

Die Förderung von Sustainable Entrepreneurship und Umweltinnovationen an deutschen Hochschulen

Klaus Fichter

Apl. Professur für Innovationsmanagement und Nachhaltigkeit, Universität Oldenburg
www.uni-oldenburg.de/innovation/

Borderstep Institut für Innovation und Nachhaltigkeit
www.borderstep.de

Treffen FGF AK Sustainable Entrepreneurship

Hannover, 03.03.2015

Inhalt



- Kontext: Das europäische Forschungsprojekt “SHiFT”
- Konzept zur Untersuchung universitärer Unterstützungssysteme
- Überblick über Aktivitäten deutscher Hochschulen zur Förderung von Sustainable Entrepreneurship und Umweltinnovationen

Forschungsprojekt SHiFT



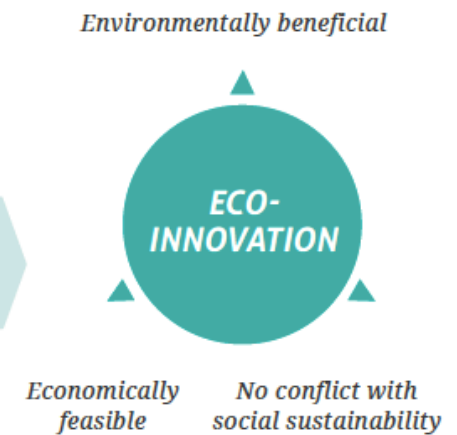
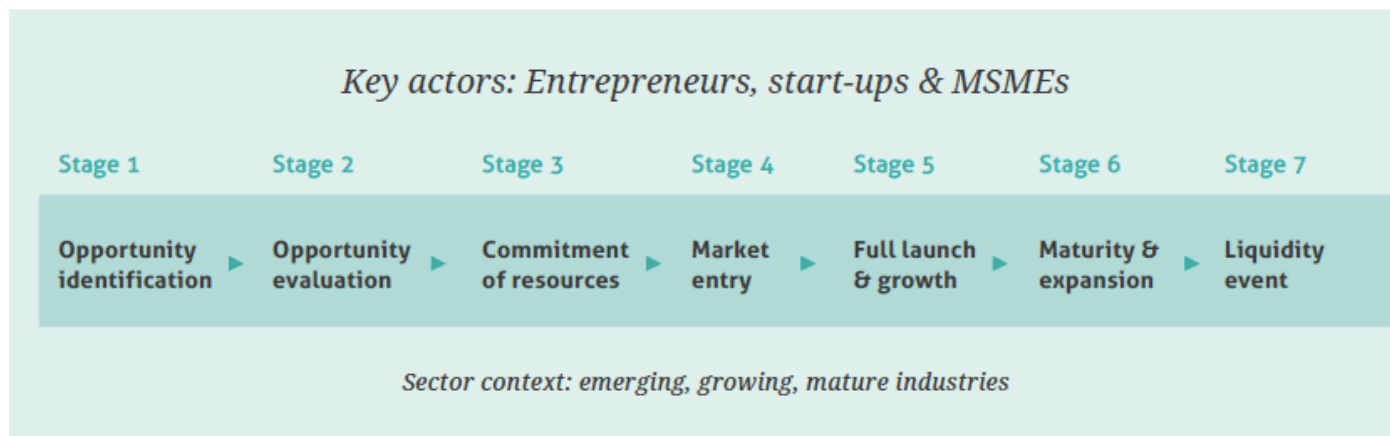
- European research project
 - ➔ funded in Eco-innova
 - ➔ 2013 – 2016
- Partners
 - ➔ Borderstep Institute, Berlin, Germany
 - ➔ Linköping University, Sweden
 - ➔ Aalto University, Helsinki, Finland
- www.shift-project.eu



