

# Priorities and Trends of Earth Observation Private Sector in Africa

*Perspectives for building sustainable Research & Innovation Partnerships*

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# AGENDA

01

## About LocateIT

All the Space and Geomatics You Need... Experience with EU Africa Initiatives...

02

## Status of EO MSME's in Africa

AUC Comprehensive Survey of Earth Observation and Geospatial & Allied Technologies Private Sector in Africa

03

## EO4AFRICA Strategies & Recommendations

EO4Africa... Support and expectations to SME's in Africa



**Geo-ICT** company offering cutting-edge **location-based** products and services pillared on ultra-modern

- Earth Observation
- Geographic Information Systems / GIT
- Geo-Apps / Dashboards / Geoportals / Surveillance Systems
- Integrated Geo-ICT (IoT / Big Data / ML / AI)
- Market Research/Surveys (EO / Geospatial)
- Mapographics / Geo-communication / GEO-

**vision** *to transform communities in Africa and positively impact the society through provision of innovative geospatial technology-driven solutions*



### **3I'S Framework:**

We strongly believe that our products and services are not an end, but a means – **a means to achieving sound societal impacts.**

3is Framework ensures successful delivery of the continuum of **Information, Initiatives and Impacts** at various scales, local to continental.

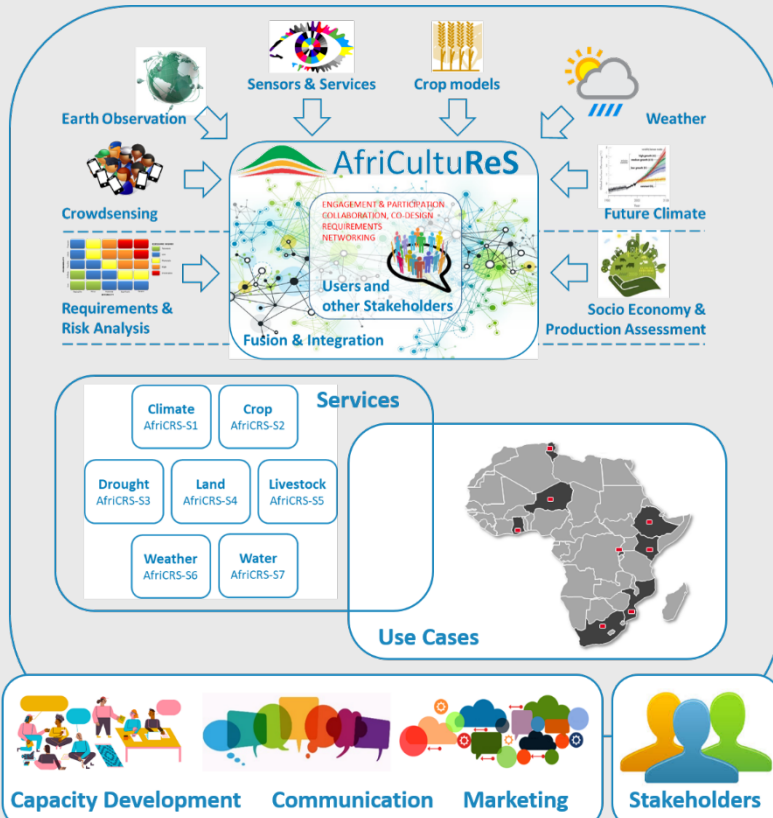
# CLIENTS & PARTNERS



# EU AFRICA INITIATIVES EXPERIENCE

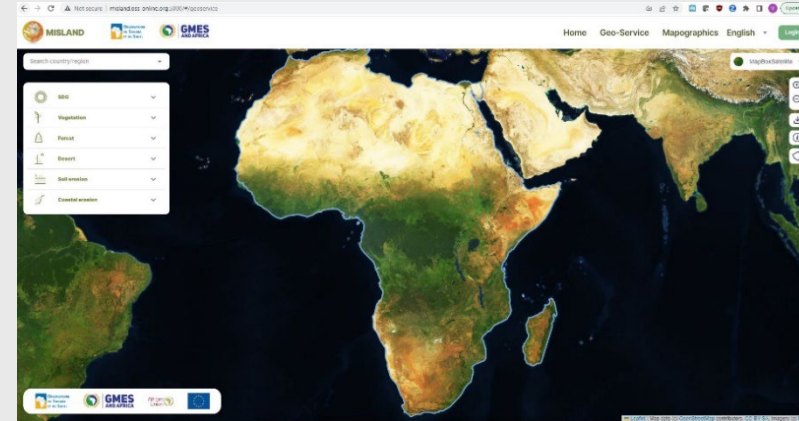
## EU HORIZON 2020

### 1. Enhancing Food Security in African AgriCultural Systems with the support of Remote Sensing (AfriCultuReS)

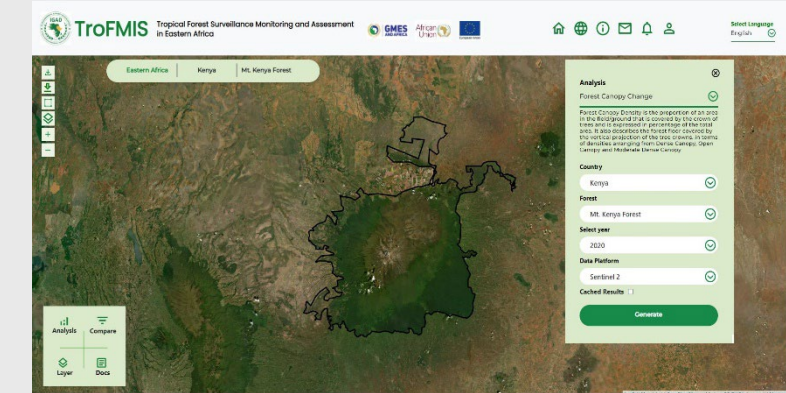


## GMES & AFRICA

### 1. Monitoring Integrated Service for Land Degradation (MISLAND) in Africa

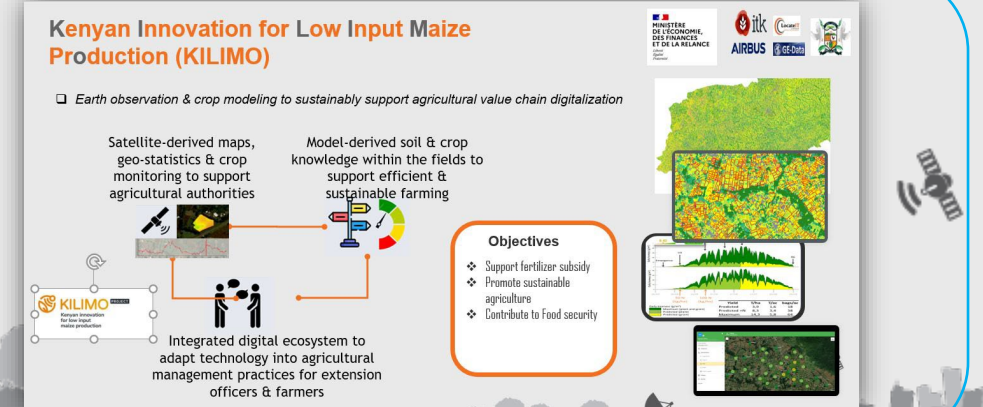


### 2. Tropical Forest Surveillance Monitoring Information Service (TroFMIS) in Eastern Africa Region



## FRANCE-AFRICA PARTNERSHIP

### Kenyan Innovation for Low Input Maize Production (KILIMO)



# PUBLIC PRIVATE PARTNERSHIP (R&I)



- Collaboration with JRC for the processing of MISLAND-Africa's land degradation data for SDG 15.3.1 through OSS (Sahel & Sahara Observatory)
- Leveraging JRC's cloud computing service on Big Data Analytics Platform (BDAP) formally JEODPP - Sentinel mosaics, Land Cover, Forest Fire, Carbon Emission, Global Surface Water, Coastal Geomorphology and Shoreline Change



