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Institutional Entrepreneurship in an Academic Organisation: Sustainability at Mälardalen University

Peter Dobers*, Magnus Linderström and Malin Mobjörk.
Mälardalen University
School of Sustainable Development of Society and Technology
Box 883
721 23 Västerås, Sweden.
*Corresponding author: peter.dobers@mdh.se

Biographical notes

Peter Dobers has an interest in how ideas like corporate (social) responsibility, broadband, city images or sustainable development travel the world, are enabled or disabled. He has published widely in areas such as corporate responsibility, sustainable development, urban studies and modern information and communication technology. He currently holds a chair in management and sustainable development at Mälardalen University and is associate dean of the Faculty for Humanities, Social and Caring Sciences.

Magnus Linderström's interests in sustainable development stretches from critical theory and analysis of institutions, ideologies and innovations to developing academic programmes and courses in the intersection between business studies and ecological economics. He is a senior lecturer in organisation theory and ecological economics at the School of Sustainable Development of Society and Technology, Mälardalen University.

Malin Mobjörk's interest lies in the intersection between science and policy in the field of sustainable development. She has investigated how funding agencies have responded to the challenge of sustainable development in their policies and transformed their activities in lines with the goals of collaboration, interactions of sciences and a problem-solving approach. She is a senior lecture in ecological economics at Mälardalen University.

Abstract

This article describes and elaborates on a case of institutional entrepreneurship for sustainable development in higher education and research collaboration in a Swedish academic milieu. We argue, much in line with the contemporary international policy debate about climate change, that universities can and should have a leading role in producing new knowledge and innovation for promoting sustainable development. We consider that higher education and the whole university organisation, rather than just research, should be analysed regarding institutionalising sustainable development - which is not emphasised in the policy debate. In our conceptualisation of sustainable development we argue that entrepreneurship, and more specifically *institutional entrepreneurship*, can be used as an interesting normative and theoretical model. In drawing upon the concept of institutional entrepreneurship we try to open up for reflexive exploration of three projects illustrating the institutionalisation of sustainable development. While doing so we identify critical areas for further theoretical and empirical research from the perspective of institutional entrepreneurship.

1. Introduction

Entrepreneurship can be viewed as a normative and theoretical concept in relation to sustainable development. Economic and institutional theory of sustainable development have emphasised the role of radical changes in socio-economic institutions (see for example Daly and Cobb, 1994; Norgaard, 1994; Söderbaum, 2000; Neumayer, 2003) and for methodological pluralism (Norgaard, 1989). The Schumpeterian notion of entrepreneurship and innovation can be a figure of thought that is formative to the discourse of sustainable development. The report *Our Common Future* (1987) that introduced sustainable development to a global public, emphasised the importance of "new patterns of economic growth", "process of change" and technological management (WCED, 1987: pp 1-9). We believe that the notion of entrepreneurship can be conceptualised and developed into a more rigorous theoretical model in relation to sustainable development.

Since the beginning of the 1990s, sustainable development has become part of academic discourses and entered academic organisations, just as it has come into the organisation fields of politics and business. In business studies of academia for instance, the focus on management, organisation, marketing and economics has been complemented and challenged, at least on a general level, by the idea of sustainability, and has thus gained legitimacy as a learning topic in the curricula of business schools (Springett and Kearins, 2001). Nevertheless, there is not one strategy of developing sustainability in higher education and not even one way of viewing sustainability (Corcoran and Wals, 2004). As there is no formal institutional framework regulating the process of integrating sustainable development, it becomes interesting to focus on the role of agency (and embedded agency) and innovation in different types of organisational contexts. In this respect, institutional entrepreneurship can be viewed as a theoretical concept that can open up new patterns of understanding processes of change in the university as institution (Garud, Hardy and Maguire, 2007).

In this article we emphasise the role of universities in promoting sustainable development at different organisational levels. In describing three ongoing projects at Mälardalen University we try to draw upon and relate to the concept of institutional entrepreneurship as a promising way of identifying important questions for further analysis. These cases are: an educational programme in economy for sustainable development, research cooperation in sustainable development encompassing different disciplines, and a policy making and leadership project aiming at profiling Mälardalen University as a sustainable university.