Conceptual framework: Support systems for sustainable entrepreneurship

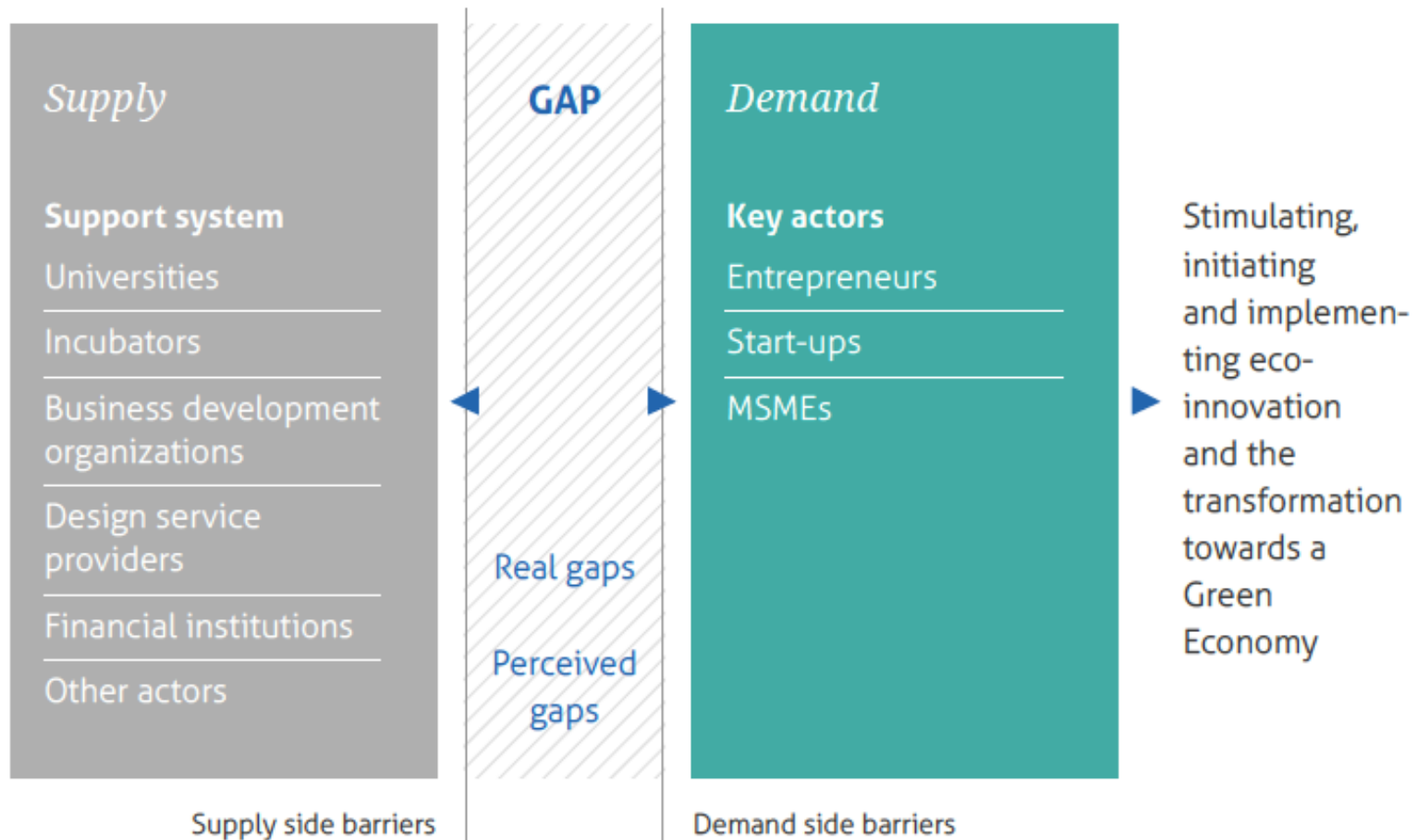


Boosting the development and implementation of eco-innovation



Are there any gaps in the present support systems
in regard to sustainable entrepreneurs?

Identifying gaps between the needs of entrepreneurs and the support system



Universities: key actors in the support system for sustainable entrepreneurship



■ Guiding research question

- ➔ In which regard and how do university support systems for entrepreneurship in Finland, Germany and Sweden have to be changed in order to effectively support the generation and implementation of eco-innovation?

- ➔ What can be learned from this for other countries?

Methodology and steps WP Universities...



