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From phase-out to exnovation

Rediscovering 'losses' in the case of ending the use of ICE vehicles in Brussels

Conference on Energy, Mobility, and Sustainability Transitions in the Face of Climate Change
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1.a Rethinking mindsets for sustainability transitions

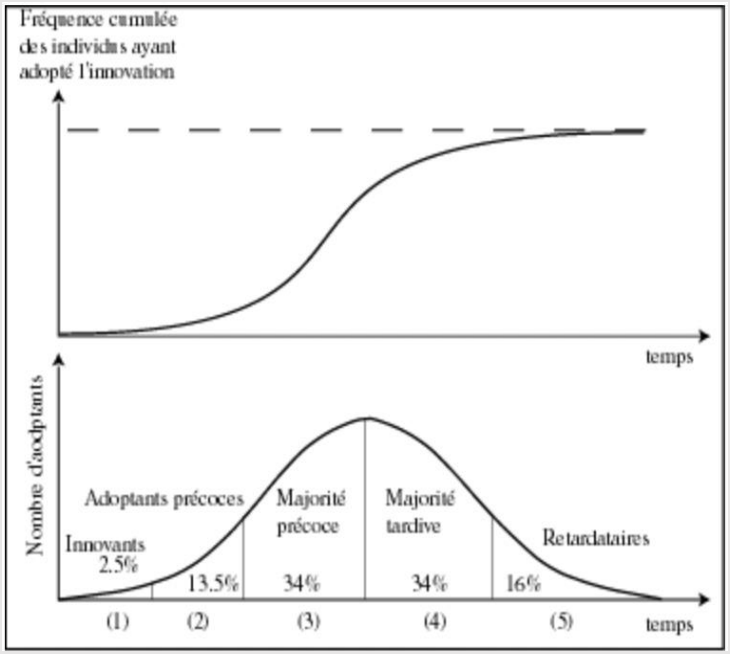
Article | Published: 07 April 2021

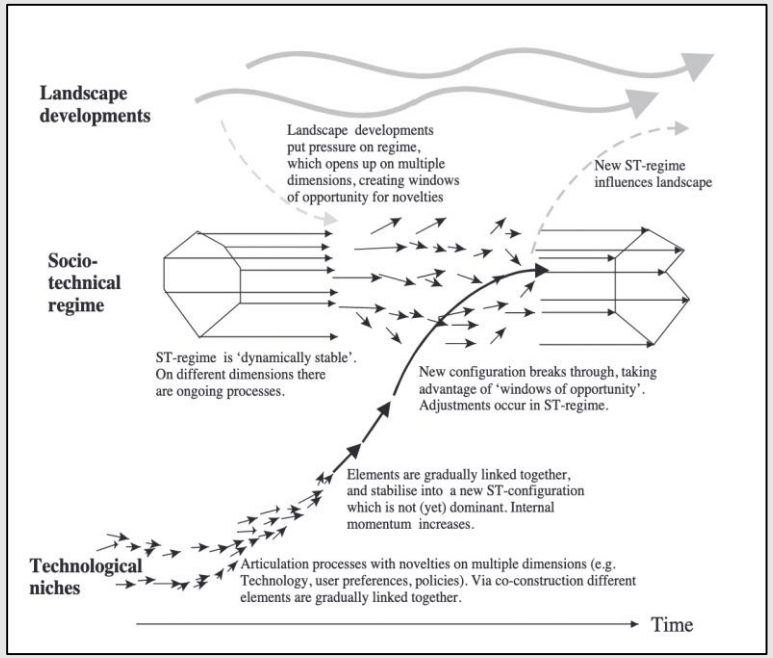
People systematically overlook subtractive changes

