



GEO Week 2021

Embedding earth observation initiatives in localized contexts for financial sustainability – involving smallholders food producers and local governments

Ruud Grim

Mark Noort

25 November 2021



G4AW
GEODATA FOR AGRICULTURE AND WATER





Please, mute yourself and ask your questions in the chat!

PPT slides will be shared on the G4AW website





Moderators of this event



- Ruud Grim
- Netherlands Space Office
- G4AW



- Mark Noort
- HCP International
- AfriCultuRes



Agenda

- Introduction; context and goal of the event.
- Pitch presentations:



Lilia Benzid;
OSS



Akua Benewaa;
Solidaridad



Frank Annor;
TAHMO



Mango Mbambi;
World Vision

- Panel Discussion
- Wrap-up



G4AW

GEODATA FOR AGRICULTURE AND WATER



AfriCultuReS



TWIGA

Advisory and financial services for:

- farmers/pastoralist
- businesses
- governments



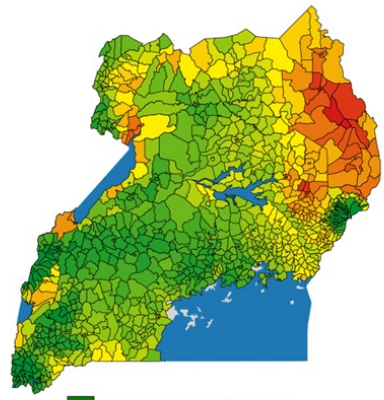
Tirer le meilleur
bénéfice de
mon élevage

Garbal
37 333
ou
#222#

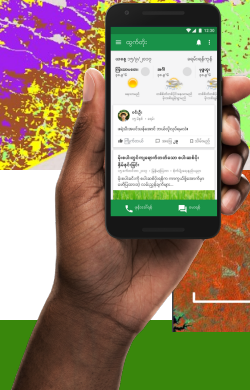
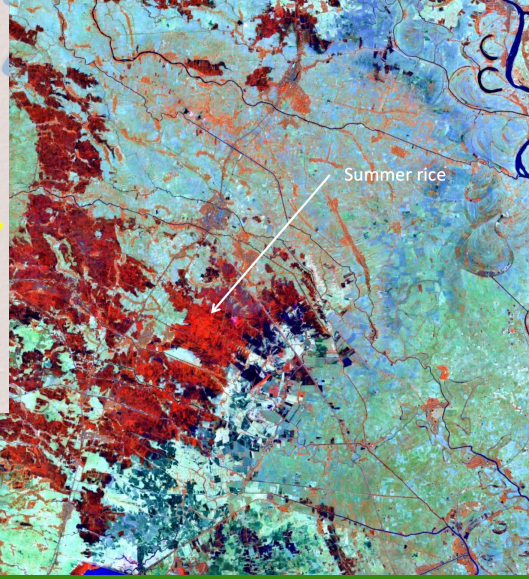
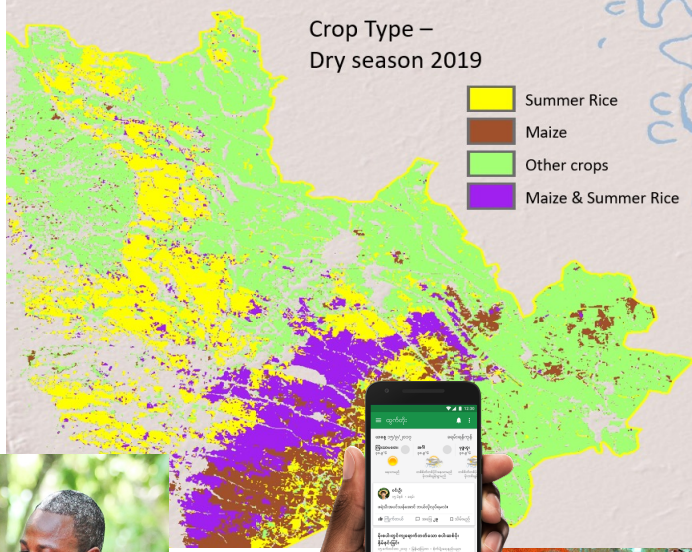
Vous rapprocher
de l'essentiel



Uganda Risk Rates (Generic Product)



Crop Type –
Dry season 2019





The importance of local actors

Local context:

- Local needs
- User and client base
- Organizational and financial sustainability





Goal of the event

- Share insights from the G4AW, AfriCultuRes, and TWIGA programmes, through pitch presentations.
- Consolidate these insights in the panel discussion.
- **Formulate recommendations for using EO in developing sustainable digital advisory and financial services for smallholders and food security**





Project Pitches

1. Akua Benewaa – Solidaridad; G4AW-SAT4Business
2. Lilia Benzid – OSS
3. Mango Mbambi – World Vision; G4AW-Mavo Diami
4. Frank Annor - TAHMO



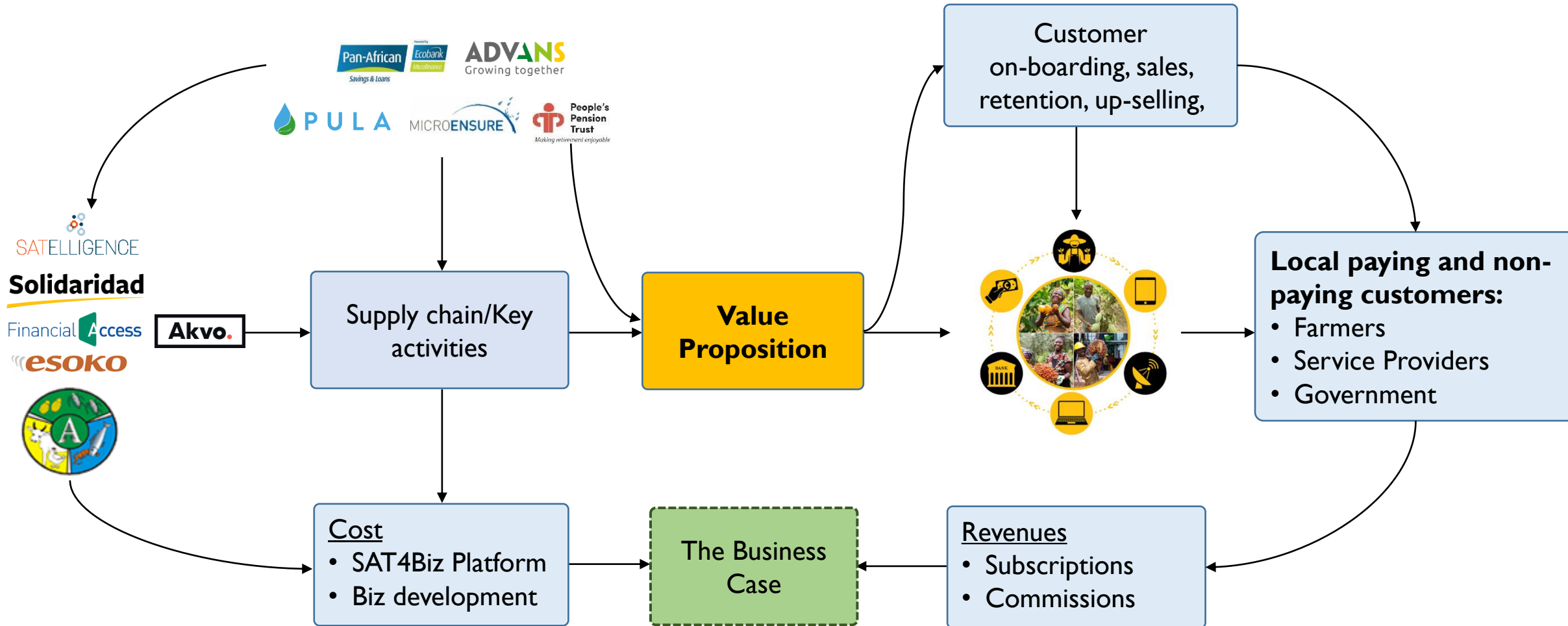
SATELITTE FOR BUSINESS (SAT4Business)

