Chances and challenges of interdisciplinary working: 
Insights from (research) practice

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Fraunhofer CeRRI
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BUILDING CAPACITY FOR COLLABORATIVE AND INCLUSIVE INNOVATION PROCESSES
Introduction

Fraunhofer CeRRI – combining interdisciplinary perspectives

**BUILDING CAPACITY FOR COLLABORATIVE AND INCLUSIVE INNOVATION PROCESSES**

- **Designers**
  - How can we develop approaches and methods for collaborative innovation processes?

- **Philosophers**
  - What is the relation between public engagement and responsibility?

- **Political Scientists**
  - What kind of knowledge and stakeholders must be involved in the particular context?

- **Social scientists**
  - What kind of stakeholders are relevant?

- **Innovation researchers**
  - What are innovations and how do they occur in the knowledge society?

- **Psychologists**
  - What does that mean for working processes in my organisation?
Introduction
Fraunhofer CeRRI – fostering interdisciplinary co-creation
Interdisciplinary working as a key for innovation

„Interdisciplinary innovation arises from the positive effects that result when stepping across the social boundaries that we structure knowledge by.“

Blackwell et al. 2009
The value proposition of interdisciplinarity in problem solving or product development:
Using different skills and analytic perspectives

- to make use of different repositories of knowledge
- to frame problems
- to develop richer solutions
- to increase the likelihood of a radical innovation

The value proposition of interdisciplinarity in academic, curiosity-driven research:
Establishing new conjunctions of different interests and perspectives

- to create new insights
- to foster breakthroughs by serendipity

Interdisciplinary working as a key for innovation
From interdisciplinary to transdisciplinary approaches

- The Quadruple Helix model responds to the evolving need for a hybrid, transdisciplinary exchange among science, industry, government and society
- Because: “Scientific-technical inventions are not automatically relevant to society. [...] they must address societal needs and requirements.” (Grunwald 2012)

Sources: The model is based on: Etzkowitz & Leydesdorff 2000; Carayannis & Campbell 2009; Carayannis, Barth & Campbell 2012 (Visualization © Fraunhofer 2016)
Interdisciplinary working as a challenge

„Sometimes, they just don’t understand our processes and our priorities“

„It takes so much time to come to an agreement“
Interdisciplinary innovation makes use of different repositories of knowledge – but this knowledge is structured in silos

Different disciplines often have

- different languages
- different core values
- different priorities and goals
- different working processes
- different time horizons
- a certain attitude (disregard) towards other disciplines

In order for a new interdisciplinary team to become effective, that team must develop shared values and culture

Interdisciplinary working as a challenge

Interdisciplinary demarcation

Source: Source: https://communication4health.wordpress.com/tag/interdisciplinary/
CeRRI approaches: Principles, process-Models and methods
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Three major Principles

I. Enabling exchange, knowledge creation and co-design beyond the limits of language
   Design-based methods

II. Avoiding misunderstandings and creating a common ground
   Transformation and translation

III. Valuing different perspectives and approaches
   Spaces for co-creation
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Interdisciplinarity is worth the trouble