



AfriCultuReS & TWIGA projects: Services & data for Africa

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HCP international

Learn more here:



Learn more here:





Impact focus



AfriCultuReS (Enhancing Food Security in African Agricultural Systems with the support of Remote Sensing):

Improved agricultural policy in Africa at national and local level



TWIGA (Transforming Water, weather and climate Information through in situ observations for Geo-services in Africa):

Improved number & increased coverage of in situ observations on water, weather & climate in Africa through service delivery

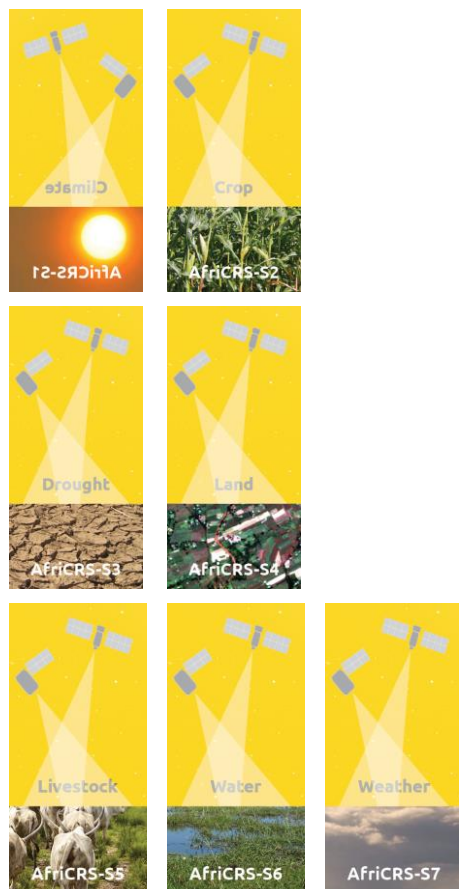
AfriCultuReS & TWIGA impact will be monitored over (at least) the next five years



These projects have received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreements No. 774652 & 776691



AfriCultuReS services and pilots



Services on climate, crops, drought, land, livestock, water & weather (AfriCultuReS data infrastructure)

Pilots on:

- Crop monitoring & yield forecasting (Tunisia, Ghana, Mozambique, Kenya, Ethiopia)
- Crop index insurance (Rwanda, Kenya)
- Irrigation (Mozambique, Kenya, Ethiopia)
- Livestock (Niger, South Africa)
- Climate & flood & drought monitoring (cross-cutting)



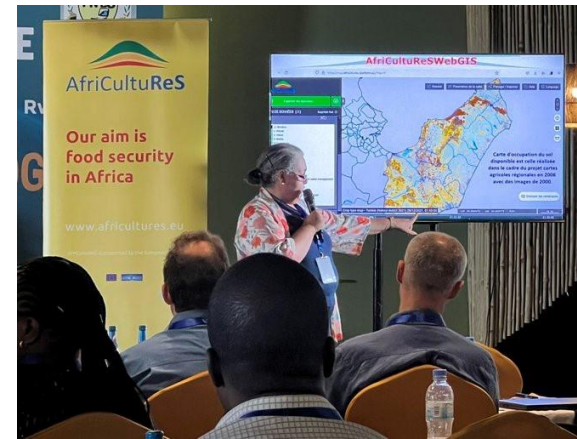
AfriCultuReS user engagement



Kenya Space Agency



Farmers' associations Niger



Regional departments
for agricultural
development Tunisia



Ministry of Science
& Technology
Mozambique



TWIGA services



- **How humid is my environment:** use of local weather stations to give advice on use of fertilisers and pest control measures
- **Map your crop:** combination of drones and photos to check crop condition
- **Your local and timely weather forecast:** local weather forecasts for small farmers
- **Soil index for crop insurance**
- **Digital platform for index insurance distribution**
- **Short-term prediction for solar energy**
- **Does it drain?** Use of sensors to detect waste (plastic) in rivers in urban environments to prevent floods
- **Water balance:** management of dams and reservoirs
- **International water control room:** IT-platform for international management of watersheds
- **Emergency management early warning systems for heavy rains:** early warning for floods in an urban setting
- **Heat stress indices for livestock**
- **Drought monitoring**
- **GNSS service for flood plains & atmospheric moisture:** cheaper & better prediction of convective tropical rainfall





