



COMMON AGRICULTURAL POLICY post-2020

Farm Sustainability Tool for Nutrients - FaST

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#FutureofCA

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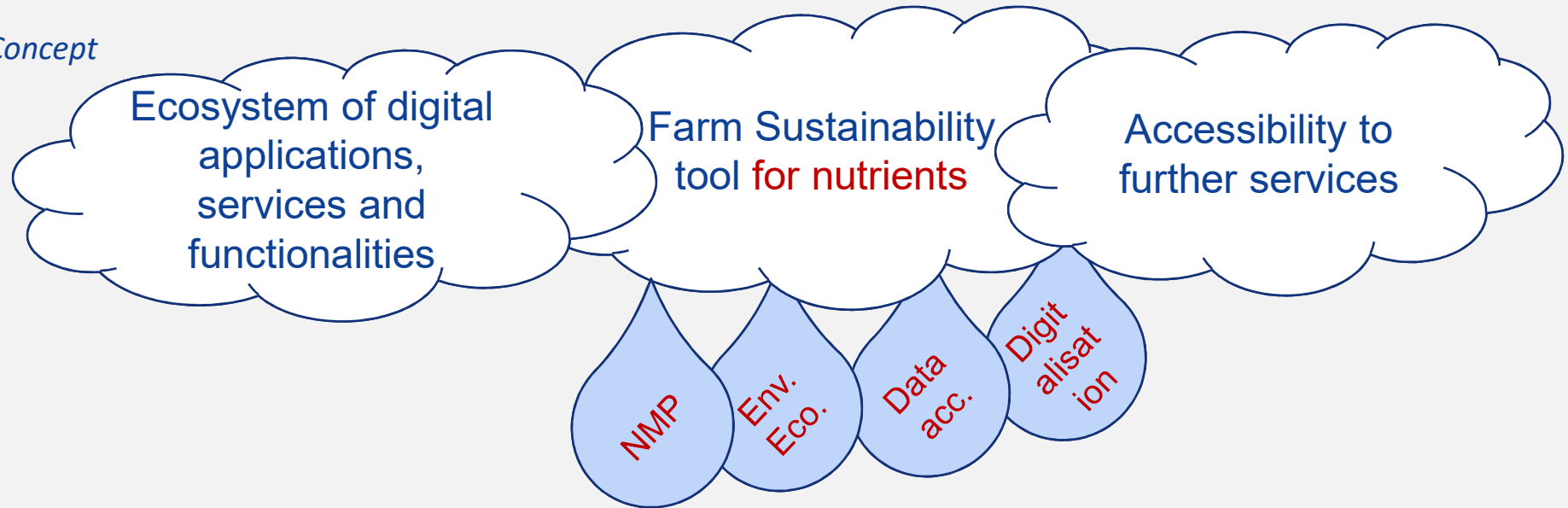


Farm Sustainability Tool for Nutrients – FaST

Co-creation, support and agronomic and agricultural benefits

GAEC 5 - Use of Farm Sustainability Tool for Nutrients

Concept



Farm Sustainability Tool for Nutrients – FaST

Digitalisation, economic and environmental benefits

GAEC 5 - Use of Farm Sustainability Tool for Nutrients

Why?