In section two we present the concept of institutional entrepreneurship (Dorado, 2005; Child, Lu and Tsai, 2007; Garud, Hardy and Maguire, 2007) that opens up reflections on processes in an organisation. In section three we briefly comment on our methodological awareness of participant observations. Thereafter, we describe the situation in Sweden in the area of sustainable development and higher education. Section five is where the three cases are presented and discussed extensively, and in section six, we conclude with a few general remarks on our cases and on unsolved issues for the future.

2. Institutional Entrepreneurship

In our understanding, sustainable development is a critical and normative concept with analytical as well as political dimensions. Recognising the normative and political dimensions is important for understanding the interrelated and contested meanings attached to the concept. It includes a variety of meanings depending on the users, their backgrounds, interests and values and it is not possible to gain one precise definition (Owens, 2003; Corcoran and Wals, 2004). We mean that the inclusive and open character of the concept is an important feature of sustainability, in both political and analytical terms. Given the variety of meanings it seems important to address questions of how sustainability becomes part of academic courses, programmes, management and organisation, not least given that higher education has been promoted as an increasingly important driver for change and development, both on the individual as well as on the societal level (Edwards, 1997; Söderbaum, 2000; Scott and Gough, 2003; Blewitt and Cullingford, 2004).

While research has focused on the institutional history and emerging processes of corporate environmentalism (Hoffman, 1997; Levy and Kolk, 2002) or corporate social responsibility (Schwartz, in press; Dobers and Söderholm, in press), the agency of change and development has only recently come into focus. Institutional entrepreneurship is a concept that has been developed theoretically during recent years (Garud, Hardy and Maguire, 2007). At a first glance the concept seems to capture contradictory forces and phenomena: continuity versus change; structure versus agency; discourses versus artefacts. The concept of *institutional theory* on the one hand explains continuity by analysing how structures of interrelated ideas, norms, rules and beliefs shape and provide the rational basis for actors within a specific organisational and cultural context (Meyer and Rowan, 1983; DiMaggio and Powell, 1991; Hoffman, 1997). Institutional structures in this theoretical context are prior to and formative to agency, interests and actors' behaviours (see for example Hall and Soskice, 2001). The concept of *entrepreneurship* on the other hand focuses on change and stresses the role of actors who create new business opportunities and renew economic systems (Schumpeter, 1961; Lachmann, 1986). Eventually, the concept of *institutional entrepreneurship* builds on a dialectical perspective on structure and agency and on continuity and change (Dorado, 2005). Institutional entrepreneurship emphasises how agency can shape and transform new and old institutions "despite the complexities and path dependences that are involved" (Garud, Hardy and Maguire, 2007: 957).

Institutional entrepreneurship implies that agency can explain creation and changes in institutional production of meaning that give rise to new practices and patterns of thinking. One would expect that working against institutional logics and practices involves struggle and conflict. While changing institutions it is likely that "some actors take the initiative in defining the issues and facilitating the emergence of a field, others might be in the position of following the rules and adopting new practices. The former are clearly institutional entrepreneurs" (Child, Lu and Tsai, 2007: 1016). An assumption emphasised by Dorado (2005) is that institutional entrepreneurship emerges as a result of some type of crisis that prevailing institutional arrangements cannot solve. There is a growing agreement that the ecological crisis put pressure on different social and economic institutions. The crisis occurs since problems cannot be solved by the same institutional logic that created it in the first place. Such pressure for change is also evident in universities.

Academic organisations, just like any other organisation, exist within an organisation field where politicians, authorities, journalists, sustainability activists, students, and competitors act (DiMaggio, 1983; DiMaggio and Powell, 1991; Hoffman, 1997). This surrounding organisation field influences what and how things are done in organisations. During times of uncertainty institutional influences are stronger than under times of certainty (Levy and Kolk, 2002). When sustainability has become a political discourse in society in general, and in academic organisations in particular, it can be said that institutional forces of various kinds are at work; regulative, normative and cognitive (DiMaggio and Powell, 1991). These forces together help shape the actions of organisations, influencing whether organisations tend to imitate prevailing and successful "ways of doing", which can be referred to as mimetic isomorphism (DiMaggio and Powell, 1991) or tend to imitate themselves, which can be referred to automorphism (Schwartz, in press).

