



Which competencies are needed for Sustainability-driven Entrepreneurship?

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Overview

- Introduction CASE Project
- Aims and Structure Needs Analysis
- Results
 - Mind sets and motivations of sustainability-driven entrepreneurship
 - Competencies for sustainability-driven entrepreneurship
 - Fostering competencies in higher education programmes
- Discussion and Outlook



Goals of CASE

CASE Knowledge Alliance aims at

- Supporting and fostering methodical and content wise development of competencies for a sustainable socioeconomic development
- Development and testing of new methods for inter- and transdisciplinary teaching and learning via regional pilot projects
- Development and conceptual framework for an European joint master's programme on "Sustainability-driven Entrepreneurship and Innovation"

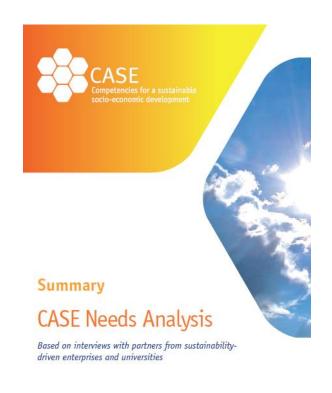
CASE Partners

Partner	Organisation	Country
P1	Vienna University of Economics and Business (WU Vienna)/ RCE Vienna	Austria
P2	Free University Bolzano	Italy
P3	University Vechta	Germany
P4	Masaryk University Brno	Czech Republic
P5	University Gothenburg	Sweden
P6	Wiener Stadtwerke Holidng AG	Austria
P7	Terra Institute GmbH	Italy
(P8	Ulrich Walter GmbH	Germany)
P9	Environment Center Kapraluv	Czech Republic
P10	Ekocentrum	Sweden
P11	Vienna University of Natural Resources and Life Sciences (BOKU)	Austria



Aims Needs Analysis

- Analyze needs and competencies for sustainability-driven entrepreneurship
- Create a basis for a network of companies and universities
- Learning from international good practice examples
- Foundations for the development of an European Master's Programme





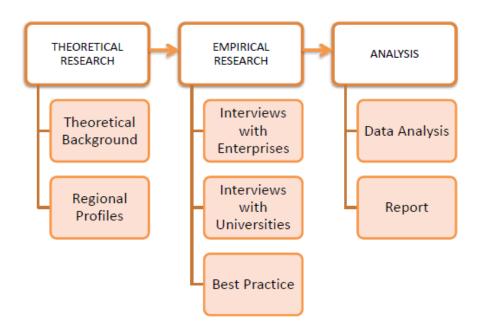
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Structure Needs Analysis

What are the main competencies and mind sets of sustainability-driven entrepreneurs? Which learning and teaching formats foster these competencies in the context of higher education institutions?



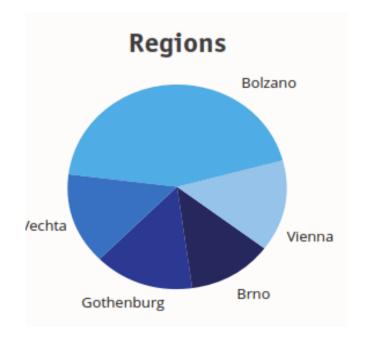
Graphic 2: Research structure



Regional Framework

Criteria:

- Geographic location
- Economic development
- Socio-economic challenges
- Higher Education

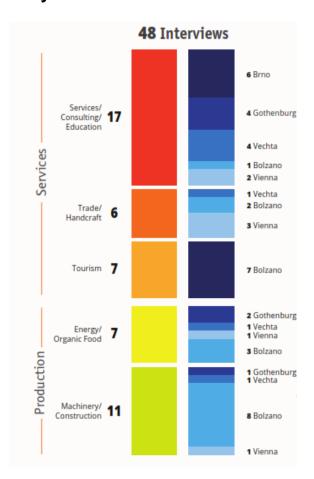


Diversity of regions – Interview partners from 5 regions

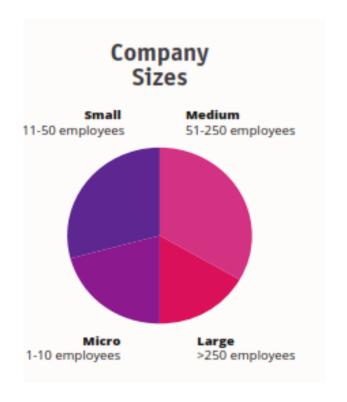


48 interview partners from business

Diversity of sectors



Diversity in size



25 interview partners from universities

Diversity of disciplines and faculties

University	Faculty/Department/Institute
University of Economics and Business (WU) Vienna University of Natural Resources and Life Sciences (BOKU) Vienna	Institute for Entrepreneurship and Innovation Department of Economics and Social Sciences Institute of Agricultural Economics Institute for Sustainable Economic Development
Free University of Bolzano	Faculty of Economics and Management Faculty of Education Faculty of Design and Art Faculty of Science and Technology
University of Vechta University of Oldenburg University of Bremen University of Lüneburg	Department of Economics and Ethics, Vechta Faculty of Informatics, Economics and Law, Oldenburg Faculty of Economics, Bremen Institute of Sustainability Governance (INSUGO) Institute for Environmental and Sustainability Communication (INFU) Lüneburg
Masaryk University, Brno	Faculty of Economics and Administration Faculty of Social Studies Department of Environmental Studies
University of Gothenburg	 Faculty of Fine, Applied and Performing Arts School of Social Science Environmental Science Faculty of Economics School of business, economics and law.

Table 1: Designation of the interview partners (universities)



Mind sets of Sustainability-driven Entrepreneurship



Graphic 3: Background for sustainability-driven entrepreneurship



Understanding of sustainability-driven entrepreneurship

"Economy has to serve the wellbeing of people, not the other way round. Of course it is necessary to earn money but that is not central". (Int. 24, companies, 2015).

