible
- Course and process design
- Lectures on biology
- Expert counselling sessions
- Exam

**Dep. of Management Engineering, DTU**

Responsibilities:

- Course responsible
- Course and process design
- Lectures on biomimicry and creativity
- Expert counselling sessions
- Exam

**Dep. of Management, Politics and Philosophy, CBS**

Responsibilities:

- Lectures on Innovation
- Course and process design
- Location of the summer school

# The Summer School 2013: Innovation Inspired by Nature

The objective of the summer school was to offer a course for students from UCPH, DTU, and CBS, which could inspire new perspectives on the application possibilities of their education in a collaborative setting. The summer school entailed theories of biology, innovation, and interdisciplinarity as well as a practical innovation process based on solving real problems from external organizations in multidisciplinary student teams. By framing the course this way the aim was to enable a theoretical and practical approach to learning and offering an overall theme 'Innovation Inspired by Nature' that would embrace academic backgrounds represented at the three universities, enabling the students to apply their academic background in the teamwork.

As described the course design was based on our experiences from previous Next Generation summer schools and our experience with integrating Innovation and Entrepreneurship into the education at the University of Copenhagen (UCPH). From this we designed and facilitated a summer school course with a combination of workshop sessions, lectures, team building, workshops, and exercises.

## The Summer School in Facts

- The summer school was a full-time, three-week-long graduate course conformed to 7,5 ECTS-credits.
- The summer school had 34 students organized in 7 teams. Students from UCPH, DTU, and CBS worked in multidisciplinary teams to develop innovative solutions to challenges provided by 4 companies.
- The course was offered at the Department of Plant and Environmental Sciences (PLEN) at UCPH and at Department Of Management Engineering at DTU. The course responsables were associate professor Annette Bruun Jensen (UCPH) and associate professor Philip Cash (DTU).
- The 4 companies were selected from the service industry, private and public companies. These companies challenged the 7 teams of students to create new solutions inspired by nature to a specific problem, process or design.
- 4 facilitators accompanied the student teams and the classes in general.
- All 34 students of the summer school passed the exam.

## A Theme that Embraces Multidisciplinarity

From the beginning, we aimed for a theme that could embrace many disciplines without compromising a single one, hence the theme Innovation Inspired by Nature.

A multidisciplinary context was achieved by bringing together both students and teachers from various disciplines with different interests, and from a number of educational backgrounds (natural resources, biology, biotechnology, engineering, humanities, management, design, and so on).

These subjects were some of the major components of lectures, workshops and discussions during the course:

- Biology, diversity and evolution
- Bionics and bio-inspired engineering
- Creativity, innovation and innovative design
- Team dynamics and working in a multidisciplinary setting

Find the course description in appendix B

## The Course Literature

The course literature of approximately 600 pages was divided into three parts of innovation, biology, and creativity/interdisciplinarity. The students were required to have read the literature before the course.

See the literature list in appendix C

## Process Design

The course was designed, so that the students would go through a process from case understanding to the creation of a final solution communicated via a concept description and prototype.

## The Camp Format

The summer school was designed as a camp-format, where the students were taken out of their 'normal' context from their home university and instead placed together at CBS's studio, a three-level villa with a homely atmosphere, a lecture hall, and several rooms for team work.

## Kick-off Day

The summer school began with a Kick-off day that took place at the ZOO in Copenhagen and entailed introduction to the summer school staff, forming of the teams, introduction to cases and case companies.

The program for the kick-off day can be found in appendix D

## Course Program for Students

A program outlining the activities of the three weeks were handed to the students.

