



New Context of Science

During the last 20 years research governance in European countries has been transformed. Germany is a recent case for this transformation, leading to a more market oriented research governance. All Institutions of the publicly funded research system in Germany such as Universities as well as publicly funded Research Organisations are affected by this process, which is driven by „initiatives“ from the political field. One can identify two main objectives of these „initiatives“, one is directed at the organisation of scientific practice, where in order to achieve excellence through competition, economic principles are implemented as organisational principles following the idea of the market-form as best organisational principle. The other objective is directed at the commercialisation of research results, which should be increased in order to achieve economic growth for the society through innovation. A popular approach to characterise this transformation is the term “Economisation” (Ökonomisierung) (e.g. Schimank 2008, Weingart 2008), describing it as a process of adoption or enhancement of economic principles of action into non-economic social spheres.

Research teams have to organise their day-to-day- practice in this changed organisational context, where economic principles seem to gain influence.



Photo 2: Photos 1 and 2: Researcher and Businessman, depicted at KIT's Business Club Homepage www.innovation.kit.edu/business-club/innovorteil.php

Research Questions

How does the introduction of economic principles affect the scientific practice in research teams?

- Do research teams adopt these principles?
- What strategies are research teams using to cope with these principles?
- What are demands and expectations research teams have to meet and how do they fulfil them?
- Do scientific working procedures and the planning of research topics change under this influence?

**The Case:
Advanced Materials research as a scientific field?**

- In publicly funded research organisations and universities
- Predominantly organised in interdisciplinary research teams
- Field of advanced materials research contains small number of companies and research groups which are interconnected
- Material scientists' self image one of a practitioner rather than a scientist but orientation in the scientific field
- „Epistemic culture“ shaped by engineering sciences
- At the worldly pole of the scientific field



Photo 3: Industrial research equipment, © Theodor Kohler

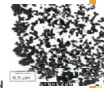
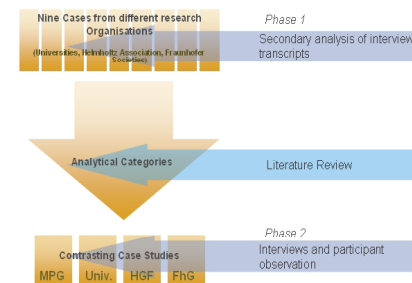


Photo 4: Industrial research equipment, © Theodor Kohler

Contact Information: Anna.Schleisiek@kit.edu

Empirical Design



Observing Scientific Practice:

- Organisational units are organised like business companies with a strategic orientation on growth, profit and costs
- Research groups are dependent on companies actions and strategic decisions
- Publications often mentioned in instrumental relation to acquisition of industrial partners, evaluations
- Knowledge as a private good rather than as a public good

Supervision:

Prof. Uwe Schimank, Dep. of Sociology,
Bremen University

Theoretical Approach:

Robert K. Merton (1910-2003): Scientific Ethos

- Science as a social institution, characterised by values and norms
- Institutional imperatives of Scientific Ethos: Universalism, communism, disinterestedness, organised scepticism
- Scientific autonomy is expressed through the Ethos, but always contested

Pierre Bourdieu (1930-2002): Illusio

- Anti-economic economy of science as the scientific fields Illusio
- Faith of the fields actors in the rules and stakes of the field
- Unselfishness, gratuitousness' appear as the “rules of the game”
- Actors affirm and reproduce the game and its rules through their practice

Autonomy

- Autonomy vs. heteronomy
- Scientific autonomy as “dependency in independency” remains ambivalent

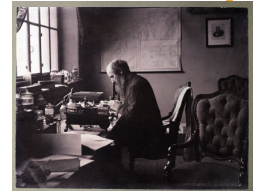


Photo 5: Gerhard Armauer Hansen, found at University of Bergens' homepage, www.uib.no/hgthws

Theoretical conclusion:

- Ethos and Illusio as analytical concepts for the case studies
- „Ökonomisierung“ as an intrusion from the political field into the scientific field
- Internalised structures shape values and norms of actors as well as principles that guide their practice. These are inscribed in the fields institutional structures and shape and are shaped by the practice of actors
- A transformation processes would be visible here, e.g. by a dominance of economic imperatives over scientific.