



Exploitation of earth observation data in the service of the Greek private sector to address environmental challenges

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DRAXIS
ENVIRONMENTAL TECHNOLOGIES



Work Force: **50**



In the top **5** Greek SMEs
with successful EU-funded R&D projects

2 M€ annual revenue

50+ EU Funded projects



Exploitation areas of EO data in the Greek private sector

Climate Change Resilience



Environmental Monitoring



Sustainable Agriculture



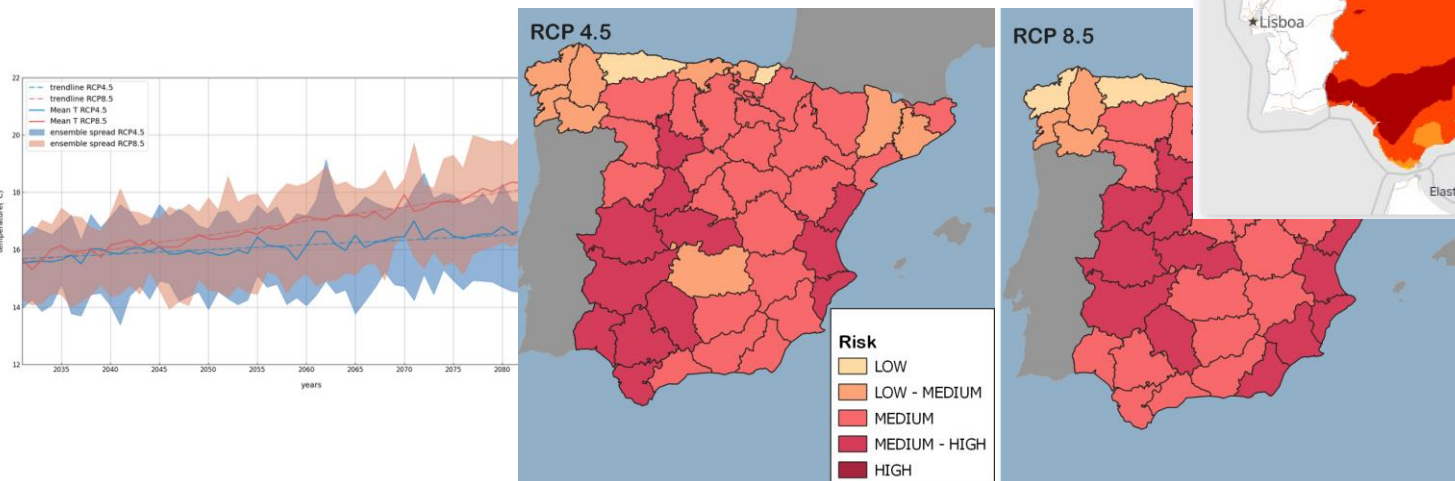
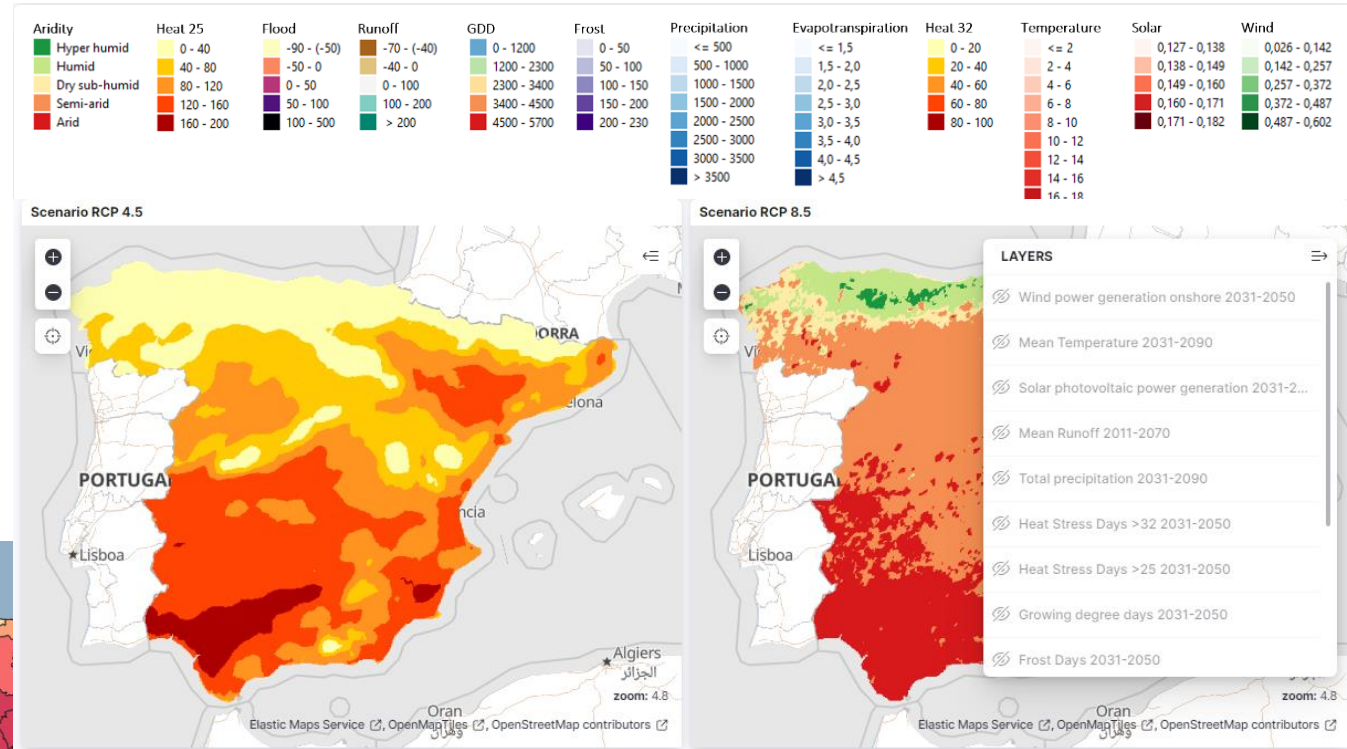