This can be found in appendix E

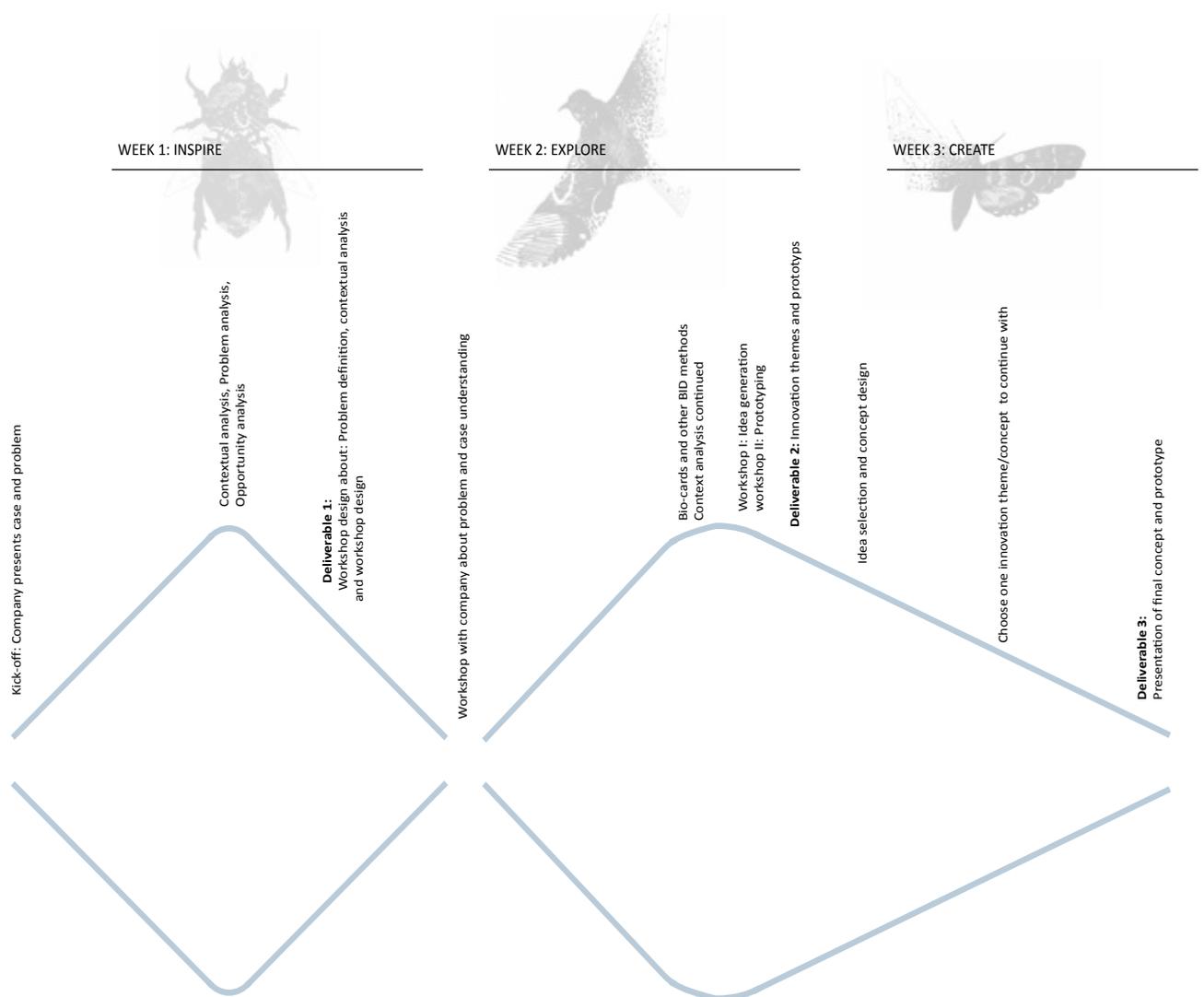
## Internal Program for Staff

An internal program describing the content and format of each activity was used to coordinate and communicate among the staff. To get an overview and understanding of the process design, please see the internal program and then find the handouts and deliverable that are shown for each week.

The internal program can be found in appendix F

## Double Diamond Process Model

The students were guided through the three weeks by the use of the process model Double Diamond with the phases: Inspire, explore, and create. The students were given a handout where the process model was described in relation the three weeks to enhance their process awareness.



*The Double Diamond of 'Innovation Inspired by Nature 2013'*

- Week 1: Inspire was designed to give the students a fundament of knowledge from biology, innovation and interdisciplinarity to work from the following weeks. In addition, they were to gain insights of the problem posed in the cases.
- Week 2: Explore was designed to generate ideas based on the problem in practice.
- Week 3: Create was designed to be a selection phase where concepts and prototypes were to be created for the final presentation.

### Deliverables as a Steering Tool

Based on previous experiences from similar summer schools (i.e. the summer school 2011: Service Innovation), and in order to make sure that the students were moving forward in the process, deliverables were planned every Friday.

This type of structure was created to ensure the learning progress and give the teams a goal to move toward each week. The handouts were given to the students at the beginning of each week and served as guiding tools in relation to the final result.

