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Teaching, Research and more?! Achievements of Universities of Applied Sciences with regard to Society

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Abstract

Within the last thirty years, the discussion about a third mission of universities has increased – a so-called mission in addition to teaching and research. Third Mission has become a multidimensional approach, containing cultural, social as well as political and economic dimensions. In many ways, Third Mission can be seen as an umbrella term for all HEI activities that are engaging with society. In particular, Universities of Applied Sciences (UAS) are very active in a wide range of Third Mission dimensions.

To approach the topic of Third Mission, this paper focuses on the following two questions: 1) What is the "third mission" of universities? 2) Does Third Mission already exist at German Universities of Applied Sciences (UAS)? The results of this paper are based on a literature review and 49 qualitative interviews. Both have been conducted in the project "FIFTH: Facets of and Indicators for Research and Third Mission at Universities of Applied Sciences". A new structure of Third Mission is introduced and discussed in this paper: preconditions, activities, results, and consequences of Third Mission. The authors argue that this gives a much more precise view on Third Mission and its performance dimensions than presented in previous research on Third Mission.

This document is based on a conference paper submitted for the annual conference of the Consortium of Higher Education Researchers (CHER) in 2014 and the CHE Working Paper, no. 182 "Was sind die Missionen der Hochschulen? Third Mission als Leistung der Fachhochschulen für die und mit der Gesellschaft" (Roessler, Duong, & Hachmeister, 2015).

Zusammenfassung

Das vorliegende Arbeitspapier basiert auf einem 2014 im Rahmen der Jahrestagung des Consortium of Higher Education Researchers (CHER) eingereichten Paper sowie den Ergebnissen der CHE-Publikation „Was sind die Missionen der Hochschulen? Third Mission als Leistung der Fachhochschulen für die und mit der Gesellschaft" (Roessler, Duong, & Hachmeister, 2015).

Contents

1 Introduction and Background

Traditionally, the two core missions of higher education institutions are teaching and research. This goes back to the Humboldtian ideal of universities and was an essential part of the way universities have identified themselves since the 20th century. Yet the model of the Humboldtian university was, as Sylvia Paletschek (2002) convincingly shows, an invention of the early 20th century. With growing student numbers, declining financial possibilities of the states, the change to knowledge-based societies, and the growing relevance of the science system within such societies, a new momentum within the higher education realm has evolved. Transfer activities, the need for lifelong learning, entrepreneurial activities of HEIs and a growing interest of enterprises on the curriculum influences the university as a system. These developments also shape the way professors, students and administrators interact within universities. In addition to (traditional) teaching and basic research, a so-called third mission has evolved. It is a mission with a much stronger focus on the issues of the civil society and business enterprises. This interaction between universities and business enterprises as well as the interaction between universities and different stakeholders of the civil society can be summarized under the broad term “Third Mission”.

The European Commission (EC) has recognized the need to support interactions between science and business when it provided a strategic framework for European cooperation in education and training, the so-called “Education and Training 2010” (ET 2010, http://ec.europa.eu/education/index_en.htm)”. The latter includes the promotion of partnerships between enterprises and universities (European Commission, 2009). Those partnerships can be developed in many ways. Research projects in cooperation with enterprises or formal networks of universities with a local stakeholder to improve the infrastructure of a specific region are only two out of many possibilities.

Given the broad range of activities that can be summarized under the term Third Mission, it is not surprising that different concepts of Third Mission are existing. One of the best-known was developed in the project “European Indicators and Ranking Methodology for University Third Mission (E3M)”, funded by the European Commission. The researchers pointed out that each country finds its own solutions for implementing a Third Mission (E3M-Project, 2012, p. 18). This is also the starting point for this paper and the following questions that will be approached and discussed.

1) What is the “third mission” of universities? (chapter 2)

2) What are Third Mission activities in Germany? (chapter 4)

These questions will be answered with a focus on German Universities of Applied Sciences (UAS). UAS have a long tradition in applied research and industry-university cooperation. Therefore, this type of HEI seems especially suited for Third Mission activities (chapter 3).

Based on a literature review (chapter 2) and the results of 49 qualitative interviews (chapter 4) the authors will also give an answer to the question how Third Mission already influences the everyday business of UAS and how these findings can advance the conceptualization of Third Mission (chapter 5). The literature review and the interviews have been conducted in a project called “FIFTH: Facets of and Indicators for Research and Third Mission at Universities of Applied Sciences”. FIFTH is designed as a three-year-research project. Its aim is to analyze the multidimensional facets of research and research-related Third Mission within UAS. The

project is funded by the German Federal Ministry of Education and Research (BMBF), funding ID 01PY13007.

