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Create the Future
CIEL, Copenhagen Innovation & Entrepreneurship Lab, is a collaboration between Copenhagen Business School, University of Copenhagen and the Technical University of Denmark.

The goal of CIEL is to strengthen innovation and entrepreneurship at the three partner universities. This goal is achieved through an extensive range of projects, which are portrayed in this annual report.
CIEL’S ANNUAL REPORT 2012
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A year ago, the new CIEL alliance was in place and ready for its mission: to create an international lighthouse for knowledge-based innovation and entrepreneurship (I&E) founded on intensive collaboration between the University of Copenhagen (UCPH), the Technical University of Denmark (DTU), and Copenhagen Business School (CBS).

The CIEL alliance demonstrates a new model for collaboration combining the perspectives of each of the three universities to produce unique solutions with substantial societal impacts. In particular, this is relevant in I&E-educations in which CIEL works across educational disciplines with industrial partners to find solutions to complex problems. This cross-disciplinary approach is highly motivating for both students and researchers and produces new and often surprising solutions for industry and society at large.

In this first annual report, you can read more about our experiences so far. CIEL has established nine programmes, applying a wide range of means to leverage I&E among the target groups. The first section of the report covers our educational programmes; the second shows how we support the student entrepreneurship eco-system; and, finally, we give examples of our contributions to research in the field of I&E.

During 2012, CIEL has proven an efficient model for creating high-level projects that are embedded across departments. These novel initiatives have already attracted significant international interest, including a nomination as one of the most innovative projects of its kind in the European Union.

We see enhanced perspectives for reinforced collaboration in the future. In particular, we hope that the collaboration between our three universities will become a major inspiration for a deeper and wider cooperation between academic institutions and private and public organisations in our region. Together, we can build a landmark for science in the Copenhagen Region.

To the teachers, researchers, administrative staff and the CIEL team, who have made extra efforts to support all the projects initiated, we extend our sincere thanks. Also, we would like to express our gratitude to our CIEL co-funders, the European Social Fund, the Capital Region of Denmark and the Danish Business Authority.

We look forward to strengthening our collaboration in the future.
HOW TO CULTIVATE ENTREPRENEURIAL UNIVERSITIES

By CIEL Director Mikkel Trym

Finally – on 20 December 2012, the Danish Minister for Science, Innovation and Higher Education, Morten Østergaard, launches the new national innovation strategy, Denmark – Land of Solutions, in which “innovative solutions to great societal challenges are translated into growth and employment”. The minister is not alone on the stage; he presents the strategy with five other government ministers – indicating the complexity and interconnectedness of this field.

What is most exciting about innovation is that it often begins with a problem. The bigger the problem, the more significant the innovation should be. The focus of the new innovation strategy is on solving societal and global challenges on a large-scale. Seeking solutions for the world’s biggest problems requires new partnerships between academia, business, the public sector and other stakeholders. This is neither a new notion nor common practice in our universities today. The questions are:

How can innovation in our universities focus resources from a variety of disciplines on the challenges we face and, in so doing, create new knowledge and economic growth?

How can we integrate entrepreneurial competences into our educational programmes as an adequate response to a world of greater uncertainty and complexity?

ENGAGE, EMPOWER, ENABLE

In the fall of 2011, we founded the Copenhagen Innovation and Entrepreneurship Lab (CIEL), a trust-based partnership and alliance between UCPH, CBS and DTU, to develop new, collaborative innovation and entrepreneurship programmes for the benefit of students, research and industry. By and large, what the CIEL collaboration is concentrating on is what the new national innovation strategy is trying to achieve by increasing the innovation capacity in students and faculty. The main focus is on engaging, empowering and, thereby, enabling our students ‘to take action’ based in their academic knowledge. Entrepreneurial education is heavily weighted on know-how, know-who and the personal know-why – not just know-about, as is often the case in university education.

BUILDING A COLLABORATIVE PLATFORM

Over the past 12 months, nine cross-university programmes have been developed, resulting in 90 specific projects being implemented in collaboration with more than 200 faculty partners. All nine programmes are novel, create new knowledge and raise standards. The programmes are founded on the concept of creating local/departmental ownership and embedding activities. At the same time, the programmes create wider networks and collaboration among different professional disciplines, engages in partnerships with businesses, and search for international best practice.
Common to all CIEL activities is that they involve:

**INTEGRATION** of innovation and entrepreneurship skills within various disciplines and across departments. This is a very effective organizational model for reaching, embedding and developing entrepreneurial mindsets and competences across universities. Rather than developing a strong ‘centre’, the focus is on developing a network of entrepreneurial change agents across universities. It enables ‘champions’ to play the role of change agents in faculties and departments. It raises the standards, and it speeds up the process of change.

**INTERDISCIPLINARY** approach that enables CIEL to work with ‘wicked problems’ such as the themes of the Entrepreneurship Excellence Programmes (EEP), which deal with environmental sustainability in urban areas, digital services in healthcare and issues related to innovation in the food industry. These problems rarely have clear-cut solutions that can be identified by a single discipline; they are complex and ambiguous. Thus, they serve as a great learning tool for students, who must work together to find solutions to the same problem from different perspectives.

**INDUSTRY-ACADEMIA COLLABORATION.** Partnership with business, both private and public enterprises, provides a strong vehicle for integrating real-world problems into university education and research. Business engagement in combination with teaching provides new knowledge and new practical perspectives for finding, testing and evaluating solutions to ‘wicked problems’. A stronger collaboration with business is one of the most effective drivers of change towards a more entrepreneurial university.

**INTERNATIONALISATION**, a core element in the development of best practices. It is important for all CIEL activities to include an international, intercultural, or global dimension in the purpose, function or implementation of education. This process includes ensuring that the universities internalise findings from international experiences, that staff adapts to new cultures of learning and pedagogy, and that students and staff are able to understand their own culture in a global context. Furthermore, in conjunction with the innovation strategy, Danish business and academia must be prepared for global developments, which is central to the demand for new solutions.
WANTED: ENTREPRENEURIAL SKILLS

Employers from a range of private and public enterprises are now actively articulating the need to develop entrepreneurial skills in all students – rather than just equipping a limited number of graduates for self-employment. Siemens, which sells more than 700,000 different products, estimates that 80 per cent of these products will not exist on the market in five years’ time. According to Jukka Pertola, CEO at Siemens Denmark, that is why entrepreneurial skills are relevant for all employees, because they enable companies and institutions to compete in the globalised knowledge society (Nordic Council of Ministers, 2011/references p. 58). This is also congruent with the public rhetoric of the innovation strategy, which goes beyond industry demands towards articulating the need to equip students at all levels in the educational system with personal entrepreneurial capacities to deal with greater levels of uncertainty and complexity – both at work and in their personal life.

STUDENTS LEADING THE WAY

Improving the education of students and their entrepreneurship support system is an important task in the CIEL collaboration. Students are the primary target and, perhaps, even the most important impetus for change. During the past few years, we have witnessed a crucial development of student-run initiatives, such as Gate to Create, Stardust, Createch, DANSIC, Suitable for Business, Doc:innovate and others. These student-run organisations are to play a very important role as a proactive impetus for making our universities more entrepreneurial.

ACTION

We agree with the Danish Minister for Science, Innovation and Higher Education that there is an urgency for cultivating the entrepreneurial mindset and skills in students and staff. Enhancing cross-disciplinary, academia/industry and international collaborations will be an important catalyst. In this context, the CIEL collaboration has proven very effective. More information about the various CIEL programmes can be found in this publication. Like the Minister, we are standing together to create a sound entrepreneurial culture at our universities.

Finally, we must all remember that entrepreneurial change is achieved by action, not by strategy statements. CIEL is strong proof of that. We are looking forward to seeing how the Minister will operationalise the innovation strategy into concrete, ambitious actions along the lines we have already initiated through our CIEL collaboration. There is no doubt that the CIEL programmes provide a series of novel, hands-on approaches to boosting innovative and entrepreneurial behaviour among students and staff at our universities and, thereby, also a practical take on implementing the national strategy in practice.
FROM FUNDING TO ACTION

EDUCATION

- 5% NETWORK (P. 34)
- 5% INNOVATION PEDAGOGIES (P. 32)
- 7% COURSE DEVELOPMENT (P. 28-31)
- 7% ENTREPRENEUR IN RESIDENCE (P. 42)
- 7% STARTUP SPIRITS (P. 36)
- 42% EEP (P. 16-27)

RESEARCH

- 10% STARTUP DATABASE (P. 46)
- 10% ERA (P. 48)
- 7% ECOSYSTEM SUPPORT (P. 40)
- 7% INNOVATION PEDAGOGIES (P. 32)

CO-CURRICULAR

- 5% INNOVATION PEDAGOGIES (P. 32)
- 7% ENTREPRENEUR IN RESIDENCE (P. 42)
- 7% STARTUP SPIRITS (P. 36)

THE EUROPEAN UNION
The European Social Fund

Growth Forum Capital Region

The three universities

Danish Business Authority

FROM FUNDING TO ACTION

THE EUROPEAN UNION
Investing in your future

The European Social Fund

The three universities

CREATE THE FUTURE

CIEL
MILESTONES 2012

JANUARY
- COLLABORATING: Workshop in which students and academic staff from all three universities collaborate on didactics for new and existing courses.
- CALLING OUT: 1st call made for developing I&E didactics in new and existing courses.
- LET'S PLAY: The first steps are taken towards developing an online gaming platform – Startup Spirits.

FEBRUARY
- MAKING THINGS HAPPEN: CIEL distributes funding for development of I&E didactics in new and existing courses – two courses are selected.
- MAKING THINGS HAPPEN: CIEL supports the student organisation Gate to Create to facilitate a national conference on student-driven I&E in higher education.

MARCH
- CALLING OUT: 2nd call made for ERA research proposals.
- GETTING FOCUSED: National ERA kick-off workshop. More than 50 researchers meet to develop new research projects, and the 1st call is made for ERA proposals.