The student teams were to present their deliverables in a feedback session every Friday afternoon.

These can also be found in appendix G

### The Student Teams

All students had to write an application with a CV to apply for attending the summer school. This information about the students was useful when forming the teams. Katakult was mainly in charge of forming the teams in cooperation with the course coordinator.

The seven teams were composed of 4-5 students from different academic backgrounds to ensure diversity. In addition, the teams had at least one student with academic background covering domain knowledge in relation to the case challenge, e.g., a student studying MSc in Agriculture was placed in the Kongskilde team. The teams consisted of groups of four and up to seven students.

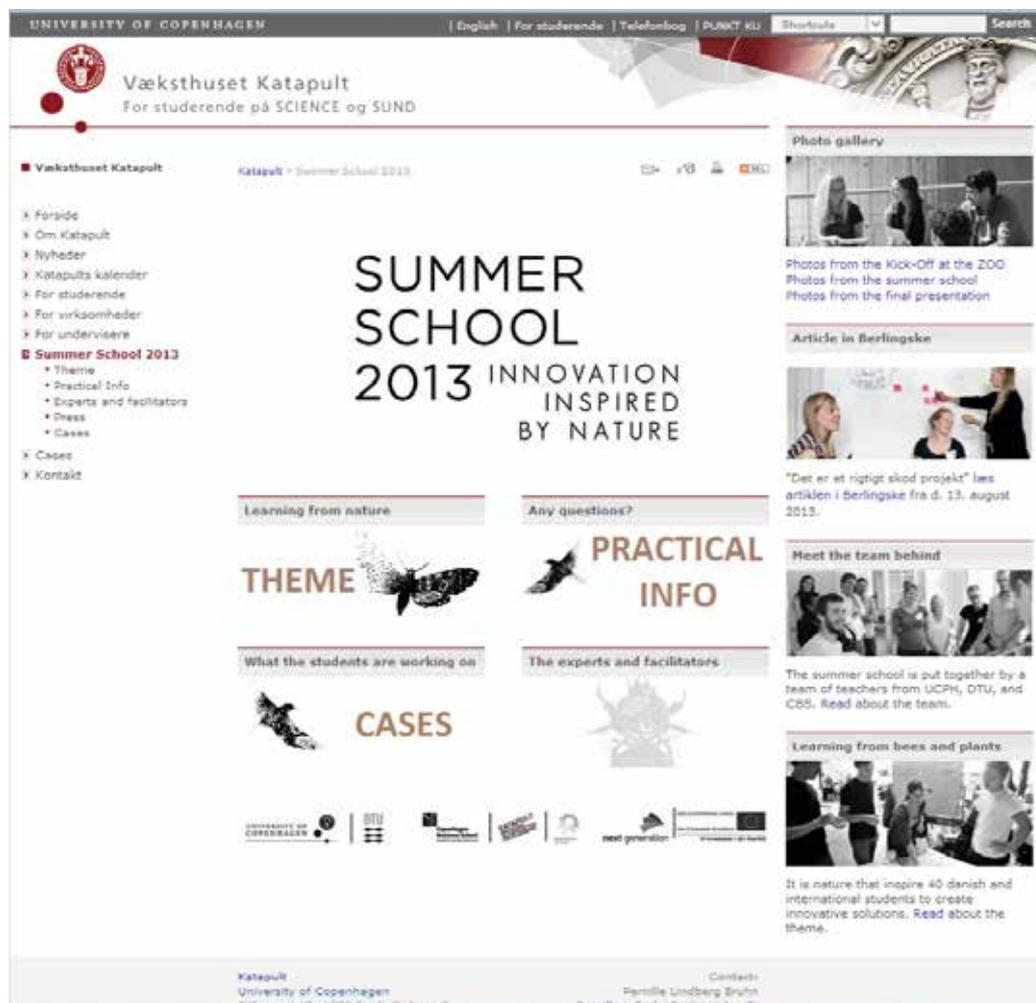
See the application procedure, the list of the teams, and the students' academic backgrounds in appendix H and I

## Communication Strategies

A great effort and work was put into the communicative part of the course. A strategic focus on communication was initiated from recruiting students to the summer school finished.

