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Ingrid Hemmer and Péter Bagoly-Simó

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Making the Campus Sustainable

The Example of the Catholic University of Eichstaett-Ingolstadt

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1 Introduction

What does sustainable development look like at universities? What is the current status of its implementation in Germany? Which factors promote it and which difficulties arise in the individual contexts? These are some of the main questions this paper dedicates special attention to. In doing so, the focus is on the Catholic University of Eichstaett-Ingolstadt.

2 Universities and Their Contribution to Sustainable Development

Formal, informal, and non-formal education have been embracing concepts of sustainable development for decades. Chapter 36 of the global Agenda 21 stresses the importance of education for the process of general transformation towards more sustainable societies. Despite its clear focus on the K-12 stages of formal education, Chapter 36 also sets a framework for higher education (cf. BMUNR 1992). According to the document, universities should work and teach following the principles of (Education for) Sustainable Development (ESD). In the wake of the Earth Summit, several international, regional, and national charters and declarations on (E)SD in higher education were signed. Among the most relevant ones are the Copernicus Charter (1994), the Thessaloniki Declaration (1997), the Lueneburg Declaration (2001), and the Lucerne Declaration on Geographical Education for Sustainable Development (2007). Ratified two years after the Earth Summit, the Copernicus Charter (1994) set ten principles of action on the agenda of institutions of higher education: institutional commitment, environmental ethics, education of university employees, programs in Environmental Education (EE), interdisciplinary approaches, dissemination of knowledge, networking, partnership, life-long learning programs, and technology transfer. Fifteen years after the 1992 Rio Summit, geographers from around the globe gathered in Lucerne to

develop a core declaration to foster the implementation of (E)SD into formal geography education.

Comparing institutions of higher education on a regional scale shows that the most visible progress in the area of (E)SD implementation among German universities has been achieved so far at the Leuphana University of Lüneburg. Several other universities, such as the Eberhard-Karls University of Tuebingen, the University of Bremen, and the University of Hamburg made the first steps to become more sustainable.

Along with pioneers like the Leuphana University of Lüneburg, the Sustainable University of Applied Sciences Eberswalde, and the Birkenfeld Campus of the University of Trier, the Catholic University of Eichstaett-Ingolstadt is the only university in Bavaria adopting a resolute institution-wide approach, one of the four most important measures in the United Nations' Global Action Programme, the UN's follow-up initiative to the Decade of Education for Sustainable Development (UNDESD) (cf. UNESCO 2013). A whole-institution approach consisting of research, education, and campus management proved to be the most efficient way to achieve the goal of universities becoming social role models. Thereby, research and education are the two dimensions that strongly interact and lead to synergies. However, a corresponding (re-)design of campus management according to the principles of (E)SD is indispensable to live up to their own standards of sustainability (see Figure 1). In the following, the Catholic University of Eichstaett-Ingolstadt serves as an example to illustrate how the institution-wide approach is put into practice.

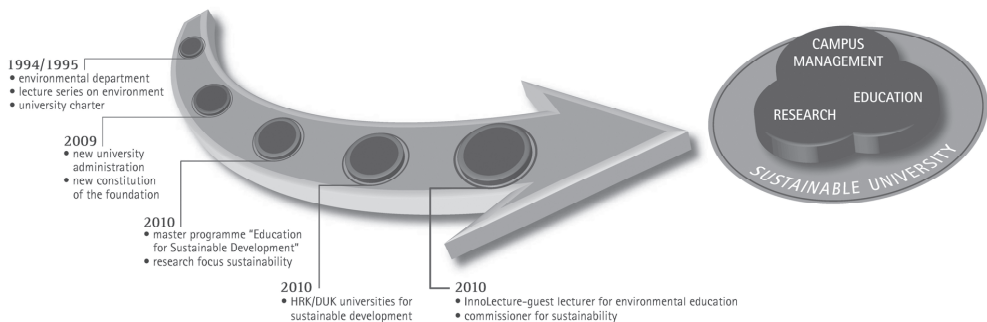
3 The Catholic University Eichstaett-Ingolstadt: Becoming a More Sustainable University

The implementation of (E)SD can follow different paths. In many cases, however, implementation is a result of a mixture of bottom-up and top-down strategies (cf. Nickolaus/Graesel 2006). This is the case for the Catholic University of Eichstaett-Ingolstadt.

