

1	<b>Module name</b> 86942	<b>Technological Impact Entrepreneurship for Sustainable Development</b> Technological Impact Entrepreneurship for Development	<b>5 ECTS</b>
2	Courses / lectures	Seminar: Technological Impact Entrepreneurship for Development Block seminar, on-site attendance (mandatory):  <b>Kick-off</b> 25. and 26.04.25 <ul style="list-style-type: none"> <li>• 25.04.25 General kick-off, including Professors (8:00 - 17:00h)</li> <li>• 26.04.25 Kick-off for teamwork under supervision of teaching assistants (9:00 - 17:00h)</li> </ul> <b>Interim presentation</b> 28.05.25 09:00h – 13:00h  <b>Final presentation</b> 25.06.25 09:00h – 13:00h	5 ECTS
3	Lecturers	Prof. Dr. Markus Beckmann Klemens Hering	

4	<b>Module coordinator</b>	Prof. Dr. Markus Beckmann	
5	<b>Contents</b>	<p>This seminar brings together students from the fields of Energy Systems/Power Electronics, Development Economics and Management. At this intersection, students work on a technical innovation for power supply and usage in regions with acute energy poverty, develop a business model for marketing the innovation, investigate its developmental economic impact, and assess possible strategies for evaluating its impact.</p> <p>In a multidisciplinary effort and under supervision of the three involved faculties, the teams will form a fictional start-up to design and market a product or service while measuring its economic, social, and ecological impact. Possible solutions include energy generation and transmission, electricity storage and remote maintenance. However, students are encouraged to come up with their own innovations. The aim is to find a marketable solution that can be sold to firms in rural areas, enabling them to apply the technology to their specific (infra)structural context, either in Europe or abroad.</p> <p>During the seminar kick-off, students will deepen their existing disciplinary knowledge to later work effectively in the multidisciplinary teams (each team has at least one member from each of the three faculties). The kick-off introduces the relevant theory to enable the students to enter more deeply through self-study. In the first four weeks of the course, the teams are supported by the respective chairs in demand-oriented online</p>	

		<p>work-sessions, receiving feedback on their progress and answers to their questions within and between the academic disciplines. In an interim presentation, the participants can then present their progress and give and receive feedback on theory application and practical relevance of the developed solutions. The second half of the seminar allows to incorporate feedback and further develop the product/service.</p> <p>The course ends with a final presentation (50% of the final grade), in which the proposed solution will be presented by the students and discussed with the professors. Two weeks after the final presentation, each team submits a project documentation (50% of the final grade), describing theory and application of their solution.</p>
6	<p><b>Learning objectives and skills</b></p>	<p>Students</p> <ul style="list-style-type: none"> <li>• Acquire and deepen knowledge of the three areas of electrical engineering (specifically power electronics in the field of renewable energy), development economics and (impact) entrepreneurship.</li> <li>• Get a deep dive into their own field of study but a good overview of the other two segments and understand the dependencies.</li> <li>• Address issues regarding the definition and measurement of economic, social and environmental impact and how these can be integrated into the corporate mission.</li> <li>• Learn through multidisciplinary collaboration the interdependence of decision criteria (product ↔ production ↔ energy demand and generation ↔ market entry planning ↔ business plan ↔ sustainability)</li> <li>• Can independently create a practice concept for an impact enterprise in cooperation with a wide variety of fields.</li> <li>• Can understand, describe, and compare impact entrepreneurship as an entrepreneurial problem-solving approach for social challenges.</li> <li>• Consider local contexts within which innovations generate impact.</li> <li>• Acquire argumentation competence and critical reflection in their own subject discipline and can understand socially relevant issues by combining different logics and explain them within working groups.</li> <li>• Develop interdisciplinary feedback competences.</li> <li>• Can give presentations relevant to practice.</li> <li>• Can process complex questions analytically and make pragmatic decisions.</li> <li>• ...</li> </ul>
7	<p><b>Prerequisites</b></p>	<p>Basic knowledge in <b>one</b> of the following fields: power electronics, development economics, management</p>