APRIL
- MAKING THINGS HAPPEN: CIEL distributes funding for development of I&E didactics in new and existing courses – seven courses are selected.
- CALLING OUT: 3rd call made for development of I&E didactics in new and existing courses.

MAY
- CALLING OUT: 4th call made for ERA research proposals.
- LET'S PLAY: Workshop for teachers on didactics in design thinking.

JUNE
- MAKING THINGS HAPPEN: CIEL distributes funding for development of I&E didactics in nine new or existing courses.
- CALLING OUT: 5th call made for development of I&E didactics in new and existing courses.

JULY
- TEACHING TOOLS OF THE TRADE: IBF Summer School on Beer Brewing enrolls students from all three partner universities.
- CALLING OUT: 6th call made for ERA research proposals.
- READY FOR TAKE-OFF: The first eight ERA projects are selected for seed funding.

August
- CALLING OUT: 7th call made for development of I&E didactics for new and existing courses.

September
- CALLING OUT: 8th call made for ERA research proposals.
- GET-TOGETHER: International ERA Partnership Conference at CBS.
- GET-TOGETHER: Steering Committee meeting.
OCTOBER

LET’S PLAY

The Startup Spirits beta prototype is tested

PLEASE EXPLORE

Student’s Guide to Entrepreneurship is released with the October edition of DJØF Student Magazine

MAKING THINGS HAPPEN

Initial development of the International Startup Database

GET-TOGETHER

CIEL network workshop on innovation didactics with presentation by Michel Avital

NOVEMBER

GET-TOGETHER

EEP industry kick-off for Green Innovation in Cities: Life Science, EEP ETU conference at Aalborg University

REACHING OUT

EEP network meeting on the development of the International Startup Database

DECEMBER

NETWORK CONFERENCE

CIEL supports and takes part in WeCollaborate’s conference ‘Viden i netværk’

COMPETITION

Nordic Startup Awards

ERA CONFERENCE

National ERA conference: Copenhagen Innovation Symposium

FOLLOW-UP

Visit from Aalto University – collaboration established and plan for Nordic research collaboration on entrepreneurship

AUGUST

EEP

The EEP Food Entrepreneurs’ first summer school session is initiated with 33 participants from all three universities – Case: Entrepreneurship and Beer Brewing

SEPTEMBER

TEACHING TOOLS OF THE TRADE

The first CIEL semester course, ‘Innovation for Sustainability’, begins

MAKING THINGS HAPPEN

CIEL distributes funding for development of I&E didactics in new and existing courses – 11 courses are selected

NEW COURSE

‘Introduction to Consulting’ at the Department of Anthropology, UCPH. Lecturer: Susanne Branner Jespersen

NEW COURSE

‘Introduction to Entrepreneurship’ at IT University of Copenhagen, Master of Arts, and CIEL.

NEW COURSE

‘Innovation and Entrepreneurship’ at the Department of Food and Resource Management.

NEW COURSE

‘IT Innovation and Change’ at the Department of Computer Science, UCPH. Lecturers: Klaus Marius Hansen and Troels Mønsted

NEW COURSE

The Student’s Guide to Entrepreneurship, 2nd edition, is released

INTERNATIONAL CONFERENCE

SLUSH conference in Helsinki

PRE-VENTURE CUP

Idea competition with three mini-seminars is run at DTU by students for all students at the three universities

LET’S PLAY

The Startup Spirits beta prototype is tested at the Technical University of Hamburg and at CIEL. Now the game has been tested by more than 500 students globally

MEDIA CONFERENCE

International ERA conference: Social Media for Social Purposes at CBS.

HOW DOES IT WORK?

Evaluation of timeframe for education with coordinators of the three EEPs

HOW DOES IT WORK?

CIEL initiates an overall evaluation of CIEL’s key programmes

HONOURS

CIEL is identified as best practice with respect to the promoting innovation by The Tyrol Development Agency; a collaboration is established with Bozen Chamber of Commerce and TIS Innovation Park, South Tyrol.
Education is the core of CIEL and where most of our activities are centred. In the following pages, you can read about our educational projects and meet some of the teachers who are developing new courses in innovation and entrepreneurship (I&E) as well as teachers who teach other teachers in I&E. Finally, you can learn more about our flagship project – the Entrepreneurship Excellence Programmes, which are cross-disciplinary education programmes with a thematic focus and strong links to the industry.

Our method
We work by integrating I&E into and across universities, focusing on interdisciplinary collaboration and partnerships between industry and academia.

The interdisciplinary approach teaches students to work with others with different backgrounds and knowledge. Focusing on real-life challenges provided by industry partners enables students to apply their academic knowledge to a practical problem and learn to use their academic competencies in a professional context.

Programmes

Entrepreneurship Excellence Programmes (EEP)
Three cross-university education programmes with a thematic focus and real-life cases provided by industry partners.

Course Development
Development of new and existing courses in innovation and entrepreneurship for UCPH, DTU and CBS.

Innovation Pedagogics
An innovation module for a teach-the-trainer course in innovation.

Network
A series of projects that support a strong network among our faculty partners and build new alliances with CIEL’s regional, national and international stakeholders.
“We would like our cities to be more beautiful, greener, more sustainable and that’s our future – to actually build a better urban environment.”

Aia Kazlova
Today, more than half of the world’s population lives in cities. By 2030, around five billion people will live in an urban setting. The challenge in the next few decades will be to learn how to exploit the possibilities urbanisation offers. The future of urban dwellers depends on it.

Therefore, cities need to become sustainable and provide good living conditions for their inhabitants. Nudging cities in a more sustainable direction is not an easy task, however, as it is costly to change existing structures. To address these challenges, a collaboration across disciplines must be established. For example, we need mechanical engineers for wind, solar energy and for design issues. We depend on specialists with knowledge about organisms and natural resources for water, waste and biological material. Finally, we must include economists to address the business incentives and many kinds of expertise that are sensitive to the organisational, societal and cultural facets, which also shape the future of urban environments.

The Green Innovation in Cities EEP is an educational initiative aimed at increasing the innovation and entrepreneurship content of teaching activities. It consists of three courses – Urban Greening, Urban Flows, Green Energy – and a summer school session on CleanTech.

Green Innovation in Cities focuses on what is relevant to teach the young people today about the society at large. The focus is not on what should be taught – but, rather, what must be taught.
BEAUTIFUL COPENHAGEN GETTING POORER?

World-class quality of life can be found in Copenhagen, but growth rates are mediocre. The city is looking to the East where Beijing as Copenhagen’s friendship city might help spark growth. In return, Copenhagen can provide ideas to increase the quality of life in Beijing.

“Copenhagen Innovation and Entrepreneurship Lab is an interesting initiative, and I am very happy that you are successfully collaborating with Beijing about the Green Innovation in Cities programme”

Frank Jensen
Mayor of Copenhagen

Claus Juhl, who is CEO in the Municipality of Copenhagen, tells us how the city is promoting green innovation. “Our greatest asset is quality of life. Major international magazines continue to place Copenhagen in the top three of best cities to live in. Among other things, this is because Copenhagen is a relatively green city. Our citizens can swim in the harbour, drink water from the tap, and get around easily on bikes.” However, Claus Juhl points out that we cannot live off the quality of life. What we can live off is exactly what Beijing can teach Copenhagen.

The EEP Green Innovation in Cities collaborates closely with the City of Copenhagen. The city’s strategic focus on and friendship agreement with the City of Beijing inspired the EEP to make the Beijing-Copenhagen Urban Challenge (BCUC) exchange programme.

Each year, the Urban Challenge will take place in a different city, starting with Beijing in 2013.
LOOKING EAST

Claus Juhl explains that Copenhagen does not usually team up with cities in friendship alliances. However, this changed two years ago, when Copenhagen and Beijing teamed up in a friendship city agreement. The reason was twofold, Claus Juhl explains: “It’s both about the exchange of knowledge and ideas and the sale of Danish technology. When the Chinese delegation was shown the harbour and told that they can swim in it, they were stunned. So, we told them that, 10 years ago, our harbour was quite polluted. But we changed the situation through a political decision that included spending money, planning and industry involvement. This specific story points at a successful politically led process, but I believe that Beijing can teach us how companies initiate major change processes.”

“Our vision is that economic growth and quality of life are preconditions”

Claus Juhl
CEO in the Municipality of Copenhagen

Apart from procedures and technology, Claus Juhl says that culture and mindset also play a role in the transition to greener cities: “The Chinese consider cars as must-haves for relatively wealthy citizens. When they visited Copenhagen, they thought it was odd that so many people rode bikes, because they’ve heard that it’s a wealthy city. However, people don’t bike because they are poor, but because it’s easy”.

REDEFINING GROWTH

“It doesn’t matter how much money you earn if you can’t live in your own city”

Claus Juhl
CEO in the Municipality of Copenhagen

potential. Finally, Copenhagen must get better at welcoming international, specialised employees – perhaps, even students who visit Copenhagen in the autumn of 2013 as a part of their course the Copenhagen Beijing Urban Challenge.

—

EEP STEERING COMMITTEE
“Innovation teams should include people with a disposition to generate a stream of novel ideas; people with a disposition to spin ideas together into concepts; people with a disposition to turn concepts into concrete requirements and practical plans; and last but not least, people with a disposition to implement plans into desirable outcome.”

Michel Avital
Professor, CBS
The healthcare system is feeling pressure from an ageing population, with a continuous growth in chronic conditions and less time in which to deal with them. Hospitals are already grappling with these challenges by rethinking treatment. Instead of the classic procedure: problem – diagnosis – treatment, care becomes networked. In leaving behind a linear healthcare process, it is important to maintain control of the various components of treatment, as they can intertwine and merge. But how do we maintain an overview of who does what, when and how? What tools can we develop to manage healthcare? And how can we work with innovation and cross-disciplinary approaches? Digital technologies are fundamental for the development of future healthcare services, but we need to design better digital tools to enhance these services.

