

PRACTICE ABSTRACT

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To innovate toward producing nitrate or pesticide-free waters, researchers implemented 'design workshops' to explore and build in abstract new solutions to a complex design problem. In the 12 case studies, cropping systems and decision support tools were designed to address a variety of operational problems. All the workshops involved future users of the designed solutions. A comprehensive cross-analysis led to methodological lessons for the organization of design workshops involving future us.

3 recommendations for the preparation of the workshops:

The formulation of the design target should be ambitious, prospective, realistic, and stimulating, starting with a precise framework of objectives and constraints;

The choice of stakeholders: open-minded participants with the same job, future users of the designed solution, and actors who have already imagined and implemented innovative practices;

A knowledge-sharing phase preceding the collective exploration phase for enhancing creativity with disruptive examples;

4 recommendations for their implementation:

The broadness of the exploration: reducing the range of concepts explored did not limit their disruptiveness; To manage the systemic nature of the solutions, sequencing the meetings, and splitting the complex objects into sub-systems, appeared as a means of organizing their design efficiently;

Intermediate objects may be used to ease the design process by contributing to visualising the interactions within the solution under design;

Facilitation is crucial. It consists in: managing the progress of collective design, encouraging participants to avoid fixation effects and making explicit the knowledge on which their ideas are based.

Here are new insights for future design workshop organizers eager to promote collective design in agriculture and feed open innovation processes.