

Lock-in in agrifood systems

New conceptual & analytical frameworks

Courtois Anne-Maud, Borniotto Diana, Chevalier Céline

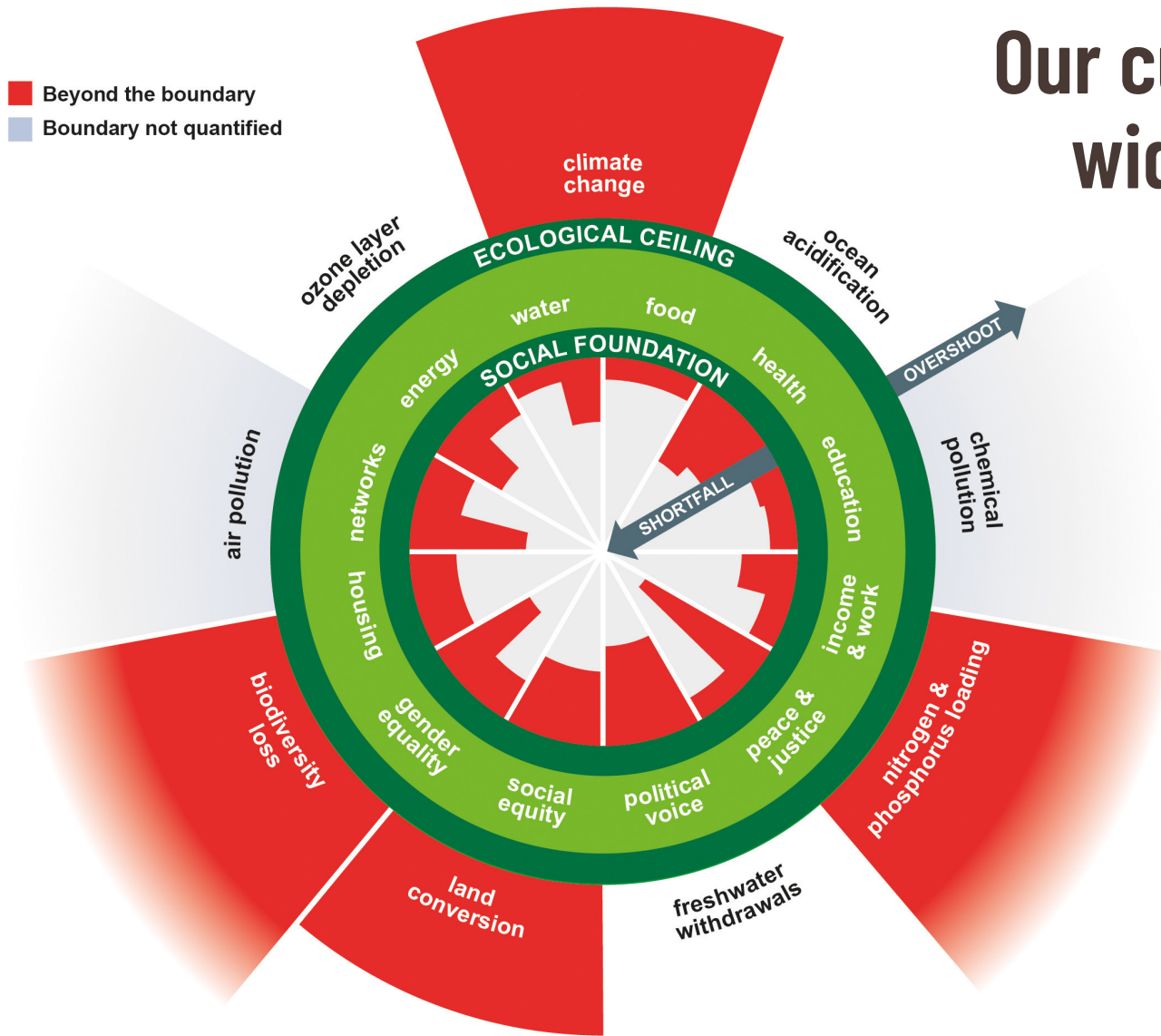
FOODCOST



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Our current systems have widespread negative impacts...