Impact design



AfriCultuReS:

- Long-term sustainability of the platform
- Pilots replicated outside partner countries
- More services implemented in partner countries



TWIGA:

- Revenue generation through services to provide open and free in situ data (in agreement with government regulations)
- Services implemented in other countries



Both:

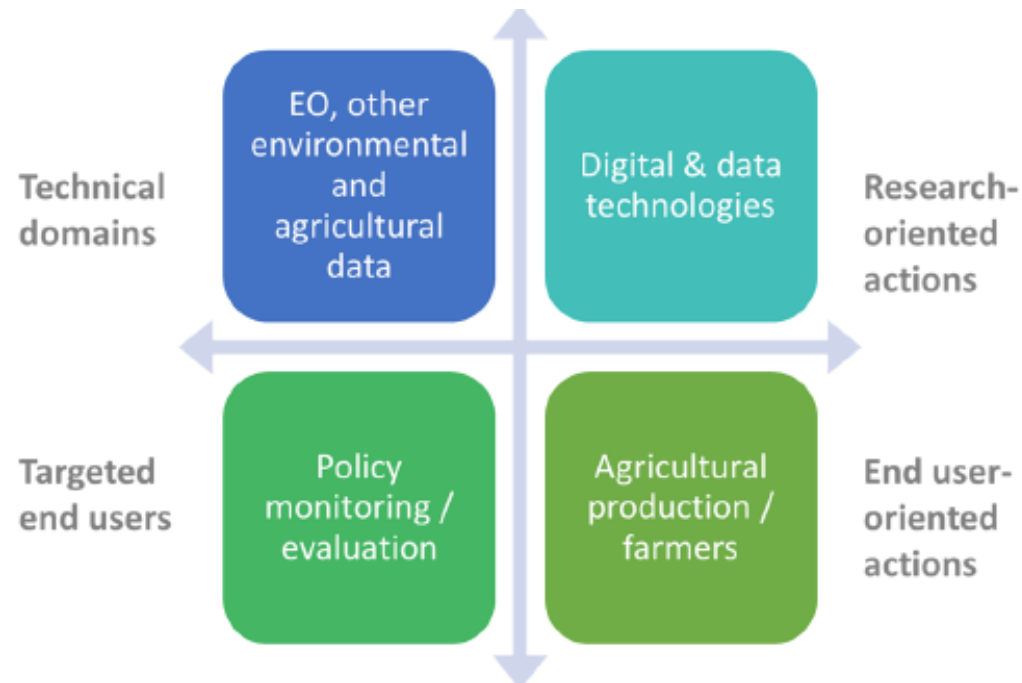
continue participation in GEO
(GEOGLOWS, support to GEOGLAM, in situ data subgroup, private sector engagement)



Partnership Agriculture of Data

AfriCultuReS:

- All quadrants covered;
- In situ & socio-economic data to be added;
- Partnership established;
- Sustainability a concern: looking for strategic cooperation;
- Climate adaptation is a key asset;
- Production/productivity oriented, environmental aspects less well covered;
- Business owner to be identified.



TWIGA:

- Practical downstream solutions, policy quadrant less covered;
- Bottom-up partnership;
- Services derived from in situ meteo data, drones, mobile apps;
- Affordable and easily repairable & replaceable sensors help fill data gaps;
- Building blocks & service-in-a-service elements;
- Many (small) business owners & independent platform.



Thank you!

<http://www.africultures.eu/>
<https://website.twigah2020.eu/>

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