The Role of Local Actors in Building a Viable Business Model in West Africa

Akua Benewaa Okrah
Coordinator, Sat4Business
akuabenewaa@solidaridadnetwork.org

November 2021

Our business model



Importance of local partners in our BM

SATELLITE FOR BUSINESS (SAT4BUSINESS) PROJECT BENEFITS TO SERVICE PROVIDERS

FUNDING PARTNERS:



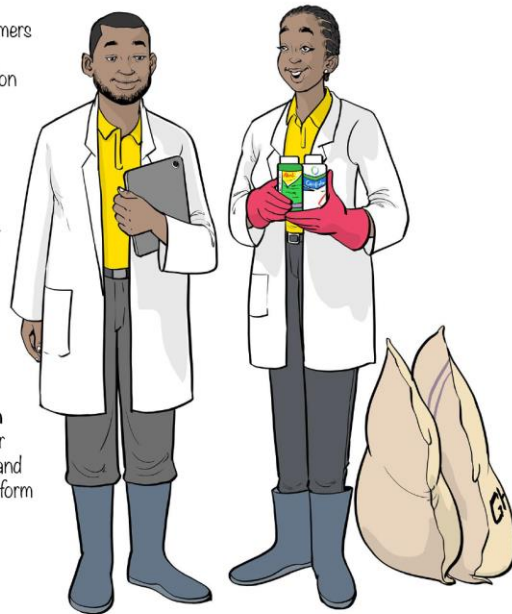
1. Access to smallholder farmers (clients) to provide farm services (trade, information and labour services)



2. Lower transaction cost associated with client engagement



3. Benefits from training on service delivery, CSC for cocoa, BMP for oil palm and use of Sat4Business platform



4. Get insights on farmers performance



5. Access Sat4Business platform to advertise products and Services



6. Business-to-Business linkage with other Service Providers



7. Business advisory services for business growth and investments



CSC - Climate-Smart Cocoa) | BMP - Best Management Practices

CONSORTIUM PARTNERS:



Sat4Business is locally embedded:

1. Setup a local fintech Green Cred as a spin of from the project
2. Leverage on the presence of local partners such as RSCs/SPs, SC companies, local input dealer and MFIs
3. Developed Content and delivery of Information/Advisory service in local language
4. The project uses indigenous private sector partners that are all locally based.
5. Strategic partners such as SWA and Esoko are locally incorporated with SME development expertise.

The Role of Governments in the Strategies



Key drivers:

1. Collaborated with the Ministry of Food & Agriculture in seven administrative districts to provide Sat4Business services.
2. Partnered local extension agents who have been designated to support our customers farmers.
3. Sat4Business has secured data protection license in Ghana and exploring existing regulations from the Central Bank of Ghana.
4. These will be replicated during the scaleup in other W/A countries.

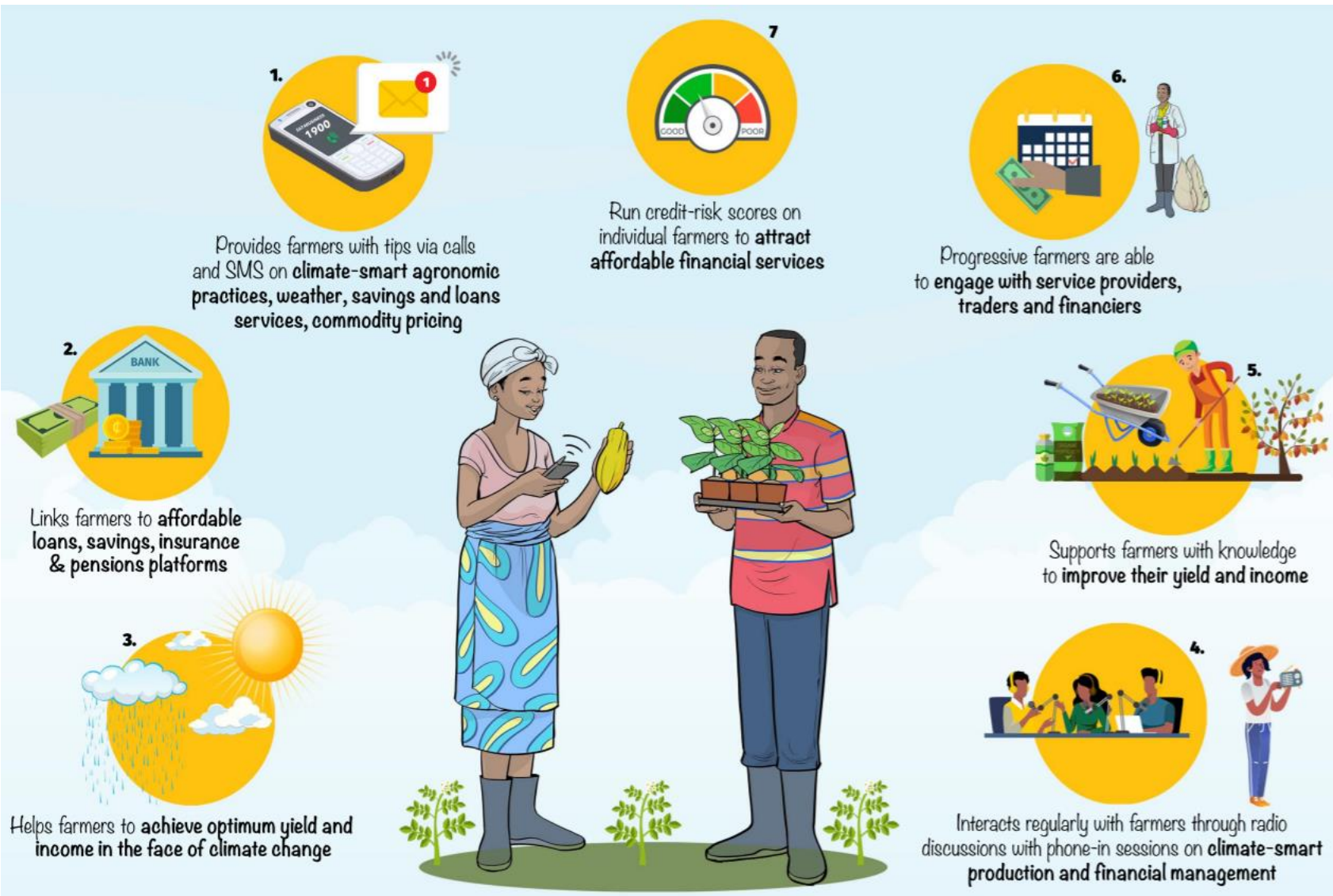
Importance of local partners in scaling up

