Integration of Farm Financial Accounting and Farm Management Information Systems for better Sustainability Reporting

Hans Vrolijk, Krijn Poppe and Ivor Bosloper

28th Pacioli Workshop, Ptuj, Slovenia, October 1-4,2023

WAGENINGEN UNIVERSITY & RESEARCH

Background

Farmers face **an increasing administrative burden**, as agricultural policies and certification systems of trade partners ask for more sustainability reporting.

Family farms do not collect much data for internal management, but external demand for sustainability data can partly be fulfilled by **reorganizing data management in the farm office**.

Objective

- Design an artifact, a dashboard for sustainability reporting based on the **integration of information flows** from farm financial accounting systems and farm management information systems

Methods and materials

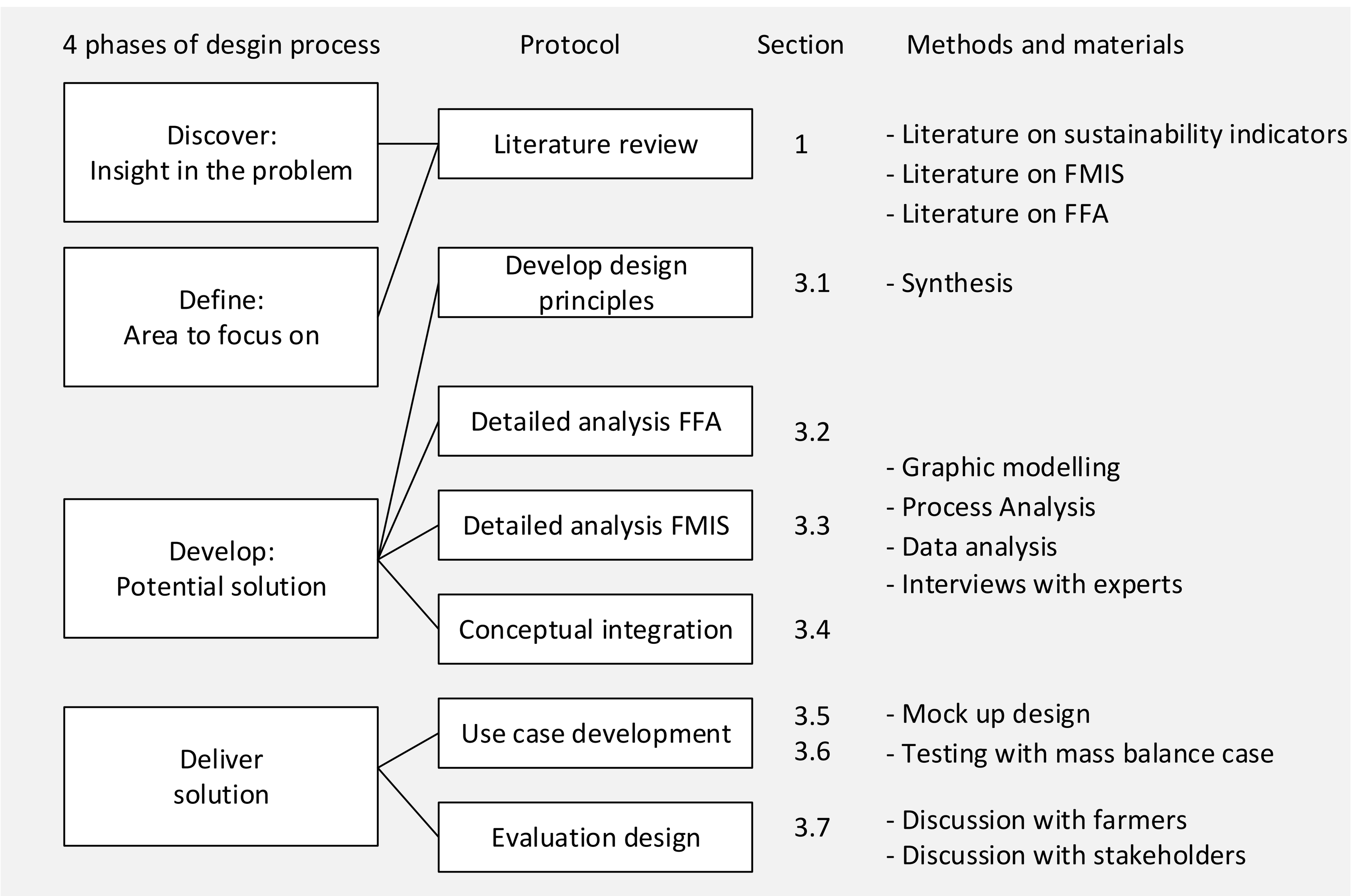

Figure 1. Outline of the study: design phases, protocol, and detailed methods and materials.

Two main sources of farm information

Farm Financial Accounting (FFA) uses financial transactions to calculate financial statements (for income taxes and financial management).

Farm Management Information System (FMIS)
developed out of field records / animal records and register inputs and outputs to guide operational and tactical management decisions.

FFA focus on monetary flows (euros) and assets, FMIS on volumes and product flows within the farm.

