

Co-innovation at work

An overview of the concept, the approach within PURE and the wider relevance

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Statement 1

- No innovation without science



Statement 2

- The contribution of research to innovation should be bigger



Statement 3

- Better dissemination of research results will improve adoption in practice



Points of departure in WP13

- IPM requires technological and institutional innovation
 - Changes in perception, practices, rules, regulations (=institutions)
 - Farmers, extension agents, researchers (and many other actors)



From a new technology...

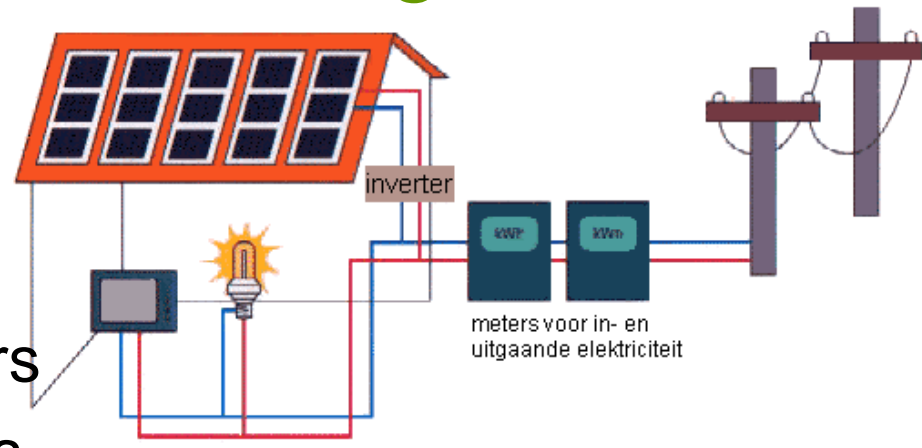
- Making electricity from sunlight – the photovoltaic cell
- Captured in product innovations



... To new institutional arrangements

Adaptations in:

- Perception of consumers
- Behaviour of consumers
- Building regulations
- Energy networks
- Skills
- Etc.



Hierarchy of innovation

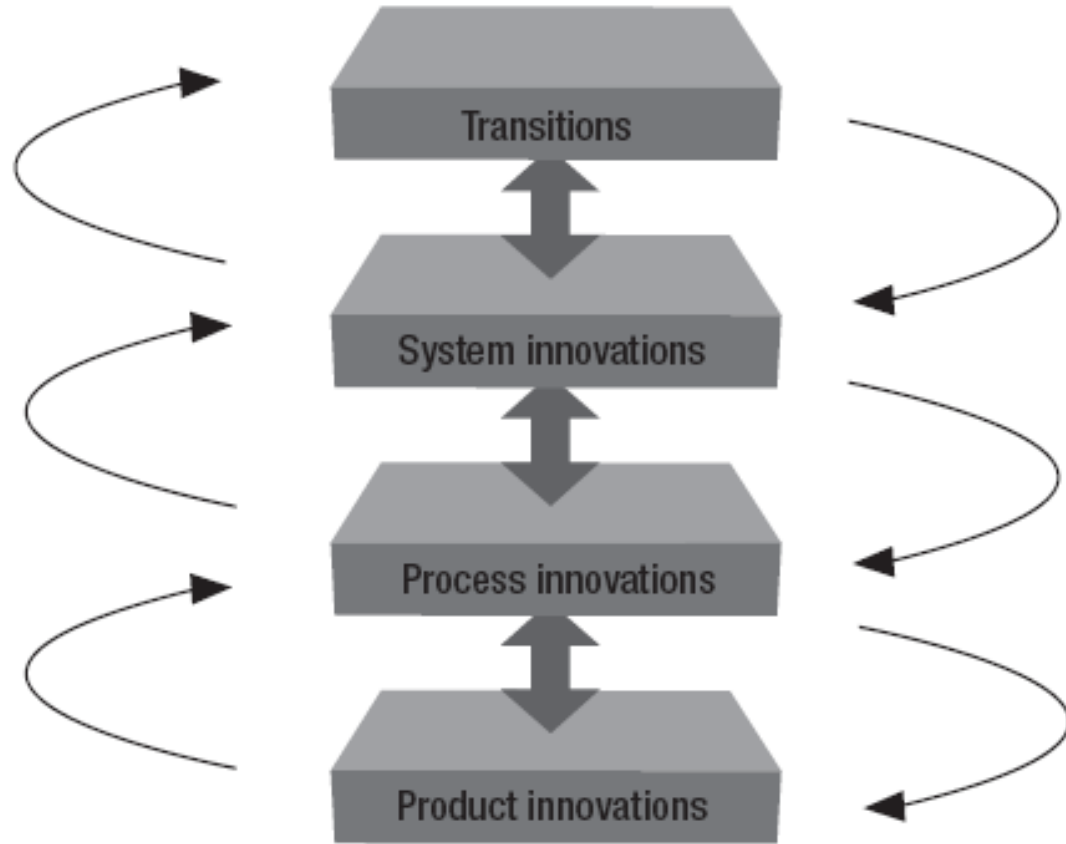


Figure 4.5 Cascade of innovations (Rotmans 2005)

