



## STARTING UP A BUSINESS THAT'S **SUSTAINABLE!**

DEVELOPMENT OF  
SUSTAINABLE BUSINESS CONCEPTS  
FOR "GREEN" FUTURE MARKETS

**Eco-Venturing module at  
Carl von Ossietzky University Oldenburg,  
Germany**

## OLDENBURG IS UNIQUE WORLDWIDE



Frontpage and picture above: team of lecturers, students and business partners of the Eco-Venturing Module in winter semester 2011-2012

Oldenburg, a place that is always ahead of its time, is living up to its reputation as a mecca for pioneers in science. By naming itself after Carl von Ossietzky, the University of Oldenburg underlined science's responsibility towards society and the role of science in public discourse. This commitment remains vital to the university's identity today. Since the winter semester 2009/2010, Carl von Ossietzky University Oldenburg,

located in the Northwest region of Germany, has been offering a project that is so far unique on the university market. The „Eco-Entrepreneurship“ major study course includes the „Innovation Management“ and „Entrepreneurship“ modules as well as the „Eco-Venturing“ project course, a winner of the Hans Sauer Prize (see box). Eco-Venturing is the first university course worldwide where students develop sustainability-

oriented business concepts in cooperation with business partners with the aim of promoting actual business start-ups. The project and business concepts relate to all areas of sustainable business management. They include topics such as renewable energies, renewable raw materials, energy and resource efficiency or climate mitigation or adaptation solutions. In just three semesters, students have already come up with around twenty concrete start-up ideas for „green“ future markets. They include, for example, a business model for generating biogas from the „bioenergy wonder crop“ Igniscum or the development of integrated consulting services (IT and energy consulting) for the establishment and operation of energy-efficient data centres. The Eco-Venturing module is conducted in a cooperation between the Chair of Innovation and Sustainability (Prof. Dr. Klaus Fichter) and the Endowed Chair of Entrepreneurship (Prof. Dr. Alexander Nicolai).

### AWARD-WINNING COURSE

*Oldenburg University's Eco-Venturing module was awarded the Hans Sauer Prize in the Competition for the „Promotion of Environmental Innovations“. The board of trustees of the Hans Sauer Foundation awarded the prize, worth € 10,000, for the outstanding Eco-Venturing concept. They described the module as „highly exemplary and ground-breaking“. The Munich-based Hans Sauer Foundation, which was founded in 1989, supports inventions and projects that promote responsible interaction with nature and human society.*

## INNOVATIVE TEACHING FOR SUSTAINABLE FUTURE MARKETS

Entrepreneurial creativity has always been an important engine for social change. One of the initiators of the Eco-Entrepreneurship major study course, Professor Klaus Fichter, stresses that it is up to entrepreneurs to provide innovative answers to the challenges of their times. He quotes his colleague Günter Faltn from the Freie Universität Berlin, who said that one could imagine the Henry Ford of today as a solar car fanatic, but also as an entrepreneur advocating a new industrial asceticism of limitation to product quality and product durability.

The pursuit of sustainability has long since ceased to be a speciality of the eco lobby. There is now a social consensus that climate protection, for example, requires considerable innovative efforts. Hence, the decarbonisation of industry and society requires basic technical, but also institutional and social innovations. Innovations make an important contribution to achieving sustainability goals like the protection of species or drinking

water supplies and are perceived as such in the media.

However, this aspect has so far largely gone unheeded in the teaching of innovation and entrepreneurship and the promotion of business start-ups at universities. Although the number of natural science, engineering and economics courses and study programmes that explicitly relate to the development of expertise and qualifications for solving environmental and sustainability challenges is steadily increasing, there are only a few courses worldwide that specifically deal with the development of sustainability-oriented start-up ideas and business concepts. Initial steps in this direction are being taken, for example, by the Bren School of Environmental Science and Management at the University of California Santa Barbara and some university partnerships in the Netherlands. In Germany, the Leuphana University of Lüneburg and Carl von Ossietzky University Oldenburg are the leaders in this field.

Within the scope of the Eco-Venturing module presented here, students at Carl von Ossietzky University can contribute the prior knowledge gained from their business and/or environmentally related studies. Prof. Alexander Nicolai, co-initiator of the Eco-Venturing teaching module, emphasises that the team of lecturers provide the necessary innovation/start-up know-how and arrange contacts with business partners and regional networks as well as business start-up consultancy establishments, such as the Founding and Innovation Center (Gründungs- und Innovationszentrum - GIZ) of the University of Oldenburg. Aspects of the ecological and sustainability-oriented evaluation of start-up ideas as well as the relevant sustainability management know-how are provided by the Chair of Innovation and Sustainability.



