
SUSTAINABLE UNIVERSITIES IN GERMAN SPEAKING COUNTRIES – AN OVERVIEW

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Abstract

Sustainability takes a leading role in the conduct of nations, companies and society, not only concerning environmental issues but increasingly focusing on sustainable management as an important social and economic factor. Universities have to face these challenges, too, particularly as they provide knowledge and skills necessary to cope with global challenges. Therefore, universities do not only have to ensure that sustainability finds its way onto a syllabus, they also should act sustainable themselves. This paper provides a general overview of the current status of sustainability efforts in the field of higher education in German speaking countries. Therefore, a sample of 40 best-practice universities throughout Germany, Austria and Switzerland was investigated. As a result, this survey does not only reveal how divergent the different concepts of implementing sustainability are, but rather offers points of approach for further research leading to a concise definition of sustainable universities.

Keywords

sustainability, higher education, sustainable universities, sustainable education, education for sustainable development, governance.

JEL Classification

I23, O30, Q01

Introduction

In 2015, the United Nations passed 17 global goals for sustainable development (SDG) regarding economic, social and ecological issues (UN, 2015). Though every member state of the United Nations approaches differently, institutions for higher education play a key role in achieving these goals. They impart knowledge and skills necessary to face the challenges of global issues like climate change or poverty. Beside setting an ideological and political framework the United Nations even propose substantial guidance. For example, in 2008 the ‘Decade Education for Sustainability’ was initiated (UNDESD, 2008), and in 2012, the United Nations Conference on Sustainable Development in Rio de Janeiro called for a ‘Commitment to Sustainable Practices in Higher Education Institutions’ (HESI, 2012). The recent publication ‘Education for Sustainable Development Goals: Learning

Objectives' released in 2017 "identifies learning objectives, suggests topics and learning activities for each SDG, and describes their implementation on different levels from course design to national strategies" (UNESCO, 2017, p.8). However, the concrete way universities put these goals into practice differ widely. Most universities claim to be sustainable, but only few of them developed holistic approaches covering all essential characteristics of a comprehensive sustainability scheme. Therefore, the aim is to give an overview of the current state of the implementation of sustainability principles at universities in German speaking countries.

1. Sustainable universities

Institutions for higher education actively take part in the social development of their respective countries, as they both are educational and scientific institutions, consumers and employers. They even have a major influence on the social environment of a town or region (UN, 1992, ch.31,35). Therefore, these institutions must assume responsibility for creating a long-term, future-proof and thus sustainable development (Dyllick and Hockerts, 2002). Although "there is no generally accepted definition or criteria of what defines a 'sustainable university'" (Bohunovsky et al., 2014, ch.1), there can be identified fundamental areas all universities have to deal with.

Universities impart skills to their students thus enabling them to contribute to a knowledge-based society characterized by life-long-learning. Therefore, universities should not only focus on teaching sustainability as a content, but must also provide employability skills. Consequently, sustainability needs to be integrated into the curriculum. Furthermore, universities need to develop didactic methods that "are appropriate to teach critical reflection, to raise awareness of the strong interrelations between the topics or to demonstrate the high complexity of the challenges as well as the possible solutions" (Bohunovsky et al., 2014).

Through interdisciplinary and problem-oriented research in the field of sustainability universities can meet the requirements of all three pillars of sustainable development. Their solutions can contribute to develop and enforce problem-oriented solutions in these fields (Allianz Nachhaltige Universitäten in Österreich, 2014, p.3). Networking and multidisciplinary cooperations within and between universities, either national or international, as well as with companies, promote the transdisciplinary knowledge transfer. In this way, they significantly increase the acceptance of the principle of sustainability throughout society (Mueller, 1988).

As opinion leaders universities influence the development and living conditions of future generations, in this context being a role model for performance, innovation, integrity and, not least, sustainability. Future decision-makers and teachers have to be educated with a focus on the enhancement of environmentally conscious attitudes, capabilities and behaviour patterns as well as ethical responsibility (Barth and Rieckmann, 2016, ch.7). Educating, promoting, encouraging, and building the awareness for sustainability in combination with creating the appropriate structural, spatial, and financial framework leads to a number of students' initiatives, where they can develop skills by learning through experience (North, Reinhardt and Sieber-Suter, 2012, p. 87).

