

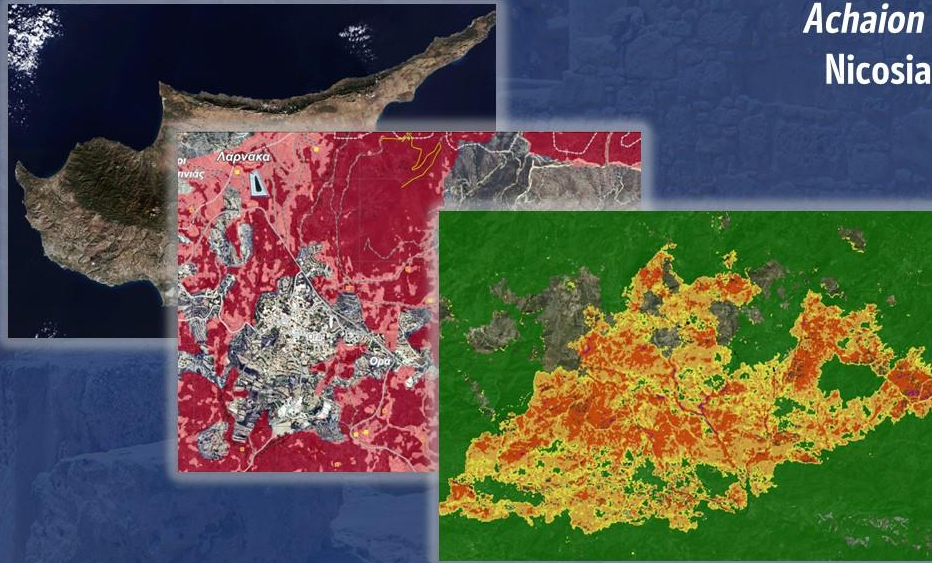
Satellite-based Services for Disaster Risk Management

17th May 2023

9:30 - 15:30 EEST

HILTON NICOSIA

Achaion 1, Egkomi
Nicosia, Cyprus



In cooperation with the Department of Electronic Communications |
Deputy Ministry of Research, Innovation and Digital Policy





Members



Satellite-based applications for Disaster Risk Management
National Workshop Cyprus
17 May 2023 Nicosia

Mission

Eurisy has been mandated by its Members to create networks to bridge space and society.



Approach



Facilitator → EXPLORE

Raise awareness of satellite applications to help professional communities in many sectors: from transport to risk management, from habitat protection to energy, from climate change to the IoT.



Matchmaker → CONNECT

Support potential end users of satellite applications by leveraging its vast network among space and non-space communities; understanding patterns and links and/or creating them for mutual benefits.



Adviser → INFORM

Provide feedback to decision-makers on possible measures to overcome obstacles in diffusing space-derived innovation in society.

SPACE SERVICE HUB

*CONNECT WITH USER COMMUNITIES ON
A WHOLE NEW LEVEL*



[ABOUT US](#) ▾

[SATELLITE APPLICATIONS](#)

[SUCCESS STORIES](#)

