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THE EUROPEAN UNION'S SPACE PROGRAMME FOR DISASTER MANAGEMENT AND
RESILIENCE

Abstract

Disastrous events have different origins, they could result from human-made errors or from natural phenomena like earthquakes, wildfire, and droughts. When it comes to extreme-weather events and planetary crisis, satellites have proven to be reliable tools and space-based services are essential in addressing emergencies. This paper analyses how space-based solutions can support in all the phases of disaster management, contributing to prevention, preparedness, mitigation, response and recovery.

The first part of the paper provides an overview of the EU Space Programme and its different components (Copernicus, EGNOS, Galileo, GOVSATCOM/IRIS2, SSA). It then explores the topic of disaster management and its challenges. It showcases how space-based technologies and related services can support dealing effectively and efficiently with severe crisis. This paper's analysis will be based on qualitative and quantitative data gathered by think tanks, EUSPA, Copernicus services, but also research papers and workshops.

The second part draws on workshops carried out by EUSPA on the topic of Disaster Risk Management, relying on the analysis of recent climate-related disasters occurred around the globe, to provide evidence of how assets of the EU Space Programme have contributed and can further contribute to effective response and adequate recovery. It concludes underlining the added value brought by the EU Space Programme to different phases of the disaster risk management and to the safety of people.