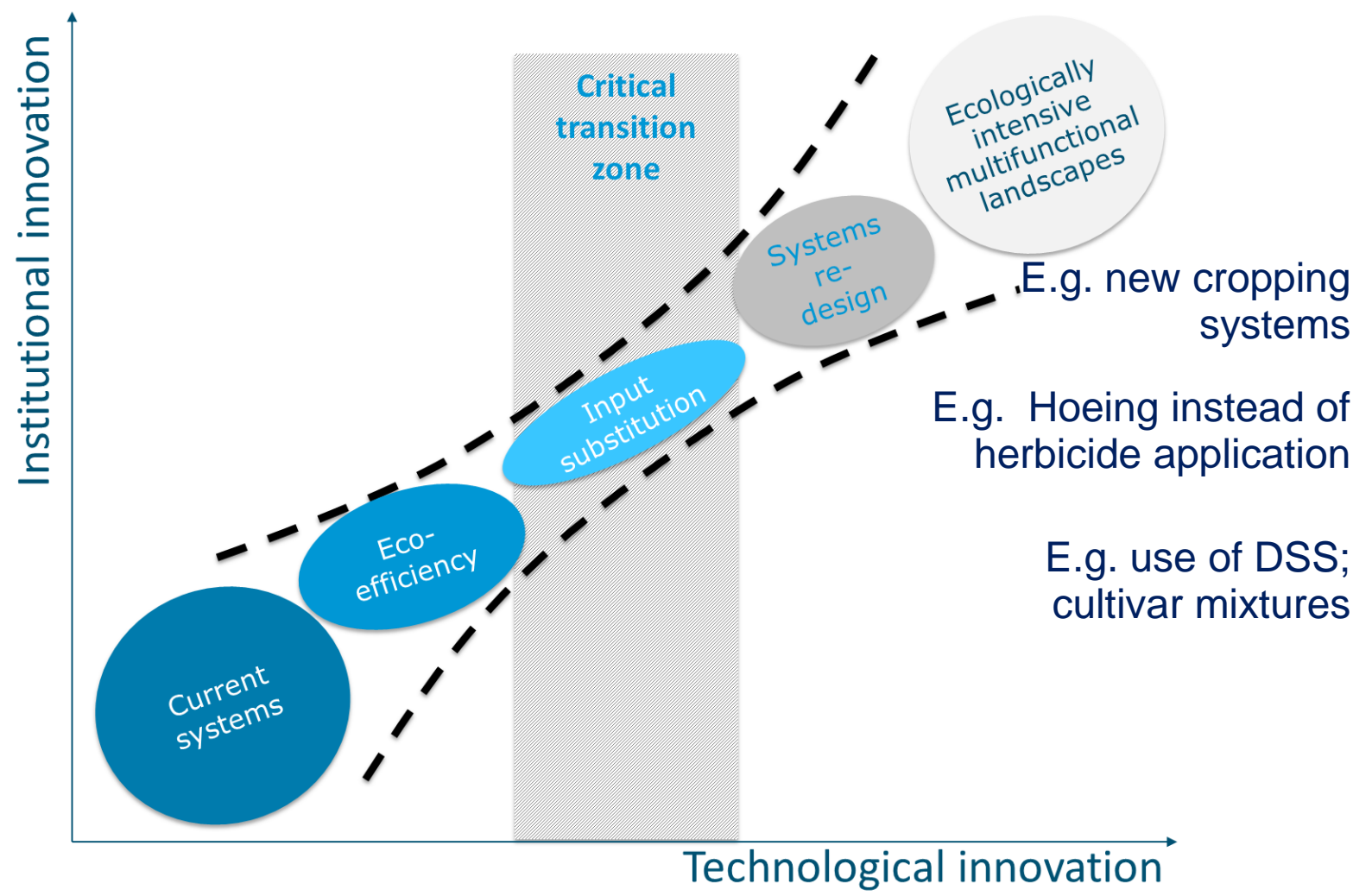


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IPM as an innovation

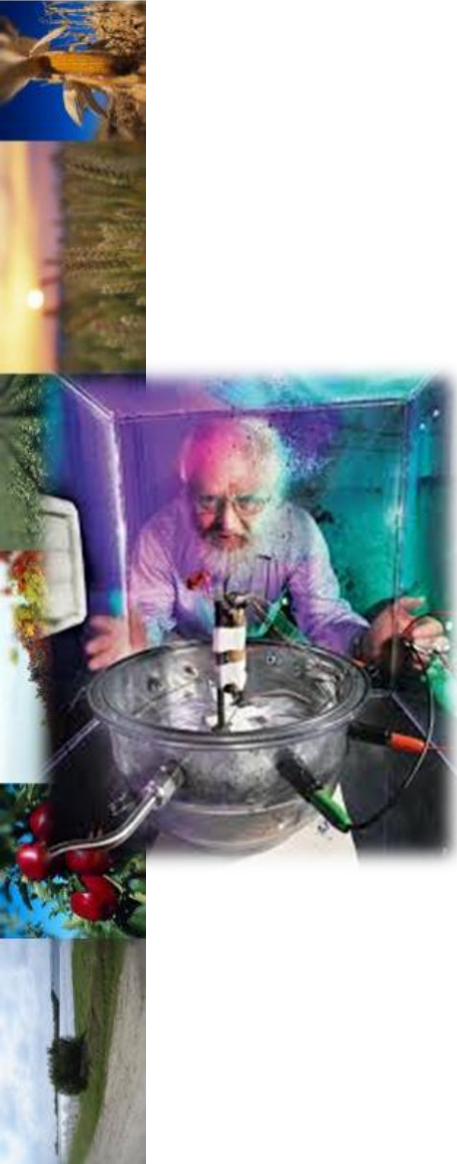
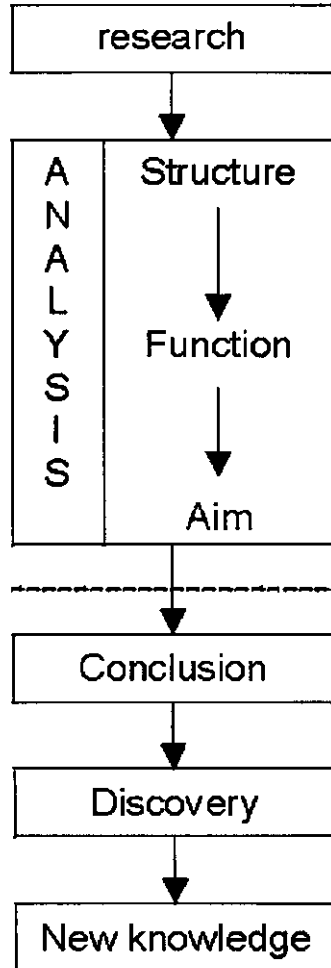


Points of departure in WP13

- IPM requires technological and institutional innovation
 - Changes in perception, regulations, rules, practices
 - Farmers, extension agents, researchers
- Research for innovation is different from research for knowledge
 - Contextual versus generic
 - ‘Design’ versus ‘research’



Research versus design



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- Research for innovation is different from research for knowledge
 - Contextual versus generic
- **Needed: New methods to reconnect research to complex on-farm innovation**



Co-innovation in PURE-IPM

- Linear approach is inappropriate for complex innovations
- Develop co-innovation as a method for organizing and supporting research for innovation projects
- Use the approach in 4 PURE pilots
- Evaluate the approach by comparison across pilots



