

WaCASA meetings 2017-2018

- Every second Wednesday of the month
- Meetings in W0.1, Radix
- For information on previous meetings - www.wacasa.wur.nl
- Interested in presenting your research?

Contact Aart or Gerrie

Sustainable development of agriculture: contribution of farm-level assessment tools

WaCASA meeting, September 13

Evelien de Olde

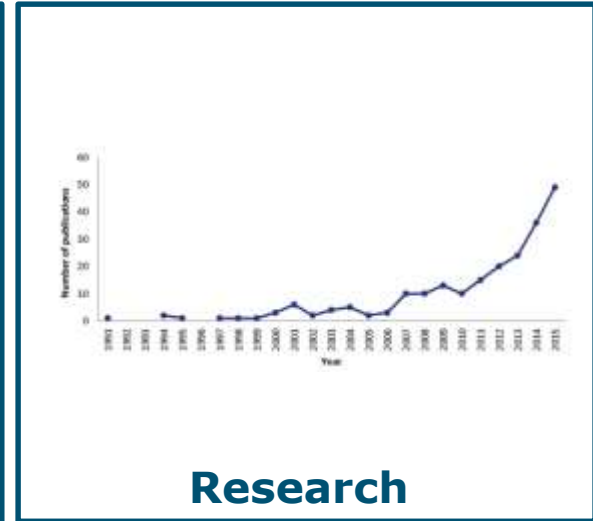


Introduction

- Impact of agriculture
- Sustainability assessment tools
 - Evaluate sustainability performance
 - Support decision-making



External drivers



Sustainability assessment tools



Agrarumweltmonitoring

Gemeinsam für eine nachhaltige Landwirtschaft

Kriteriensystem
nachhaltige Landwirtschaft
(KSNL)



La méthode IDEA

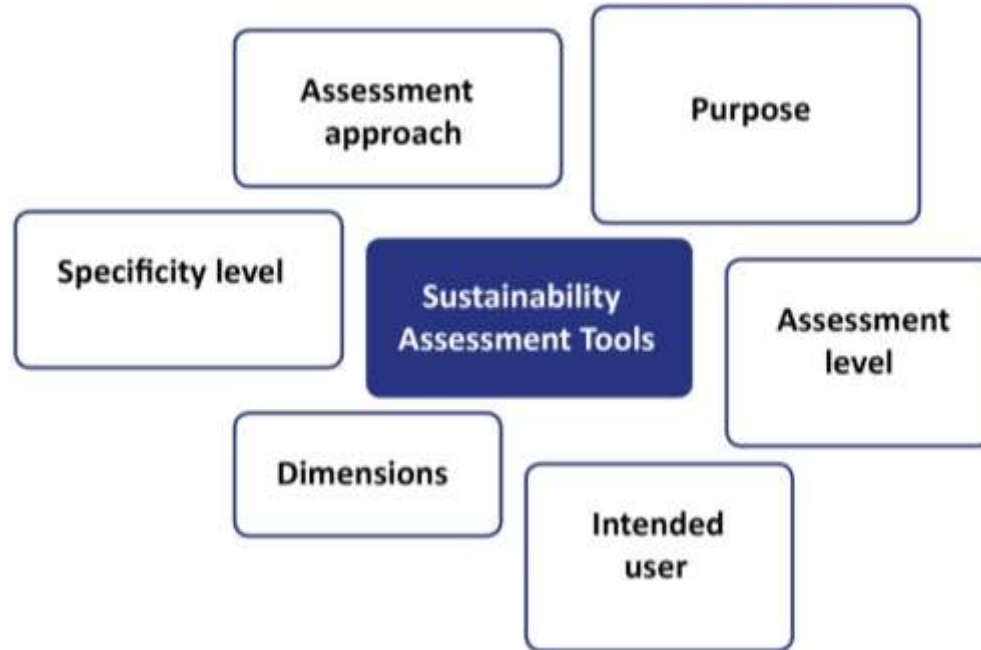


Indicateurs
de durabilité
des
exploitations
agricoles

TROISIÈME ÉDITION ACTUALISÉE

Guide
d'utilisation

Sustainability assessment tools



Research objective

- What is the contribution of farm-level assessment tools to sustainable development of agriculture?
 - Adoption & implementation
 - Variability
 - Decisions

