“Sustainable University” – empirical evidence and strategic recommendations for holistic transformation approaches to sustainability in higher education institutions

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Abstract
Sustainable development, and the process of institutional transformation this requires, remains a considerable challenge for universities. Worldwide, only a few universities are to date confronting these challenges. Through its initiatives “Agenda 21 and the University of Lüneburg” (1999-2001) and “Sustainable University – Sustainable Development in the Context of University Remits” (2004-2007), as well as through the UNESCO Chair of Higher Education for Sustainable Development, the University of Lüneburg has been among the first European universities to view the institution as a whole and to attempt to initiate processes in all working areas which point the way towards the integration of sustainability into each of the different areas in which it is
This contribution reflects on and shares the experiences of interpreting sustainable development for a university, and the associated processes of application and transformation. This is meant to draw attention to the fact that integrating sustainability into higher education institutions and processes needs theoretical reflection as well as to show that sustainability in higher education can be articulated, substantiated and put into action. In line with this understanding, sustainability is relevant for universities in many regards and at many levels: both at the micro-level – universities as sociotopic constructions with political implications – and at the macro-level – the higher education system as a political construct with sociotopic implications (Kehm and Pasternack, 2000: 207ff.). Therefore, in the search for promising means of encouraging universities to engage with the concept of sustainable development, both levels are to be taken into consideration.

The results of this research and development project can serve as a valuable starting point for other higher education institutions which want to begin or progress on the journey toward sustainability.

Outline
Sustainable development, and the process of institutional transformation this requires, remains a considerable challenge for universities. Worldwide, only a few universities are to date confronting these challenges. Through its initiatives “Agenda 21 and the University of Lüneburg” (1999-2001) and “Sustainable University – Sustainable Development in the Context of University Remits” (2004-2007), as well as through the UNESCO Chair of Higher Education for Sustainable Development, the University of Lüneburg has been among the first European universities to view the institution as a whole and to attempt to initiate processes in all working areas which point the way towards the integration of sustainability into each of the different areas in which it is active.

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encouraging universities to engage with the concept of sustainable development, both levels are to be taken into consideration.

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The ‘Lüneburg Approach’

The research and development initiative “Sustainable University – Sustainable Development in the Context of University Remits” is aimed at integrating the idea of sustainability into a range of areas at universities. The focus is placed on the following question:

How can universities actively face up to the challenges associated with sustainable development, and to what extent can targeted structural changes perform a contribution to transforming universities for sustainability?

In order to work through these overarching questions, the whole spectrum of the project was broken down into six sub-projects, which are attributed to three central dimensions (italicised):

The area of learning and living environment and remind us that the reformulation of these core tasks is part of the transformation of the university as an entire organisation. The sustainability management and use of resources suggest that the targeted improvement of sustainability performance is among the key management tasks at universities. Systematic engagement with university communication processes – which are essential for the dissemination of the idea of sustainability and which are aimed at critical reflection on the concept as a whole – is a further emphasis for the project. Communication and participation are key principles for the implementation of the idea of sustainability in the university context; the task is to raise the issue of the development process towards a sustainable university, to discuss it and develop common practical steps towards its realisation.

The stated research interest of the ‘Sustainable University’ initiative covers the university as whole. Thus, over the full duration of the project a diverse range of research methods were applied to answering these questions, held together by a comprehensive research design (see table 1).

Table 1: Dimensions and methodical plurality of the project “Sustainable University” (for details see Adomssent et al. 2007a)

<table>
<thead>
<tr>
<th>Project dimensions</th>
<th>Objectives</th>
<th>Methods</th>
<th>Results (selection)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project as a whole</td>
<td>Identification of target-oriented structural starting points for changing higher education institutions towards sustainability –</td>
<td>University-wide online survey “University in Action”; cluster analysis</td>
<td>Base data for hypotheses and interventions of sub-projects (cf. Adomssent et al. 2007b)</td>
</tr>
</tbody>
</table>
The selected procedure, following the Lüneburg approach, can be directly classified as belonging to the procedural model of transdisciplinary sustainability research, as developed by Bergmann et al. (2005). This procedure is capable of delivering detailed answers to the question of how the transition from knowledge generation to knowledge integration can be brought about.

- The triangulation of quantitative and qualitative methods in surveying the current situation at the level of the various sub-projects allows a comprehensive perspective of the complex issues bound up with the ‘sustainable university’. This includes analytical recognition of causal relationships and structures; at the same time,
intervention takes place at the level of the sub-projects, which are inflected on the basis of the findings produced thus far, and can be seen as tests of the ‘university system’.

- The evaluation in the ‘Lüneburg Approach’ consists, in a first stage, of knowledge integration into a model of sustainable university development which is specific to the University of Lüneburg, but which considers the underlying causal system of universities and thus provides transferable findings on more generally applicable factors.

The decisive step for transdisciplinary research – namely, transdisciplinary integration – is driven by system analysis, aided by the restricted scope of the individual sub-projects and the common development of scenarios (cf. Keil, 2005).

Transferability of Approaches to Sustainable Development at Universities as a Challenge

Against this backdrop, a particularly interesting question is to what extent the experiences gained and the knowledge acquired through these projects could be transferred to other universities or could provide support for them. In order to better understand this transfer and its associated challenges, reference shall be made to the findings of higher education research. This branch of research – in particular the area of comparative higher education research, which is most relevant to the case at hand – deals with questions which provide important findings in estimating the feasibility of approaches to transfer. Within this field of research, two dominant strands can be identified: “a predominantly political-economic strand focusing on issues of HE steering, such as governance and finance […] and a more sociological strand dealing with structural features of the HE system” (Witte, 2006: 78). In addition, a number of approaches drawn from neoinstitutionalism are employed, which in all of their main forms (sociological, historical, and economic/rational choice variant) deal with the question of how institutions affect the behaviour of individuals: “an institutional approach is one that emphasizes the role of institutions and institutionalisation in the understanding of human actions within an organisation, social order, or society” (March and Olsen, 1998: 948). The individual institutions (micro-level) and the higher education system as a whole (macro-level) form the two points of reference for the following considerations, which are to focus closely on the potential for transfer and illustrate this potential by making reference to the findings of higher education research (to be unfolded in more detail in the presentation).

It is to be noted that a variety of increasingly global forces are influencing the structural development of universities – “with implications for higher education at the organizational, but also at the societal and political level” (UNESCO, 2003: 4). But in
spite of this trend, there is potential room for action – for individual countries and for individual universities (UNESCO, 2003: 171).

Such a proactive perspective, seeing transformative processes not as a reaction to external influences, but rather “as an act of anticipation” (Neave, 2006: 1), can be linked to an optimistic view of the shaping of a conceivable future within the scope of the normative, orienting paradigm of sustainable development. The considerable contradictions to be overcome can be thus summarised: “how do we work towards transformative learning in a system that itself is intended to be a prime agency of learning?” (Sterling, 2004: 51). By depicting the transformative Lüneburg Approach ways of overcoming the challenges described above are pointed out.
References

- Adomssent, Maik, Godemann, Jasmin, Michelsen, Gerd (Eds., 2007a) “Sustainable University” – holistic approach to sustainability in higher education institutions” (Special Issue), International Journal of Sustainability in Higher Education, 8 (4), pp. 385-461.


