

# Stakeholders perceptions of sustainability measurement at farm level.

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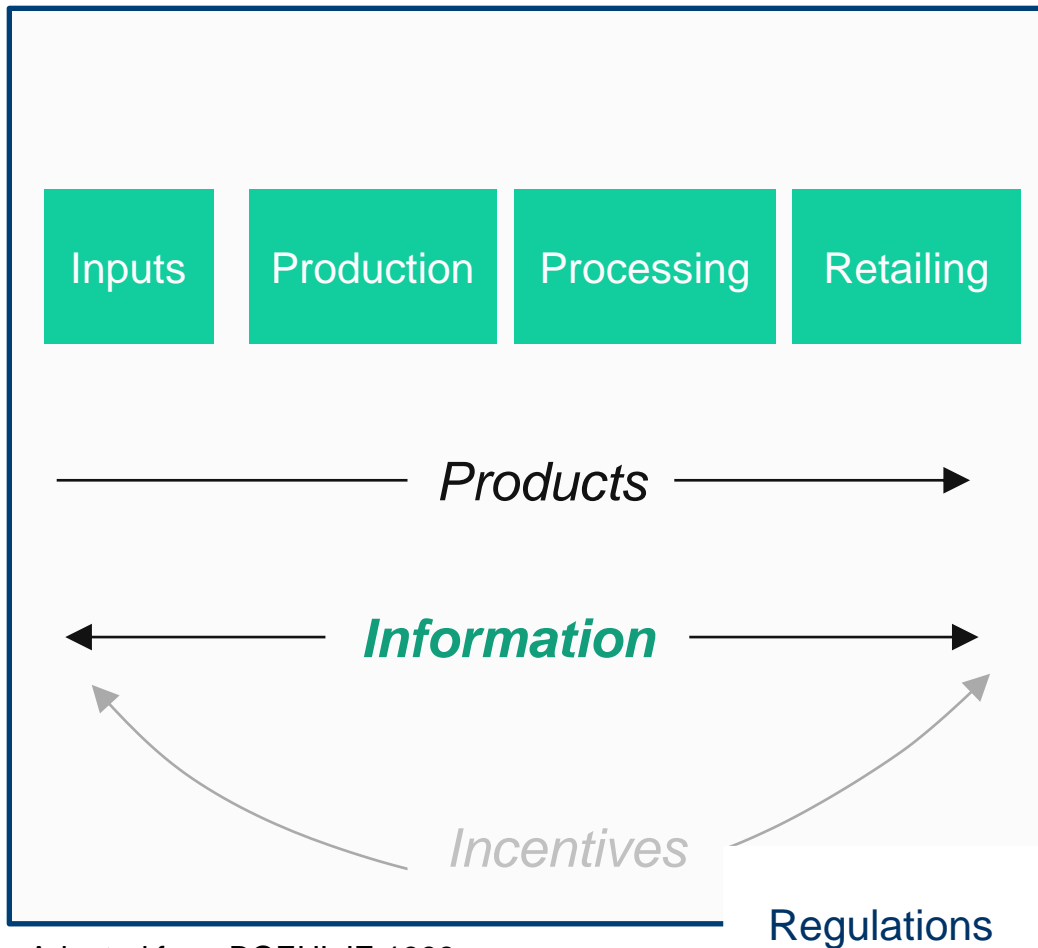
*GEWISOLA 2015*

## Outline

What do stakeholders think about the introduction of sustainability indicators at farm level?

- Background and objective
- Research methods
- Results
- Conclusions
- Final considerations

# 1. Sustainability in agriculture: What should be measured?



Adapted from BOEHLJE, 1999

-Products and information flows

-**No consensus** on metrics

-Indicators: scientific and policy units

-**Untamed** problem:

-Uncertainty

-Multiple valid perspectives

-Not possible to solve, only to manage

-Stakeholders dialog necessary

## 2. Aim of the research

- Explore **stakeholders perceptions** regarding feasibility and usefulness of the measurement of sustainability indicators at farm level.