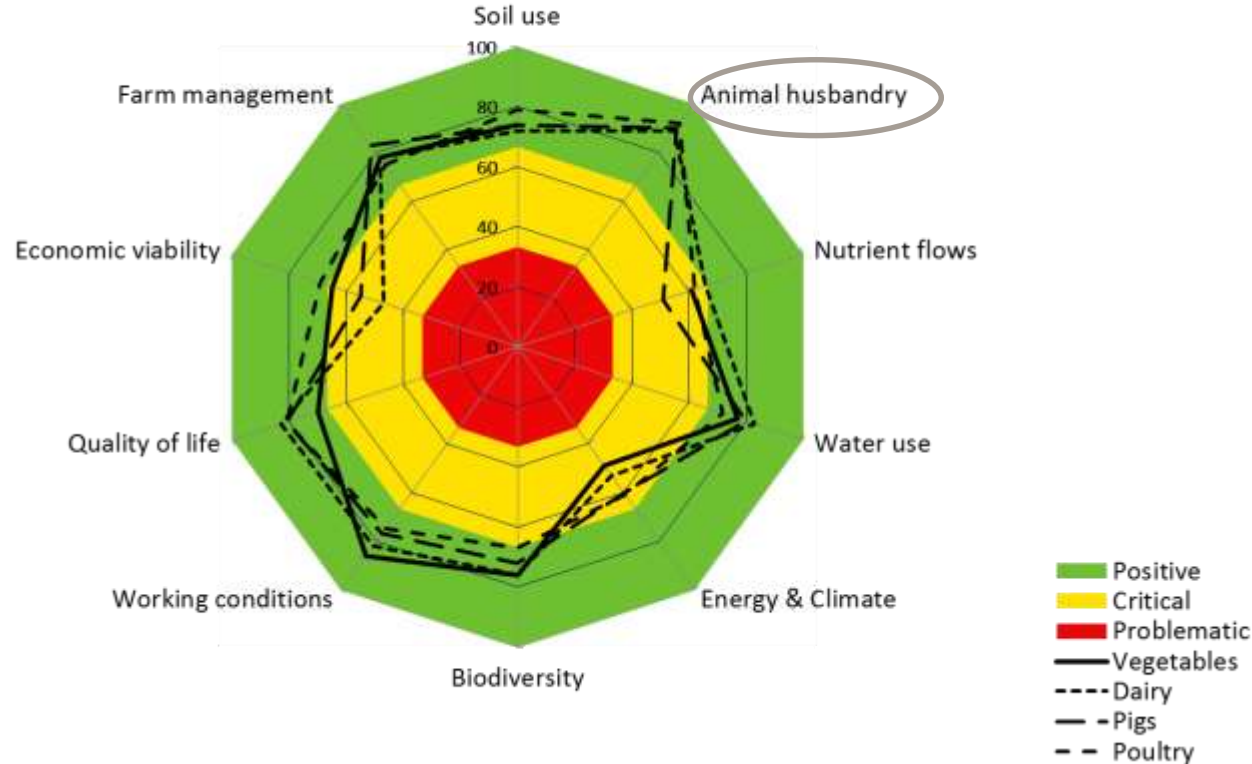
Outline

	Adoption & implementation	Variability in tools	Decisions in tools
Chapter 2			
Chapter 3			
Chapter 4			
Chapter 5			
Chapter 6			