Three years after the Earth Summit, student initiatives started promoting SD at an institutional level. Among the most significant actions were (guest) lecture series that aimed at raising awareness among students, faculty, and staff. One of the most important results of this action was the introduction of the concept of SD both at the institutional level and within different departments. Consequently, the bottom-up initiatives produced a paper demanding a stronger discussion of SD at the Catholic University of Eichstaett-Ingolstadt. In spite of the fact that the institution had already signed the University Charter for Sustainable Development within the Copernicus-Program as early as 1994, university administration during the mid-1990s was less willing to dedicate more attention to SD. As a consequence, students carried out all initiatives

(e.g. the continuation of the guest lectures about environmental and sustainability issues) aiming at making the university more sustainable. Over the 2000s the initiatives experienced a progressive decay, until SD was reintroduced in 2008 on the university's agenda. Once again, student initiatives were of central relevance. Members of the Student Council for Environmental Issues restarted the guest lecture series and created the "Sustainable Campus" project, an award-winning initiative at the national competition "Generation D". Within this initiative, recommendations like the use of recycled-paper or fair trade products sold at the cafeterias were put into practice. Additional initiatives, such as the use of solar energy on campus, are still being discussed.

Figure 1: Development of (E)SD at the Catholic University of Eichstaett-Ingolstadt



Source: modified after Hemmer et al. 2012, p. 14

The revival of student-driven bottom-up initiatives at the end of the last decade came along with major changes at the level of university administration. Starting with 2008, sustainability was even included in the institution's new constitution (*Stiftungsverfassung*) and became a more important issue in all relevant areas, namely education, research, and campus management. Regarding education, courses started discussing sustainability following an interdisciplinary approach. In addition, a new Master of Science program "Geography: Education for Sustainable Development" started in fall 2010. Research about SD also became more central as different research programs with an emphasis on sustainability topics were launched.

The Declaration of German Rectors and the German UNESCO Commission "Universities for Sustainable Development" offered the strongest support to these initial achievements. Moreover, an InnoLecture Guest Lectureship in EE funded by the Foundation for German Science and the newly introduced position of ESD-Commissioner in 2010 further nurtured (E)SD at the Catholic University. Student initiatives

coming from different departments and subjects also reinforced past bottom-up support. As a consequence, in late 2010 the university administration released the institutional Sustainability Strategy. The document aims to contribute to SD by means of three main areas: education, research, and campus management. Figure 1 summarizes the most important steps and players during the last two decades.

4 Awareness Level and Acceptance of the New Overall Concept

Unlike past bottom-up actions, several recent decisions regarding (E)SD were implemented in a top-down manner. In addition, some of these decisions had reduced visibility and effects on education and life on campus. Therefore, it was of great importance to explore the visibility and acceptance of the new overall concepts among students and faculty.

4.1 Methods and Sample

To map the diffusion and acceptance of the new overall concept of the university, an exploratory survey was carried out in June-July 2011. The sample consisted of 42 students aged 21–30 (14 male, 26 female) in their 4th to 9th semester majoring in Geography and German with Latin, English, French or History as minors. Most respondents were enrolled in teacher training programs at bachelor level with an emphasis on primary or secondary education.

Data was collected by means of a questionnaire. Throughout the sampling, assistance was offered by student helpers. The questionnaire surveyed prior knowledge on the concept of SD, awareness of the new overall concept of sustainability, and options to increase awareness. Rebecca Schwenk and Simone Krummer carried out data collection and preparation as part of their seminar activity within the module Sustainable Development in the summer semester of 2011.

4.2 Results

The results show that most students possess prior knowledge on one or more aspects of sustainable development. Mapping prior knowledge was based on an open question asking respondents to name three concepts related to sustainable development. Geography students named – in order of frequency – the dimensions (ecological, economical, and social) of sustainability, followed by the concept of future, and resource and environmental preservation. Students majoring in German placed environmental pres-

ervation on the top of their list. Resource preservation counted second, while the third named concept showed some heterogeneity: education, future, growth, and stability. Thus, future geographers think in terms of sustainable development, while future philologists (still) stress the aspect of natural conservation.