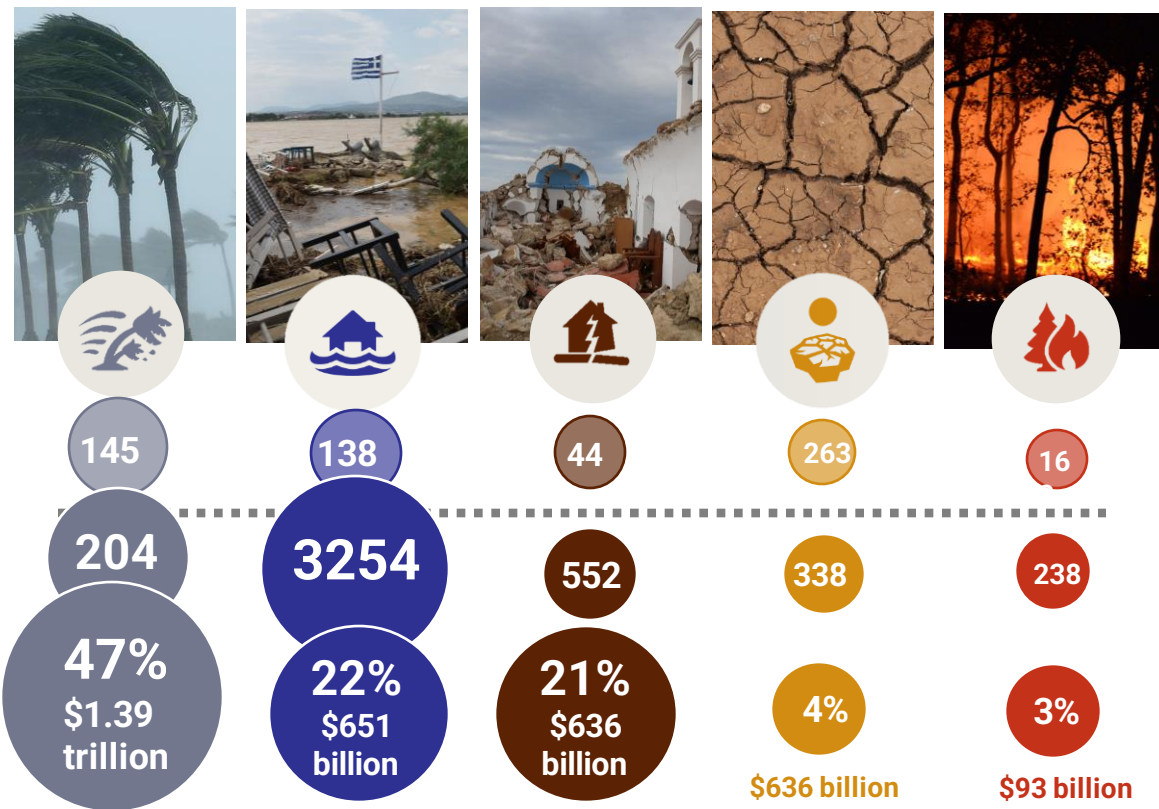
[HIGHLIGHTS](#)

[EVENTS](#)

[PROJECTS](#)

[REPORTS](#)

[SPACE SERVICE HUB](#)



Climate challenges



US\$ Economic losses

1980
1999

1.63
trillion

2000
2019

2.97
trillion

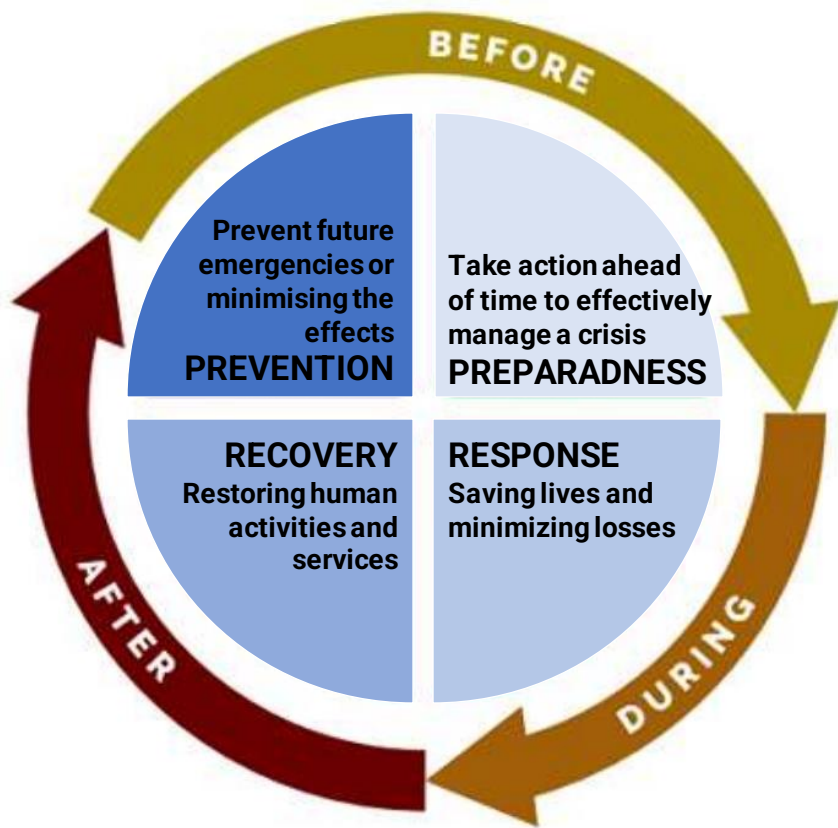
Disaster risk management

Key information & observation needs:

- Hazards: Past events; adverse phenomena; geographic settings
- Vulnerability: physical and socio-economic vulnerability assessment
- Exposure: inventory of assets

Key information & observation needs:

- Losses and damages: post-disaster maps
- Recovery and risk: changes of risks and hazards



Key information & observation needs:

- Forecasts & early warnings: pre-disaster information
- Need for assistance: post-disaster maps; human displacement

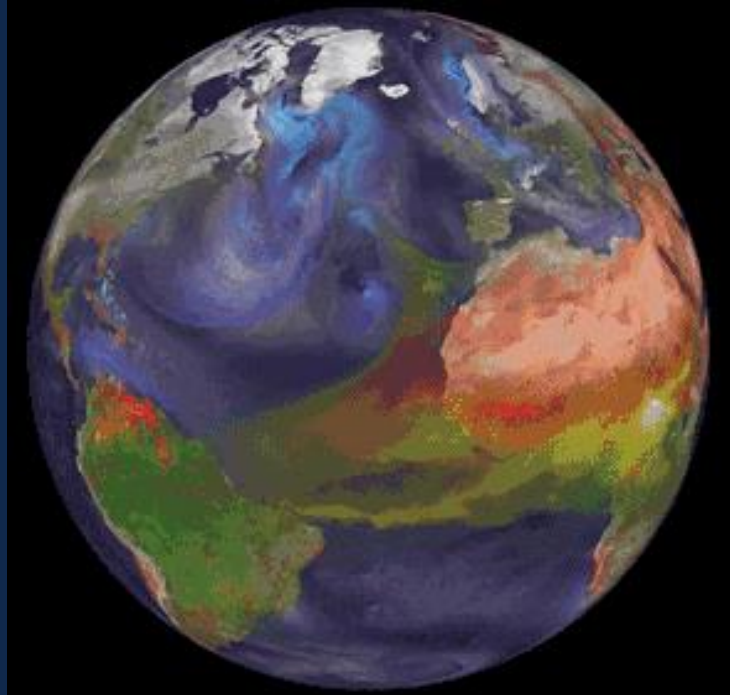
Key information & observation needs:

- Disaster scenarios: pre-disaster information



Why Space Applications?

*Earth
Observation*



*Satellite
Communication*



*Satellite
Navigation*

Disaster risk management



Emergency
Management



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FireHUB: early-warning service relying on meteorological and EO data

The user:

**GREEK MINISTRY
OF ENVIRONMENT**



The challenge:

Droughts, high winds, and the sprawl of land development in the proximity of forests cause several wildfires every year. Monitoring these large areas can be very costly and time-consuming.

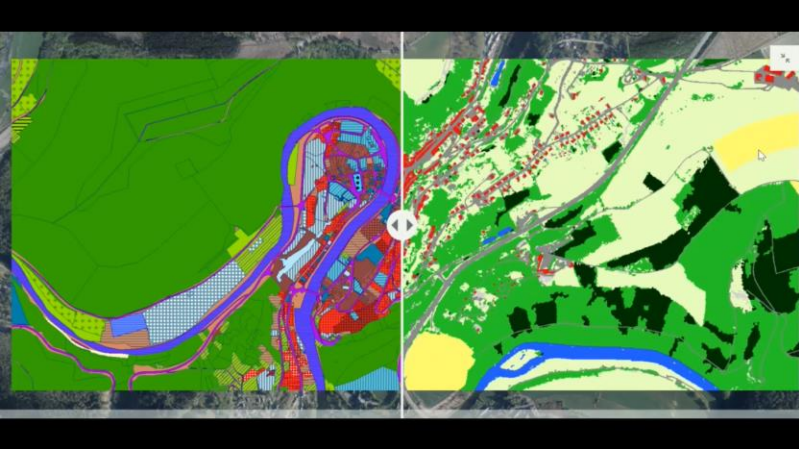
The solution:

Through a dedicated web-GIS application operators monitor wildfires and forecast smoke dispersion. The service also generates burnt scar maps during and after wildfires during the last 30 years

The benefit:

Provides timely fire detection data, enabling authorities to get a Situation Awareness Picture and to effectively deploy available resources. Maps of the burnt areas are also useful for damage and deforestation assessment

The Public Service of Wallonia (Belgium) relies on satellite imagery for a comprehensive view of land cover and use



The user:

The Public Service of Wallonia



The challenge:

Acquisition of precise, accurate and easily updatable information, on land cover (LC) and land use (LU) to comply with EU INSPIRE Legislation

The satellite solution:

WALOUS maps' integrate the latest georeferenced data on the whole Walloon territory

The benefit:

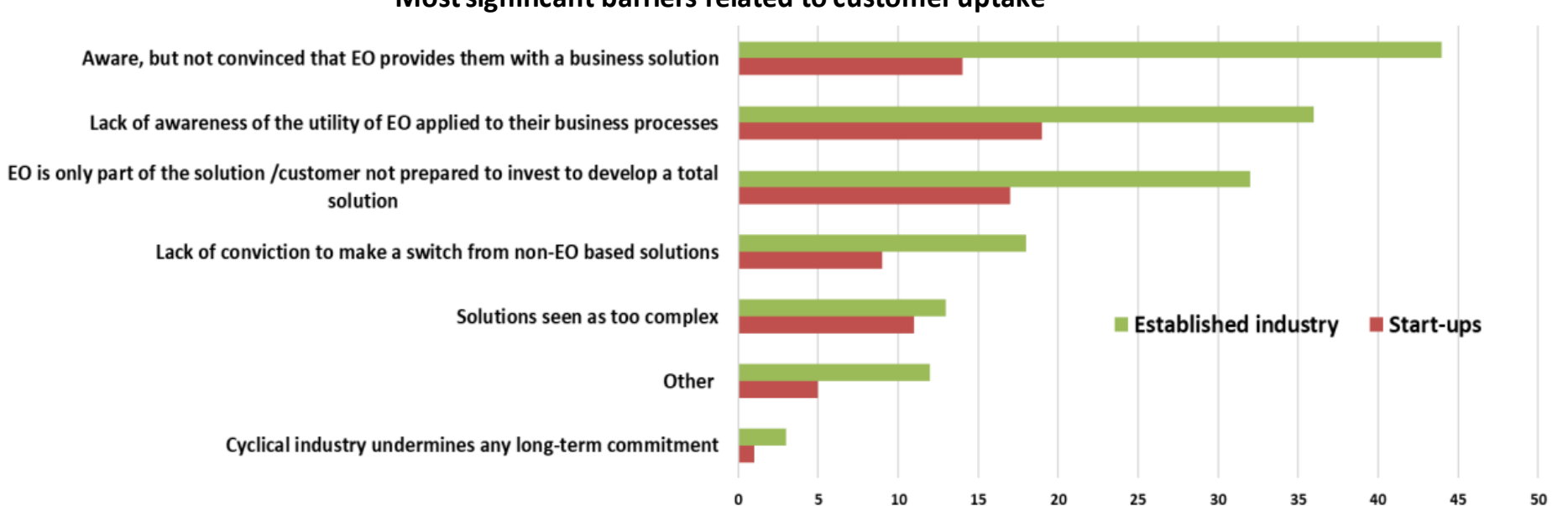
the Department of Agriculture, Natural Resources and Environment of the PSW uses the map to support farmers in making their declarations

Copernicus and EO market perspectives

Most significant barriers to growth that your company faces:

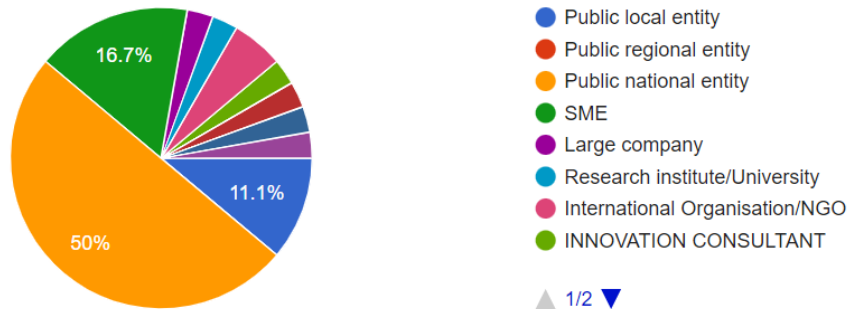
1. The biggest obstacle for both established companies (45%) and start ups (18%) is market user acceptance;
2. The second is for both finding new customers (38% EC; 16% Sus)

Most significant barriers related to customer uptake



Local Users perspectives: sample

In what type of organisation do you work?



In which field do you work:

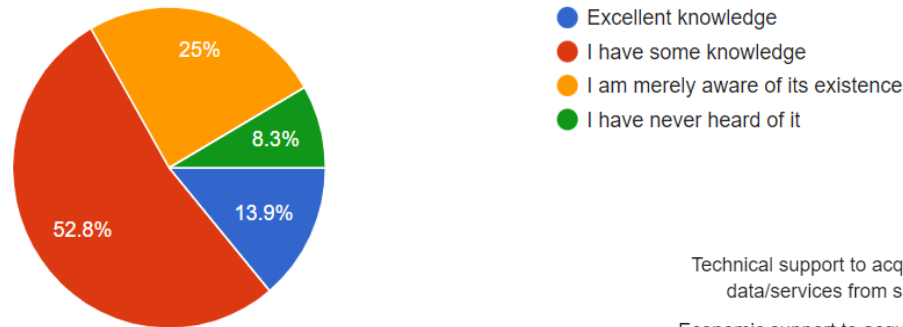
- 44.4% environmental protection
- 19.4% Buildings/Infrastructure
- 19.4% Climate energy

In which kind of data would you need to improve your daily work?

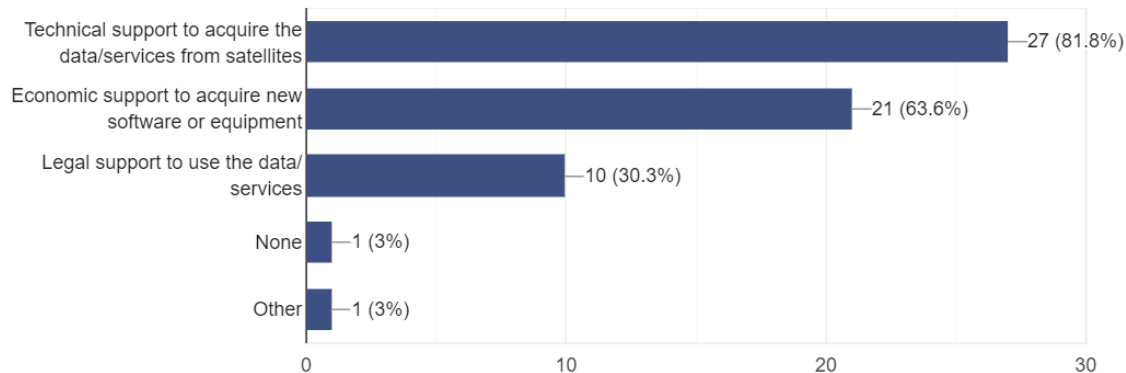
- High resolution images
- Near to real time
- Environmental data/statistics