Stakeholders	Role in scaling Up
Smallholder farmers	<p>Uptakers of the Sat4Business services. Therefore it is key to</p> <ol style="list-style-type: none"> 1) Design products/services that is user friendly and easy to adopt. ie customer journey via functionality and design workshops. USSD based services 2) Aggregate these prospective clients (500,000 smallholders in the cocoa, oil palm and cereals & legumes (maize, rice, sorghum, soybean, groundnuts) 3) Build an affordable bundled services. Credit embedded with IS via USSD 4) Regular feedback loops. Sat4Business carries out user satisfaction surveys via the Information service platform and/or call center.
Local MFIs, Micro Pensions and Micro Insurance providers	<ol style="list-style-type: none"> 1) We target MFIs with agri/rural financing focus 2) Their role is to provide digital lending and savings, digital micro pensions and insurance to smallholders 3) They are interested in affordable and easy onboarding process of bankable smallholder farmers 4) With a clear credit risk reduction such as TA support, farm improvement support and advice, 5) And Quick/cheap credit scoring models
SMEs, Corporates	<ol style="list-style-type: none"> 1) They are locally setup and interface with their farmers daily. 2) Support in de-risking smallholder farmers by providing farm improvement extension support. 3) Invest heavily in the sustainability of their supply chains. 4) Provide profiles/data of their farmers at a cheaper cost

Our ambitions for Scale-up

Key drivers:

1. Build a database of prospective clients (500,000 smallholders in the cocoa, oil palm and cereals & legumes (maize, rice, sorghum, soybean, groundnuts))
2. Total addressable market: 6 million smallholder farmers in West Africa
3. Total serviceable market: 2 million smallholders.
4. Bundled services (digi-credit&savings, digi-information services, digi-micropensions & insurance)





OBSERVATOIRE DU SAHARA ET DU SAHEL
SAHARA AND SAHEL OBSERVATORY

Pour une gestion durable des ressources naturelles en Afrique
For a Sustainable Management of Natural Resources in Africa



Role of local partners in the sustainability of the services and business model for the AfriCultuReS project

Case of Tunisia

Lilia Benzid & Evence Zoungrana



/11/20



This project has received funding from the European Union's Horizon 2020 Research and Innovation Framework Programme under grant agreement No 774652

The local partners: who are they?

Institutions and end-users involved in:

- Monitoring crop years and estimating yields
- Valorizing remote sensing products in support to crop condition and states
- Monitoring and drought early warning.

CNCT - CRDAs/CTV - DGEDA - DGAFTA - INRGREF - INGC - ONAGRI





Why are they important for the sustainability ?

They are key actors who :

- Can influence the agricultural sector and guide effective decision-making to achieve food security.
- Are involved in the data processing chain and the production of agricultural statistics.
- Are in contact with producers in the field.
- Can convince the high-level decision maker to get interested in the services.
- Can mobilise resources (financial) for investing them in a business model





Perspective:

How to better involve stakeholders from various levels ?

- Analyse their specific needs and provide well-tailors resources and products in response.
- Provide them with good quality products and services which fit their needs.
- Communicate sufficiently success use cases and success stories.
- Ensure relevant capacity building actions to ensure services use, maintenance and administration.
- Propose to them the business model and the for them to contribute for the sustainability of the resources.



