



DYNAMIX

Decoupling growth from resource use
and its environmental impacts

Paradigm change and absolute decoupling

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Robin Vanner

Policy Studies institute in London

r.vanner@psi.org.uk

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What are paradigms?

- Paradigms are:
 - *The values, beliefs and ideologies in which one is immersed, and which one uses to navigate any new evidence, challenges or choices one is confronted with.*
 - A ‘worldview’ ‘collectively held.
 - Reinforced within scientific paradigms via schools of thought, theories, laws, methods and peer review processes...
 - Reinforced within society via culture, practices, norms...



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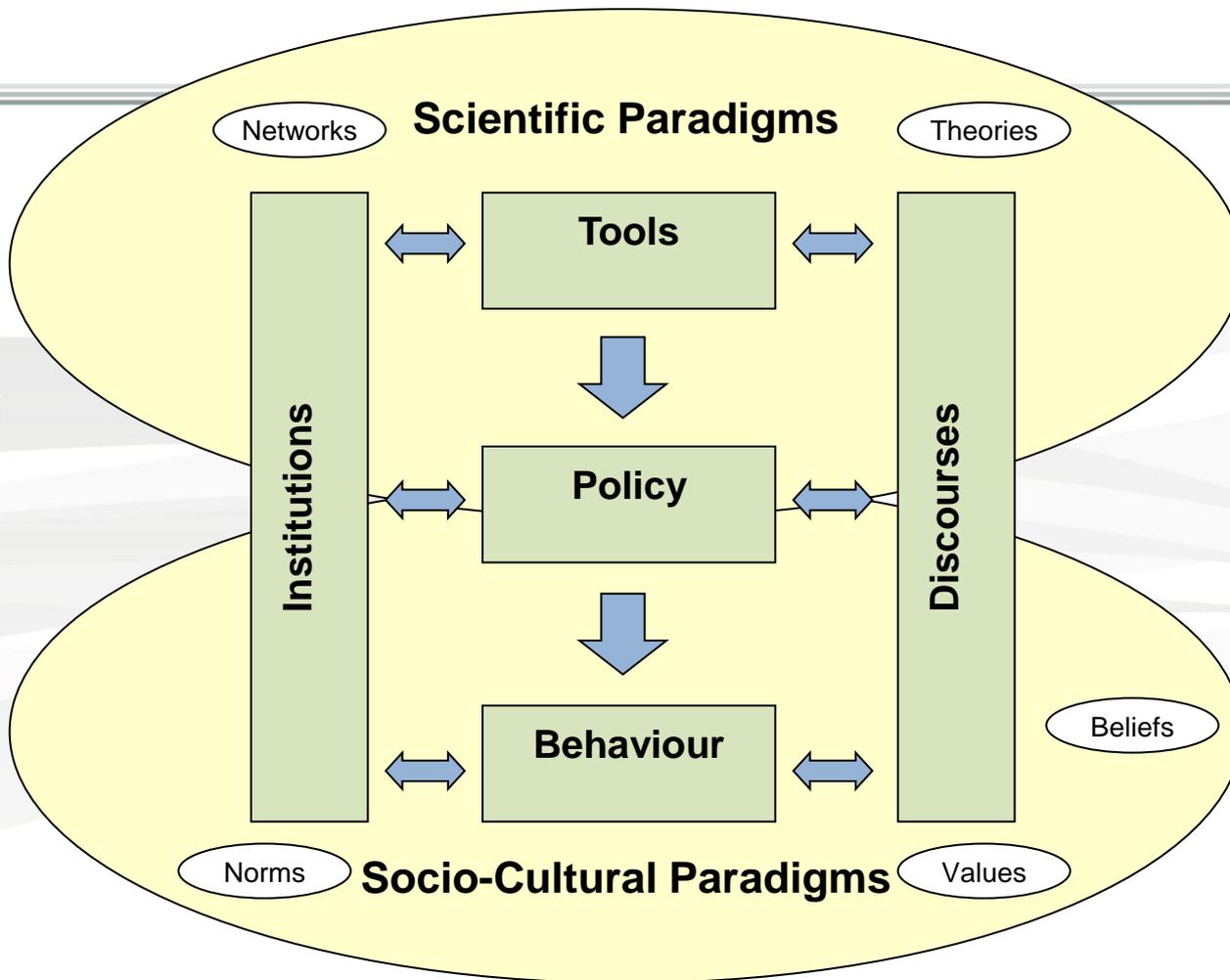
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The application into DYNAMIX

- Assumptions & findings:
 - Absolute decoupling will require paradigm changes.
 - Policies can contribute to these changes.
 - Policies are shaped by paradigms
 - and social-cultural paradigms shaped by policies.
 - Resource efficiency encompasses a wider paradigm system.



The Paradigm system





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The paradigm system

- Comprises all elements of the system of thinking in which paradigms are co-created and change over time.
- Includes:
 - **Scientific paradigms** held among professional researchers, policy makers and their professional stakeholders;
 - **Social-cultural paradigms** held among individuals and communities within society; and
 - **Discourses, politics and policies and tools** which form the means of interaction, co-creation and re-validation of the system.



