



AIR CENTRE

ATLANTIC INTERNATIONAL RESEARCH CENTRE

Added-value of engaging the ecosystem to promote innovation

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10-11-2021

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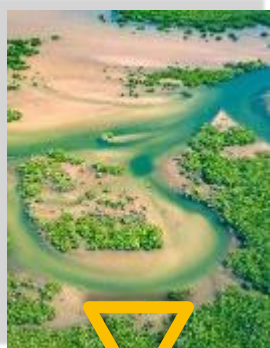
AIR Centre Overview



AIR Centre Vision

- International, distributed and collaborative network institution
- To foster **job creation** and **knowledge driven economic development** in Atlantic regions
- Based in **scientific excellence** and providing services to the scientific community
- To monitor and decisively contribute to reach the UN sustainable development goals, summarized in 3 main global challenges:
 - Climate Change
 - Digital transformation
 - Income inequalities and population dynamics
- With main actions oriented towards selected main **thematic missions**

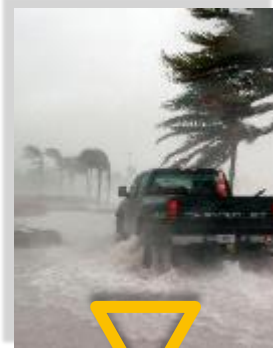
AIR Centre: thematic Missions and the result of an International Scientific Diplomacy effort



Clean and productive bays and estuaries



Improved management of marine and coastal resources



Resilience to coastal natural hazards



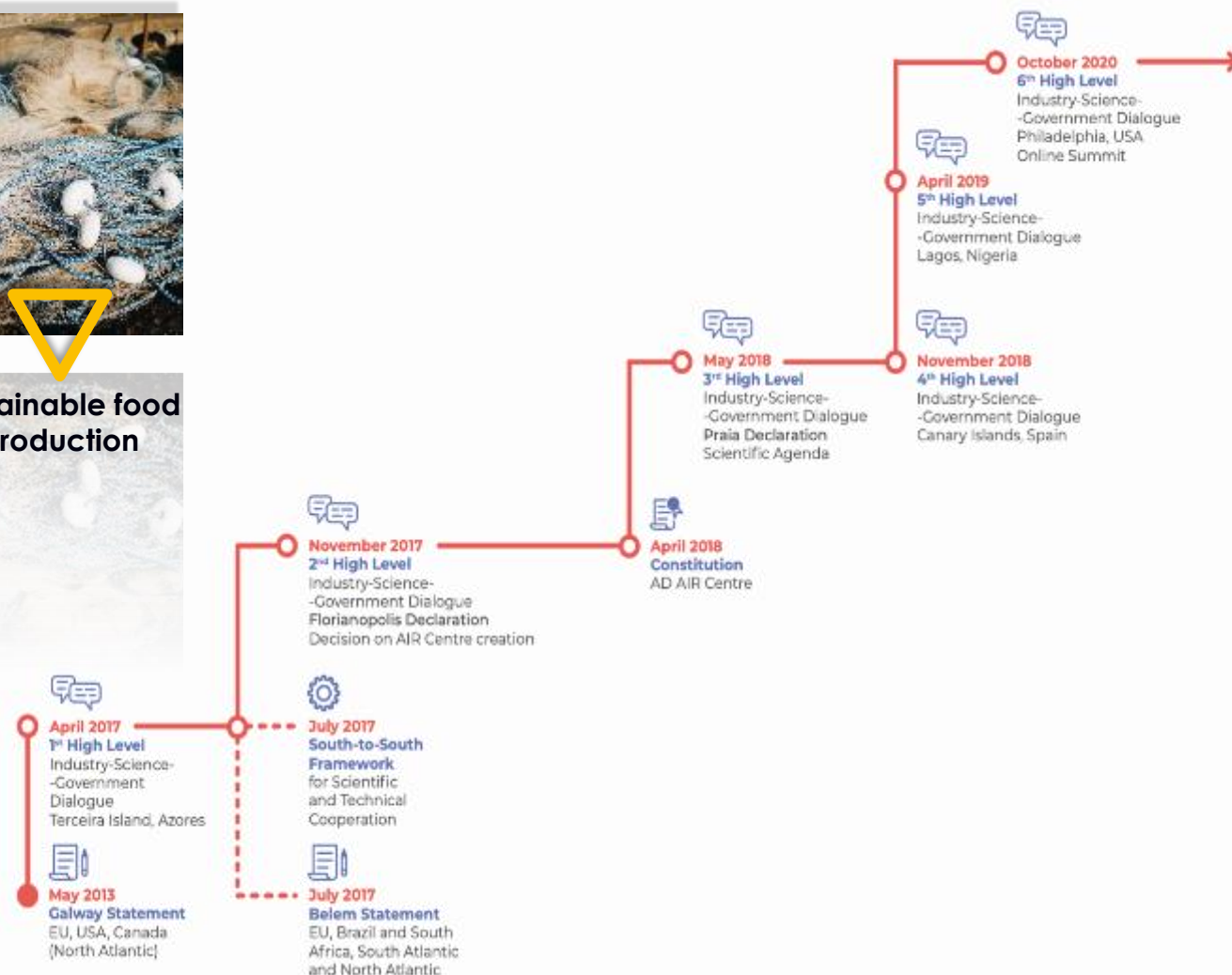
Improved environmental and maritime monitoring



