



The Interdisciplinary Legal Thesis-A Reality Check

PhD Theme: Bridging the valley of death in biomedical sciences
Progressive adaptations to innovation law & policy

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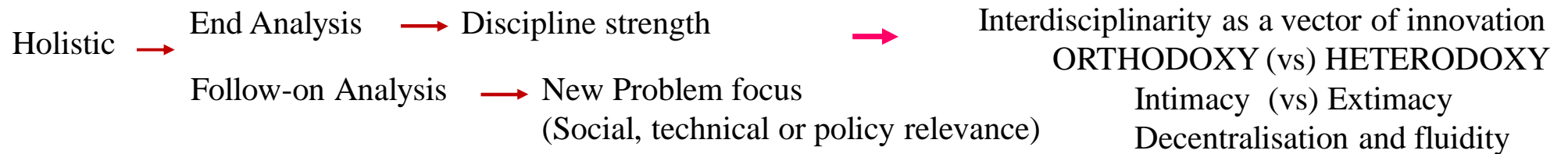
Understanding ‘Interdisciplinary’

Purpose

Assembly-Linkages-Integrations (data, techniques, tools, perspectives, concepts, theories)

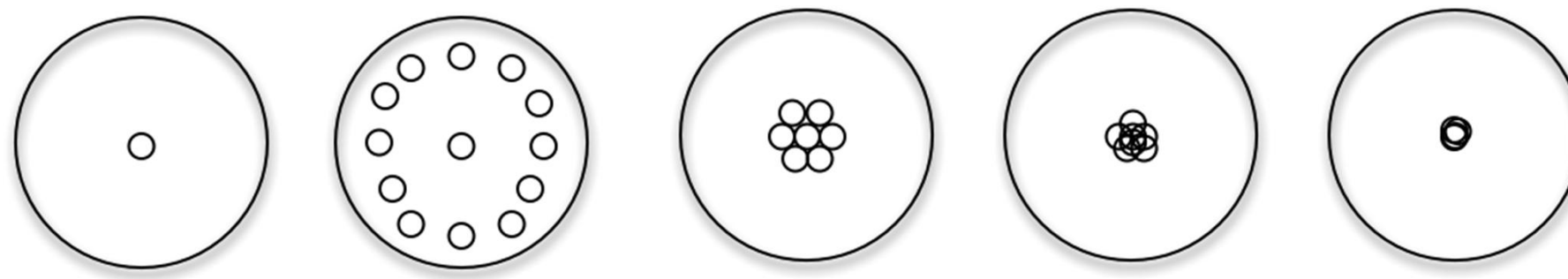
Different disciplines

Knowledge-based outcomes (holistic solutions for ‘non-reducibility’)





Nuances.....



Intradisciplinary → Multidisciplinary → Crossdisciplinary → Interdisciplinary → Transdisciplinary

Single
Limits

Aggregate
Unconnected
Non-interactive
Juxtaposed

Relational
Analogy

Integration/
Synthesis
Borrow
Hybridize
Emergence
Mobilization

Towards
fuller
Integration
Re-configurative
Systemic
Societal actor
perspectives (dialogues)

‘Interdisciplinary’ aspect of Horizon 2020 and the ‘Valley of Death’ theme....

Science with and for society (Socially robust knowledge) Responsible Research and Innovation (RRI)



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How should science inform social policy in Europe?
How can policy effectively drive science & technology in Europe?