### CHECK-UP FOR INNOVATIVE BUSINESS MODELS

Interview with Jens Wille, Managing Director of Ubilabs GmbH, an agency for individual web applications and mobile apps with localised content, Hamburg, Germany

#### **What prompted your company to get involved in the Eco-Venturing module as a business partner?**

*We quickly became convinced of the opportunities which the course offers and expected the work undertaken by students to give us a different perspective on our subject area. We went into the project with a basic concept and hoped to be able to develop the business model further.*

#### **What was developed in your team with the students?**

*Using Ubilab's localisation technology, the students developed a taxi-sharing app, where taxi customers could benefit from substantially reduced fares. The concept is similar to that of a car-sharing agency. Passengers taking taxis from airports*

*(or other focal points) can link up with other passengers heading in the same direction and split the fare. The group taxis can be requested and booked using an app.*

*Therefore, passengers can save money and at the same time protect the environment.*

#### **What was particularly interesting about the results?**

*The scenario analysis and the survey of various business models by the students, partially on an interview basis, were extremely helpful to us. In practice, we mostly have no time for such comprehensive analyses. Hence, we could well envisage taking part in the study module again with a new project.*

## A VERY PRACTICAL START-UP APPROACH – TEACHING FORMAT WITH A FUTURE

The Eco-Venturing module is a cooperation between the Chair of Innovation and Sustainability and the Endowed Chair of Entrepreneurship. Prof. Dr. Klaus Fichter and Prof. Dr. Alexander Nicolai explain why this project represents a teaching format with a future.

### **What is special about this module?**

*Prof. Dr. Nicolai: Freed from traditional teaching concepts, students can develop a start-up topic in a practical environment and simultaneously pursue their own solution approaches very autonomously. During the introductory event, they receive expert input and the team of lecturers are on hand to provide advice at all times. It's up to the students how they analyse problems and cooperate with business partners. The aim is to develop a workable business model that includes action recommendations for the business partners.*



**Prof. Dr. rer. pol. habil. Klaus Fichter** is Adjunct Professor of Innovation and Sustainability at Carl von Ossietzky University Oldenburg and sits on the board of the Oldenburg Center for Sustainability Economics and Management (CENTOS). In the Department of Business, Economics and Law, he is responsible for the eco-entrepreneurship major study course and the extra-occupational master's degree programme in innovation management. Klaus Fichter is the founder and director of the Borderstep Institute for Innovation and Sustainability in Berlin.

### **Why are two faculties working together on this project on a cross-chair basis?**

*Prof. Dr. Fichter: We combine years of joint experience in research and teaching with expertise from different specialist areas such as innovation and start-up management, strategy development and sustainability. In addition, we want to develop a new teaching format that offers committed students scope to develop and the opportunity to amass the relevant practical experience.*

### **Why is this available in Oldenburg and nowhere else?**

*Prof. Dr. Nicolai: Practical orientation and start-up culture have always been trademarks of Oldenburg University. Additional courses for students with an interest in business start-ups are*



**Prof. Dr. rer. pol. habil. Alexander T. Nicolai** holds the Endowed Chair of Entrepreneurship at Carl von Ossietzky University Oldenburg. He initiated the BMWi EXIST IV project, within the framework of which the University of Oldenburg received an award as one of the three best entrepreneurial universities in Germany. In his capacity as a member of the boards of Business Angels Weser-Ems-Bremen w. V. and VentureLab e.V. and as academic director of the affiliated institute EFNW, Alexander Nicolai is committed to promoting business start-ups in the region.

*currently being developed within the framework of the EXIST support programme.*

*Besides the Business Start-Up and Innovation Center, the Endowed Chair for Entrepreneurship, which maintains close contacts with regional businesses, is also a point of contact. Other unique features are the master's degree course in Sustainability, Economics and Management and the more comprehensive lectures on the subject of sustainability.*

### **What does this type of teaching mean for science of the future?**

*Prof. Dr. Fichter: The interaction between academic know-how and practical application which is practised in the Eco-Venturing course format is based on the academic principle of focusing on real problems. In future not only teaching, but also research must provide the knowledge base for solving actual social problems, such as how to successfully tackle the energy turnaround in Germany, how to achieve a global low carbon economy with an abundance of "green" jobs and how to fairly distribute and sustainably secure resources and income for nine billion people. The problem and sustainability orientation of the Eco-Venturing teaching module also benefits the research work of the professorships taking part.*



» We have long been one of the pioneers in the field of green IT. The team of students provided key market findings for the business start-up process and supported us with capital acquisition through an investors' presentation. One of the students in the team has started to work for us now and strengthens our founding team. « (Harald Rossol, founder and Managing Director of Erecon AG, Bremen, Germany, business partner)

» As a Dutch business start-up support establishment, we have greatly benefited from the cross-border cooperation with the University of Oldenburg. The team of students conducted an analysis of the German textile recycling market for us and thus provided an outstanding basis for the development of our Textiles 4 Textiles business concept. We were able to communicate in English without any problems. « (Elmar Stroomer, Product Development Manager, enviu, Rotterdam/the Netherlands)