Hereby the concept of institutional entrepreneurship can be used as conflating the institutional approaches in research (emphasising "how organizational processes are shaped by institutional forces that reinforce continuity and reward conformity") (Garud, Hardy and Maguire, 2007: 957) with the creative forces that bring about change (as in the literature of entrepreneurship). As Garud et al stress institutional entrepreneurship reintroduces agency, interest and power into the institutional analysis of organisations.

3. A Note on Methods

The empirical cases are based on conceptualisations of and reflections on ongoing projects, initiatives and recent developments that we are involved in at Mälardalen University. This study thus draws from the participatory action research tradition (Greenwood, Whyte and Harkavy, 1993), in which our goal is to promote social change through organisational learning.

While being part of the everyday working life at Mälardalen University, we reflect and analyse the situations we find ourselves in, and the processes we are about to form. This is done with an emphasis on the ambiguities, conflicts and possibilities that we are experiencing in the area of higher education and research for sustainable development, and we try to link social action, participation and knowledge generation (Greenwood, Whyte and Harkavy, 1993). We have outlined three cases: (1) Economy for Sustainable Development: an undergraduate programme in change, (2) Research cooperation between two universities in the field of sustainable development, and (3) A project aiming at profiling Mälardalen University regarding sustainable development. Before we turn to the cases, we provide a brief overview of sustainable education in the Swedish context and a description of Mälardalen University.

4. Sustainable Education and the Swedish Context

In the Swedish political realm of higher education, sustainable development has become a central policy issue. General political consensus has evolved around the notion that environment and sustainability is not delimited to separate policy areas or a specific sector in society. Ecological issues, in a broad sense, transcend traditional boarders and rationalities in the political landscape. This means that sustainable development on an operative policy and organisational level is integrated in diverse institutional settings with quite distinctive rationalities and roles in society.

Since early 1990s elementary schools have been assigned to provide environmental education for pupils (Wickenberg, 2000). Higher education and research has also been involved. Recent developments in higher education include the "Bologna-declaration" and a new legislation regulating Swedish universities. Since 2006 sustainable development is institutionalised in higher education on the legislative level. Universities are explicitly assigned to promote sustainable development in their practices and activities (Swedish National Agency for Higher Education, 2006). This supplementary goal will be a challenging task in the coming years and lies behind our interest in analysing the activities at Mälardalen University.

5. Describing and Discussing Institutional Entrepreneurship of Sustainable Development in an Academic Organisation

5.1 Mälardalen University

Our empirical case is taken from Mälardalen University, Sweden, where we all hold our professional positions. In our professions we have been engaged in various activities related to education and sustainable development and have outlined three distinct areas which can be used as examples of institutional entrepreneurship of bringing sustainable development into the academia. In doing so, we employ the terminology and distinctions used (e.g. by Sterling, 2004; e.g. by Springett, 2005) to distinguish between education *about* and *for* sustainable development and the idea of *sustainable education*. A strong connection in the three cases is the ambition of realising an integrated approach to sustainability at Mälardalen University.

Mälardalen University has campuses in two middle-size Swedish cities - Eskilstuna and Västerås. The university college (a university with one research area in technology) has approximately 15,000 students and just below 1,000 employees. One fourth of the students are studying natural science and technology and three fourths are enrolled in humanities, social and caring sciences. Mälardalen University offers 40 undergraduate programmes, 40 graduate programmes and approximately 500 courses. It has established research areas in engineering and technology, natural science, humanities, industrial management, working life, social science and caring science. Mälardalen University is one of the first universities in the world to become environmentally certified in 1999 according to the international standard ISP 14001; in 2006, the university also became certified in working environment according to OHSAS 18001. The University's policy for sustainable development from year 2000 describes the long-term visions needed to ensure current and coming generations a healthy and good living environment. This means to promote knowledge and awareness among employees, students, and other co-workers so that they have the ability to analyse critically and prioritize those measures that take into account the ecological dimensions of a sustainable development. Through its activities, it is possible for the University to exert a direct or indirect influence on society's attitude towards sustainable development.