"Our earth we haven't inherited from our parents but lend from our grandchildren. Therefore we have huge responsibility to tread natural and cultural treasures with respect and attentiveness" (Int. 22, companies, 2015)



Motivations

"I read a lot about the housing-bubble, backgrounds of the financial disaster and peak oil. That created fear and uncertainty about the future of my family. But I didn't want to be swept away by fear, as such I began to work with it and began to integrate sustainability also in my personal lifestyle" (Int. 47, companies, 2015).

"We are in a transformation-process. What I observe is an increasing separation between entrepreneurs and staff. Entrepreneurs fall into isolation, into burnout and close their companies. Employees don't see a way to participate. That was the driving-force to overtake self-responsibility and to change my professional and personal life" (Int. 15, companies, 2015).

"We have sustainability well anchored for many years - in our corporate strategy, our organization chart and in the financial and human resources" (Int. 4,compannies, 2015)



Implementation of sustainability

Ecological

- Products, resources and services: regional, fair, recycling, up-cycling, eco-desing, ecoinnovations
- Processmanagement: CO2 reduction, environmental standards
- Energy: renewables, certifiates...
- Transportation: public transport

93 times mentioned

Social

- Human Resources
 Development:
 participative, gender
 equality,
 transgenerational...
- Education/Training: In House, apprentices
- Working Conditions: Work-Life Balance
- Social Responsibility socio-cultural initiatives at regional and international level

90 times mentioned

Economic

- Strategic management: long term, Quality management: ECG, EMAS,...
- Financemanagement: Financial independence, transperancy, controlling
- Awareness-Building & Marketing: PR, visibility of best practice

39 times mentioned





Competencies for Sustainability-driven Entrepreneurship

SYSTEMIC COMPETENCIES

- Holistic thinking
- Cope with complexity
- Interdisciplinary thinking & acting
- Unerstand circles & circle-economy
 Interrelation between ecological
- Consed interdependencie:
 between global & local

ANTICIPATORY COMPETENCIES

- Nisk awareness
 Intergenerational thinking
- Responsibility for future generations
 Ability to reflect and benefit from experience
 - Develop farsightedness
 - Develop rarsigntearies
 - Visionary thinking

• Act along a c • Inner autono Deal with contra

- STRATEGIC COMPETENCIES
- Ability to raise questions
- Solution orented thinking
- Culture of failures & learnin
- Goal and success-orientation
- Flexibility to react very fast on opportunitie
 - Develop & implement innovations
 - Combine sustainability strate
 - Change management
 - Change managemer
 Project managemen
 - Controlling &
 evaluation

NORMATIVE COMPETENCIES

- Sensitivity
 ng in inner halanc
- Act along a concept of values
- Inner autonomy & self-esteem
- Deal with contradictions & dilemmas
 Ability to distinguish between alternatives
- Ability to distinguish between alternatives
 Ability to perserverance & persistence
- Independency in thinking and acting
 - Implement economical ethics
 - Awareness of meaning
 - Ability to enthusiasm

INTERPERSONAL COMPETENCIES

- Cooperative thinking
- Ability to set up 8, work in team
- Ability to build up & sustain networks
- Leadership (lead & compose teams, delegation
 - Dialogue & discourse competence
 - Translation-competence
 - Ability to participation
 - Coping with diversity
 Communication skills
 - Communication skills

 Ability to listen



Graphic 4: Gaining competencies

Fostering Competencies

Universities · Collaboration with universities Training on the job GAINING COMPETENCIES Schools Private Sphere · Attitudes & mindsets in families

Fostering Competencies

Possible Formats of Science-Business Collaboration

- Co-creation of university courses
 - Lectures & seminars with external experts
- Research on regional best practices
 - Service Learning projects with regional companies
 - Cooperative research-projects
 - · Guided internships for students
 - Events and conferences
 open to public
 - Personal contacts



Role and Impact of Multistakeholder Networks

"Only in networks you can meet the requirements of the complexity of sustainability and create corresponding synergies". (Int. 32, companies, may2015).

"Projects with sustainable/social enterprises are futureorientated, but they must be prepared differently compared to classic technology projects; especially in the way they are communicated." (Int . 20 universities , 2015)

"It is easier to maintain a standard in cooperation, as it is with tailwinds." (Int. 29, companies, april 2015).



Conclusion

- Promising conditions and need for sustainability-driven entrepreneurship
- Limiting factor: Mainstream mind sets oriented towards profit-maximising, growth...
- Better understanding of mind sets & motivations of sustainability-driven entrepreneurs in regions
- Necessity to foster key competencies for sustainabilitydriven entrepreneurship via innovative formats
- New learning environments have to develop sustainabilityand economic key competencies together in terms of a bundle of competencies (Wiek et al. 2011 and Lans et al. 2014)



Conclusion

- Competencies needed
 - Holistic thinking, including various levels and domains
 - Ability to deal with risks and uncertainty
 - Normative competencies
 - Solution oriented and innovative thinking as strategic key competence
- Challenging contexts for implementing inter- and transdisciplinary approaches
- Upscaling of new partnerships between entrepreneurs and universities to encourage transformative education



Outlook

- How should new learning formats be developed, in order to be able to support on the one hand the self-efficacy and on the other hand the social aspiration of sustainabilitydriven entrepreneurs?
- How can the mind sets of sustainability-driven entrepreneurship be straightened, in order to act effectively in an environment, which is still dominated by profit-oriented and economic growth discourses?
- How can inter- and transdisciplinary networks be supported, in order to become long-lasting and workable networks for the future?



Thank you for your attention!!! More info case-ka.eu



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