### *Awareness and Recruiting Participants*

A website (a subsite on [katapult.ku.dk](http://katapult.ku.dk)) was set up four months before the summer school. This ensured the interested students got the sufficient information needed, e.g., about the application procedure, dates, etc. The website was updated with course literature, cases, information about the lectures and external experts and later on with pictures from the course, press release and the published articles in the media. In relation to the website a graphic identity was created for the summer school. The purpose was to achieve a certain recognizable identity and give the digital and physical material a similar look.



A newsletter was created in February 2013 where interested students could sign up and receive information about the summer school. The newsletter was sent out during the spring with important information, e.g., theme, course description, application date, etc.



**ARE YOU A STUDENT OF HUMANITIES OR SOCIAL SCIENCES?**

AUGUST 9-30 2013 7.5 ECTS CREDITS

Take part of this year's summer school and get an extraordinary opportunity to bring your expertise from humanities and social sciences into play. Use your field of expertise in cross disciplinary teams and with nature as your inspiration you will participate in developing new and innovative solutions to real life cases offered by external companies

WWW.KATAPULT.KU.DK/SUMMER\_SCHOOL2013




**ARE YOU A STUDENT OF SCIENCE OR TECHNOLOGY?**

AUGUST 9-30 2013 7.5 ECTS CREDITS

This summer school is your opportunity to use your academic knowledge in an innovative way. With nature as your inspiration you will participate in developing new and innovative solutions to real life cases offered by external companies. Since the work will be done in interdisciplinary teams, you will get a unique opportunity to learn how to work with people from very different fields and identify your own competencies.

WWW.KATAPULT.KU.DK/SUMMER\_SCHOOL2013



A package of printed communication material was designed to create awareness about the course and recruit students. The package consisted of: Roll-ups, flyers, posters, and postcards all with the design and logo of the summer school. Three different types of postcards were created to address students from all disciplines and faculties such as humanities, social sciences, natural sciences, and technology studies. These postcards were placed around the universities. The different information material was also presented via different events around the different university campuses where the administrative staff could meet students who could be recruited for the course.

### *Internal Communication*

After the deadline for registration, the admitted students were invited to join a closed group on Facebook. This was made to maintain the contact with the students and keeping the spirit high. The students had the chance to “see” each other via the Facebook-page and the communication manager could post formal information, e.g., about the kick-off day or the literature, but the page was also useful for informal information, e.g., competitions and other Innovation and Entrepreneurial (I&E) activities relevant for students with interest for innovation. The summer school staff was also invited into the group to keep the activity going and create a life before the three weeks began. The students later explained that they used Facebook to get in contact with the other students from the course, retrieve information on events, stay updated, and share knowledge with the other students, for example an interesting lecture on creativity or share a video prototype created for the case.

The digital platform Dropbox was used to collect and share all important course information. Two different Dropbox-folders were created: 1) for the academic and administrative staff; 2) for students.

The Dropbox for students was accessible to the students a month before the course started and here they could retrieve the literature list, all the readings, find formal and practical information regarding time schedules, hand-outs, download lecturers slides, find information about the case description, etc. The students also used Dropbox to upload their Friday deliverables and logbooks.

Dropbox for academic and administrative staff was created a month before the course began. Different folders were made to make existing material and the material in pro-

gress available at all times. Documents describing the organization, roles and responsibilities were uploaded. A detailed schedule of the course and a playbook was uploaded - always with the newest details. Here the lectures could upload their presentations and slideshows, literature, etc. A list with details about the students and the teams was kept up to date here. Also, the exam details and meeting reports was available.

Navn	Ændringsdato	Type	Størrelse
Course description	24-05-2013 13:58	Filmappe	
Documents for students (arbejdsmappe)	27-08-2013 13:09	Filmappe	
Exam	11-09-2013 13:29	Filmappe	
Grafik	13-08-2013 11:44	Filmappe	
INSPIRED BY NATURE - Photos 1st week	02-09-2013 11:46	Filmappe	
Kick-off day	04-10-2013 11:37	Filmappe	
Literature	28-10-2013 12:40	Filmappe	
Meetings and notes	16-09-2013 10:51	Filmappe	
Planning, coordination and internal docu...	04-09-2013 11:04	Filmappe	
Slides from lectures	28-08-2013 08:42	Filmappe	
Sommer skolen 2011 om Service Innovati...	24-05-2013 13:58	Filmappe	
Teams (Information about students)	05-11-2013 12:44	Filmappe	
Exam schedule KU PLEN	28-08-2013 17:36	Microsoft Excel W...	19 KB
Final presentation at DARE2 mansion - K...	30-08-2013 10:00	Microsoft PowerP...	5.260 KB
Final presentation at DARE2 mansion (Ni...	30-08-2013 10:00	Microsoft PowerP...	5.258 KB
Final presentation at DARE2 mansion	30-08-2013 10:00	Microsoft PowerP...	5.260 KB
General information (teachers and facilit...	24-07-2013 14:56	PDF-fil	343 KB
Summer school 2013	09-10-2013 08:43	Microsoft PowerP...	4.046 KB
The biocard BID method	17-05-2013 15:39	Microsoft Word D...	21 KB