Sustainable food production



Sustainable food production



Network Offices

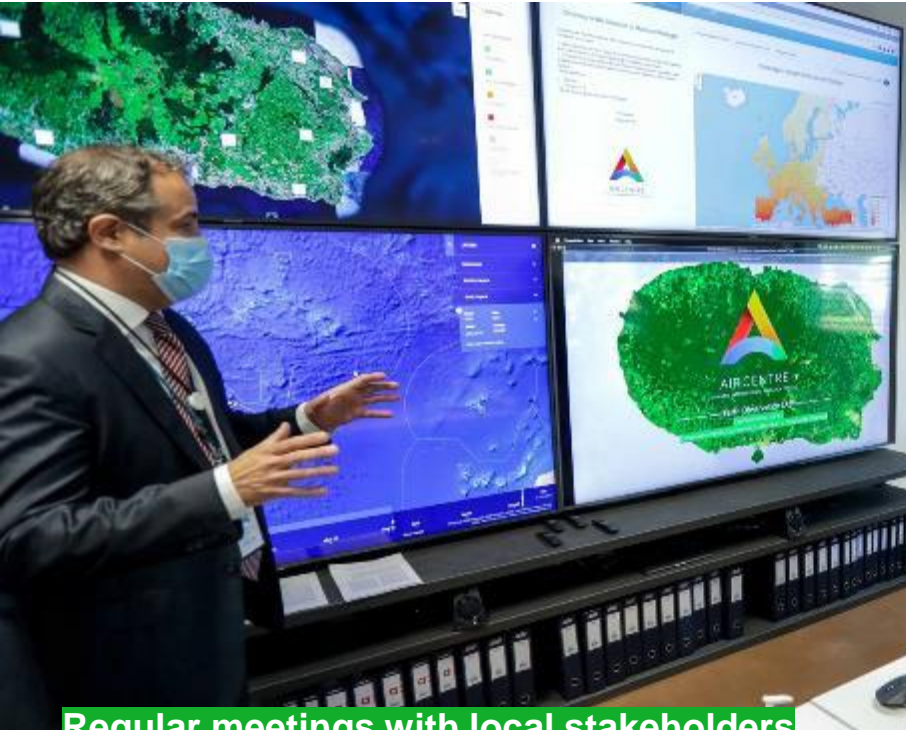


More than 40 submitted proposals worth 48M€

More than 20 ongoing projects, 1.6 M€



Regular organization of events



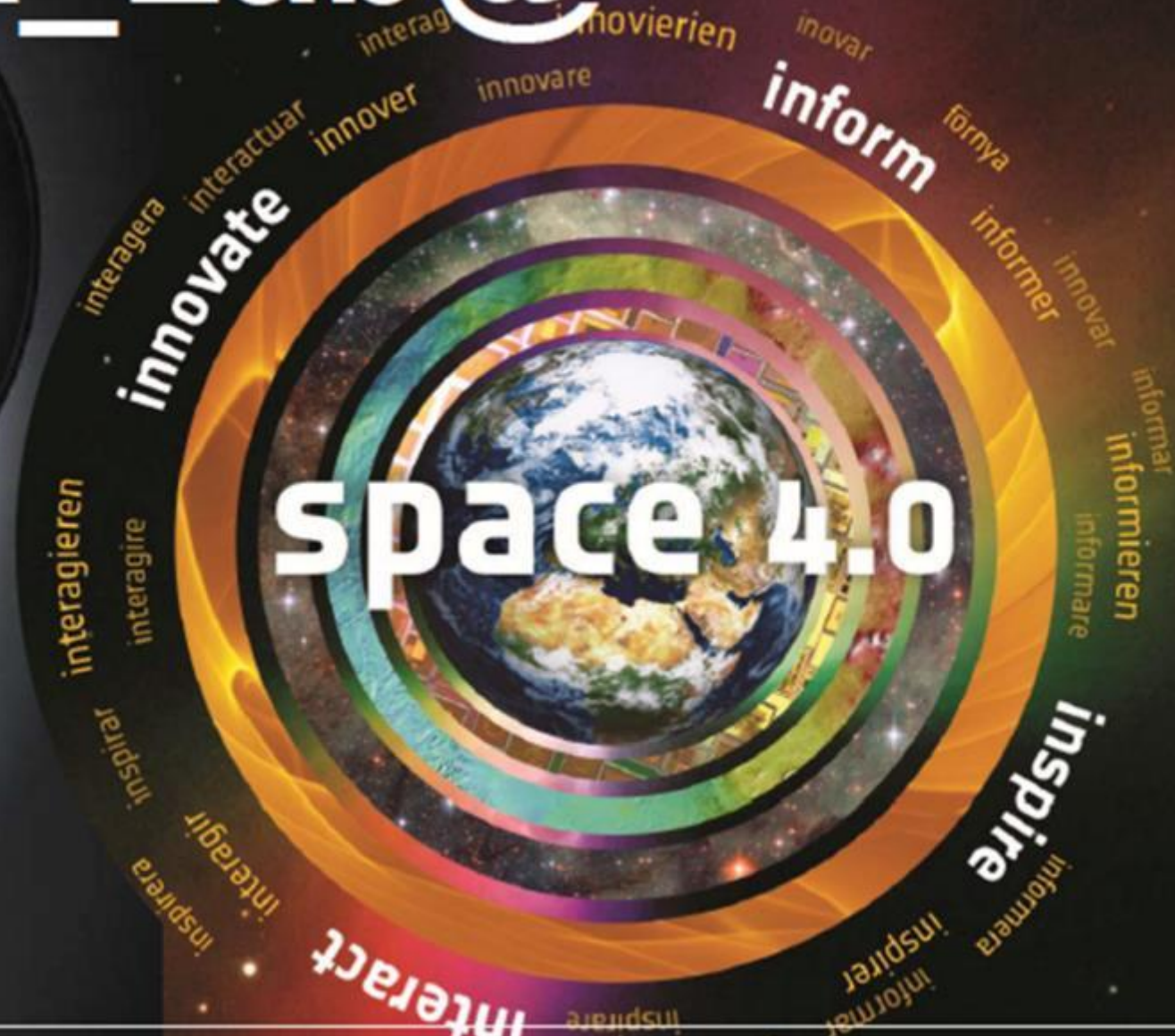
Regular meetings with local stakeholders



