



UiO : **Centre for Technology, Innovation and Culture**
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Rationales for Innovation Policy

Towards an Integrated Framework



The challenge

- **Conceptual coherence**

Need a framework for defining policy rationale which incorporates various conceptualisations

- **Analytical needs**

A policy rational incorporating the broader social context as innovations are increasingly advocated as means to social challenges: yields a structure-process integration

Innovation Policy

All combined actions that are undertaken by public organisations that influence innovation processes, which also includes action that unintentionally affect innovation ([Borrás & Edquist, 2013](#)).

By innovation is meant new products, new technology, utilisation of new inputs in production, exploitation of new markets, new types of organisations and management styles ([OECD, 1997](#); [Schumpeter, 1942](#)).

Policy Rationales

- Market failure
 - Normative principle: optimal allocation of scarce resources
- System failure
 - Normative principle: ‘fix’ bad functionality of IS, thus developing, diffusing and using innovation

Freeman's Selection Envrionments

- The Natural
 - The scale of human population, scarcity of resources etc.
- The Built
 - Physical infrastructure and its constraints on profitability and path dependency (structural change)
- The Institutional
 - Formal and informal institutions at various levels

SEs' relevance for policy

- Categorises different selection mechanisms; their characteristics and level
- Introduces a broader perspective on the innovation process in which one can identify several additional spaces for policy
- Offers interaction of different levels (micro-meso-macro) and different spaces for policy

Towards an integrated framework

	Natural Environment	Built Environment	Institutional Environment
Macro	Climate crisis Resource scarcity	Paradigm infrastructure (Kondratiev cycles)	Innovation in the wider social system (i.e. global capitalism) Political ideologies as tools to govern capitalism
Meso	Material technology supporting regime	Technological regimes Regime infrastructure (Kuznets cycles) PI: provision of general infrastructure (roads, broadband, satellites etc.)	Innovation in the social context (national economies) E: 3,4,6,7 B: 5,6 PI: taxation on pollution
Micro	Location; geography of knowledge PI: regional policies	Small infrastructure (Kitchkin and Juglar cycles) E:8,9 B:1,3 PI: provision of specific infrastructure (research facilities, test sites, incubators, etc.)	Organisational innovation Innovation in the economy (sector, industry, i.e. technological domains or niches) Knowledge stock E:1,2,5,9,10 B:2,4,5,7 PI: funding of R&D

In conclusion

- Innovation policy benefits from being informed and rooted in a broader perspective than provided by IS-analysis
- In this broader approach important dimensions of social development (e.g. social priorities and acceptability) become part of the long run perspective on policy