The Dropbox for students and staff made it possible for everybody to upload and update important documents from any place with internet and this meant that anyone with access to Dropbox was up to date with any new information about the course. To ensure all staff was informed about the information in the Dropbox, e-mails were sent out. To inform the external participants, e-mails were sent frequently to make sure all practical and formal information was passed on before the course began.

### *In the Media: Strategy and Coverage*

A month before the summer school a communication strategy was developed. This involved creating a list of press contacts and a press release. The week before the summer school a personal contact was taken to some of the bigger newspapers. Berlingske was promised the solo story about the summer school and was the first one to cover the course. This created awareness about the course and more media became interested in the theme and the cases. Also, important university media was contacted via personal contact to certain journalists. This resulted in deeper reportages and photo coverage in the media.

An updated website and a ready press release created a coherency between the online platforms and what was going on at the summer school. This was pivotal when contacting the media. With a focus on one case City of Copenhagen and the theme Innovation Inspired by Nature, the summer school made an interesting story in the press release. This resulted in many newspapers showing an interest in the topic and covered the summer school. This created good publicity about the summer school and awareness about the offer for interested students, but also teachers and companies interested in collaboration in the future. The communication strategy resulted in a great coverage in the broad public media, especially in those papers close to the primary target groups such as graduate students and university educators.

The published articles are the following and can be retrieved in appendix J (most articles are in Danish):

”Det er et rigtigt skod projekt” read the article in Berlingske from August 13, 2013.

”København vil af med skodproblem” read the article at dr.dk from August 14, 2013.

”9 universitetsfolk vil knække cigaretskods-gåde” read the article at Ekstrabladet from August 15, 2013.

”Top biomimetics theorist in Copenhagen” read the article at University Post from August 27, 2013.

”In pictures: Nature inspire innovation” read the article at University Post from August 27, 2013.

”Naturen er fyldt med gode idéer” read the article in Berlingske from September 1, 2013 (pdf).

”Sol og strand eller sommerskole?” read the article in Studentermagasinet Humanist from September 4, 2013.

”Gave til rygerne skal afhjælpe skraldeproblemer” read the article at DR Viden from September 8, 2013.

As a part of the communication strategy a photographer was hired to take pictures during the summer school. The purpose was to collect pictures that told a story about what was actually going on at the summer school and to be able to give material to journalists, who wanted to do a reportage. The photographer took pictures of the kick-off day, a prototyping workshop at the Studio, and at the final presentation. The pictures were uploaded each week on the website and Katapult’s official Facebook-page. Each album on Facebook was highly popular and reached more than thousand viewers and therefore created a lot of awareness and interest in the summer school.

Katapult's official Facebook-page was updated frequently during the course with information about the summer school and the participating students, companies, and lectures. This was another step in the communication strategy towards creating awareness. The purpose was to show the public how I&E summer school looks like visually and how it is operated. This also created awareness about Katapults I&E activities in general. During the three weeks of the course the posts and links on Facebook reached more than 1100 people.



## Working with Company Cases

To embrace the focus of diversity and multidisciplinary of the summer school, Katapult wanted the company cases also to represent a range of different kinds of organizations and companies.

Finding the companies was not without a struggle. In the beginning, we tried to go via the official channels at UCPH, but failed at communicating in a manner that attracted interested partners. Therefore, we went through Katapult's and the staff of the summer school's network, which proved to be more efficient. Through these channels we managed to find four very different organizations and companies: Kongskilde Industries A/S, PPG Industries, Dare2, and the City of Copenhagen/Center for Renhold. You can read about their case challenges in what follows.

