

THIRD PARTY MISSIONS PROGRAMME



INTRODUCTION

ESA's TPM arrangement has been operating for over 45 years, providing EO data to users in Europe and worldwide for research and pre-operational applications development.

Currently including over 60 instruments on more than 50 missions, **Third Party Missions consist of Earth Observation satellites** that are owned by commercial and public organisations around the world.

The datasets are distributed by these third parties, and ESA has specific agreements with the organisations to promote the availability of their data.

> 60
INSTRUMENTS

50+
MISSIONS

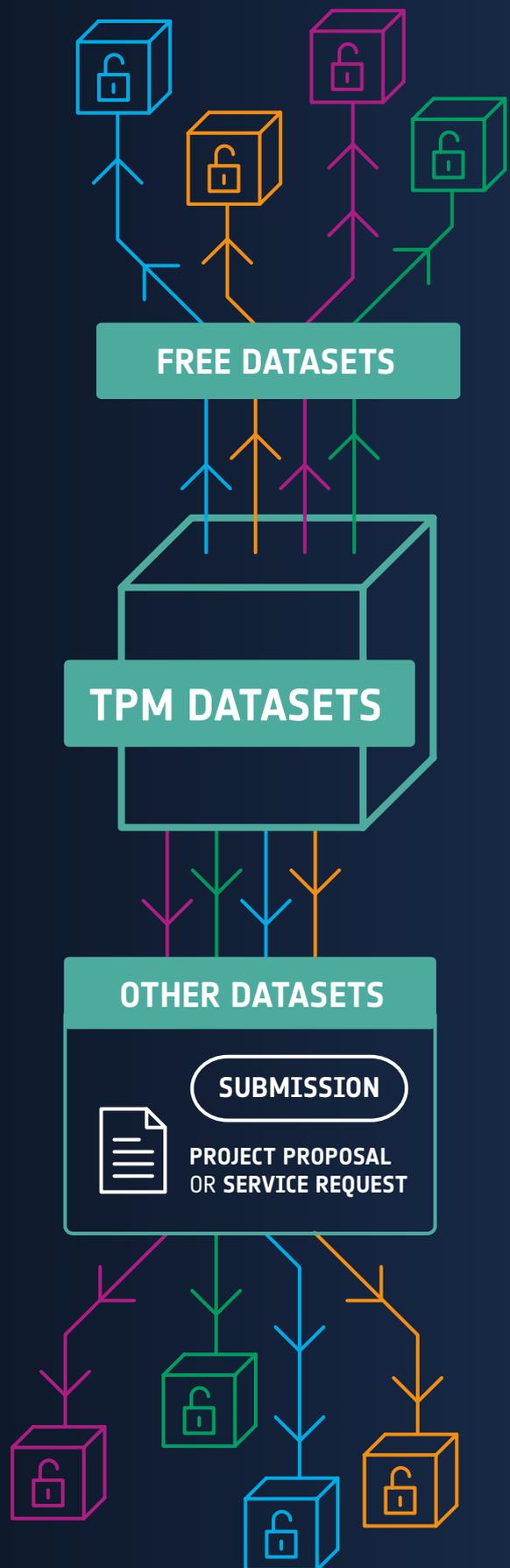
Some sets are available under the free dataset policy, requiring only a fast registration, others are part of a restrained dataset and require the submission of a project proposal or service request.

For most missions, ESA performs a project selection process, to assess feasibility of providing the data.

Data are offered from a large number of international missions through a single programme.

One of the criteria for selecting new missions is that they utilise instruments that offer similar data to those acquired by ESA missions, contributing to a wide range of data that may be used together. Other criteria include degree of innovation, opportunity for new international collaboration and experience to be gained for future missions.

The Earthnet programme acts as an early anchor customer for European NewSpace missions. Companies that provide data of interest to the scientific community are given a high priority in the selection process.



In 2018, ESA changed the agreements with the commercial TPM data providers in order to also include start-ups and entrepreneurs in incubators, to access the data. This greatly supports **ESA BIC and Technology Broker Network**

