DIGITAL TRANSFORMATION OF AGRICULTURE: THE ACCOMPLISHMENTS OF THE SMARTAGRIHUBS PROJECT IN FRANCE

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WHO AM I?

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European Digital Project Manager
Co-lead of RC France
ACTA - Agricultural Technical Coordination Association

SUMMARY

01

Context

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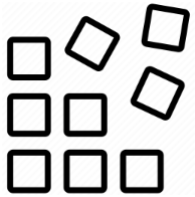
CONTEXT

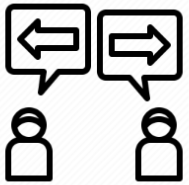
Digital technologies are enabling transformation of agricultural operations by driving systems through data.

→ Digital agriculture could ensure a secure and sustainable supply of quality food, promote resource efficiency, and ultimately participate in the development of the circular economy.

HOWEVER







SMART AGRI HUBS

02

SmartAgriHubs Structure & Network

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SMARTAGRIHUBS STRUCTURE & NETWORK

- EU R&I programme *Horizon 2020*
- Bridge the gap between potential users and creators of digital solutions
- 2018-2022
- 20M€
- Consortia of 164 partners
- 9 Regional Clusters

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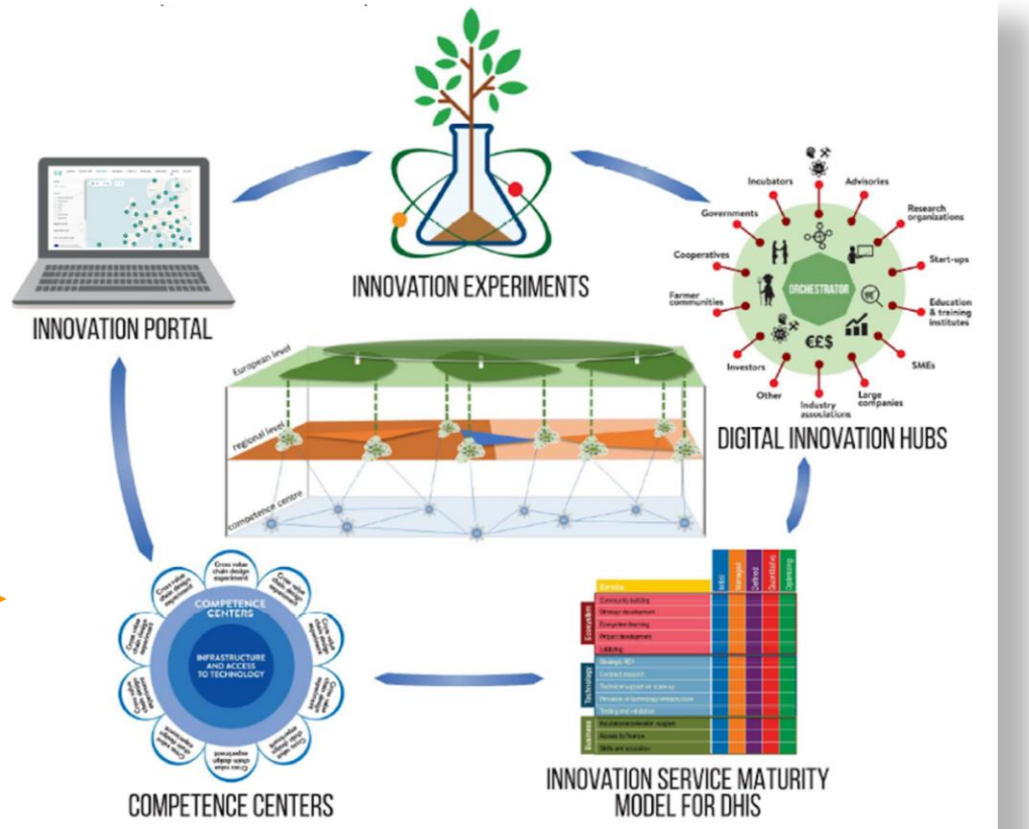
Combination of 5 concepts to build up the multi-layered network



