



Agrologa

Competitiveness

Optimisation of decision-making







Local project both publicly and privately



Switzerland: Cantons of Bern and Freiburg (Seeland territory)



Number of partners: 10 Lead Partner: Agricultural Institute of Grangeneuve (AIG)



2016 - ongoing



- AIG: €22,500/year

- Producer association: €375

- Water unions: e.g. €5 M invested by one water-union (for irrigation infrastructures)

Interesting links/videos/reports



A little bit more about Agrolora

Water availability for vegetable farmers is an important issue in the Seeland territory, which is mainly located in the cantons of Freiburg and Bern. There is a need for efficient management of natural resources to ensure sustainability of the vegetable

The overall goal of the project is to develop an irrigation system that optimises the use and preserves the resource of water, and that minimises irrigation costs for Swiss vegetable production on a surface of around 3,000 ha in the Seeland

The project tests the functionality, reliability, and scalability of an automatic irrigation system that uses sensors and the Lora technology for data collection & data transfer.

"Data can be transferred at a low cost using this technology, compared, for example, to mobile telephone technologies that are expensive, energy intensive, and for which batteries have to be changed frequently"

Key activities undertaken by the case study actors:

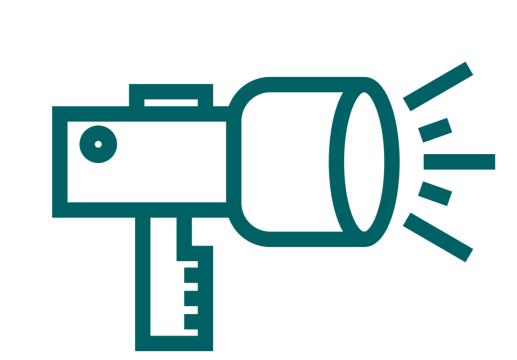
(1) Collection of the needs of water-unions; (2) Stakeholder workshop to discuss irrigation and projectrelated issues and ideas;

(3) Exploring different possible solutions in terms of coverage of the Lora technology, the quantity of sensors needed, the communication scheme and display of the data; (4) Development of the dashboard by one of the involved

(5) Testing of the system in Grangeneuve by the leading agricultural Institute (AIG).

"The easiest way is to have a system that allows seeing how much water is being used; to give the signal to an irrigation system or to the producer; and to generate invoices automatically"

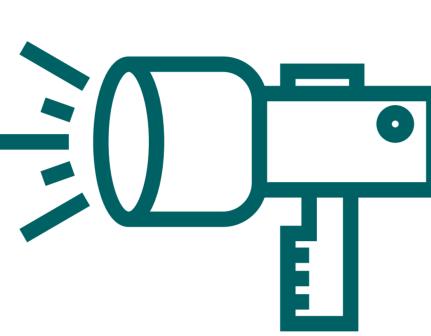
Highlights!



Internal funding, with a simple application process

Steep learning curve for non- agricultural specialists

Mostly informal collaborations



Good Practices & Lessons Learned



Subventionierung von Bewässerungen (Subsidising

Bewässerungsmanagement im Gemüsebau (Efficient

irrigation management), p.3:

https://www.gemueseschweiz.ch/gmueesblatt.html?file=

tl_files/download/Produzent/Gmuesblatt/2019/2019-

03_Gmuesblatt.pdf

http://www.wikimelio.ch/dok/Nr_40_Evaluation_von_z wei_subventionierten_Bewaesserungsproj.pdf

Effizientes Bewässerungsmanagement (Irrigation management in vegetable growing), p.3:

https://www.vulgfr.ch/index.php/de/dokumente/herunterladen/1diestation/1 3infoblatt/990-infoblatt-n-138/file

Innovation in Agrolora

The innovation is intended to control irrigation valves, to optimise watering for Swiss vegetable producers, and to mitigate the cost of water consumption. It relies on weather monitoring as well as monitoring of water capacity in the soil and water consumption.

