Responsible Mobility Governance at the Regional Level

An Empirically Grounded Framework on Mobility Innovation in Munich (and beyond)

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TUM

It's your turn! ☺ Take a moment to consider how you would answer to those statements:

"In my current work, exchange and participation formats with stakeholders and the public are an integral part of working packages."

1- - - ☐- - - ☐- - - ☐- - - ☐- - - 5

"In our team, we have thought about how we can monitor potential risks and negative effects throughout the project."

1- - - ☐- - - ☐- - - ☐- - - ☐- - - 5

"My view of my own role and responsibility in the innovation process has changed since I started working on mobility."

1- - - ☐- - - ☐- - - ☐- - - ☐- - - 5

Mobility Innovation Can Raise Responsibility Issues

economic

ethical

social

regulatory

*photo credit on last slide

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How can a responsible approach to mobility innovation look like?

Our Goal and Motivation

Develop a Framework for Responsible Mobility Innovation that

- considers the variety of activities in the field of "mobility innovation"
- considers the specific stakeholder structures and constraints in which mobility innovation is often happening (e.g., public-private partnerships, public space, regional networks)
- is empirically grounded
- is practically applicable on the level of innovation projects ("Toolkit")

RESPONSIBLE MOBILITY INNOVATION

FRAMEWORK

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Responsible Research and Innovation (RRI)

"Responsible innovation means taking care of the future through collective stewardship of science and innovation in the present."
(Stilgoe, Owen, and Macnaghten 2013)

- cannot be statically defined (Stahl et al. 2021, p. 185)

- go beyond techn. understanding of innovation
  (Burget, Bardone, and Pedaste 2017)

- "science <u>with</u> and for society" (Horizon 2020)

- process-oriented (Stahl et al. 2021, p. 185)

Research Approach

Conceptual foundation

- Responsible Research and Innovation (RRI)

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Empirical foundation

- Working with innovators in MCube
- Methodology:
  - Interviews
  - Document analysis
  - Workshops
  - Ethnographic participation in events

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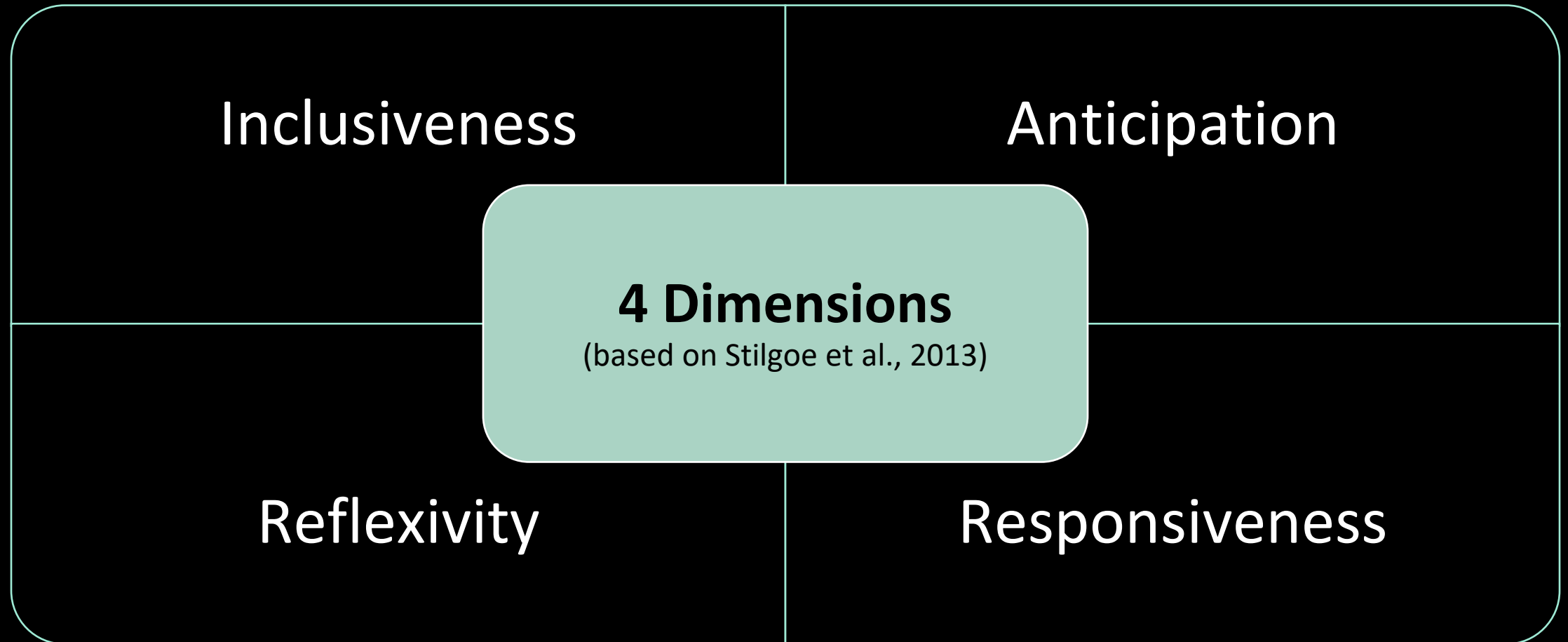
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Framework for Responsible Mobility Innovation (RMI)

Responsible Mobility Innovation Framework and Toolkit

RESPONSIBLE MOBILITY INNOVATION

FRAMEWORK

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RESPONSIBLE MOBILITY INNOVATION

TOOLKIT

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Responsible Mobility Innovation (RMI)

Inclusiveness

Anticipation

4 Dimensions
(based on Stilgoe et al., 2013)

Reflexivity

Responsiveness

RMI: Inclusiveness

- increase the diversity of people in the innovation process and the number of perspectives

- create space for dialog, contradiction and constructive communication

- align innovation with the needs of those who will be affected

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- Open up "camps" in the discourse

- Communication vs. "real" inclusion

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Reflection Questions:

Do some members of society seem more important/"attractive" to you than others?

Who (else) should be involved in the process?

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SCALINGS
Co-Creation Roadmap

RMI: Anticipation

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- on individuals, groups and society as a whole
- create more successful innovation

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- Impact of mobility innovation on potentially global and long-term scale
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Reflection Questions:

Who could benefit from the project and its results now or in the future?

How will you monitor and mitigate potential risks and negative impacts throughout the project?

RMI: Reflexivity

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Reflection Questions:

What would you describe as a successful outcome of your work?

What capacity for action do the various players have and are there differences in power?

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Reflection Questions:

How do you plan to record the results of e.g. public engagement formats of reflective discussions?

If your project requires the implementation of knowledge from previous projects, how is the new context different or special?

Summarizing Remarks

- We need practically applicable approaches that effectively and reflectively address responsibility issues, tailored to the specific context of mobility

- Framework and Toolkit should prospectively give input to innovation clusters as well as the innovation process in individual R&D projects

- Awareness, openness, interdisciplinary exchange and resources are necessary to strengthen approaches in that direction

Next Steps

RESPONSIBLE MOBILITY INNOVATION

FRAMEWORK

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RESPONSIBLE MOBILITY INNOVATION

TOOLKIT

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We look forward to questions and feedback!

Let's stay in touch:

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- 1) https://www.focus.de/finanzen/news/unternehmen/obike-fahrraeder-hingen-in-baeumen-muenchen-wird-extrem-laestige-plage-endlich-los_id_10644126.html

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