→ Part of a research project (**FLINT**) which objective is to test the feasibility and usability of collecting and using sustainability indicators aligned with Farm Accountancy Data Network (FADN) for policy evaluation.

→ ***What should be measured?***

→ ***What should be added?***

### 3. Research methods

**Qualitative inquiry:** getting insights and perceptions of the people involved in the process.

**1**

#### Stakeholder identification

*-Who collect, store, analyze and report?*

*-Who is interested or is a potential user?*

*-Who could oppose?*

**2**

#### Design of consultation tools

*-Pilot test*

*-Discussion groups and interviews:  
--open-ended questions  
--assess indicators*

*-Guideline manual*

**3**

#### Conducting the consultation

*13 discussion groups*

*86 interviews*

**61 reports**

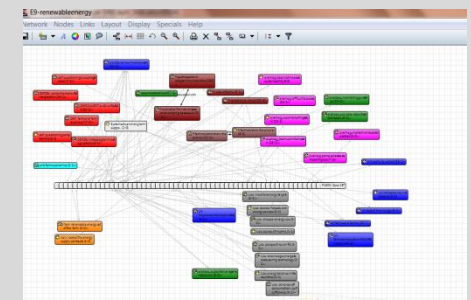
*174 persons*

**4**

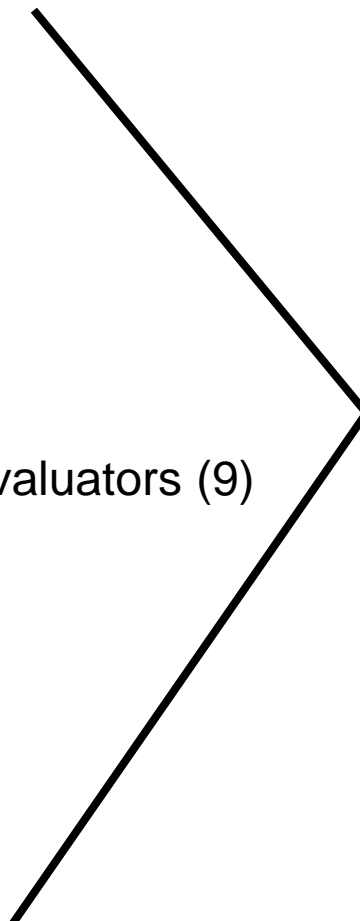
#### Analysis

**Coding** (2 cycles)

*Linking codes to find patterns*



### Stakeholder groups

- Farmers (58)
  - Farm advisors (13)
  - Farm data collectors (46)
  - FADN representatives (9)
  - Policy makers and/ or policy evaluators (9)
  - Scientific and academics (11)
  - Farmers representatives (3)
  - Value chain actors (14)
- 

### Perceptions on

**Exchange and use of farm level-data**

**Feasibility and usefulness of 33 sustainability indicators at farm level**

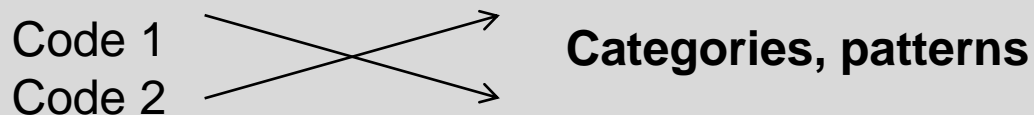
- 17 environmental indicators
- 9 innovation& economic -not including FADN indicators-
- 7 social indicators

	Finland	France	Germany	Greece	Hungary	Ireland	Netherlands	Poland	Spain	Total
Farm advisors	3	1	1	1	4	5	2		1	13
FADN data collectors (Farm advisors and FADN data collectors)		1		1	4	6		24	10	46
FADN representatives	1	4	2	1					2	9
Farmers		1	8	5	4		6	23	15	58
Farmers representatives	1				1				1	3
Policy makers-policy evaluators		1		3	3	3		2		9
Scientific, academic, researcher	3	1		3		1	1	3	2	11
Value chain actors (non- farmers)	1	2			3	2	3		3	14
Total	9	11	11	14	14	17	12	52	34	174

