Rethinking diversity in innovation systems:
Regional innovation cultures and the case of Bavaria

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Outline

- **A crisis of innovation policy and models?**
  - Circulation of innovation policies, models, "best practices"
  - Freuqently „unsuccessful"
  - What things remain unexplained?

- **From innovation models to innovation cultures**
  - Regional innovation cultures as a way of theorizing how innovation relates to regional identity, experiences, discourses, imagery, institutions, politics...
  - Culturally specific ways of making innovation policy compatible with local culture, history, concerns

- **Example: Bavaria's „Conservative Innovation"**

Some Background

- Innovation is everywhere: **"Panacea"** for all societal woes
  - Fix health, energy, environment, competitiveness, poverty, ageing etc.
  - **"Innovation Imperative:"** innovation initiatives abound
  - Innovation = touchstone for legitimacy for other policy domains
    (Pfotenhauer & Jasanoff 2017a; Pfotenhauer, Aarden, Juhl submitted)

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    (Pfotenhauer & Jasanoff 2017a; Pfotenhauer, Aarden, Juhl forthcoming 2018)

- Global circulation of innovation **policy frameworks and models**
  - Shift from abstract models: Linear, push-pull, chain links, systems, triple helix…
  - … to **"models of practice:"** "MIT," "Silicon Valley," "RRI"
  - Standardization and "best-practice" transfer as mode of policy-making
    (Pfotenhauer & Jasanoff 2017b; Pfotenhauer & Juhl 2017)

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  - … to **"models of practice:"** "MIT," "Silicon Valley," "RRI"
  - From heuristic to blueprints: standardization and "best-practice transfer" as mode of policy-making *(Pfotenhauer & Jasanoff 2017b; Pfotenhauer & Juhl 2017)*

- Regular disappointment in **ineffective model and policy transfer**
  - Especially in developing countries, but also across EU regions
  - Thoroughly unequal geography of innovation
  - Failure usually blamed on "context," not innovation model or policy
    (Kuhlmann & Ordóñez-Matamoros, 2017; Delvenne 2017; Pfotenhauer & Jasanoff 2017b)

Things that remain unexplained in current innovation systems thinking

What happens to models and policies "on the ground"?

How do innovation initiatives relate to regional identity, history, societal values?

How does innovation policy policy relate to political traditions and cultures?

From innovation systems to innovation cultures?

Generally, only **lip-service to "culture"** and "social factors"
in innovation policy

E.g. Innovation systems: Still **mechanistic starting point**
- Presumed universality of innovation functions, heuristics, and rationales
- Aim to explain scientifically what innovation *is,* what it is *for*, how it *works*, *who* needs to be involved

Here: Put **irreducible "cultural" residues front and center**
in innovation systems

Innovation cultures – tentative definition

Co-production of innovation approaches with regional
identities, discourses, institutions, society
- Draw on „sociotechnical imaginaries" and „imaginaries of innovation" (Jasanoff, Kim, Pfotenhauer)

"Conservative Innovation" as Bavarians innovation culture

- A mode of innovation that…

  – **Preserves socio-economic order** rather than disrupting it

  – Requires **explicit compatibility** with traditionalist, folkloristic identity in all initiatives

A flurry of innovation activities: Similar or different?

- 2011 **Science, Technology & Innovation Strategy**
  - Innovation proclaimed as "the foundation of social progress and economic prosperity"

- Various **new institutions and reforms** to foster and signify innovation, e.g.:
  - Bavarian Research and Innovation Agency, Investment Agency, Incubators…
  - Rebranding TU Munich as "Entrepreneurial University"
  - Munich's new "Kreativquartier" district
  - "Isar Valley" biotech cluster
  - Center for Digitalization Bavaria

- **Corporate sector activities**
  - BMW's "project i" car series
  - UnternehmerTUM sponsored by Susanne Klatten

History: „From Agrarian Country to High-Tech State"

- Weak starting point after WWII
  - **Agrarian country** (transfer payment recipient till 1989)
  - >50% of city destroyed
  - Most catholic and conservative region of Germany
- But: beneficial conditions for transformation
  - **Influx to labor force** of two million refugees from the former territories
  - **Companies relocating** from Soviet territories to Bavaria (Braun, Siemens) + refugees from the East
    ("Munich will become a center of science," DK 1956)
  - Under PM **Franz Josef Strauß**, heavy investments in higher education, research facilities, and test sites
    (esp. microelectronics, military, aviation, industry)
  - Prominent role of US in the Bavarian imagination as role model and economic threat in the 60s
    ("**American Challenge**")
  - Research infrastructure boom and high-skill labor influx after **Reunification**

Four ways of making innovation culturally compatible

1. Traditionalism vs. Modernism

2. High-tech vs. Agrarian

3. Cosmopolitan Metropolis vs. Bavarian Village

4. Germany's leading state vs. independent statehood

Factoring in political culture: Social, economic, and political stability

- Very **stable institutional structures and performed "harmony"**
- Extremely strong and **robust economy**
- Plenty **new initiatives** and **"soft" institutional reforms**

- Performing "conservative innovation" and navigating tensions through **"small-state corporatism"** (Katzenstein 1985)
- **Decision-making** across sectors based on board-like bodies
- **Same central actors everywhere,** represented across initiatives and institutions
- Largely **accommodating stance** by opposition parties, churches, civil society
- Strong sense of **(corporate) global branding** for Bavaria
- Consistent with other scholarly analysis
  - "Planned economic miracle" after (Grüner 2009)
  - STS research on Germany's regulatory culture (Jasanoff 1995, 2005).

Successful "innovation bureaucracies"?

- Disproportionally large role in innovation system falls to bureaucracies
- References to global models exist, but held in check by perceived own success
- **Bavarian model**" unique and non-transferable due to both cultural idiosyncrasies and "historical chance"

Conclusion

- Introduce notion of "innovation cultures" (as opposed to systems)
  - Explain performance of innovation models/systems/policies on the ground
  - Overcome mechanistic assumptions / model vs. context dichotomy
  - Focus on regional identity, socio-economic histories, political cultures
- Bavaria's "Conservative innovation"
  - Preserve, rather than disrupt, existing social and economic order
  - State bureaucracy-led innovation governance

Thank you for your attention!