Another item asked respondents to give a definition of sustainable development. Results reflect the same discrepancy described above. For most Geography students sustainable development is “[r]esource consumption in a way that enables future generations to enjoy them. This happens on ecological, economical, and social bases”. In addition, some respondents also pointed out aspects of “social, economic, and ecological equity/justice”. Students majoring in German conceptualized sustainable development as a way to “shape the future in a lucrative and environmentally sound manner”. However, according to other respondents, sustainable development is “[m]easured use of resources to make sure that following generations have something too”. In contrast to their fellow students, German majors added (again) an educational dimension: sustainable development is “long-term and future-oriented education and research”. In spite of this conceptual and definitional diversity, not all respondents were able to define sustainable development. Geography majors (76.19%) did somewhat better in comparison with students majoring in German (66%).

Participants who defined sustainable development were asked in the subsequent item to rank the importance of the concept on a scale from 1 (very important) to 5 (not important at all). Both groups of respondents displayed the highest frequency counts on value 2 (important). In contrast, students majoring in Geography displayed the second-highest frequency counts on very important (value 1), whereas German majors opted in the second-most cases for neither important nor unimportant (value 3).

The fourth category of items explored the visibility and perception of the university’s overall concept of sustainable development. Almost twice as many Geography majors (86%) were familiar with the overall concept as their fellow students majoring in German (43%). However, some differences in the degree of familiarity need to be addressed. More than half of all participants (57%) were marginally familiar with the concept and an additional 14% had only a rough idea of it. A quarter of all respondents were not familiar with the decision of the Catholic University regarding sustainability initiative changes. While twice as many Geography majors had a rough idea of the overall concept as German majors, two times more German majors were not familiar at all with the new concept as compared to Geography students. Only three per cent of all respondents were familiar with the details of the new overall concept.

When asked to name possible solutions for improved visibility for the new overall concept, students offered a wide range of solutions. High on the agenda of both Geography and German majors was online visibility (e.g., the institution’s main homepage). According to the respondents, the new overall concept needs stronger visibility by being placed on the homepage. Further, Geography students suggested an integration of the new overall concept into elements of corporate design, specifically the uni-

versity logo. Students majoring in German considered information points and information days as the important actions that could be taken to improve visibility. On the top three list of what can be done, Geography majors placed implementation of sustainable development into educational offerings (courses and seminars) in third place. Courses were on rank three in the top 3 of German majors also, along with flyers, stronger public relations work, and posters.

Students also had suggestions regarding the implementation of sustainable development into everyday life on campus. Geography majors named posters, (guest) lectures, changes in educational offerings, field trips, and also direct steps such as the use of energy from renewable sources (specifically electricity) or waste separation around campus. Students majoring in German also suggested general actions such as (guest) lectures, posters, changes in the educational offerings. In more specific terms, they also pointed out the usefulness of workshops and projects directly related to sustainable development. Another suggestion given by several respondents was to offer best practice examples within the (guest) lectures. Regarding campus management, the Catholic University could use recycled paper, reduce overall paper consumption, and a switch to solar energy.

4.3 Discussion

The exploratory survey revealed various aspects of the way students perceive the implementation of sustainable development at the Catholic University of Eichstaett-Ingolstadt.

Most Geography majors defined sustainable development according to the triple-pole model but also stressed aspects of intra- and intergenerational equity/justice. In contrast, German majors complemented the concept of sustainable development with an educational dimension. These results can be explained on one hand by the affinity of the geographical sciences with the triple-pole model of sustainability and, on the other hand, by the stronger affinity of German literature and linguistics with the professional requirements of future teachers. For the latter group, sustainable development often manifests itself in a practical way, such as waste management or paper recycling, whereas Geography majors appear to grasp the larger conceptual dimension in part through their academic training.

Both student groups expressed personal interest for the university's new overall concept. In spite of their different backgrounds, most students only marginally reflected awareness of the changes in the overall concept. The higher familiarity of Geography students with certain aspects of changes on the university level is due to the localization of early initiatives and the recent support for a more sustainable university in the Faculty of Mathematics and Geography, especially within the geography chairs.

Faculty actively involved in the new overall concept directly implemented changes into their educational activities.

Suggestions regarding higher visibility, better acceptance, and more successful implementation of the new overall concept covered two of the three main areas (education, research, and campus management) of sustainable development at the Catholic University of Eichstaett-Ingolstadt.