2 Concepts and Dimensions of Third Mission in Research

Third Mission gives a name to all those activities which for several years already have been a third stream of activity of HEI. It is particularly since the 1980s that the discussion about Third Mission has increased. This was primarily due to economic theories such as the Entrepreneurial University, Triple Helix (Etzkowitz & Leydesdorff, 2000), or the approach of Mode 2 (Gibbons, et al., 1994). All these theoretical concepts share the basic idea that there are increasing links and exchanges between HEIs and society. While this was primarily meant with regard to economic matters, the last twenty years have shown that interaction and contacts between society and HEIs have not been solely focused on economic matters; instead, additional social groups have also gained importance in this matter (Benneworth, Charles, Conway, & Younger, 2009).

More and more, Third Mission has become a multidimensional approach, containing cultural and social as well as political and economic dimensions. It is fair to say that Third Mission has become “a mature additional mission of universities“ (Benneworth & Zomer, 2011, p. 98). In general, Third Mission can be seen as an umbrella term for all HEI activities that are directed towards society and activities in which the attention lies on civil trends, needs and requirements.

The term “Third Mission” covers all those requirements that ask HEIs to play a much more visible and stronger role in the design of modern knowledge societies by providing socially, culturally and economically usable knowledge. This was also recognized by the OECD. Based on a deeper connection between universities and enterprises, especially in the United States, the universities became “engine[s] of the knowledge economy” (Vorley & Nelles, 2008, p. 120). At the beginning, the engagement of the universities was focused on technology transfer. Technology transfer is also one dimension that can be found in other projects and conceptualisations which are dealing with the topic of Third Mission.

Each project uses its own definition and focuses on different aspects of a third mission. Based on a literature review one can conclude that Third Mission is a global phenomenon with local characteristics. The existing definitions of Third Mission vary in the scope of the included dimensions. Based on the literature review, four main dimensions of Third Mission can be identified:

1) University-economy interaction in a broad sense: The universities have relations with different stakeholders from the economic realm.
    a. Technology transfer: Interactions between university and economy with the aim of a substantial transfer of technology.
    b. Innovation: Making academic results feasible and renewing economic procedures.
2) Social engagement: Interactions between universities and society (such as civil engagement or social learning) with the aim to bring benefits for society.
    a. Social innovation: Modernising civil life.
3) Cultural and political engagement: Activities which help to develop the cultural and political life.
4) Knowledge transfer in a broad sense: Activities of universities in order to provide applicable knowledge for different groups of society.

a. Continuing education: A specific activity in order to transfer knowledge.

It is obvious that the projects always try to find a name for those dimensions which do not belong to teaching and research but which are still done by the universities. These dimensions include several activities. For example, continuing education includes aspects like lifelong learning.

The following examples give an impression of how these dimensions are defined and how the dimensions can be designed.

2.1 Third Mission as an Opportunity for Interaction and Development

The **E3M project** describes this dimension of Third Mission as "a way of doing or a mind-set for accomplishing the first two [missions]" (E3M-Project, 2012). In this understanding, Third Mission is a supplement to teaching and research. The E3M Third Mission is mainly based on three different dimensions: "These dimensions can be defined as technology transfer and innovation, continuing education and social engagement" (E3M-Project, 2012, p. 8).

The content of Third Mission in **Latin American** countries has its focus on economic aspects, too. The concept of a Triple-Helix of university-industry-government relationships is the basis for the production of knowledge and innovation in these countries. In particular, cooperation between universities and enterprises are to be supported because those interactions are, on the one hand, vital to ensure a better match between alumni and the need for human resources in the economy and, on the other hand, for developing the potential for new economic branches. This could be done through a commercialisation of knowledge, spin-offs and patents. The entrepreneurial activity of universities is believed to strengthen the innovative power of the country (Thorn & Soo, 2006).

Other countries even took one step further and included Third Mission in their higher education laws. In **Latvia**, for example, "the contribution made by HEIs to the cultural and economic development of the country; the cooperation with entrepreneurs, employers and other social partners; the commercialization of research results; technology transfer; the provision of services geared towards the needs of society; and the popularization of science" are explicit features in the law (Adamsone-Fiskovica, Kristapsons, Tjunina, & Ulnicane-Ozolina, 2009, p. 133).

Quite similar are the definitions of Third Mission used in the **United Kingdom**. For more than 20 years, Third Mission activities have been financed by the Higher Education Funding Council of England (HEFCE). These co-called „Third Stream Activities" include interactions between universities and external organisations from the private sector, public sector and society (Berthold, Meyer-Guckel, & Rohe, 2011, p. 88). Most relevant for the Higher Education Funding Council of Wales (HEFCW) are the benefits of Third Mission for society and also for economic development:

> "Third Mission activities in universities stimulate and direct the application and exploitation of knowledge to the benefit of the social, cultural and economic development of our society." (HEFCW, 2004, p. 2)

The benefits for society are clustered in three groups: services to the community, civil role of HEIs, enhancing social capital. Interactions with economy include the following groups: services to business, developing a skilled workforce and knowledge exploitation.

