

Governance of STI policies: re-thinking the coordination challenge

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The aims of the paper

- how does innovation policy (in a broad sense) research deal with the issues of policy-making and implementation (policy and administrative capacity, context etc)?
- what can the public administration and management (PAM) research contribute to IP?
- policy governance, stakeholder involvement etc.
– **policy coordination**

Academic discourse on managing IP

- Edquist and Hommen (2008) – activities based perspective of SI; rationale for government in IP:
 - a) capitalist firms and the market mechanism fail in achieving the objectives formulated, i.e., there exists a *systemic problem* that is not spontaneously solved by the private sector actors and market forces (labeled as ***public policy opportunity***);
 - b) the state (national, regional, local) and its public agencies must have, or be able to build up, an *ability* to solve or mitigate the problem (labeled as ***policy competences***).
- lists of policy areas, activities..
 - a) **based on economics-based analysis of policy rationale (opportunity)**
 - b) empirical or history based lessons of policy competences (policy and administrative capacities), **no theoretical perspectives**

Policy-level ideas of managing IP

- OECD, EU etc. – ‘good practices’ of IP governance
 - agencies, policy-administration split, specialization
 - ‘high level coordinating bodies’
 - network and PPP-based governance and policy making
- one of the key current debates: **policy coordination**
- IP rhetoric usually ends in a tautological or a ‘dead-end’ conclusion: **weak state capacity is caused by weak policy coordination and, accordingly, governments should work towards better policy coordination** (e.g., OECD 2005; Box 2009; EIPR 2008 and 2009).
- IP research hardly ever deals in detail how the coordination problems are, in the first place, caused by various policy and administrative processes, and how to overcome them.

Excursion: IP governance in catching-up contexts

- Evans (1995-2008) – ‘embedded autonomy’, Bell & Pavitt (1993) – ‘technological accumulation’; Lall & Teubal (1998) – ‘market-stimulating technology policy’; Avnimelech & Teubal (2008) – ‘evolutionary targeting’; Rodrik (2007) – ‘growth diagnostics’
- IP research at least implicitly & especially in catching-up context bases itself on **Weberian understanding of governance**, public administration & management (starting with Amsden, Wade, Evans)
 - historical answers, but no theoretical solutions
 - **what is the impact of changing context?** – IP ideas (Washington Consensus etc.) and techno-economic context (ICT paradigm → bio, nano)?
- Is there a **policy problem** and a **theoretical solution**?
- *Karo&Kattel: comparing Estonia & Brazil (to be presented at the Globelics 2010)*

Towards a conceptual approach

- ‘Talking’ the language of policy-makers:
 - competing goals & overlapping roles (horizontal policies)
 - policy-making based on past commitments
 - policy-making by public managers & STI policy specialist
 - stuck between historical legacies, current context & external pressures
- All governance models (hierarchy, market, network) create both constraints and incentives for bureaucratic action