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Our current systems have
widespread negative
impacts...
...and need to **transition**
towards more sustainability

Nothing new here 😊

But this transition faces major resistance



Contents lists available at [ScienceDirect](#)

Global Food Security

journal homepage: www.elsevier.com/locate/gfs

Why are agri-food systems resistant to new directions of change? A systematic review

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SPECIAL FEATURE: ORIGINAL ARTICLE

Sustainability in Agri-Food Systems: Transformative Trajectories toward the Post-Anthropocene

Goal frames and sustainability transitions: how cognitive lock-ins can impede crop diversification

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Agronomy for Sustainable Development (2018) 38: 54
<https://doi.org/10.1007/s13593-018-0535-1>

RESEARCH ARTICLE

Socio-technical lock-in hinders crop diversification in France

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Contents lists available at [ScienceDirect](#)

Journal of Cleaner Production

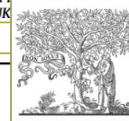
journal homepage: www.elsevier.com/locate/jclepro



The need for policy to address the food system lock-in: A case study of the Finnish context

Anna Kuokkanen^{a,*}, Mirja Mikkilä^a, Miia Kuisma^b, Helena Kahiluoto^a, Lassi Linnanen^a

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Research Policy

journal homepage: www.elsevier.com/locate/respol



How agricultural research systems shape a technological regime that develops genetic engineering but locks out agroecological innovations

Gaëtan Vanloqueren^{*}, Philippe V. Baret

Earth and Life Institute, Université catholique de Louvain, Belgium



But this transition faces major resistance

The need for policy to address the food system **lock-in**: A case study of the Finnish context

Goal frames and sustainability transitions: how cognitive **lock-ins** can impede crop diversification

Socio-technical lock-in hinders crop diversification in France

Why are grain-legumes rarely present in cropping systems despite their environmental and nutritional benefits? Analyzing **lock-in** in the French agrifood system

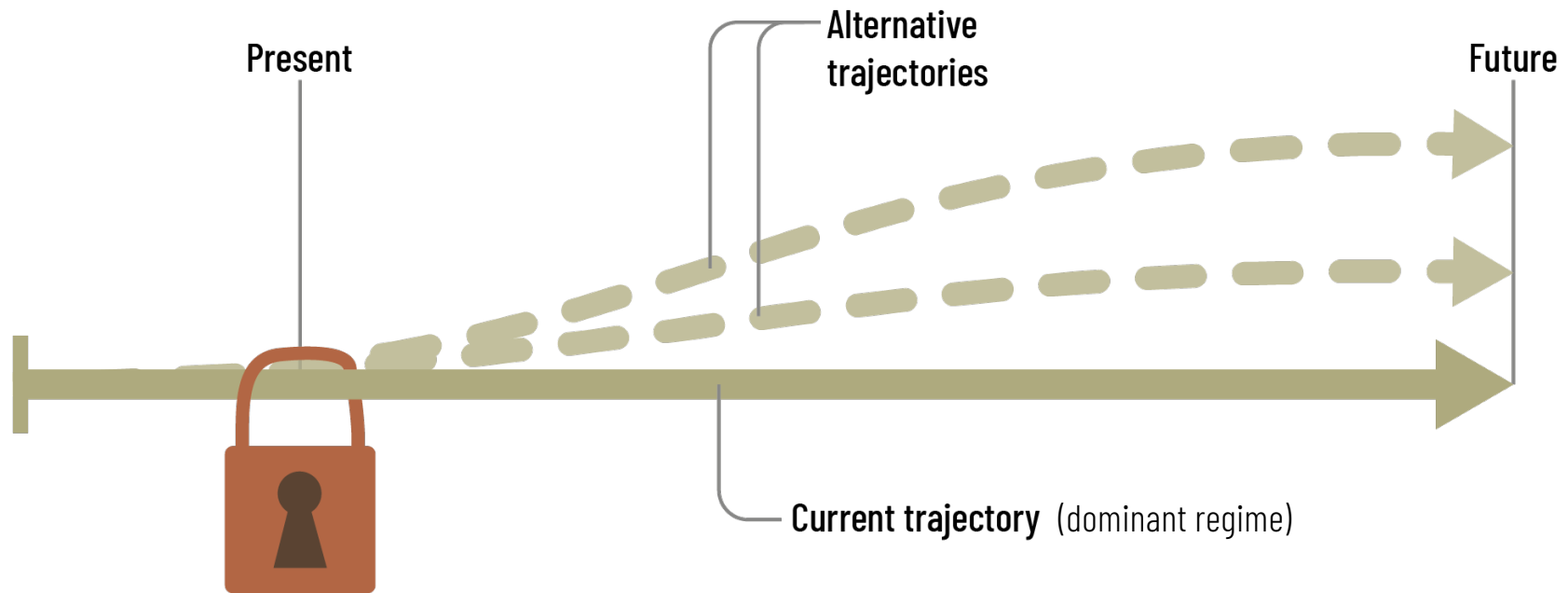
Sprayed to Death: Path Dependence, **Lock-in** and Pest Control Strategies