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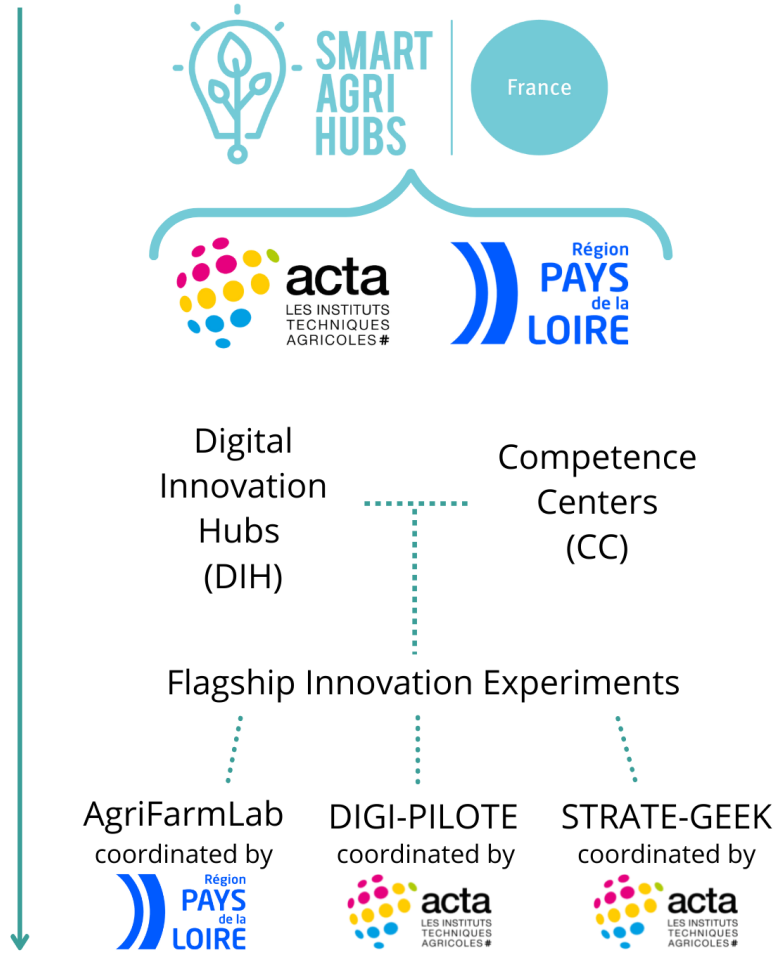
SMARTAGRIHUBS STRUCTURE & NETWORK IN FRANCE

- Supporting FIEs and winner-projects of the open calls
- Structuring and expanding the SAH ecosystem, interconnection of partners
- Promotion of the project and the French AgTech network at the national and European level.

33 DIHs

21 CCs

3 FIEs



03

Project Approaches

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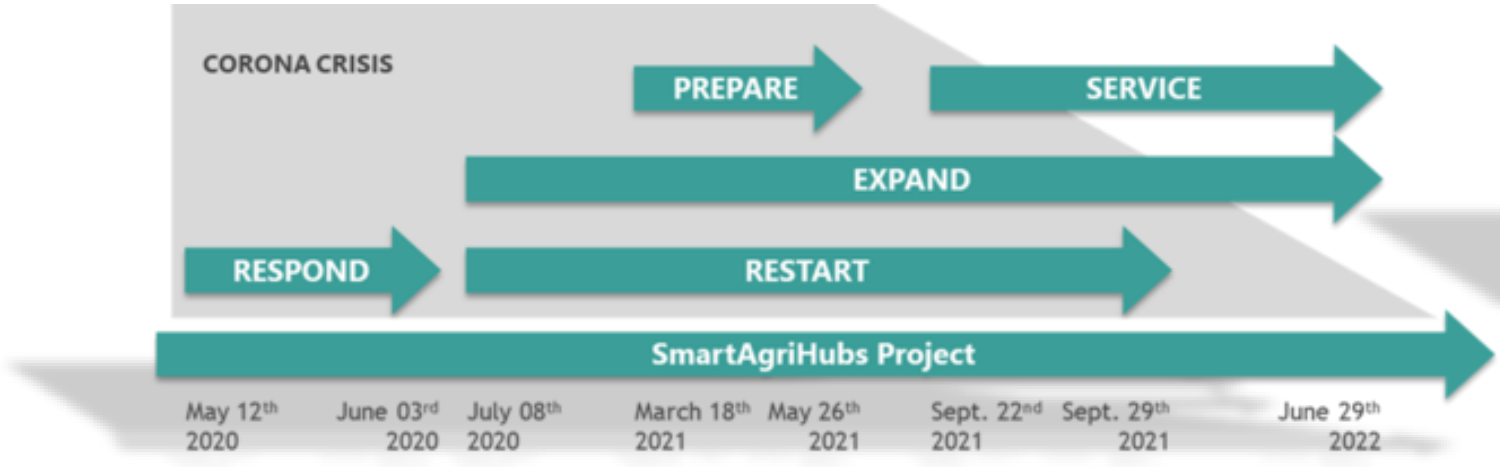
SMARTAGRIHUBS APPROACHES

to the interconnectivity and knowledge sharing between the different stakeholders and end-users

for game-changing innovations in smart farming techniques & incentive for the realisation of new innovation experiences