**+1200
START-UPS
SUPPORTED**

**200
START-UPS
YEARLY**



- ESA BUSINESS INCUBATION CENTRE
- PRIME ESA BIC LOCATION

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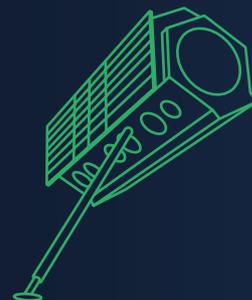
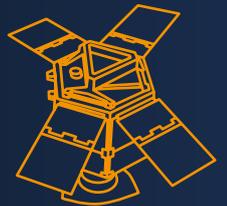
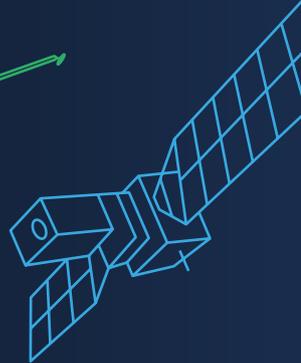
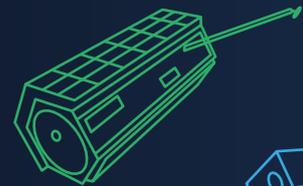
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LEARN MORE ABOUT OUR MISSIONS

These infographics provide an introduction to only a small selection of the Third Party Missions.

They highlight the different capabilities of the missions, with radar and optical satellites supporting many applications.

About ICEYE

What? ICEYE enables the persistent monitoring of large and small areas from orbit - a unique feature that, in fact, is not available in any satellite.

When? First satellite launched in 2018. World's first SAR (Synthetic Aperture Radar) satellite.

How? From tracking the moving objects like vessels, trucks and cars, to monitoring and identifying urban development, ICEYE provides monitoring capabilities, precise diagnosis of the environment and further analysis.

Built By? Designed, manufactured and operated by ICEYE - Finland based global company.

Applications: Disaster Change Detection, Oil Spills Detection, Natural Catastrophe Response, Air Recovery, Agricultural Monitoring, Gas for Monitoring.

Data and Users? Data is used by governmental, commercial and military users for surveillance, to make early warnings, to monitor and detect illegal activities, to monitor and detect illegal activities.

Innovations? 10,000km² / 25cm. With its wide area imaging up to 1000 km² and a resolution of up to 25 cm, ICEYE can track changes of any location in a daily basis.

What's next? 14. In addition to the 14 ICEYE satellites launched and in orbit, further satellites will be launched, with new generation satellites in the way.

Data Access: www.iceye.com

About PLEIADES

What? Designed as a dual-mission system, the Pleiades programme (P101 and P102) features two satellites, followed by the SPOT programme satellites series, constituting advanced Earth observation in Earth observation.

When? P101 and P102 were launched in 2011. P101 and P102 were launched in 2011.

Where? The satellites provide coverage of Earth's entire surface every 10 days. They cover the entire globe with four satellites, with 1.1m resolution and 3.1 m of data.

Applications? For applications such as forestry, porting and marine environment, and using its optical design, Pleiades is also used for monitoring of urban, industrial, and agricultural areas.

Benefits? 50cm. Pleiades has the first European mission offering very high resolution imagery of 50 cm resolution. The system capabilities have fully met users' needs.

Data and Users? Pleiades has the first European mission offering very high resolution imagery of 50 cm resolution. The system capabilities have fully met users' needs.

What's next? Pleiades Neo. The next launch of Pleiades Neo, a continuation of the Pleiades programme, is expected in 2024. It will be able to provide data with a resolution of 30 cm and a revisit time of 5 days.

Data Access: www.esa.int/ESA/missions/pleiades

About GEOSAT-2

What? Part of ESA's Third Party Missions Programme, GEOSAT-2 is an Earth observation satellite launched in 2016. It is the first European satellite launched in a private company context of Earth observation satellite.

When? Launched on 13 June 2016, from Vostochnoye in Russia.

Built By? Built by the Italian contractor for Space Systems in Spain. GEOSAT-2 is a new satellite operated by ICEYE.

Applications: GEOSAT-2 supports activities in the following areas:

- Coastline development and agriculture
- Maritime
- Land administration & mapping
- Disaster recovery
- Oil & gas
- Climate change monitoring
- Forestry & environment
- Emergency & disaster management

Coverage: 150,000km²/day. 40cm. With an orbital mission lifetime of at least seven years, GEOSAT-2 has a collection capacity of more than 100,000 km² per day with a two-day average repeat time. It provides 40 cm resolution and 100 km swath.

Data and Users? 500,000. GEOSAT-2 has captured over half a million images which it was launched in 2016. From 2016, GEOSAT-2's satellites have delivered 50 products and images to customers from 100 European Member States (Austria, Belgium, Czech Republic, Denmark, France, Germany, Greece, Hungary, Italy, Ireland, Israel, Lithuania, Luxembourg, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom, and the United States).

Data Access: earth.esa.int/eogateway/catalog/geosat-2-full-archive-and-tasking

About SAOCOM

What? The SAOCOM (Satellite for Earth Observation and Climate Monitoring) programme consists of two satellites, SAOCOM-1A and SAOCOM-1B, launched in 2018. They are the first Argentine satellites launched in a private company context.