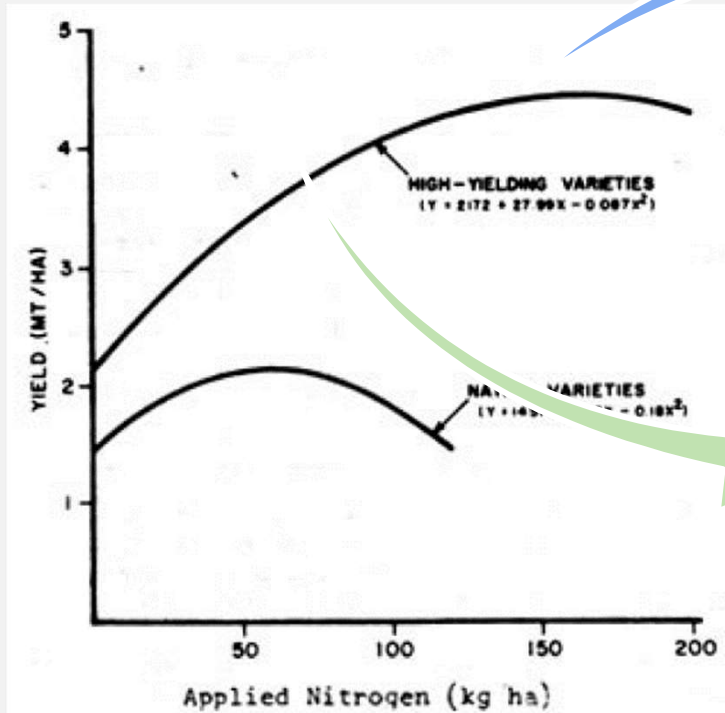
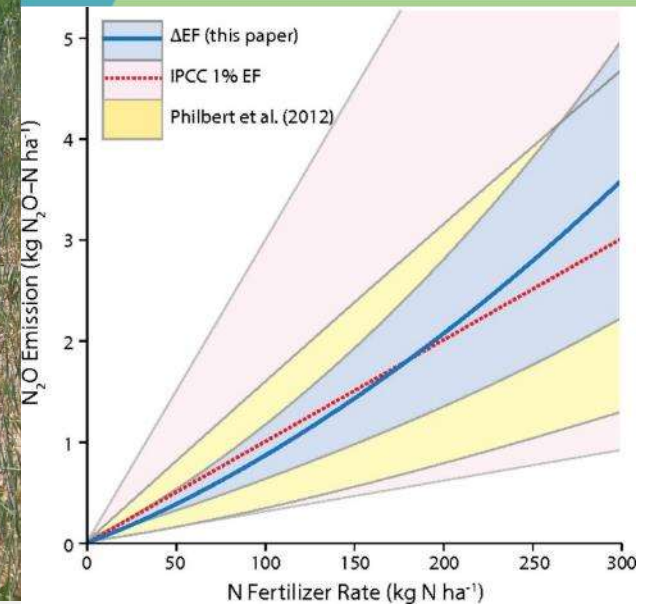
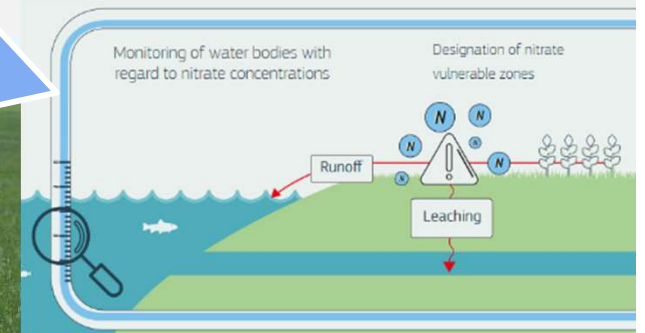


Figure 1. Generalized curve for the response of wheat to nitrogen applications. (Russel et al. 1970).

Crop production levels and fertilization use. FAO (1981)



Global metaanalysis of the nonlinear response of soil nitrous oxide (N_2O) emissions to fertilizer nitrogen. Shcherbak et al. (2014). PNAS

Farm Sustainability Tool for Nutrients – FaST

Digitalisation, economic and environmental benefits

GAEC 5 - Use of Farm Sustainability Tool for Nutrients *Why?*



- **Win-win solution** beyond compliance model (agronomic and simplification gains for farmers, environmental gains due to scale);
- Catalyst for on-farm **innovation and digitalization**, **level-playing-field** for all farmers.

Unique opportunity for small/medium farmers,
reduce the gap/accessibility to digital tools
compatible with more advanced tools

- **Simplification** of farmers' tasks (clear instruction, inclusion of nutrient-related legal obligations in one tool, no data entry duplication and minimum manual data input)
- **Change in approach**: no control/inspections on the actual follow-up of instructions or data inputted.