» The cooperation with the Eco-Venturing team far exceeded my expectations. We were very successful in creating a basis for entrepreneurial decisions from an economic and ecological perspective. « (Elke Haase, founder and Managing Director of Piccoplant Microvermehrungen GmbH, Oldenburg, Germany, business partner)

» The project gave my studies new impetus. At the same time, I was able to incorporate the solar energy cooperative which I had co-founded into the project as a business partner. The feedback from my fellow students helped me to explore new innovations and lines of business. « (Malte Zieher, student and co-founder of Solar Popular eG, business partner)

## WHAT WE EXPECT FROM OUR BUSINESS PARTNERS

- "Green" project and innovation concepts that you would like to see investigated or realised
- Presentation of the project or innovation concept during the kick-off event at the beginning of the semester
- Provision of information for students to develop the business or innovation concepts agreed with you
- Participation in the final presentation of business plans at the end of the module
- Prior to participation we naturally come to an agreement with you on the issue of exploitation rights and sign corresponding non-disclosure agreements if necessary.

## WHAT WE OFFER OUR BUSINESS PARTNERS

- Development of start-up and business concepts for which there is often no time in day-to-day business
- Handling of innovation and business concepts by motivated students
- Development in interdisciplinary teams (business administrators, environmental experts, computer scientists, lawyers, etc.)
- Systematic support by lecturers with extensive practical experience in the field of business start-ups, innovation management and sustainability
- In-depth analyses for the development of start-up ideas and business concepts
- Additional creative ideas for how a specific technology, product or service could be marketed
- Concrete results in the form of business plans and documented roadmaps for how an idea could be realised in further implementation stages

## COOPERATION WITH BUSINESS START-UP AND BUSINESS SUPPORT INSTITUTIONS

In addition to the utilisation of business plans at the participating companies there is also a possibility of setting up businesses. We work closely with the existing business start-up and business support institutions and programmes when developing and promoting workable ideas and business models, thus creating a fluent transition to the set-up and commercialisation of an actual business.

## INFORMATION FOR STUDENTS

The aim of the eco-venturing module is to develop new or existing business start-up concepts. Under the guidance of the team of lecturers, the participants work together with selected business partners to promote sustainable start-up ideas which are supposed to be economically successful and contribute to environmental and climate protection. The business plan is worked out in cooperation with one or several business partners and further developed by teams of students.

One of the defining features of the module is the intensive level of support provided. In addition to the professors and business partners, research assistants Charlotte Schuster and Tina Stecher coach the teams and provide a point of mediation between scientific and practical aspects. At the one-and-a-half-day kick-off event, key basic knowledge on entrepreneurship and eco-venturing is provided. Ideally students have already completed the entrepreneurship and/or innovation management module beforehand.

*» 95% of the BA economics degree course consists of theory, and in the master's business law degree course it's roughly 80%. The eco-venturing module turns these figures around. The issues presented by business partners are real issues. Therefore, the students' contribution is genuine added value. They also gain an insight into how new ecological business models are developed and established. «*  
(Sebastian Winkelmann, student)

At the end of the module, the business concepts and the business models are presented to the business partners. The results are processed in such a way that they can actually be applied in practice subsequent to the module. This may take place in the form of a business start-up or a joint venture or through the establishment of a new line of business in an established company (corporate venturing).

The course is mainly geared to students doing master's degrees in economics and law (specialising in Management, Entrepreneurship, Controlling (ManECo)) as well as master's degrees in Sustainability Economics and Management. However, students from other faculties such as business informatics, integrated media or environmentally related master's degree programmes can also complete the module.

The course consists of four sessions that students have to attend and further sessions by prior arrangement.

### ECO-VENTURING PROJECT COURSE

**Work in advance of the project course:** Scouting/screening: searching for and evaluating suitable start-up and innovation concepts, contact with business partners/founders, selection according to economic and ecological criteria

**Kick-off event:** Presentation of start-up/business concepts by business partners, formation of student teams, provision of basic knowledge on start-up/project management and ecological evaluation, project planning by teams of students

Cooperation with  
business partner

Support and coaching  
by the team of lecturers

**Interim presentation:** Presentation of interim results (e.g. rough draft of business model, market analysis, ecological evaluation, etc.) by the team of students

**Final presentation:** Presentation of final results (e.g. business model, sections of a business plan, recommendations, next steps) in the presence of business partners

**Final report:** Documentation of the origination of the business model, methodology, presentation of the results (including ecological evaluation)

**After the project course:** Forwarding of start-up plans to business start-up consultancies and support institutions (e.g. Founding and Innovation Center of the University of Oldenburg, VentureLab or the Technology and Business Start-Up Center Oldenburg)

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