5.2 Case 1: Economy for Sustainable Development: an Undergraduate Programme in Change

Since 1995, Mälardalen University has offered an undergraduate programme in the intersection between business studies and environmental science. During the first eight

years this transdisciplinarity programme was named *Ecological Economics* and the student had courses from three different departments and two faculties. During the last two years has the programme been labelled *Economy for Sustainable Development*; the interdisciplinary perspective was remained as well as cooperation between different departments in giving courses. The programme was initiated by the ecological economists Peter Söderbaum and Kjell-Åke Brorsson and can be described as an entrepreneurial and alternative approach towards economics and sustainable development in the domain of business studies.

Ecological economics emerged in the late 1980s as a transdisciplinarity field of knowledge and research, and has evolved in close relationship to the international policy discourse of sustainable development (Söderbaum, 2007). The International Society for Ecological Economics, ISEE, was established in 1988 and the first number of its journal appeared in 1989 (Söderbaum, 2000).

What ecological economics aims at is to derive research problems and projects from practices in everyday life, and as such it has many similarities with recent descriptions about transdisciplinarity (e.g. Wickson, Carew and Russel, 2006). In the early writings of ecological economics, rigid academic organisation and scientific structure were viewed as severe problems in relation to environmental and development issues. The field of ecological economics emerged out of frustration with the inability of traditional established disciplines to address the interdependencies between social and economic organisation and systems on the one hand, and ecological systems on the other. Moreover, it was stressed that the biosphere was fundamental, and principally superior to cultural and economic systems and, thus, the central category for analysis (Costanza, 1989, 1991; Costanza, Cumberland, Daly *et al*, 1997).

In the undergraduate programme, teachers from different disciplines were involved, e.g. economists, environmental scientists, behaviour scientists, political scientists and historians. These came from three different departments – Public Technology, Social Sciences, and School of Business – with different cultures in how to operate educational programmes considering issues like teaching methods, examination procedures, and economic preconditions for giving a course. This evidently had implications regarding how courses were set up. The programme consisted of a number of courses approaching various perspectives and issues of importance for dealing with environment and development issues. Thus, the courses themselves have not included an approach of dealing with the issues in a true transdisciplinarity way, which would involve integration of perspectives and disciplinary approaches.

Besides aiming at developing a transdisciplinarity approach, ecological economics have stressed the involvement of values in scientific practice but also the importance of dealing with research problems corresponding to our everyday life practices. Taking values first, it is important to acknowledge the pedagogical challenge it takes to include this in education. In ecological economics, a critical approach is asked for, as well as a pluralistic approach to science (Söderbaum, 2000), but although most teachers are familiar with this approach, it remains a challenging task to include this in teaching. A critical approach is an overall approach for analysing issues, and, in combination with the idea of pluralism, requires openness regarding how issues can be framed and investigated. Potential learning outcomes from such an approach would be that students were capable of epistemological reflection and analysis as part of a broader

understanding of sustainable development. Whilst this can to some extent be considered achieved – not at least due to individual variation among the students – an overall tendency is that this outcome is not achieved. In the students writing, pro-memories and theses, a polarisation is often made between on what has been labelled a positivistic approach to science and a hermeneutic approach, and the student has labelled themselves as hermeneutics.

In the programme an element has consisted of that people working in different kinds of organisations – public, private and non-profit organisations – has been invited to courses, and teachers has tried to encourage students to write theses in some form of cooperation with different agencies. However, what we regard as underdeveloped is how various actors can be included in planning courses and identifying interesting topics to investigate from a broad perspective in close relation to the vision of sustainable development. This, however, do we hope can be improved in relation to the Bologna process influencing many countries, among those Sweden.