**SAHARA
AND SAHEL
OBSERVATORY**

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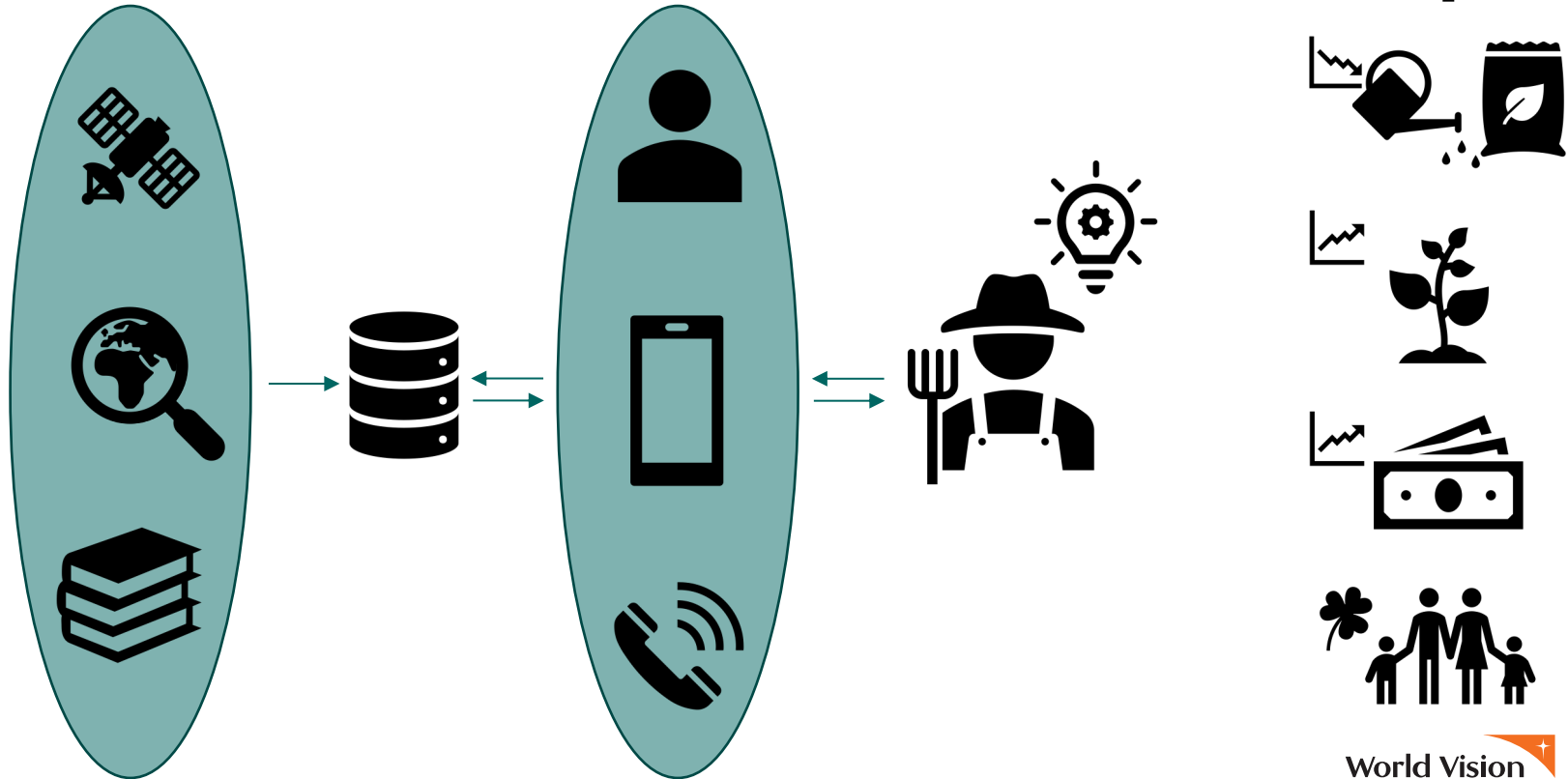




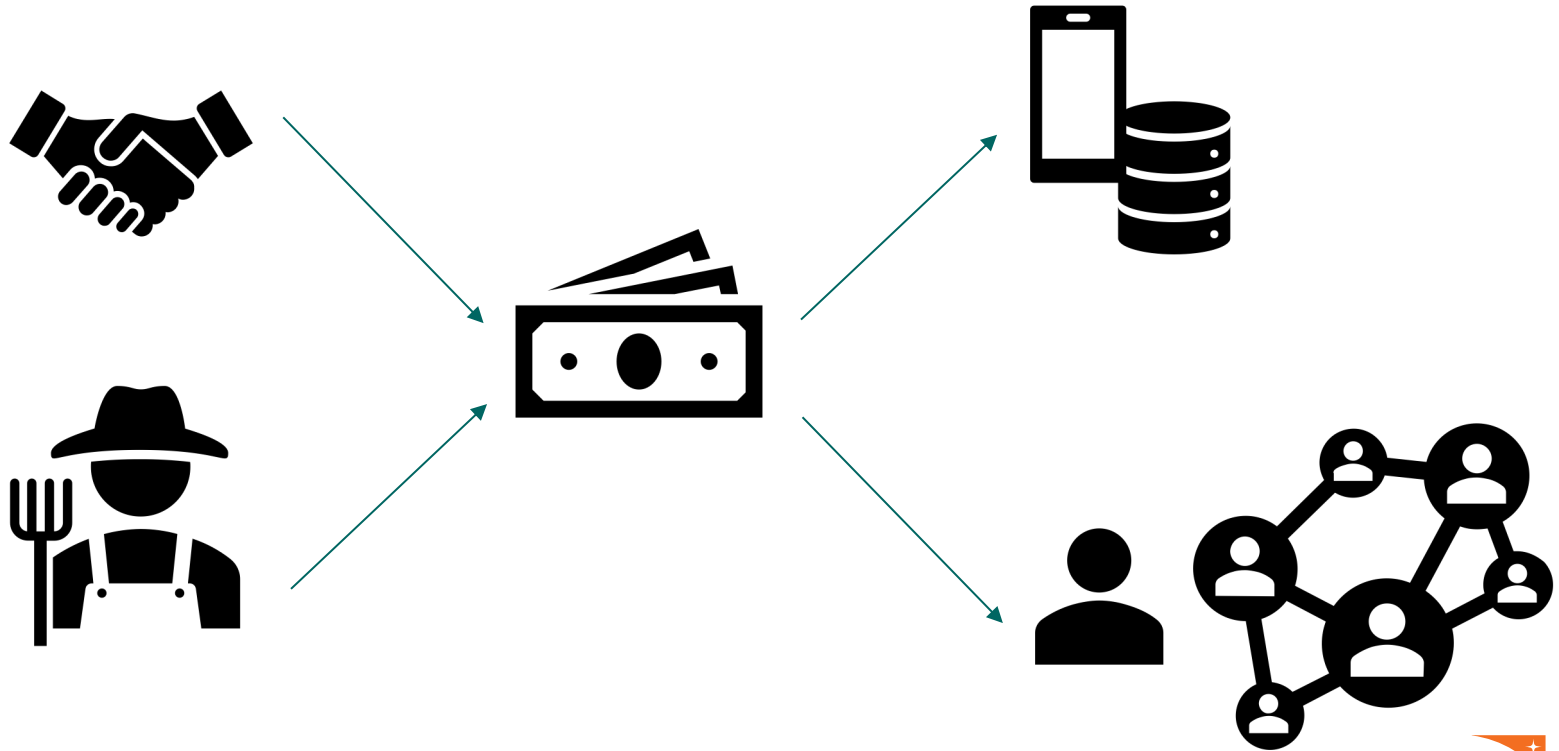
MAVO DIAMI



Information and advice



Business models in a nutshell



We don't just do this on our own:

Technische experts

AEQUATOR

groen & ruimte

eleaf 
FEED THE WORLD

FutureWater
20 years and counting...

