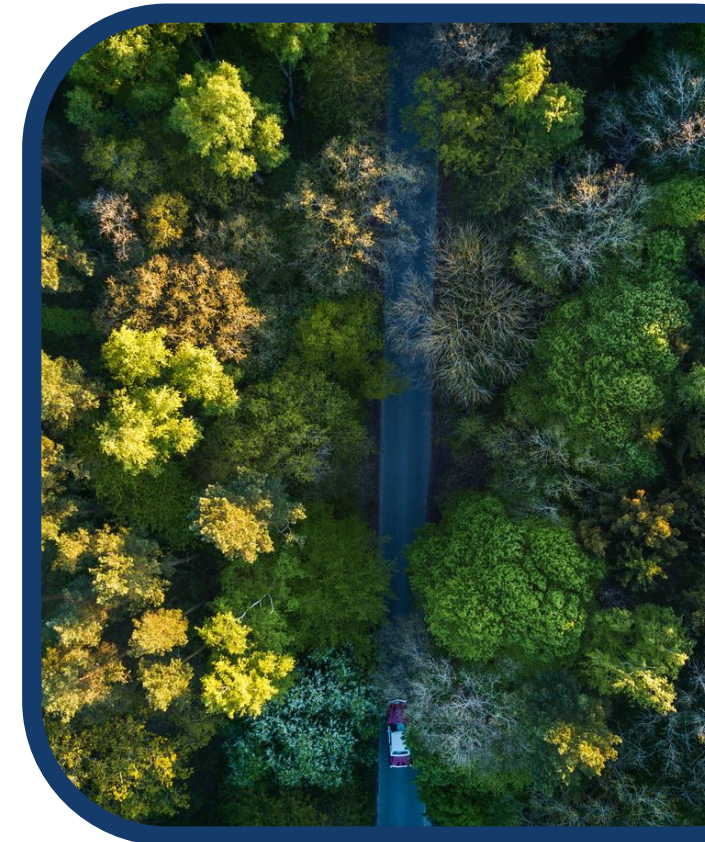


INOV - Instituto de Engenharia de Sistemas e
Computadores Inovação

Remote monitoring and decision support from INOV



INOV AT A GLANCE



INOV is a leading Portuguese Research and Technology Organisation in the area of ICT & Electronics



Main private R&D institute in Portugal in the area of Safety, Security & Defence, with National, EU and NATO security clearance



Focused on technology development, systems integration, testing, technology transfer and operational support of advanced solutions for private and public clients



Extensive experience in large National and European R&D projects – over 70 participations in the last 10 years, including coordination roles

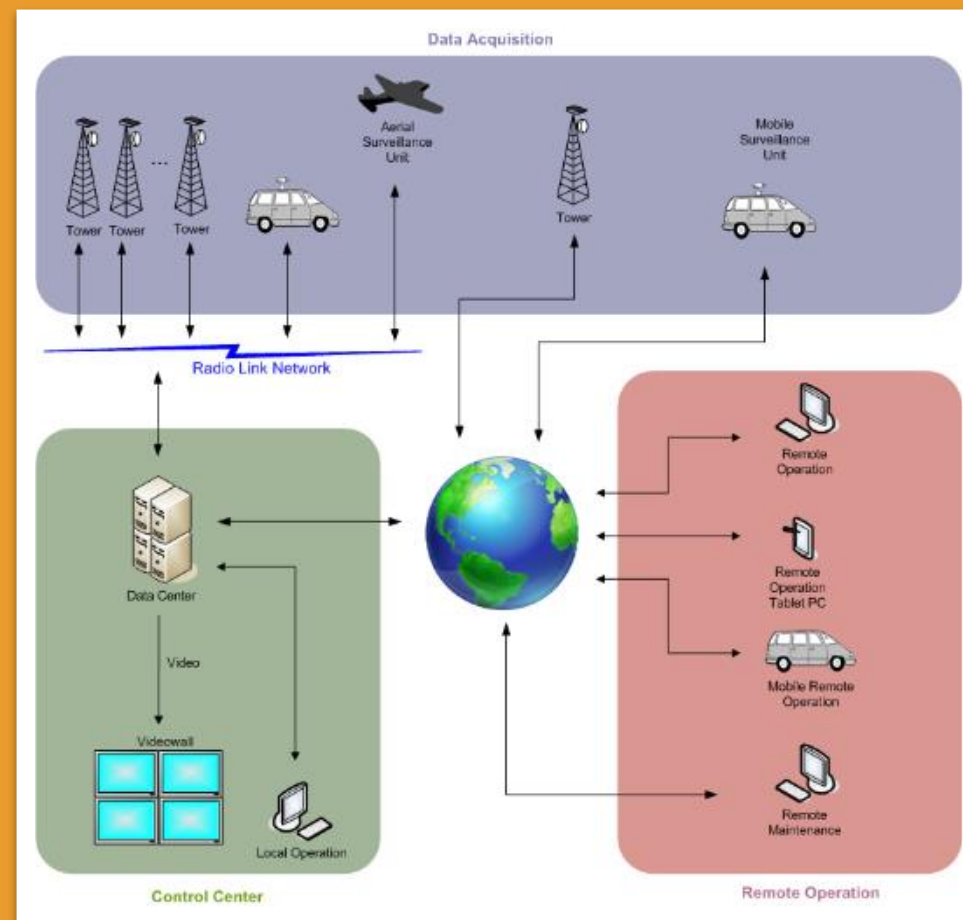


Longstanding partnerships with relevant Portuguese stakeholders in the public and private sector, for the supply of operational systems



