Transformation Archetypes

**An essential component for useful
futures-intelligence and targeted policy intervention**

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A transformative innovation community

- We are all part of the community aiming at understanding and shaping transformative innovation policy

- The work on missions, particularly in the EU, has shown that implementation of missions still remains a major issue

- The recent paper by Borras and Edler on the 13 roles of policies provides an operational framework to think of the type of policy

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Our point

- There is a clear need to go further and unpick the settings and loci of transformative change

- We propose that a ==Taxonomy== can be built, based on ==four dimensions==, that will have utility in framing the context in which interventions will take place (cf. Borras and Edler 2020).

Four Dimensions

(1) The core locus pushing for transformation

Four tentative dimensions

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- (2) The existing value chains within the dominant regime.
- (3) The role of 'citizens' and other actors in the transformation
- (4) The nature of transformations required at the landscape level

(1) The core locus pushing for transformation

- Where does the change come from?

- **The present dominant actors?**

  (see the gas companies today with CO_2, for example car manufacturers and the electric vehicle)

- **Does it come from breakthrough science and innovation?**

  (as with the explosion of e-platforms, and 3D platforms. this links with Callon emerging networks)

- **Does it come from civil society pushing for different/ complementary values?**

  (see NGOs and their sustainable labels for international trade as an example with impact, see developments in biodiversity offsetting...)

Transition pathways	Main actors
1. Transformation	Regime actors and outside groups (social movements)
2. Technological substitution	Incumbent firms versus new firms
3. Reconfiguration	Regime actors and suppliers
4. De-alignment and re-alignment	New niche actors

Geels & Schot 2007

The multi-level framework is one analytical approach that explores this.

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- In management there is a long tradition to **differentiate innovations** between those that are **competence enhancing** from those that are **competence destroying.**

- This approach **can be enlarged to actors themselves** and differentiate between cases where actors in the filière will remain identical.

- An example would be the sustainable car option, **hydrogen cars would still need a fuel provision, storage and distribution network** whereas **electric cars (if widely adopted) would require a different configuration** (this has ramifications for transformations related to jobs, particular economic activities etc.).

Another example, there was little discussion about the critical transformation of the logistics chain when e-platforms and 3D printing started

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- **What we traditionally label 'multi-level' governance**

- **Governing at the landscape level:** Research articles often discuss shifting values (for example collective or soft transport modes within the city), but there are also issues about Governing at the landscape level.

  For example, if we believe that most changes dealing with challenges such as climate change will happen at the city level, there still are broader issues that need to be addressed at a higher level

- **These can lead to new ways of priority setting**

  (e.g. the on-going French experience of a parliament of citizens for environment and climate change priorities and policies) but also with new institutions: take the electric car again and what it will mean for Government finance when they lose 15% of their resources linked to fuel-based taxes.

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Further thought from Philippe: standards shaping is a good example ifwe wish not a fragmented world but a distributed world where these higher level alignments enable generalization of new ways of living and sharing of what is needed for that (a new form of 'mondialisation')

Wrapping Up
&
Moving Forward

Wrapping up & Moving Forward

- There is a ==multiplicity of cases==, whatever our theoretical preferences, if we shared a minimal 'analytical' framework, we could all mobilise our cases to develop further our respective foci

- it is possibly a new and important way to do collective qualitative research….an issue that becomes urgent facing the overwhelming development of 'big data'

Wrapping up & Moving Forward

- **Enough to get started:** We think that there are enough *on-going developments* within our community to start elaborating the taxonomy based on these four dimensions.

- **A collective endeavour:** We argue such a taxonomy is an essential element of analysing transformations in a somewhat standardised way, so that comparisons can be made across our community and a common language developed to describe transformation contexts. Therefore this should be a collective endeavour.

Transformations, Innovation and Policy Team

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