In the case of the United Kingdom, Third Mission is supported by the government. To this extent, the **Netherlands** are the only comparable country. Since the 1980s, politicians in the Netherlands have wanted to enhance the contributions from the universities to society. Instead of Third Mission, the term "valorisation" has been used "to discuss societal, enterprising and innovation activities". However, the universities did not just start to work on Third Mission activities because the government supported those activities. Instead, the universities were able to participate in that development.

> "Understanding the third mission, its relation to universities' other missions, and the impact of the range of reform processes to which Dutch HE has been subject therefore requires an understanding of this multi-stage evolutionary process whereby universities evolved from democratic mass universities to hosting communities of applied researchers, to organizing technology transfer projects and finally to becoming commercially engaged institutions." (Benneworth & Zomer, 2011, p. 95)

2.2 Third Mission as an Opportunity to Transfer Knowledge

Another approach to conceptualise Third Mission was used by Philipp Laredo, who created a "**radar" of Third Mission** elements when he worked on the "Prime Project Observatory of the European University (OEU)". His radar contains eight dimensions: 1) human resources (the transfer of knowledge through graduates that later work in public services or in industry), 2) intellectual property with a focus on patents and other codified knowledge, 3) spin offs which help to transfer knowledge through entrepreneurship, 4) contracts with industry with a knowledge circulation between universities and enterprises, 5) contracts with public bodies, which is similar to 4), but does not focus on industry, 6) participation into policy making in the form of giving expertise, 7) involvement in social and cultural life with universities' own facilities (such as orchestras or museums), and 8) public understanding of science, which is meant in the sense of interacting with society (Laredo, 2007, pp. 8-9). In this understanding, the focus of Third Mission lies on the question of how university members can transfer their tacit knowledge into society.

2.3 Third Mission as an Opportunity to Engage with Society

Society is also the most important stakeholder for the German **Stifterverband für die Deutsche Wissenschaft**, a business community initiative advocating long-term improvement of the German education and research landscape. The Stifterverband funded a competition with the name "Mehr als Forschung und Lehre! Hochschulen in der Gesellschaft" (broadly translated with "More than research and teaching – Higher Education Institutions within Society"). The Stifterverband wanted to promote the civil role of universities. In their publication, it was concluded that Third Mission means a mutual exchange between HEIs and society. This "social engagement" could be fulfilled with the help of six dimensions: 1) civil engagement, 2) community outreach, 3) community service, 4) service learning, 5) social entrepreneurship, and 6) widening participation (Berthold, Meyer-Guckel, & Rohe, 2011, pp. 23-41). Technology transfer or the possibility for Third Mission through cooperation with enterprises is not relevant in this context.

3 German Context

The literature review illustrated that Third Mission is a broad concept with various dimensions that are often embedded in a national context. Therefore, it is necessary to explain the German university system when a Third Mission definition for Germany is to be found.

In total, 423 HEIs exist in Germany. 25% are traditional universities, which are primarily doing basic research. Another 25% are art colleges and specialized HEIs (such as pedagogical institutions or HEIs with a focus on administration). The largest group, about 50%, are the UAS with 212 institutions in 2013/14 (Federal Statistical Office (Statistisches Bundesamt), 2014).

Compared to the universities, the German UAS have distinct profiles and own strengths with respect to their research and Third Mission activities. The first UAS were founded between 1969 and 1971 to allow more people an easier access to higher education. The founding mission of the UAS was to give students a practice- and work-oriented academic education so that they would be prepared for making autonomous decisions in their future jobs. A characteristic trait and thus distinction from traditional universities was supposed to be the specific application-orientation and a shorter length of study (German Council of Science and Humanities (Wissenschaftsrat), 2002, p. 5). Another idea was to heave Germany from the industrial era into the era of the beginning knowledge society (German Council of Science and Humanities (Wissenschaftsrat), 2002, p. 5). Therefore, the most important mission of the UAS was teaching. Up until now, the teaching load of UAS' professors has been 18 hours a week – compared to about 9 hours for the professors at traditional research universities.

Within the last thirty years, the UAS have changed their image from a "mucky pup image" (Spiewak, 2002), the "waste product of the educational expansion" (Simon, 1990), and a birth out of necessity (Gross, 1990) to a success story in the German higher education system. In 1992/93, only 20% of all students in Germany visited a UAS, twenty years later in 2012/13 about 32% (Statistisches Bundesamt, 2013). The number of professors has also increased, for example, from 17% in 2003 to 23% in 2012 (Statistisches Bundesamt, 2013). Yet it should not be ignored that most of the UAS are small entities with about 3,600 students.