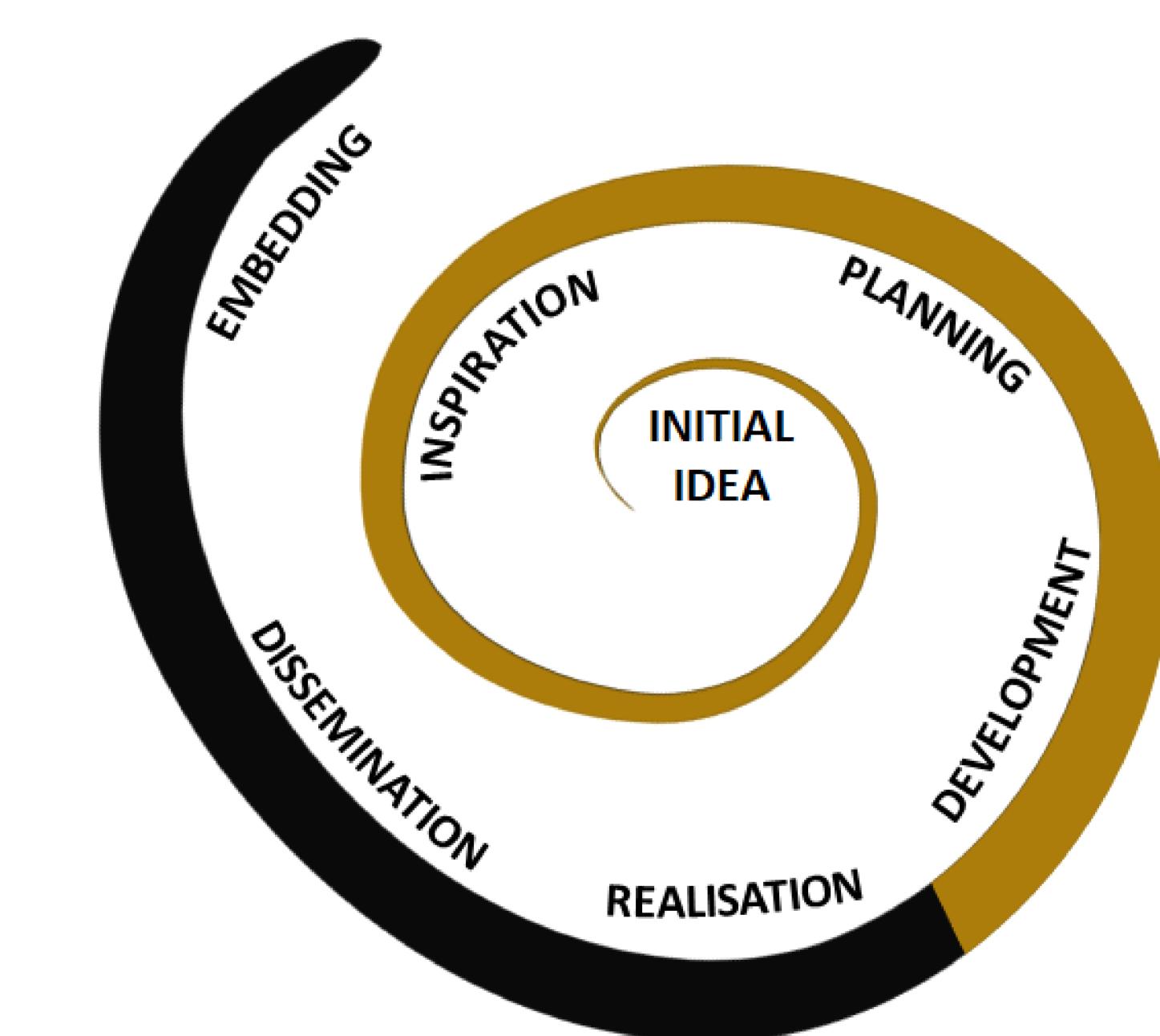
Innovation and co-creation in Agrolora

The interactive innovation case has moved from developing the initial idea through to the development phase. The initial idea was developed from the problem of water availability for farmers. Water-unions have developed, in collaboration with the lead institute, the idea to renovate or create irrigation infrastructures to be able to supply enough water. On their side, the lead institute had the idea to reduce the use of water by developing a new and automatised irrigation system. Such a new irrigation system, automatically controlled, is being developed and tested.

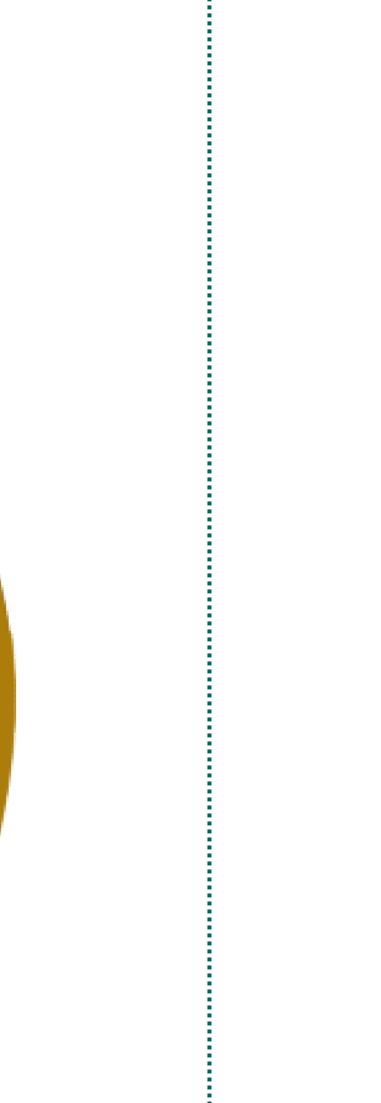
Co-creation in Agrolora

A stakeholder workshop was organised in Dec. 2018 after the Federal Office for Agriculture (FOAG) rejected the grant proposal developed by the lead institute, one university, and one water-union. It contributed to the definition of the projects' objectives.

Generally speaking, contacts are informal and the actors update each other in various ways, during coffee breaks



"I always like to reflect on the practice. [....] My strategy is to present the ideas in practice and also to justify what we are doing, what the honofits are and what



Interaction with the funding mechanism



Interaction between the case study partners



Need to be precise in funding contracts, i.e. to specify in detail the different tasks envisaged, with the corresponding timing and allocated budget.

All potentially interested and concerned actors were involved in a preliminary workshop. Actors could express their needs, interests, and better understand the concept.

Report sent to farmers by one water-union to explain their objectives and possible ways of implementing irrigationrelated projects. This was very important, as water-unions need to have all landowners on board to operate.

Simple process to obtain funds internally from the lead institute, but lack of sufficient internal resources. The lack of sufficient resources makes it challenging to collaborate effectively with partners.

The challenge for non-agricultural specialists to become familiar with the context of the agricultural sector and to farmers' needs should be sufficiently considered.

Involvement of one university at the onset, as an advisor or contact person, which appeared to have been a crucial milestone. These "shadow actors" should not be omitted in innovation system analyses.





