



Data collection requirements to inform strategies for sustainable agriculture at farm- level – a scoping study

Social science

Disciplines:

- Sociology
- Economics
- Geography
- Marketing
- Modelling
- Practitioner perspective

Background

- National policy: the **importance of sustainable agriculture practices at farm level** and the significant role they play in strengthening resilience towards climate change
- Agriculture, Forest and Seafood Climate Change Sectoral Adaptation Plan (2020) (**action no. 11**) commits to:
 - ‘Support the sector and **foster sustainable growth**, development, innovation and adaptation including through LIFE, Horizon Europe, the European Maritime and Fisheries Fund and Common Agriculture Policy (CAP) funding’ (p. 27).
 - ‘Seek to **adapt on-farm practices** to enhance sustainable agriculture production’, is an identified step to deliver this action with DAFM and Teagasc as lead authority and stakeholders (p. 75).

Scope

- Small-scale study
 - A short review of current evidence (data) regarding the extent to which farmers are implementing sustainable agriculture practices.
 - Identify gaps opportunities (key thematic areas for investigation; and indicators/metrics) for research (qualitative and quantitative)
- Rationale:
 - Need for comprehensive data to inform strategies for enhancing sustainable agriculture practices at farm level

Contents

- Introduction
- Policy and Extension strategies & sustainable agriculture practices
- Existing data
- Gaps and opportunities
 - Quantitative/survey data – extent of implementation
 - Quantitative data – behavioural/attitudinal factors
 - Assessment of resilience
 - Qualitative data
- Annexes (sustainable agriculture practices, programmes, sample questions)

Data comprehensiveness:

- What are sustainable agriculture practices?
 - Of specific interest to policy-makers?
- What are the rates of implementation?
 - Who are the non/implementers?
- What influences implementation?
 - Effectiveness/otherwise of policy/extension/market interventions?
- What are the impacts and implications of implementation?
 - Cumulative impacts & implications for resilience

'Analytical purchase': different data types

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Current evidence/data

Rates of adoption:

- National Farm Survey
- National Inventory Data

Factors influencing adoption:

- Ad hoc studies
 - Qualitative
 - Quantitative

Systems-level:

- Mixed methods

Need for comprehensive, systemic data – gaps & opportunities

Conclusion - overarching

- Diversity of practices/programmes: require diverse data types & collection mechanisms
- These are needed for a comprehensive national dataset, for multi-functional purposes