The most important profile of the UAS is the strong focus on teaching and on application: work-oriented elements are an essential part of all curricular activities. Over the course of time, the UAS became successful in areas such as applied research and industry-university cooperation. Third-party funds from the industry have been a substantial source of income for UAS. For example in 2010, UAS gained almost one third of their third-party funds from the business sector while universities gained only one fifth for this sector (Federal Statistical Office (Statistisches Bundesamt), 2012). In this context, it is important to know that, in general, the professors at UAS have to work outside academia before they are able to become a UAS professor. Therefore, it is easier for them to get in contact with partners from outside academia.

A first analysis of UAS' websites, UAS' self-images as well as databases showed that, in addition to these economy-related activities, considerable efforts in lifelong learning activities, knowledge transfer, consulting or the founding of spin-offs are nowadays also a visible trait of UAS. The German UAS seem to be suitable for Third Mission activities and are already including a variety of approaches of this mission in their everyday business. Within the German higher education system, UAS are a special type of institution that official bodies, such as the German Council of Science and Humanities (Wissenschaftsrat), distinguish from (research) universities. A distinction between the two types is seen as functional with reference to the

science system as a whole, even though there are huge differences in the profiles of the different UAS (German Council of Science and Humanities (Wissenschaftsrat), 2013).

According to the German Council of Science and Humanities, the aim of public policy in the realm of higher education is to ensure and develop a high level of performance in a variety of different dimensions. Activities apart from teaching and basic research entail the possibility for an individual higher education institution to be visible with a distinct profile and to protrude from the high number of higher education institutions (German Council of Science and Humanities (Wissenschaftsrat), 2013, S. 8) Therefore, Third Mission, next to teaching and research, could also be an appropriate way of profiling for the UAS. With a stronger focus on Third Mission and stressing out the already existing performances in this mission, the UAS are in the best starting position to become visible as a remarkable type of HEI.

4 Third Mission Activities at German UAS

Starting from the hypothesis that UAS are especially well-equipped to be successful in Third Mission and that they are able to use Third Mission to develop institutional profiles, 49 qualitative interviews have been conducted between April 2014 and August 2014.

4.1 Methodology of this Qualitative Study

For the interviews, an open guideline-based interview design was chosen. Referring to Meuser and Nagel, such an interview fits best to the situation of expert interviews since the experts have got the possibility to talk about their position and experience, but the discussion is not lost in the topic. The experts are seen as representatives of their organisation or institution (Meuser & Nagel, 2002). Their answers are analysed in an anonymised way.

The method of explorative interviews was chosen to ensure a broad range of feedback. This is especially important for Third Mission since different parties are involved in Third Mission activities. To guarantee such a variety of different opinions, four expert groups were chosen:

- **Higher education leaders**: rectors and vice-rectors[1]
- **Professors**: tenured academics visible in research and/or Third Mission activities
- **External Experts**: experts with a profound knowledge of UAS or representatives of relevant organisations (e.g. trade associations which are interested in cooperation between HEI and the business sector)
- **Ministries**: ministries of research and science from different federal states

Apart from one institution, all visited HEIs are UAS. To define the sample, all UAS have been analysed on a subject-based level, based on the criteria “amount of third party funds per full-time-equivalent professors”. This indicator was chosen because it is used in more or less all performance measuring activities such as the German “Leistungsorientierte Mittelvergabe” (performance-oriented allocation of funds, used for transferring basic funds from the federal state to the universities) and in all research-related university rankings (see www.umultirank.org or http://ranking.zeit.de). Furthermore, third-party funds include the

[1] The rectors and vice-rectors are, of course, also professors, yet due their reduced research and teaching load and their strong focus on administration, it was generally possible to solely focus on their position as higher education leaders during the interviews.

amount of funds given by business enterprises, which could be used as an indicator for Third Mission activities in the area of technology transfer.

Based on the above-mentioned sources, 27 UAS, in total, reached good results in the surveyed fields and have been analysed in further detail. It was necessary that the chosen UAS would also be active in different areas of Third Mission. Based on internet search, several items have been identified:

- mission statement and/or self-image of the UAS
- strategic papers regarding Third Mission activities
- projects on the institutional level

In addition, the selection covered a representative sample of UAS. Therefore, it was necessary to include different regions: The south of Germany with its strong economic basis, the west with a federal state with the largest population, the north with smaller units and as a sparsely populated region, and the east as a rather structurally weak region. Due to the German system of federal states, it was also necessary to cover different kinds of federal states: federal city states, territorial federal states, heavily populated federal states and less populous federal states. In a third step, three different types of UAS were included: public UAS, privately owned UAS and clerical UAS.

Based on these requirements, 49 interviews have been conducted. Six representatives of ministries, thirteen experts for research and/or Third Mission, ten rectors and vice-rectors and twenty professors. In general, the interviews have been recorded and transcribed.

