Documenting crop diversification experiences across Europe – the DiverIMPACTS Expert Survey

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Why document CDEs?

• Lock-ins of crop diversification can prevent cropping systems from becoming more diversified.
• Survey was conducted with local experts (advisors, researchers, farmers, etc.) between Januar-April 2018 to document CDEs.

• Rotation, Intercropping, Multiple Cropping in arable production.

Aims of analyses:
   a) List of success and failure factors of experiences

   b) Understanding connections between these factors and the main characteristics of Crop Diversification Experiences.
About the survey

• Lime Survey tool was used
• Survey had 3 sections, 72 questions and subquestions:

  a) Section A: **Description** of CDE (34 questions)
  b) Section B: **Evaluation** of CDE (24 questions)
  c) Section C: **Dynamics** of CDE (14 questions)

Lot of conditional questions, only few open-end questions.
• **128 valid responses** were received from **15 European countries**: Belgium, France, Germany, Hungary, Italy, the Netherlands, Poland, Romania, Sweden, Switzerland, and UK, but also from Denmark, Finland, Luxemburg, and Spain.

• Statistics were performed with SPSS Version 22
  
  a) Relations between variables
  b) Differences between variable groups
  c) Grouping of dataset according to specific factors
What were the reported experiences?

The most frequent crops added to the rotation were **cereals** and **oilseed crops**, **legumes** and **cover crops**.

(Drexler et al. 2019)
Most frequent targeted outcomes of CDEs

1. Environmental preservation (62% of CDEs)

2. Improved crop production stability (52% of CDEs)

3. Higher economic income (52% of CDEs)
Was the CDE successful? Self evaluation

- New value chain
- New production cooperative
- New information support tools for professionals
- New industrial product
- New food product
- New feed product
- New certification label
- Lower input levels
- Landscape aesthetics
- Improved environmental preservation
- Improved crop production stability
- Higher yield levels
- Higher economic income
- Compliance to legal requirements
- Better cash crop quality

Count

- not at all successful
- slightly successful
- moderately successful
- successful
- overwhelmingly successful
More targeted outcomes, higher success

Spearman’s Rho: 0.238**
Correlation is significant at the 0.01 level
Reported success and failure factors

Failure: Economic + inputs
Success: Human resources + tools

The most important technical aspect, mentioned several times in open questions, was the challenge of processing mixed or new crops.
Experienced enablers and drawbacks

Economic and agronomic aspects, public policy and personal interactions are the key.

Key drivers for success are thus **people**, their **knowledge**, **commitment** and **interactions**.
Conclusions

• The more targeted outcomes, the higher success evaluation, and the better distribution of results to practice.

• **People are the most important success factors** – Professional knowledge, engagement, cooperation.

• **Most important failure factors were economic** (market, financial resources).

• Key turning points are **economic and agronomic factors, and public policy**, that were experienced by experts as both important enablers and drawbacks.
Thank you for your attention!

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