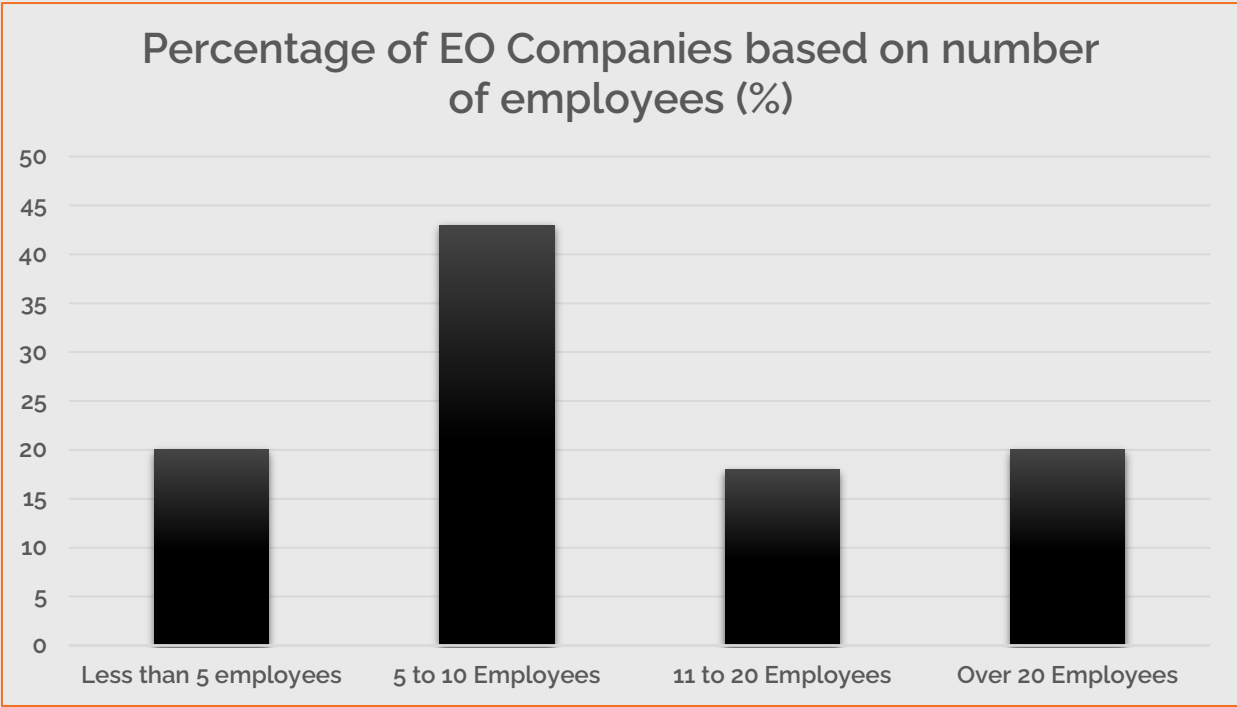
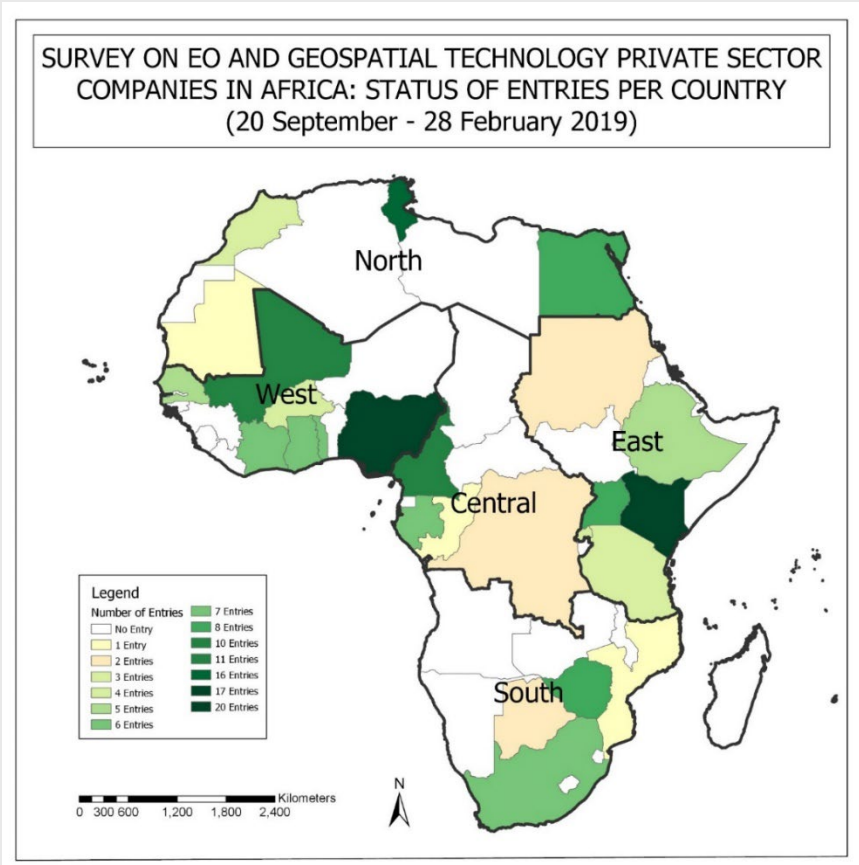
Satellite based data integration Module