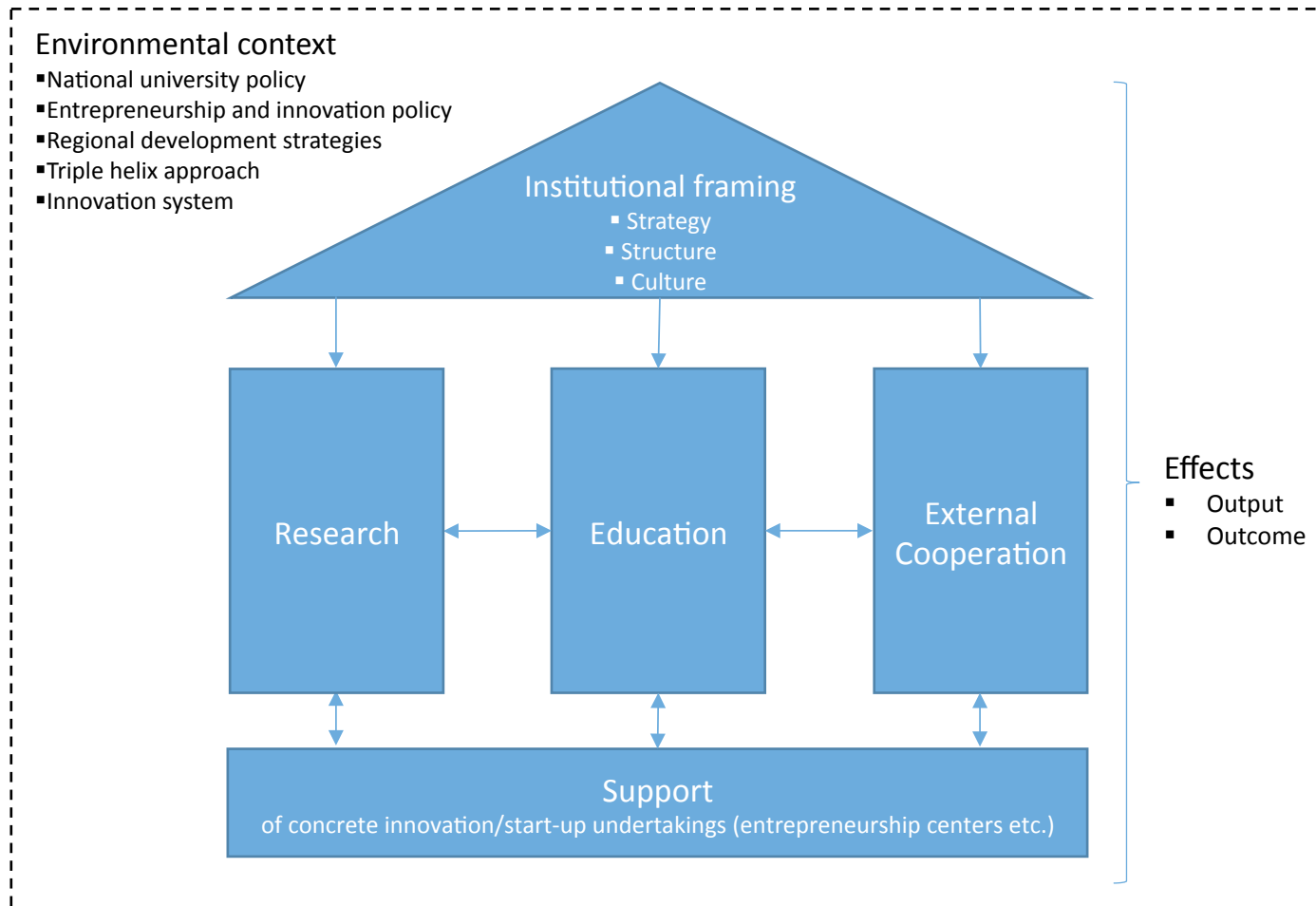
1. Developing a basic research framework (finished in Dec. 2013, working document)
2. State of the art: Broad review of international literature (finished in April 2014, results documented in a 85 pages report)
3. Analyzing existing deficits and potentials: Explorative expert interviews (12 in total, 4 in each country (FIN, D, S), finished in July 2014, result papers for each country)
4. Good practice research (Sept. 2014 – March 2015): Identification (42 examples from S, SF, D, UK and USA), analysis (five fields), working paper with results (50 pages) profiles (2 pages) of 6 cases from Europe (FIN, D, S etc.) and USA (Sept.- Nov. 2014), booklet (6 – 10 pages)
5. In-depth case studies: 4 case studies (2 Europe, 2 USA) (Nov. 2014 – June 2015)
6. Conclusions, transfer, paper writing (Feb. – Sept. 2015).