Locked in unsustainability: Understanding **lock-ins** and their interactions using the case of food packaging

Lock-Ins and Agency: Towards an Embedded Approach of Individual Pathways in the Walloon Dairy Sector

The concept of “lock-in” is used in many papers analysing this resistance.

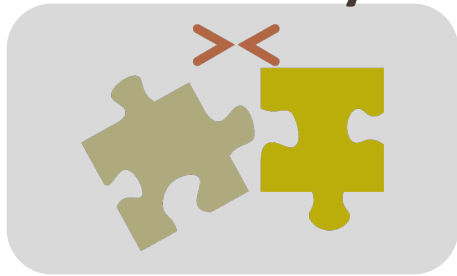
There is a shared understanding of the overall lock-in concept



Is discussed when a system appears unable to change in favor of an alternative trajectory

We found 3 main research gaps in the literature addressing agrifood systems lock-ins

Lack of coherency



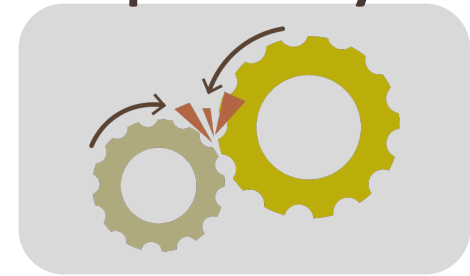
The terminology used differ between lock-ins analyses.

Lack of systemic approach



Lock-in analyses do not explore all their current dimensions.

Lack of operability

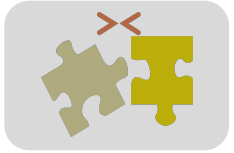


Lock-in analyses are not geared towards action.

To fill these gaps, we propose new conceptual and analytical frameworks



Understanding & framing the problem is the first step to solving it



A. Treating the lack of coherency



Barrier

= Specific and concrete elements of the current system that, by their existence and their interactions, contribute to its blockage.

➡ By interacting and reinforcing each other, the barriers create a complex situation where the system acquires strong resistance to change.



Lock-in

= State of a (agrifood) system in which a specific configuration becomes deeply entrenched, making the system resistant to change.