Weather Impact
Forecasting weather hazards

Business holder

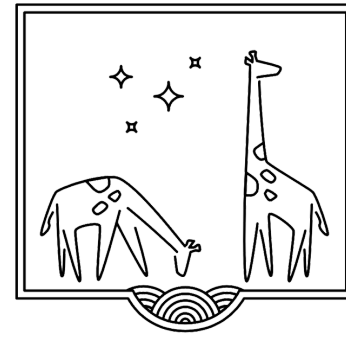


Coordination and local implementation

World Vision 

TWIGA

TRANSFORMING WATER, WEATHER, AND CLIMATE INFORMATION THROUGH IN SITU OBSERVATIONS FOR GEO-SERVICES IN AFRICA

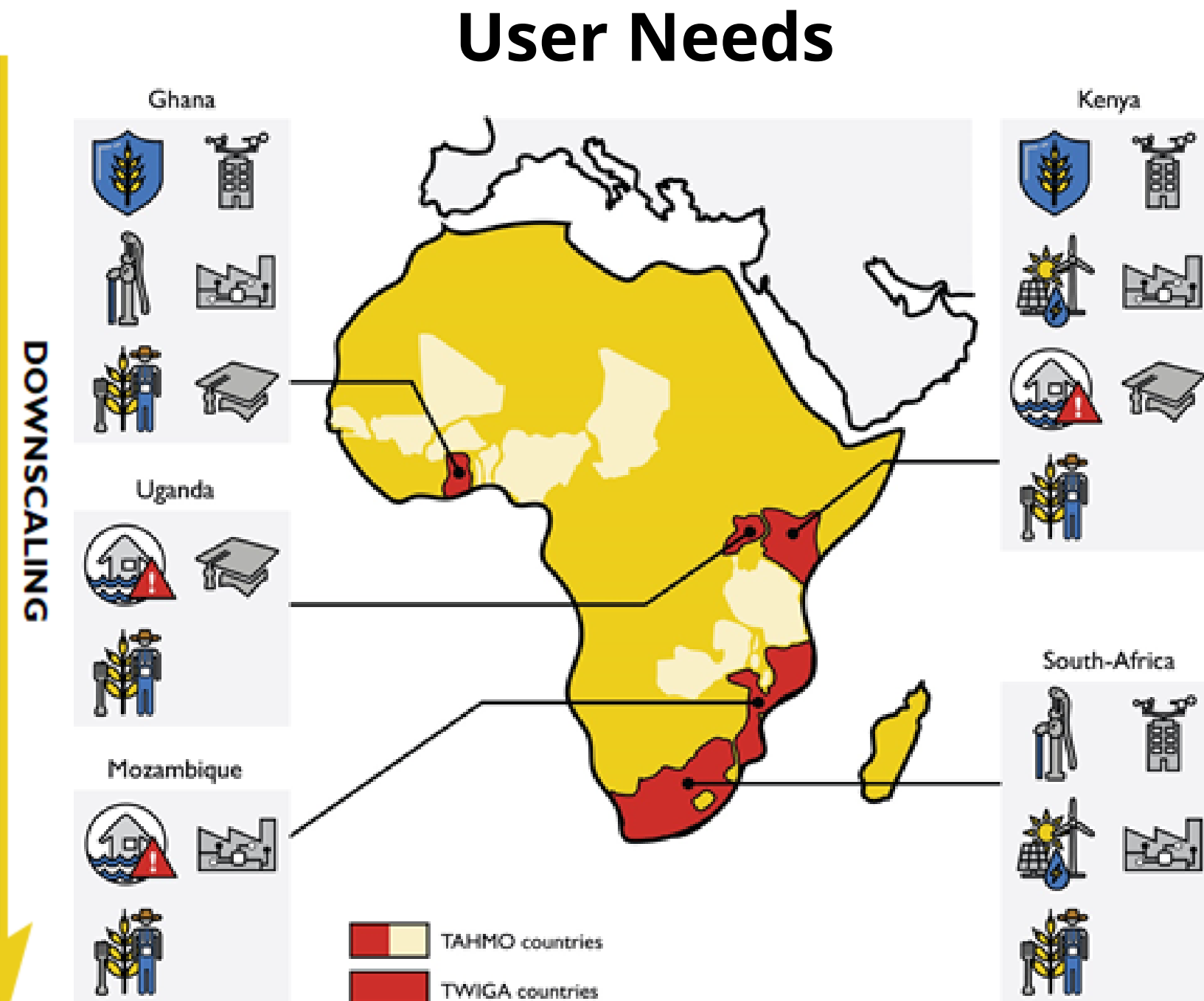
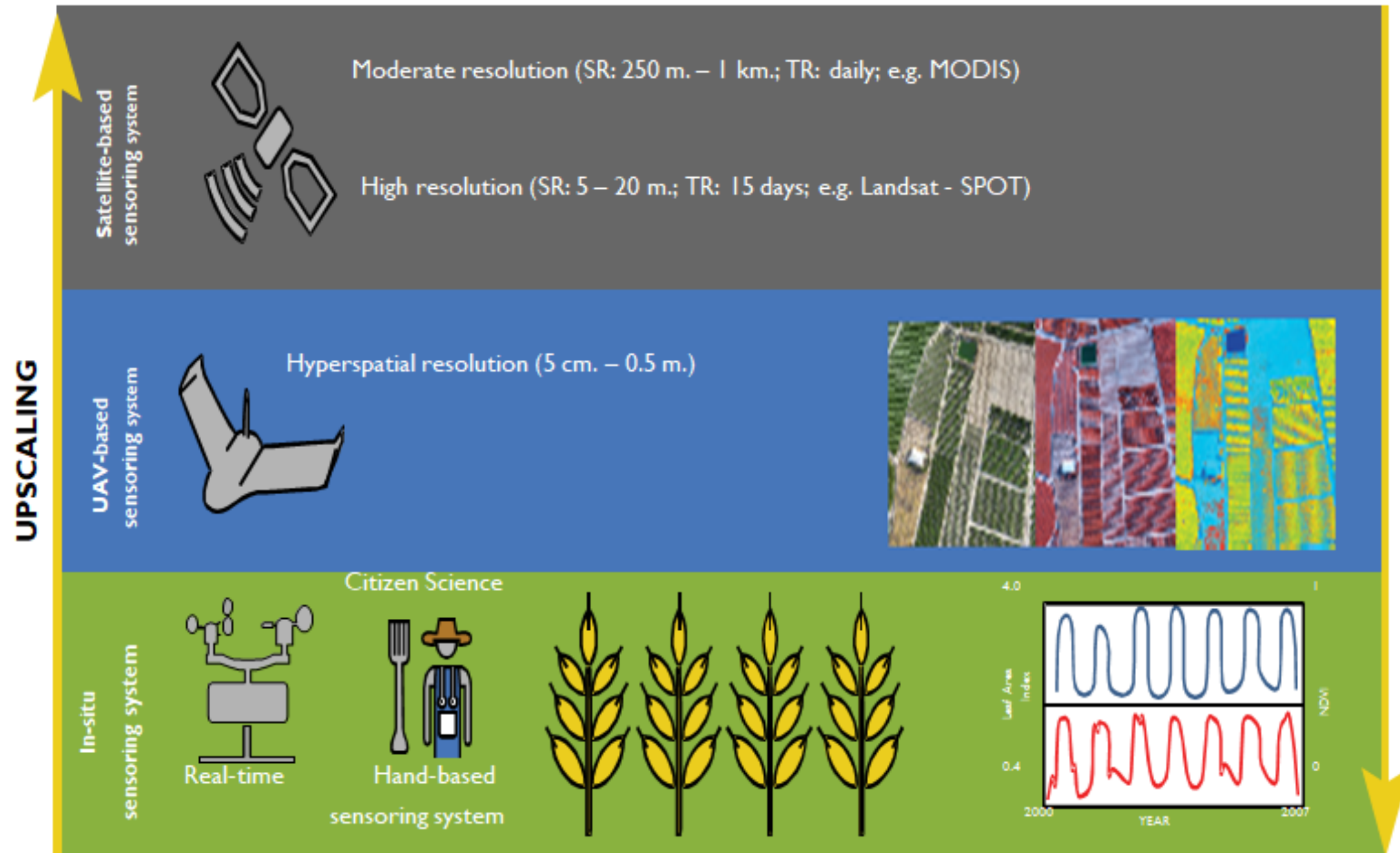


