



Innovative concepts and technologies for ECOlogically sustainable NUTRIent management in agriculture aiming to prevent, mitigate and eliminate pollution in soils, water and air

Perception of the impact of actions supporting the implementation of measures using NBS in agriculture

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„Green Deal és az agrárium: fenntarthatóság vagy versenyelőny?”

ESSRG
Environmental
Social Science
Research Group



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Overview of the e-Delphi process

3 rounds between June 2024 - May 2025

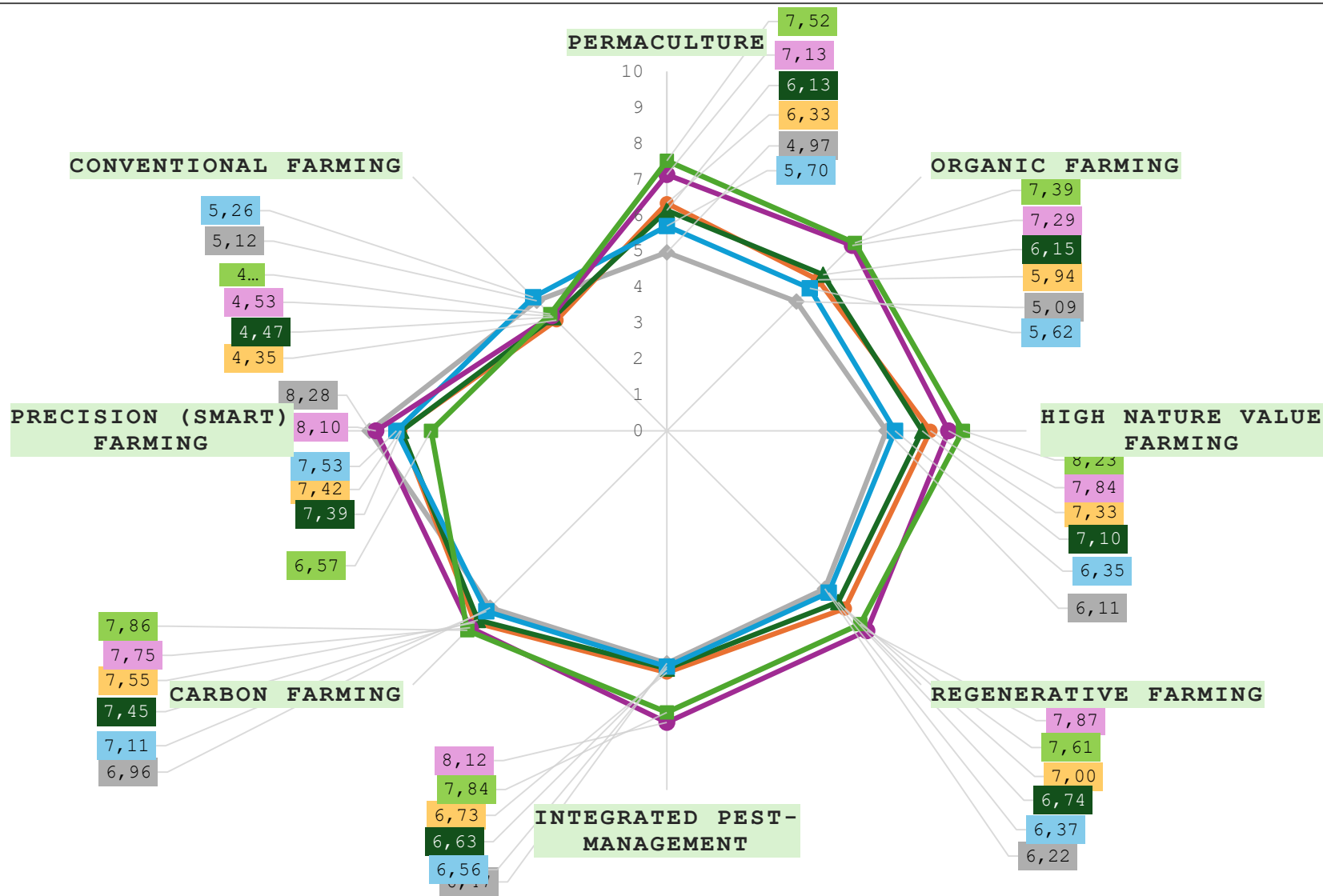
➤ Goal: Understand the role of NBS in sustainable nutrient management & its policy environment

➤ Participants: experts from academia, policy, and innovation across 25+ countries