Farm Sustainability Tool for Nutrients – FaST

The possible support of the Commission

Commission proposal for a Regulation on the new CAP post-2020 COM(2018) 392

Recital 22, Article 12.3 and ANNEX III

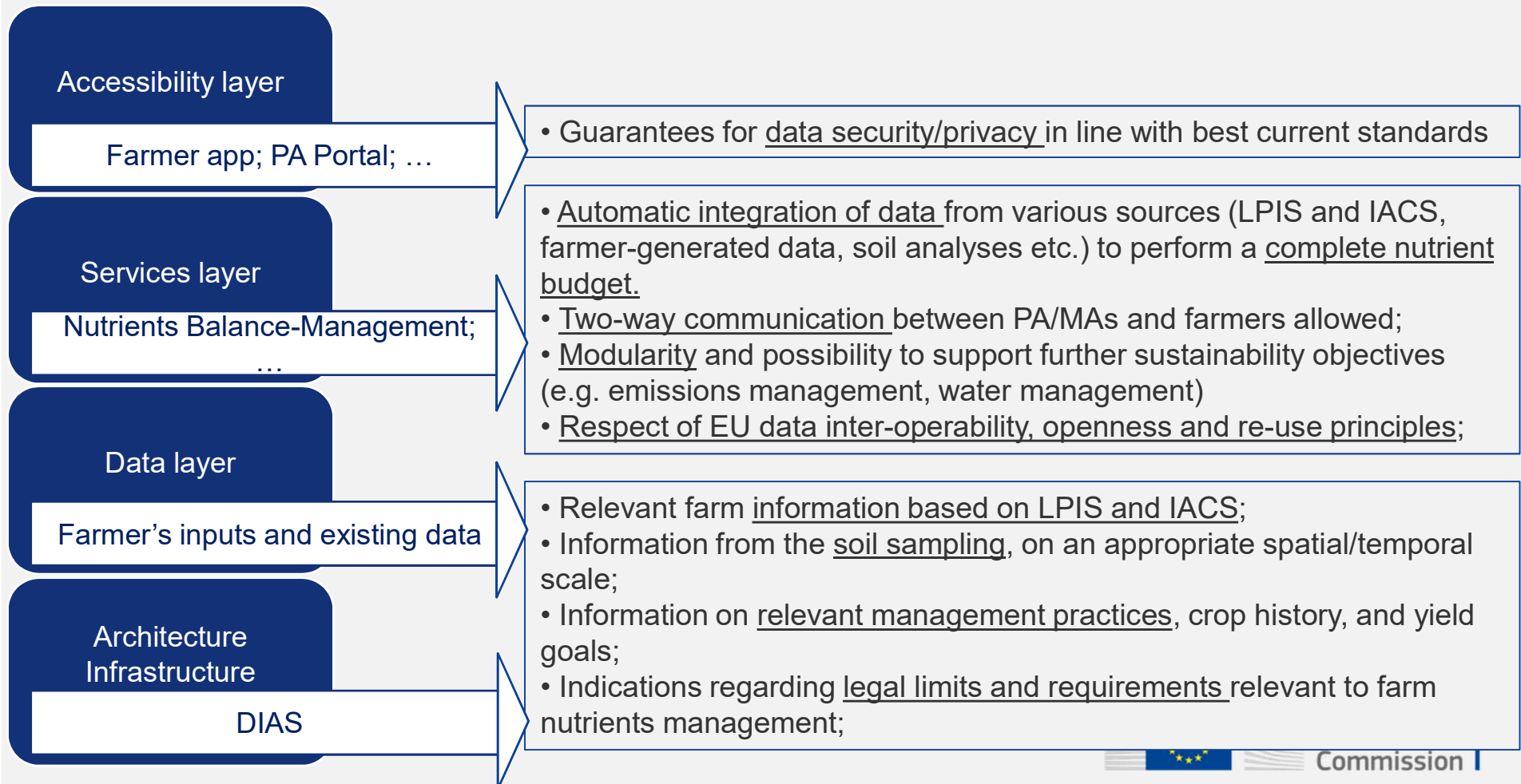
- Article 12.3: “Member States shall establish a system for providing the Farm Sustainability Tool for Nutrients [...] to beneficiaries, who shall use the Tool.”
- The Commission may support the Member States with the design of that Tool and with data storage and processing services requirements.”

