

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

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Agenda

1. *Introduction*
2. *Interdisciplinary working as a key for innovation*
3. *Interdisciplinary working as a challenge*
4. *CeRRI approaches: Principles, process-Models and methods*
5. *Conclusion*

Introduction

Fraunhofer CeRRI



Introduction

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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?

BUILDING CAPACITY FOR COLLABORATIVE AND INCLUSIVE INNOVATION PROCESSES

What kind of stakeholders are relevant?

Social scientists

What are innovations and how do they occur in the knowledge society?

Innovation researchers

What does that mean for working processes in my organisation?

Psychologists

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

Interdisciplinary working as a key for innovation

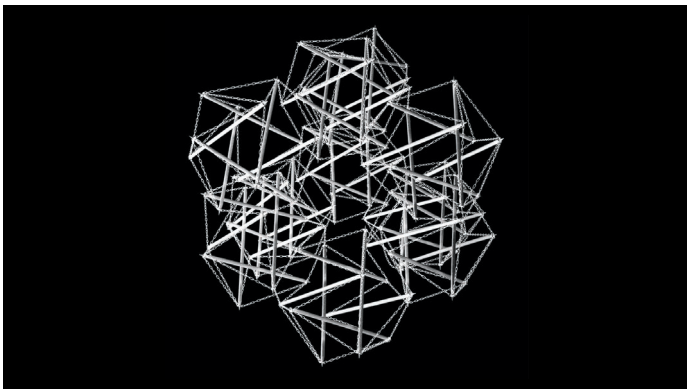
Interdisciplinary innovations



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



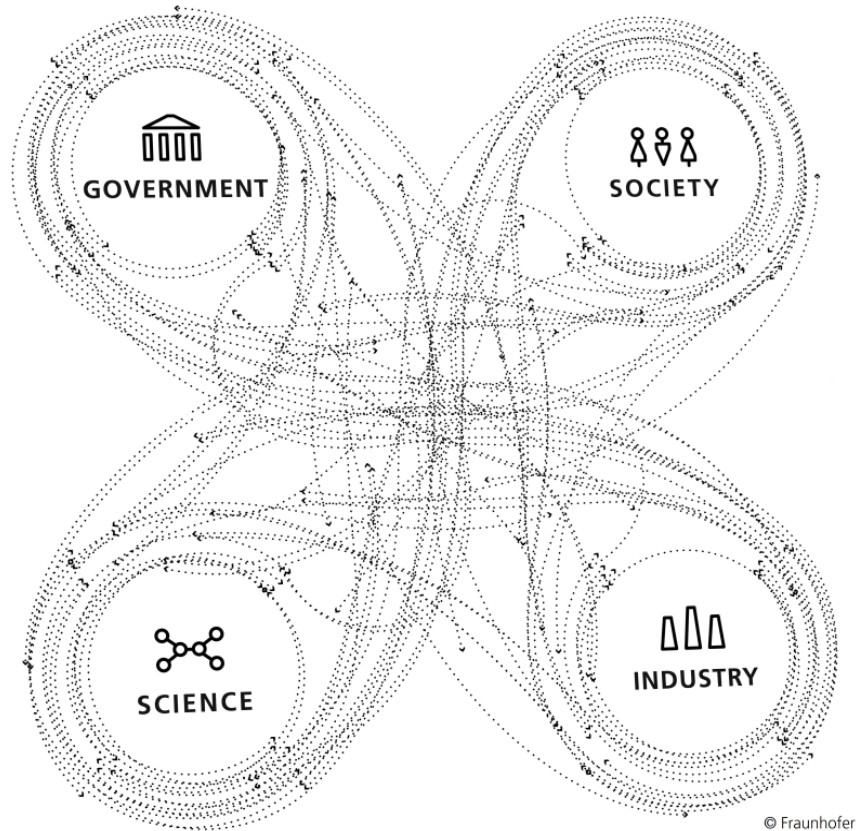
The value proposition of interdisciplinarity in academic, curiosity-driven research:

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)