Climate Change Resilience

1. Climate projections

2. Climate risk assessment

- Use of Copernicus open data - Copernicus Climate Change Service (C3S)
- Satellite and model data
- Climate-related indicators



Visualization

Monitoring

Decision Support





Environmental Monitoring

1. Air quality and pollution

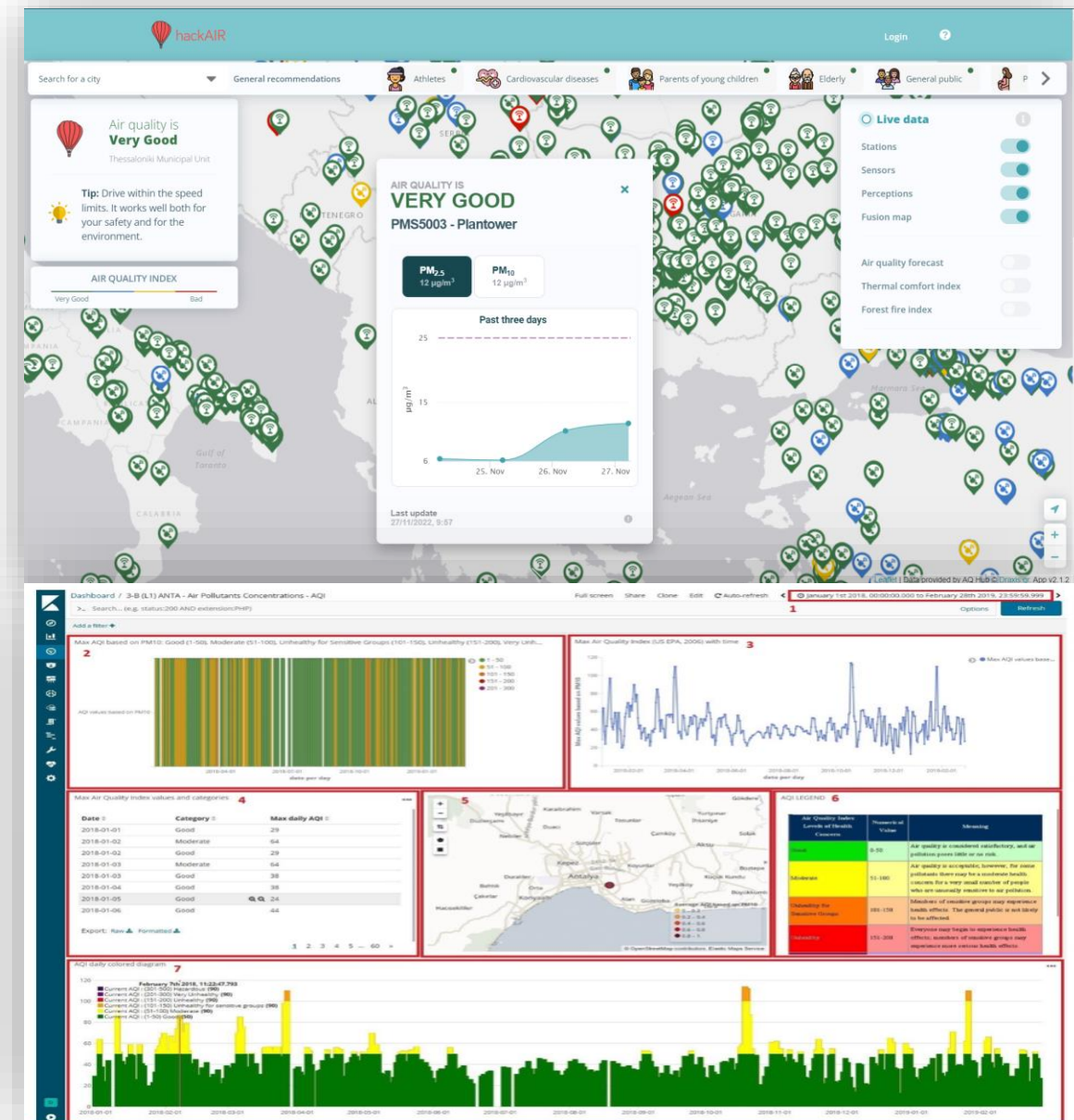
- Copernicus Atmosphere Monitoring Service (CAMS) uses in-situ measurements, satellite data and models
- Globally distributed in-situ measurements - real-time monitoring and forecast air pollution
- Satellite data (Sentinel 5P TROPOMI) dedicated to monitor air pollution