The Digital Services in Healthcare EEP seeks to approach this challenge from a service design perspective. It is an entrepreneurial programme that provides students with the theoretical framework and practical skills to allow them to develop innovative digital services. Students are taught to prototype healthcare services better through intensive collaboration with users, project partners from the industry and, in particular, prospective design practitioners with other professional foundations. The course involves perspectives from design research, innovation theory, computer science, entrepreneurship, business modelling and engineering.
INNOVATION ON A NEW LEVEL

To begin, we ask Michel Avital to explain in what ways the EEP is new: “CIEL’s EEP Digital Services in Healthcare aims to develop a multidisciplinary course that focuses on practical innovation, a hands-on approach, and engaged scholarship. Although there have been other attempts to develop similar courses, the EEP is the only one that takes advantage of the breadth of expertise and resources that are available within three Danish key universities: CBS, DTU, and UCPH. As a result, in addition to the extensive academic infrastructure provided by the three universities, students in the EEP courses can also benefit from an exposure to the rich portfolio of theories and practices that stem from the disciplines of science, engineering, and business.”
ACADEMIC MUSCLES

Thanks to the collaboration with colleagues from other universities, Michel Avital tells us, the steering committee is able to build bridges across institutional boundaries: “We get to know better the intricacies of our peer academic institutions and develop a mutual appreciation of the strengths and value of each. We meet and communicate regularly and make an effort to capitalise on our collective capabilities. As a result, we have developed an extensive top-notch curriculum for a course that combines both cutting-edge theory and strong ties to practice.”

When it comes to challenges in setting up the EEP, Michel Avital stresses that they are, first and foremost, bureaucratic: “Overall, we spend about 80% of our time in overcoming red-tape hurdles and 20% of our time on curriculum development.”

RESULTS OF COLLABORATION

Looking ahead, Michel Avital sees the collaboration as a real game changer: “Although the course will be a singular academic gem, the truly radical contribution of the EEP is in the institutional, not the academic, domain. The EEP can potentially pave the way for inter-university collaboration, at least in the teaching arena. Developing and strengthening the ties between universities through joint teaching and curricula is likely to generate value through economies of scale and economies of scope.”

—

EEP STEERING COMMITTEE

Michel Avital, CBS // Henning Boje Andersen, DTU // Yutaka Yoshinaka, DTU // Klaus Bruhn Jensen, UCPH // Klaus Marius Hansen, UCPH // Lars Kayser, UCPH // Trine Middelbo, DIEL

TEACHING DIGITAL SERVICES IN HEALTHCARE

Who

Students from DTU, CBS and UCPH are invited to sign up for courses in the Digital Services in Healthcare programme. Lecturers from the three universities will teach from a service design perspective.

Content

Student projects form the practical backbone of the courses, which enable students to learn from and engage with innovation theory, design research, computer science, entrepreneurship, and business modelling.

Organisation

The working method is collaboration through cross-disciplinary teams on real-world projects. Healthcare professionals and industry partners will help by ensuring that the projects are relevant and have business potential.
“I always thought that entrepreneurship and starting your own business seemed overwhelming – I wouldn’t know where to start! Now, I’m a bit closer to knowing where to start.”

Hage Hjerta
Student at CBS and participant in the Food Entrepreneurs Summer School 2012
The EU food and beverage industry is the largest manufacturing sector in Europe. It affects the health and quality of life of every European citizen. It has impacts on the environment and the economy. In the race to be part of this sector, the food industry in Denmark faces increasing competition from other markets, including the BRIC countries. For that reason, it is crucial to approach the market in a new way. Recognising and targeting societal challenges – such as health, food safety, climate change and sustainability by examining the entire food value chain – will lead the way for the Danish food industry and enhance its global competitiveness.

The Food Entrepreneurs EEP focuses on the application of entrepreneurial and innovative thinking to the food value chain. The goal is to prepare students to become entrepreneurs and/or to engage in innovative practices as they enter the business world. This educational focus on innovation and entrepreneurship in the food industry was implemented during a summer school in 2012 with ‘beer brewing’ as a common platform. A second summer school session will be held in 2013 with a different theme – for example, ingredients, fish, meat, dairy products and/or gastronomy. In addition to the two summer school sessions, several entrepreneurship courses dealing with challenges faced by the food industry are being developed.

The Food Entrepreneurs EEP marks the first step towards a major EU project called FoodKIC in 2014.
Food and drink constitute the common ground for teaching students in the EEP Food Entrepreneurs. The steering committee tells us about the processes, perspectives and problems of the EEP.

**HOW DOES THE EEP CREATE A LEARNING PROCESS?**

Bjarke Bak Christensen from Food Science, UCPH, explains: “First of all, I believe that the EEP makes learning as such much more interesting – I think the students become more interested in studying. The didactics of the programme are extremely interesting, because we can both strengthen the core skills of the student and provide extra learning.

Second, collaboration with companies that provide cases gets the students ready for reality. We are called Food Entrepreneurs, but the programme is also about innovation, how to do things in new ways, and how to create new products.”

Lars Boge Jensen, from DTU Food, stresses that the EEP bridges academic core skills and usage with such elements as production and marketing: “It increases mutual understanding, especially when students work together in interdisciplinary groups”. Lars Boge Jensen has also experienced a learning process among his colleagues: “We have established fora within the institute to discuss entrepreneurship and how we act as teachers. Together with input from inSPIRe, it has created a discussion on the relationship between academic skills and skills required by industry.

**WHAT HAVE YOU LEARNED AS MEMBERS OF THE STEERING GROUP?**

In Lars Boge Jensen’s opinion, the fact that the steering committee members come from different universities has been crucial in creating a feeling of ownership, collaboration, and mutual understanding.

Bjarke Bak Christensen thinks that discussion has been a predominant component of the group’s work: “We have talked a lot about what kinds of courses we want, what the concept is. In this context, it has been interesting to hear how Dorte Wiene perceives the EEP because she has a different perspective on what food is – and on innovation and entrepreneurship as such.”

As an industry partner, Jakob Niemann tells us about the inSPIRe cases studied by the students in the courses: “The framework for this collaboration is – among other things – tapping into a project portfolio provided by inSPIRe, which contains real innovation cases. In this way, we are in the process of establishing a case platform for entrepreneurial thinking and engagement – among students, researchers, knowledge professionals, and enterprises. The obvious benefit and synergy for all these stakeholders is a part of the beauty in this collaboration.”

**WHAT HAS BEEN MOST SURPRISING?**

“I must say that I did not expect that it would be so hard to manage the practicalities. Coordinating courses across universities is difficult because we have different structures and economies, which has sometimes challenged our mutual understanding”, Bjarke Bak Christiansen explains.

“Food and drink constitute the common ground for teaching students in the EEP Food Entrepreneurs. The steering committee tells us about the processes, perspectives and problems of the EEP.”

Lars Boge Jensen
Food DTU
“By collaborating with the Food EEP, we are strengthening our platform for approaching and developing an entrepreneurial focus – not only for students but also for established researchers and teachers.”

Jakob Neimann
Industry Partner from inSPIRe

WHAT IS THE EEP PERSPECTIVE?

Bjarke Bak Christiansen: “The way we teach is a bit like play – fun and driven by interest and a need to explore. That method could definitely expand! Because the cases represent reality, teaching becomes relevant and learning becomes innovative.

For example, the students have developed new concepts for meals for elderly people, who are often undernourished. How do we create nutritious food that the elderly would actually want to eat? A purely academic approach might be to come up with a healthy recipe, for example, with protein and a taste the elderly would like. Then, a famous chef would cook it up perfectly. However, that is not how the real world works because it would be too expensive.

Furthermore, there are logistics, staff, and much more that play a role – the field is complex. I believe that, by incorporating challenges that reflect reality into the teaching, students become much more qualified problem-solvers.”

HOW DOES THIS EEP RELATE TO FOODKIC?

(FoodKIC is a European research grant programme starting in 2014, ed.). Lars Boge Jensen: “We are establishing a good basis for collaboration, which is needed for this major project. It is fundamental for our application next year. Instead of waiting for the start of the FoodKIC project to create a mindset among the teachers, we have already achieved this.”

Bjarke Bak Christensen points out that the triangle between teaching, research, and industry is especially relevant for FoodKIC.

—

EEP STEERING COMMITTEE
Bjarke Bak Christensen, UCPH // Lars Boge Jensen, DTU // Henrik Selsøe Sørensen, CBS // Jakob Neimann, InSPIRe // Maria Olofsdotter, FoodBest // Frank A. Mathiasen, Senior Project Manager, CIEL

“I strongly believe that the Food EEP will contribute to building a platform to incorporate innovation and entrepreneurship as an integrated part of our educational food programmes in the future.”

Dorte Wiene
EEP Development Consultant
TEACHING INNOVATION IN POLITICAL SCIENCE

As a response to the intertwined and socio-political nature of 21st-century challenges and opportunities, the Department of Political Science, UCPH, is currently developing new didactic methods to strengthen innovative competencies among its students.
CIEL’s partner universities are educating a new generation of leaders and competent caretakers who will someday govern our societies, help build our communities, and create a world in which human opportunity flourishes. Since it is evident that we must educate students to take on a broad range of jobs, it may be trickier to answer the question of ‘how’. How should new graduates take on the challenges that face contemporary and future businesses, governments, and civil organisations?

CONFRONTING TOMORROW

A steering committee is currently working to develop new answers to ‘how’ graduates of the department can meet the challenges and opportunities of the 21st century.

With respect to how to implement innovative thinking and a more practice-oriented approach to teaching political science, Karen Lund Petersen says: “It is a question of us, the educators, knowing what skills our students are expected to have in a contemporary, globalised world – and the world has changed in ways we need to take into consideration when teaching our students”. The new approach will be developed and implemented by the department in collaboration with CIEL throughout 2013 and onwards. The aim is to provide students with the tools for understanding, governing and changing complex organisations and thereby meet the growing demand for graduates who can make informed decisions and leverage the opportunities that arise in today’s world.