Farm Sustainability Tool for Nutrients – FaST

Minimum requirements

GAEC 5 - Use of Farm Sustainability Tool for Nutrients

Main characteristic of FaST as proposed in the Regulation on the new CAP post-2020 COM(2018) 392, Recital 22, Article 12.3 and ANNEX III

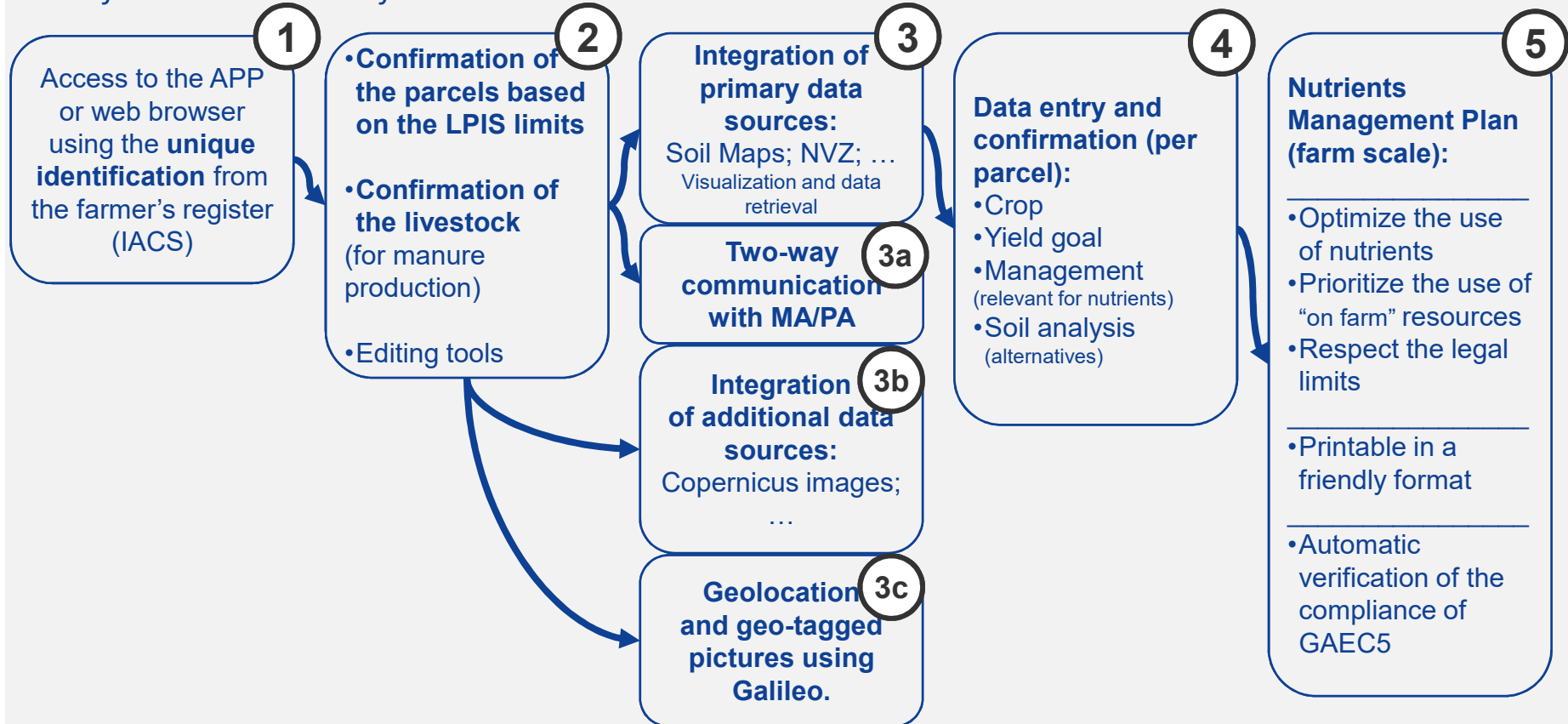


Farm Sustainability Tool for Nutrients – FaST

Level-playing-field for all farmers across EU

GAEC 5 - Use of Farm Sustainability Tool for Nutrients

Work-flow and additional functionalities



Development of the FaST as a IT system



Farm Sustainability Platform

European Commission concrete support for the implementation of the Farm Sustainability Tool for nutrients (FaST)