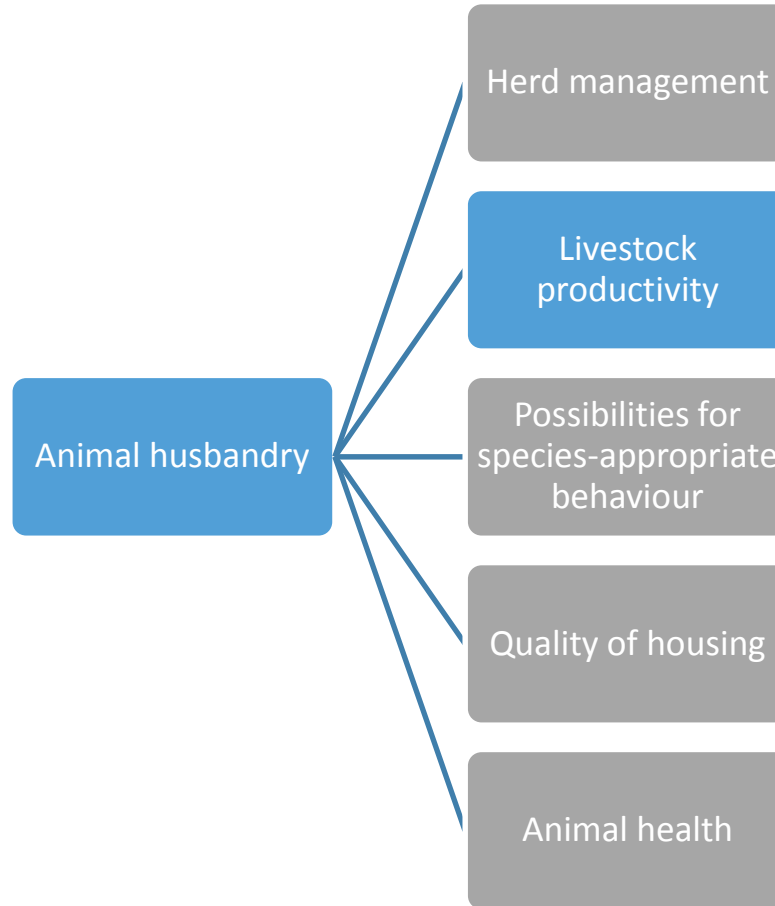
Sustainability performance of organic farms in Denmark

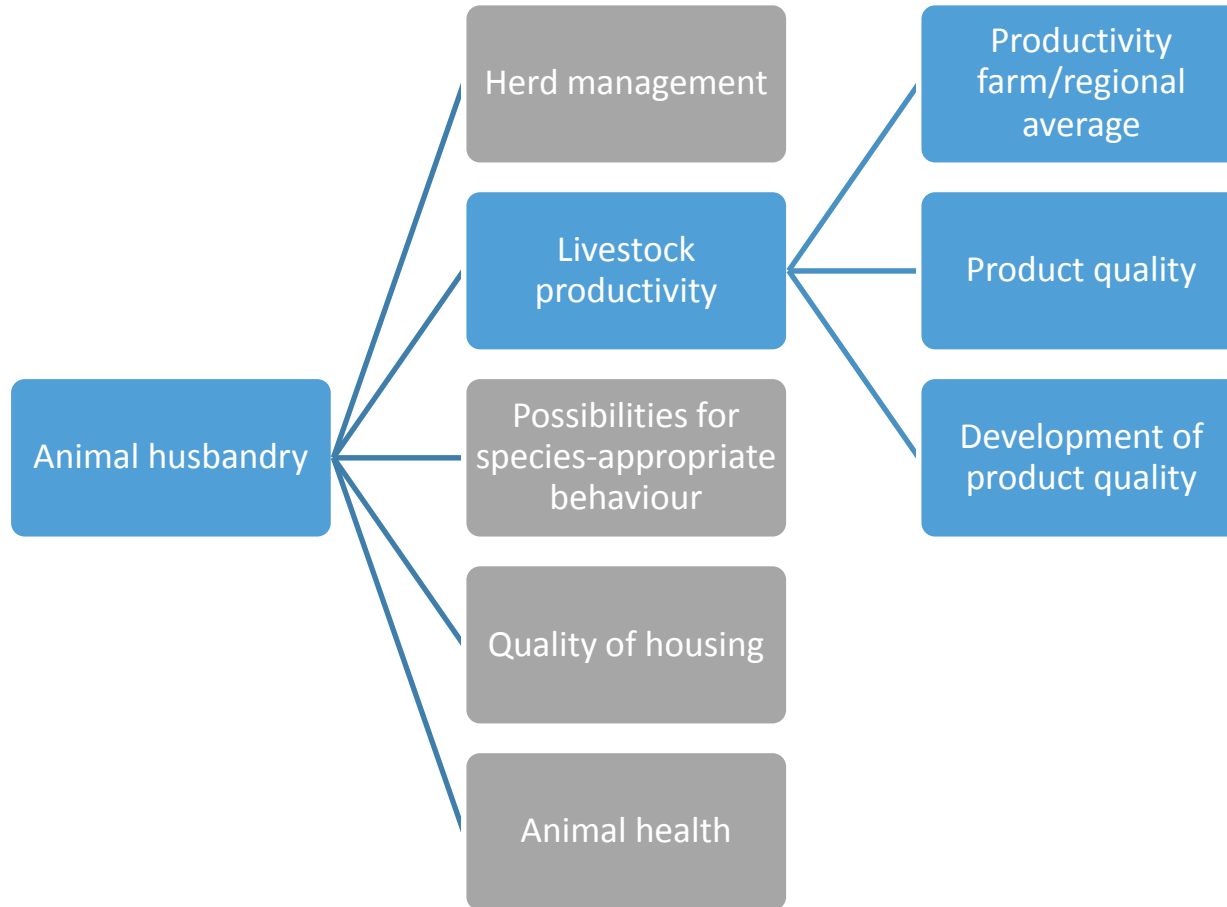
- RISE 2.0
- 10 trained consultants
- Results of 37 farms
 - 4 sectors: vegetable, dairy, pigs and poultry