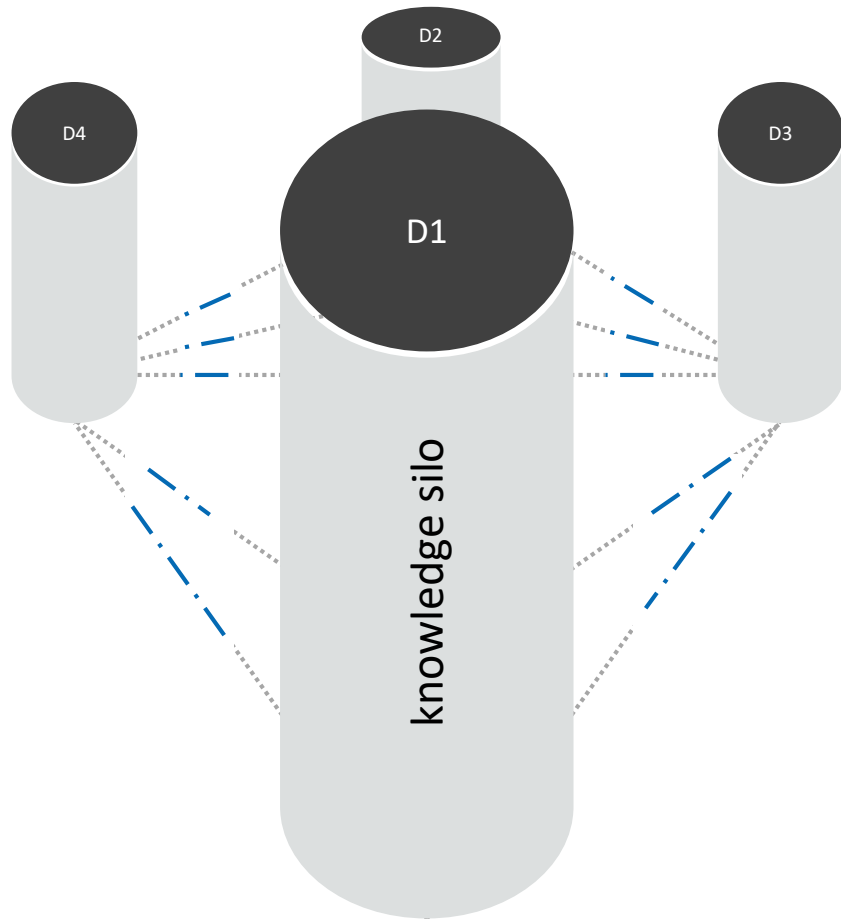
Interdisciplinary working as a challenge

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

„It takes so much time to come to an agreement“

Interdisciplinary working as a challenge

Silo-Knowledge and other barriers



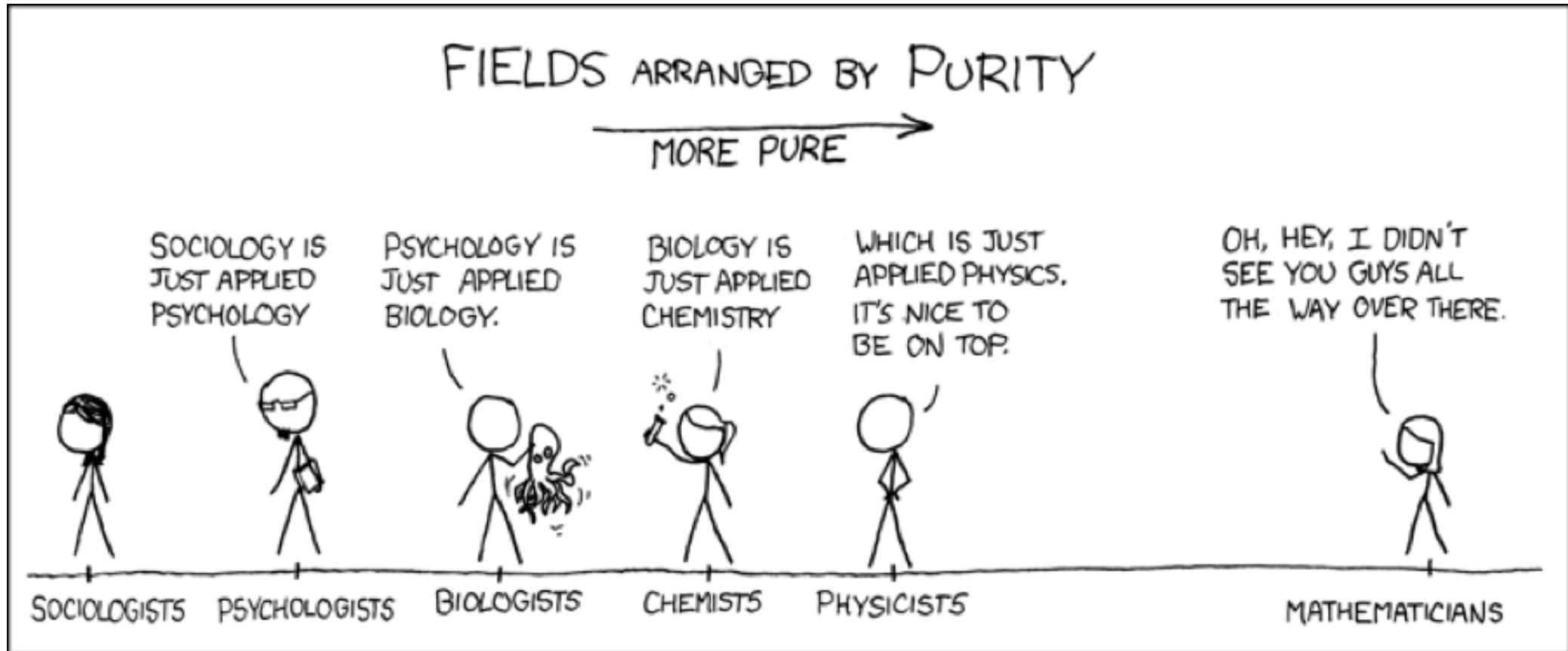
Interdisciplinary innovation makes use of different repositories of knowledge – but this knowledge is structured in silos