International Competitions



Projects addressing local and global concerns

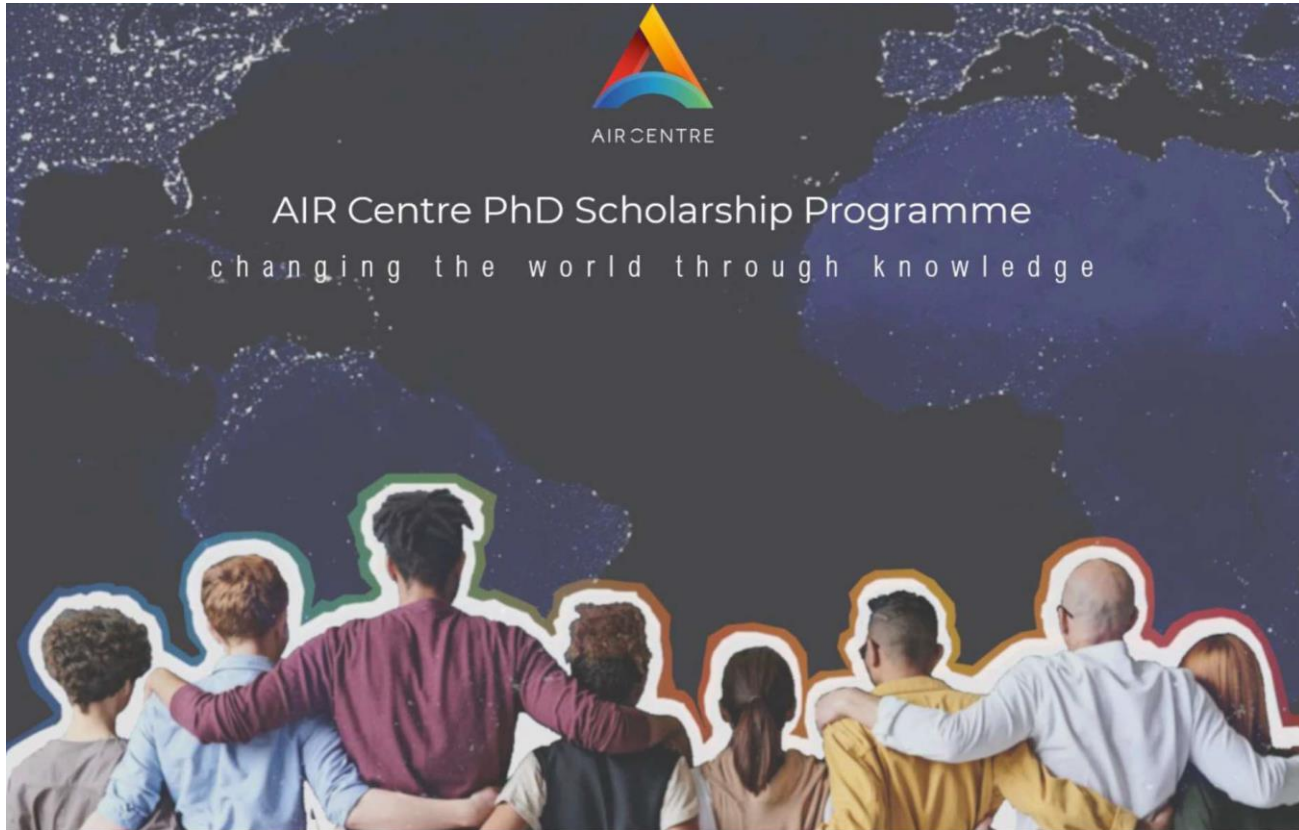


AIR Centre Earth Observation Lab and MBON

- The Earth Observation Lab, located in the TERINOV Technological Park (Terceira island, Azores) is established as:
 - **ESA_LAB@Azores**, a laboratory to set-up an institutional link between research entities, Portugal Space and the European Space Agency to explore innovative applications of space technologies of EO observation in the Atlantic area
 - Secretariat of the **Marine Biodiversity Observation Network** (MBON) from the Group of Earth Observation (GEO)
- Thematic mission oriented, tackling end-user needs and real problems