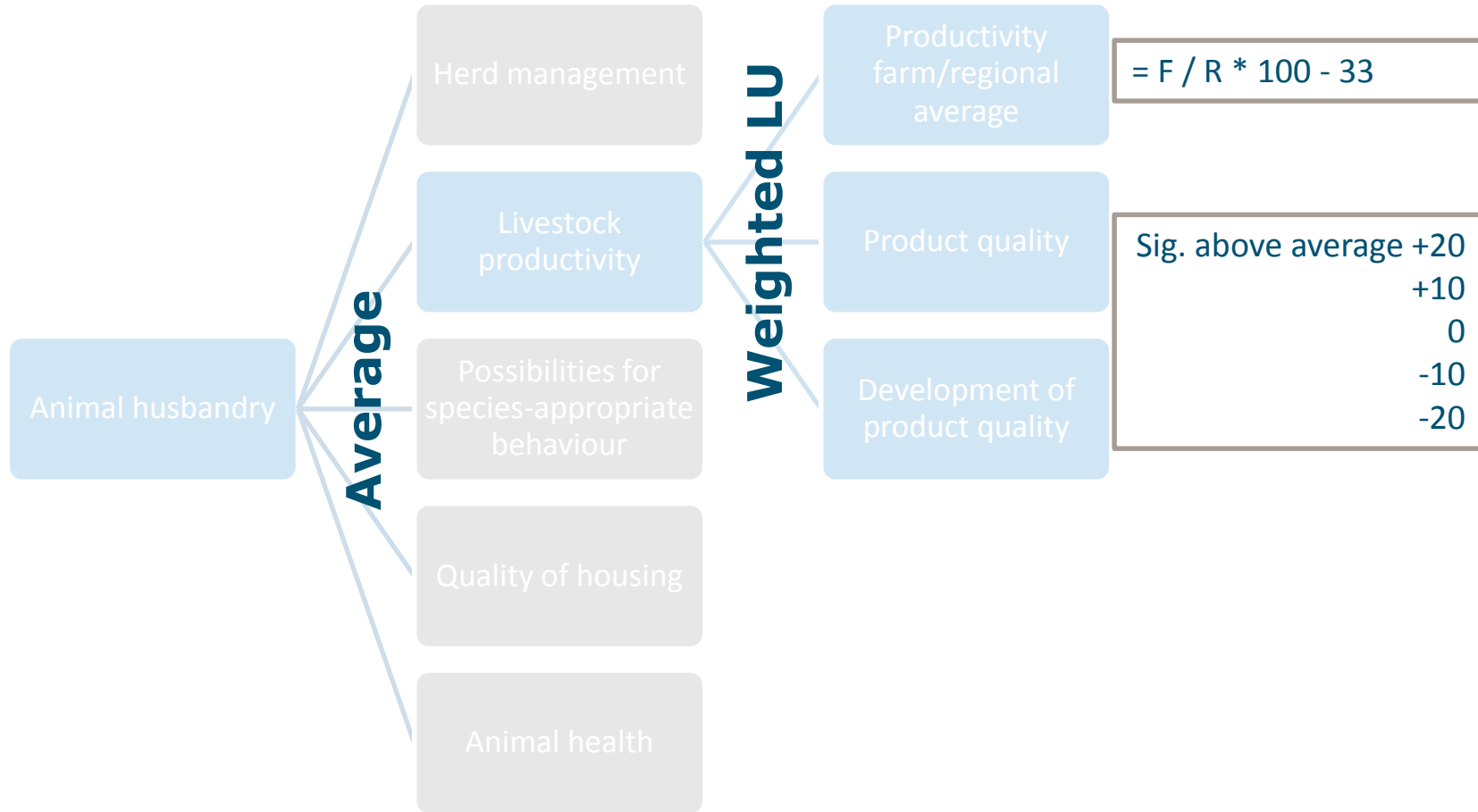
Sustainability performance of organic farms in Denmark



