

# Commercial satellite data in humanitarian aid



Commercial satellites included in ESA's Third Party Missions (TPM) programme deliver data that support critical applications in humanitarian aid efforts

## Key applications

TPM data provided to users help humanitarian efforts in:

- Tracking natural disasters
- Mapping damage
- Guiding humanitarian aid and first responders
- Providing early warnings
- Facilitating impact assessments



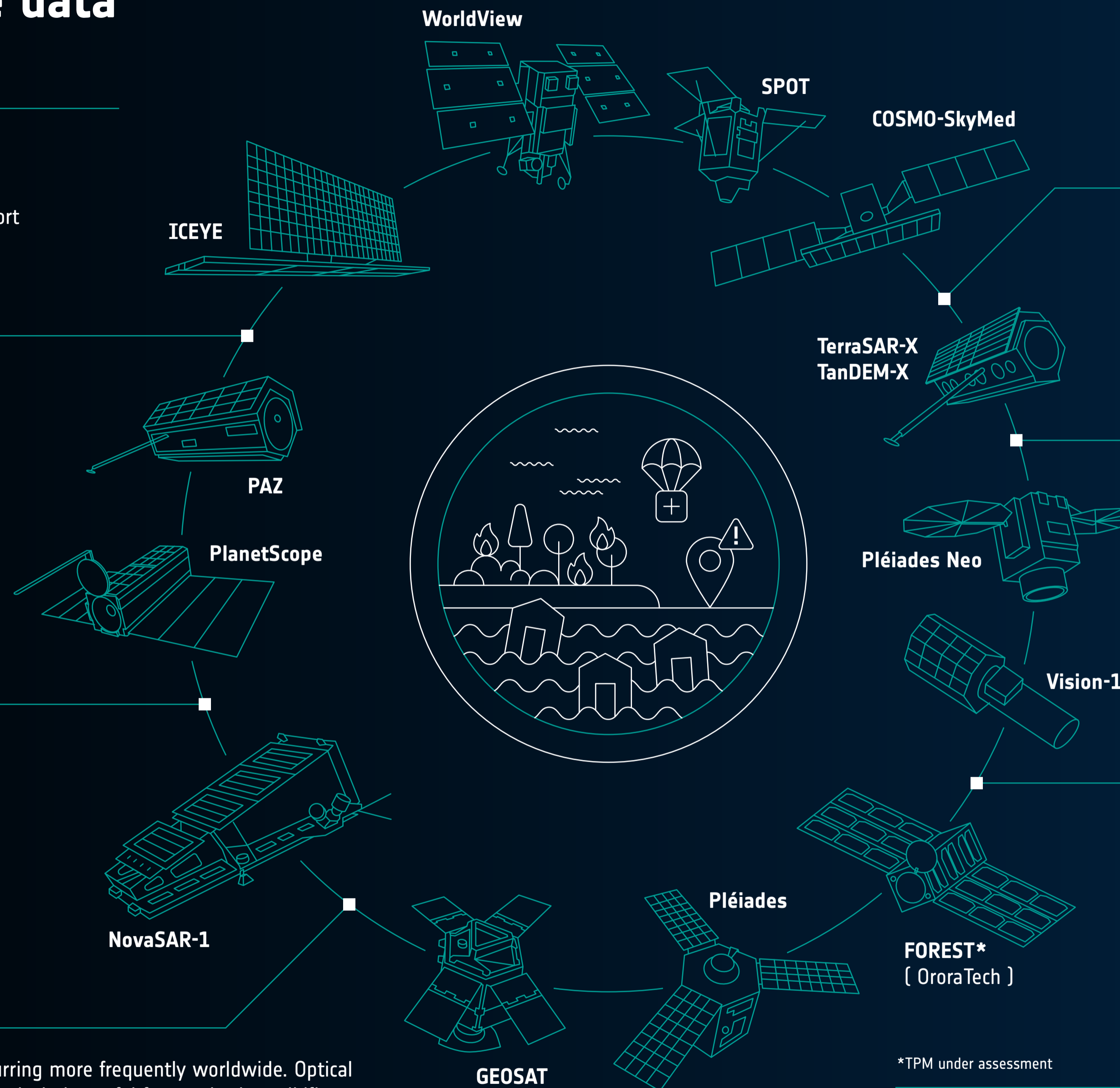
## Floods

Floods are the most common natural disaster. High-resolution imagery from radar missions like **NovaSAR-1** and optical missions like **PlanetScope** help monitor them, while radar data from satellites such as **ICEYE**, **COSMO-SkyMed**, **TerraSAR-X**, **TanDEM-X**, and **PAZ** support mapping floods over time

## Wildfires

Satellite data show that extreme wildfires are occurring more frequently worldwide. Optical third-party missions, such as **Pléiades Neo**, are particularly useful for monitoring wildfires, supporting emergency responses and impact assessments. Others that facilitate the tracking of wildfires include **Vision-1**, **SPOT 6** and the **WorldView** and **GEOSAT** series.

Thermal infrared data from missions such as **FOREST** are also crucial. FOREST can identify thermal anomalies, allowing for rapid responses to wildfire threats in their early stages



## Mapping damage

Accurate, real-time disaster mapping supports emergency management. Data from **GEOSAT-1** and **Pléiades Neo** help teams create detailed maps of road network or building damage after disasters, as well as high-resolution maps showing the spread of fires

## Directing humanitarian aid

Whenever disaster strikes, the International Charter of Space and Major Disasters is often requested to provide satellite data to direct humanitarian relief to those in need. The Charter is a collaborative effort involving space agencies and an increasing number of commercial entities, with ESA playing a key role.

Third Party Missions, such as **ICEYE**, **GEOSAT**, **SPOT**, **Pléiades Neo** and **TanDEM-X** are in the pool of satellites available when the Charter is activated

## The Copernicus Emergency Service

The Copernicus Emergency Management Service (CEMS) delivers timely geospatial information to support disaster response, preparedness and recovery efforts.

The Copernicus Contributing Missions, funded by the European Commission and managed by ESA, support CEMS by providing commercial radar and optical data from missions such as **Pléiades**, **SPOT**, **WorldView** and many others

\*TPM under assessment

Browse TPMs and discover how to access the data here:  
[earth.esa.int/eogateway/missions/third-party-missions](http://earth.esa.int/eogateway/missions/third-party-missions)