CICLOPE - REMOTE MONITORING AND DECISION SUPPORT

- Video surveillance for early automatic detection and operational decision support in forest fire fighting
- Completely autonomous energy and communications systems
- More than 20 years of experience



A FEW FACTS ABOUT CICLOPE

Coverage:

- ✓ > 45% Portuguese territory (4M ha) + Greece and Italy
- ✓ > 150 Surveillance and Data Acquisition Towers
- ✓ > 25 Management and Control Centres
- ✓ > 50 Remote Monitoring Centres



A FEW FACTS ABOUT CICLOPE



The towers are controlled from the Control Centres and the captured images are available in real time



The tower's cameras can be visualised / controlled from other Control Centres offering tools for operating in a simultaneous multi-user environment



The software operational interface is extremely practical and visually intuitive

A FEW FACTS ABOUT CICLOPE



Very fast confirmation and localisation of alerts (< 5 min from ignition),
with definition of the means for 1st intervention



Tracking and guidance of means employed in operational settings



Assessment and prediction of fire behaviour



Support to the identification of arson



A FEW FACTS ABOUT CICLOPE

With remote monitoring it is possible to:

- **Assess the situation** in a quick and comprehensive manner
- **Reduce time** in defining the 1st intervention
- **Remove errors or omissions** in information transfer, which may influence the decision making
- **Get real-time information** (avoiding unnecessary displacement to false or ill-defined alerts)
- **Manage fire-fighting devices** in multiple incidents situations when decision making is paramount

SMART-CONNECT - SUPPORTING RAPID DISASTER RESPONSE THROUGH SPACE

SMART-CONNECT project is part of the ESA Civil Security from Space (CSS) program.

It will provide a powerful solution, managing data transmission over various channels, enabling secure end-to-end data interconnectivity among first responders, disaster management centres, and situational awareness earth observation service providers.

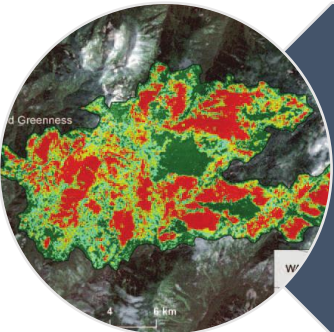
SMART-CONNECT features an open value chain for third-party information services.



WHAT ADVANTAGES CAN SMART-CONNECT BRING TO CICLOPE?



Failsafe communication capacity, at any time, for the teams on the field

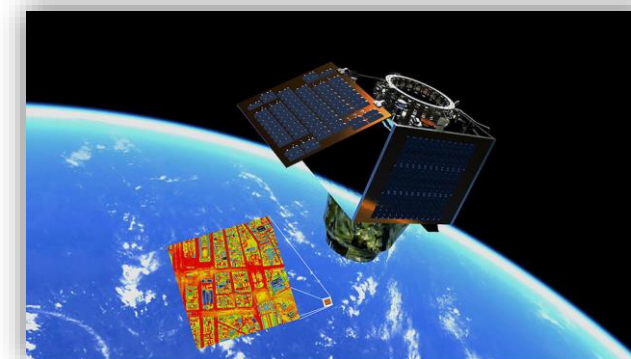
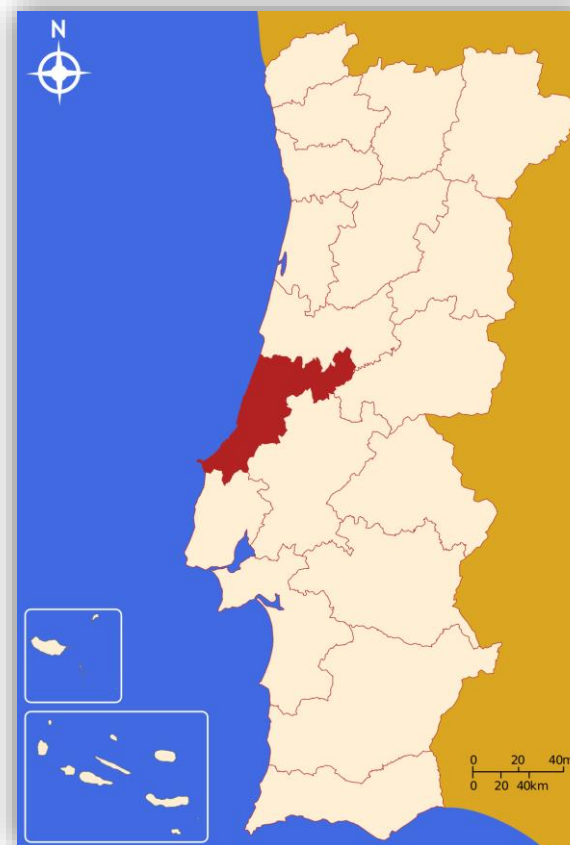


Up-to-date Sat Info (general imagery, burned area, fire hazard and road accessibility information)

PORTUGUESE SMART-CONNECT USE CASE

WILDFIRES, PORTUGAL

- With the support of the national guard, fire brigades and civil protection, as well as a local and regional command posts
- Demonstrate the operational advantages for the CICLOPE system of using satcom and up-to-date sat-info



THANK YOU!

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