In appendix K you can also read our initial invitation to the companies

### *Kongskilde Industries A/S*

Every year Kongskilde Industries A/S produces over 700.000 pieces of wear parts and additionally over 500.000 spare parts for soil tillage machines. Today 40-60 percentage of a wear part is not worn away when the parts have to be changed due to functional considerations. This causes a major resource waste and loss of time. The main innovative challenge was to develop ideas and inspiration for wear parts for soil tillage implements at Kongskilde. Kongskilde was not looking for solutions that may expand the durability in relation to lifetime only. Kongskilde was also searching for solutions that improve the material exploitation, increasing lifetime/price ratio by upgraded engineering methods and reducing costs.

### *PPG Industries*

PPG Industries is one of the leading global producers of coating. PPG supports industries such as automotive and aerospace all over the world and supplies the overall market with coatings, which include everything from professional painters to DIY users. PPG Industries were looking for new ideas on how to reduce the usage of toxic chemicals in wood coating, preferably a solution without any toxic chemicals, and with no leakage of chemicals. The main challenge was to find alternative ways to protect wood and avoid/eliminate blue stain fungus in coated wood panels.

### *Dare2Mansion*

The company works with Experience Economy in a very diverse knowledge environment. Dare2 needed an engaging and innovative setting for meetings at Dare2Mansion. The specific innovation challenge was to create a new and innovative outdoor meeting area at Dare2Mansion. The design concept had to be inspired by nature and fit the values of the organization and the core competencies of Dare2. At the same time the concept had to push the boundaries for what would normally constitute a meeting area. The concept for the new meeting area was to be physical and placed somewhere at the grounds of the DARE2mansion on Vermundsgade in Copenhagen.

*City of Copenhagen/Center for Renhold*

Department of Cleaning at the City of Copenhagen was posing the students with a well-known challenge in many cities around the world: the cigarette butts that people throw on the streets and not in the garbage bins. Here the students were faced with the challenge of finding alternative and sustainable solutions to the handling of the cigarette butts that pollute the streets of Copenhagen. The concept had to address the behavioral as well as the environmental side of the problem.

Read the four detailed case challenges in appendix L

# Conclusions and Future Suggestions

Based on the response from students, lecturers, facilitators, and the participating companies, this section will present concluding remarks and future suggestions when creating summer schools in the future.

# The Academic Theme

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The theme “Innovation Inspired by Nature” got positive feedback from lecturers, students, and companies mainly because it offers a new way of approaching innovation and looking for inspiration. Most of the students experienced that biology elements in the course functioned very sufficient together with the innovation elements. This approach of using nature as an inspiration source for innovation is rather new for many of the students and the majority describes it as a positive experience. At the same time the theme allows the students to apply their academic knowledge/backgrounds despite the variety of disciplines in the teams.

## **Suggestion**

Choose a theme that embraces multidisciplinary to create inspiration and new ways of approaching innovation.



“By looking at nature and being inspired we were able to go new ways we otherwise wouldn’t have.”

Student quote



# Themes of Lectures

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The lectures were divided into three categories: Innovation lectures, biology lectures, and interdisciplinary lectures to cover the theme “Innovation Inspired by Nature”. In addition, inspirational lectures, counseling sessions, and workshops were planned. The students evaluate all relevant lectures, and they experience new knowledge gained. Especially the combination of innovation and biology made sense to the students in reference of applying the knowledge to their case.

## **Suggestions**

Introduce lectures on idea selection and concept design early in the process, as it helps the students to converge and agree on which ideas to choose. Keep inspirational lectures as a part of the course content for students to achieve fresh perspectives for understanding their case work.

Make exercises in lectures case-related and improve the application of theory in practice. Create a reading list for each lecture to clarify what knowledge the students have to gain from the lecture and also to give an understanding of how lectures on the different topics are connected.



“It was possible to test almost all the theory from the lectures in practice which was nice. I think it helps me to understand and remember the theories to a higher extend.”

Student quote



# Process Design

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The students evaluate the implementation of deliverables and feedback sessions in the process design as elements that made them move forward in the process and contributed to inspire their projects in new directions. The combination of counseling, workshops, and lectures created a good flow and coherence in the learning process and the problem solving.

