

## Submissions Abstract Book - All Papers (Included Submissions)

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Defining Knowledge and Technology Transfer Between Subsystems of the Innovation System – Results of an Empirical Study Beyond the Universities' Perspective

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**Research Domain:** Management, leadership, governance and quality (MLGQ)

### Abstract:

Today, many higher education institutions seek to professionalise their third mission activities and are asked to track their transfer processes according to their performance. Thus, an already considerable number of studies have been developed in recent years presenting approaches to transfer models or proposing a range of indicators to measure transfer performance from a universities' perspective. The research project *Transfer\_i* (transfer indicators) aims to present a transfer model approach, which reflects the complexity of knowledge and technology transfer processes in order to overcome the limited perspectives of existing models. The empirical study in progress presented in this paper shows first findings, which validate the developed approach. In contrast to nearly all other studies presenting only a universities' viewpoint, this study shows the perspective of the other actors within the transfer practice, thereby providing useful insights for universities and research institutions on how to value their third mission activities.

### Paper: Introduction

Today, many higher education institutions seek to professionalise their third mission activities and are asked to track their transfer processes according to their performance. Thus, an already considerable number of studies have been developed in recent years presenting approaches to transfer models or proposing a range of indicators to measure transfer performance from a universities' perspective (e.g. Molas-Gallert, 2002; Holi et al., 2008; Hachmeister et al., 2016; Frondizi et al., 2019).

The research project *Transfer\_i* (transfer indicators) aims to present a transfer model approach with transfer flows between the subsystems government, education, research (including HEIs), industry and society. The model addresses several critical points on transfer models by sufficiently representing transfer complexity, multidirectionality, multidimensionality, and innovation context

(Günther et al., 2021). The empirical study in progress presented in this paper shows first findings, which validate the developed approach. The limited scope of existing approaches has been broadened to include other actors within the KTT practice, thereby providing useful insights for HEIs on how to value their third mission activities.

## **Methodology**

Due to the complex, multi-faceted nature of the research objective, an exploratory research design with semi-structured expert interviews was chosen. An interview guide was developed and adapted to the characteristics of each subsystem in the course of the survey. The focus of the interviews is on the transfer processes, actors, barriers, resources and indicators in the interviewee's organisation. To be selected for the interview, the experts had to have points of contact with transfer and innovation processes in their profession and belong to an organisation within one of the subsystems. In total, 75 expert interviews were conducted between November 2020 and June 2021.

As can be seen in Table 1, most of the interviews took place with experts from the research subsystem. Overall, the interviews covered a broad spectrum of organisations from all subsystems involved in the innovation system and the various hierarchical levels involved in the transfer process. As of July 2021, 64 interviews have been fully transcribed and already 50 of the 75 interviews have been analysed using Qualitative Content Analysis according to Mayring (2014) with deductive-inductive category application (Gläser & Laudel, 2010).

## **First Results**

The empirical findings of the analysed interviews confirm the initial assumption that KTT is a multidirectional and recursive process. The interviews conducted in each subsystem showed that there is a plurality of roles for all subsystems, their institutions, and actors in terms of acting as transfer senders and recipients in transfer processes. One important finding, for example, is that actors from civil society are interested in establishing a transfer culture with external parties, which means that they do not fit the assigned role of being only recipients of knowledge and technology from other subsystems. This leads to the conclusion that HEIs are not necessarily the central initiators of transfer activities.

Another important finding from the expert interviews is that KTT takes place on different abstraction levels including the organisational level, departmental level and even the individual level. Furthermore, it can be seen that the interviewees' definition of what a transfer activity is, differed even among HEI members between a very narrow perspective and a broad understanding; in a strict sense, KTT activities only relate to formalised or standardised procedures like contracts, collaborations or events, but in a broader sense, transfer includes various exchanges with external parties. In regard to barriers restricting transfer processes, the most frequently mentioned aspects are limited resources, differing individual interest as well as communicative and administrative barriers.

## **Conclusion**

Further findings are expected once the empirical study in progress is completed. Overall, the chosen empirical method can only provide a sample. Further research could explore the different levels of abstraction in more detail and either expand on the previous data with additional qualitative interviews or complement it with a collection of quantitative data. Nevertheless, the study provides a scientifically sound basis for evaluating university-related transfer work in the context of the overall system. It reveals strengths and weaknesses such as barriers to communication and cooperation, helping to establish or improve an organisation's KTT activities. In the end, the *Transfer\_j* project will be able to provide clarity on what KTT actually means and it will offer valuable teaching and research recommendations for professors as well as recommendations for HEI members on how to create impactful KTT that also aligns with the HEI's strategy and long-term goals.

**References:** Table 1: Overview of qualitative interviews

| Interview classification by subsystem | # Interviews | Organisational affiliation of interview participants  | Professional position of interview participants                                      |
|---------------------------------------|--------------|---|--|
| Research                              | 30           | university, non-university research institution   | lead of transfer office/transfer project, professor, research staff                  |
| Society                               | 15           | foundation, limited liability company, citizens' initiative, registered society   | chairman, managing director, initiator, member                                       |
| Industry                              | 12           | limited liability company, public limited company   | managing director, vice president, director, site manager, department head, engineer |
| Education                             | 10           | university  | president, vice president, prorector, dean em., head of division                     |
| Government                            | 8            | ministry, municipality, economic development corporation, chamber of crafts, chamber of industry and commerce, foundation | project management, head of division, head of office, managing director              |
| # interviews total                    | 75           |   |  |

## Literature

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