Local Users perspectives: sample

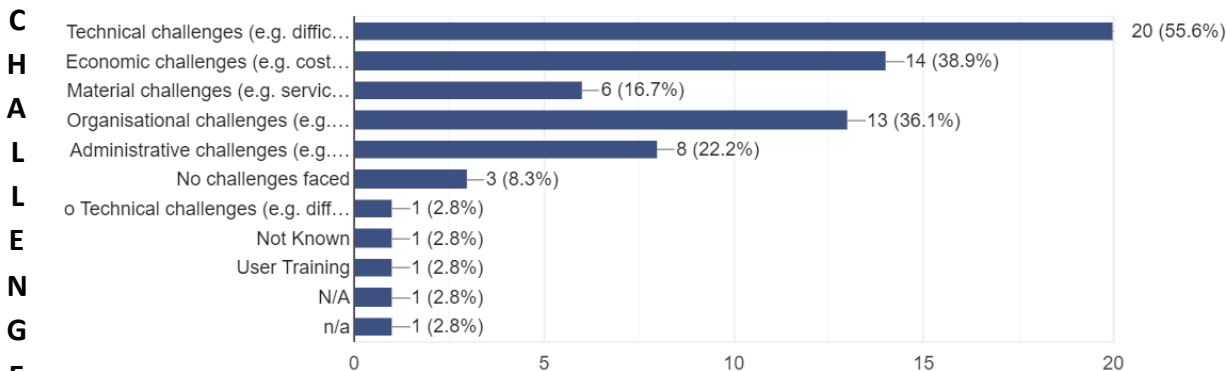
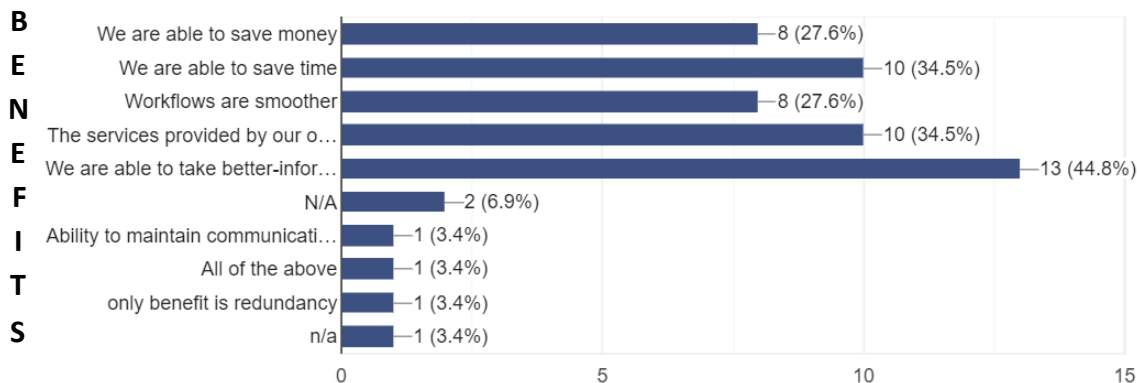
How familiar are you with Copernicus
Emergency Management Service CEMS?



Which kind of support would you need to
integrate satellite-based solutions?



Local Users perspectives: sample



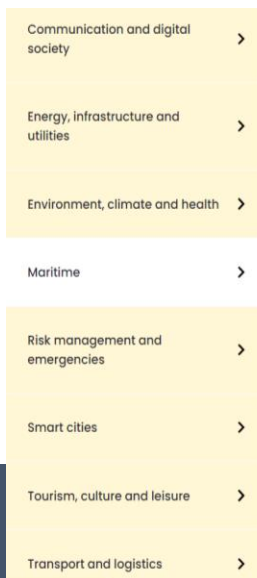
Success stories database



The Success Stories aim at addressing communities outside the space sector to express their needs and to present their challenges.

Objective is to favour the integration of satellite-based solutions in their workflow.

Success stories will favour the dissemination of case studies and help connecting service providers and end users.



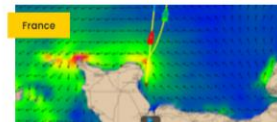
Montenegro: Protecting marine habitats thanks to a map based on satellite information



Lazio Region: supporting coastal zone management with geo-information services



Finland: All-year-round open ports due to efficient ice-breaking services



Weather4D: smooth seas and fair winds ahead with satellite technology



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