5.3 Case 2: Research Cooperation Between two Universities in the Field of Sustainable Development

This project was initiated 2006 by the two principals at Örebro University and Mälardalen University in order to support cooperation between the two universities. Five areas of cooperation were outlined and within these different departments or centres were asked to deliver cooperation plans within their field. In the field of 'sustainable development' the School of Business with its section of Management and Governance for Sustainable Development was identified together with the Department of Public Technology at Mälardalen University, and the two centres Man-Technology-Environment, and the Centre for Urban and Regional Studies at Örebro University. The commission was to develop strategic cooperation in the field of sustainable development, which was intended to support the principals' aim to merge the two universities. According to the guidelines this strategic cooperation plan ought to take its starting point in already established strong research environments, but also take into consideration potential strong areas that in a few years time could achieve status as strong environments. Research and post-graduate education was pointed out as major focus for cooperation and selected research environments include management, social science, natural science, and technology. In the following paragraphs we will describe and reflect upon the process of developing the cooperation plan, which occurred from early autumn 2006 until the principals decision in April 2007 of funding a two-years period of work including 4 million Swedish kronor (approximately 450.000 Euro).

During the process of producing the cooperation plan we had several meetings in the whole group, but also meeting in groups depending on the disciplinary background and institutional settings we belonged to. The social scientists on one hand, and natural scientists and engineers on the other, had meetings on their own. This division was a direct consequence of the joint discussions in which it became obvious that these two groups held different views and interests on the goals for the cooperation. The natural scientists and engineers stressed the importance of strengthening already ongoing projects while the social scientists stressed the importance of including other areas of importance for sustainability, e.g. public health and cultural aspects of sustainable development. Another major difference was related to short-term versus long-term goals for the cooperation. All agents subscribed to, or at least expressed a view that they

subscribed to, the aim for the cooperation, which was to set up a School of Sustainable Development which could have a potential to be a well-reputed environment for research in the area of sustainable development. Important parts for realising this were: establishing a School of Sustainable Development, developing common research projects, strengthening existing research projects, and coordinating research education (Mälardalen University and Örebro University, 2007). The differences, though, concerned what was considered most important for realising this aim, which includes both priorities in relation to content and how money should be distributed between various activities. The natural scientists and engineers emphasised the importance of strengthening ongoing projects and short-term goals, while the social scientists argued for the need to work on the long-term goal and to set up a joint group that could work with this development process. Our major question here is, thus, why is it so?

In order to understand these different approaches we think it is important to acknowledge the institutional settings the different environments belong to, but also the different status they have in the academic system. One explanation behind that the scholars in natural science and technology mainly expressed an interest in focusing on strengthening existing project and activities in a short time perspective could be that they are coming from more established research environments and have, as such, a reputation to defend, more staff to take into consideration and a more established working arena to work on in relation to the social scientists. This could also explain the difference between how the two research environments at Örebro University reacted and acted in relation to the fast re-organisation process that occurred during this time, in which the group of natural scientists expressed much more frustration and worries about the overall process. However, we do not think this is a sufficient explanation and would like to add historical thoughts on what science ought to be, i.e. the epistemological foundation, and what sustainability is about.

We think one can use the shift between environmental education and sustainable education as well as lessons drawn from studies of research for sustainability in general. As e.g. Sterling (2004) write the focus in environmental education has been on knowledge created in a natural scientific realm (Sterling, 2004). Later social sciences have also become important. However, as an investigation of funding agencies conceptions of sustainability research shows it is a tendency that social sciences is mainly considered supportive to natural science, i.e. that problem identification is devoted to natural scientists (Mobjörk and Linnér, 2006). Another striking trend was that sustainability research in general was considered as applied research, which must be contrasted to how e.g. transdisciplinarity research is described as a field of research necessary for coping with sustainability issues (see e.g. Wickson, Carew and Russel, 2006). These tendencies may have greater influence on social scientists and be more criticized from those in comparison to natural scientists due to the simple reason that it is the social scientists that best know what they think their contribution consists of and that it is their approaches that are questioned or simply ignored. Empowerment, participation and democratisation are emphasised in transdisciplinarity as well as in higher education for sustainable development, which historically are issues dealt with in social sciences.