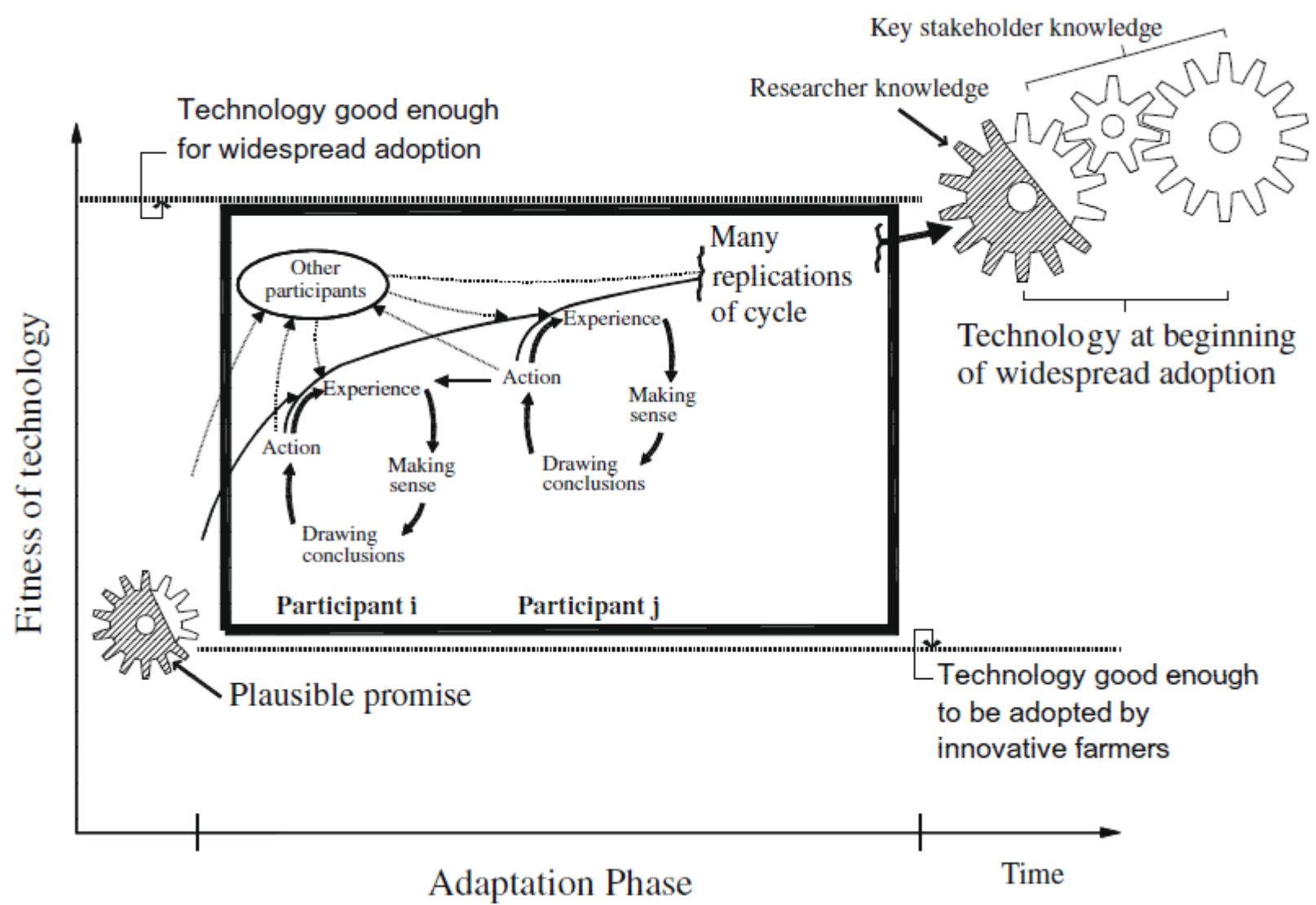
Co-innovation: a project as a complex system

Ideas shaping project design:

- An innovation project consists of agents, artefacts, strategies, and thus constitutes a CAS
- Innovation is driven by ‘Learning Selection’ in analogy with natural selection
- Innovation is an emergent property: the result cannot be explained by each of the underlying activities separately



The Learning Selection model



A project as a complex system

Consequences for project organization:

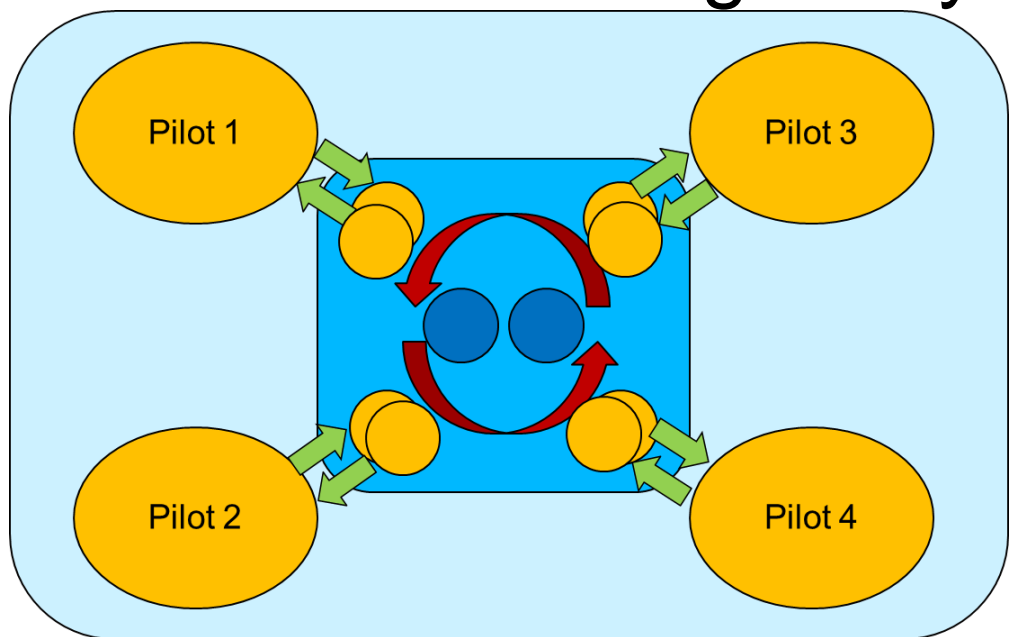
- Foster variation in agents, artefacts, strategies
- Stimulate (unexpected) changes in interaction patterns
- Support selection processes to assess fitness of a novelty, and better allow survival and spread