Gabrielle S. Adams, Benjamin A. Converse, Andrew H. Hales & Leidy E. Klotz

Nature **592**, 258–261 (2021) | Cite this article

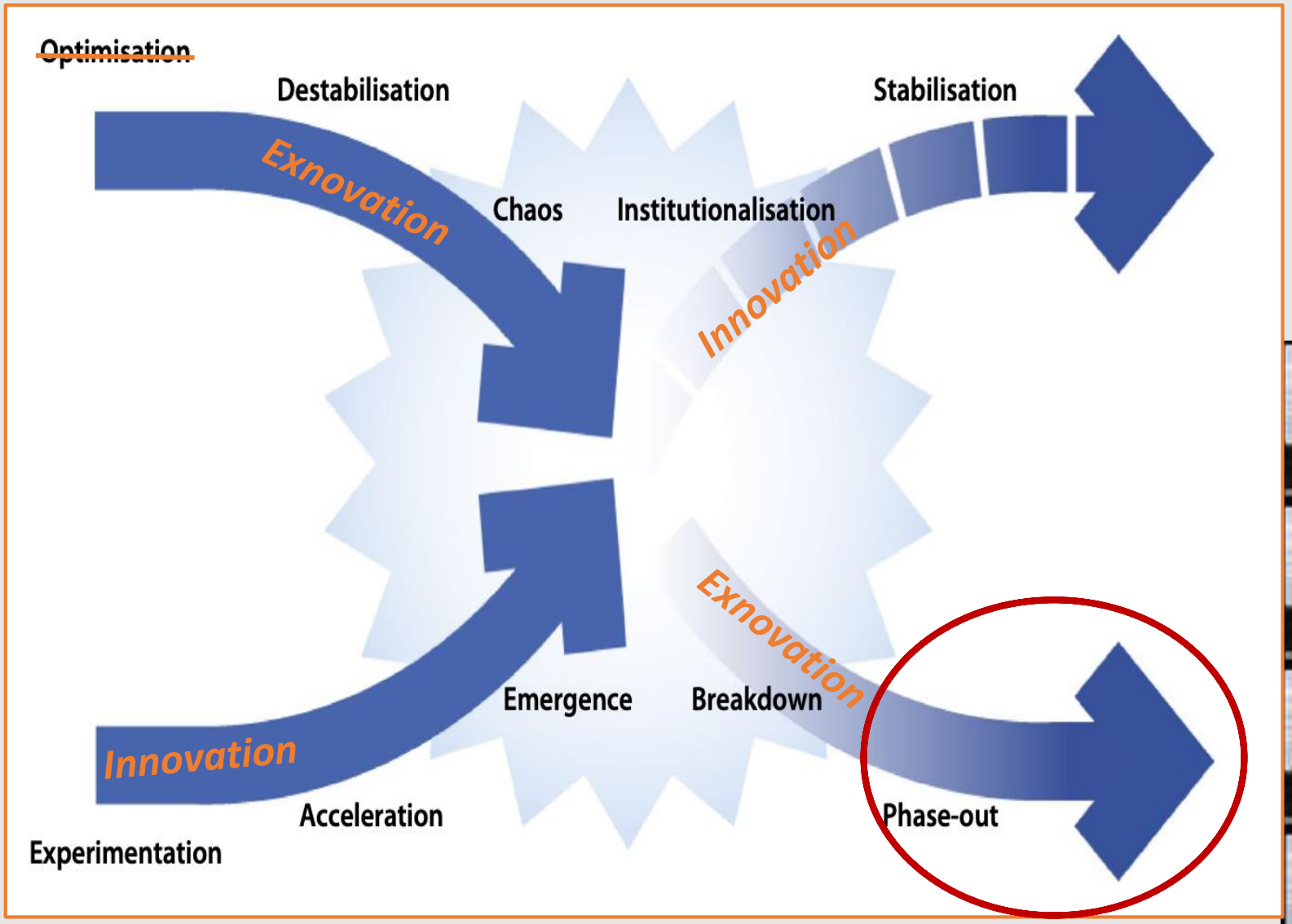
S-curves : the diffusion of innovation





An deep-rooted pro-innovation bias!