76 selected proposals

320 organisations

>**5.7 M€** funding provided

>14.6 M€ additional budget mobilised by teams

SMARTAGRIHUBS APPROACHES

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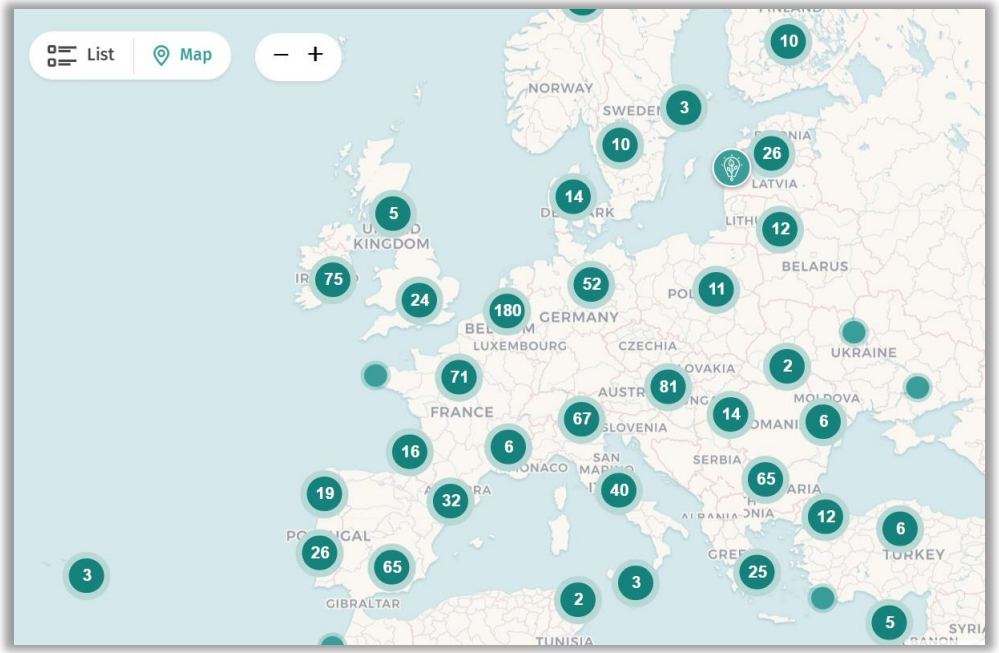
www.smartagrihubs.eu



04

SmartAgriHubs Results in France

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SMARTAGRIHUBS RESULTS IN FRANCE

- French AgTech ecosystem on the Innovation Portal: **90** French entities

- **6** initiatives supported through the SmartAgriHubs open calls

- Development of 3 Flagship Innovation Experiments:
  - DIGI-PILOTE
  - STRATE-GEEK
  - AgriFarmlab

FIE: DIGI-PILOTE (1/2)

assist wheat producers in optimizing their nitrogen fertilization & irrigation by improving the decision support tool ePILOTE.

- ePILOTE uses fields data from sensors, satellites & crop models to generate technical and strategic advice
- An alert message is sent when the alert thresholds are approached
- Farmers and technicians can follow all the plots at a glance thanks to a dashboard. By hovering over the map, a report on the situation of the plots is available.

- Addition of new functionalities: possibility of injecting data from satellite sensors
- Tests in agricultural fields, including in the DIGIFERMES® network, have made it possible to scale up the ePILOTE tool to the national level
- Calibration for durum wheat and soft wheat.

FIE: DIGI-PILOTE (2/2)

Computer security of the calculation chains to monitor a larger volume of farm fields simultaneously

Commercial offer allowing its deployment on a broader scale at national level.

For more detailed technical information:

Emmanuelle Gourdain, e.gourdain@arvalis.fr

FIE: STRATE-GEEK (1/2)

assist farmers in measuring performances of cropping systems to choose best suited farming strategies by improving the multi-criteria evaluation tool SYSTERRE®.