CONCEPT, PILOT AND IMPLEMENTATION

Karen Lund Petersen and her colleagues now need to solve three key problems to develop and provide a foundation for the new programme:

1) To develop a sophisticated and empirically-grounded understanding of the concept of innovation and implement it with respect to political science.

2) To develop a pilot project that includes at least two different concepts of innovation to be applied to teaching and learning processes.

3) To develop two courses that implement an innovation-oriented approach to teaching in the Department of Political Science.

Karen Lund Petersen explains: “The challenge for this project will be to develop a concept of innovation that is tailored to political science – a concept that not only promotes innovative individual solutions and management but also takes into account the general needs of society. At least two forms of active learning will be tested in this project: a more traditional, cased-based and solution-oriented approach and a model that seeks to challenge the student’s established theoretical understanding of practice and encourage innovation through critical dialogue.”

To be clear, Karen Lund Petersen explains that an ‘idea group’ consisting of researchers, professionals with didactic expertise, and social entrepreneurs is still developing didactic methods to strengthen innovative competencies among tomorrow’s policy-makers.

Ultimately, the Department of Political Science and CIEL are developing this approach not only to respond to existing demands but to ensure that the education takes into account the ambiguous role innovation plays in contemporary governance and policy-making.

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COURSE DEVELOPMENT CONTACTS

Trine Middelbo, CIEL, UCPH // Frank A. Mathiasen, CIEL, DTU // Luise Noring, CIEL, CBS

“This initiative is our way of saying to our students and the organisations that will employ them that the world has changed, and it demands a different approach, whether we like it or not.”

Karen Lund Petersen
Associate Professor
A LABORATORY FOR CHANGE

At DTU, Associate Professor Anja Maier is developing a course that trains the ‘mental agility’ of students who are to work in a constantly changing world.

It all started at CIEL’s ERA Kick-off Workshop; besides teaming up with other researchers on an ERA (Entrepreneurship Research Accelerator), Anja Maier learned that CIEL supports university teachers who want to develop courses in an innovative direction. This led to the idea of writing up a new teaching case about the current changes that are taking place in the way the product development process is organised at Oticon A/S.

“Most changes are ill-defined; you don’t know exactly what the solution is. To handle this and navigate the space of uncertainty is something that the students will learn.”

Anja Maier
Associate professor at DTU Management Engineering

TEACHING CHANGE AND INNOVATION

For a start, we asked Anja Maier how organisation and technology can be mixed in an innovative way: “Basically, the whole idea is to enable and sustain innovation by experimenting with how to cope with both emerging and planned changes. Hopefully, students who complete the course will have acquired mental agility in switching back and forth between different aspects. Collaborating partners get new ideas from the course, and students also get instantaneous feedback from their...
peers and the companies we are working with. That’s what I call a ‘laboratory for change’.

Furthermore, I try to focus on the interaction between engineering and organisational change management and how that contributes to innovation. Looking into both engineering and organisational changes and how you can handle the two processes is in itself innovative.”

Anja Maier also believes that change exists in a network: “You don’t just look at a change locally in a department or company; you see it across the value chain as well. This ‘networked innovation’ is not yet sufficiently pronounced in current teaching material.”

COLLABORATING WITH COMPANIES

According to Anja Maier, innovation is not an empty buzzword anymore: “There is no doubt that companies need to work seriously with innovation in order to stay competitive. In a university context, it is innovative to use current cases provided by industry partners. It’s also great to see how students are motivated by these actual cases, by something that is real and is happening right now.”

In the ’Management of Change’ course, cases come from industry, governmental institutions, and charitable organisations. The cases provide practical examples from which students may begin to identify the need for change by diagnosing the situation. Then, they move on to plan the implementation, review and maintenance of the change for the future situation.

However, the case is ready and waiting once Oticon gives the clearance. Anja Maier explains that, as a result of support from CIEL, she and her students will collaborate with Oticon A/S (a leading Danish hearing aid manufacturer), which has provided an interesting case. Anja Maier stresses that the employees from Oticon have been cooperative and opened up to students. She also values the fact that the case is quite Danish but with a very international angle, because Oticon’s product solutions are sold across the globe.

When asked about the process and collaboration with CIEL, Anja Maier answers, “Everyone is so driven – both in the CIEL network and also the companies I’ve been working with. That gives me a lot of knowledge and energy to continue.”

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COURSE DEVELOPMENT CONTACTS

Frank A. Mathiasen, CIEL, DTU // Luise Noring, CIEL, CBS // Trine Middelbo, CIEL, UCPH

Read about Oticon’s need for innovation in Ingeniøren (in Danish)
INNOVATION
PEDAGOGICS
TEACHING TEACHERS
INNOVATION

There is no doubt that innovation is the new black. Everybody talks about it, everyone does it – or do they? The programme Innovation Pedagogics leaves airy buzzwords behind and gets on with the real change: teaching teachers to teach innovation in existing courses.

Camilla Østerberg Rump from UCPH and Pernille Hammar Andersson from DTU are establishing, developing and implementing a new course for faculty staff. We have asked them why and how.

For a start, Camilla Ø. Rump pins down what the course is about: “First of all, Innovation Pedagogics is a really interesting and important project with great perspectives. Basically, it deals with how we instil the skills needed for university teachers and students to take advantage of opportunities to develop their innovation competence.”

TURNING TEACHING AROUND

Pernille H. Andersson elaborates: “Everything starts in the lecture halls and in the classroom: teaching methods, assessment questions, and aims for learning outcomes help shape students’ skills and knowledge and the way they perceive themselves. By using the proper methods in teaching, we can increase students’ innovative and entrepreneurial skills in many areas. This is an exciting development, and it raises many questions about how and what to teach and which methods to use.”

“It is exciting and challenging to develop a course aimed at teachers who are already competent and experienced. I am really looking forward to working with a group like that.”

Camilla Ø. Rump
UCPH

“We have to keep asking ourselves ‘how can we teach and prepare our students for the reality they will soon meet as professionals?’”

Pernille H. Andersson
DTU

A TRIPLE LEARNING PROCESS

In a way, working with the Innovation Pedagogics course has been a course in itself. Camilla Ø. Rump explains: “Designing and developing the course is an innovation process in itself, and we have engaged in the same kind of teaching and learning processes we want the course participants to go through – and, in turn, want the students to engage in as a central part of their education.”

Innovation Pedagogics is scheduled to start in April 2013.

“For example, the methods may include complex real-life problems such as industry cases, role-play with industry partners, and design in a real-life setting. Additionally, it can also focus on the problem-solving process. These methods train the students to be self-confident, critical and self-directed, and they strengthen the learning of disciplinary knowledge, a win-win situation for innovative competences!”

Camilla B. Rump
UCPH

STEERING COMMITTEE
Pernille Andersson, DTU // Camilla Rump, UCPH // Trine Middelbo, CIEL
NETWORK ACTIVITIES

**Collaboration is a key element in the CIEL alliance.** It is our main objective, and this is why we work strategically to build and reinforce strong networks between our regional, national and international partners and stakeholders.

**CIEL NETWORK GET-TOGETHERS**

With more than 90 projects and roughly 240 faculty partners, students and other associates across the three universities, we accumulate large amounts of knowledge. In order to make use of this knowledge, we regularly host workshops and seminars for everyone involved in CIEL projects. In this forum, we invite one of our faculty partners to present a specific method or challenge and set the stage for dialogue and learning across the individual projects.

**PHD NETWORK**

The PhD network is an ambitious programme for PhDs in innovation and entrepreneurship at UCPH, DTU and CBS. The purpose of the network is to strengthen the field internally by facilitating knowledge-sharing and creating a strong peer community. Furthermore, the aim is to strengthen the ability of network members to navigate towards industry and future employers by providing training, tools and access.
NEW ALLIANCES

We are continuously inspired by our fellow organisations and universities around the world, and we make an effort to learn from them and share our experiences.

OUR FRIENDS AROUND THE WORLD

Aarhus University
Entrepreneurship education workshop series

Aalto University, Helsinki
Forthcoming research application on Nordic DNA in university entrepreneurship

Strathclyde University, Glasgow
Exchange of knowledge on innovation pedagogics

Unternehmer TUM, Munich
Exchange of knowledge on entrepreneurship education

Roundtable on Entrepreneurship Education – REE, Aalto University, Helsinki
Annual international summit

National Council for Entrepreneurship Education – NCEE, UK
The Entrepreneurial University Leaders Training Programme with the participation of CIEL Director Mikkel Trym

ISAGE Trellis Conference, at the National University of Singapore
Gate to Create participated in the conference organised by ISAGE, an international student entrepreneurship organisation

EPOCH Young Entrepreneurs of the Future, Taiwan
Knowledge-sharing, upcoming study trips and collaboration between entrepreneurial students in Copenhagen and Taiwan

CIEL CONTACT: Cathrine Amalie Oldenburg
Our co-curricular activities cover everything that goes on outside the classroom. The term 'co-curricular' refers to the fact that these activities complement and promote our educational activities. Furthermore, they provide a platform for student involvement.

Student involvement is crucial for CIEL. We see students as a driving force to create long-lasting cultural change in university environments, and these bottom-up activities are a great way to create a broader reach and early awareness for students.

**PROGRAMMES**

- **Support for the entrepreneurial ecosystem**
  A portfolio of projects and events that raise the bar for the existing entrepreneurship support system at our three universities.

- **Startup Spirits**
  An online computer game for first-year students at our three universities.

- **Entrepreneur in Residence**
  A pilot project aimed at fostering startups based on interventions.
STARTUP SPIRITS

To create awareness about entrepreneurship at universities through a computer game is completely unconventional and – we believe – a great way of reaching the majority of students.