When? SAOCOM-1A was launched on 17 October 2018. SAOCOM-1B was launched on 17 October 2018.

Applications: SAOCOM-1A and SAOCOM-1B are used for monitoring of urban, industrial, and agricultural areas.

Objectives: The main objective of the mission is to provide an efficient Earth observation and disaster monitoring capability, with the use of satellite data for the benefit of economic, social, and environmental development.

Data and Users? SAOCOM-1A and SAOCOM-1B are used for monitoring of urban, industrial, and agricultural areas.

Data Access: earth.esa.int/eogateway/catalog/saocom-data-products

For more information visit: argentina.gob.ar/ciencia/conae/misiones-espaciales/saocom

About PAZ

What? PAZ is a Small Satellite System (SAS) mission, built by the Spanish Government, which includes civil applications.

When? Launched on 11 February 2018, from Vandenberg SFB Space Base, California (USA).

Built By? Designed and built by Airbus Defence and Space. Pleiades Neo is a continuation of the Pleiades programme, with a resolution of 30 cm and a revisit time of 5 days.

Applications: Disaster Change Detection, Oil Spills Detection, Natural Catastrophe Response, Air Recovery, Agricultural Monitoring, Gas for Monitoring.

Coverage: 300,000km². PAZ covers an area of over 300,000 km² per day and orbits at 500 km altitude. PAZ can image any location on Earth with a resolution of up to 100 m and a revisit time of up to 10 days.

Data and Users? PAZ Satellites can be acquired in several image modes with flexible resolutions from 25 cm to 100 m, and different swath widths.

Data Access: earth.esa.int/eogateway/catalog/PAZ-full-archive-and-new-tasking

About PlanetScope and SkySat

What? PlanetScope and SkySat are commercial Earth observation satellites. PlanetScope is a constellation of small satellites, while SkySat is a constellation of larger satellites.

When? PlanetScope was launched in 2013. SkySat was launched in 2013.

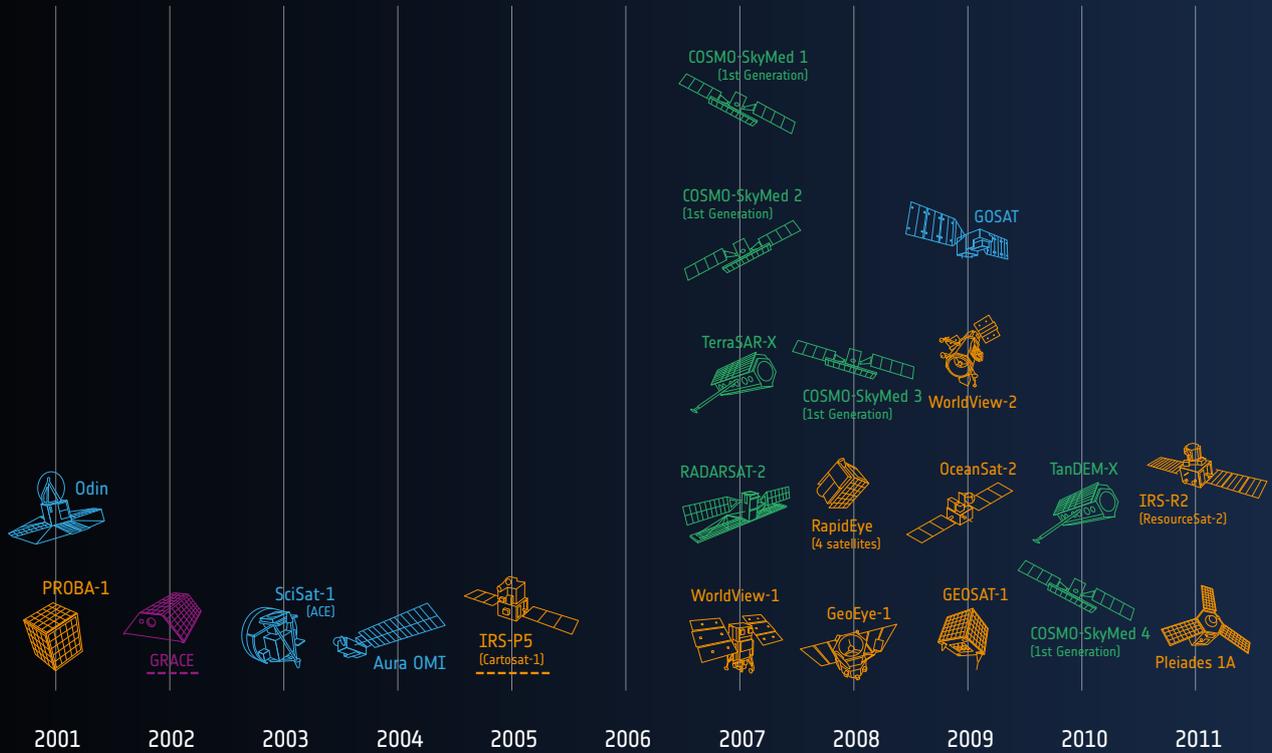
Applications: PlanetScope and SkySat are used for monitoring of urban, industrial, and agricultural areas.