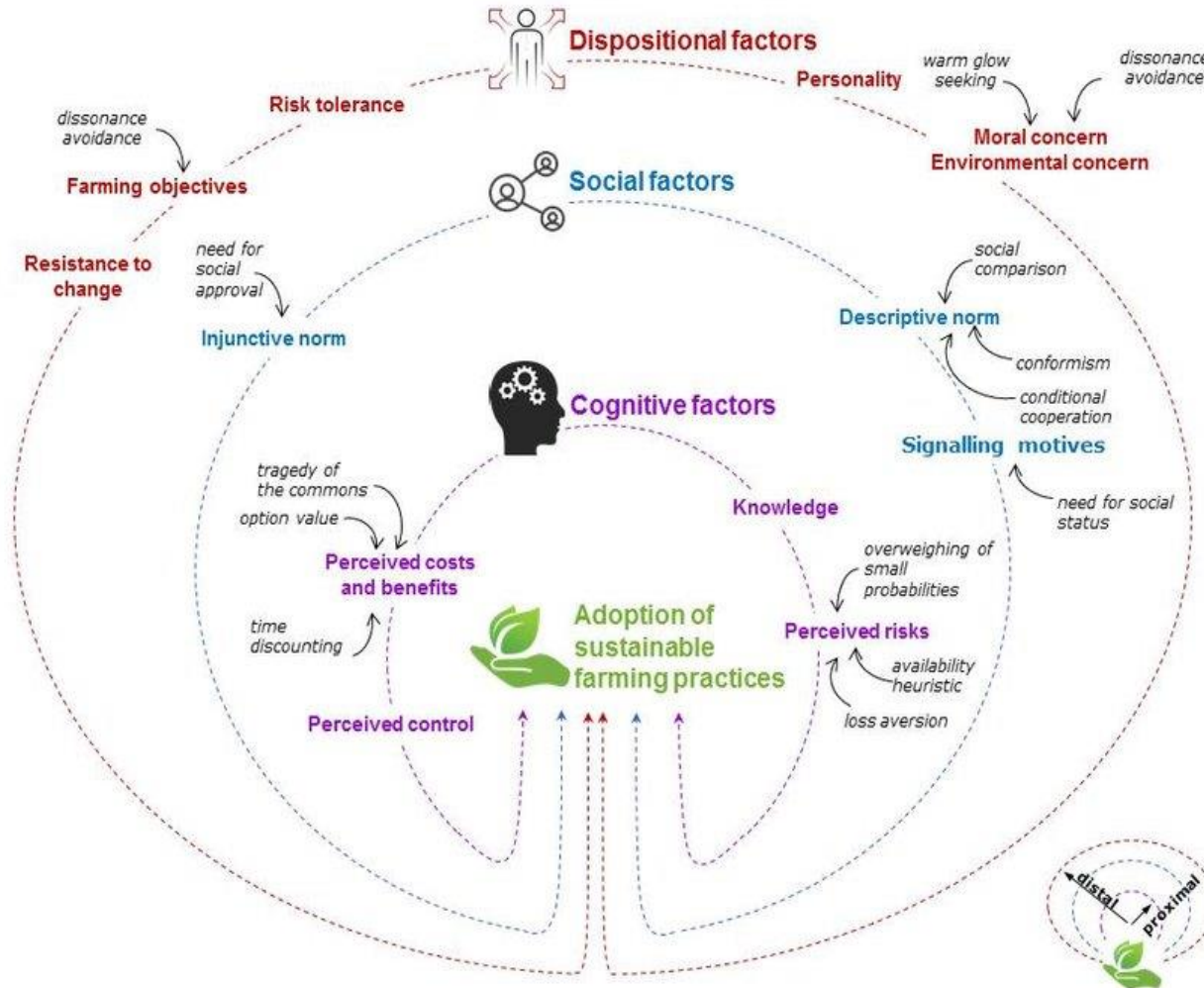
Conclusion 1 (NI & NFS)

- National Inventory Data
 - Could be complemented with NFS data
 - Need for an interdisciplinary approach
 - » Unknowns
 - » 'Rebound' effects
 - » 'Bundling'

Conclusion 2 (Quantitative, other)

- Behavioural analysis (VBN, TPB)
- Leverage existing instruments such as NFS
- Behavioural economics