“Uni is almost over. Final thesis in progress. But, hey, it seems like there’s a buzz about us students starting up our own companies. And, apparently, there’s a bunch of people ready to help. Maybe, I should go for it? Hmm… guess it’s too late now.”

This is a classic situation: The majority of students are on the verge of graduating before they realise that they can do something else with their skills and knowledge, something other than aiming for a salaried job, which is often hard to get in the midst of a financial crisis. At this point, many students also realise that there is a lot of help at hand if they want to start their own businesses (see The Student’s Guide to Entrepreneurship).

The big question is how to get students in their first year of university to start considering themselves as entrepreneurs, so that they have enough time to work on ideas, networks and business plans.

WHY GAMING?

Startup Spirits might just be the answer. It’s an online edutainment computer game for students at UCPH, DTU and CBS. The visuals, sounds, features and structure are assembled as in ‘normal’ computer games, but in Startup Spirits the student must use an entrepreneurial mindset to score high. Obviously, playing the game does not lead directly to the creation of a startup. It is all about the mindset – planting the thought and letting it grow – in a fun and engaging way.

“It’s awesome that you can compete and, then, you can meet with some buddies for a while and really go for it.”

Tue
Student at UCPH

Play at www.startupspirits.dk
We believe that the best way for students to get to know Startup Spirits is to hear about it from fellow students. For that reason, CIEL has focused on an intensive bottom-up campaign. Student organisations, student entrepreneurs, Friday Bars and university media have collaborated with CIEL to spread the word through major events at the universities. The events include music and competitions and are always integrated into existing student activities, both academic and social.

“I think it’s great that innovation and entrepreneurship suddenly can be practiced as a virtual game.”

Adam
Student at DTU

DID YOU KNOW THAT...

CIEL Senior Project Manager Frank A. Mathiasen presented Startup Spirits at a conference at the University of California at Berkeley, which generated interest from King Saud University and Taiwan, among others?

Startup Spirits has been developed together with Contenga, a software company with young entrepreneurs who specialise in startups. Contenga is based in Denmark, Hong Kong and Indonesia, and the company develops its software in Bali.

Startup Spirits was tested in Hamburg in November 2012. 170 students played the game on the first day, and the number grew to +250 players within the following five days.

Startup Spirits has its own ringtone, which you can download at startupspirits.dk.

See what’s happening at
www.facebook.com/startupspirits
SUPPORTING THE ENTREPRENEURIAL ECOSYSTEM

The ‘entrepreneurial ecosystem’ is our label for the many organisations and initiatives that support and promote entrepreneurship at the three partner universities – startup incubators, student organisations, networks, competitions, etc.

ECOSYSTEM SUPPORT PROJECTS

The ecosystem support projects are a portfolio of projects that enhance the ecosystem by drawing on the collective knowledge and experience of our partners. The projects focus on gathering and sharing knowledge between us. This way, we can raise the quality of the entire entrepreneurial support system. In 2012, we initiated the following projects:

**Team Up**
Cross-disciplinary matchmaking for student startups in collaboration with the Copenhagen School of Entrepreneurship (CSE).

**The Student’s Guide to Entrepreneurship**
A map of the entrepreneurial ecosystem. A collaborative project with Katalyst, Katapult, CSE, Venture Cup, Createch, Stardust CBS.

**Internationalisation**
Visualises international opportunities for entrepreneurial students, an ongoing project in collaboration with Katapult.

**Marketing Best Practices**
A manual for marketing activities for organisations working with innovation and entrepreneurship. A collaborative project with Katalyst, Katapult, CSE, Venture Cup, Createch, Stardust CBS.

**Gate to Create Back Office**
Administrative support for student entrepreneurship organisations in Copenhagen. A collaborative project with Gate to Create.

**Venture Cup Data Project**
Moving from numbers to knowledge by using data from Venture Cup participants. A collaborative project with Venture Cup.

With the CIEL platform, we wish to create a forum to facilitate student collaboration, and we are experimenting with new ways to involve students in our own activities – for example, by linking our projects with student-run activities outside the classroom. This was the case when we teamed up with the interdisciplinary student organisation Begriff for an event in order to address the themes of the forthcoming national innovation strategy – see more on the next page.

SUPPORT FOR STUDENT ACTIVITIES

In recent years, there have been quite a few student initiatives that transform universities through innovative, entrepreneurial and interdisciplinary activities. on the Copenhagen campuses, student initiatives are blossoming and we love to collaborate and share ideas with these ambitious student groups.

CIEL CONTACT:
Cathrine Amalie Oldenburg
MARKETING BEST PRACTICE

Why reinvent the wheel? The ecosystem’s support organisations have neither the time nor the budget for large-scale marketing plans and social media experts. On the other hand, we have accumulated many years of experience in communicating innovation and entrepreneurship activities to students.

The marketing best practice project is a collection of these experiences – a toolbox of tips and tricks – by and for those who work with marketing within innovation and entrepreneurship. The toolbox is presented in an online platform that provides concrete cases and best practice examples for everyone to use and be inspired by.

THE STUDENT’S GUIDE TO ENTREPRENEURSHIP

The support system for entrepreneurial students is a maze of organisations, networks, competitions, etc. Where do you start if you have no prior knowledge of the field? The labyrinth might stop you from even trying. To assist potential entrepreneurs, we mapped the entrepreneurial support system in Copenhagen and created a physical and digital map, The Student’s Guide to Entrepreneurship.

BEGRIFF PANEL DEBATE

26 September 2012 at Alexandersalen, UCPH.

Innovation is a concept surrounded by a lot of buzz, but what does it mean and how is it changing the way we look at society? The student organisation Be Griff set out to explore the concept of innovation and its practices in a debate that invited experts from the think tank Monday Morning, the University of Southern Denmark, Aarhus University, and the Danish Ministry of Science, Innovation and Higher Education.

This debate was part of an event series supported by CIEL in connection with the National Innovation Strategy programme launched by the government in December 2012. The debate is an example of how student-run activities complement and enhance our projects.
ENTREPRENEUR IN RESIDENCE

The air is buzzing with good ideas and inventions ready to be commercialised. Sadly, these inventions can get stuck in the pipeline if there are not enough people to embrace and develop them.

ENTREPRENEUR IN RESIDENCE

... is one of the missing links between technological inventions and startups. Monika Luniewska, an innovation agent at DTU Fotonik, has already organised many projects and events within the programme.

The Entrepreneur in Residence programme is a pilot project to help realise startups based on interventions – or technology spin-offs. The project draws on knowledge, e.g., of funding and collaborates with partners who already work with innovation and entrepreneurship. The primary goal is to bring students and serial entrepreneurs together to commercialise unused patents. New startups in real life may be the result. This programme is under development, and all three universities within CIEL are participating.

CIEL CONTACT: Frank A. Mathiasen

TERM SHEET BATTLE

In December 2012, DTU hosted the Term Sheet Battle – a live negotiation between an investor and a ‘spin-off’ entrepreneur

Entering into the world of finance is a whole new game for most researchers who want to turn their shiny invention into a product ready to be sold. One of the usual first steps is to find seed money from investors. In the Term Sheet Battle, participants train their ability to negotiate – to agree on the right amount of seed money and intellectual property rights (IPR).

The battle took the form of a role-play starring ‘The Investor’ and ‘The Entrepreneur’. A large audience of students from all three universities and others in the I&E field (venture capitalists, interest organisations and industry) was present.

“DTU was a perfect battle-ground with an enthusiastic audience of students and scientists who seemed keen on bringing their particular innovations to the market place”

Søren Holmark
Lawyer representing startups, ‘The Entrepreneur’
Startup Weekend is an international boot camp that inspires entrepreneurship. So far, 587 Startup Weekends have been organised in 93 countries. However, only one has focused on research, high-tech concepts, patents and prototypes – namely the Copenhagen Startup Weekend Academia.

On 15-17 June 2012, Science DTU hosted the Copenhagen Startup Weekend Academia. Students specialising in technology, business and design took part and learned what a technology startup can be.

**TICK-TOCK...**

The event centred around a pitch competition in which participating students had 54 hours to form a team, build a business case, and pitch it in front of a jury. In the end, three winning teams were selected in the categories of ‘Best Startup’, ‘Most Innovative’ and ‘Best Demo’. Venture capitalists, patent attorneys and prototyping companies joined to help the participants bringing their projects to the next level. Additionally, 30 mentors showed up to offer their expertise to the participants.

**NEW SCOPE AND BROAD PARTICIPATION**

In Seattle, eyebrows were raised when the headquarters heard about the new concept, which was described as ‘unorthodox and yet highly interesting’. So far, it is the biggest line-up in the Danish academic and innovative environment. DTU, UCPH, CBS, ITU and RUC contributed with their best cases and researchers. The entrepreneurial student organisations – Stardust DTU, Stardust CBS, Gate to Create and ITU Innovators – promoted and organised the event.

The Copenhagen Startup Weekend Academia received support from Science DTU, Next Generation, the Danish Foundation for Entrepreneurship and CIEL.

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Participants from the Copenhagen Startup Weekend Academia
Photos by Thorkild Ahsai Grejersten
THE DATABASE PROJECT

In Denmark, we have unique data that can be used to conduct research on entrepreneurship. CIEL’s International Startup Database Project in an attempt to find the right model for measuring entrepreneurship from a long-term perspective.

In an interview, Professor Peter Lotz explains what the project is about and why it really makes sense to work with data in this field.

ERA

The Entrepreneurship Research Accelerator, ERA, is a programme that supports and grants seed money to new research projects. Thus, researchers are given the time to write thorough and well-thought-out applications for their research project. As CIEL projects, the ERAs aim at increasing and fostering new entrepreneurial research projects at CBS, DTU and UCPH. The CIEL Academic Council (see page 52) selects the ERAs.

The ERA programme will be presented on the following pages with an overview of selected research projects and photos from the ERA kick-off event in January 2012. To gain in-depth insight into what an ERA can be, we have interviewed Professor Niels Kornum about his ERA on multiple stakeholders in the waste and recycling value chain.
WHY IS THERE A NEED TO CREATE THE INTERNATIONAL STARTUP DATABASE PROJECT?