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



CeRRI approaches: Principles, process-Models and methods

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

CeRRI approaches: Principles, process-Models and methods

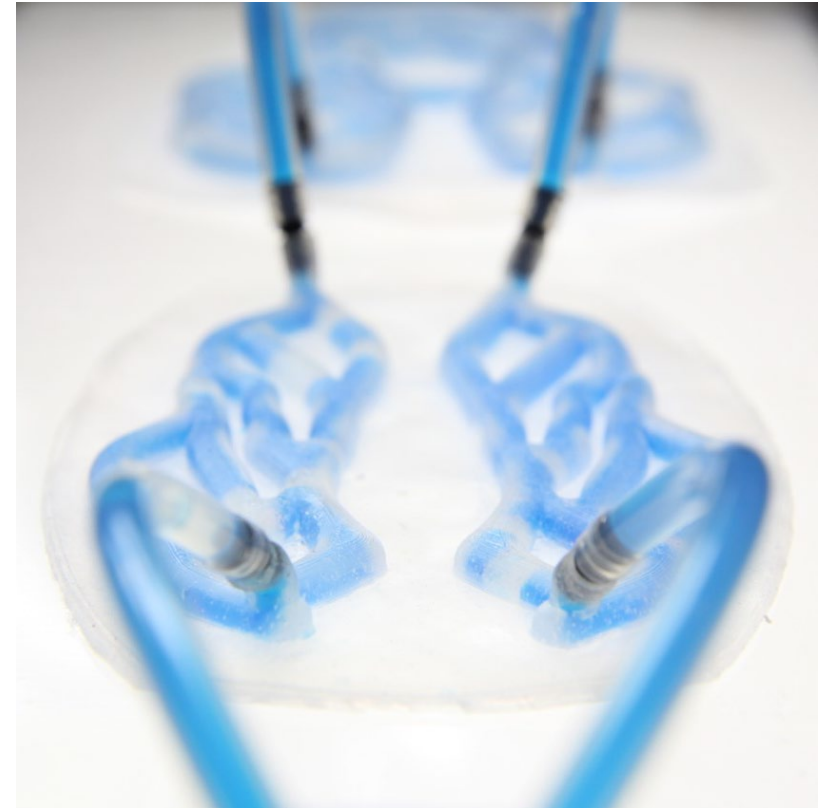
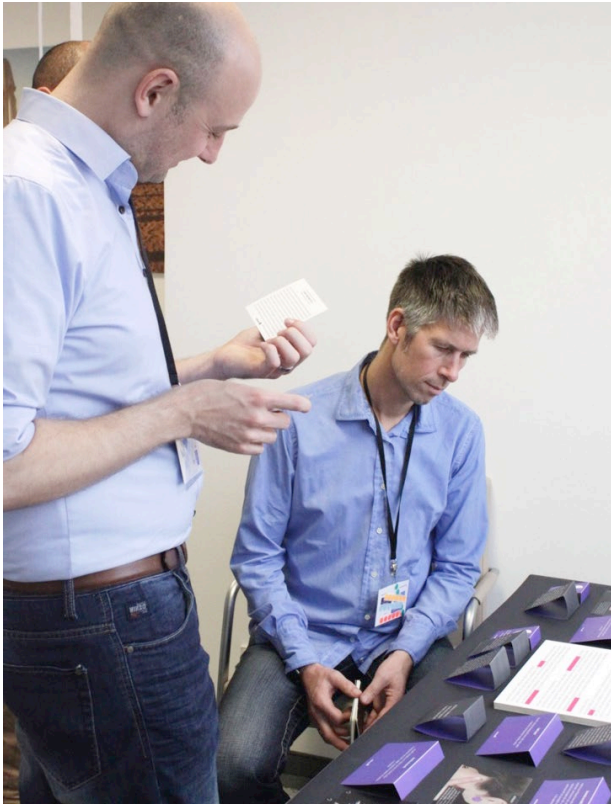
Enabling exchange, knowledge creation and co-design beyond the limits of language