Scholarship Programme



1st call launched in Q4 of 2020

- (13) Scholarships
- 42 applications

2nd call launched June 2021

- (14) Scholarships
- Ended 20th September

NETWORKING FRIDAYS

April 2020 – July 2021



60
SESSIONS



250+
PANELISTS



10,000+
REGISTRATIONS



15,000+
YOUTUBE VIEWS



9,000+
TOTAL NUMBER OF
USERS



6,000+
UNIQUE VIEWS



125
COUNTRIES AND OVERSEAS
TERRITORIES



AIRCENTRE

every Friday, always starting at 1 PM UTC

<http://aircent.re/netfridays>



AIR CENTRE
ATLANTIC INTERNATIONAL RESEARCH COLLEGE

DATA CENTRE & DIRECT RECEIVING STATION



Aqua



Suomi



JPSS-1

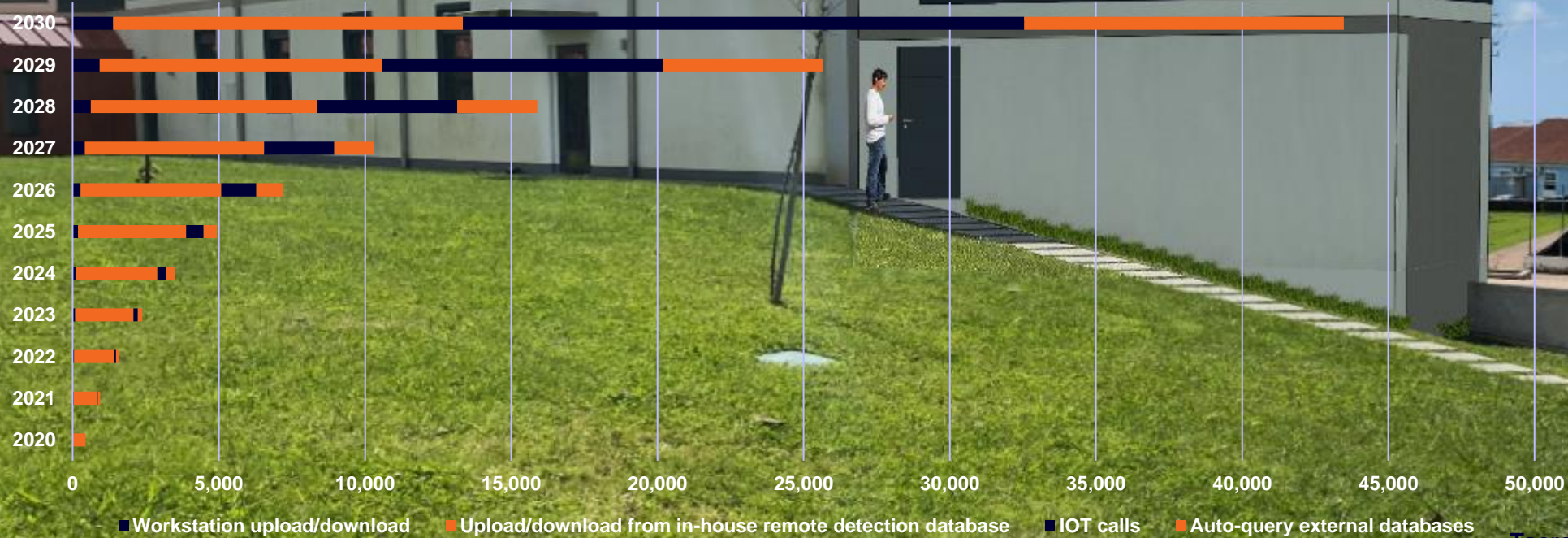


FengYun-3



Terra

Estimated External Data Usage 10 Years (error +/- 10%)