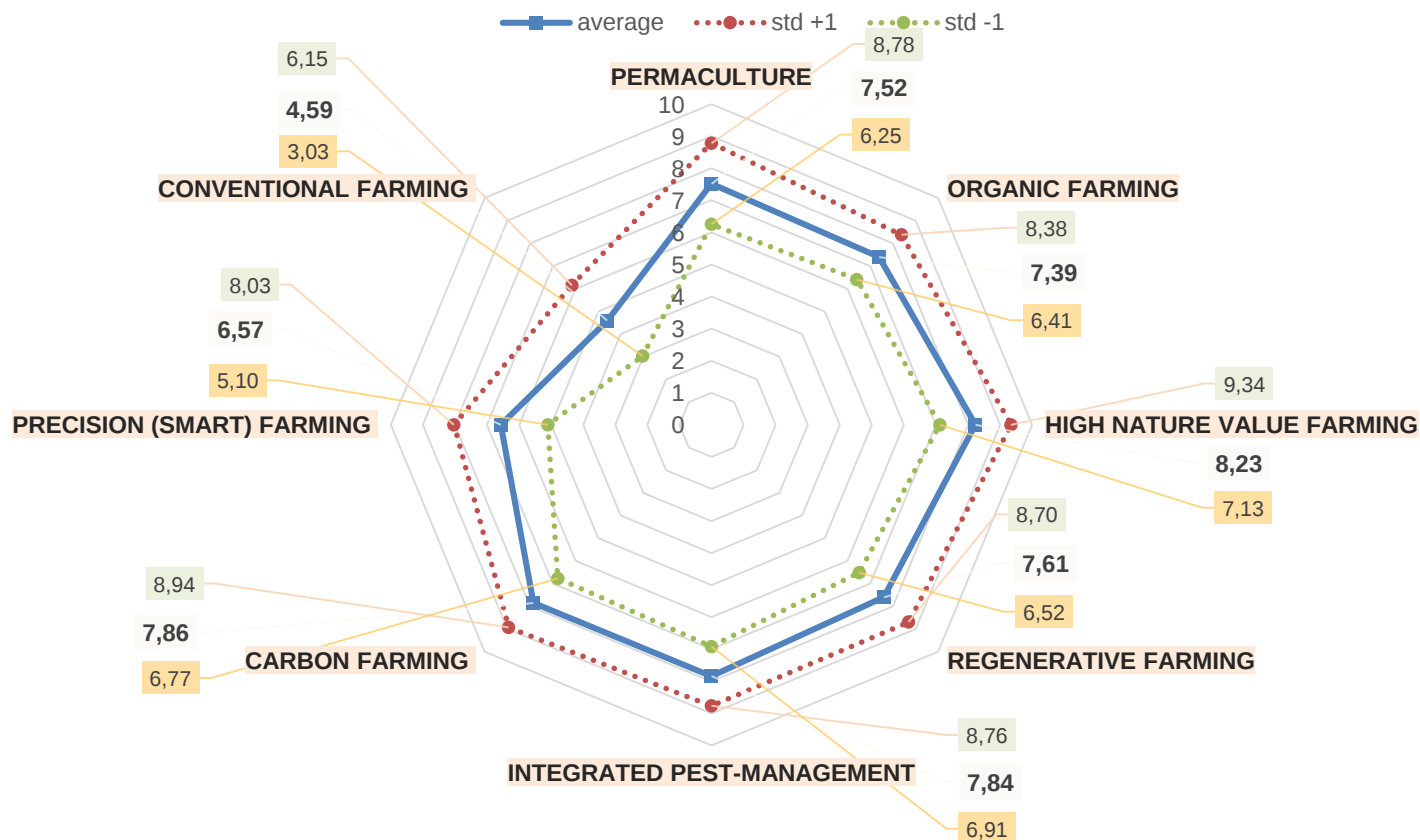
Round 1 – Framing innovations & practices