- SYSTERRE® saves time thanks to an import module for data from parcel management software, compatible with the Daplos exchange format
- Calculation of a panel of 20 main technical, economic, and environmental performance indicators, reported at different scales: plot, crop, cropping system and farm
- SYSTERRE® allows to test evolution scenarios by modifying the parameters concerned (sales price, equipment fleet, crop, etc.).

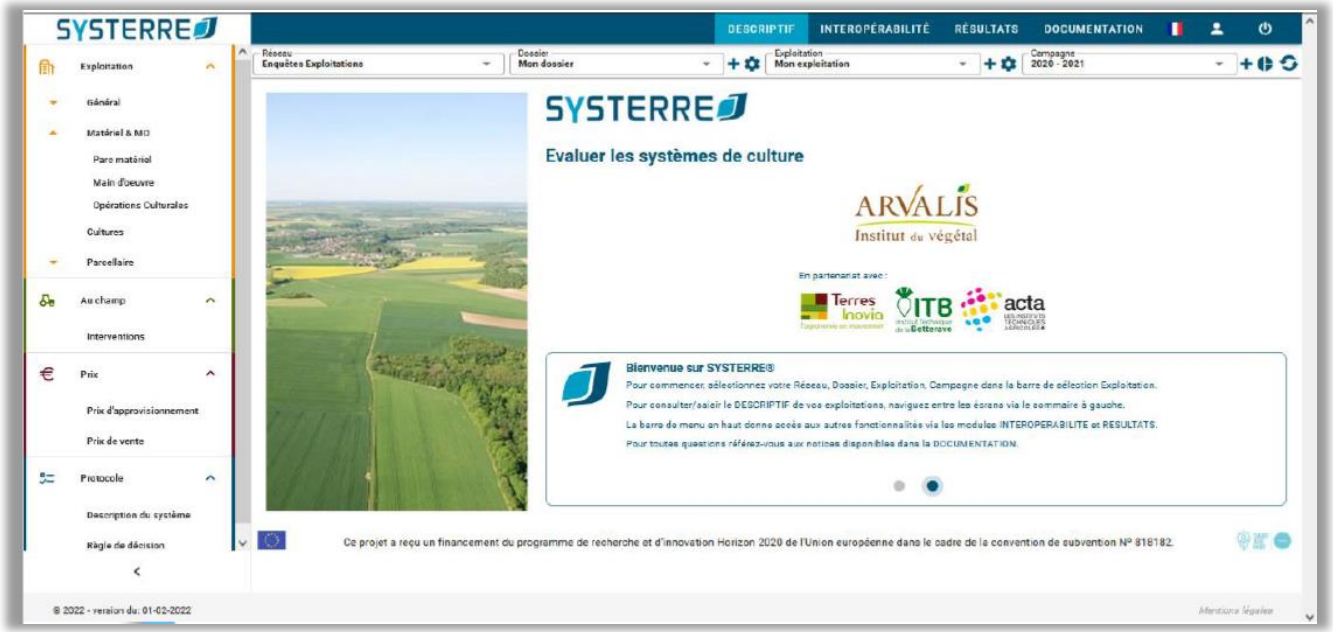
- Conversion of the SYSTERRE® tool to web format: www.systerre.fr
- Revision of the interfaces for more intuitive and efficient navigation
- Demonstration of the tool using the Terrasolis and DIGIFERMES® networks.

FIE: STRATE-GEEK (2/2)

Add biodiversity indicators and indicators for calculating low-carbon label items

Developments to outsource the calculations

Interface in English, but the repositories used will remain French for the time being.



For more detailed technical information: **Laurène Casal, l. casal@arvalis.fr**

FIE: AgriFarmlab

match digital solutions to the needs of the field and test them on farms prior to their commercialisation.

selection of 5 innovative AgriTech SMEs to accompany them in the co-construction of their solutions.

Experts coaching | €20,000 grant | 2 years

Onafis By My Bacchus — sensors for monitoring the winemaking process. A connected bung allows real-time monitoring of the winemaking stages from harvest to bottling.

APtimiz — mobile application/website to measure and optimize working time. Works with a geo-location sensor.

BAOBA — grazing management software that allows farmers to design grazing facilities and calculate agronomic data (feed, herd entry/exit dates, animal movements, etc.).