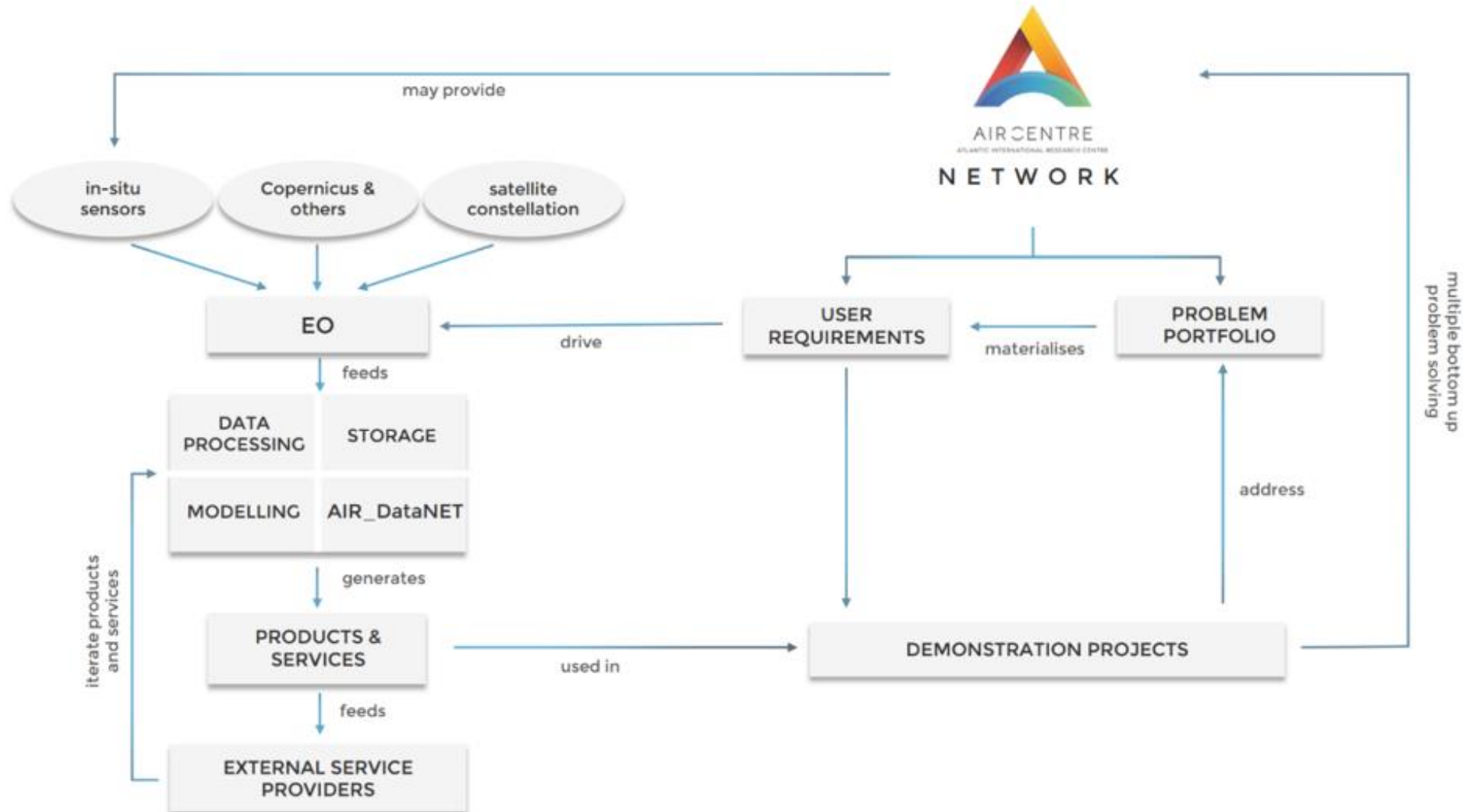


Taerabyt
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Connecting ecosystems in the space sector