Inhalt



- Kontext: Das europäische Forschungsprojekt “SHiFT”
- **Konzept zur Untersuchung universitärer Unterstützungssysteme**
- Überblick über Aktivitäten deutscher Hochschulen zur Förderung von Sustainable Entrepreneurship und Umweltinnovationen

Conceptual framework for investigating university support systems



Need for paradigm change? Options for intervention

Perspectives on university policy: Two trends and its (dis-)connection

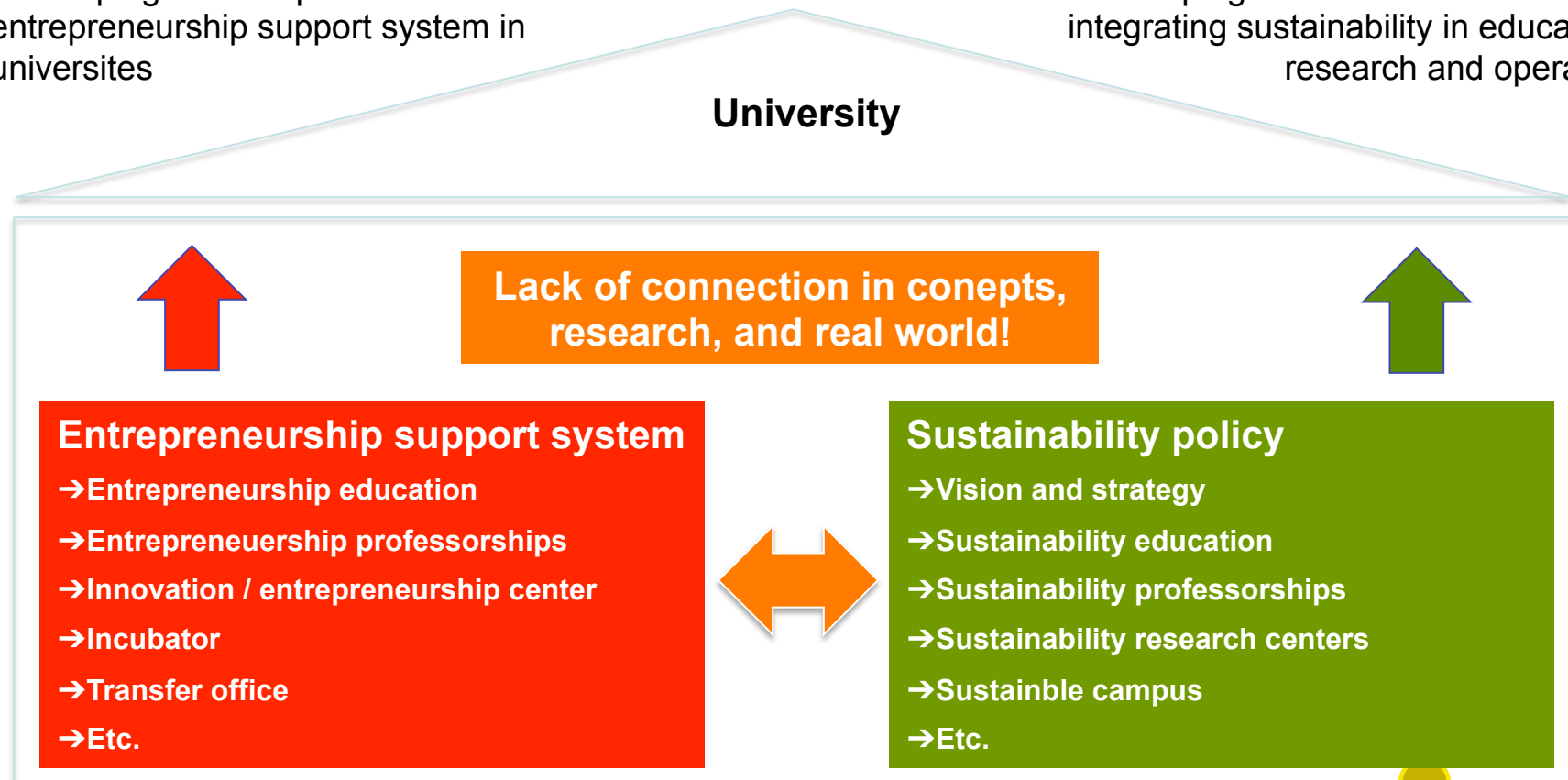


The entrepreneurial university

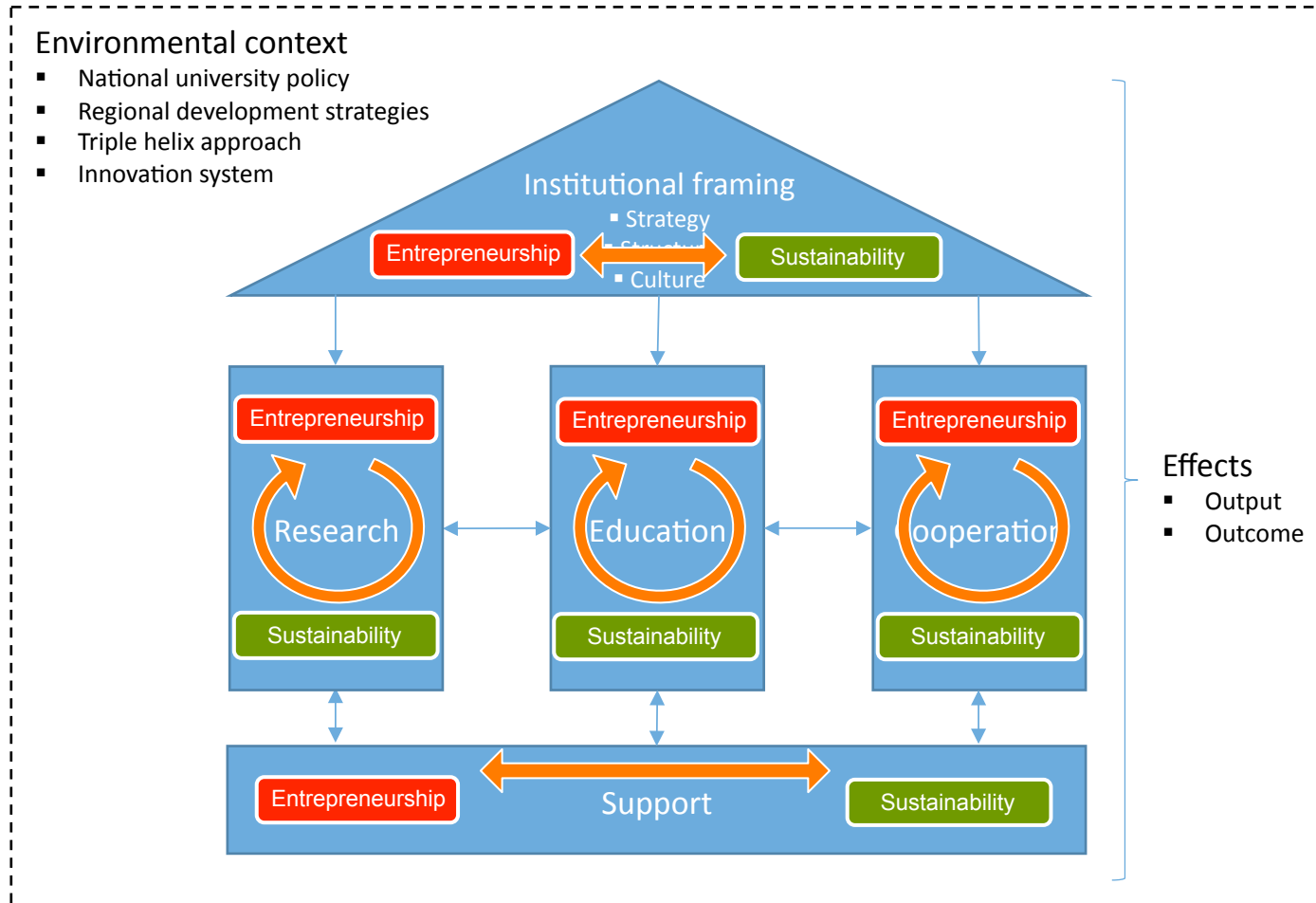
Developing an entrepreneurial culture and entrepreneurship support system in universities

The sustainable university

Developing a sustainable culture and integrating sustainability in education, research and operation



How to analyze the university support system for sustainable entrepreneurship?