Animal husbandry







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Assessing sustainability at farm level

1. Literature study – overview of 48 tools
2. Selection criteria
 - RISE, SAFA, PG, IDEA
3. Comparison of tools in practice
4. Relevance according to farmers



Assessing sustainability at farm level

	RISE	SAFA	PG	IDEA
Origin	HAFL, CH	FAO	ORC, UK	France
Themes - indicators	10 - 156	21 - 116	11 - 185	10 - 126
Scoring	0 - 100	1 - 5	1 - 5	variable
Time	7:00	2:30	3:00	3:10

- Themes and indicators
- Scoring and aggregation
- Data and time requirements

Assessing sustainability at farm level

- Relevance perceived by farmers
 - Context
 - Complexity
 - Value judgements
- Implementation



Outline

	Adoption & implementation	Variability in tools	Decisions in tools
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The choice of the sustainability assessment tool matters

- Validity & reliability
- RISE, SAFA, PG and IDEA
- Coverage analysis
- Comparison of assessment outcomes

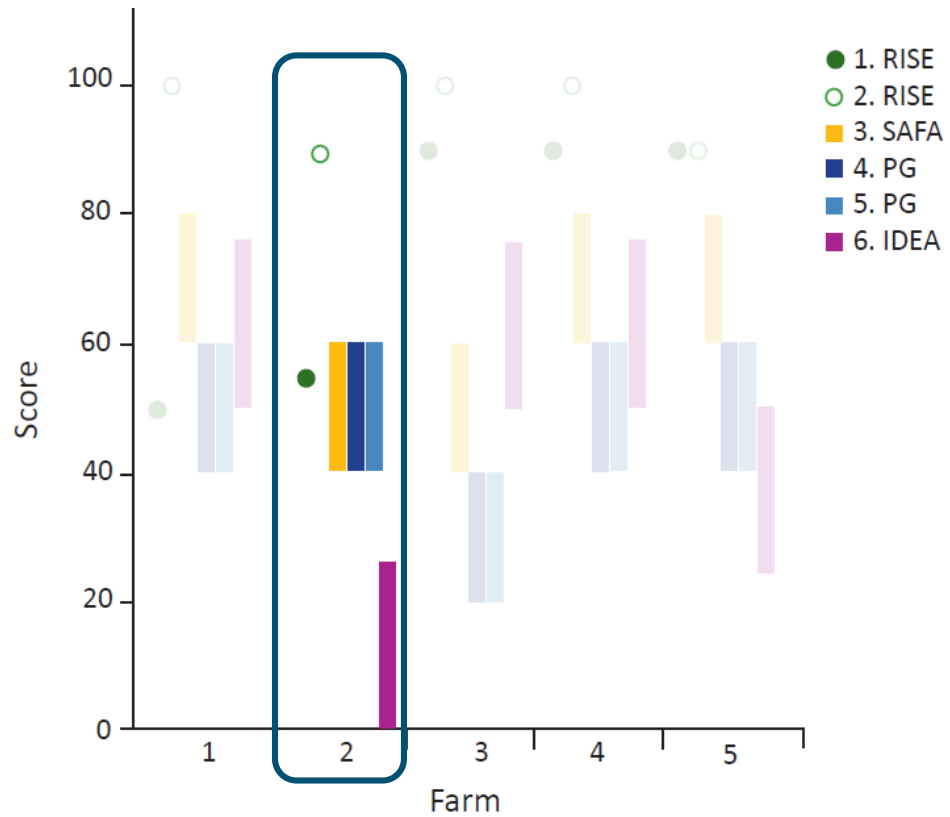


The choice of the sustainability assessment tool matters

- Terminology
 - Indicator, question, criteria
- Content and approach
 - Themes and indicators
 - Auditor, aggregation and scoring
- Results
 - Animal welfare