Big data analytical/computational processing pipelines



# STATUS OF EO & GEOSPATIAL PRIVATE SECTOR IN AFRICA



Source: AUC's Comprehensive Survey of Earth Observation and Geospatial & Allied Technologies Private Sector in Africa, 2019



# TRENDS & PRIORITY AREAS

## ❖ **Distribution of EO data & derived products:**

- *Freely available datasets: Sentinel-1,2,3, 5P, Landsat, MODIS, Proba-V, etc.*
- *Commercial: Pleiades, SPOT 6 / 7, WorldDEM4Ortho, Deimos 1&2, QuickBird, Worldview, etc.*
- *Value added image products (3D, processed products, etc.)*
- *Supply of software & tools*

## ❖ **Service development and implementation:**

- *Natural habitat mapping and monitoring (e.g biomass monitoring, water / soil moisture monitoring, etc.)*
- *Tropical forest mapping and monitoring (LU/LC change & future prediction, REDD+ modeling, GHG inventorying,, etc)*
- *Agricultural mapping and monitoring (Ag statistics, Ag subsidy, support for crop & livestock insurance, precision Ag, etc.)*
- *Rangeland mapping and monitoring (biomass monitoring, water / soil moisture monitoring,etc.*
- *Early warning & response information systems (for food security, diseases, disasters, and climate change)*
- *Marine and Coastal resources*
- *Health (pollution, air quality, epidemiological modelling, disease surveillance)*
- *Urban and Spatial Planning*