Dierkes and Marz state that an organization's guiding principles represent an anticipation of the future, derived by what is considered to be feasible and desirable (Dierkes and Marz 1998, p.379). These being a combination of long-term interests and standards, guiding principles should guide the actions of all stakeholders involved, mobilize them and shape

their identity (Dierkes, Marz and Hoffmann, 1992, p.52). According to Hassel the importance of guiding principles exceed mere imagebuilding and can be seen as a part of corporate action (Hassel et al., 2000).

Universities must also act as learning organisations. By continuously improving their concepts of sustainable development they act sustainable. One example is ‘Green Campus’, a term which covers the voluntary commitment to act environmentally-conscious (Sharp, 2002). Another approach is to be audited by independent third parties. The most demanding certification in this context is the Eco Management and Audit Scheme (EMAS). Developed by the European Commission for companies and other organizations EMAS evaluates, reports, and improves an organization’s environmental performance (Council Regulation (EC) No. 1221/2009).

The following figure 1 illustrates the findings, matched to four fundamental areas of action.

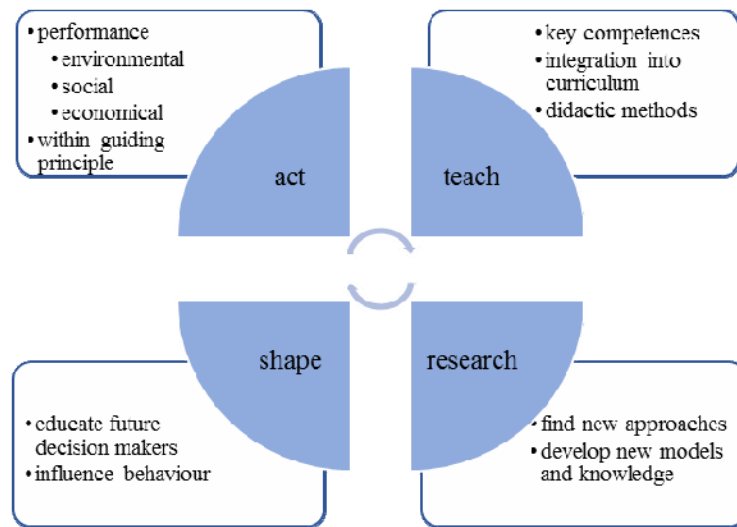


Figure no. 1: Sustainable Universities

Source: Authors' contribution based on Müller-Christ, 2011, pp.60-71, Allianz Nachhaltige Universitäten in Österreich, 2014, UNESCO, 2017

2. Research methodology

This paper aims to give an overview of the wide range of individual interpretations of what a sustainable university is. In order to provide a suitable basis for the analysis, a qualitative sample of 20 German, 11 Austrian and 9 Swiss universities has been selected according to the intensity sampling method. This method selects a small number of rich cases which provide in depth information of the phenomenon of interest (Patton, 2002). Because this method requires prior exploratory work, universities referred to as best practice or role model in papers and surveys dealing with the development of sustainability efforts at universities are included in this study.

For Germany these are best-practice universities elaborated in a report published within the framework of a project funded by the German Federal Ministry of Education and Research (Weisser, Geibel and Dembski, 2016?). For Austria a paper about sustainable universities in Austria published by Bohunovsky et al. was taken (Bohunovsky et al., 2014), as well as

for Switzerland a survey from 2010 about sustainable development in teaching and research of all twelve Swiss universities (Hofmänner and Pohl, 2011).

All universities described in these papers as being or acting in a sustainable way were selected and, to confirm the accuracy and topicality of the selection, their websites were reviewed. In order to account for current developments additional universities were selected by conducting an internet search containing the terms ‘sustainability’, ‘university’ and ‘Germany’, ‘Austria’ or ‘Swiss’ respectively. In the final step, the individual concepts of implementing sustainability were matched with the major areas of action (see fig. no.1).