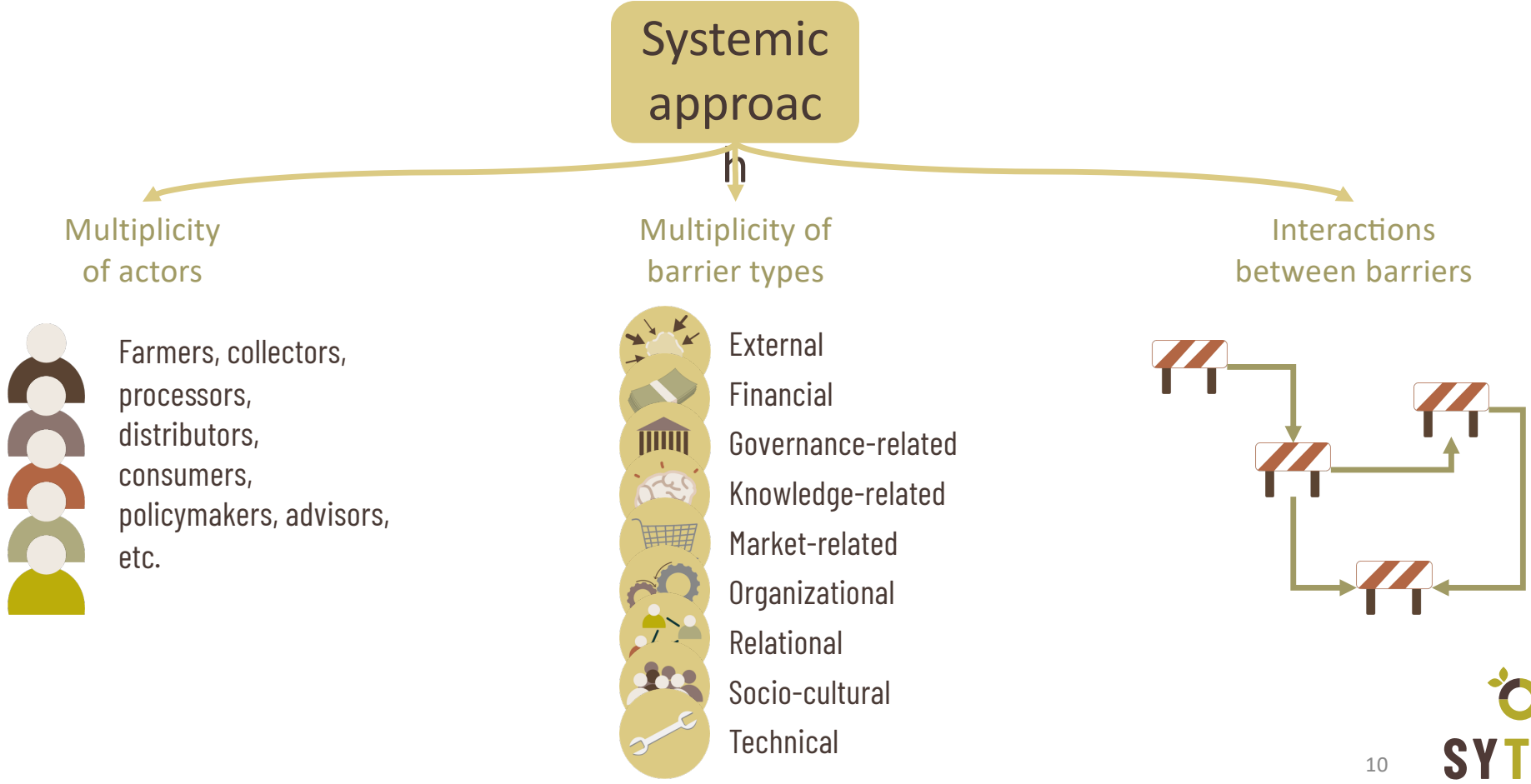
➡ It results from interactions between barriers.

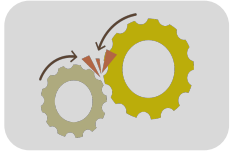


Operational dissociation between the two concepts, preventing confusion between them