1. Perceptions about **exchange** and **use of farm level-data**

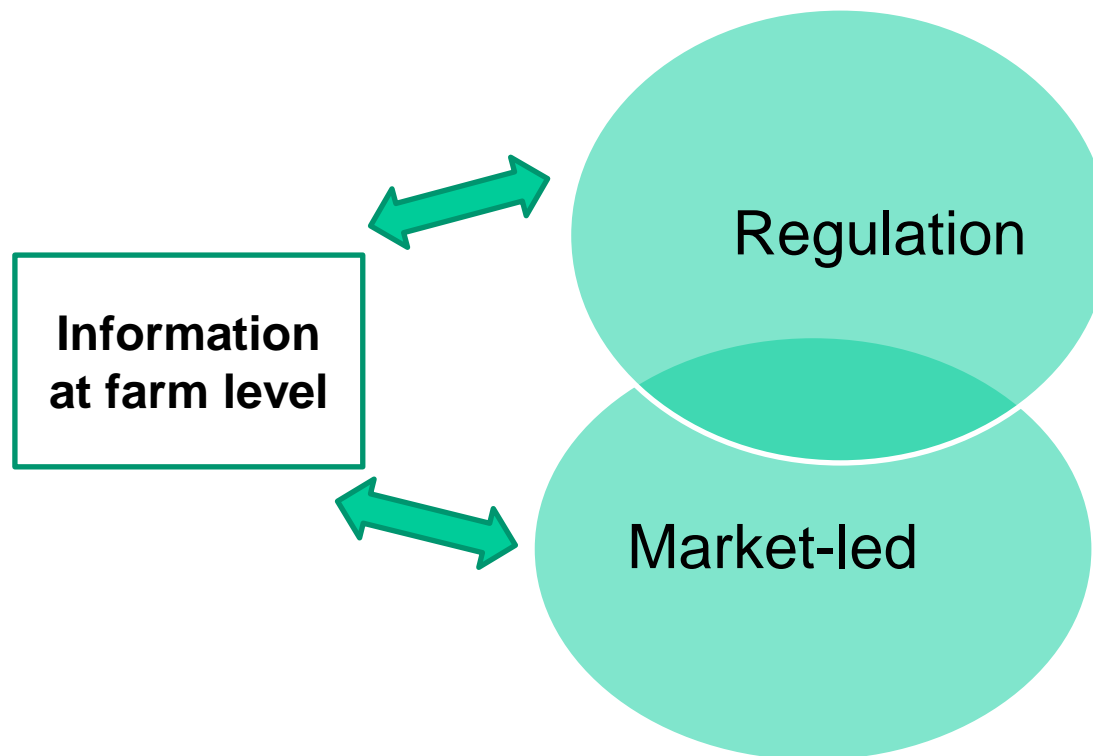
2. **Assessment and perceptions toward feasibility and usefulness** of sustainability indicators at farm level

Results of qualitative inquiries are the result linking **codes**, searching for **patterns**:





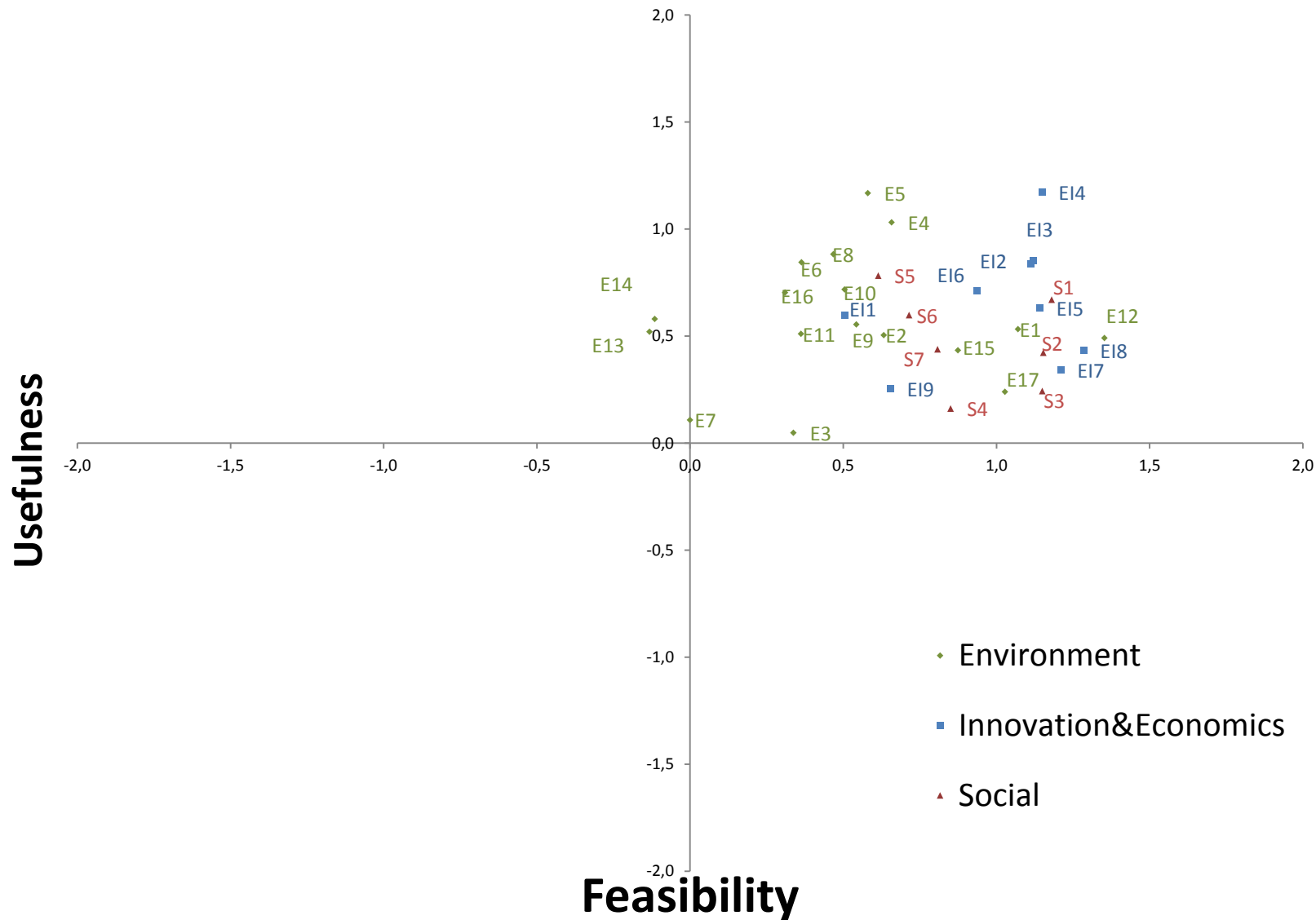
### Information exchange is already happening