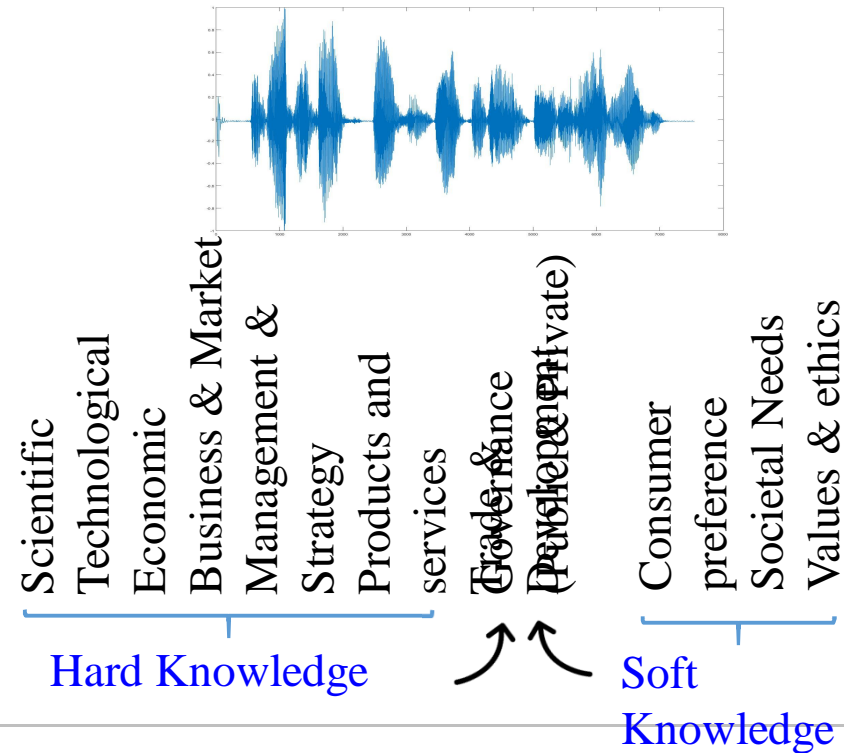
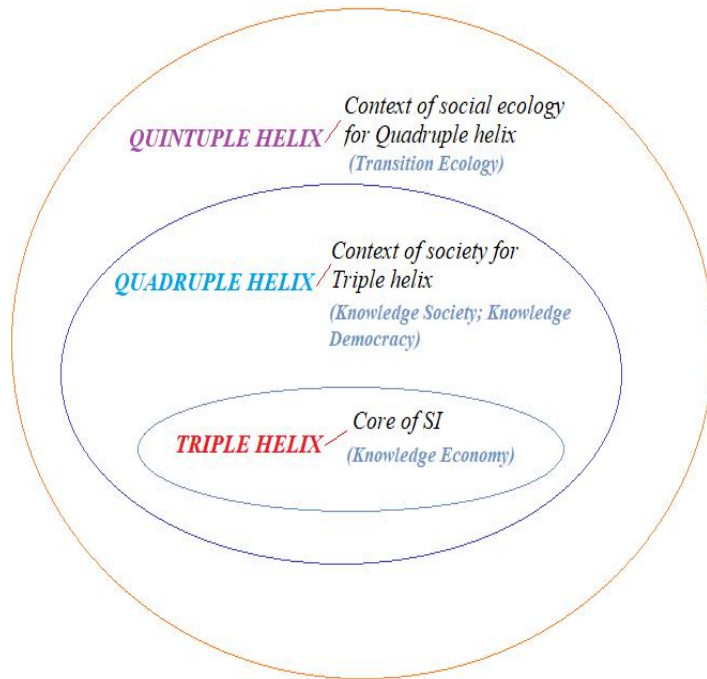
Systemic  System



Instrumental modes (IP mediated)???

Social Shaping of Technology

Social, institutional (organization/rules), economic and cultural signals that shape 1. rate & direction of innovation; 2. Forms of technology; and outcomes of technological change for social groups



ESR hurdles....

New thought style

No ‘one-size fits all’ active strategy

Homeostasis in combining

Diverse difficulties-interpersonal, communicative, epistemological, methodological and forum-level reception

ESR motivation....

Play with different styles of research reasoning

- *Postulations*
- *Experiments and observations* ✓
- *Analogical models/hypothetical constructs* ✓
- *Taxonomies*
- *Statistics and probabilities*
- *Historical analysis*

Understand Characterised <...> Less characterised

Positioning <...>

Effects <...>

Characterised ‘Less-characterised’ dilemma

Technology landscape (biomedicine) ★★★★★

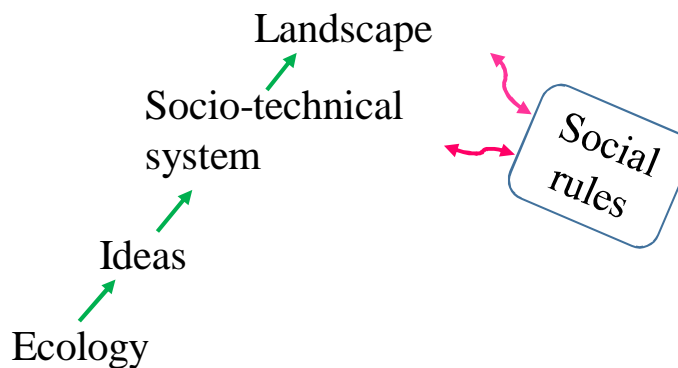
Landscape Ontology ≡ 0



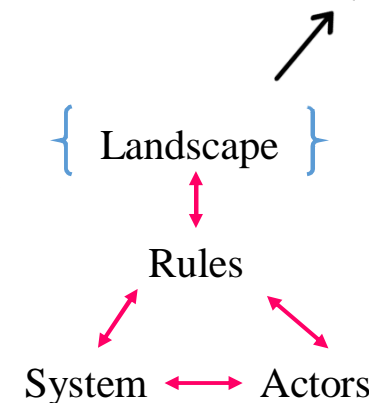
CROSS-SECTORAL
 Green Technologies
 Public Works (hygiene)
 Automotives
 (F. W. Geels (2003-2010))

