

TRANSFORMATIVE (INNOVATION) POLICY

An overview of current debates and controversies

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EU-SPRI Conference 2018

Paris, 6-8 June 2018



OVERVIEW

- Transformation: The object of desire
- Governance and the role of the State
- Key issues for future research

TRANSFORMATION: THE OBJECT OF DESIRE



SYSTEMATISING TRANSFORMATION – A MORE DIFFERENTIATED TAKE

- Different types of transformations
 - Socio-technical systems → not sustainable
 - Disruptive developments → loss of control, missing opportunities
- A more differentiated take
 - Structure of the problems
 - Structure of possible solutions
- Beyond static perspectives: process models of how change unfolds
 - Phases and mechanisms of change
 - (Digital) network externalities and other path-dependencies
 - Scaling, replication, diffusion
 - Multi-level interactions (e.g. interaction experiment - institutions)

... AND MISSIONS?

- One size does not fit all: (at least) four types of missions
 - Science missions
 - Umbrella missions
 - **Transformative missions**
 - Technological (accelerator) missions
- Key notions associated to missions
 - A planning-inspired approach (clear targets and timelines)
 - A state-centric approach
- Transformative missions ?
 - At odds with several basic notions of „missions“
- Controversies
 - Does breaking down societal challenges into „manageable“ building blocks miss the point? A technocratic approach? Ignoring complexity?

WHAT IT NEEDS TO MAKE TRANSFORMATIVE CHANGE HAPPEN

- A major push
 - A (perceived) sense of urgency/crisis, leadership
 - A disruptive innovation or a disruptive regulation
- Experimentation
 - Irritation by creating a variety of alternatives
 - Learning how to match supply and demand side, upstream and downstream, social and/or technological innovation
- Acceleration mechanisms (upscaling, replication, diffusion)
- Overcoming structural and institutional barriers (path-dependencies)
 - New coalitions to overcome the power of incumbents
 - Conducive framework conditions and meta-rules
- Controversies:
 - The balance between bottom-up vs. top-down (→ differentiation may help!)

GOVERNANCE AND THE ROLE OF THE STATE



SYSTEMATISING GOVERNANCE – A MORE DIFFERENTIATED TAKE

- Different types of governance approaches, reflecting long-standing institutional and cultural trajectories
- First steps towards a more differentiated take
 - Command/control
 - Dominated self-regulation
 - Self-regulation
 - Primus inter pares
- Controversies
 - Do new disruptive phenomena escape traditional governance frames? We need to think harder!

RATIONALES FOR POLICY INTERVENTION IN R&I

- Market failure – system failure – transformation failure - ...
 - „Innovation with a purpose“ beyond competitiveness
 - But what to do if the purpose/benefit is uncertain? „Tentative“ rationales?
- If prevailing mechanisms do not „deliver“, does this automatically justify public intervention?
 - Legitimacy – effectiveness – efficiency
- Controversies
 - How quickly should we call for the State to intervene?

IDENTIFICATION OF THEMES

- Who defines what societal challenges/missions to focus on?
 - Ultimately, these are (symbolic) political choices
 - Value-related debates
- How to prioritize certain themes or “missions” over others, but in a more transparent way
 - Substantive rationality
 - Procedural rationality
 - Foresight as a process to combine both
- Controversies
 - Risk of capture by incumbents and existing networks/coalitions: Balance between delegated power/trust in government vs. openness/transparency of decision-making

POLICY MIXES

- Transformative policies need to build on well functioning innovation systems, able to generate new solutions, BUT:
 - Openness to new forms of bottom-up, non-research led forms of innovation
 - De-prioritisation of a research-led innovation
- Balance between supply-side and demand-side policies
 - Reliable conditions for scaling
- Policy coordination in a multi-level, multi-domain policy space in time
 - Dedicated carrier organisations or networks for major challenges/missions?
- Controversies
 - Is policy coordination possible and necessary? What are alternative, less technocratic approaches?

TRANSFORMATIVE PROGRAMME DESIGN & IMPLEMENTATION

- Integration of different types of R&I needed
 - Close interactions between basic research, applied research, innovation and scaling/diffusion
- New types of intervention logic
 - Turning challenge-/mission-oriented programmes into a scaling funnel rather than top-down work programmes
- Demand side: policy labs, regulation becomes more important
 - Policy labs must be broadly based to capture the interaction between research and demand side
- New actors
 - Preparing for a broader range of types of applicants
 - Stakeholder engagement: when and how?

TRANSFORMATIVE PROGRAMME DESIGN & IMPLEMENTATION (2)

- Learning and adaptive programmes
 - Iterative learning-based programming, able to handle unclear and changing objectives
 - Stronger programme management structures to strengthen adaptation and integration capacities
- Key organisational capacities for transformations
 - Experimentation
 - Engagement
 - Impact assessment and evaluation
 - Foresight
- Controversies
 - Do programmes „deliver“: Target-setting vs. open-ended programmes
 - Openness: Risk of capture vs. managerial overload

STRATEGIC INTELLIGENCE FOR STRENGTHENING ORGANIZATIONAL CAPACITIES

- New categories, indicators and methods for monitoring activities related to societal challenges/missions
 - Semantic methods?
- Designing experimentation environments
 - (Controlled?) social experiments
 - Regulatory sandboxes
- New approaches to impact assessment and evaluation
 - Impacts on long-term and higher order goals are difficult to assess
- Foresight
 - Anticipation device
 - Systemic intervention

KEY ISSUES FOR FUTURE RESEARCH

THREE PERSONAL PRIORITIES

- More differentiated conceptual and analytical approach
 - Transformation patterns of systems and new actor configurations
 - Governance approaches (and associated instrumental debates)
- How to strike the balance between a proactive role of the state and a focus enabling frameworks for bottom-up initiatives
 - A leading role is – sometimes - possible: regulation, public investments
 - Framework conditions for facilitating bottom-up initiatives
 - Scaling, replication and diffusion
 - The transformative influence of meta-rules and institutions (e.g. RRI principles, internalisation of external costs)
- Approaches to enhancing policy coherence (or: absence of contradictions)
 - Policy coordination across areas and levels → Pandora's box?
 - Carrier organisations to bundle interventions (e.g. agencies and/or empowerment of partnerships/networks)