Examples of Paradigms

Administrative Rationalism	Environmental Problem Solving	New Sustainability Paradigm
Democratic Pragmatism	Green Radicalism	Rational choice
Dominant Social Paradigm (BAU)	Green Romanticism	Survivalism
Eco-communalism	Natural Capitalism	Sustainability
Ecological economics	Neoclassical economics	Sustainability, Strong
Economic Rationalism	New Environmental Paradigm	Sustainability, Weak



Conceptual tools

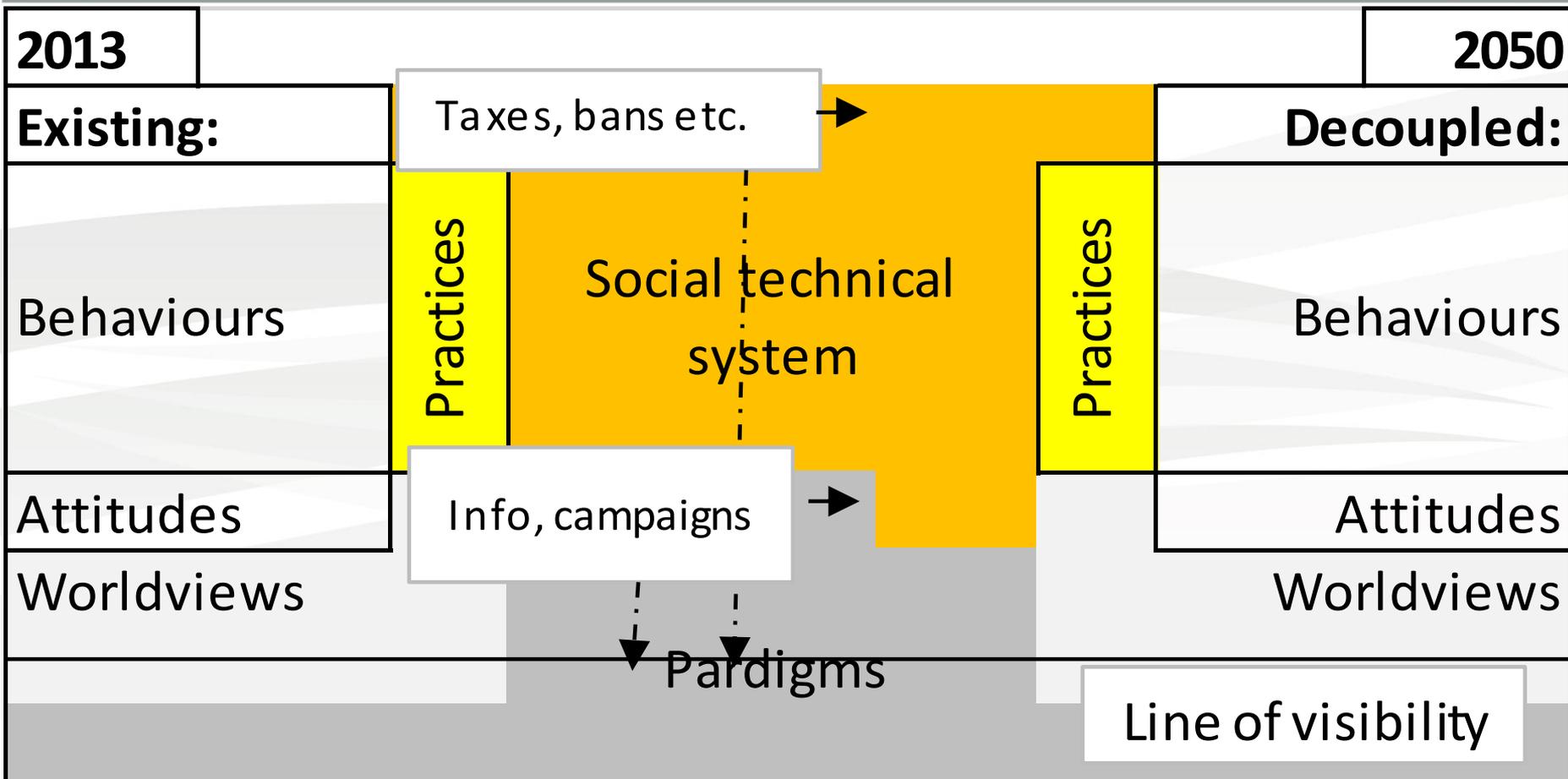
Biomimicry	Nexus	Green Economy
Circular economy	Problem of the commons	Green Growth
Closed loop	Product-Service Systems	Industrial Ecology
Cradle-to-cradle	Triple Bottomline	IPAT
Cradle-to-grave	Waste Hierarchy	Life cycle thinking
Eco-efficiency	Zero Waste	Natural Step
Factor 10	Factor 4	



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Deeper analysis



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Paradigms and existing resource inefficiencies (WP2)