Peter Lotz: “The reason is twofold. First, the three CIEL universities (DTU, CBS and UCPH) need data about their graduates with respect to startup activities. That knowledge is needed because the universities want to help students by giving them the right skills and tools, both in regular teaching and in co-curricular activities.”

“Second, research on entrepreneurship is constantly growing internationally, which is a bit odd because it lacks good data. The problem is that it is very difficult to get hold of useful data about startups because the information is so volatile. There are no really useful public registers, and surveys are often backward-looking, asking such questions as: “Did you want to start your own com-

“Based on recent research, we have tried to develop a comprehensive conceptual model to guide our empirical search for the drivers of startup success. To validate our hypotheses empirically, we intend to link existing databases with additionally generated data, thus creating a new International Startup Database.”

Dr. Rita Faullant
Dr., Assistant Professor, Universität Klagenfurt

In a time of global financial crisis, nations are looking for a startup formula to generate income and keep them afloat. Research in the field of entrepreneurship is constantly growing, but the fundamentals – valid data – are lacking. Professor Peter Lotz tells us how the International Startup Database Project might find that data.
“The entrepreneurship database project provides universities with a unique opportunity to obtain valid insight into the factors that drive the success of startups. We intend to create a research infrastructure that will make startup-related data available to researchers, establishing unique conditions for understanding what really accounts for successful startups.”

IN WHAT WAY IS THE PROJECT NEW?

“Some useful databases do exist, however. In fact, Denmark is quite unique because we have the CPR and CVR registers. The information about individuals is very detailed (who the person’s parents are, where the person attended high school or obtained additional education, how much the person earns, when the person has been employed, etc.). When we add information about the companies with which people have worked (which is done in the so-called IDA database hosted by Statistics Denmark), we have data that is extremely useful for entrepreneurship research and unique in an international context. Some of the best international research on entrepreneurship is actually based on IDA data. However, the IDA database was not created for research on entrepreneurship, and we would like to add additional information to make it even more interesting.

The purpose is to find the right way to obtain and integrate data to create the best research infrastructure. For example, all universities have data on their students: their grades upon enrolment, their grades at university, from studies abroad, and specific courses as well as dates when courses were completed. This data could potentially be integrated into the IDA Database and provide a basis for reliable in-depth research.”

WHAT’S GOING ON NOW?

“The International Startup Database is still very much an ongoing project. Initially, a PhD student mapped the existing research and suggested international collaborators. Recently, Søren Salomo from DTU and the researcher Rita Faullant from Austria have worked with a new approach by asking very fundamental questions: what kinds of data do we need and what exactly do we need it for. Based on these experiences, we are working on finding the right ‘formula’ for expanding data from registers with a long-term perspective. This is a long-term project, reaching far beyond the scope of CIEL, with the purpose of creating a better research infrastructure and designing better study programmes with more solid research results to guide universities through which governments may promote successful entrepreneurship.”

STEERING COMMITTEE
Peter Lotz, CBS // Søren Salomo, DTU //
CIEL CONTACT: Frank A. Mathiasen

A SUCCESSFUL STARTUP

International research shows that two factors are crucial for a successful startup:
1. A high level of education
2. Business experience.

Furthermore, if that experience comes from the same area of business as the startup – and the person is familiar with the region where the startup is based, the startup is more likely to succeed. -- Peter Lotz
ENTREPRENEURSHIP RESEARCH ACCELERATOR (ERA)

CBS

PERSONAL NETWORKS AND ENTREPRENEURSHIP: A CASE STUDY ON ENTREPRENEURIAL SPIRIT IN UGANDA
Personal networks for budding entrepreneurs in Uganda, including rural/urban settings and roles of networks

Daniel Hjorth
Professor, Department of Management, Politics and Philosophy, CBS

MAPPING EEP GREEN INNOVATION IN CITIES
Methods, tools and techniques within the EEP green innovation in cities

Henriette Kartsen
External lecturer, Department for Arts and Cultural Studies, UCPH

INNOVATION NETWORKS RELATED TO LANDSCAPE-BASED STORM WATER MANAGEMENT
The potential for innovation and business development, including the mapping of Danish innovative networks and their potential

Niels Kornum
Associate professor, Department of Marketing, CBS

VALUING DESIGN: AESTHETICS, MEANING AND IDENTITY IN THE CO-CREATION OF SUSTAINABLE LIVING
Design as a source for meaning and identity-formation in the drive towards sustainable living

Daniel Hjorth
Professor, Department of Management, Politics and Philosophy, CBS

MULTI-STAKEHOLDER SYNERGY ANALYSIS OF GREEN INNOVATION IN CITIES
Potential synergies from stakeholder collaboration in green innovation in cities, including the mapping of Danish stakeholders

Niels Kornum
Associate professor, Department of Marketing, CBS

MICROFINANCE FOR THE EQUITABLE AND SUSTAINABLE INTEGRATION OF MINORITIES
Factors that affect a country’s supply of entrepreneurs, and implications for innovation and sustainability

Serden Özcan
Associate professor, Department of Innovation and Organisational Economics, CBS

CREATING THE CITY OF THE FUTURE
Design and financing of urban infrastructure to support renewable energy sources, such as biofuels

Patricia Plackett
Associate professor, Department of Operations Management, CBS

CO-CREATION THROUGH COLLABORATIVE UNIVERSITY COMPETITIONS
How companies can create significant breakthroughs through innovations via university competitions

Sigvald Harryson
Associate professor, Department of Management, Politics and Philosophy, CBS

THE COMMUNICATION SURVIVAL KIT I AND II
Developing a web platform with language applications to aid professionals with language, culture and professional skill sets

Peter Juel Henrichsen
Associate professor, Department of International Language Studies and Computational Linguistics, CBS

BEIJING-COPENHAGEN URBAN CHALLENGE
Collaboration between academia/industry, Beijing-Copenhagen city governments and universities to solve real-life cases in green innovation in cities

Sven Bislev
Associate professor, Department of Intercultural Communication and Management, CBS

QUANTITATIVE & QUALITATIVE MAPPING OF SOCIAL ENTREPRENEURSHIP IN EUROPE
Mapping social enterprises and developing a blueprint for a pan-European database

Kai Hockerts
Professor, Department of Intercultural Communication and Management, CBS
DTU

THE ECONOMIC IMPACT OF DANISH UNIVERSITY ALUMNI ENTREPRENEURS
How Danish universities influence entrepreneurship and how the resulting ventures impact the economy
Karen Murdock
Associate professor, DTU Management Engineering

THE NEUROBIOLOGY BEHIND INNOVATION AND ENTREPRENEURSHIP
Establishing the discipline of NeuroDesign to help better understand design thinking and cognition
Thomas J. Howard
Associate professor, Engineering Design & Product Development

NEURODESIGN
Researching barriers to design and innovation through the use of neuro-imaging technology
Thomas J. Howard
Associate professor – Engineering Design & Product Development

FABLABS AND HACKERSPACES: GRASSROOTS DESIGN & INNOVATION
Exploring the 'maker movement' and business models of hackerspaces, potentially with Chinese collaboration
Ali Gurcan Ozkil
Assistant professor, DTU Mechanical Engineering

UCPH

EPITALET
Establishing a health eco-system with services centered around the individual user
Lars Keyser
Associate professor, Department of Cellular and Molecular Medicine, UCPH

INTERACTIONAL BARRIERS TO COOPERATION, SHARED LEADERSHIP AND INNOVATION IN ICT-MEDIATED MEETINGS
Ideal interactional practices in ICT-mediated meetings in terms of leadership, cooperation and innovation
Mie Femø Nielsen
associate professor, Department of Scandinavian Studies and Linguistics, UCPH

COTELL - COPENHAGEN TELEMEDICINE LIVING LAB
Collaborating with patients and health professionals to design, implement and evaluate innovative telemedicine solutions
Henning Langberg
Professor, Department of Public Health, Section of Social Medicine, UCPH

CIEL CONTACTS: Trine Middelbo, CIEL, UCPH // Frank A. Mathiasen, CIEL, DTU // Luise Noring, CIEL, CBS

Pictures from the ERA Kick-off event
MEETING THE END OF RESOURCES

In a constantly growing world – with new middle classes emerging in rising economies, resources are becoming scarce. Food needs to be produced, distributed and recycled in new ways to reduce food and resource waste. An ERA project sets out to examine the whole complex value chain, so resources are not lost in the transformation.

Niels Kornum, Associate professor at the Department of Marketing, CBS, to find out about this gigantic ERA and why a cross-disciplinary team is necessary to solve the problem. Kornum sketches this outline of the current state of affairs:

"Today, we have a food system consisting of suppliers and retailers who take care of providing and distributing food. We also have a waste management sector to make sure that garbage is collected and processed. But plastic from food packaging in municipal solid waste has been rising for a number of years and the percentage of recycling of municipal waste in Denmark is significantly lower than, for instance, in Germany. In the future, we need to reuse and recirculate as much as possible. It’s not just a matter of technological systems – we have to collaborate with many different stakeholders to obtain the right solutions."
A CIRCULAR ECONOMY

Thinking ahead, we need a system that is designed for a circular economy pointing to more recycling and other sustainable methods. We have to consider the entire value chain as one system. The fact of the matter is that, when you create solutions in one area, problems can easily arise in another. Therefore, several disciplines need to be included if we should have a chance to propose solutions that both the food sector and society can use.

GOOD INTENTIONS RESULTING IN BAD OUTCOMES

Niels Kornum goes on to give some examples of the complexities: “We could easily agree on the potential in cutting back on food packaging, but that could result in less secure protection of the product and more food would be wasted, which research tells us is not a sustainable solution. Most people also applaud the idea of recycling (e.g., reusing more bottles). However, this would probably require more transportation. But still: the result in sustainability terms for the entire system may be positive. Obviously, there are many factors that play a part, and we need to look at how these factors interplay for the entire food and waste system.”