8	<b>Integration in curriculum</b>	semester: 4;2;6
9	<b>Module compatibility</b>	<p>Wirtschaftswissenschaften Austauschstudium Bachelor Wirtschaftswissenschaften 1 Studienbereich Nachhaltigkeitsmanagement Bachelor of Arts (1 Fach) International Business Studies 20172 Vertiefungsbereich Bachelor of Arts (1 Fach) International Business Studies 20172 Schwerpunkt International - Vertiefungsbereich Bachelor of Arts (1 Fach) Sozialökonomik 20152 Schwerpunkt Verhaltenswissenschaften - Vertiefungsbereich Bachelor of Arts (1 Fach) Sozialökonomik 20152 Schwerpunkt International - Vertiefungsbereich Bachelor of Arts (1 Fach) Sozialökonomik 20172 Schwerpunkt Verhaltenswissenschaften - Vertiefungsbereich Bachelor of Arts (1 Fach) Sozialökonomik 20172 Studienbereich Nachhaltigkeitsmanagement Bachelor of Arts (1 Fach) Sozialökonomik 20172 Schwerpunkt International - Vertiefungsbereich Bachelor of Arts (1 Fach) Sozialökonomik 20232 Schwerpunkt Verhaltenswissenschaften - Vertiefungsbereich Bachelor of Arts (1 Fach) Sozialökonomik 20232 Studienbereich Nachhaltigkeitsmanagement Bachelor of Arts (1 Fach) Sozialökonomik 20232 Schwerpunkt BWL - Vertiefungsbereich Bachelor of Arts (1 Fach) Wirtschaftswissenschaften 2010 Schwerpunkt VWL - Vertiefungsbereich Bachelor of Arts (1 Fach) Wirtschaftswissenschaften 2010 Schwerpunkt WINF - Vertiefungsbereich Bachelor of Arts (1 Fach) Wirtschaftswissenschaften 2010 Schwerpunkt Wirtschafts- und Betriebspädagogik I - Vertiefungsbereich Bachelor of Arts (1 Fach) Wirtschaftswissenschaften 2010 Studienbereich Nachhaltigkeitsmanagement Bachelor of Arts (1 Fach) Wirtschaftswissenschaften 2010 Schwerpunkt BWL - Vertiefungsbereich Bachelor of Arts (1 Fach) Wirtschaftswissenschaften 2011 Schwerpunkt VWL - Vertiefungsbereich Bachelor of Arts (1 Fach) Wirtschaftswissenschaften 2011 Schwerpunkt WINF - Vertiefungsbereich Bachelor of Arts (1 Fach) Wirtschaftswissenschaften 2011 Schwerpunkt Wirtschafts- und Betriebspädagogik I - Vertiefungsbereich Bachelor of Arts (1 Fach) Wirtschaftswissenschaften 2011 Studienbereich Nachhaltigkeitsmanagement Bachelor of Arts (1 Fach) Wirtschaftswissenschaften 2011 Schwerpunkt BWL - Vertiefungsbereich Bachelor of Arts (1 Fach) Wirtschaftswissenschaften 20172 Schwerpunkt VWL - Vertiefungsbereich Bachelor of Arts (1 Fach) Wirtschaftswissenschaften 20172 Schwerpunkt WINF - Vertiefungsbereich Bachelor of Arts (1 Fach) Wirtschaftswissenschaften 20172</p>

		<p>Schwerpunkt Wirtschafts- und Betriebspädagogik I - Vertiefungsbereich Bachelor of Arts (1 Fach) Wirtschaftswissenschaften 20172</p> <p>Studienbereich Nachhaltigkeitsmanagement Bachelor of Arts (1 Fach) Wirtschaftswissenschaften 20172</p> <p>Schwerpunkt BWL - Vertiefungsbereich Bachelor of Arts (1 Fach) Wirtschaftswissenschaften 20202</p> <p>Schwerpunkt VWL - Vertiefungsbereich Bachelor of Arts (1 Fach) Wirtschaftswissenschaften 20202</p> <p>Schwerpunkt WINF - Vertiefungsbereich Bachelor of Arts (1 Fach) Wirtschaftswissenschaften 20202</p> <p>Schwerpunkt Wirtschafts- und Betriebspädagogik I - Vertiefungsbereich Bachelor of Arts (1 Fach) Wirtschaftswissenschaften 20202</p> <p>Studienbereich Nachhaltigkeitsmanagement Bachelor of Arts (1 Fach) Wirtschaftswissenschaften 20202</p> <p>Schwerpunkt BWL - Vertiefung Bachelor of Arts (1 Fach) Wirtschaftswissenschaften 20222</p> <p>Wahlpflichtbereich Nachhaltigkeit III Bachelor of Arts (1 Fach) Wirtschaftswissenschaften 20222</p> <p>Wahlpflichtbereich Studienrichtungen Bachelor of Arts (1 Fach) Wirtschaftswissenschaften 20222</p> <p>Schwerpunkt BWL - Vertiefung Bachelor of Arts (1 Fach) Wirtschaftswissenschaften 20232</p> <p>Wahlpflichtbereich Nachhaltigkeit III Bachelor of Arts (1 Fach) Wirtschaftswissenschaften 20232</p> <p>Wahlpflichtbereich Studienrichtungen Bachelor of Arts (1 Fach) Wirtschaftswissenschaften 20232</p> <p>Elective modules Bachelor of Science International Business Studies 20202</p> <p>Elective modules Bachelor of Science International Economic Studies 20202</p> <p>Bachelorprüfung Bachelor of Science Wirtschaftsingenieurwesen Informations- und Kommunikationssysteme 2009</p> <p>Wahlmodul aus dem Angebot des Fachbereichs WiSo Master of Science Chemical Engineering - Nachhaltige Chemische Technologien 20232</p> <p>Nebenfach Wirtschaftswissenschaften Master of Science Wirtschaftsmathematik 20192</p>
10	<b>Method of examination</b>	<p>Project/practical report</p> <p>Presentation</p> <p>Course requirements (Studienleistung): Mandatory presence at the kick-off days, interim presentation and final presentation.</p>
11	<b>Grading procedure</b>	<p>Project/practical report (50%)</p> <p>Presentation (50%)</p> <p>Final presentation (50% of grade) and Documentation (50% of grade)</p>
12	<b>Module frequency</b>	Only in summer semester
13	<b>Workload in clock hours</b>	Contact hours: 30 h

		Independent study: 120 h
14	<b>Module duration</b>	1 semester
15	<b>Teaching and examination language</b>	english
16	<b>Bibliography</b>	Additional materials will be provided via StudOn and in the course