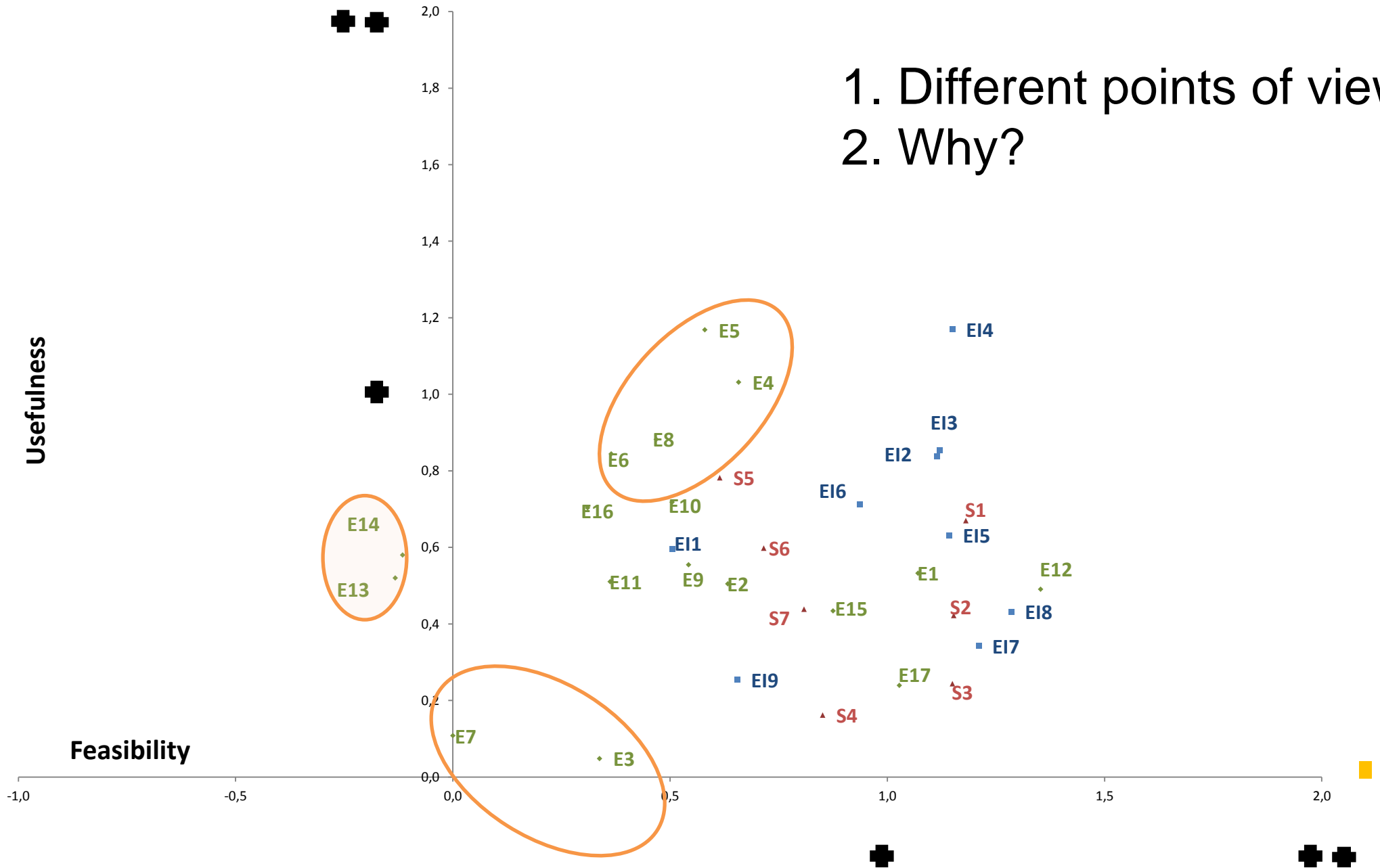
#### What influences this exchange?

- objectives
- information requirements
- trust
- expected benefits and risks
- cooperation between non-farms stakeholders