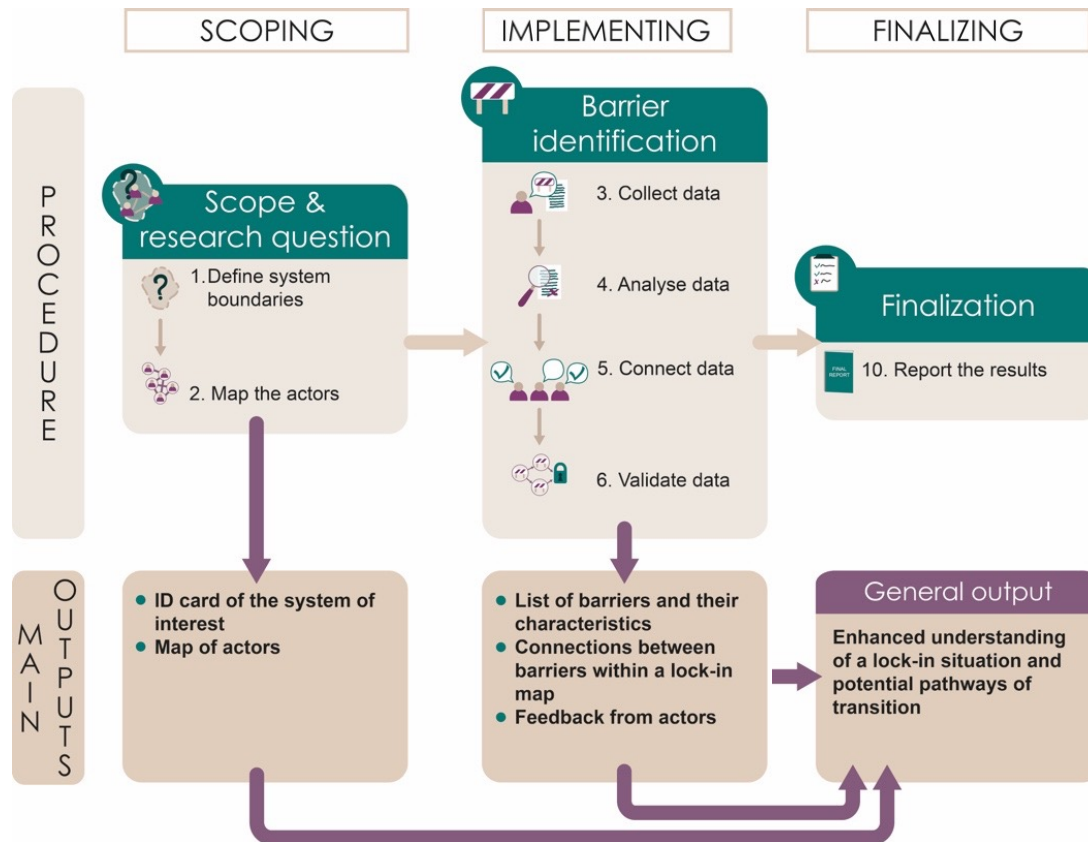


B. Approaching lock-ins systemically



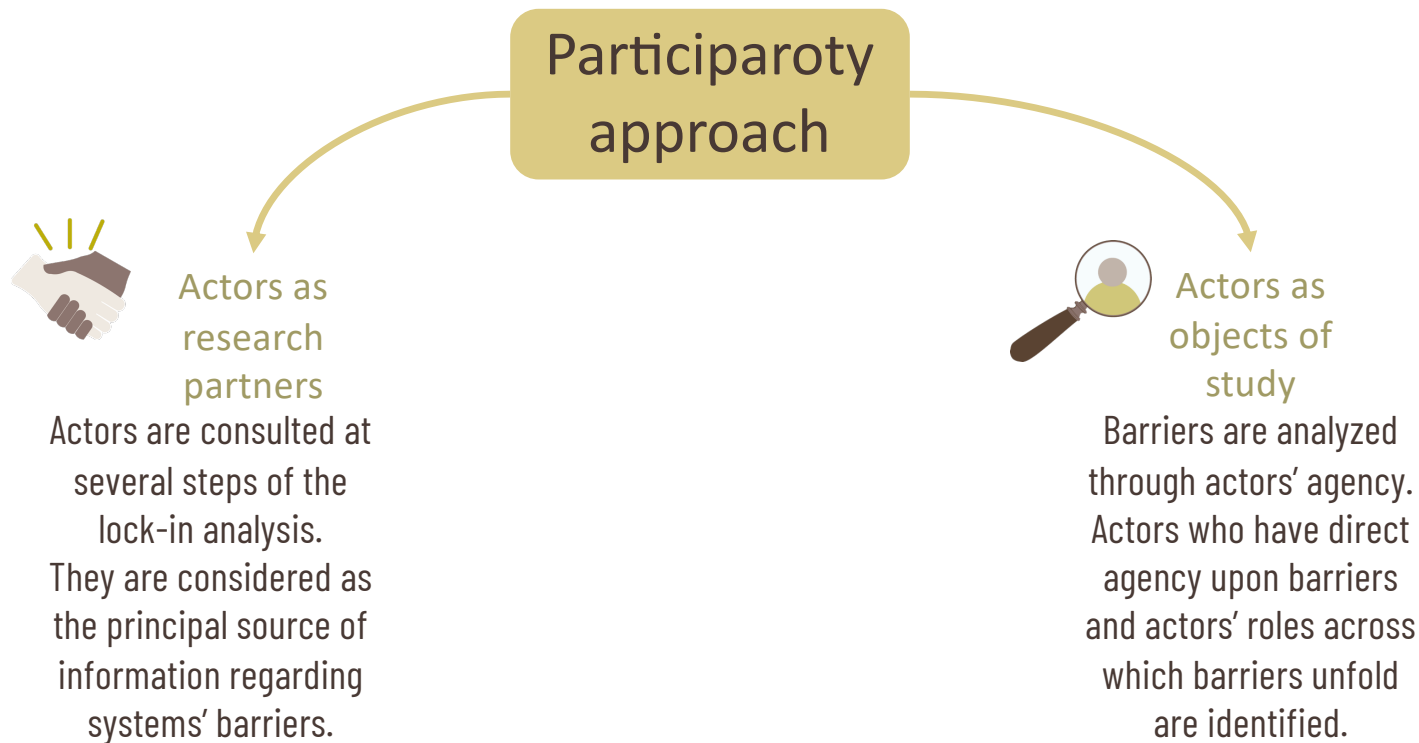


C. Aiming at operationality



The conceptual framework is supplemented by an analytical framework

Lock-ins are studied in a participatory approach



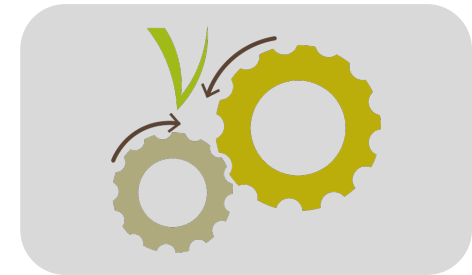
A higher coherency & practicality...



- Clarification of definitions



- Focus on interactions between barriers
- Consideration of barriers of different nature