Coverage: 3.7m / 400km² / 70km². PlanetScope and SkySat are providing a unique combination of low resolution and high resolution imagery.

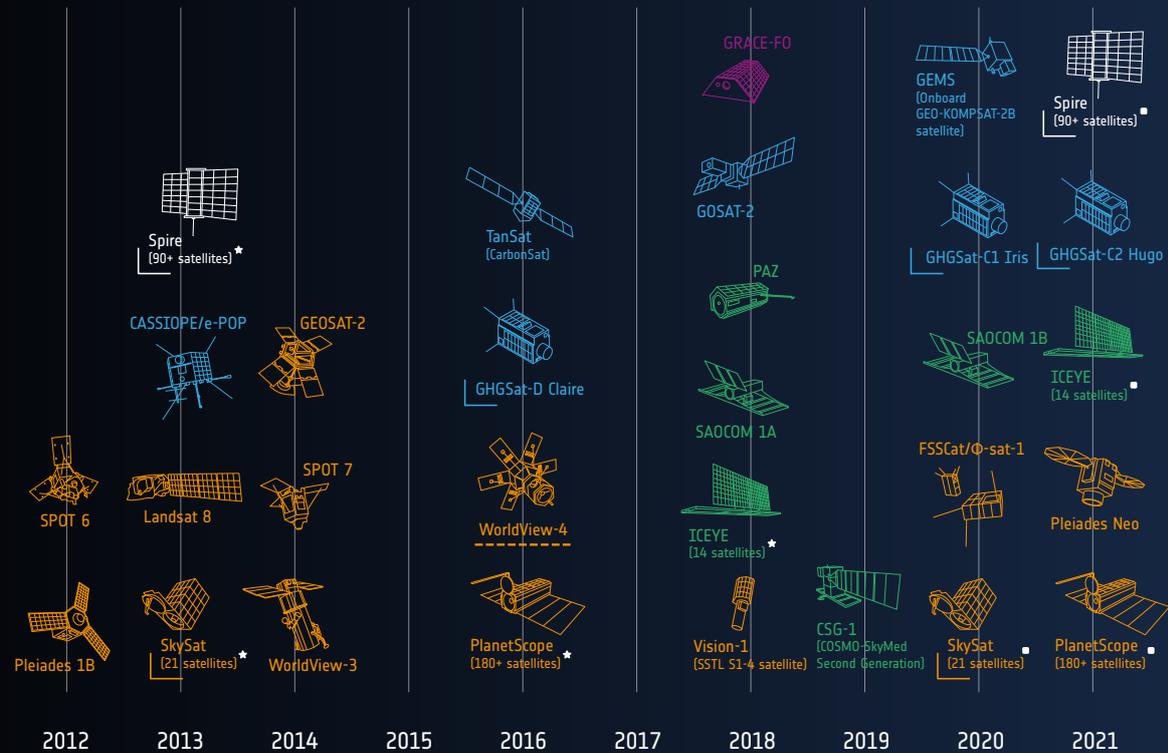
Data and Users? PlanetScope and SkySat are used for monitoring of urban, industrial, and agricultural areas.

Data Access: earth.esa.int/eogateway/catalog/planetScope-full-archive | earth.esa.int/eogateway/catalog/skySat-full-archive-and-new-tasking

THIRD PARTY MISSIONS TIMELINE



2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011



2012 2013 2014 2015 2016 2017 2018 2019 2020 2021

- Atmospheric
- Optical
- SAR
- Reflected Global Navigation Satellite System (GNSS-R) and Radio Occultation
- Gravity Field
- ★ First launch
- ◼ Latest launch
- ┌ TPM under assessment
- ▬ Completed missions

FIND OUT MORE ABOUT THE **THIRD PARTY MISSIONS** PROGRAMME ON EARTH ONLINE

earth.esa.int/eogateway/missions/third-party-missions



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