Tool	Subthemes	Ind.	Assessment	Assessor	Scores
RISE	Possibilities for species-appropriate behavior	2	List of criteria; per animal category	Trained consultant	0 - 100
	Quality of housing	5	On 3 levels; per animal category		
SAFA	Freedom from stress	3	Practices, observations, per animal category	Consultant or expert	1 - 5
PG	Ability to perform natural behaviours	5	Questions to farmer on practices and behaviour	Farmer	1 - 5
	Housing	4	Questions to farmer on practices		
IDEA	Animal welfare	6	Self assessment farmer	Farmer	0 - 3



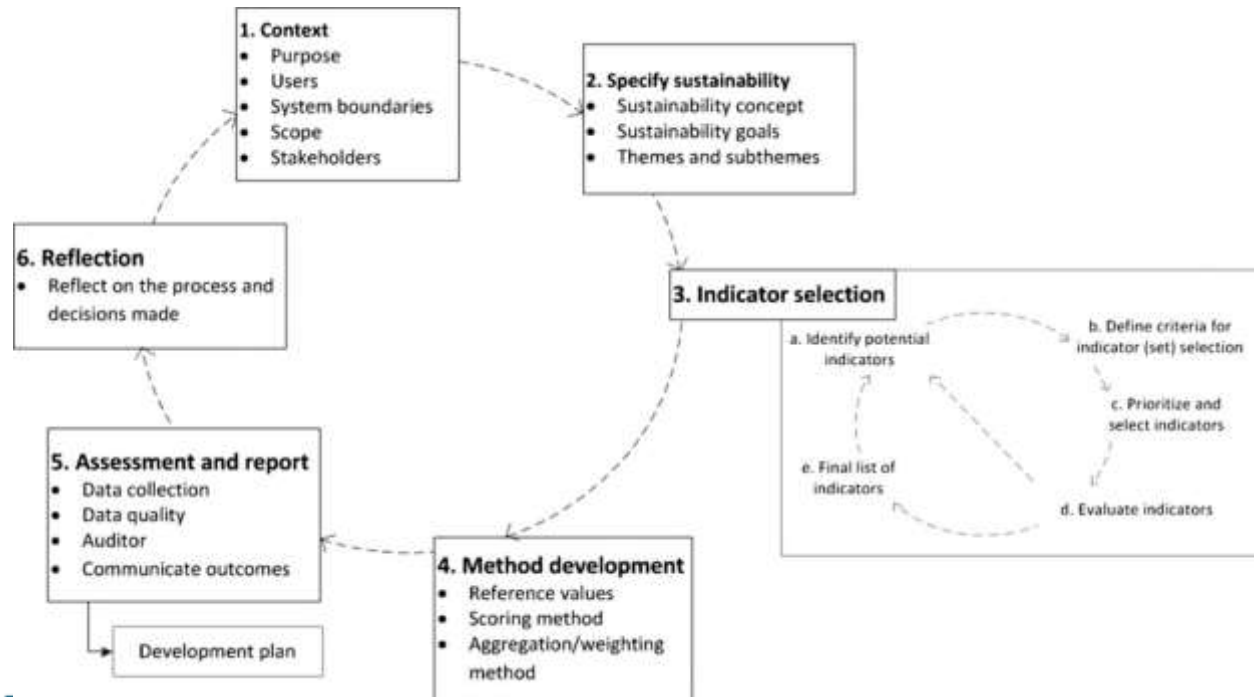


The choice of the sustainability assessment tool matters

- Type of indicators
- Auditor
- Scoring and aggregation
- Value judgements
- Reliability and validity
- Implementation