Driver	Implicit attitude (worldview)	Behavioural element	Associated paradigms	Possible alternative paradigms	
Excessive demand for certain fish species	'The products that I buy are a private matter'	Habit, aversion to change	Individualism (Market outcome)	Administrative rationalism (Trust)	Sustainability (Citizen & future)
Agricultural practice of applying fertilisers and pesticides	'The systems around me leads me to continue to use the amount of pesticides and fertilisers to grow crops'	Practices	Democratic pragmatism (Theory from practice)		New Environmental Paradigm (Balance)



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Analysis of drivers of inefficiencies

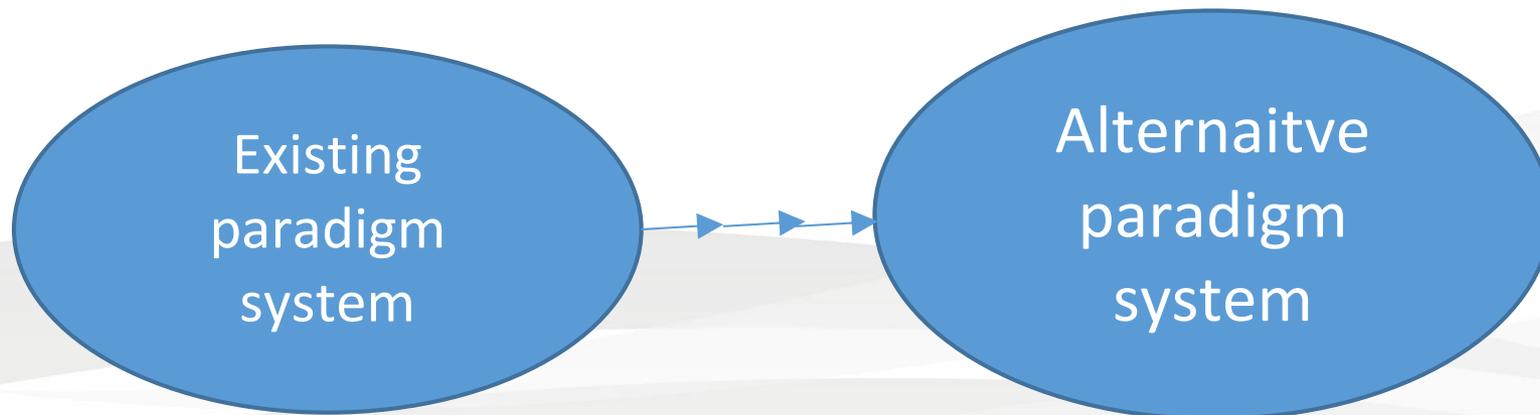
- 71 of the 82 of the drivers of (in)efficiency identified in WP2 are relevant for analysis from a paradigm perspective:
 - Mostly relate to consumers/citizen action.
 - 41 of the 71 drivers (58%).
 - All theoretically within the reach of constitutional governments to influence.
 - Mostly within political vision - or sectoral transference.
- ≠ Many cut across genuine conflict of interest and political sensitivity (i.e. fishing communities and fish stocks).
- ≠ Outside the political reach **WITHIN THE EXISTING PARADIGM SYSTEM.**



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Systems change & policy



- Understand alternative system
- Understand how policy mixes interact
- Understand policy sequencing



Theories of change

- Similarities to transition theories and innovation.
- Influential individuals seem to be change agents.
 - Importance to admired people / sex appeal
 - Tipping points seem to be relevant.
- Less references to top-down and policy.
 - Limited references to actually how policy changes attitudes, identities & worldviews?
 - Political speeches are examples.



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Emerging social trends

1. From consumption of fashion to products that tell a story.
2. From ownership to the consumption of services.
3. From status symbols to the expression of self-development and contentment.
4. From consumption for status to social media status.



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From fashion to the consumption that tells a story





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From ownership to renting of services





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From status symbols to the expression of self-contentment





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From consumption for status to social media status



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Transition & innovation theories

1. Innovation systems approach & transition management.
 - Uses systems theory to influence transitions.
 - Considers actors & their functions and processes.
2. Multi-Level Perspective (MLP) & strategic niche management .
 - MLP uses 3 analytical levels: niche (micro), regime (meso) and landscape (macro).
 - Relies upon regime shift via societal pressures or new socio-technical 'niches'.
3. Evolutionary-economics and multi-agent modelling.
 - Uses evolutionary notions (e.g. innovation, selection, lock-in).
 - Sees transformations being incremental but observable as often discrete or radical.



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Development of policy

- DYNAMIX proposed policies will need to:
 1. Learn from case study examples (WP3).
 2. Have an understanding of systems.
 3. Take the form of intelligent policy mixes correctly sequenced.
 4. Be based several theories of change.
 5. Try to transmit via influential individuals and their trends.
 6. Be socially and politically digestible (WP 4 & 5).



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Interactive group work

1. Introductions and organisational objectives & values.
2. As a group, assess the relevance of three difference resource efficiency conceptual tools.
3. As individuals, choose which concept best fits your vision of a resource efficient future.

➤ Results to feed-into transition pathway