Concerning education, students expressed their wish to learn more about sustainable development in two main ways. First, sustainability aspects should be implemented into their subject-related training. While this aims at a broad coverage of sustainability in all training programs, the challenge lies in the research and teaching autonomy of faculty. Further, some subjects might encounter difficulties in implementing sustainable development into their respective programs. Second, a general (guest) lecture series and workshops could complement subject-related higher education, meeting individual preferences and needs. While this suggestion probably is an easier (initial) way of implementing a new overall concept, it might also reflect students' reluctance to accept compulsory modules on sustainability as part of their graduation requirements.

Campus management is the second main areas covered by students' suggestions. Several aspects mentioned in the questionnaires emerge from individual every-day experiences of un-sustainability on campus. Waste separation is, for example, not solved by far. Further, waste management remains a challenge for the entire institution. Renewable sources of energy, specifically solar energy, were on the top of many of the respondents' agendas. This strong emphasis on electricity, however, might be a direct cause of the ongoing debate on the nuclear power phase-out in Germany. A stronger control of paper consumption along with alternative sources, such as recycled paper, was mainly on the agenda of German majors. This is probably strongly subject-related and a consequence of the degree of digitization of management, administration, and teaching.

5 The Realization of the Overall Concept from 2012 to 2014

A new university administration was elected in the fall of 2011. While overall progress continued, certain areas of the overall concept reached a phase of stagnation. Concerning research, the Sustainability Graduate School, which was founded in 2010, continued its work. In addition, several new and large research projects with a focus on sustainable development started at the campus in Eichstaett (e.g. SuMaRiO-Sustainable Management of River Oases along the Tarim River). An international conference of more than a hundred participants was held in Eichstaett at the end of 2012.

This conference brought together young scientists who presented and discussed their postgraduate and Ph.D. projects from different fields of (E)SD. Additionally, keynote addresses given by well-known scientists highlighted critical aspects of past development and outlined perspectives for the future (cf. Müller et al. 2014). First steps to establish an interdisciplinary Research Institute for Sustainability were made, however, organizational and institutional decision is still pending.

Regarding education, several departments, especially Geography, Social Work, Psychology and Economics, opted to include sustainable development and ESD into their educational offerings. The interdisciplinary module “Sustainable Development”, which was created as a facultative module in 2011, has received the status of an elective module in a growing number of programs. Demand is still considerable. There are ambitions to integrate sustainability with two other fields into Studium generale, which would result in one third of the students at the Catholic University being familiar with sustainability. However, stronger networking and evaluation within and among the individual departments is still pending. An award for the best thesis in the field of sustainability was handed out for the first time in November 2014.

Regarding campus management, the process of preparation for the EU Eco-Management and Audit Scheme (EMAS) certification started in 2011. Within this process the executive board identified and defined fourteen measures (including waste and energy management, and also reporting on the implementation status of sustainable development) to be taken by the end of 2014. The process accelerated thanks to the support of the university’s new chancellor, elected in 2012, who opened a position for campus management. Although not included in the overall concept, bottom-up initiatives coming from administrative staff created a program in which the Catholic University has improved green electricity use since January 1st, 2012. Additionally, a solar power system was installed on the roof of the cafeteria. Along these lines, two Sustainability Reports for the years 2012 (cf. Hemmer et al. 2013) and 2013 (cf. Hemmer et al. 2014) were published. Students participated in the creation of both reports. The report of the Catholic University of Eichstaett-Ingolstadt compared well to sixteen reports from other universities. Nonetheless, a need for improvement was also revealed (cf. Sassen et al. 2014). The efforts over the recent years were rewarded in fall 2013 when the sustainability concept was awarded the distinction of “UN-Decade Project”.

The Plan for Structure and Development of the Catholic University of Eichstaett-Ingolstadt was released in early 2014. Much effort by the commissioner for sustainability was necessary to integrate sustainability as an element of both profile and field of action. However, higher-clarity statements at some points could have been desirable. Students and their well-established participation in the concept including bottom-up initiatives such as “The Day of Eco-Social Market Economy”, the Dialogue on Sustainability, waste programmes, clothing exchange parties, and many more were vital elements of the development of a more sustainable university.