EO Lab approach to innovation

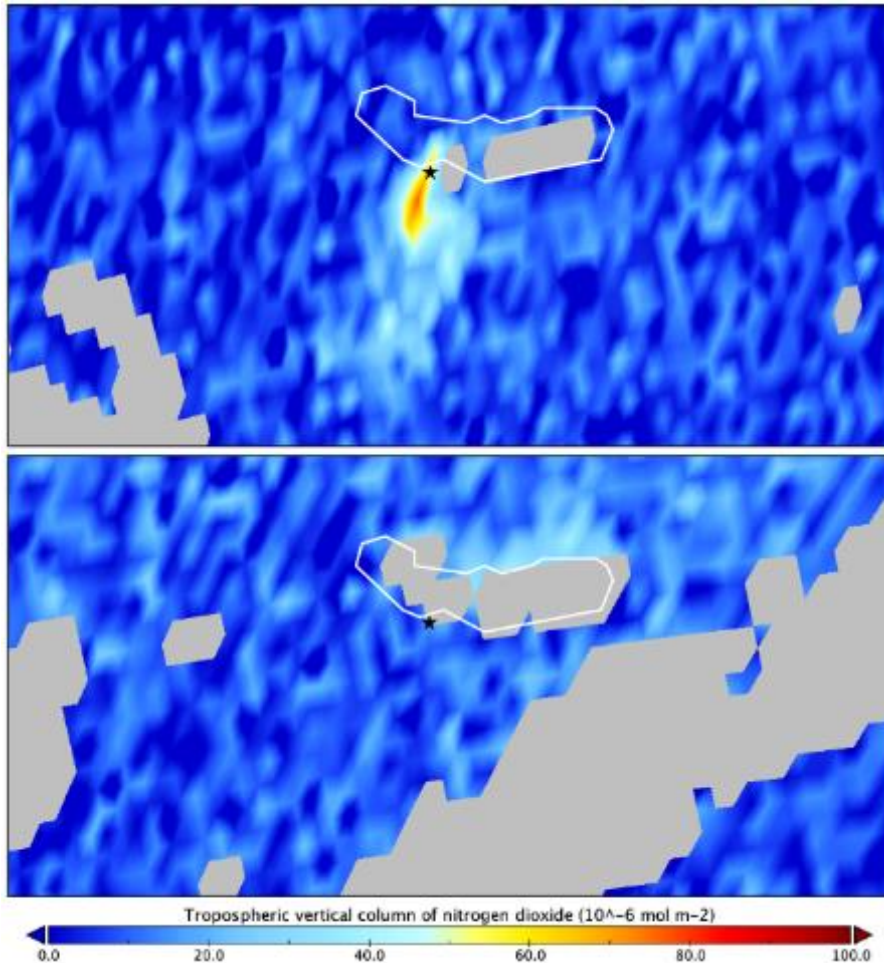


Project and Programme Examples (1/7)



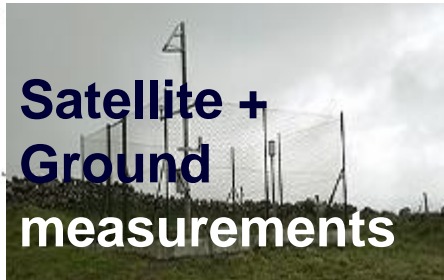
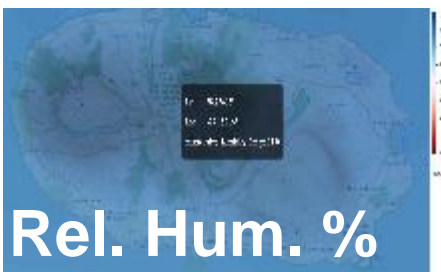
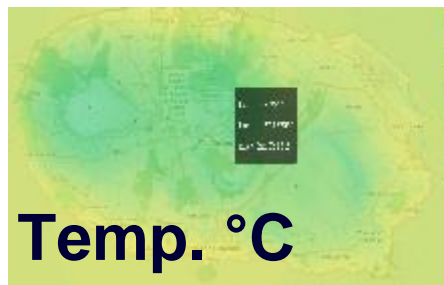
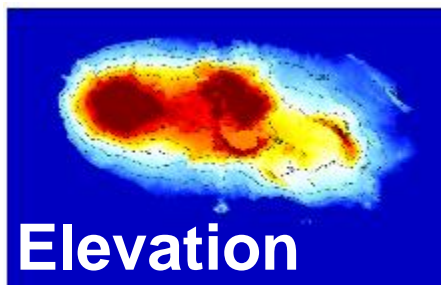
- Identify and evaluate the deployment of transformative environmental monitoring and management services;
- Help ports minimize their environmental impact, while keeping operational costs contained;
- Use EO, SATCOM and SATNAV infrastructures in combination with CCTV, in-situ and mobile sensors, data repositories and autonomous robotic solutions;
- Incorporate Big Data and AI techniques for automatic knowledge extraction.

Project developed by:

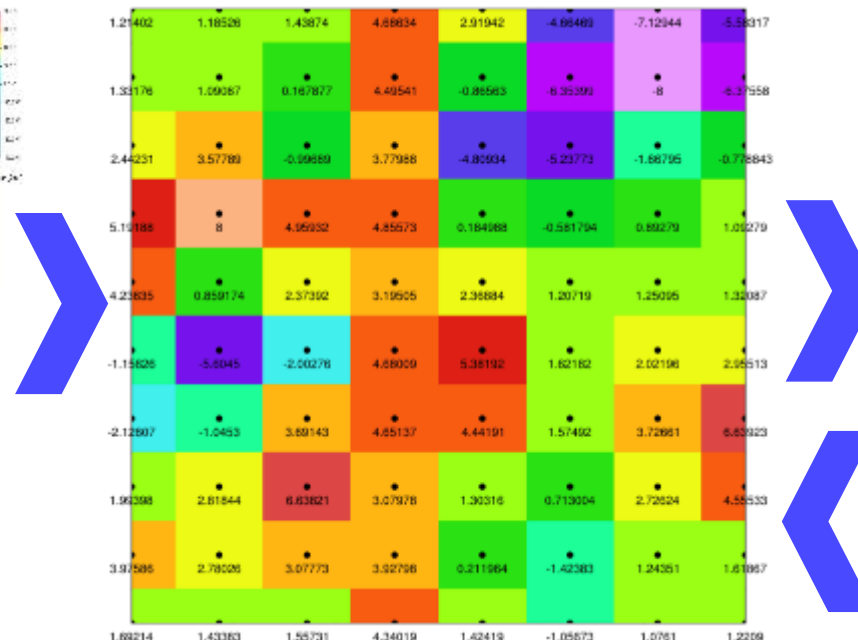


Project and Programme Examples (2/7)

Continuous Data Monitoring and Analysis



Real-time Risk Map



Spore Counts



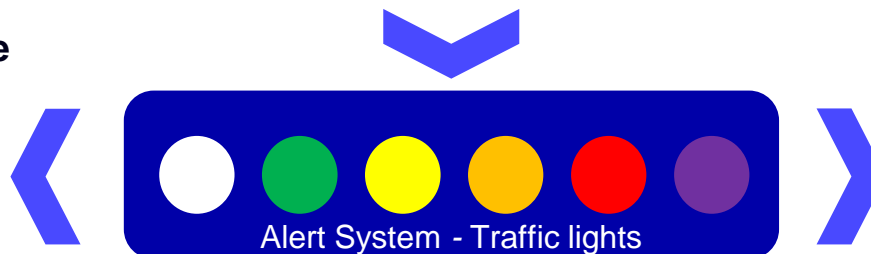
Lab. Regional Veterinária

Validation

Inform farmers of risk and effective contamination levels **enabling toxicity prevention** through effective **avoidance, suppression and protection.**

Web application

Risk + Validated Contamination



Develop Predictive Model

Project and Programme Examples (3/7)



Internationalization of the AIR Centre within the scope of the Azores sectoral challenges



The IntAIRSect project is financed by the PO-Azores ACORES-01-0145-FEDER-000138

Research and Innovation activities in Public Research Centres and Competence Centres, including Network Cooperation to develop common agendas submit proposals. Organisation of two workshops in Azores with 6 WG where each WG has one partners from Azores, Europe, Africa, South America and North America .

Project and Programme Examples (4/7)

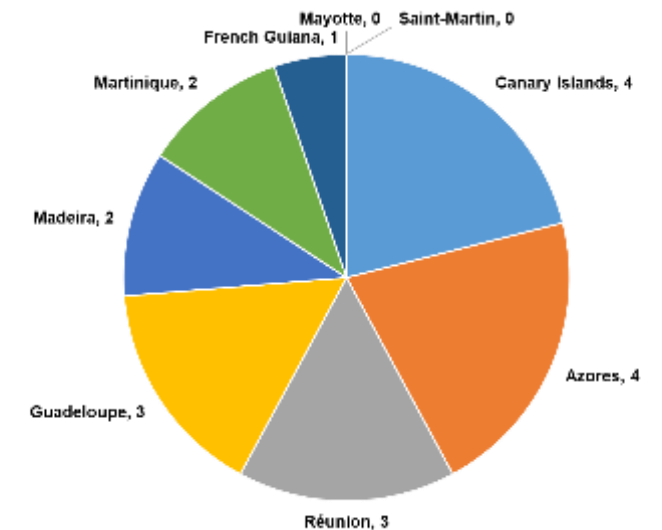


This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 821550.

AIR Centre leads the TWG3 “Earth system, space & universe sciences”

Overall objectives :

- 1.Improve ORs' excellence in research and their innovation potential
- 2.Improve their participation in EU research and innovation funded projects
- 3.Link research activities with territorial development



Project and Programme Examples (5/7)



Framework Partnership Agreement on Copernicus User Uptake. Expanding the existing markets and creating new markets and competitiveness



The FPCUP project is financed by the European Commission under the FPA no.: 275/G/GRO/COPE/17/10042

Call for Internationalization of European SMEs in South Africa, Dec 2021



Other countries will follow in 2022...