Ontological Construction →

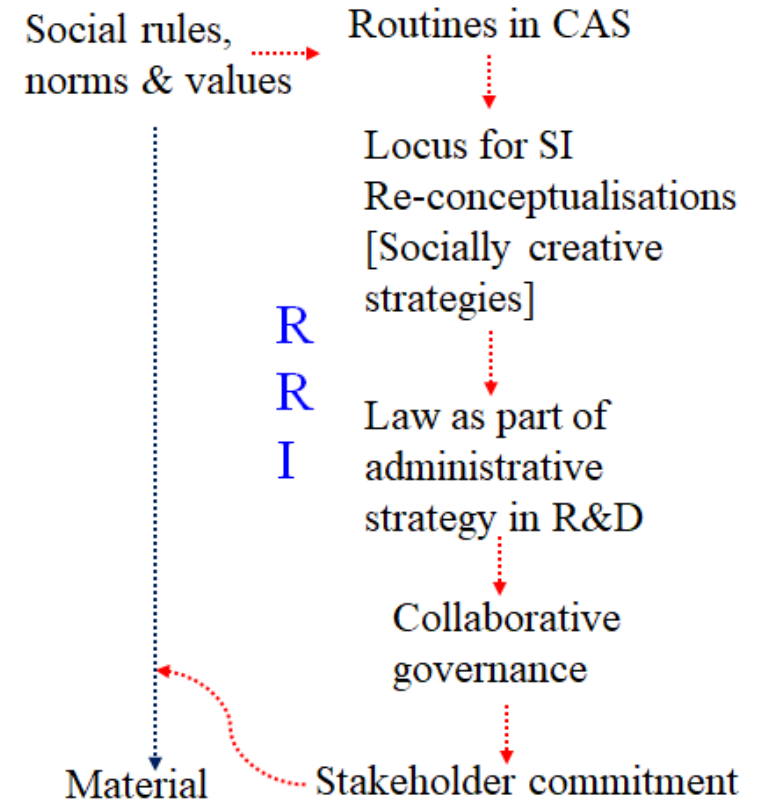
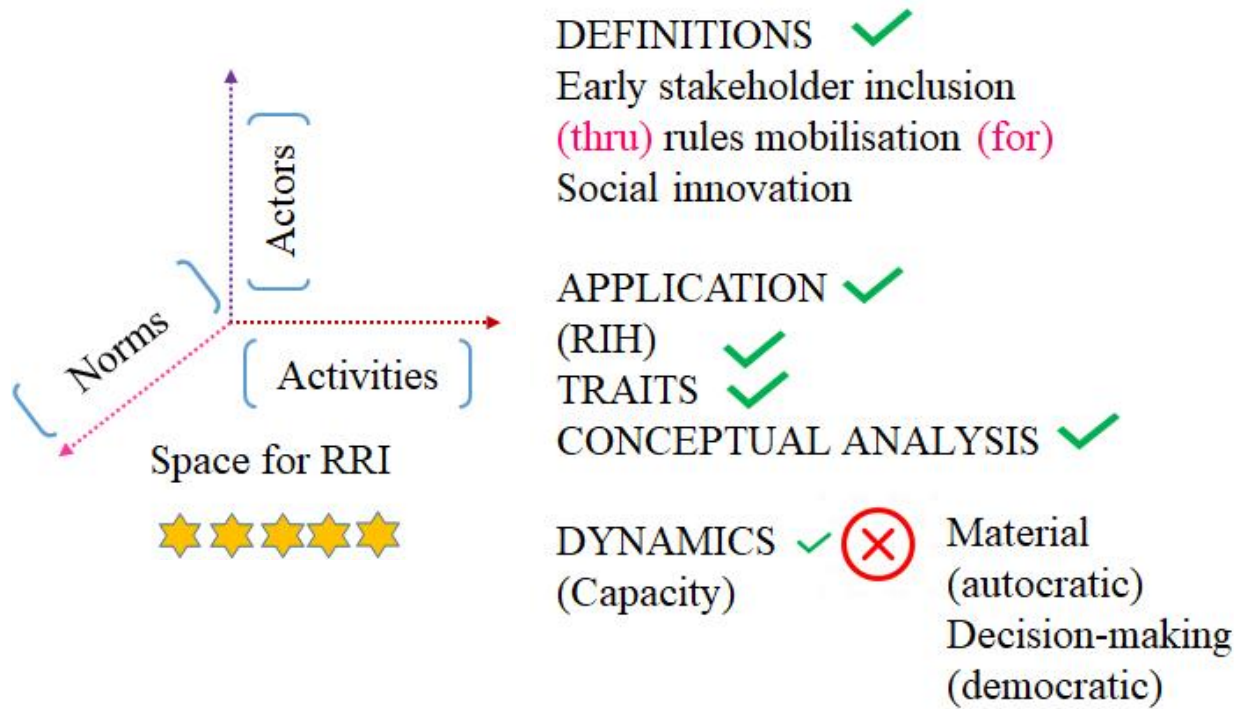
Innovation ‘Valley of Death’