OVERVIEW OF THE RATING OF 8 FARMING METHODS FROM 6

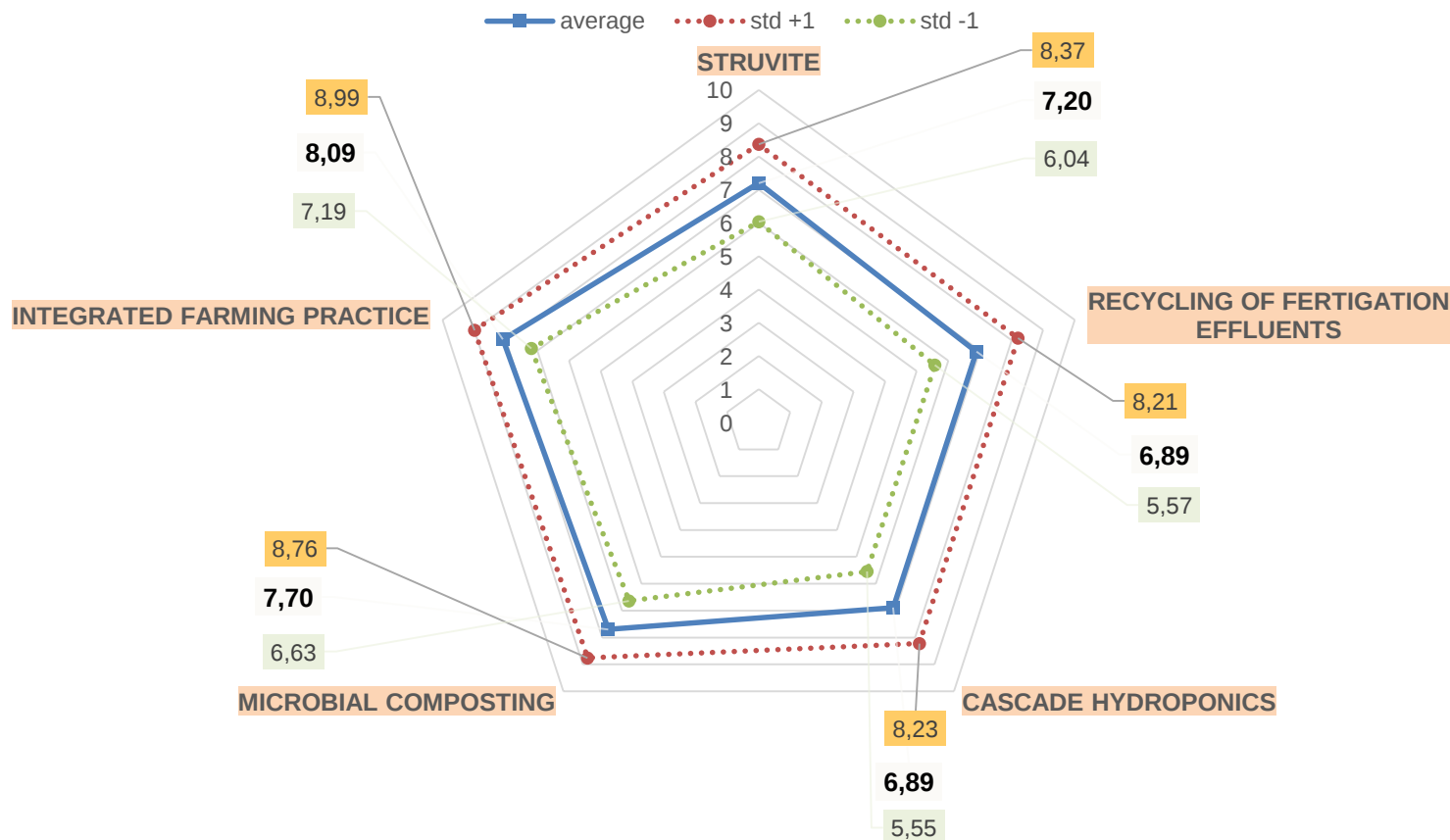
TECHNOLOGICAL NOVELTY ENVIRONMENTAL NOVELTY SOCIAL NOVELTY
ECONOMIC NOVELTY SUSTAINABILITY ROLE OF NBS



ROLE OF NBS IN 8 FARMING METHODS



ROLE OF NBS IN 5 INNOVATIONS



Round 2 – Policies, barriers & actors

- Focus: identify enabling & hindering factors for NBS uptake
- Most effective & feasible policies: trainings, field/farm days, regulatory measures, nutrient management plans
- Key barriers: financial & informational gaps, high initial costs
- Main actors: policymakers and researchers; limited role of SMEs & advisors

Round 3 – Goals & structure

Aim:

assess likelihood of adoption and potential for change of NBS-supporting actions

Two sections:

- (1) rate actions by adoption likelihood & impact,
- (2) evaluate statements to identify knowledge gaps

Builds directly on insights from R1–R2

Findings – Adoption potential

High-likelihood & high-impact actions

- Training programs and demonstration days
- Regulatory frameworks aligned with local needs
- Strengthening collaboration among key actors

Moderate adoption but high transformative potential:

- Incentive schemes & partnerships

Low adoption likelihood:

- complex multi-actor coordination measures

Findings – Knowledge gaps



Persistent confusion
about NBS definition and
scope



Limited data on cost-
benefit and performance
monitoring



Weak integration
between policy design
and on-farm innovation



Need for context-specific,
co-created guidelines

Cross-round synthesis

Round 1: NBS
embedded in
agroecological
systems



Round 2: Training &
regulation are key
levers



→ Converging
message: integration
of learning, funding,
and coordination
across sectors.



Round 3: Capacity-
building & conceptual
clarity boost adoption

Policy recommendations



STRENGTHEN CO-
LEARNING
INFRASTRUCTURES
(FIELD LABS,
DEMONSTRATION
FARMS)



ENSURE STABLE
FUNDING &
INCENTIVES FOR
EARLY ADOPTERS



PROMOTE CROSS-
SECTORAL
COOPERATION
(POLICY-SCIENCE-
PRACTICE)



DEVELOP CLEAR
NBS DEFINITIONS &
MONITORING
FRAMEWORKS



INTEGRATE SOCIAL
AND CULTURAL
ASPECTS INTO NBS
POLICY DESIGN



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