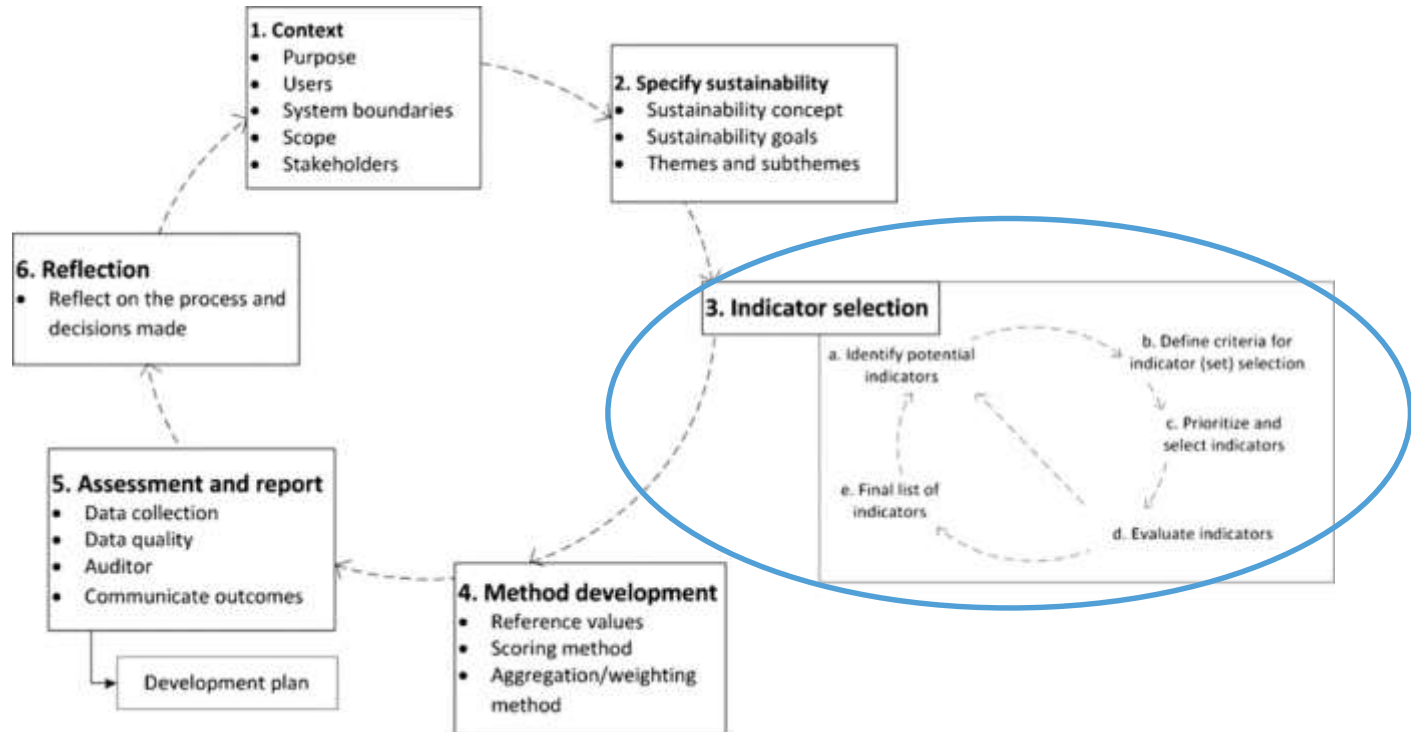
Decisions made in the development of sustainability assessment tool matter