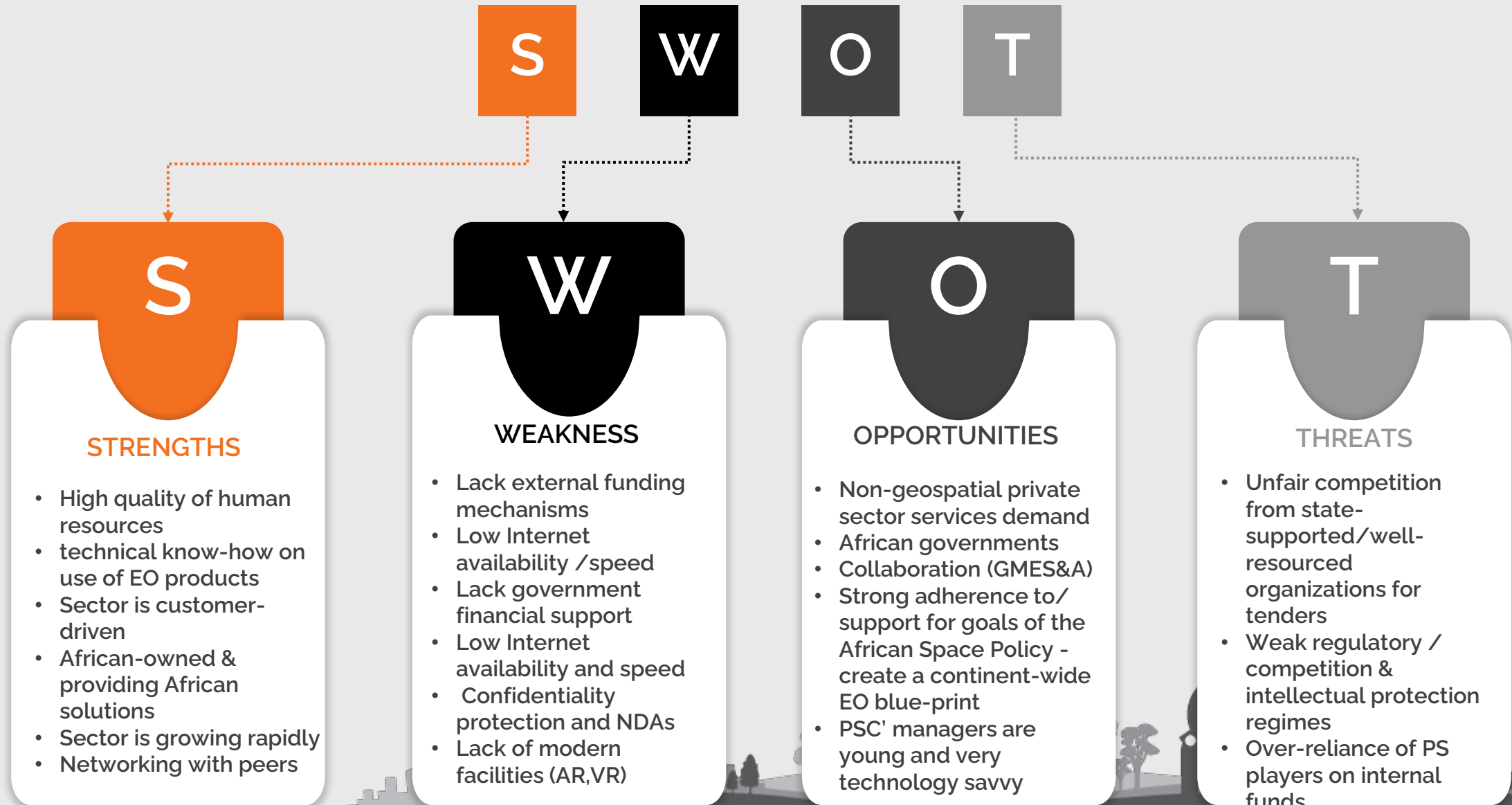
## ❖ **Capacity development:**

- *Research and Innovation (R&I) (Emphasis on business development, Bankable projects proposal development)*
- *Infrastructural (software, hardware, platforms / apps, setting up GIS & EO hubs/units/labs)*
- *Establishing networks of excellence via public (public-private partnerships, partnerships with downstream actors, etc.)*





# GAP ANALYSIS



• Lack of harmonization of

# PRIORITY RECOMMENDATION

## 1 Capacity Development & Economic Stimulation

- Building indigenous African EO capabilities including shared facilities
- Stimulate and facilitate access and acquisition of EO and geospatial data and information
- Business processes exchanges (business development, proposal writing, product commercialization)

## 2 Environment & Infrastructure

- Setting up pan-African innovation environments: big data processing infrastructures/facilities / CoE
- Development and promotion of afro-centric data infrastructures with data sharing agreements

## 3 Partnership & Outreach

- Direct Partnerships with global EO bodies with focus on human resources development ie. JRC
- Continuous government engagement at different levels, including policy development, funding (Use EO in sector based M&E)

## 4 Policy & Strategy

- Develop EO regional industrial framework
- Cross-fertilization / enhance collaboration among companies – EARSC, EU Business coaching
- Development of Cross-border Strategic Research and Innovation Agenda

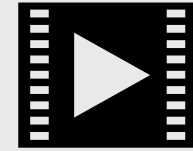
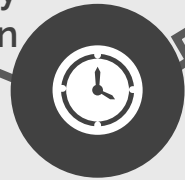


# EO4AFRICA STRATEGIES

## Sustainable / Long-term

**Partnerships**  
B2B Partnerships  
Industry councils, Job shadowing, Industry and Research inst / Academia collaboration, cross-industry collaboration

01



*“Delivering EO as an integrated service and not as a standalone product”*

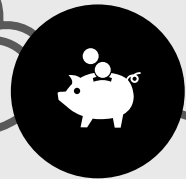
02



## Strategic R&I Investment

Innovation, Big Data/cloud computing Infrastructure, Business Incubation Centres, Stimulus programs

03



## Awareness & Adoption Promotion

Capacity development, Stakeholders database platform, Outreach, Policy and regulatory frameworks





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