‘Plan for change’ instead of ‘change the plan’



The approach

- Pilots: innovation networks in D, DK, F and NL
- Pilot teams trained in concepts and tools during year 1
- Coaching by video conferencing every 6 months
- M&E



General approach



What do we want to reach and how?

Programme theory

What's the context we are working in?

Systems analysis

What are the main challenges we have to work on?

Dynamic Agenda

How can I work more effective with stakeholders?

Stakeholder management

How can I improve the co-innovation process?

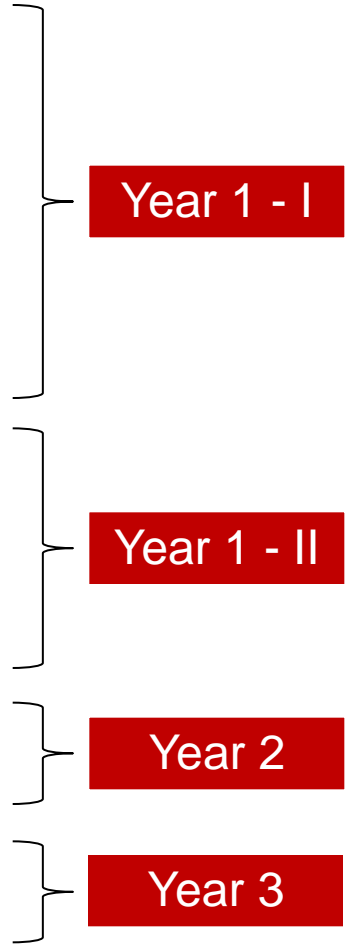
Process facilitation

How to design sustainable systems with involvement of multiple actors?

Interactive design

Make progress of the learning process visible, being accountable

Monitoring & evaluation



The pilots

- Denmark: zero-pesticide scenario for wheat-based systems (policy-driven)
- France: re-designing problematic cropping systems in Burgundy (farmer-driven)
- Germany: reducing pesticide use in cabbage with monitoring systems and higher thresholds (research-driven)
- Netherlands: zero-pesticide scenario for arable farms (market-driven)



Results - Project level

- Large diversity in the 4 pilots depending on local dynamics
- PURE IPM-entry point did not work for farmers who think systemically
- Creating and utilising institutional room for experimentation was key to successes
- Focused approach and intensive interactions kept energy high in pilots



Results – On-farm

- Farmers used the experimental niche: ‘what do *you* want to work on’?
 - Wide row-spacing for hoeing, but not in the target crop (DK)
 - No initial interest in wheat, but major changes in entire cropping system (F)
- Role change for advisors and researchers: from expert to facilitator
- New tools and approaches to facilitation (peer review, co-design)



Moving beyond WP13

- The co-innovation process is more relevant than the specific technical solutions on farm level
- Advisors are key actors for co-innovation with farmers and with researchers
- WP13 is a good example of introducing co-innovation approach
 - Room for experimentation
 - Guidance and shared learning





Acknowledgements

- Farmers and advisors involved in the pilots
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Thank you for your attention!

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Workshop

- Scaling co-innovation
- Use of 'innovation systems analysis' and 'dynamic agenda' (co-innovation tools)



Key question

- What is enhancing/hindering the scaling of co-innovation approach?
- Please modify, specify...



Instructions

- Write barriers and opportunities on post-its (one per leaflet)
 - Barriers: what is hindering?
 - Opportunities: what is enhancing?

- No discussion!



Towards the matrix

- Please specify:
 - Why do you think this is hindering/enhancing?
 - For who? Explain.
- Please write down new barriers/opportunities on post-its!



Clustering

- White spots?
- Items for the dynamic agenda (challenges)
- Discuss in groups (2-4 people):
what to do? How to make use of opportunities? How to deal with barriers?



Synthesis and conclusion

- Reflections: Walter, Pieter
- Take-home messages/actions