## **Suggestions**

Choose a process model, e.g., the double diamond model to provide an overall approach for the course and to guide students through the process. Use deliverables as steering tools for the students, and be sure that the deliverables are closely linked to the learning goals for the course.

Outline the purpose, scope, and level when implementing feedback sessions, deliverables, and team meetings in the process design. This makes the students able to utilize them in their process.

Make counseling sessions a part of the process and place the sessions early in the process to give students time to incorporate the feedback from the experts in their concepts and solutions.

Have workshops as a part of the course to give students methods and tools they can use in the problem solving but also in other contexts later in their studies.



“The format forced you to reflect on the things you were taught during lectures!”

“it was cool to have developed a “real” product. When you normally just sit and... calculate...”

Student quotes



# Working with a Case

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The students describe it as challenging yet highly motivating to work with the company cases in the sense that they had the possibility to test the theory in practice while developing a useful outcome for the companies. The cases are in the end the core and reason of the course and contribute with an – for most students – entirely new way of learning theories and using knowledge, because they have to employ everything they have learned in the process of solving the case challenge.

## **Suggestion**

Implement company cases as a course element and catalyze the shift from theory to praxis.



“Working with the case was an eye-opener: we can actually help these people!”  
Student quote



# Collaboration with the Companies

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The companies express that the collaboration with students and the universities have provided impressive results and new perspectives on design and innovation. They found the collaboration with the students satisfying and their expectation to the process and outcome was fulfilled. All the participating companies had a very positive experience participating in the summer school, and they are all interested in signing up for next year.

## **Suggestion**

Create collaboration with companies. It gives the possibility to gain new knowledge and inspiration to the company's business and products. For the universities it creates a link to the outside world.



“It was a really great and inspirational journey towards understanding cohesive innovation across educational boundaries, especially when getting inspired by nature. The problem and the solution were conceived in a professional manner and with a very positive result as the outcome”

Company partner quote



# The Role of Facilitation

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The students used the facilitators to understand the exercises, methods or where they were in the process. The facilitators helped when the students struggled with the case or needed guidance on how to move forward in the process. In many cases the students express that they felt motivated by the enthusiasm from the facilitator. The students also discussed application of methods and theoretical questions regarding innovation and creativity with the facilitator. The facilitators additionally evaluate their role beneficial in the course.

## **Suggestion**

Use facilitators to guide the teams towards a constructive process and outcome.



“We used the facilitator to get moving on whenever we were stuck!”

Student quote



# Team Composition

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The interdisciplinary element has been a great part of the summer school, and the students found it both challenging and beneficial to work in teams with a great variety of students from different academic backgrounds. Consider creating larger teams than merely 4-5 students in similar setups, as the teams are fragile if 1-2 students do not attend. The academic composition is additionally central for the outcome. A broad diversity is important to aim at when designing the teams. Many of the students express that they felt the diversity in their team was appropriate and that it resulted in a higher level of learning because of the diversity of perspective and methods that follow each discipline. Challenges expressed by the students are the difficulties with decision-making, finding a common focus in the problem area and finding a common language in multidisciplinary teams.

## **Suggestion**

Create diverse teams to enhance the team's competencies and increase the learning potential.

Introduce tools for exploring each other's competencies and disciplines to embrace an understanding of the individual and collective competencies in the teams.



”I saw how the skills I have from my academic background worked very well as facilitating the group work.”

Student quote



# The Organization

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The staff was very positive of the fact that people from different domains constituted the core team. It meant that the course could embrace the large group of students instead of creating 'one direction'. When a core team devoted to various disciplines creates a course, it is important that common expectations and academic perspectives are aligned early in the process. Lecturers and facilitators suggest that a workshop early in the planning process would help create a shared foundation and understanding of the course. In addition, a crash course could function as a second incentive to create an understanding of the academic theme and to balance innovation, biology and interdisciplinarity in the course content.

## **Suggestions**

Create a core team with academic staff within various disciplines to embrace a large and diverse group of students.

Implement incentives for mutual understanding between academic staff early in the planning process to ensure a shared foundation for developing the course content.



“One of the things I especially liked at the summer school was the multidisciplinary components and the high engagements of students and teachers (lectures, experts and facilitators).”

Lecturer quote



# The Camp Format

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Having a camp format of three intensive weeks where the students work in the same location was described by the students as enabling creation of a good environment for reflection and ideation. The students gave a positive feedback of the camp format and the surroundings.