In the following analysis, 40 interviews have been included: Seven interviewees did not want to be recorded and two interviewees came from abroad and could only give feedback with regard to their own country. In the following, the focus lies on the activities of German UAS. Therefore only interviewees from German UAS have been analysed.

The analysis of the interviews is based on qualitative content analyses (Mayring, 2010). For the analysis, a mixture of a synoptic analysis and a structuring method was chosen.

4.2 Conceptualisation

For the analysis, the conclusions of the literature review were combined with the statements of the interviewees. One of the results from the literature review is that previous projects on Third Mission focused too much on the **activities** of universities with regard to Third Mission. But the conducted interviews with rectors and professors made clear that not only activities should be counted as Third Mission. Before activities can exist, several **preconditions** are necessary, for example support structures. The **activities** of Third Mission are very comprehensive and most of the aforementioned dimensions of TM already exist at German UAS. As an impact of Third Mission activities, and also research and teaching activities, **results** are generated. These can lead to further steps like awarding patents. Some of the results and activities lead to **consequences** (e.g. social innovation).

With the help of this conceptualisation of the whole process (preconditions→activities→results→consequences) the topic of Third Mission is much better understood. This concept is comparable with the so-called iooi-method: Input→Output→Outcome→Impact (Bertelsmann Stiftung, 2010). Creating awareness that there are **preconditions** for Third Mission activities helps to identify missing support structures

and to eliminate deficits. Describing Third Mission **activities** and making them known helps people who are active in Third Mission areas to explain what they are doing and to make it visible. The description of **results** helps HEI leaders to see benefits of Third Mission activities.

The findings and the conceptualisation are visualised in the following graph.