6 Networks and Cooperation

6.1 The International and National Scale

The Catholic University of Eichstaett-Ingolstadt supports and organizes various activities in different fields for both national and international networking and cooperation. One example comes from the Chair of German Language and Literature Education. The chairwoman provided five students from the teacher-training program with the opportunity to do an internship in Uganda. This has resulted in a long-term partnership and a return visit that is expected to take place in the near future. Another example comes from the Professorship of Geography Education. As parts of field trips to Switzerland in 2012 and Austria and Hungary in 2014, students had the opportunity to have close encounters with protagonists in the field of sustainability including representatives from the Universities of Berne, Graz and Vienna. The commissioner for sustainability is very active in various committees of the UNDESD on a national level, in particular the working group “Universities and Sustainability” that supported the sustainability initiatives at the Catholic University of Eichstaett-Ingolstadt.

6.2 The Regional and Local Scale

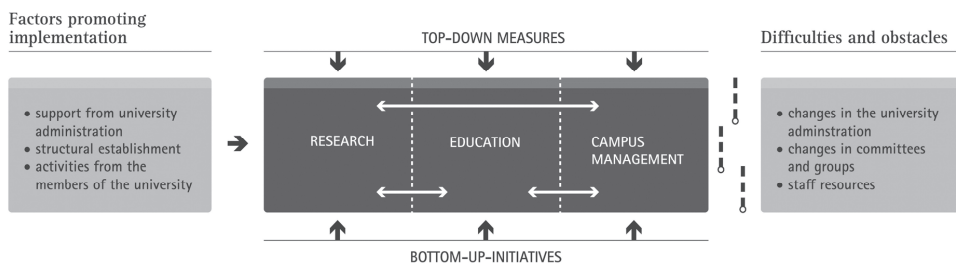
The Catholic University of Eichstaett-Ingolstadt is part of several networks in Bavaria, for example the Round Table for Education for Sustainable Development within the Bavarian Ministry for Environment. Together with the Munich University of Applied Sciences, the Catholic University initiated the Bavarian network of “Universities for Sustainable Development”, which is a regional section of the national working-group “Universities and Sustainability”, and aims at promoting the rather reluctant implementation of (E)SD at Bavarian universities. For this action, the Catholic University and its partners were awarded the distinction UN-Decade-Measure (cf. DUK 2014, p. 14). Moreover, the Catholic University also cooperates on a regional and local level with the working-group “Nature and Environmental Education ANU e.V.”, the diocese of Eichstaett, the Bavarian “Centers for Environmental Education”, the One World Initiatives, and the city of Eichstaett on its development as a Fair Trade City. Despite the interest and opportunities for cooperation, scarce human resources impede further networking on the regional and local scale.

7 Factors Promoting Implementation and Challenges

Summarizing the implementation achievements on the overall concept over the last four years, the Catholic University of Eichstaett-Ingolstadt has taken a considerable

step towards becoming a more sustainable university. A range of factors contributed to this process (see Figure 2). Of central importance was, among others, the synergy between bottom-up and top-down initiatives and measures, the great support of the university administration in 2008, one to two dozen engaged faculty, administrative staff continuously verbalizing their concerns and needs, and two active student groups who kept the subject on the agendas of various stakeholders.

Figure 2: Implementation of the Whole-institution Approach of the Catholic University of Eichstaett-Ingolstadt



Authors' Archive

Strong promotion of sustainability undoubtedly influenced the consideration of (E)SD issues in the institution's new constitution (*Stiftungsverfassung*), the whole concept of sustainability, the process of EMAS-certification, the appointment of a commissioner for sustainability, the opening of a position for campus management, and the appointment of the chancellor as responsible party for sustainability matters with the university administration.

Challenges arose because of two changes in the university administration between 2010 and 2014 resulting in poor and slow decision-making. Furthermore, steady changes in committees and student groups led to the necessity to popularize the university's overall concept of sustainable development over and over. Finally, the number of participants who put significant effort into this concept is still very limited, since working for a more sustainable university is still voluntary and translates into an additional workload to one's regular tasks, as exemplified by the activities of the commissioner for sustainability. Thus, the most important factor limiting activities are shortcomings in human resources.

8 Prospects

From a current perspective, the Catholic University of Eichstaett-Ingolstadt will continue its journey to become a more sustainable university. Once again, a change in university administration must be optimized. It would be desirable to transform the Catholic University of Eichstaett-Ingolstadt in particular and institutions of higher education in general into engines of sustainable development for regions and cities. Transdisciplinary projects already taking place today need to be reinforced, particularly in terms of human resources. Financial and human resources seem to be the key factors to not only enable universities to become aware of their responsibilities, but also to fulfil their commitment.

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