THREE RESEARCH INGREDIENTS

Niels Kornum identifies three essential aspects to the project’s vision: “First, the world needs us to work in a multi-disciplined way. If the problem is to be dealt with, there must be a collaboration with experts in different areas. We collaborate with different business partners (e.g., Coop). These partners provide inspiring cases and data, specific expertise and potential solutions, and they participate in discussions. They have practical experience that we can draw on.

Second, we will construct a dialogue structure in which we can enter into a dialogue with businesses, consumers and society in the broad sense. Among other things, we plan to create an open idea forum, where enthusiastic souls can discuss problem areas. With this dialogue part, we hope to foster public debate in parallel with the ongoing research and development in the project.

Third, there is a close connection between teaching and research. We are working on an elective course to be part of the EEP Green Innovation in Cities. Here, we will bring in some elements of our research and use a case from Super Brugsen (Coop) to illustrate interactions with the municipal waste system. The students will be analyzing this case and these analyses will be designed to support future research. You might call it ‘teaching based research.’”

Niels Kornum
Professor at CBS

FACTS

Name of ERA
Multi-stakeholder synergy analysis of innovation for sustainability and green cities.

Aim
Stakeholder collaboration concerning better resources utilisation, and prospects for a circular economy.

Partners
CIEL universities: DTU, UCPH, CBS.

Industry partners
Initiating collaboration between 11 companies and the public sector, e.g., COOP, ARLA Foods, the Municipality of Copenhagen.

Status
The project has reached stage two where the complete application is being written. Due to the scope of the research, it is a large-scale project and covers five years of research.

“It has been a great help to collaborate with CIEL. In addition to sparring and complete support, CIEL has provided financial backing, a crucial element to continue the project.”

Niels Kornum
Professor at CBS
CIEL ORGANISATION

CIEL is designed to secure impact, effectiveness, visibility and coordination with a steering committee represented by top management at CBS, DTU and UCPH, a central Director and a senior project manager placed at each of the partner universities. All project activities are implemented in partnership with departments and student bodies. The CIEL academic council secures academic excellence through peer review of project proposals.

The unique constellation of a top level steering group, local project managers and a vast number of project champions at departmental level allows CIEL to operate vertically as well as horizontally within the universities to secure a greater level of integration and impact.

MEMBERS OF THE STEERING COMMITTEE

- Per Holten-Andersen
  President, CBS

- Henrik C. Wegener
  Provost, DTU

- Thomas Bjørnholt
  Prorektor, UCPH

Roles and responsibilities
- Strategic direction of CIEL
- Overall I&E institutional leadership
- Formulation of new programme activities and strategies
- Securing CIEL finance and funding
- Integration with institutional strategies
- Helping CIEL with structural and administrative barriers
- Reward systems and incentive for I&E activities

MEMBERS OF THE ACADEMIC COUNCIL

- Klaus Bruhn Jensen
  Professor, UCPH

- Claus Bettcher Jørgensen
  Associate Professor, UCPH

- Peter Lotz
  Head of Department, CBS

- Søren Hougaard
  Affiliated Professor, CBS

- Søren Salomo
  Head of Department, DTU

- Helle Bunkenborg
  Innovation Manager, DTU

Roles and responsibilities
- Helping CIEL Management with recommendations
- Peer review of project proposals
- Securing academic excellence.
CIEL SECRETARIAT

The CIEL team is a cross-disciplinary and diverse group of people from academia and industry who all share a passion for entrepreneurship and innovation.

Mikkel Trym
Director
Mikkel is responsible for the overall management of the CIEL programmes, staff and stakeholders, including the engagement of international and industrial partners and collaboration with the steering committee.

Luise Noring
Senior Project Manager
Luise represents CIEL at CBS. Among other things, Luise is responsible for ERA projects and the EEP Green Innovation in Cities, which contains the course Copenhagen Beijing Urban Challenge.

Frank A. Mathiasen
Senior Project Manager
Frank represents CIEL at DTU. Among other things, Frank is responsible for the EEP Food Entrepreneurs, the Startup Database project and the computer game for students, Startup Spirits.

Mikkel Trym
Director
Mikkel is responsible for the overall management of the CIEL programmes, staff and stakeholders, including the engagement of international and industrial partners and collaboration with the steering committee.

Trine Middelbo
Senior Project Manager
Trine represents CIEL at UCPH. Among other things, Trine is responsible for the EEP Digital Services in Healthcare and the cross-university programme Innovation Pedagogics.

Ida Blinkenberg Lidell
Communications Manager
Ida manages all communication activities such as website, annual report, strategic communication and press contacts.

Stine Hamburger
Project Manager
Stine is responsible for the evaluation of programme activities and she supports the cross-university administration.

Cathrine Amalie Oldenburg
Project Manager
Cathrine is responsible for network activities and the ecosystem support projects.
Does the mindset actually change during a course in which the didactic approach is oriented toward innovation and entrepreneurship (I&E)? Through DAMVAD consultancy, CIEL measures how entrepreneurship education influences the entrepreneurial mindset among students, both before and after entering the specific entrepreneurial course. The purpose of the evaluation is to develop a new and innovative design to measure the impact of I&E education.

**DATA AND IMPACT**

The impact measurement is based on existing data from the Danish Foundation for Entrepreneurship – Young Enterprise. Furthermore, other relevant studies and theories are included to develop a tool designed especially to capture the development of a mindset among students participating in CIEL’s Entrepreneurship Excellence Programmes (EEP).

In short, the impact of I&E education in this investigation may be identified as the difference in outcome for students who participated in the EEP courses minus the estimation of the outcome that would have been achieved for the same students without the intervention. In the long term, we are able to track students, follow their career paths, and compare them to those who did not participate in I&E education.

A central theory behind CIEL’s measurement is Kåre Moberg’s survey instrument (Moberg 2011), which builds on the concept of *entrepreneurial self-efficacy*. Self-efficacy is the student’s own idea of his or her ability to act entrepreneurially. This is a better measure than entrepreneurial *behaviour*, which is rather difficult to observe due to the lack of information about the gap between graduation and startup activity.

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**TWO-STEP MEASUREMENT**

The counterfactual situation in the evaluation is measured in two different ways:

1. A before and after measurement of the students participating in the EEP courses.
2. A matched control group of students who did not participate in the EEP courses (but who were just as likely to participate).

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**ENTREPRENEURSHIP EDUCATION**

March 15th 2013, CIEL will host a conference in Green Lighthouse on next practices in entrepreneurship education. Participants will be working with a number of generic challenges that we are facing in developing entrepreneurship education, including how to measure the progress of entrepreneurial competencies through education and examination. The conference is organised in collaboration with the Danish Fund for Entrepreneurship and Aarhus University.
CIEL PROJECTS AT A GLANCE

GREEN INNOVATION IN CITIES

STEERING COMMITTEE
Sven Bislev, CBS
Finn Valentin, CBS
Niels Kornum, CBS
Vivian Krist Johansen, Science, UCPH
Thomas Howard, DTU
Sigvald Harryson, CBS
Mark Vacher, UCPH
Luise Noring, CIEL

URBAN GREENING, UG
Niels Kornum, CBS
Jesper Clement, CBS
Mie Horst Haugeard, CBS
Patricia Plackett, CBS
Kjell Nilsson, UCPH
Antje Backhaus, UCPH
Rune Kirt-Thomsen, Kirt·Thomsen ApS
Jesper Vej, CBS
Peter Mikkelsen, DTU
Mark Vacher, UCPH

URBAN FLOWS (UF)
Christian E. Kampmann, CBS
Mie Horst Haugeard, CBS
Lasse Engbo Christiansen, DTU
Aftron Halloran, DTU
Niels Kornum, CBS
Sander Larsen, UCPH

GREEN ENERGY (GE)
Sigvald Harryson, CBS
Bo Koch-Christensen, CBS
Jesper Koppel, UCPH
Jens Nørkær Sørensen, DTU
Niels Elers Koch, UCPH
Thomas Howard, DTU
Vivian Krist Johansen, UCPH
Ernst-Ulrik Haxthausen, External Lecturer
Stefan Meisiek, CBS
Jaap Daalhuisen, DTU
Bo Koch-Christensen, CBS
Balder Ohrnbal, CBS
Ian Shian Wei Choo, CBS
Jesper Vej, CBS

BEIJING-COPENHAGEN URBAN CHALLENGE (BCUC)
Sven Bislev, CBS
Giovanni Gri, City of Copenhagen
Niels Kornum, CBS
Thomas Howard, DTU

CLEANTECH SUMMER SCHOOL
Bo Koch-Christensen, CBS
Balder Ohrnbal, CBS
Ian Shian Wei Choo, CBS

SUMMER SCHOOL (2013)
Henning Boje Andersen, DTU
Klaus Marius Hansen, UCPH
Michel Avital, UCPH
Lars Kayser, UCPH
Yutaka Yoshinaka, UCPH
Klaus Bruhn Jensen, UCPH
Troels Mansted, UCPH

FOOD ENTREPRENEURS

STEERING COMMITTEE
Bjarke Bak Andersen, UCPH
Lars Bøg Jensen, DTU
Jakob Neimann, InSPIRe
Frank A. Mathiasen, CIEL

PROJECT GROUP
Dorte Wiene, EEP
Timothy John Hobly, DTU
Christian Poulsen, CBS
Henrik Selsæ, CBS

SUMMER SCHOOL (2013)
Dorte Wiene, EEP
Timothy John Hobly, DTU
Henrik Selsæ, CBS
Henrik Siegumfeld, UCPH
Caroline P. Baron, DTU
John Heebell, DTU

BIOBUSINESS

STEERING COMMITTEE
Claus Bøttcher Jørgensen, UCPH
Finn Valentin, CBS
Egan B. Hansen, DTU
Luise Noring, CIEL