TWIGA

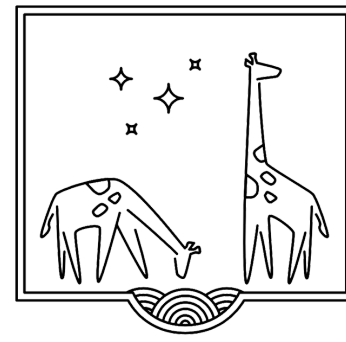


This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement No.776691. The opinions expressed in this presentation are of the authors only and no way reflect the European Commission's opinions. The European Union is not liable for any use that may be made of the information.

info@twiga-h2020.eu



Sensors



TWIGA

GEO GROUP ON
EARTH OBSERVATIONS



Ghana

Kumasi DTS, UAV, TAHMO, VegMon, Plastic CS, GNSS



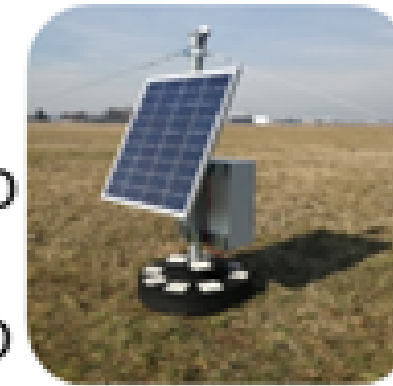
Tamale Disdro, Rainfall CS, DTS, TAHMO, VegMon

Navrongo VegMon, TAHMO



Uganda

Entebbe GNSS, TAHMO



Bugame GNSS, TAHMO

Nakasongola District, Kalungi and Lwabwata Sub-counties: CS, TAHMO



Kenya

Narok Disdro & Soil moisture, TAHMO, Evaporimeters, VegMon



TWIGA Partners

18 Partners

10 - Europe
8 - Africa



remote sensing



Article
Potential of Cost-Efficient Single Frequency GNSS Receivers for Water Vapor Monitoring

Andreas Krietemeyer ^{1,*}, Marie-claire ten Veldhuis ¹, Hans van der Marel ¹, Eugenio Realini ² and Nick van de Giesen ¹

¹ Faculty of Civil Engineering, TU Delft, 2628 CN Delft, The Netherlands; J.A.E.tenVeldhuis@tudelft.nl (M.-c.t.v.); H.vanderMarel@tudelft.nl (H.v.d.M.); N.C.vandeGiesen@tudelft.nl (N.v.d.G.)

² GReD—Geomatics Research & Development srl, 22074 Lomazzo (CO), Italy; eugenio.realini@g-red.eu

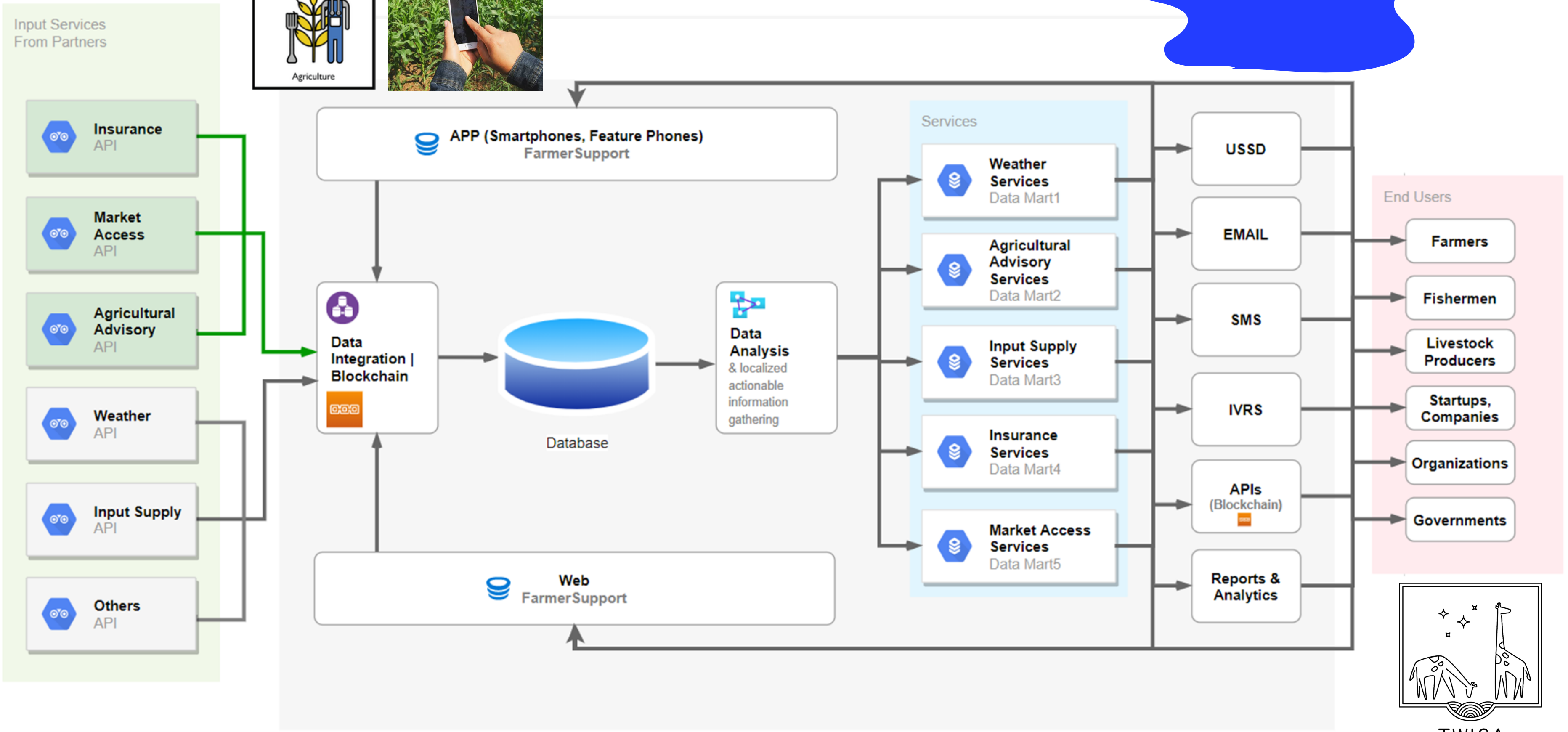
* Correspondence: A.Krietemeyer@tudelft.nl