Inhalt



- Kontext: Das europäische Forschungsprojekt “SHiFT”
- Konzept zur Untersuchung universitärer Unterstützungssysteme
- **Überblick über Aktivitäten deutscher Hochschulen zur Förderung von Sustainable Entrepreneurship und Umweltinnovationen**

Goal and scope of good practice analysis



■ Goal

- ➔ Identify and outline good practices of higher education institutions (HEIs) that have successfully integrated sustainability in their entrepreneurship support systems
- ➔ Produce good practice profiles (2-pager) and booklet for practitioners and policy makers
- ➔ Serve as basis for further research in SHiFT WP 2: in-depth case studies

■ Scope (selected countries)

- ➔ Leaders in eco-innovation (support) in Europe: Finland, Germany, Sweden (SHiFT-countries)
- ➔ UK: Europe's most international education market
- ➔ USA: world's most global market in higher education, business schools setting milestones and its entrepreneurial centres for global technology entrepreneurship

Methodology



- Identifying universities with good practice
 - ➔ Germany: The basic set are 27 higher education institutions which have been determined as part of the best 25% on the basis of the German HEI Startup Radar 2012
 - ➔ Expert interviews: 12 in total (4 in each country: Finland, Germany, Sweden)
 - ➔ For UK and USA: Desk research (reports e.g. Net Impact (2014), Academic Ranking of World Universities (2014), Universities UK (2014)).
 - ➔ Internet analysis: university websites and sustainability-related reports
- Analyzing universities
 - ➔ Internet analysis: university websites and sustainability-related reports
 - ➔ Scope of analysis of single universities (cf. next slide)
 - ➔ Validation: Results are send to university representatives to check for accuracy and completeness
- Documentation
 - ➔ SHIFT working paper: Good Practice Profiles (42 examples, 106 pages)
 - ➔ 5 country specific papers with overview tables of highlights
 - ➔ 6 two-pagers
 - ➔ Booklet (6 – 10 pages)

Excerpt from documentation



Higher Education Institution:	Programme or Activity (including Description/ Raison d'être):					Programme/ Activity Highlight:
	Institutional integration	Curricula/ teaching	Research	Support of concrete start-up undertakings	External co-operation	
<p>Babson College F.W. Olin Graduate School of Business, Wellesley, MA (Main Campus), Boston, MA, San Francisco, CA (http://www.babson.edu)</p>	<p>Babson College identifies its mission as “to educate entrepreneurial leaders who create great economic and social value – everywhere.” This vision comes across through every aspect of the programme and is wholly supported by the faculty, staff, and students.</p> <p>Babson is committed to integrating social and economic sustainability concepts into the business practices of this next generation of leaders and to create resilient, sustainable prosperity (cf. http://www.babson.edu/about-babson/sustainability/Pages/home.aspx).</p> <p>The theme “creating impact through</p>	<p>Babson prides itself on the development of the Signature Learning Experience (SLE) (cf. http://www.babson.edu/Academics/graduate/mba/Pages/core-curriculum.aspx) programme, in which students prepare cross-disciplinary presentations each quarter that address real-world issues. The second half of the first year is spent working in small teams on semester-long consulting projects. Each year, several of these clients include non-profit and social enterprise organizations.</p> <p>The MBA programme offers an Entrepreneurship concentration (cf. http://www.babson.edu/Academics/graduate/mba/concentrations/Pages/default.aspx). Part of the concentration is</p>	<p>A range of faculty have been committed to research on topics on the social, environmental, and economic dimensions of sustainability (cf. http://www.babson.edu/about-babson/sustainability/education/Pages/Research.aspx).</p> <p>The Lewis Institute (http://www.babson.edu/Academics/centers/the-lewis-institute/lab/Pages/home.aspx) is funding 10-12 cases that fit the criteria of social impact and environmental responsibility.</p>	<p>John E. and Alice L. Butler Venture Accelerator Program (cf. http://www.babson.edu/Academics/center/s/blank-center/venture-accelerator/Pages/venture-accelerator-program.aspx)</p> <p>The John E. and Alice L. Butler Venture Accelerator Program supports and advances the wide variety of entrepreneurial endeavours (starting a business, creating a venture in a family enterprise, buying a business, commercializing a technology, buying a franchise, or growing a non-profit) – from ideation to exit. To do this, the Venture Accelerator Program tailors support based on venture stage and type as well as</p>	<p>Tri-campus Sustainability Certificate (cf. http://www.babson.edu/Academics/undergraduate/curriculum/pages/sustainability-certificate-program.aspx; http://www.babson.edu/about-babson/sustainability/education/Pages/Tri-Campus-Certificate.aspx)</p> <p>Addressing the challenge of using earth’s resources sustainably requires a collaborative and interdisciplinary approach, in which basic research about the causes and consequences of environmental problems is combined with an understanding of the incentives and processes for a large-scale reworking of economic activity and the technology with which to reconfigure the human effect on the natural world.</p> <p>Wellesley, Olin, and Babson colleges provide a joint programme capable of educating students in ways that each cannot accomplish alone.</p>	<p>Babson College is a business school with a strong ethos rooted in entrepreneurship.</p> <p>It has a robust practitioner focus and research has an applied focus (such as case studies) predominantly.</p> <p>Environmental sustainability plays an important role at Babson College and has been integrated into a range of curriculum aspects and on campus generally.</p>