BIOBUSINESS CONFERENCE
Peter Lotz, CBS
Henriette Kierkegaard, CBS

INNOVATION PEDAGOGICS

STEERING COMMITTEE
Pernille Andersson, DTU
Camilla Rump, UCPH
Trine Middelbo, CIEL

FIRST PILOT WORKSHOP, 'CREATIVITY IN LEARNING'
Pernille Andersson, DTU
Sarasiff Kjærgård, UCPH
Mikkel Trym, CIEL

SECOND PILOT WORKSHOP ABOUT INCORPORATION OF INNOVATION AND DESIGN THINKING
Camilla Rump, UCPH
CO-CREATE TEACHER TRAINING WORKSHOPS AMONG THE FIVE DIDACTIC LEARNING CENTERS
Laura Louise Saruw, UCPH
Flemming Meier, UCPH
Camilla Rump, UCPH
Thomas Harboe, UCPH
Rikke von Müllen, UCPH

IBE TEACHING DIDACTICS FOR SCIENCE INTRO-COURSES
Section for Methods and Crossdisciplinary Learning, SCIENCE

PHD SUMMER SCHOOL IN ENTREPRENEURSHIP IN PHOTONICS, OPTICS AND NANOTECH
Monika Luniewska, DTU

PRODUCT/SERVICE-SYSTEM (PSS) DESIGN/PRODUCT LIFE AND ENVIRONMENTAL ISSUES
Tim MacAloone, DTU

INNOVATION AND PRODUCT DEVELOPMENT/HOLISTIC DESIGN OF PRODUCTS
Thomas J. Howard, DTU
Sigvald Harrisyn, CBS
Rasmus Helles, UCPH
Stine Lomborg, UCPH
Jacob Andersen, DTU
Vivian Kvist Johansen, UCPH
Niclas Scott Bentsen, UCPH

COMMERCIALISATION OF HIGH TECH CONCEPTS, ENTREPRENEURSHIP AND SCIENCE IN ACTION
Karen Murdock, DTU
Claus Vannes, CBS
Sven Bilsøe, CBS

OTICON CASE DEVELOPMENT
Anja Maier, DTU

WORKSHOP ON I&E IN A CREATIVE PERSPECTIVE
Hanne Østergaard Jørgensen, DTU

DEVELOPING SIX GENERIC CASES FOR TEACHING
Susanne Balslev, DTU
Kirsten Ramskov Galamba, DTU

BUSINESS CASES FOR TEACHING
Sara Grex, DTU

ROBUST DESIGN
Thomas J. Howard, DTU

PHYCOMPLAB
Ali Durcan, DTU

HEATH INNOVATION
Laura Kayser, UCPH
Anne Fralich, UCPH & Bispebjerg Hospital
Henning Bøje, DTU
Martin Stenfeldt, DTU

PROCESS MANAGEMENT AND INTERACTION
Mie Ferno, UCPH

INTERNATIONAL BUSINESS COMMUNICATION
Mie Ferno, UCPH

EUROPEAN FARM AND FOOD SYSTEMS
Vibeke Langer, UCPH

INTERNATIONAL CONSULTANCY
Susanne Branner Jespersen, UCPH
Helle Bundgaard, UCPH

BUSINESS PLAN WRITING FOR SOCIAL ENTERPRISES
Kai Hockerts, CBS

MANAGING KNOWLEDGE, COMMUNICATION AND INNOVATION USING SOCIAL MEDIA
Liana Razmerita, CBS

ENTREPRENEURSHIP & INNOVATION
Carsten Nico Portefeuille Hjortso, UCPH
Katharina Anna Pätz, UCPH

DESIGNING INNOVATION IN PRACTICE
Michel Avital, CBS
Klaus Marius Hansen, UCPH
Henning Bøje Andersen, DTU

KREATIVE PROCESSER OG INNOVATION
Mikkel Sørensen, UCPH

INTEGRATION AF INNOVATIV TÆNKNING
Karen Lund Petersen, UCPH

TORS TVÆRKULTUREL INNOVATION
Frank Sørensen, UCPH
Jesper Lee Jyderup, UCPH

ENTREPRENEURSHIP AND BUSINESS ECONOMICS FOR FOOD SCIENTISTS (PHD-COURSE)
Henning Friis, UCPH
Nanna Roos, UCPH
Pernille Kæstel, UCPH
Mette Frahm Olsen, UCPH
Serden Özden, CBS

INTERNATIONAL CONSULTING
Carsten Nico Hjortso, UCPH

ECOTROPHELIA DENMARK
Hanne Leje, DTU
Egre Bjørnhol Jørgensen, DTU
Martin Gram Christensen, DTU
Michael Born Fræst, UCPH

MANAGEMENT OF CHANGE
Anja Maier, DTU
Hanne Leje, DTU
Pedro Paraguay Ruiz, DTU
Stefan Mesieke, CBS
Be Christensen, CBS
Jesper Clement, CBS
Baldor Drarheim, DTU
Morten Friis Oliversen, CBS

DESIGN FOR X KITS
Tim MacAloone, DTU
Thomas Howard, DTU

CREATE YOUR OWN STUDENT JOB
Nina Ris, UCPH
Peter Ditlevsen, UCPH

CIEL NETWORK GET-TOGETHER (OCT.)

CIEL ANNUAL REPORT 2012
Content: Ida Blinkenberg Lidell, CIEL
Graphics design: India
Photography: Anne Trap-Lind

NETWORK
ORGANISATION

Ciel Annual Report 2012

STARTUP SPIRITS

CONCEPT DEVELOPMENT, ALPHA AND BETA PHASE, PR, MARKETING, RELEASE AND EVALUATION
Frank A. Mathiasen, CIEL
Contenga
Ida Blinkenberg Lidell, CIEL
Mia Maja Hansson, CIEL

SUPPORT FOR THE ENTREPRENEURSHIP ECO-SYSTEM

MAPPING: COLLECTION AND ANALYSIS OF DATA CONCERNING THE ENTREPRENEURIAL ECO-SYSTEM
Signe Zambach, CIEL
Mikkel Sørensen, Venture Cup

TEAMUP: EXTRA CURRICULAR LEARNING IN STARTUPS
Martin Justesen, CSE

INTERNATIONALISATION OF STUDENT IBE
Nina Riis, Katapult
Lene Wie Krog, Katapult
Egle Zukaskaite, Katapult

MARKETING BEST PRACTICES
Caroline Jensen, CIEL
Katapult
Katalyst
CSE
Venture Cup
Next Generation
Stardust CBS
WAATIT

GATE TO CREATE BACK OFFICE SUPPORT
Katrine Hastrup, Gate to Create
Dan Nielsen, Gate to Create

DATA ANALYSIS OF THE PAST 11 YEARS OF VENTURE CUP PARTICIPANTS
Mikkel Sørensen, Venture Cup

DET INNOVATIVE UNIVERSITET
CSE
Fonden for Entreprenørskab
Begriff
Mandag Morgen
NCEEE (UK)
Aarhus University

CARREER DAYS

Venture Cup
Katapult
Gate to Create
Suitable for Business
Gradusteland

THE TUTOR NETWORK/INNOVATION WORKSHOP
Studiestartsnetværket

GATE TO CREATE NATIONAL CONFERENCE
Gate to Create

PRESENTATION BY SHAI AGASSI
Venture Cup
Shai Agassi, Better Place

SUMMER STARTUP INSPIRATION
Createch DTU

ECOSYSTEM WORKSHOP
Katapult
CSE
Venture Cup
Gate to Create
Createch

OPEN MIC NIGHT
Stardust DTU
Stardust CBS
ITU Innovators
Krebitat

IDEAS DEVELOPMENT WORKSHOP
Develop 360

SLUSH, HELSINKI
Stardust DTU
Gate to Create
Suitable for Business
Dansic
CIEL

GREEN LIGHTHOUSE
CO-CREATION WORKSHOP
Next Generation
Katapult
Suitable for Business
DANSIC
DOC:Innovate
UCEC
Gate to Create

NORDIC STARTUP AWARDS
Gate to Create
Createch
CSE
CIEL
Nordic Startup Awards

ENTREPRENEUR IN RESIDENCE

TAP innovation staff at various institutes
Tech-Trans Office at DTU and UCHP
Copenhagen Spin-Out
Cobis
Connect-DK
DTU Scion and student incubators at CBS, DTU, and UCPH.

COPENHAGEN STARTUP WEEKEND ACADEMIA
Monika Luniewska, DTU

PRE-VENTURE CUP
DTU
Venture Cup

START-UP LIVE
Stardust, CBS

PRE-VENTURE CUP II (IDEA COMPETITION AND BUSINESS PLAN)
DTU
Venture Cup

TERM SHEET BATTLE
Monika Luniewska, DTU

ERA - NATIONAL RESEARCHER CONFERENCES

CIEL has initiated ERA research projects during 2012. A list can be found on page 48-49.

As part of the working process a number of research conferences have been held.

FIRST ERA NATIONAL RESEARCHER CONFERENCE (JANUARY)

THIRD BIENNIAL COPENHAGEN INNOVATION SYMPOSIUM

ERA - INTERNATIONAL PARTNERSHIP CONFERENCES

FIRST INTERNATIONAL PARTNERSHIP CONFERENCE HELD (JUNE)

SOCIAL MEDIA FOR SOCIAL GOOD CONFERENCE (SEPT.)

STARTUP DATABASE

STEERING COMMITTEE
Peter Lotz, CBS
Søren Salomo, DTU

PROJECT GROUP
Christine Isaksen, DTU
Karen Murdock, DTU
Maj Munch Andersen, DTU
Rita Faullant, Austria
Frank A. Mathiasen, CIEL
CIEL’s work is inspired by the following texts

CIEL (2010)
CIEL Application


DAMVAD (2011) State of the art in entrepreneurship research: A policy-oriented review with particular emphasis on the gender perspective and the Norwegian context Prepared for the Norwegian research Council