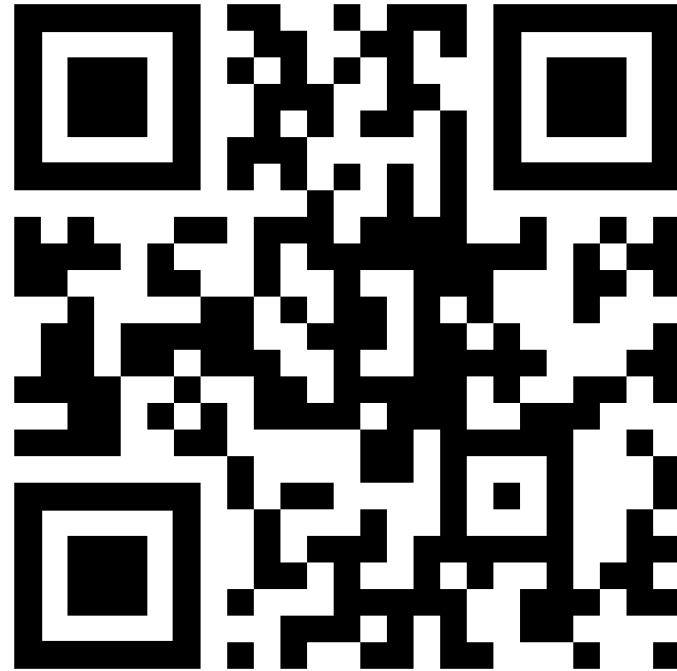


- Operational distinction between lock-in & barrier
- Focus on who is doing what, why, and how,
- Focus on current factors impeding change, on which to act.

These new conceptual & analytical frameworks are a work in progress and an open call to collective reflection on how to effectively address agrifood systems' lock-ins.



Find out more about our team and our work !





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