3. Results

With the support of the Ministry of Science in Vienna, the Alliance of Sustainable Universities in Austria was established in 2012. Since then ten Austrian Universities (status of 2017) became members (Alliance of Sustainable Universities in Austria, 2017). With its close cooperation of government and universities Austria is mentioned as a role model and best practice for sustainability development in higher education institutions (Michelsen, 2014, Ronzheimer, 2014). The Alliance developed a handbook for the development of sustainability concepts at universities as a reference framework. It proposes criteria, objectives and measures as orientation, however, the specific design and implementation are left to the discretion of the respective university (Bohunovsky et al., 2014).

Unlike in Austria, there is no overarching alliance throughout Germany, but many regional, trans-regional or international groups, centers and alliances. Taking a closer look at German universities, a wide range of miscellaneous programs, networks, projects and initiatives with a focus on sustainability can be found. The concepts and application areas differ widely. There are universities which have a holistic approach towards sustainability as Leuphana Lüneburg or HNE Eberswalde, whereas the majority of universities offer specific activities or lectures, without embedding the awareness of sustainability throughout all processes and the entire organization (Weisser, Geibel and Dembski, 2016?).

In Switzerland the ETH Zurich as well as EPFL Lausanne take a leading role concerning sustainability in higher education, having initiated many projects and networks in this field, e.g. ‘Seed Sustainability’, encouraging “student research in sustainability-related topics, promotes successful cooperation between scientific theory and practice, and unites the needs and expectations of research, education and industry” (Seed Sustainability, 2017).

Higher education institutions of all mentioned countries refer to the freedom of research and teaching: As the purpose of the universities’ strategic planning is to establish the fundamentals of sustainable development for society, the particular implementation shall be left to the researchers, lecturers and students (von Hunnius, 2016).

The variety of approaches will exemplarily be demonstrated by how universities integrate sustainability into their guiding principles. Only seven universities include the orientation on ecologically, economically and socially sustainable development explicitly into their mission statement.

Instead, the University of Salzburg established an environmental model that states the protection of the environment and a careful use of resources. What is more, this environmental model is closely linked to the country’s strategy for climate and energy ‘Salzburg 2050 klimaneutral.energieautonom.nachhaltig’ (Salzburg 2050 climate-neutral, energy autonomous, sustainable). ETH Zurich and the University of Vienna (BOKU) have adopted the voluntary ‘Sustainability Reporting Guidelines’ of the Global Reporting Initiative (GRI) and the principles of ISCN/GULF Sustainable Campus Charter. They thus

display environmental issues, energy indicators, social and financial aspects as well as governance. Similarly the University of St. Gallen publishes a PRME-progress report (Principles for Responsible Management Education, launched by UN Global Compact initiative) on activities, commitment, and target achievement concerning responsibility and sustainability.

Only two universities (HNE Eberswalde and Leuphana Lüneburg, both Germany) adapt the principle of sustainability to all processes and the entire organization holistically.

The following table 1 highlights the different levels of integration of sustainability into the universities' guiding principles.

Table no. 1: Level of integration of sustainability into guiding principles

Level of integration	Universities
Holistic Approach, University for sustainability	University of Eberswalde, Leuphana University Lüneburg
Sustainability model/concept	Freie Universität Berlin, University of Eichstätt-Ingolstadt, University of St. Gallen, University of Zurich (UZH), Karl-Franzens-University of Graz, Graz University of Technology, Medical University of Graz, University of Music and Performing Arts Graz, Vienna University of Economics and Business
Mission statement	University of Hamburg, Freie Universität Berlin, University of Bremen, Bern University, EPFL Lausanne, ETH Zurich, Bern University of Applied Sciences (HAFL)
Environmental model	University of Salzburg
Sustainability report	ETH Zurich, University of Vienna (BOKU), University of St. Gallen

Source: Authors' contribution based on internet research of all universities surveyed

All other universities researched do not explicitly mention the integration of sustainability policies into their guidelines on their websites. Further research could aim on the question if these universities either only do not communicate their sustainability strategy or do not have any, though they all engage demonstrably into sustainability issues.