Bil

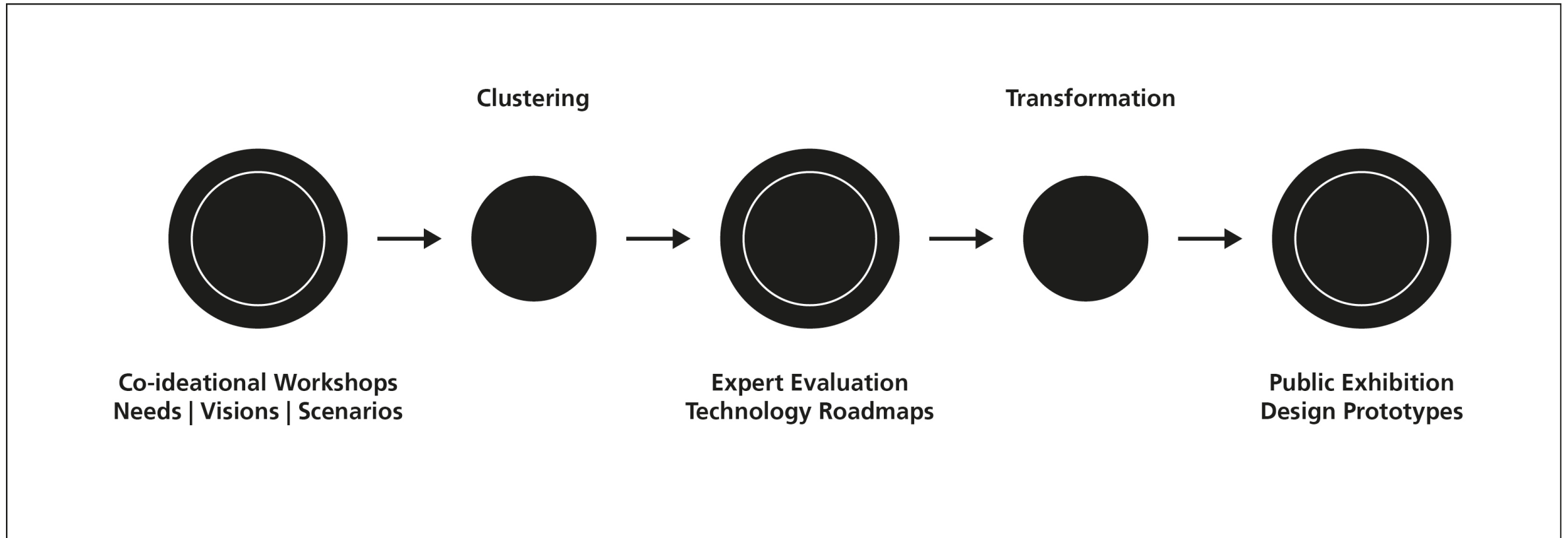


CeRRI approaches: Principles, process-Models and methods

Avoiding misunderstandings and creating a common ground



CeRRI approaches: Principles, process-Models and methods
Avoiding misunderstandings and creating a common ground



CeRRI approaches: Principles, process-Models and methods

Valuing different perspectives and approaches



Conclusion