One of the challenges of the camp format that the students experienced was a lack of time for work in teams. The three weeks were scheduled with a certain amount of hours for team work, but students were encouraged to work on the case after classes. Evaluation shows that the working space at the studio created a daily routine and a comfortable working environment. A challenge was that the students at times were disturbed by noise in situations where two working stations were placed too close to each other.

## **Suggestions**

Select surroundings that fit both lectures and team work to enable a creative and reflective environment for the students.

Create single working stations for each group. It limits disturbances from the other groups and creates group identity and coherence when the groups have their own space.



“In this space you were allowed to think out of the box. From the university where I come from I would never be in a position where I had to make a prototype out of cardboard! It was a great atmosphere, also with the coffee machine, walls for drawing and work space.”

Student quote



# The Internal Communication

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Using digital media such as Facebook and Dropbox as communication channels made information easy accessible and additionally functioned as knowledge-sharing platforms. This meant that all students and lectures could access these digital platforms right away. Using one single university-dependent platform can create a lot of administrative work, e.g., having to set up guest access. The students especially used Facebook for formal updates on the course. Today, the Facebook-page functions as an online platform, which maintains the network between the students, teachers, and other people involved. It has to be mentioned that it is important that the page is maintained and updated on a daily basis to stay relevant for the students.

## **Suggestion**

Utilize easy accessible and usable communication channels to ensure all students and academic staff can gain access to and share information.



“I used Dropbox to download literature before, and pick up slides and handouts during and after the course.”

“It was really cool to be able to knowledge-share a bit among the groups (Facebook-group.)”

Student quotes



# Press

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Using one scope to catch the media's attention created a broad awareness about the summer school in the media. Several newspapers and journalists noticed the course and subsequently did reportages. In this case the case about cigarette buds in the streets was used at the main scope in the press release, because it is a topic and a problem that people can relate to. This had the indirect effect that the summer school received attention.

## **Suggestions**

Write a press release to send to journalists and make the press release accessible online. Having a press release in advance makes you prepared when journalists contact you and gives you something to send if you lack press coverage.

Find a relevant and popular scope in the course content, e.g., a case or a problem and use it in your press release to create media coverage and awareness.



7 articles were published with the cases and the summer school theme as the main topic.

## Gaver til rygerne skal afhjælpe skraldeproblemer

Der skal mere end grønne skraldespande til, hvis cigaretskod ikke skal ende på gaden.



Smokers column - fem studerendes forslag til at løse problemerne med cigaretskod i gaderne. Foto: Illustration: Mathilde Bisballe, Anna Sofie Kil, Maja Cecilie Aarup Hansen, Mads Emil Guldmann Jensen, lens Bramstedt



# Conclusion

It is a complex and challenging matter developing and organizing a multidisciplinary innovation summer school. However, it is definitely worth the effort, seeing as the gains of the summer school have been substantial:

## *New Academic Collaborations Arise*

The academic staff behind the summer school has decided to continue developing the course and is also in the process of planning an executive course based on their experiences from this year's summer school.

## *Students and Companies Connect*

Many of the students have been invited into meetings and possible future collaborations with the participating companies. This also serves the purpose of preparing the students for work life after graduating.

## *Strategic Goals Are Met*

The summer school has had the attention of the leaders of the universities, as it fulfills several strategic goals such as: Focusing on educating innovative candidates, developing collaboration between the universities and the outside world, and enhancing the study environment.

# Appendix: Table of Contents

## Appendix: Documents for evaluation report

A. Timeline and Staff Overview.....	A1
B. Course Description .....	A5
C. Litterature List.....	A9
D. Program for Kick-off Day.....	A12
E. Three Week Program.....	A13
F. Internal Program.....	A16
G. Deliverables.....	A19
H. Application Procedure.....	A22
I. List of Teams.....	A24
J. Articles.....	A26
K. Invitation to Companies.....	A39
L. Cases.....	A40

## Appendix: Evaluation Data Collection

Research design.....	B1
1. Lectures .....	B2
2. Workshops .....	B3
3. Counseling Sessions .....	B4
4. Learning Goals.....	B4
5. Literature .....	B5
6. Process Design and Format.....	B5
7. Facilitation.....	B6
8. Interdisciplinary Teams.....	B7
9. Academic Theme.....	B7
10. Companies.....	B7
11. Communication.....	B8