Managing authorities and paying agencies

- Register compliance with GAEC 5, possibly further SMRs and GAECs
- Support for further environmental commitments
- Gather consolidated data
- 2-way communication



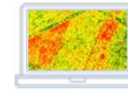
Policy-makers & researchers

- Develop innovative solutions to optimize the use of inputs in agriculture
- Ensure data security, privacy and anonymization



Improve agronomic performance while reducing fertilizer cost and environmental impact

mobile app, web portal, bridges to tractors, etc.

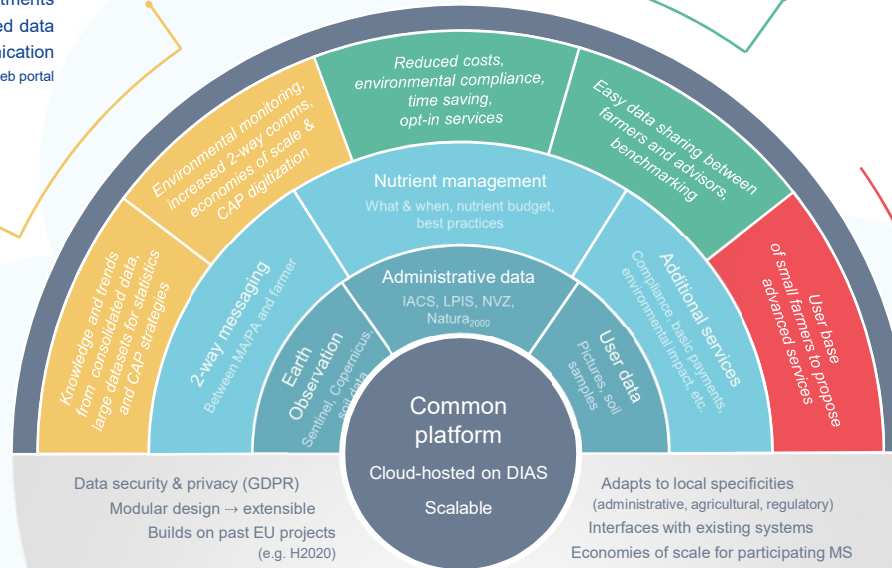


Advisors

- Assist farmers in developing an efficient and compliant NMP
- web portal

Institutional & private partners

- Propose innovative and relevant services to the extensive FaST user community
- integrate through APIs and opt-in service marketplace



Data security & privacy (GDPR)
Modular design → extensible
Builds on past EU projects (e.g. H2020)

Adapts to local specificities (administrative, agricultural, regulatory)
Interfaces with existing systems
Economies of scale for participating MS







Demo version from the feasibility study



Farm Sustainability Platform

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Services		
	Farm edition	Add / remove parcel from LPIS layer View parcel soil data and proximity to water bodies, Natura2000 areas Edit farm livestock and parcel crops
	2-way messaging	Basic messaging between platform users Add / remove users' contacts
	Nutrient management planning	Data input journey implemented but plan calculations are not real/accurate Create multiple plans, activate / deactivate them
	Additional services	Sample services included for demo, only Sobloo Sentinel imagery is actually connected
	Weather	Weather forecast and historical data for farm
Data		
	Agricultural parcels (LPIS)	LPIS (France & Spain / Castilla y Leon) 
	Terrain	Hydrological network (France & Spain / CyL) 
	Environment	Natura2000 areas (Europe) 
	Soil	LUCAS Topsoil & Organic Carbon Content (Europe) 
	Satellite Imagery	Sentinel-2 True color layer (as served by Sobloo DIAS) 
	External APIs	Weather / geocoding (free accounts on commercial services) 
	Livestock & crop species	As extracted from EU regulations / websites 