5.4 Case 3: Profiling Mälardalen University Regarding Sustainable Development

The third case of profiling Mälardalen University regarding sustainable development is mostly a policy case. The principal of Mälardalen University decided in June 2006 to create a project aiming at profiling the university as a sustainability university. The intentions with the 6-year project of profiling Mälardalen University regarding sustainable development is to partly coordinate and strengthen existing initiatives throughout the university, partly initiate new university-overarching projects. Of initial importance was it to create financial resources to free faculty members to take on a leadership of the process. In terms of content, the profiling would attend fields of, for instance to:

- Establish a revised university vision regarding sustainable development
- Develop master and undergraduate education in the area of Sustainable Development,
- Improve the working environment for students, faculty and administrative staff,
- Develop the processes underlying quality aspects and certificates like ISO 14001, OHSAS 18001 or AISHE (Audit Instrument for Sustainability in Higher Education)

Having the only chair of the university focusing sustainable development Peter Dobers (chair in management focusing sustainable development) was asked to lead the work of the Mälardalen University's Sustainability Profile Committee (SPC). Having written up the project text upon which the principal's decision was taken, Peter had the overview of what was intended. However, since he was on paternity leave the first eight months of the project, two scholars previously engaged in sustainability issues took the lead of the SPC: Professor Jarmo Lainio and Dr. Malin Mobjörk, both from the Faculty for Humanities, Social and Caring Sciences. During this process a third project leader was brought onto the committee leadership to represent the far-reaching knowledge and political perspectives of the Faculty for Natural Sciences and Technology: Associate professor Sylvia Waara. These four scholars currently represent the SPC leadership.

Although having the leading administrators of the university backing up the project, the challenge of coordinating sustainability efforts and profiling the university is big. Some are: to empower many teachers and administrators to take an individual lead; to inform administrators and teachers of the project; to integrate sustainability-driven learning goals into all courses and programmes; to have those responsible for purchasing energy, lunches, coffee and tea buy green and fair traded alternatives and so on. Our work within this project demonstrates the ambivalence of the wish of realising the vision of sustainable development, and the resistance to change the norms behind our behaviour. The project was decided to run for 1,5 years and then be evaluated during the fall of 2007. The project has been evaluated and the principal has decided to continue the project on a yearly basis. Three areas of this project catches our interest for the purposes of this article.

The *first area* deals with a dialogue process under institutional change. The SPC leaders started to have dialogue meetings with various actors at the University, among them the faculty boards (winter 2006-07), and the nine departments including the university administration and student body (fall of 2007). These meetings were important to come together into a dialogue process and to identify further spokespersons for sustainability, as well as for leaving staff members a possibility to voice their concerns and visions regarding sustainable development. The current step of meeting staff from all nine departments at Mälardalen University takes place while the university is undergoing a major institutional change: By years end 2007-08, the principal and the board of the

university decided in June 2007 that these nine departments would merge into four schools (see Box 1).

Box 1 about here

Thereby, the School of Sustainable Development of Society and Technology will embrace the sustainability competence of Mälardalen University. The project of the Sustainability Policy Committee is positioned at this school. With the mandate by the university principal, SPC has an active role to induce policy changes for the university and for all schools. Now, while we acknowledge the necessity for a central leadership of a small group for change processes in general and institutional entrepreneurship in particular (Steyaert, 2000; Dorado, 2005; Child, Lu and Tsai, 2007), we recognise the conceptual underpinnings of sustainable development which upholds inclusiveness, empowerment and deliberate democracy (Sandell, Öhman and Östman, 2005; Springett and Foster, 2005). How can these conflicting views merge into a responsible, empowering and inclusive process for the future?