1.b Phase-out as a late phase of exnovation



'Saying goodbye' &

'Dealing with the losses'

The X curve : the two sides of transitions, adapted from Hebinck et al., 2022

2. Rediscovering losses ?

- Creative-destruction: the “victims” of destruction and the “leaders” of creation are rarely the same people, organisations, or countries

- Losses in the phase-out literature
  - ❖ Who ? Losses of companies, workers, and communities in emblematic carbon intensive industries
  - ❖ What & when ? When assets become stranded, economic activities stop, jobs and livelihoods are terminated…
  - ❖ Where ? The problem with certain regions where there is a high concentration of these industries

  ⇒ Does not provide specific guidance on how to address losses beyond this focus (user-related losses, urban perspectives…)

- Insights from “mobility studies” (under social justice lenses)

⇒ *What are the expected impacts and how are losses framed in the case of ending the use of ICE vehicles in Brussels ?*

3. Methods: A transdisciplinary research project

The Low Emission Zone (LEZ) policy (since 2018) and its deepening within the Low Emission Mobility Strategy (since 2022)

=> A salient case of ongoing phase-out at the urban/regional level

=> Case study selection and further demarcation informed by local “mentors” that accompanied the research project

Enovation arenas:

- Early and regular engagement of “mentors”
- Documentary analysis, semi-structured interviews with stakeholders, observation of LEZ policy meetings (2020/2021)
- Literature review of environmental and socio-economic impacts of the LEZ
- A multi-actor workshop on environmental and socio-economic impacts of exnovation scenarios in urban mobility transitions
- Organisation of societal debate (a multi-actor final conference, number of blog posts, media interventions, interventions for targeted audiences…)

LEZ / combustion engines phase-out in the city

LOW EMISSION MOBILITY BRUSSELS

En route vers une mobilité basses émissions

ROADMAP 1.0, FÉVRIER 2021

4. Results (1): what are the expected impacts of the LEZ? Who is impacted and how?

- A policy benefiting the automotive industry
  - LEZ implies a faster renewal of the fleet in comparison with BAU => higher demand for new vehicles
  - Especially since a vast majority (93%) replace their banned car with another car (BE estimates, 2021)

- A policy affecting users/citizens in two ways:
  - Negatively through financial losses and potential reduced access to mobility
    - Especially for vulnerable households (social justice -)
      - who have less economic resources to manage losses
      - and less time: their cars (oldest) are the first banned.
  - Positively through sanitary impacts
    - Especially for vulnerable households (environmental justice +)
      - who live in more polluted areas
      - while contributing less to air pollution

4. Results (2): how do Brussels public authorities frame and address losses?

- ➢ Commissioned assessment
  - Stresses sanitary benefits, overlooks of socio-economic losses (and benefits)
    - For the 1st step of the LEZ: absent
    - For the 2nd step of the LEZ:
      - **Method:** Estimate of the total cost of ownership (TCO) of EV in 2035 compared to petrol/diesel cars.
      - **Conclusion:** *"[…] for the low-income families, the ban of diesel and petrol vehicles should not imply a negative impact by 2035"* (BE, 2021)
      - => as if replacing a car does not imply a cost in itself
- ➢ Existing accompanying measures
  - For companies: allowance to switch to compliant vehicles
  - For households: allowance to switch to alternative transport modes.
    - No compensation of financial losses for vulnerable households
    - Does not support the purchase of a compliant vehicle: what about those for which alternatives do not work?
      - Cases of families, shift workers, work in under-served areas (e.g. Brussels outskirts)
  - Complex issue of which loss should be addressed
    - Basic needs and rights / Objective of reducing the fleet size
    - Lack of justice? Recognitional, procedural, and distributional

5. Conclusion and policy recommendations

⇒ Temporality matters !

When do losses become visible? When are they dealt with? Who is initially affected ?...

⇒ Recommandations

Engage more proactively with “Just exnovation” – by assessing and addressing potential losses, in particular for vulnerable actors, according to the following principles:

➢1. Recognise social differences in impacts, short-term hardships, indirect effects beyond the policy domain

➢2. Favour exnovation policies that minimise losses for the most vulnerable

➢3. Cultivate transformative justice

Thank you for your attention!

References

"From phase-out to exnovation: rediscovering 'losses' in the case of ending the use of internal combustion engines vehicles in the Brussels region", paper under elaboration.

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