

# Accelerating Innovation in Space Through Strategic Partnerships

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**Second United Nations World Geospatial Information Congress, Hyderabad - India**

TP10C – Effective Partnerships, 12.10.2022

Asimina Syriou – European Space Agency

# We Are European Space Agency (ESA)



## EUROPE'S GATEWAY TO SPACE

### WHAT

22 Member States, 5000 employees

### WHY

Exploration and use of space for exclusively peaceful purposes

### WHERE

HQ in Paris, 7 sites across Europe and a spaceport in French Guiana

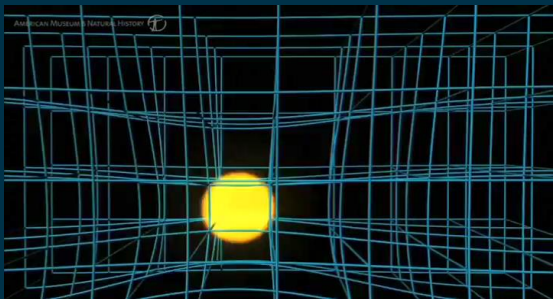




# ESA's 4 main pillars



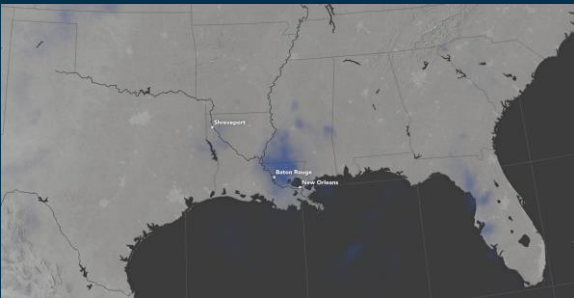
## Science and Exploration



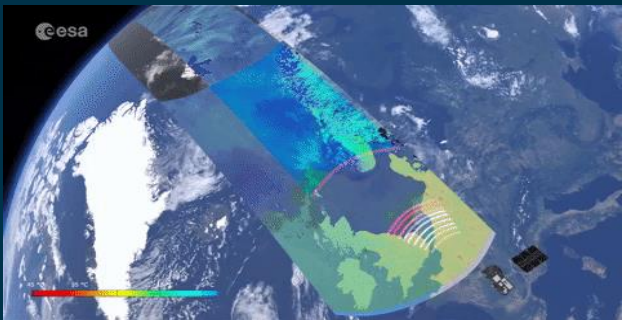
## Enabling and Support



## Safety and Security



## Applications





# BUSINESS APPLICATIONS – SPACE SOLUTIONS

Using **any space asset(s)** and integrating them with terrestrial assets for the **benefit of life on Earth**





# Purpose

## SOCIO-ECONOMIC

Deliver **social value** and **economic sustainability**



## SPACE USE

Expand the utilization of space in **new markets** and **user communities**



## INDUSTRY COMPETITIVENESS

Strengthen **European Industry competitiveness** on the global space and non-space markets



# Cooperation with “non-space” businesses to...

## Aviation



## Smart Cities



## Energy



## ICT



## Health



## Food and Agriculture



## Infrastructure



## Circular economy





**Support emergence of Green economy in vertical markets**



Green Buildings & Sustainable Cities



Energy Transition



Sustainable Tourism



Sustainable Mobility



Protecting Ecosystems



Sustainable Farm to Fork



Circular Economy



Clean Water



Green Finance



**Integrating space data and innovative technologies**



Space for Green Future



Satellite Communication



Satnav



SatEO

Virtual Reality



Autonomous Vehicles



5G/6G



Artificial Intelligence



Robotics



**Engage with industry stakeholders and public entities for delivering the green transition**



Decarbonisation



# #1 SPACE IN RESPONSE TO HUMANITARIAN CRISES

Supporting the physical, emotional, psychological, social, or economic well-being of refugees/ IDPs

Supporting post-conflict recovery efforts

Supporting communities hosting displaced people


Supporting humanitarian and governmental organisations to forecast, respond to, and manage displacement crises

**Objective:** to deliver space-based services supporting the humanitarian efforts in response to the crisis

Stakeholders:

unicef 

 IOM  
UN MIGRATION

 UNOSAT

 NRC

 IEP



**Call opened:** 25 April 2022

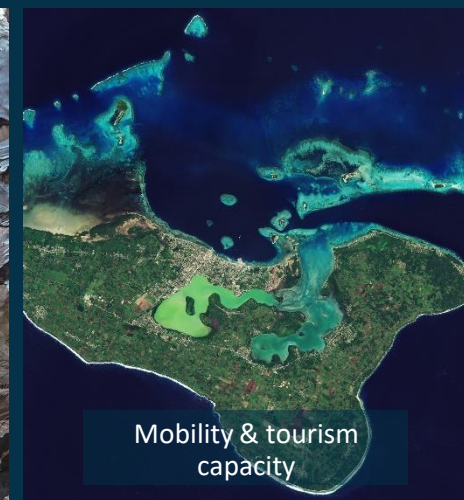
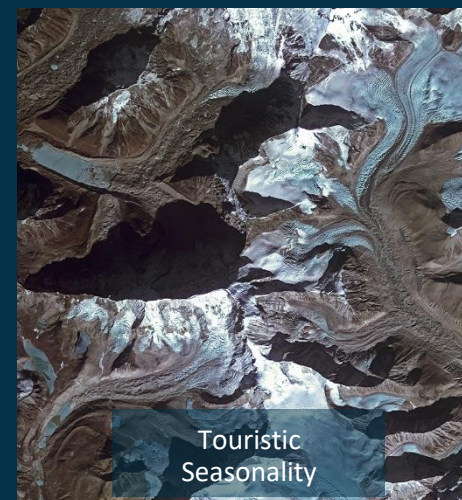
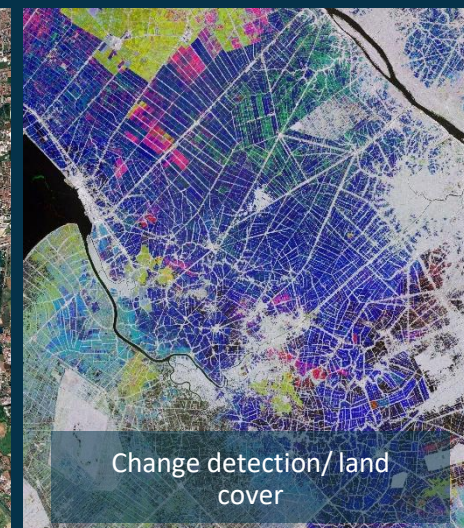
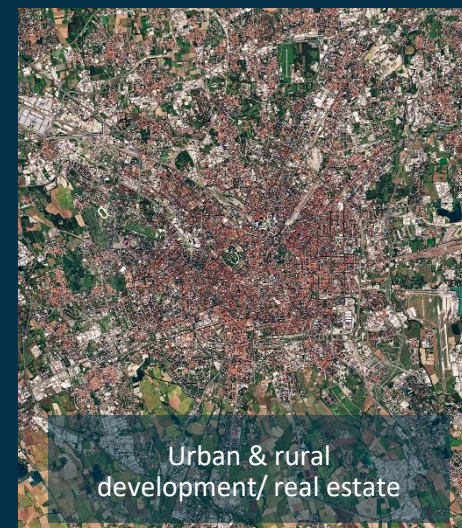
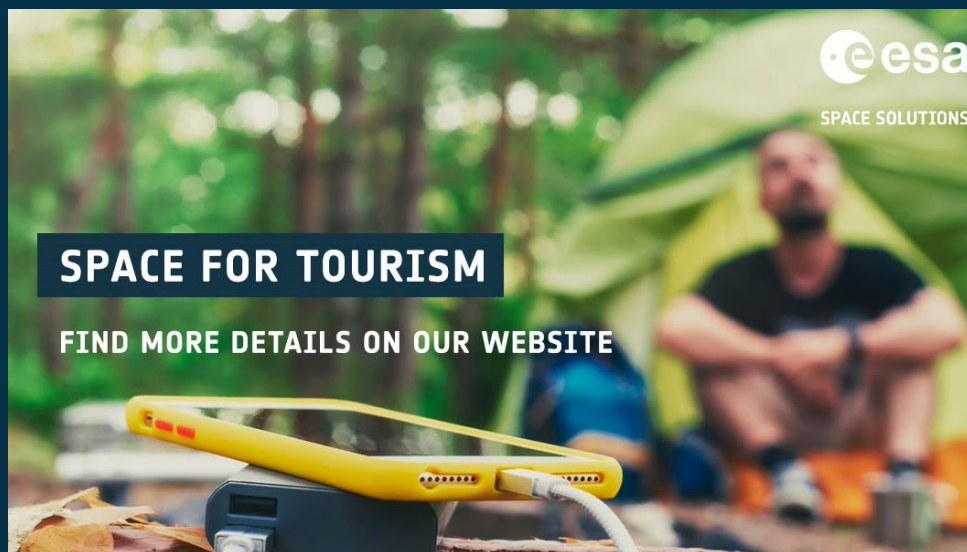
**Deadline:** 31 October 2022 – might be extended

<https://business.esa.int/funding/invitation-to-tender/space-response-to-humanitarian-crises>