A *second area* of reflection deals with inducing sustainability in the curriculum for *all* students and teachers at Mälardalen University. The Sustainability Profile Committee has worked with two approaches for this. (i) *A sustainability course for all students and faculty*. We are drafting a sustainability course that all students and teaching faculty should attend during the next five years, whereby it should become a pre-requisite for students to graduate. The idea behind this course is to enable students to arrive at an overall understanding for plurality and diversity of dimensions, knowledge bases and perspectives of sustainable development. The course has been tested on students at the School of Business and the Caring and Public Health Department and will be fully developed until fall of 2008. (ii) *A PhD course on 'What is Sustainable Development?'*. During 2006, the university-overarching course was given in which about 15 doctoral students took part. The idea behind the course was to guide students to the plurality of perspectives of sustainable development and to encourage them to formulate their own understanding of sustainable development when it comes to knowledge and action. Representatives of all nine departments (see also Box 1 above) gave presentations, including a few external guest lectures. No list of literature was available beforehand, but was created during the course and was strongly depended on the students own literature search, and on the guest-lecturers of each of the then existing nine institutions that were involved. One idea of examination was that the whole class should write a positioning paper in which the class agreed upon, *and* disagreed upon, what sustainable development means to them. They should also write an individual piece.

When reflecting upon these two courses, we realise that they not only deliver a certain content, but also addressed many more than just undergraduate and research students. The courses also challenged teachers, professors and department heads, in particular those responsible for the courses and those asked to give lectures. These courses thus represent pedagogically innovative approaches through a drift from supplying knowledge by teachers to searching for, and acquiring knowledge by, all involved (Sterling, 2001; Blewitt and Cullingford, 2004), including students, teachers and administrative managers. A reflection about what sustainable developments might mean at Mälardalen University and an analysis about the institutional structures came natural.

Institutional entrepreneurship in this respect can therefore be understood as challenging existing institutional structures and creating new windows of opportunities by which a long-term change in these structures can come about (Steyaert, 2000; Dorado, 2005).

The final area of reflection touches upon the question of what knowledge field is granted the leadership for inducing change toward sustainability. Or, put differently; while institutionalising sustainable development, do we promote disciplinary organisation and reproduce existing faculty structures? From an institutional entrepreneurship perspective we can note that the principal asked members predominantly from the knowledge field of humanities and social science to lead the institutional change. Environmental and natural science scholars had been dominating the research efforts at school, until the programme of Economy for Sustainable Development was launched by professor Söderbaum in 1995. After all, the university has one research area, and that is technology. Thus, knowledge and expertise in technology and natural science have been prevailing. We have observed previously that technical and emancipatory knowledge interests prevail in environmental management studies (Dobers, Strannegård and Wolff, 2000, 2001), and what is needed here is to enable the hermeneutic knowledge interests to grow:

> What is striking is the complete absence of the hermeneutic knowledge interest. This knowledge interest is also referred to as a practical knowledge interest; it is grounded in the interest for practice, and *Verstehen* is the main focus and goal (Dobers, Strannegård and Wolff, 2001: 342).

If the leadership of the Sustainability Profile Committee had been granted only members of established areas, then most probably would current activities be supported instead of developing new activities. This corresponds to how the understanding of sustainable development has developed since 1987. While environmental issues were prevailing in the aftermath of the 1992 Rio conference (Agenda 21 etc), social issues came into focus in the aftermath of the 2002 Johannesburg conference. So, by asking scholars from mostly social and behavioural sciences to lead the Sustainability Profile Committee, the principal of Mälardalen University has enabled institutional change in how sustainability issues have been administered and developed at the university.

6. Concluding Remarks for the Future

Drawing upon our own experience from establishing sustainability in policy making, curriculum and cooperation with other universities, we suggest some broad themes for further research. In relation to sustainable development it is important to reframe and analyse the role of the universities in a broader socio-cultural and historical perspective. Although the university is sometimes conceived of as a conservative and traditional institution, which is clearly the case in some respect, it is also an integral part of increasingly global societies and contemporary institutional entrepreneurship. As Sterling argues: "As all education takes place within a dominant cultural, social and political context, any discussion of education for sustainability – which by implication seeks to influence society – must first recognize the greater influence of the dominant social paradigm upon education" (Sterling, 1997: 20f).