Received: 17 August 2018; Accepted: 13 September 2018; Published: 18 September 2018



Connecting to Services

Role of local Partners/Smallholders/Governments to (financial) sustainability of services and business models



TWIGA

Sustainability



GHANA AGRICULTURAL INSURANCE PROGRAMME

MAKE A DATE WITH

ALHAJJ ALI MUHAMMAD KATU
GM, Ghana Agricultural Insurance Pool (GAIP)

On Joy 99.7 FM
16th Oct. 2019 @ 3:30 PM

TOPIC: Climate Change, Agric and Livestock WHAT THE FARMER NEEDS TO KNOW



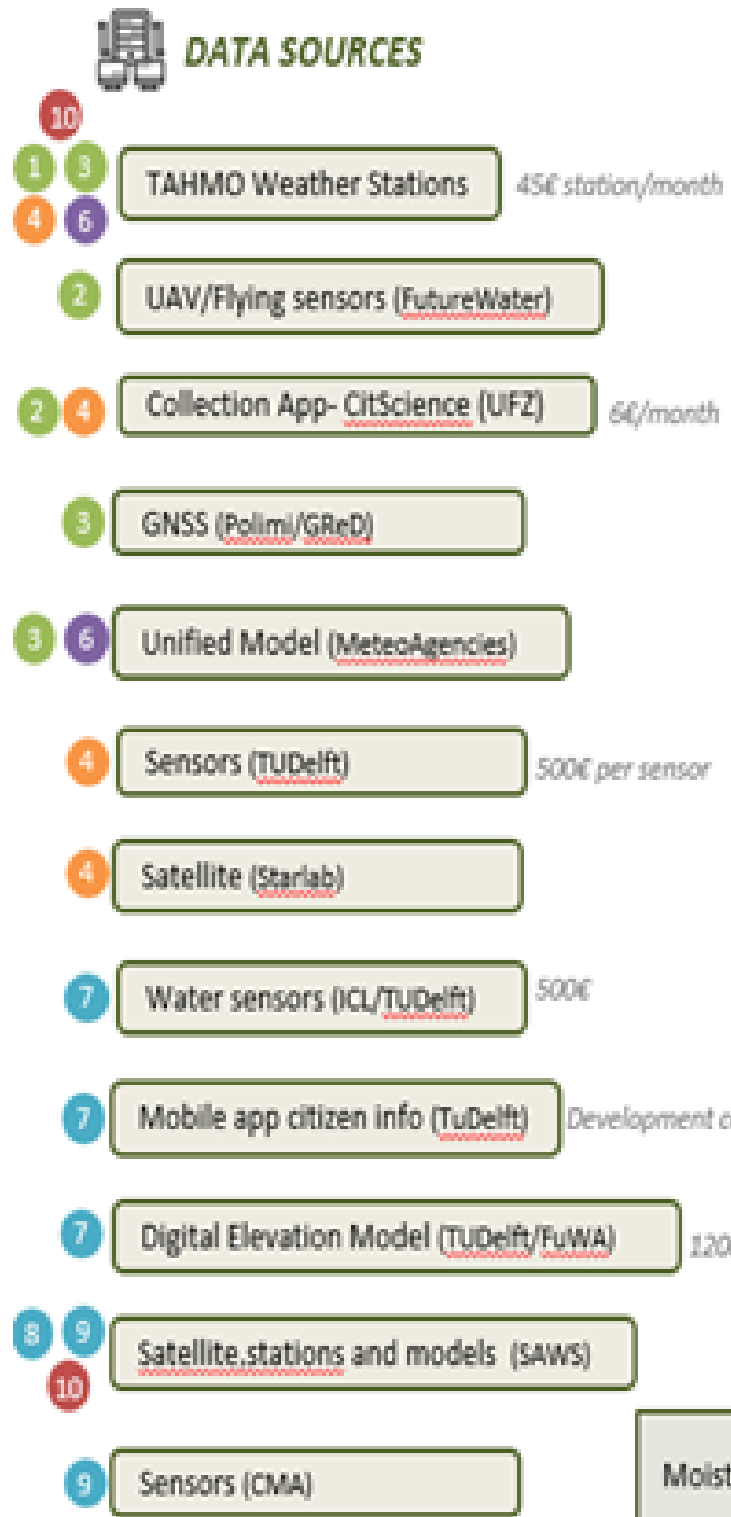
MAKERERE UNIVERSITY



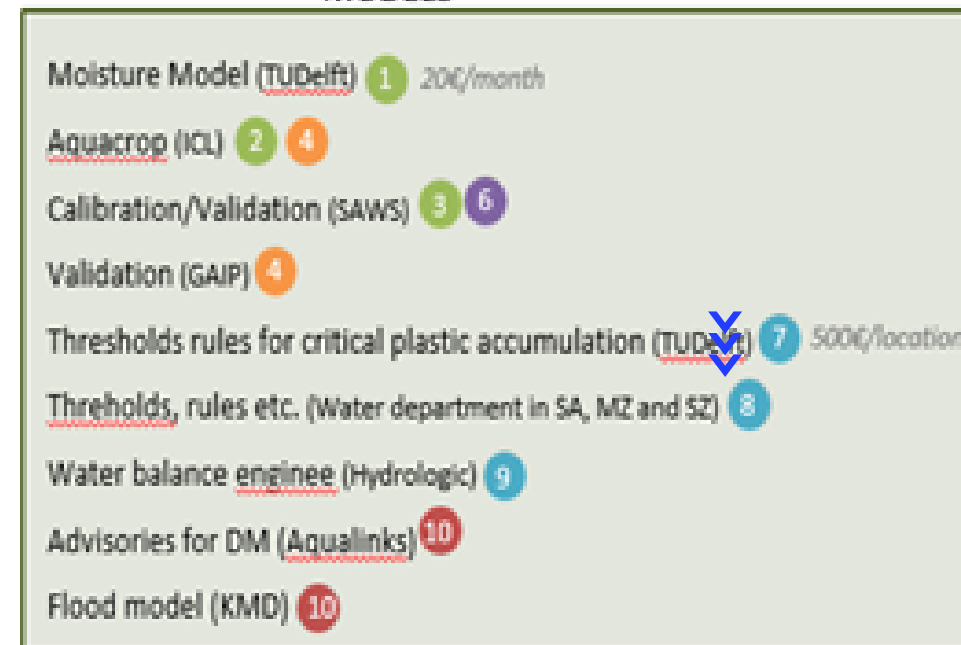
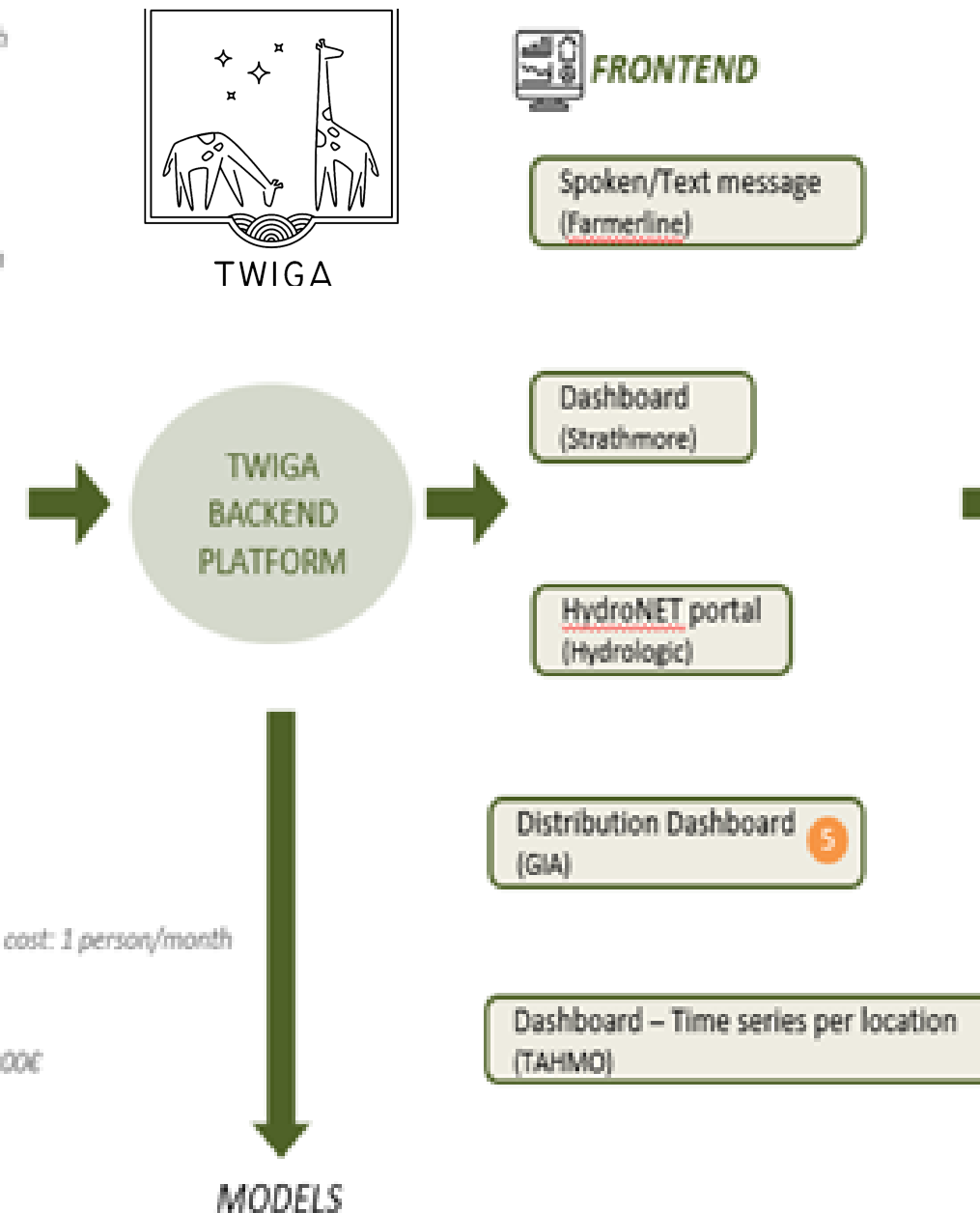
Strathmore UNIVERSITY



Kenya Meteorological Department



\$USTAINABILITY



END PAYING USERS
What are they willing to pay?

- Integrators