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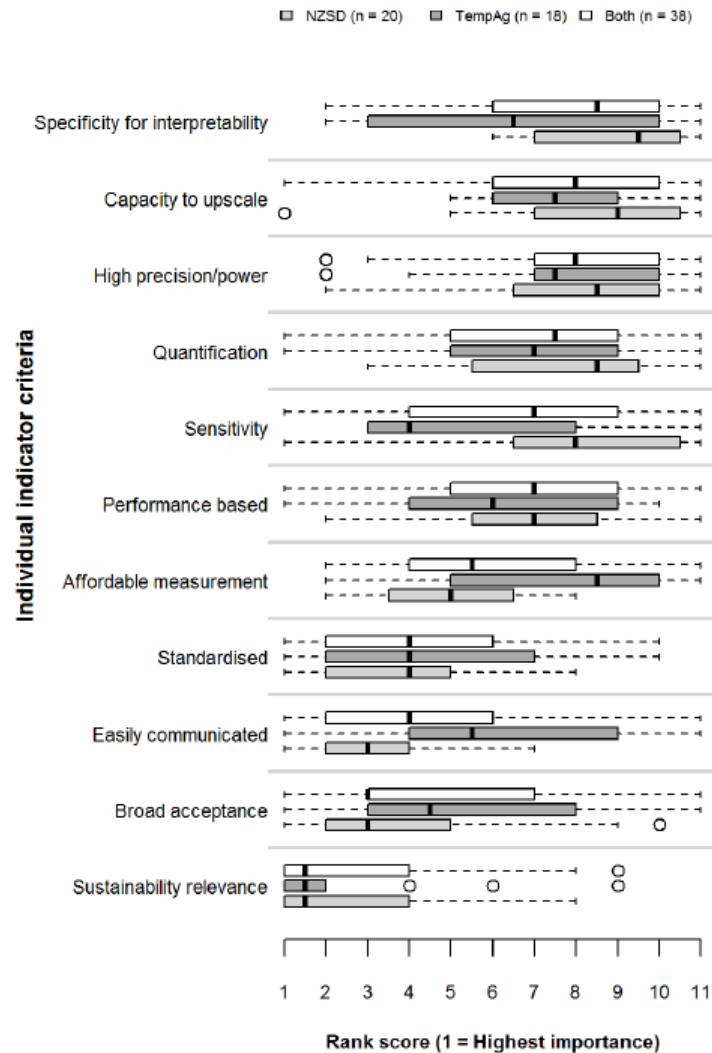
When experts disagree ...



When experts disagree ...

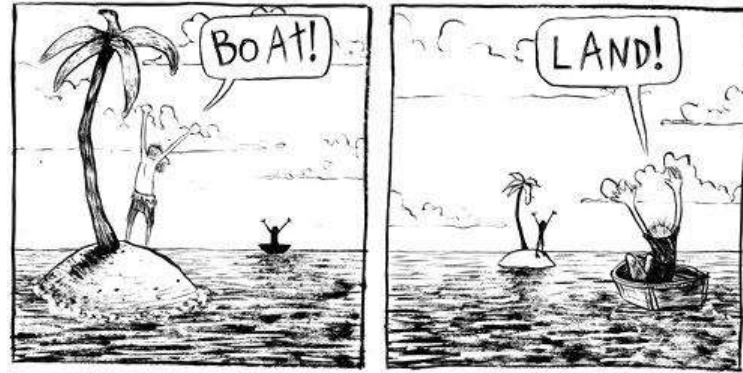
- 11 criteria for indicator selection
 - Sustainability relevance, affordable, sensitivity
- 9 criteria for indicator set selection
 - Participation, policy relevant, transparency
- Expert ranking
 - TempAg (18)
 - NZSD (20)

- Kendall's $W = 0.31$



When experts disagree ...

- Priorities
- Context
- Frame of reference
 - Knowledge, norms, values, interest, convictions



Sustainable development of agriculture: contribution of farm-level assessment tools

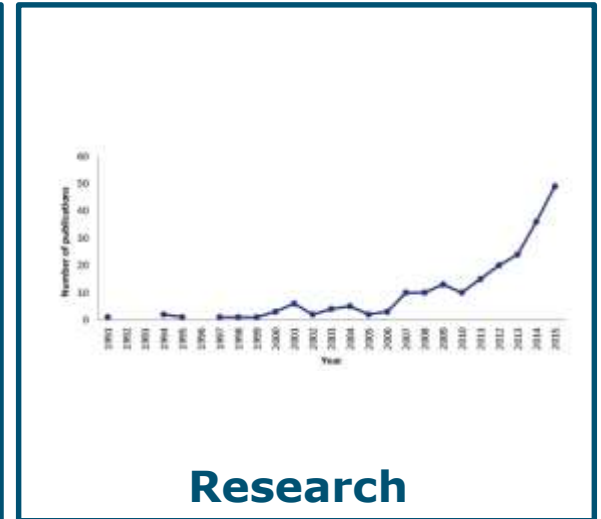
- Adoption & implementation
- Variability
- Decisions

Recommendations

- Transparency
- Harmonisation
- Participation
- Implementation
 - Drivers



External drivers



Current projects



Market



Policy narratives

Policy



Research

Thanks!

evelien.deolde@wur.nl