Integration of FMIS and FAA

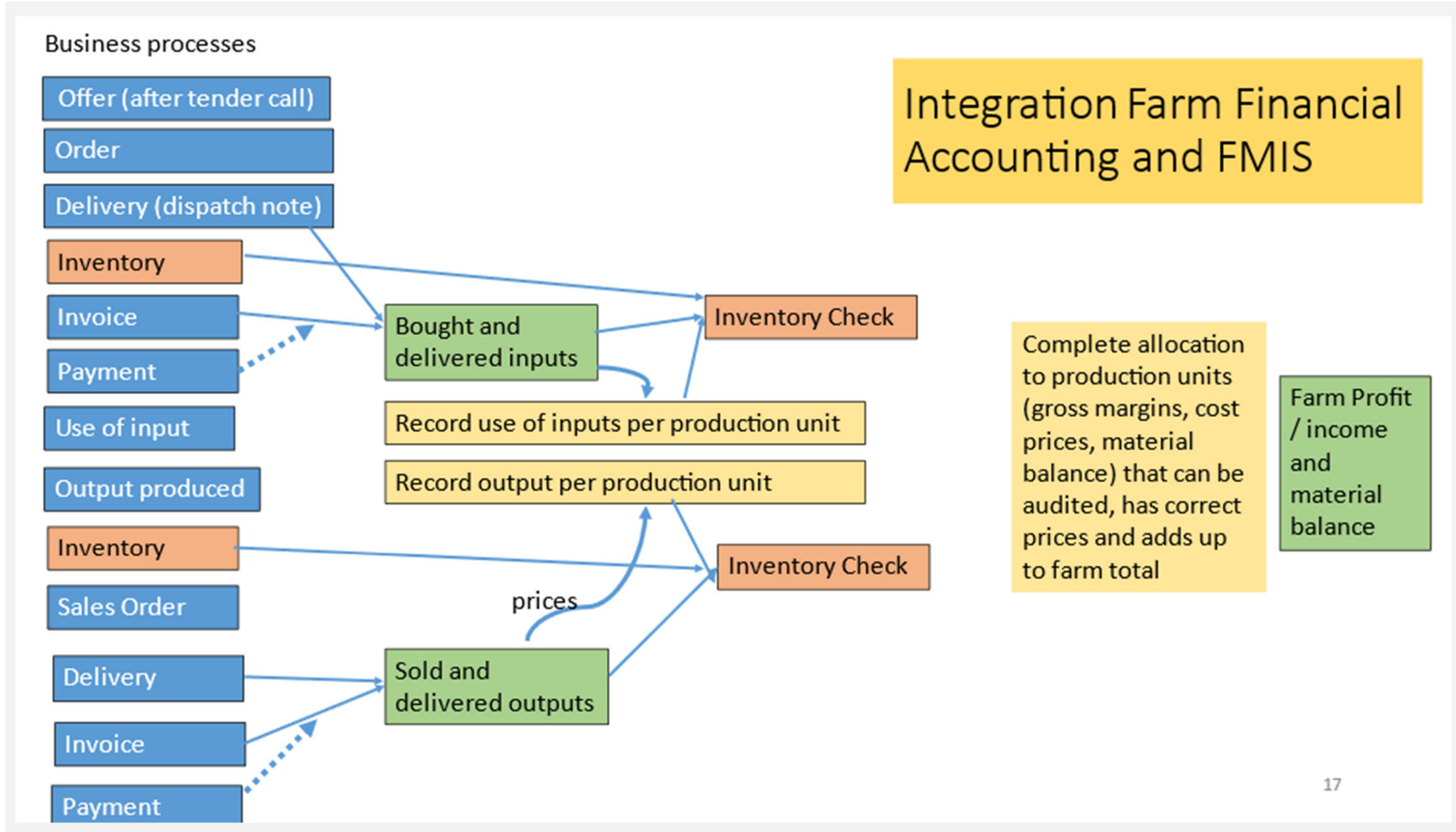

Figure 2. How Farm Financial Accounting and Farm Management Information Systems can document the business process in an integrated way.

Next steps

- **Digitization of paper flows** is a collaborative undertaking in which governments could take the lead, in a voluntary approach or by obliging digitalization.
- Provision of data for **FSDN** and to monitor eco-schemes, organic certification and cross compliance.
- The design of an integrated workflow for sustainability reporting has **relevance for the private sector**, as many food chain companies have an interest in farm data
- The **obstacles that need to be solved** are: fear of transparency, the self-interest of food chain partners, and the competencies of companies.

Conclusions

- The increasing **need for sustainability reporting could be met** by better use and integration of data flows at the farm.
- Integration leads to an easy-to-use digital dashboard in which **data are coherent and verifiable**
- Potential to integrate sustainability considerations in **day-today management** decisions.
- The integrated FFAs-FMISs approach could be embedded in a **certification process for all farmers** who benefit from the CAP.

Further Reading

Poppe, K.; Vrolijk, H.; Bosloper, I. Integration of Farm Financial Accounting and Farm Management Information Systems for Better Sustainability Reporting. *Electronics* **2023**, *12*, 1485.https://doi.org/10.3390/electronics12061485

Poppe, K.; Vrolijk, H.; de Graaf, N.; van Dijk, R.; Dillon, E.; Donnellan, T. Sustainability Monitoring with Robotic Accounting—Integration of Financial and Environmental Farm Data. *Sustainability* **2022**, *14*, 6756. https://doi.org/10.3390/su14116756

Wageningen University & Research
P.O. Box 123, 6700 AB Wageningen
Contact: Hans.Vrolijk@Wur.NL