Visualization

Monitoring

Forecast

Decision Support

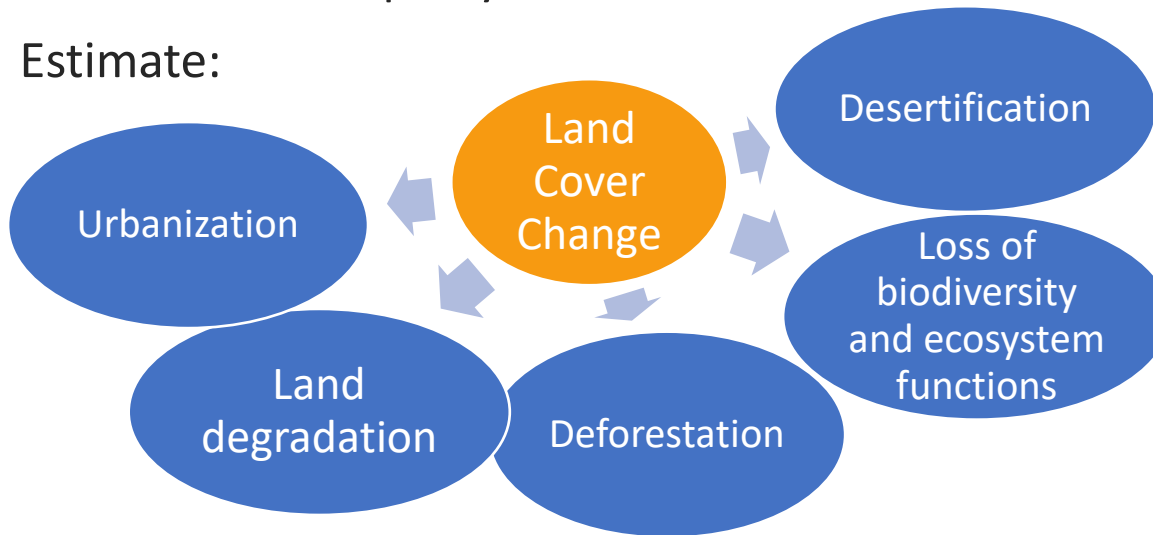




Environmental Monitoring

2. Land use/ Land cover change

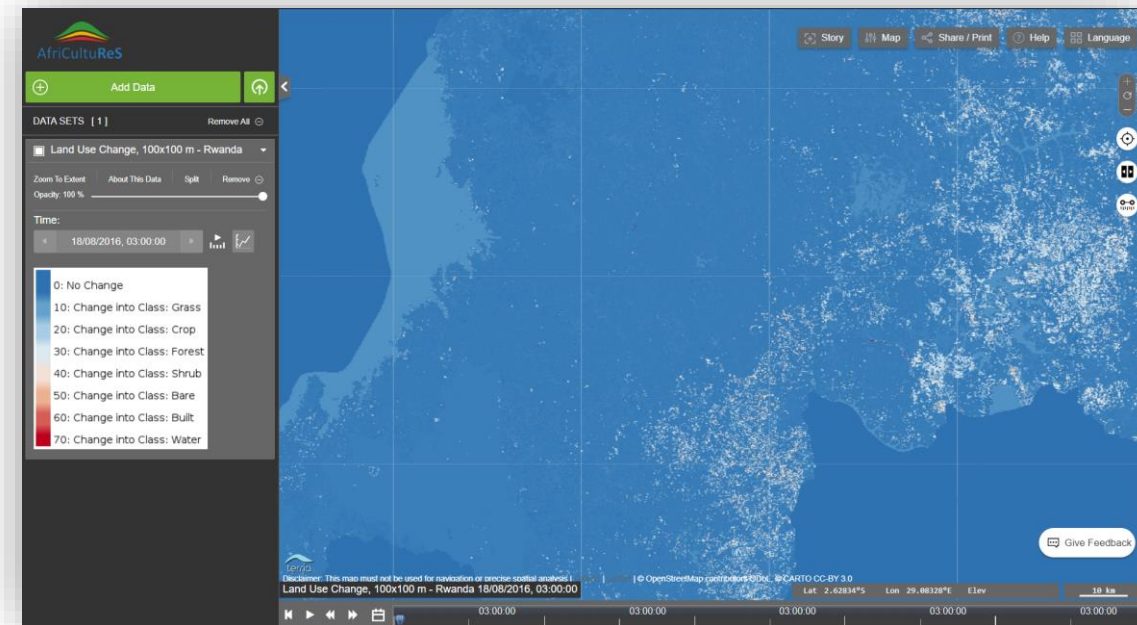
- Use of satellite data (sentinel-2, sentinel-1, sentinel-3) and in situ observation datasets
- Machine Learning algorithms (classification methods)
- Monitor Landscape dynamics
- Estimate:

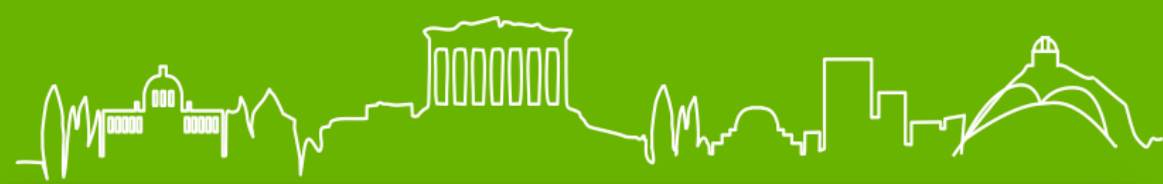


Visualization

Monitoring

Decision Support





Sustainable Agriculture

1. Monitor yield for agricultural sustainable management
 2. Crop classification services
 3. Map water bodies, soil moisture and drought for sustainable irrigation
 4. Crop loss and disasters estimation (floods, fires)
 5. Weather forecast including extreme weather events to support agricultural practices
- Use of EO data from satellites (sentinel-2, sentinel-1, sentinel-3) and UAVs
 - Vegetation, water indices etc.