## 4. Results



1. Different points of view  
2. Why?



# Example of multiple valid perspectives: very useful vrs not useful



E1	Greening: permanent grassland ✕	E11	Innovation	S1	Advisory services / ✕
E2	Greening: Existing/created areas of Ecological Focus Area	E12	Producing under a label or brand //	S2	Education and training / ✕
E3	Semi-natural farmland areas ✕ ✕	E13	Types of market outlet	S3	Ownership-management ✕ ✕ ✕
E4	Pesticide usage (Pesticide risk score) /	E14	Past/Future duration in farming ✕ /	S4	Social engagement/participation ✕ ✕ ✕
E5	Nutrient balance (N, P) // /	E15	Efficiency field parcel ✕	S5	Employment and working conditions ✕ /
E6	Soil organic matter in arable land /	E16	Modernization of the farm investment	S6	Quality of life/Decision Making ✕
E7	Indirect energy usage ✕ ✕ ✕	E17	Insurance: production, personal & farm (building structure) ✕ ✕	S7	Social diversification: image of farmers/agriculture in local communities ✕ ✕
E8	Direct energy usage /	E18	Share of output under contract with fixed price Delivery ✕		
E9	On-farm renewable energy production //	E19	Non-agricultural activities ✕ ✕		
E10	Farm management to reduce nitrate leaching ✕ /				
E11	Farm management to reduce soil erosion				
E12	Use of legumes ✕				
E13	GHG Emissions per ha ✕				
E14	GHG emissions per product ✕ /				
E15	Carbon sequestering land uses ✕ /				
E16	Water usage and storage /				
E17	Irrigation practices /				

- 1 Farmers
- 2 Data collectors
- 3 FADN
- 4 Researchers
- 5 Value chain
- 6 Policy makers

- „ Farmers become reserved when those topics get in to the table. But If you have trusty reputation they become active partners“ *Farm advisor*
- „ This [the indicator] is for inform others, not for use at farm level“ *Farmer*
- „It makes sense to collect some information, even when it could not be used at farm level“ *Farmer*
- „ Easy at farm level; difficult at parcel level“ *Data collector*
- „There are fact, lies and statistics. It is not difficult to collect data, it is much more difficult to understand data“ *Researcher*
- „Retailers are not really interested in that type of information“ *Value chain actor*

## 4. Results

- **Feasibility**
  - Type of data
    - Evidence based/Best estimate/Calculation/Perception
  - Level of measurement, collection, allocation and calculation
    - Household/farmer/farm/plot/parcel/crop/product
  - Availability in the current system
    - Already in the farm bookkeeping/mandatory/requested by costumers/part of existing data bases
  - Farm characteristics
    - Size/type/fragmentation/region
  - Farmer attitude
    - Sensitiveness of information/trust in researchers or policy makers

## 4. Results

- **Usefulness**
  - Causal relationship between variables and objectives
  - Knowledge to interpret and compare
  - Level of the report
    - Farm/ plot/ crop/ product
  - Relevance of the objective behind indicators
  - Perceived potential use of the indicator:
    - Decision making or planning/Inform or communicate
  - Type of farm: size, type, region and farm objectives



- All indicators are perceived as feasible, except GHG emissions
- What influences **feasibility**: type of data, availability in the farm records, relationship (trust), farm characteristics
- What influences **usefulness**: relevance of the problem expected to address, expected use, capacity to be interpreted and inferred and farm characteristics.
- Important for communication
- **Its not the indicator itself** but the context: between researchers and users





- Strengths and limitations of qualitative inquiries
- Objective:support decision making vrs pure qualitative applied research
  - Flexibility of methods
  - Several interviewers, several languages
  - No verbatim transcriptions, no double coding, no triangulation
- Evaluation of methods

# References

**BOEHLJE, MICHAEL (1999) Structural Changes in the Agricultural Industries: How do we measure, analyze and understand them? In American Journal Of Agricultural Economics 81(5) Pp. 1028-1041**



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# Thank you

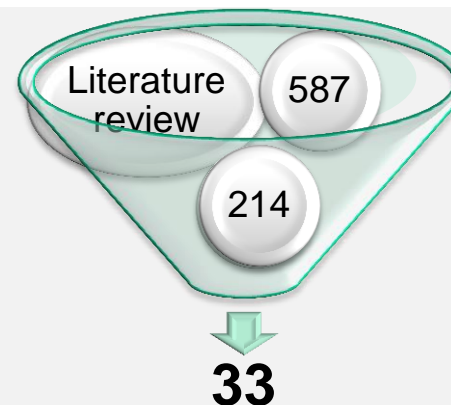


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	INDICATOR
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<http://www.flint-fp7.eu/Partners.html>