There are strong arguments that the 'social paradigm' influencing universities nationally and internationally is not particularly concerned with education for sustainable

development and post-normal science. Gerard Delanty diagnosis of contemporary transformations of the university highlights two forces of change: relativism and instrumentalism. Delanty argues that: "If the university is not to degenerate into technocratic consumerism by which students become mere consumers of knowledge and the university a transnational bureaucratic corporation legitimating itself by the technocratic discourse of 'excellence', it will have to discover another role. However, it is clear that the postmodern position has little to offer in terms of an alternative scenario. /.../ A new role and identity for the university is emerging around the democratization of knowledge." (Delanty, 2001: 150f). The lesson that can be drawn from this is that the university has to be addressed in critical research and analysis in relation to economic and social change.

On the level of conceptuality, definitions, knowledge and theory we should stimulate an open and inclusive debate about sustainable development. As the environmental scientist David Orr argues sustainability conceals as much as it reveals and "(h)idden beneath the rhetoric are assumptions about growth, technology, democracy, public participation, and human values./.../ it raises as many questions as it answers" (Orr, 1992: 23f). It is important to explore these questions and open them up for public debate. In fact, we think that the public sphere can be strengthened and become more vital by raising these questions. The meanings of sustainability can be found in a situation with "situated knowledge" (see for instance Haraway, 1991; Nazarea, 1999). Throughout the last decades, expert knowledge has reigned over the experience, an exclusiveness where many ideas of sustainable development are lost, which Ulrich Beck, not the least, is highly critical about. Experts have a role in situating the facts and arguments in so far as they can enhance democratic debates and decision-making (Beck, 1992a; see also Söderbaum, 2007).

On the level of organisations, we should study and evaluate how academic organisation and disciplinarity shape education for sustainability and research into sustainability issues. In their seminal book *For the common good* (1994) Herman Daly and John Cobb elaborated, quite extensively, on the thesis that academic disciplines have become increasingly more problematic in relation to social, economic and ecological issues. Daly and Cobb argues that knowledge organised into academic disciplines is productive in terms of specialisation of research and abstractions but at the same time has built-in limitations and dangers that needs to be addressed (Daly and Cobb, 1994). Limitations and dangers that institutional entrepreneurship can help to address and overcome.

On the level of institutional entrepreneurship, we should go beyond the awareness of how hard it is to avoid being framed by present structures of universities and science fields. Leaders of sustainability in curriculum, policy making and cooperation must work for transdisciplinarity, knowledge tolerance and the integration of perspectives (Klein, 2004; Hadorn, Bradley, Pohl *et al*, 2006). Hereby, tolerance of different academic and conceptual perspectives might be the greatest challenge if we consider "pluralism" as a universal epistemological approach; Does pluralism mean that we give climate change skepticism equal importance in our courses? Does it mean that we give equal weight to versions of sustainable development that emphasise the role of markets and technical fixes in solving environmental problems? How institutional entrepreneurs regarding sustainability in higher education and at universities achieve balance between the role of advocate, conveyor of information, professional trainer is yet to study. Another remark on morality is what voice and status we ought to give to them who

oppose sustainability in higher education and feel frustrated while facing conformity of sustainability at the policy and leadership levels (Garud, Hardy and Maguire, 2007). We certainly do not wish that sustainability becomes a new area for disciplined knowledge, social control and exclusion of deviance.

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Box 1 Going from nine departments to four schools

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Nine Departments (Until December 31st, 2007)
- Biology and Chemical Engineering
- Caring and Public Health Sciences
- Computer Science and Electronics
- Humanities
- Innovation, Design and Product Development
- Mathematics and Physics
- School of Business
- Social Sciences

- Public Technology

Four Schools (From January 1st, 2008)
- School of Education, Culture and Communication
- School of Sustainable Development of Society and Technology
- School of Health, Care and Social Welfare
- School of Innovation, Design and Engineering