Project and Programme Examples (6/7)



Blockchain

Earth Observation

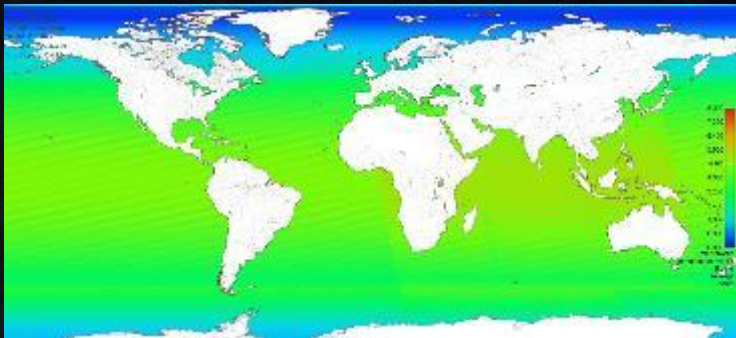
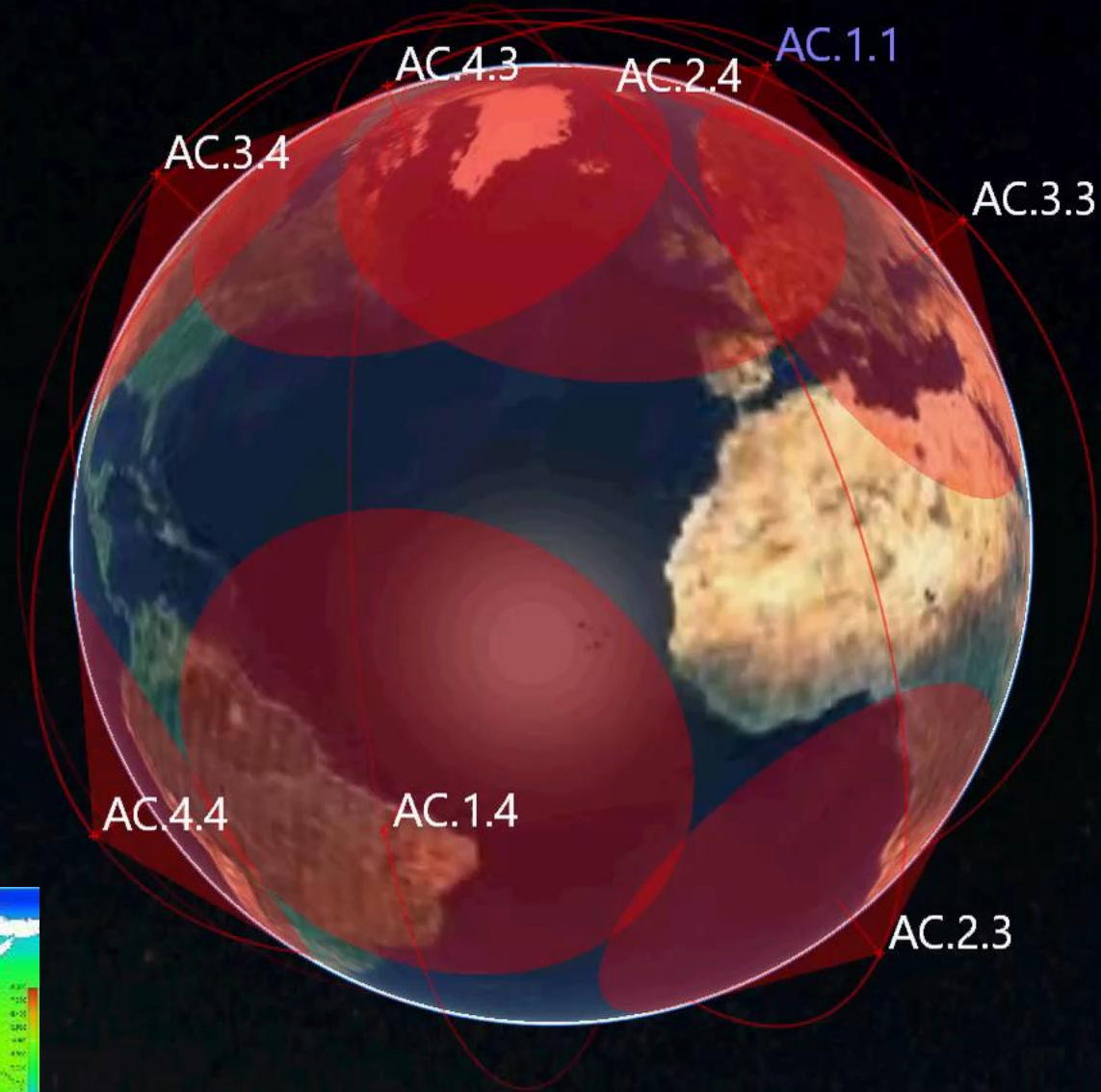
**Zona Livre
Tecnológica**

IoT

Big data



Project and Programme Examples (7/7)



Conclusions

- AIR Centre has been consolidated as an important international network for technical and scientific collaboration for a digital and greener Atlantic
- AIR Centre infrastructures like Earth Observation Laboratory and MBON have been implemented
- The first set of proposals were released to competitive calls, leading to more than 20 different projects in international collaboration
- The long term vision is defined with the Atlantic Constellation of small satellites as flagship project
- Ambitious Scholarship program has been designed for PhDs in international collaboration within our network
- Programs like SUN are key to extend out network and support the development of new projects and promote innovation



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