Regarding the aspect of sustainable conduct like being proactive on green issues and/or having themselves certified as being sustainable there can be found numerous initiatives. The University of Eberswalde was elected as Germany's greenest university in 2009 by the internet portal Utopia and claims to be climate-neutral since 2014 as sole university in all countries researched (Utopia.de, 2009). The University of Kiel implemented the so-called 'klik climate-concept 2030' to become climate-neutral, too (UTEC, 2013). The Paris Lodron University of Salzburg established 'PLUS Green Campus', a sustainability program which aims at changing the university into a 'Green University' by investing in greener buildings, practices, and products, as well as ways of engaging staff and students (PLUS). The University of Erfurt initialized a 'working group sustainability' which takes care of ecological stationary, fairtrade products, etc. (AG NE, 2017). For promoting fair trading on campus the University of Bayreuth (being committed to Green Campus, too) received the quality label 'Fairtrade University' by TransFair Deutschland e.V. in 2016 (TransFair, 2016).

Only seven German universities are wholly or partially certified by EMAS. Two of them, HNE Eberswalde and CAU Kiel, won the EMAS-award for innovative environmental measures and benefits. The University of Erfurt received the environmental label 'Umwelt-siegel Ökoprofit' twice, which awards outstanding performances in and commitment to the sustainable handling of resources on campus (Voigt, 2014).

Furthermore, the survey revealed other large numbers of variations and best practices in the fields identity, education, research and knowledge-transfer. The principle of sustainability is institutionalized, for example, in executive committees, one chancellor for sustainability, offices or officers for sustainability, a sustainability board, faculties, institutes, chairs, and centers for sustainability as well as work groups for sustainable universities. The discussion platforms, centers for research and projects are conducted either by the universities themselves, students initiatives or national as well as international networks and cooperations. In the field of education for sustainable development, there can be found a wide range of single lectures up to comprehensive study programs, seminars and seminar programs, summer schools and training courses.*

To be holistically sustainable a university has to act in all four areas concurrently:

- To teach sustainability by providing comprehensive study programmes committed to the principles of sustainability.
- To research sustainability issues by promoting sustainability research and developing and launching national and international networks and cooperations.
- To shape the awareness of sustainability by educating future decision makers, promoting projects, students' initiatives, work groups and discussion platforms.
- To act sustainable by holistically including sustainability into the guiding principles, the organisation, and all processes, as well as acting environmentally friendly.

All universities researched in this survey offer innovative best-practice concepts in at least one of the above mentioned four areas, but only few of them address all four areas of equal relevance and importance yet.

Conclusions

Sustainability is increasingly developing into an important factor for universities. From the economic point of view universities help to create social prosperity and technological progress and knowledge. Ecologically, universities lay claim to considerable resources, yet they contribute socially by developing their students' employability and promoting entrepreneurship.

German speaking countries have acknowledged the concept of sustainability; however, the execution and implementation vary. Whilst Austria has developed a full framework which includes all three pillars of sustainability at an early stage, Germany and Switzerland to a great extent leave the institutionalization up to the universities own intention and creativity, just recommending general guidelines.

Further research should be conducted to identify the criteria essential for the success and acceptance of sustainability processes at universities. The implementation of holistic concepts within a university and the concurrent pursuit of inter-university and inter-disciplinary cooperation may lead to a higher level of commitment and in turn promotes and accelerates the implementation of the principles. If that is the case, the governments could take a stronger role by setting guiding principles or frameworks, supervise their

* The full results can be requested in detail from the authors.

application and increasingly finance networks and cooperation. Same could apply to financing funds from the EU, thus encouraging to establish the concept of sustainability in universities holistically. As comprehensive concepts and strong alliances lead to a combination of strengths and expertise, new synergies could be created to contribute to a sustainable society.

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