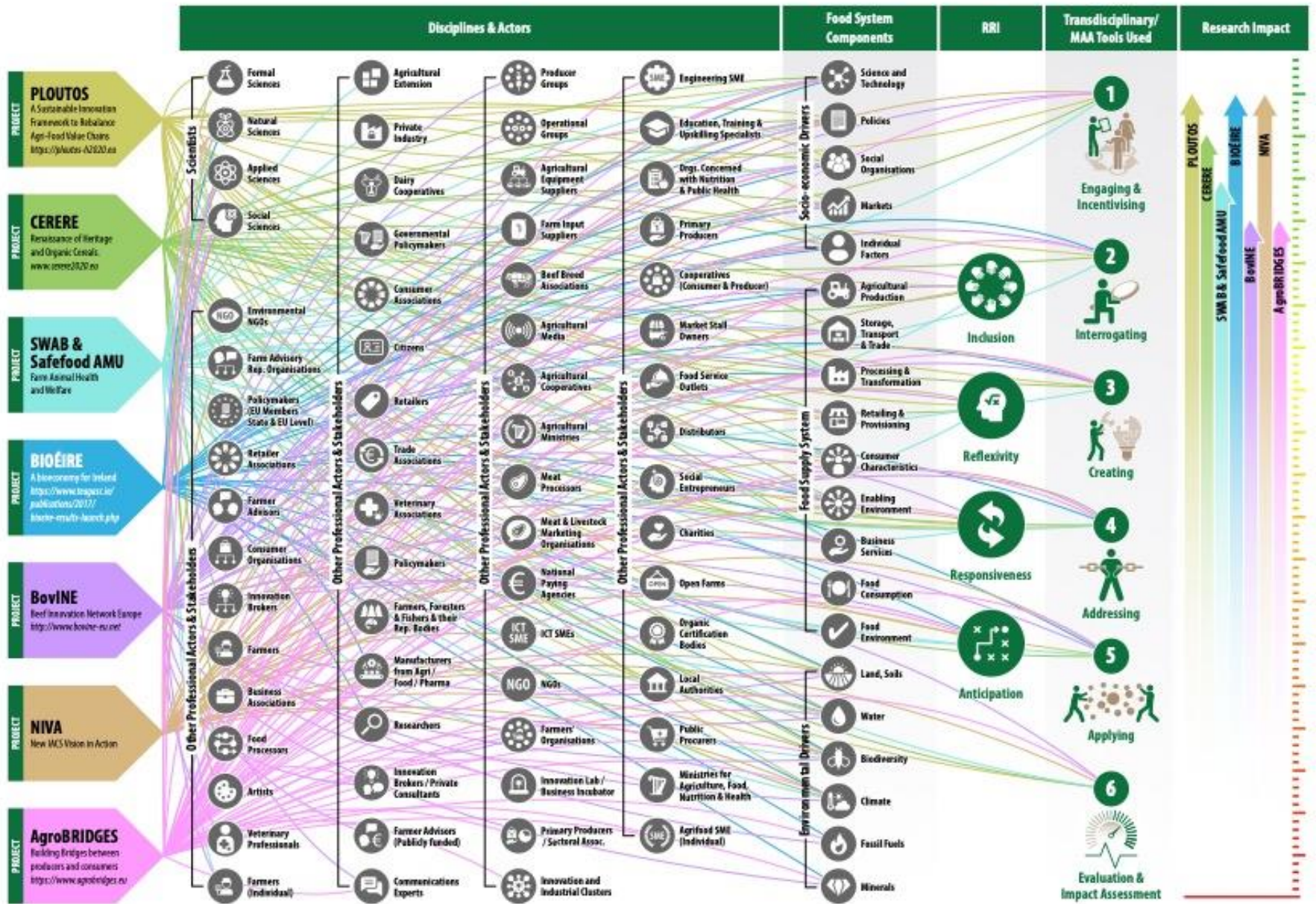
Behavioural factors influencing farmer adoption



Source: Dessart et al., 2019.

Conclusion 3 (Qualitative)

- Factors (economic, social cultural) that shape farmers' decision-making processes
- Factors at programme/policy level that less/effectively influence practices at farm-level