Demo version from the feasibility study

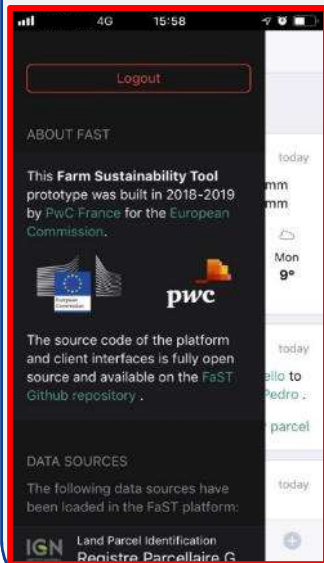


Farm Sustainability Platform

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1

Access to the APP or web browser using **unique identification**



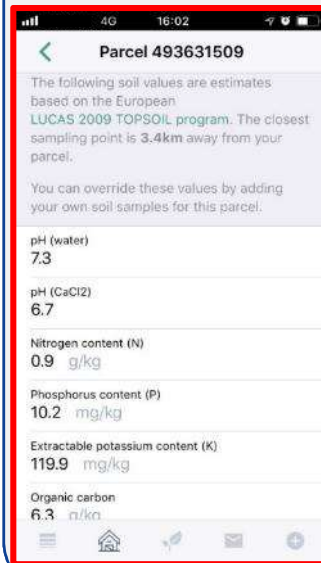
2

Confirmation of the parcels based on the LPIS limits



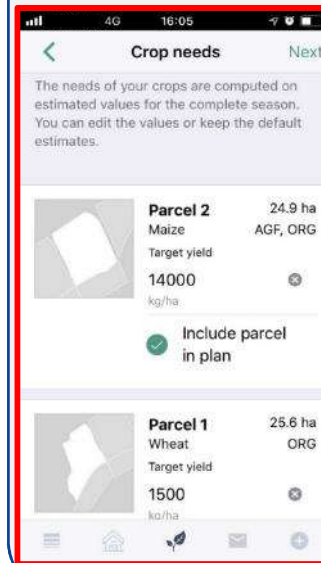
3

Integration of data sources: LUCAS, Natura2000



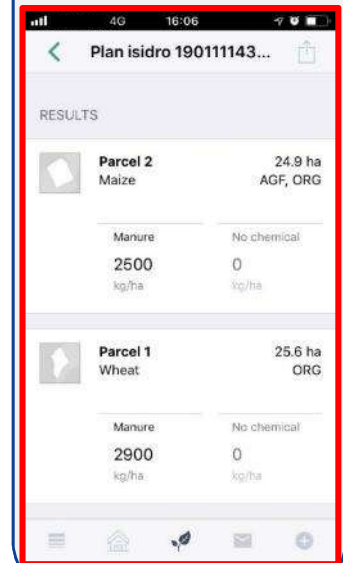
4

Data entry and confirmation (Crop and expected yield)



5

Nutrients Management Plan (Farm scale)



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Take home ideas

Summary

Multiple benefits

- **Optimise the use of nutrients in all EU farms**, with immediate benefits in terms of farmer's income, soil and water quality, and emissions (mitigation);
- **Simplification** of the administrative tasks;
- Boosting the **digitalisation** of the sector and of the CAP, level-playing-field for all farmers

Minimum content

- **LPIS/IACS information, legal limits** relevant for nutrient management;
- **Nutrient Management Plan**, based on yield objectives and integration of data;
- **Two-way communication** between PA/MAs and farmers and modularity to support further sustainability objectives (e.g. emissions management, water management)

Change in approach:

- Farmers would use the FaST **convinced about its real value added**;
- The farmer's GAEC obligation in the proposal is limited to "**use**" = **activation and data entry**
- Farmers should **not be subject to control/inspections on the data inputted and actual follow-up of instructions** provided by the FaST.

THANK YOU!

The FaST demo is available at the following addresses:

- - <https://mobile.fast.sobloo.io>:
farmer mobile application prototype, you should access this URL only through your smartphone, and then use the "Add to Home Screen" feature to actually install the app