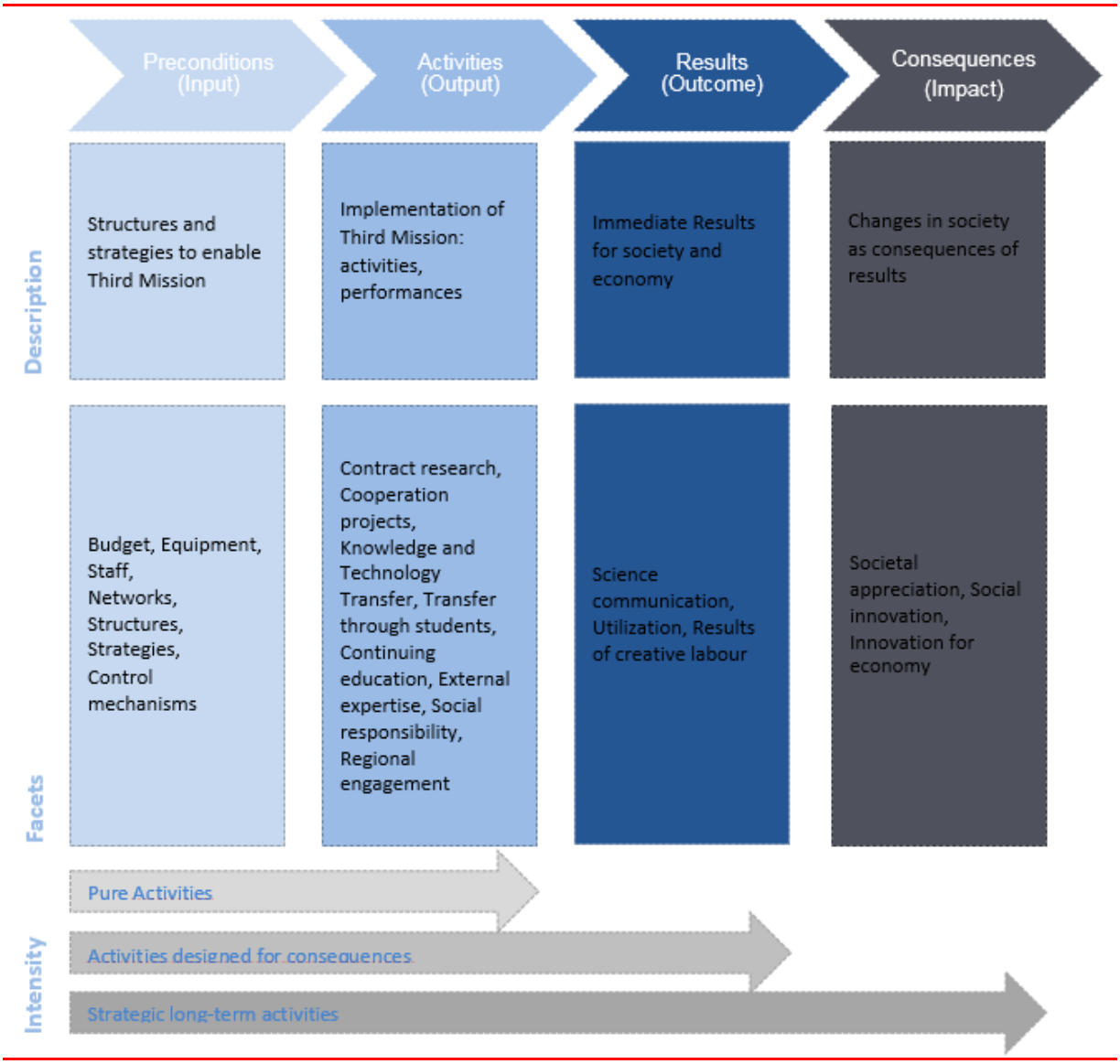

Figure 1: Conceptualisation of Third Mission processes (own figure), following the iooi method

4.2.1 Preconditions for Third Mission

The interviewees pointed out that Third Mission activities can be supported by structures within universities. Most helpful seems to be the existence of official strategies for Third Mission, or at least strategies for technology transfer, continuing education etc. Strategies help to integrate Third Mission as an own pillar in the self-image of the university. Apart from strategies, existing innovation networks, transfer centres or the existence of a vice-rector for technology transfer also increase the possibility for Third Mission. Another major requirements are a time budget as well as a financial budget for Third Mission activities. Moreover, networking with non-academic persons was also mentioned as a necessary precondition. In these networks, necessary contacts with different groups of society can be created.

In total, 18 people (45 %) mentioned structures and networks as a precondition for Third Mission.[2] Three rectors (out of ten) included Third Mission or at least aspects such as technology transfer in the official strategy of the UAS. Transfer centres were also mentioned by seven persons. Yet the appraisal of their importance differed considerably between the interviewees. In general, transfer centres are regarded as helpful for getting in contact with enterprises, but professors with intensive networks and contacts do not use them. The rectors, on the other hand, have a positive attitude with regard to these centres and want to foster transfer centres to facilitate cooperation between professors and enterprises.

4.2.2 Third Mission Activities

All 40 interviewees mentioned Third Mission activities.

On the activity level, it is fair to say that universities have a *social responsibility*. 15 interviewees (37.5 %) indicated aspects with regard to social responsibility. Especially community-based research was mentioned (9 people). Six people did see a general social mission in their work. People interact with civil society and are searching for social challenges.

Closely related to social responsibility are activities in *regional engagement*. Projects and activities with a focus on the region have been mentioned by 25 persons (62.5 %). The range of activities was broad. It was mentioned by ten people that their work would lead to regional development, for example, because they would support the region as a seat of industry. Nine interviewees indicated that they have a regional responsibility. Four persons have been working on concepts for the development of the region. The development of infrastructure, such as the construction of a street, was mentioned by two persons.

Teaching related transfer of knowledge and technology is a very important aspect within the UAS. Engagement with non-academic stakeholders does not necessarily count as an activity of professors only. Students are integrated in research projects in their classes, work-oriented seminars or praxis semesters (14 people), and they are doing internships as well. The students also use the possibility to get more work-related experience by writing their thesis in cooperation with an enterprise (mentioned by 11 people).

One of the most important activities of Third Mission are projects in cooperation with non-academic partners. More than 100 indications with regard to cooperation have been registered within the interviews.

[2] Analysis on the basis of interviews in total. Each mentioning was counted only once.