Conclusion 4 – impacts & systems

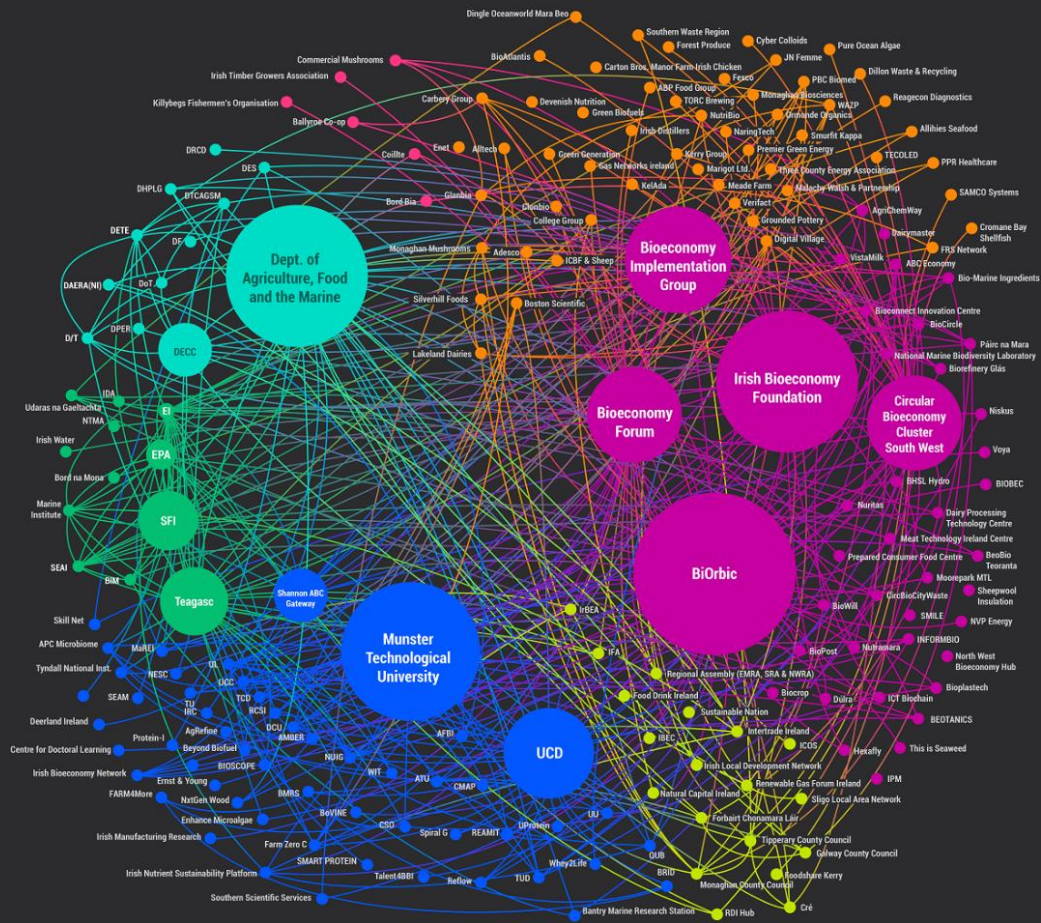
- Evaluation and impact assessment (formative rather than only summative)
- Resilience:
 - Mixed methods
- Systems analysis
 - Mixed methods

AKIS & Social Networks

Ireland's Bioeconomy

Network Analysis Diagram | July 2022

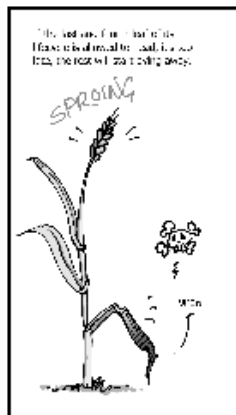
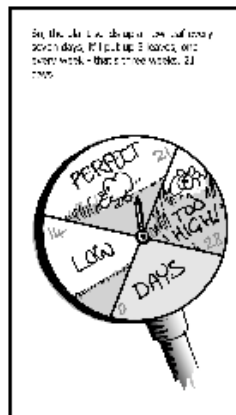
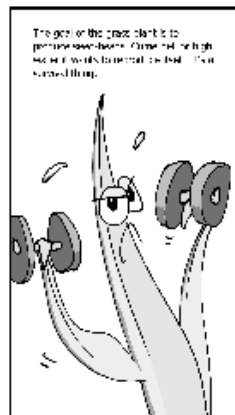
Sectors



Primary recommendation

- Data platform
 - FAIR
 - Cooperation between RPOs (also international)
 - Synthesis, interpretation, scenario-building
- Multi-disciplinary interpretation
- Citizen science

THE GRASS PLANT





Thank you, Q&A, discussion