

# PRECISION IN SOIL GOVERNANCE

■ **Bartosz Bartkowski (UFZ – Helmholtz Centre for Environmental Research)**

## **Why** Motivation and problem statement

There seems to exist a significant mismatch between the heterogeneity and multifunctionality of soils and the heterogeneity of farmers on the one hand, and a lack of context- and site-specificity of existing governance instruments relevant to agricultural soils.

## **What** Approach, results and key messages

The aim of the workshop was mainly exploratory: to discuss some general ideas regarding the above stated mismatch. The discussions crystallised in the following key points:

- Property rights of land/soils are central for any kind of soil governance;
- The level of governance is the main source of the spatial mismatch/lack of site specificity;
- Spatially explicit valuation of soil ecosystem services can inform Payment of Ecosystem Services and similar compensation mechanisms;
- Current consumption patterns are a problem (meat consumption, non-regional food...), so consumers should be included in the analysis of soil governance;
- CAP seems the most important policy instrument in agricultural soil context, but it is deficient and involves issues of political power (imbalances).

Regarding specific policy instruments/governance solutions, zoning (depending on some soil properties) and a reform of the CAP were discussed; also, the importance of farmers' education and positive incentives was stressed.

## **Key** Conclusion and take home message

The mismatch between heterogeneity/multifunctionality of soils and existing governance instruments is not only linked to knowledge gaps, technological challenges and the general lack of attention to soils in agricultural policy. While these issues are important, political power and consumption patterns also play a significant role.



# Precision in Governance of Agricultural Soils

Workshop @INSPIRATION Conference,  
6 December 2017, Brussels

Bartosz Bartkowski, UFZ – Helmholtz Centre for  
Environmental Research, Leipzig



## Outline and goals of workshop

1. Some context: setting the stage
2. What does precision in soil governance mean to you? /  
Introduction round
3. Precision in soil governance: some thoughts and ideas
4. Open questions → Discussion

Goal of workshop: discuss some ideas regarding precision of  
soil governance

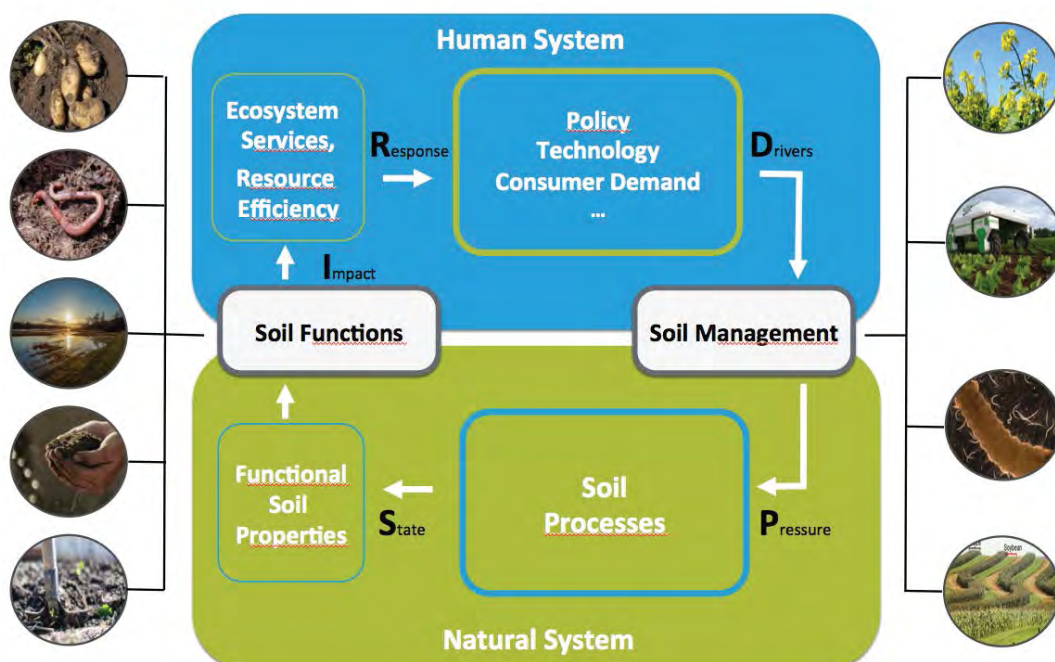
→ development of criteria for design of site-specific policy  
instruments & identification of frictions in current  
institutional setting

## Setting the stage

- BonaRes – Soil as a Sustainable Resource for the Bioeconomy:
  - Research programme with BonaRes Centre + 10 further projects
  - Focus on the sustainable management of agricultural soils
- Governance research in BonaRes Centre:
  - Focus on policy instruments
  - Deficit analysis of existing and development of new instruments and governance approaches
  - Currently: site-specific policy instruments



## Governance within the BonaRes research framework



# Precision in agricultural soil governance – some thoughts and ideas

## What does “precision in soil governance” mean?

- Precision or site-specificity
- 2 components: spatial heterogeneity of soils & heterogeneity of farmers
- Heterogeneity of farmers:
  - Property rights
  - Culture
  - Symbolic capital
  - Attitudes
  - Habits
  - ...

## What does “precision in soil governance” mean?

- Spatial heterogeneity of soils:
  - Heterogeneity vs multifunctionality
  - 2 issues: efficient/precise management of a given field and its soil + spatial configuration of uses
- Technological advances theoretically allowing for higher precision → induce precision farming in line with societal goals/multifunctionality of soils
- Problem: current governance regimes not focusing on soils + too general

## Open questions

- Does the definition make sense?
- Is the hypothesised problem relevant? → How to measure lack of precision/site-specificity?
- What are frictions/barriers/obstacles? (Technology? Economic pressures? Data availability? Acceptance? Existing policy instruments?)





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