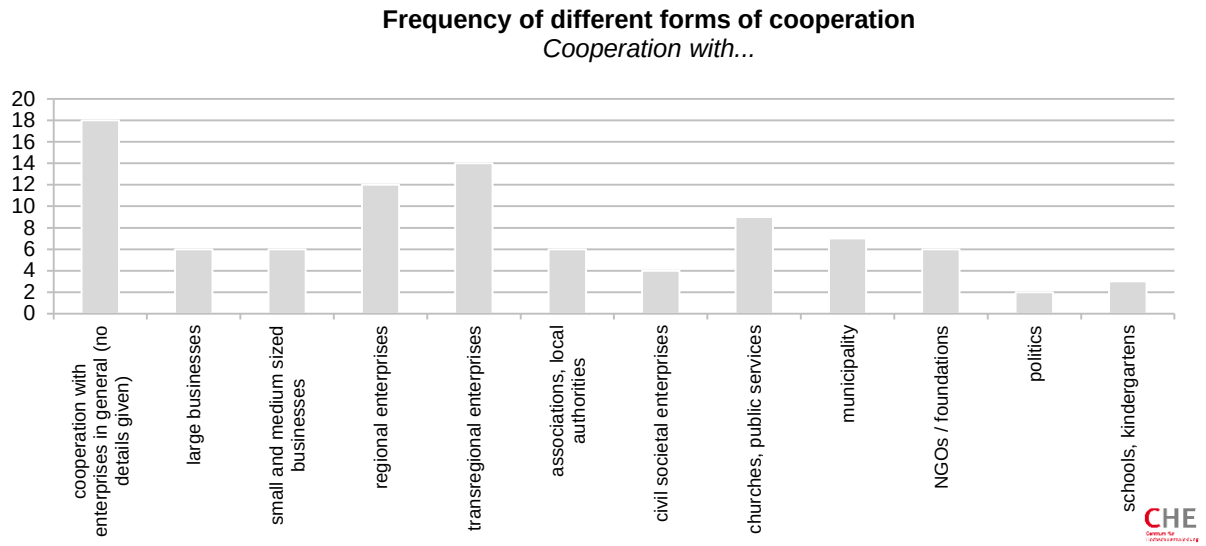

Figure 2: Kind of cooperation (own source, qualitative interviews, 2014)

Cooperation with enterprises and societal groups can become institutionalised. Strategic partnerships, science-to-business centres (where universities and enterprises are doing research together), and jointly used laboratories have been mentioned by 16 interviewees. Some of these mentioned partnerships are not yet existing.

In cooperation projects, *transfer of technology and knowledge* takes place. This kind of transfer can also be realised in activities such as participation in networks or clusters, cross-employment (dual appointment) or with alumni.

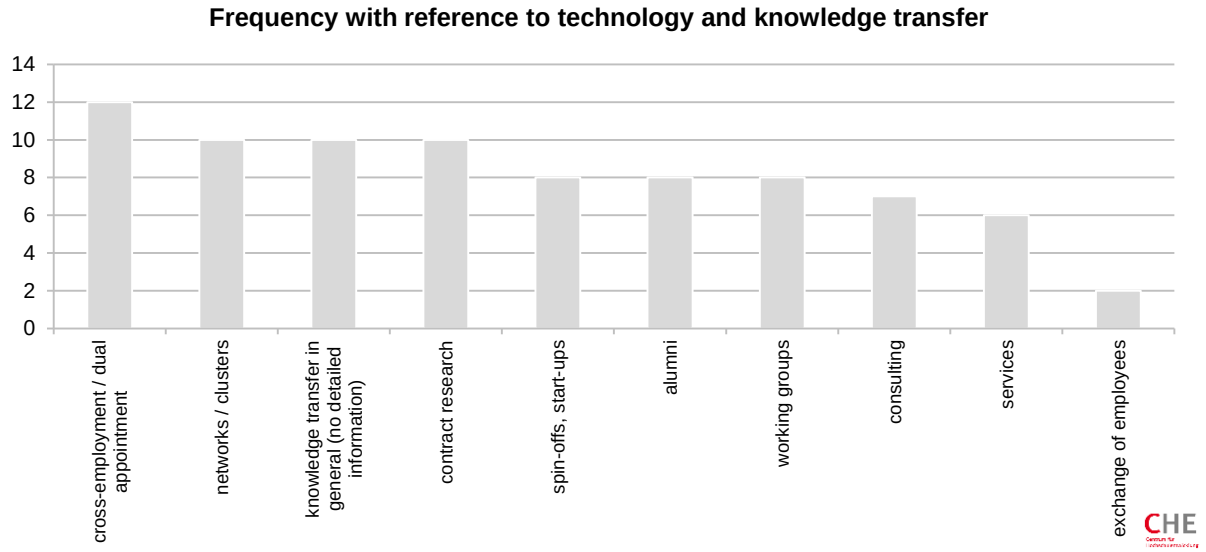

Figure 3: Kind of technology transfer and knowledge transfer (own source, qualitative interviews, 2014)

Knowledge transfer can also be realised with the help of *scientific advanced training*. On the one hand, knowledge can be transferred into enterprises through students in advanced training. On the other hand, professors learn about problems within enterprises and can take these problems into account when they do their own research. In total, 19 (out of 40) people mentioned different kinds of advanced training. Professional schools, lifelong learning, study programmes and courses to get a certificate have only been mentioned by a few people. Nevertheless, advanced training will be highly important in the future, as some of the rectors indicated.

A special kind of knowledge transfer is the *integration of external experts* in university. Six (out of 40) people indicated that they integrate people from outside academia in their activities, especially within teaching. In two cases, people from outside academia have been integrated in research activities.

4.2.3 Third Mission Results

Research and Third Mission activities lead to results. Most common is the publication of academic articles and other scientific output. With regard to the purpose of Third Mission, the *communication of science* is more than publishing in scientific journals. 32 of the 40 interviewees mentioned different ways of science communication. Twelve people each indicated that they are already engaging in fairs or congresses or hold lectures and organise their own fairs for the public. Eight persons stated that they have already published in professional journals and mass media. This helps to transfer knowledge into the economy and society.