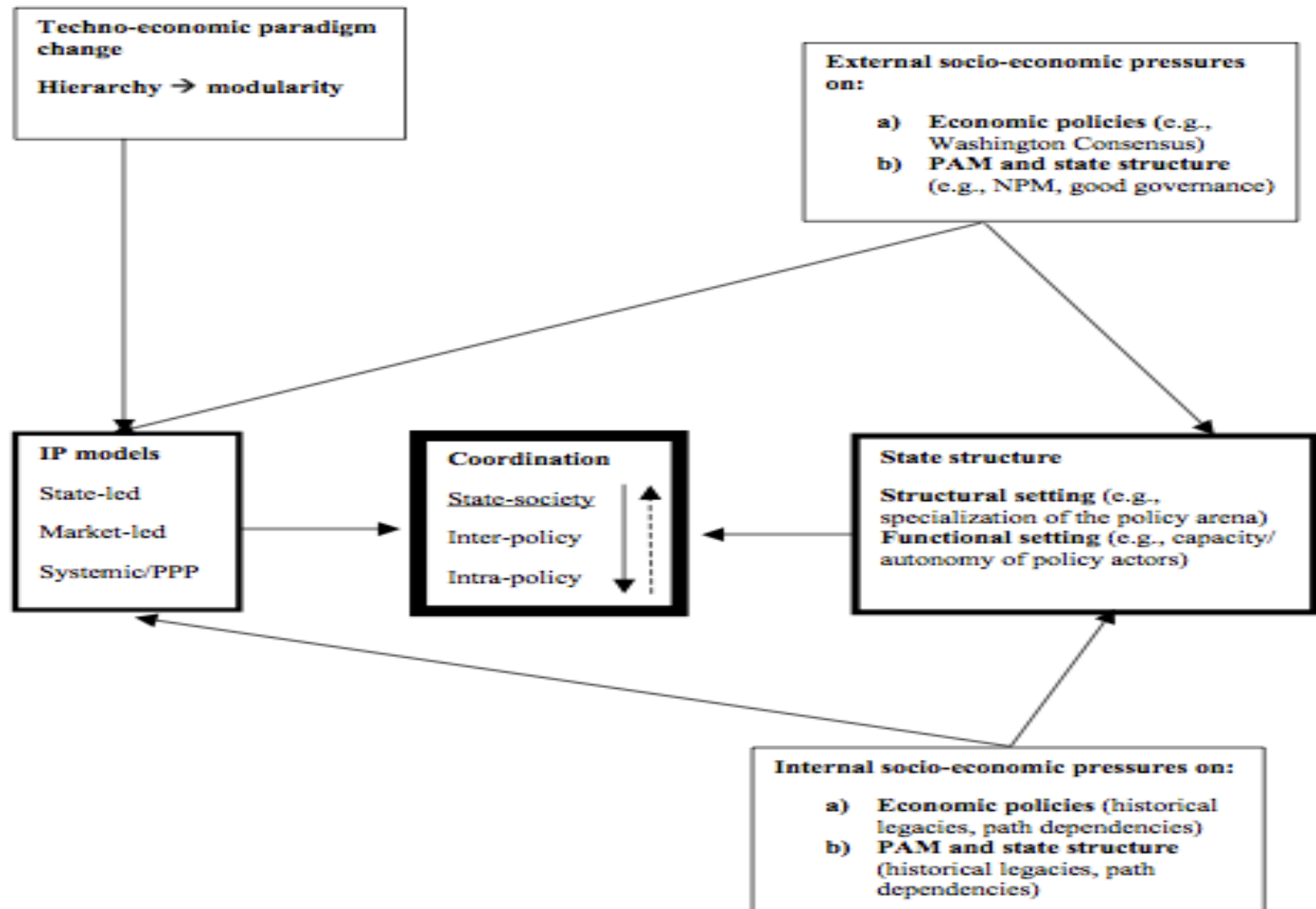
Coordination as a proxy for state policy capacity

- levels of coordination (analytical perspective)

- interlinkages & trajectories

- **coordination of the changing state-society relationships** – whom (defining stakeholders) and how (defining the level and tools of ‘embeddedness’) to include in the policy-debates over IP, priorities (or strategies), and tactics (or measures)?
- **inter-policy coordination** – to what extent (how widely) and how (with what instruments) to coordinate different policy fields (economics, education and research, labor market, finance) that define IP?
- **intra-policy coordination** – given a defined scope of IP (science and technology – S&T –based view vs. broader institutional understanding of IP) how to design the policy cycle and what type of coordination mechanisms to prefer?

Figure 1. Framework for analysis



Hypothetical implications

On coordination

- more developed economies (in search for more efficient and effective IP or STI) face coordination challenges at lower levels of 'coordination problems' (inter- and intra-policy) than developing economies;
- developing economies need to start designing IP or STI from 'scratch' through defining the policy arena and stakeholders to begin with;
- changes of and dynamics within techno-economic paradigms/trajectories (or technology life cycles) re-introduce the higher-level coordination questions also into the IP &STI challenges of more developed economies;

How to coordinate? What works?

Hypothetical implications

Research, methods, approaches:

- in IP discourses there is **an implicit presumption that the two trajectories that affect IP – IP ideas and IP governance – are ideally in sync**, but because of the interplay between internal legacies and external pressures this is hardly ever the case;
- **Problems of coordination may be pre-determined by the research perspective:**
 - a) IP & STI research departs from the inter-policy level
 - b) Traditional PA research departs mostly from the intra-policy level
- framework enables to analyse if this hypothesis of out-of-sync developments is true; also it enables to define more broadly the starting causes of ‘coordination problems’ and highlight the feasibility of solutions to coordination problems by integrating IP research with PAM research, concepts and approaches.

Analytical & policy implications

- need to apply **more inter-disciplinary tools of analysis for IP** making than merely economics-based analysis. As policy-making and implementation are in reality a process of translating ideal-type perceptions into politico-administrative reality, the economics-based ideals need to be complemented with governance realities and recognition of **systemic (as opposed to more linear) characteristics of policy cycles**;
- the current research on innovation policy has to move towards an analysis of **how different countries have steered, controlled and coped with the pressures of managerialism that have challenged the Weberian principles and historical modes of state-capacity creation.**

Analytical & policy implications

- moves towards more **networked or participatory governance models may result in opposite-to-the-expected results** because the application of these models requires or presumes the pre-existence of high levels of policy and administrative capacities (at the top of the policy-making hierarchy) which seem to be lacking in either catching-up cases or in cases of new uncertain technologies. Therefore, more participatory models are likely to increase policy capture by interest stakeholders;
- Concepts used in the context of IP (coordination, stakeholder participation etc.) are in many ways the topics of the 80s and 90s for public administration research...

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