Policy legitimisation
 [ontology + system of failures] (Weber and Rohracher (2012))

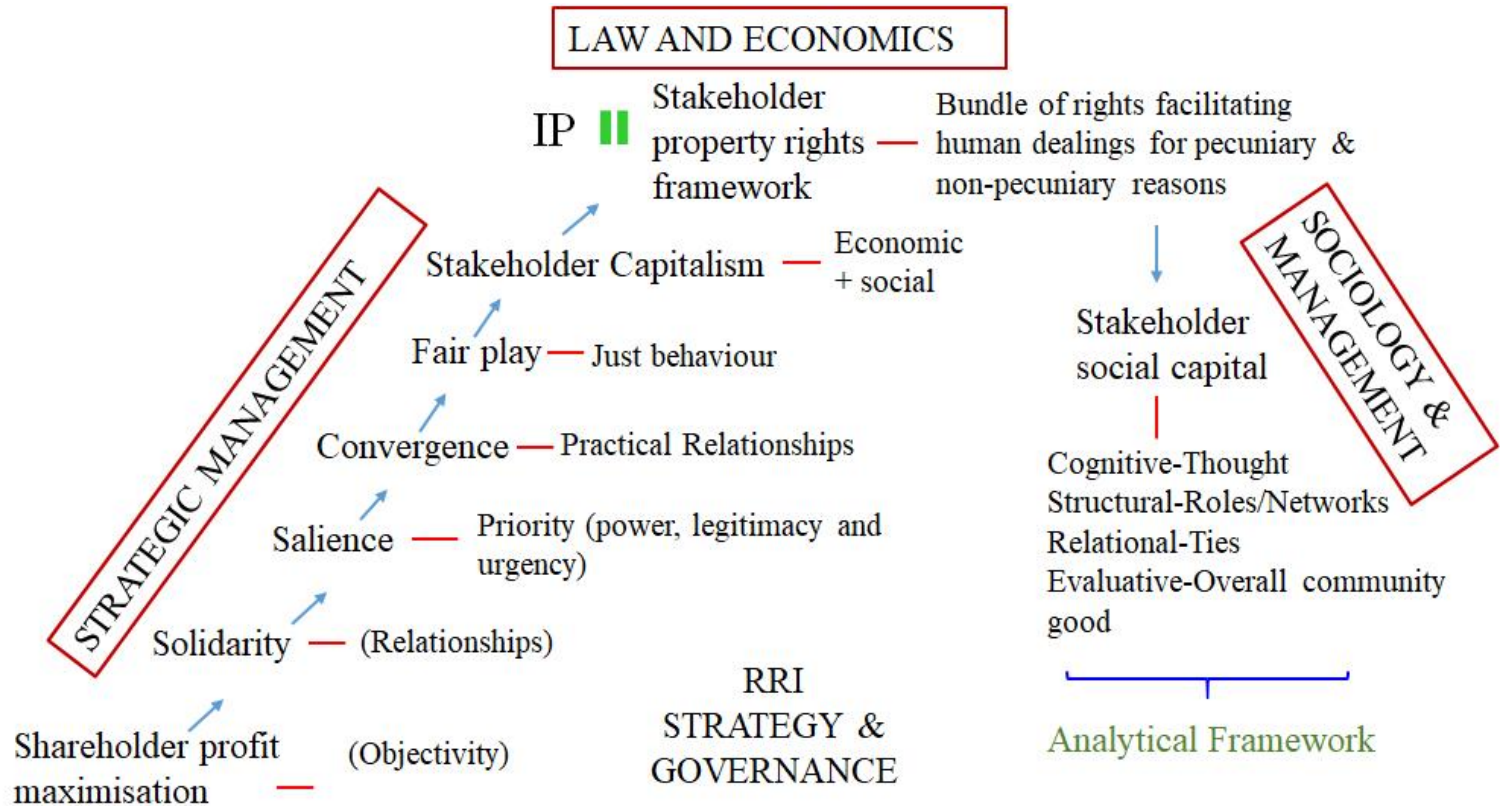


The Positioning <..> Dilemma....



Effects $\langle \cdot \rangle$ dilemma

Stakeholder Commitment
Stakeholder Theory of firm
Social Exchange Theory



Insights....

1. Identify interdisciplinarity in the overall research theme
2. Hypothesise the research question clearly & concisely (Choose the best style of research reasoning)
3. Map the interdisciplinary range required by the hypothesis
4. Combine minimally depending on the object and effect reflected in the hypothesis
5. Focus on the order of combination....Order critical for self-understanding and equilibrium
6. Structured experimentation augments interdisciplinarity effectively