Identified good practice examples



■ Germany

1. Bergische University Wuppertal
2. Flensburg University of Applied Sciences
3. Hamburg University of Technology (TUHH)
4. Karlsruhe Institute of Technology (KIT)
5. Leuphana University of Lüneburg
6. Technical University of Berlin (TU Berlin)
7. Technical University Munich (TU Munich)
8. University of Applied Sciences Munich
9. University of Flensburg
10. University of Hamburg
11. University of Kiel
12. University of Oldenburg
13. University of Stuttgart

■ USA

1. Massachusetts Institute of Technology (MIT), Cambridge, MA
2. Stanford University, Stanford, CA
3. Babson College, Wellesley, MA (Main Campus), Boston, MA, San Francisco, CA
4. Pinchot University, Bainbridge Graduate Institute (BGI), Seattle, WA
5. Presidio Graduate School (PGS), San Francisco, CA
6. UC Santa Barbara, Bren School of Environmental Science & Management, Santa Barbara, CA
7. Santa Clara University, Santa Clara, CA
8. Haas School of Business, University of California at Berkeley, CA

Identified good practice examples



■ Finland

1. Aalto University
2. Hanken School of Economics
3. Lappeenranta University of Technology
4. Turku University of Applied Sciences
5. University of Jyväskylä

■ UK

1. Brunel University, London, England
2. Imperial College London, England
3. University of Exeter Business School, England
4. University of Manchester, England
5. University of Nottingham, England
6. University of Reading, England
7. University of Strathclyde, Glasgow, Scotland

■ Sweden

1. Blekinge Institute of Technology
2. Chalmers School of Entrepreneurship at Chalmers University of Technology
3. KTH Royal Institute of Technology
4. Linköping University (LiU)
5. Luleå University of Technology (LTU)
6. Swedish University of Agricultural Sciences (SLU)
7. Umeå School of Business and Economics
8. University of Gothenburg
9. Uppsala University

Beispiele für die Unterstützung von Sustainable Entrepreneurship an deutschen Hochschulen



- Institutionelle Integration
 - ➔ Leuphana Universität Lüneburg: Leitbild Nachhaltige + Handlungsorientierte Universität
 - ➔ Uni Oldenburg: Sustainable Entrepreneurship als Schwerpunkt EXIST Gründerhochschule
- Forschung
 - ➔ Uni Hamburg: Postdoc-Kolleg „Sustainable Future“ im „Kompetenzzentrum Nachhaltige Universität“; Forschungsprojekte zu nachhaltigen Geschäftsmodellen
- Lehre
 - ➔ TU München: M.Sc. in “International Sustainable Resource Management”; Master Consumer Affairs (Fokus nachhaltiger Konsum); Master Environmental Engineering
 - ➔ Uni Oldenburg: Projektveranstaltung „Eco-Venturing“ (Studierende „beraten“ grüne Start-ups)
- Unterstützung
 - ➔ TU Hamburg-Harburg: InnovationCampus GreenTech, Gründungsberater GreenTech
 - ➔ Hochschule München: Social Entrepreneurship Akademie (mit TUM, LMU, Bundeswehr Uni München)
- Kooperation
 - ➔ Uni Wuppertal: Online-Plattform “Green Entrepreneurship” Kooperation Institut für Gründungs- und Innovationsforschung” (IGIF) und Wuppertal Institute für Klima, Umwelt
 - ➔ TU Berlin: Partner im europäischen Netzwerk Climate KIC, Green Garage Berlin

Find more information at:

www.borderstep.de

www.shift-project.eu

www.innovation.uni-oldenburg.de