Another way of knowledge transfer into society are the *results of creative activities*. Inventions, patents, licences and marketing belong to these results. Compared to science communication aspects, only a few people mentioned aspects in this realm. Patents were mentioned by five people only. Six interviewees indicated the commercialisation of their creative activities and inventions.

4.2.4 Consequences of Third Mission Activities and Results

Each activity and each result has also consequences. In this section, only few aspects have been pointed out so that the consequences are more or less results of our conceptualising process within the project. *Recognition* through awards for Third Mission activities was mentioned. That the economy gives third party funds for projects is also a consequence of the visibility of the professors. Patents and inventions can create *income* for the professor or the university. The activities based on the Third Mission dimensions social and regional engagement could lead to *social innovations* in the long run. Yet in the 40 interviews conducted, this aspect was not mentioned.

5 Conclusion and Implications

The paper gave an impression of already existing activities in the area of Third Mission at German UAS. In total, 49 interviews have been conducted to get an insight into the core activities of German UAS professors and the UAS strategy with regard to Third Mission. It became obvious that there are many activities already existing (besides teaching and research). The literature review gave a good framework for analysing various activities of UAS professors. Especially university-economy-interaction was mentioned by the interviewees, above all projects in cooperation with enterprises. This was not unexpected because in order to become a professor at a German UAS, the applicants have to work outside academia for several years. Hence, they have good connections to economy and society. Apart from business cooperation, the interviewees pointed out that they are also quite active in areas such as social engagement. Several interactions with society could be identified in the course of the

interviews, with different stakeholders and aims. Again, cooperation with stakeholders from society are the most often stated activities. A third relevant activity dimension that was mentioned is knowledge transfer. The interviewees demonstrated vividly that they work hard to bring their tacit knowledge into society. In contrast to existing research on Third Mission, cultural and political engagement was not mentioned in detail by our interviewees. During the interviews, it became clear that the theoretical frame, given by the literature review, does not cover all relevant aspects for Third Mission. Therefore, a new structure of Third Mission as a supplement to the previous definitions was introduced in this paper. Up until now, Third Mission has usually been regarded from the perspective of activities. Professors described their engagement in activities that belong to different dimensions (such as technology transfer, knowledge transfer or continuing education). However, concentrating on the analysis of activities is not enough because it is only one aspect in the whole Third Mission process. Hence, a new structure for Third Mission was discussed in this paper. All aspects related to Third Mission have been restructured and classified into four groups: preconditions, activities, results, and consequences. With the help of this, the whole process of Third Mission is much better understood. Creating awareness that there are **preconditions** for Third Mission activities helps to identify missing support structures and to eliminate deficits. For a successful implementation and support by the university, these preconditions have to be taken into account. Based on these preconditions, such as internal structures supporting Third Mission, it is much easier for professors to work in the **activity** dimensions of Third Mission. When, apart from teaching and research, advanced training or technology transfer is also counted as a real performance, it is possible for the professor to get appreciation and support for these activities. The description of the **results** helps HEI leaders to see the benefits of Third Mission activities. Similar to these, **consequences** are the logical next steps of Third Mission activities and results. The description of consequences, like social innovation, helps to show society benefits of Third Mission. In the literature, results such as awarding patents, or consequences like innovation have been mentioned, too, but this was not structured in an appropriate way in the previous conceptualisations. With the introduced classification, discussions about Third Mission can be structured much better and several stakeholders from inside and outside academia can find new and more focused arguments for an engagement in Third Mission.

In Germany, the UAS are already very active in the Third Mission. It is also possible to go one step further. The UAS have got the possibility to perform successfully and without huge additional workload in Third Mission activities. The benefit of UAS is that the professors have to work outside academia for several years before they fulfil the entrance requirements. They are often able to speak the same “language” as people from enterprises and they often have got good networks with society, economy and the region. During the interviews, it became clear that right now many UAS and many professors already engage in some Third Mission areas, but it has to be kept in mind that the amount of 18 teaching hours limits the possibility of UAS professors to engage in too many additional tasks. Therefore, it is necessary to implement a culture within the UAS which makes it possible to engage in a variety of focus areas. Hence, the possibility to make the performances in Third Mission visible is necessary. This will become very important for the future of Third Mission. As long as the fear exists that Third Mission includes only activities which will come “on top” on the workload in teaching and research, there will be no future for it. Instead, when “Third Mission” is understood as a term that describes already existing performances and which helps to give a higher value to these activities, there is a good chance for the UAS to create many benefits out of their own Third Mission strategy. In this sense, they can use Third Mission as a possibility for profiling. With

the help of Third Mission, UAS can strengthen their success in application-related activities and point out their good performance in this area. Based on these findings, the following definition of Third Mission would be appropriate for German UAS: The Third Mission of the HEIs combines all performance, preconditions, activities, results and consequences which lead to mutual interactions and linkages between HEIs and the external university environments in the area of transfer, people, and development.

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