- Extension officers
- Agribusiness Farmers
- Insurance
- 5?
- Solar Plant Operators
Electricity utilities
- Municipalities
Plastic collectors
- Water departments
- CMA
DWS

- 01 INTERNATIONAL WATER CONTROL ROOM
- 02 WATER BALANCE
- 03 YOUR LOCAL & TIMELY WEATHER FORECAST
- 04 SHORT TERM PREDICTION FOR SOLAR ENERGY
- 05 DIGITAL PLATFORM
- 06 EMERGENCY MANAGEMENT



Panel Discussion

Please, put your questions in the chat.

The moderators will answer questions, and select answers to be put to the panel directly.





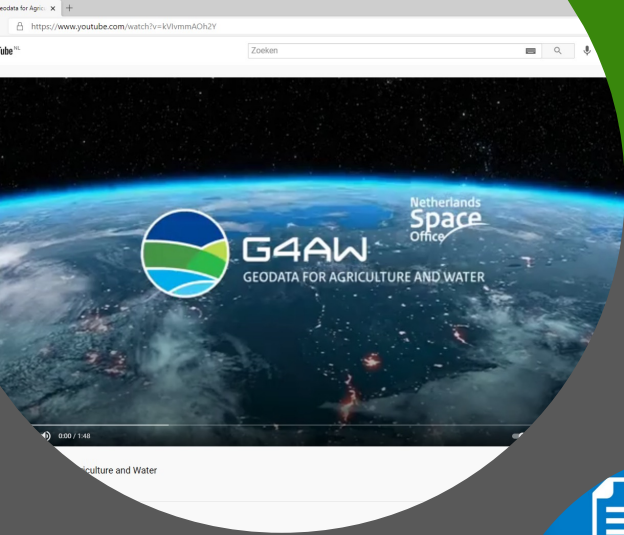
Thank you for attending our event!

Enjoy your time at GEO Week 2021

Ruud Grim
Mark Noort

- g4aw.spaceoffice.nl/en/
- africultures.eu
- website.twiga-h2020.eu





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