Transition management to support scaling of sustainable soil management

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Land use and climate stability are a delicate balancing act:

Getting it right can reduce emissions while creating significant co-benefits;

Getting it wrong can fuel climate change while worsening food insecurity and environmental problems.
**Soil-Improving Cropping Systems**

One of the key aims of SoilCare is to identify, test and evaluate soil-improving cropping systems (SICS) that will increase the profitability and sustainability of agriculture across Europe.

SoilCare defines soil improving cropping systems (SICS) as cropping systems that improve soil quality (and hence its functions), and that have positive impacts on the profitability and sustainability of cropping systems. Cropping systems refer to both crop type, crop rotation, and associated agronomic management techniques. The proof of the SICS concept is in the prioritization of specific crop rotations and specific agro-management techniques, and the subsequent optimization.
Transition processes

- Experiment
- Acceleration
- Emergence
- Institutionalization
- Stabilization
digital food production
demand based, value oriented
smart, connected, ai,
high resolution farming
commercial transition
shortest supply chain service based

Achterhoek wordt dé Europese proeftuin voor kringlooplandbouw

HENGEOLO - De Achterhoek wordt dé internationale proeftuin voor de kringlooplandbouw. Proefboerderij De Marke, onderdeel van Wageningen University & Research, gaat hierin een veel belangrijker rol spelen dan zij nu doet.
Nieuwe verdienmodellen tegen bodemdaling

Project Groene Cirkel Kaas en Bodemdaling van start in het Groene Hart.

› Lees meer

Groene Cirkels

Een klimaatneutrale HEINEKEN brouwerij in een klimaatneutrale keten, een duurzame economie, een aangename leefomgeving en het ontwikkelen van kennis voor een klimaatneutrale maatschappij. Dat zijn de ambities waarvoor Groene Cirkels zich inzet. Dat doet zij door de natuur als uitgangspunt te nemen en omgaan met toepassingen rond de onroerende.
Transition to: Circular agriculture

Minister Schouten

"Bijna alles wat wij als samenleving boven de grond doen is verweven met de bodem. Het komt onder onze voeten samen."

Nationale Bodemtop, Rotterdam, 11 september 2019
Transition processes

- Optimising Business as usual
- Corrective barriers
- Reduce dependencies
- Emergence
- Acceleration
- Experiment
- Reduce relevance
- Phase out
- Institutionalization
- Stabilization

Reduce, reduce, reduce, reduce, reduce.
Corrective Barriers and Reduce dependencies

- Public call for attention to Soil Sealing (Berlin)
- Zombie Soils
- IPCC
- Environmental disasters
Dutch ambitions related to soil

By 2030

- Use of fossil-based fertilisers and pesticides is significantly reduced
- Nutrients in animal and human excreta are more efficiently used in the production circle
- No more discharge of nutrients to surface water.
- All agricultural soils are sustainably managed, with attention for (soil)biodiversity.
Transition processes

- Optimising Business as usual
- Corrective barriers
- Experiment
- Acceleration
- Emergence
- Institutionalization
- Phase out
- Stabilization
- Reduce dependencies
- Reduce relevance
- Chaos
How to get it right? At a large spatial scale?

- Barriers for scaling/adooption
- (Knowledge on) Availability of innovations
- Insight in tradeoffs (physical, societal and economic)
- Funding; Security of investments
- Institutionalisation
- Careful process of building up/breaking down
- Minimise Chaos

=> Transition management provides perspectives for action
Viewpoint

Soil as a Basis to Create Enabling Conditions for Transitions Towards Sustainable Land Management as a Key to Achieve the SDGs by 2030

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Abstract: The Sustainable Development Goals (SDGs) can be grouped into three domains, the environmental domain, the social domain and the economic domain. These different layers influence each other; hence sustainable progress in the economic layer cannot be achieved without good progress in the two other layers. To achieve the SDGs, transitions in the current system are needed and actions should be taken that support transitions and contribute to short term needs and long