## #2 SPACE FOR TOURISM

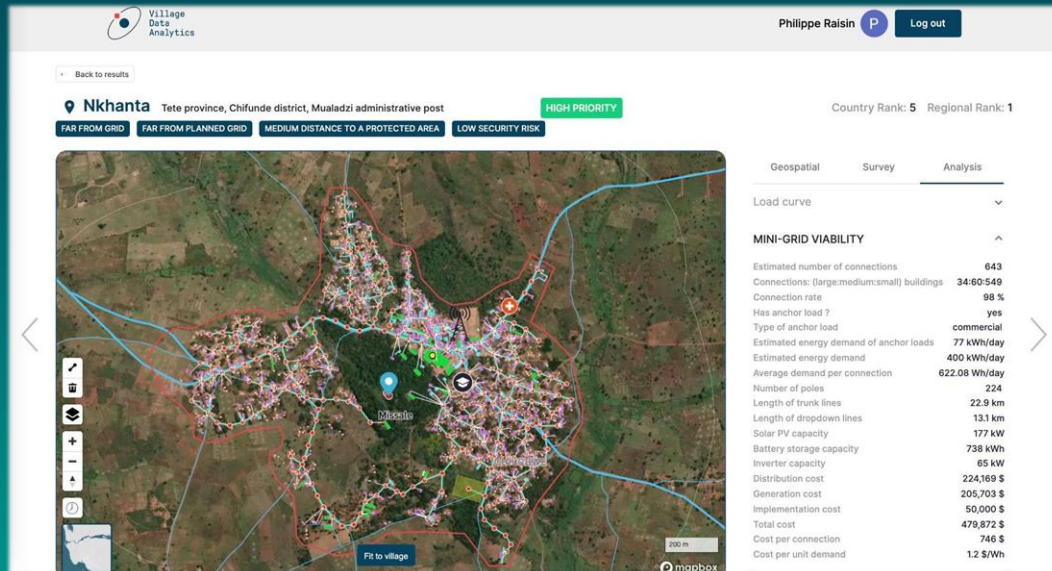


<https://business.esa.int/funding/space-for-tourism>



# #3 ENERGY TRANSITION

VIDA (Village Data Analytics) enables off-grid electrification planning through AI connected solutions for decentralised energy systems.



Gas usage and carbon dioxide emissions from power generation are reduced. Cost and time reduction of over 70% is achieved compared to traditional site scoping methods.





## #4 CLEAN WATER

- Water Managers around the world are confronted with new challenges related to climate change and lack proper information on water availability.
- OWASIS draws together information from a variety of sources to improve water resource management and to reduce flood and drought-related risks.
- The service is having a significant impact in the Netherlands, South Africa, and Colombia. Contracts have already been signed with the Dutch Water Authorities, with one regional water authority attributing a cost saving of 150 kEUR to OWASIS due to reduced electricity and fuel usage for pumping systems.

- Clean Water is a key priority topic for the future. ESA BASS is working with CEO Water Mandate to support the development of services that:
  - Improve water sustainability in businesses by tackling issues in the value chain.
  - Digitise water basins to improve the monitoring of – and acting on – water resilience.

**ARTES 4.0 Fixed Call for Proposals on “Digitising Water Resilience: Acting on Water Stress in Basins**



136 proposals received; more than 40 projects implemented

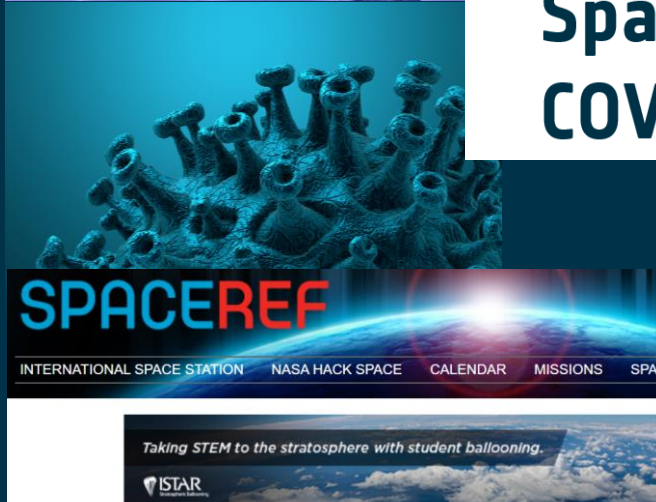


Coronavirus: da Esa e Mid avviso finanziamento a imprese per progetti su emergenza

APPLICATIONS

## Space in response to COVID-19 outbreak

In cooperation with IT Minister for Technological Innovation and Digitization, UK National Health System and other stakeholders



ESA's Response To COVID-19

## NASA and ESA to fund coronavirus projects

by Jeff Foust — April 1, 2020

## Space in Response to COVID-19 Outbreak



Image credit: Sam Wordley

ESA-STAR REF	A010314
ACTIVITY	Demonstration Project
OPENING DATE	31-03-2020
CLOSING DATE	20-04-2020

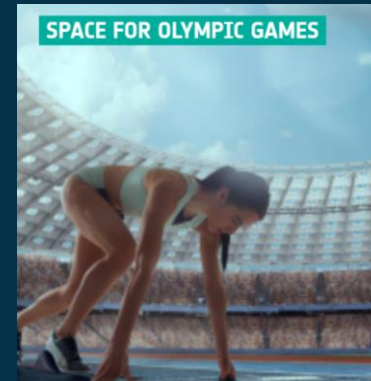


# #6 SMART CITIES INITIATIVES AND STAKEHOLDER ENGAGEMENT





# CURRENT BUSINESS APPLICATION FUNDING OPPORTUNITIES





# Thank you! नमस्ते

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Asimina (Mina) Syriou

<https://business.esa.int>