ADVANSEE Embedded Electronics — pest monitoring system on a territory scale based on the E-gleek connected trap. Equipped with a camera, the device can report in real time on the species present locally.

Mobi Protec — an energy autonomous mobile platform, equipped with connected cameras to monitor temporary and/or remote agricultural sites.

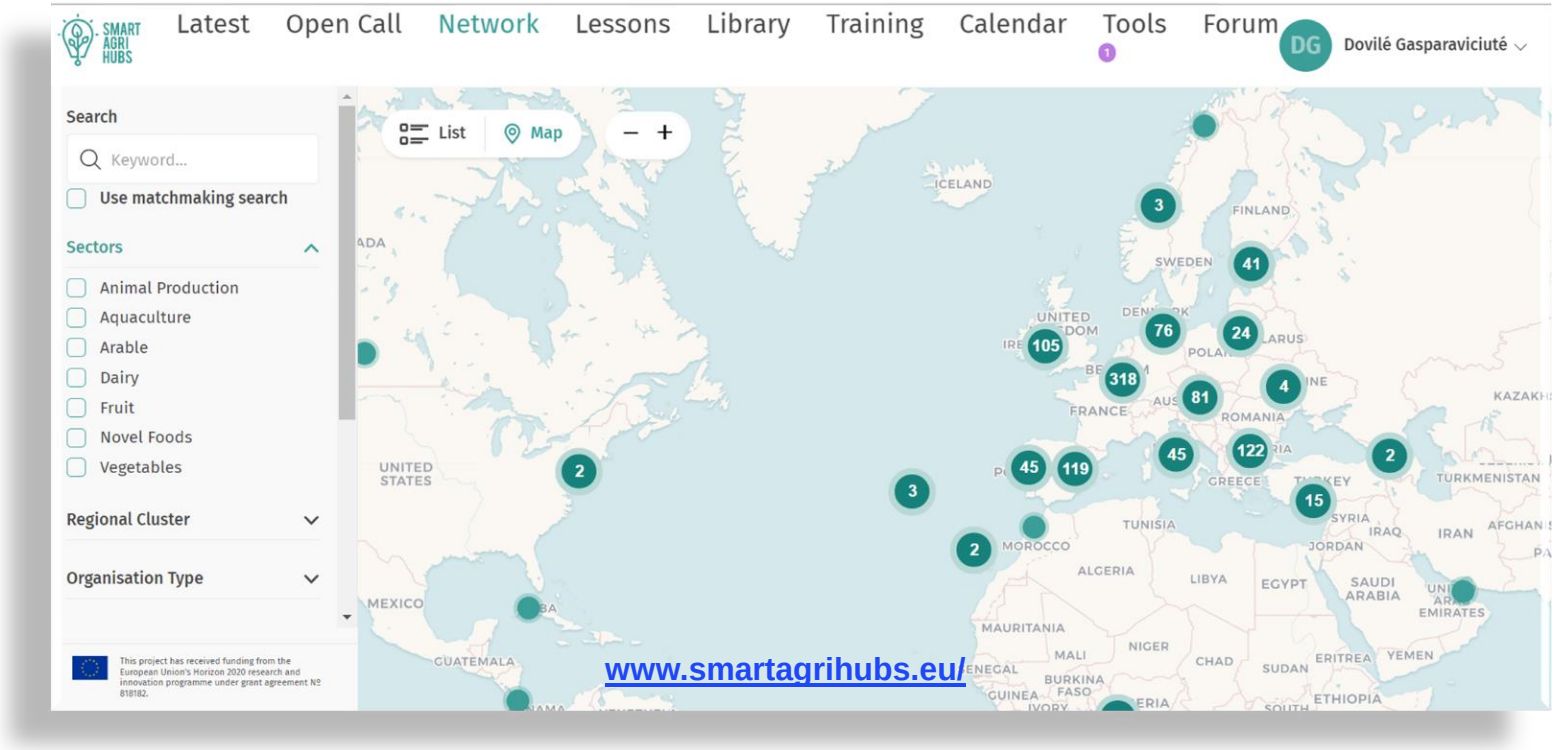
Closing remarks

Strengthening the human link has enabled the creation of an active SmartAgriHubs ecosystem & the development of digital solutions based on the needs of end users.

> 3200 active users across Europe

900 active organisations

> 500 events



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SMART AGRI HUBS

QUESTIONS & ANSWERS