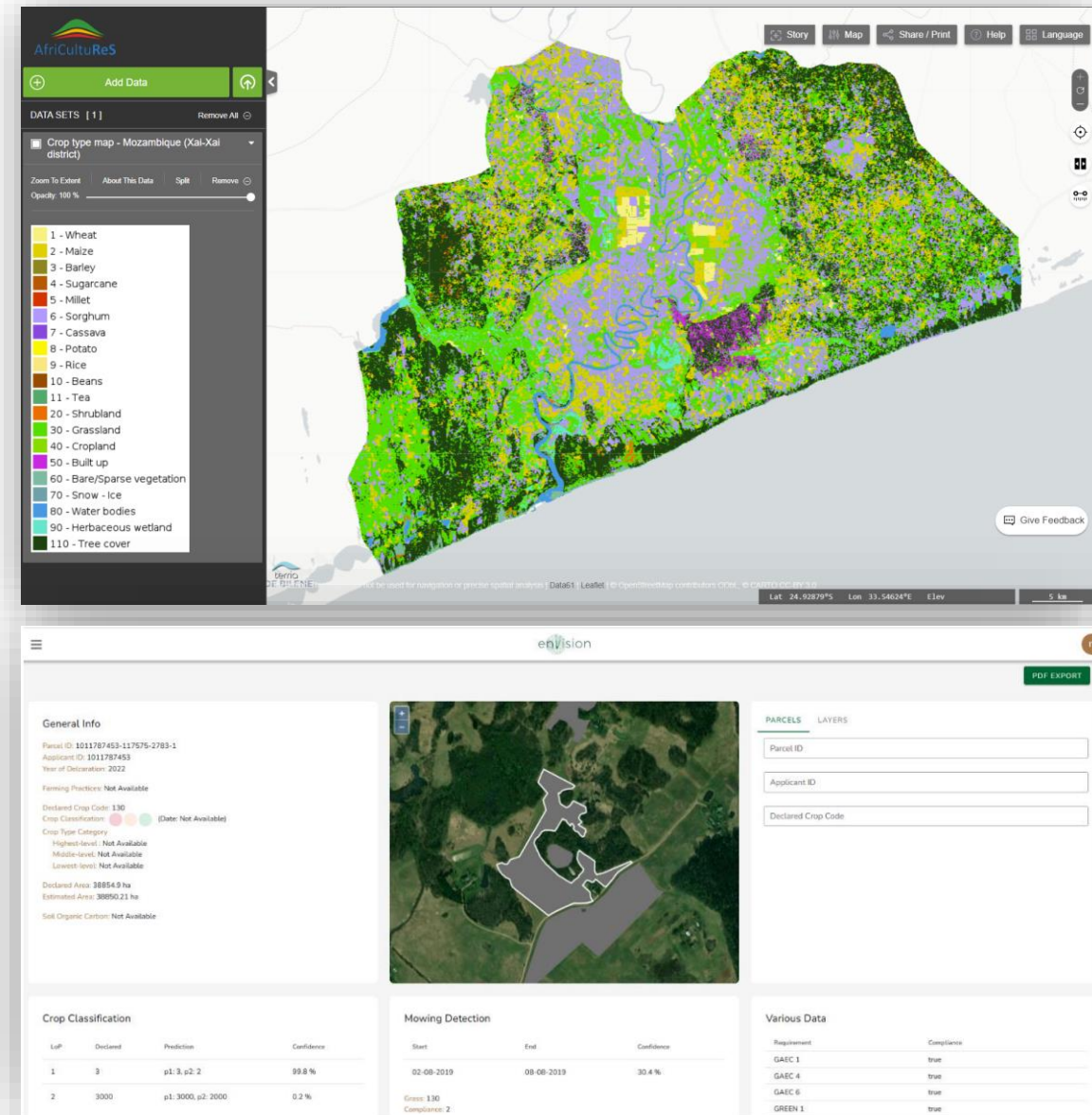
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Biodiversity and Ecosystem Sustainability



Disaster Resilience



Public Health Surveillance



Water Resources Management



Food Security and Sustainable Agriculture



Sustainable Urban Development

Alignment with GEO's benefit areas



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