

Celebrating 30 years of ERS



What?

The **European Remote Sensing (ERS)** satellite programme was composed of two missions, **ERS-1** and **ERS-2**

When?

Launched on **17 July 1991** and **21 April 1995**, on Ariane-4 rockets from Europe's Spaceport in Kourou, French Guiana, with same sun-synchronous polar orbit at about 780 km altitude



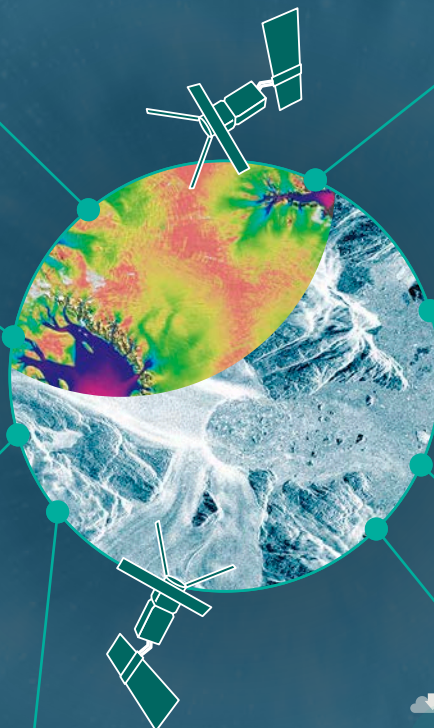
Applications

The satellites circled Earth **over 120,000** times in total, continuously observing and monitoring our planet's land, atmosphere, oceans and ice caps, while supporting scientific research, operational services and applications in several domains

Instruments

ERS-1 and ERS-2 were the most advanced and complex satellites of their time, delivering an **enormous volume of data** to Earth through a comprehensive set of instruments, including:

- An imaging synthetic aperture radar (**SAR**)
- A scatterometer (**SCAT**)
- A radar altimeter (**RA**) and water vapour measuring microwave radiometer (**MWR**)
- A temperature-measuring radiometer (**ATSR**)
- An ozone monitoring spectrometer (**GOME**) – on ERS-2 only



Heritage Value



Both satellites far exceeded their design life of **three years**, with ERS-1 ending in 2000 and ERS-2 in 2011. Today data are accessible and enhanced as part of the **Heritage Space Programme**, together with data from other missions

Built by?

Designed and built by an international consortium of European industries led by **DSS (Dornier Satelliten Systeme GmbH)**



Data and Users?



ERS data supported **over 5,000** projects producing some **4000** scientific publications. Archived heritage data still provide a wealth of information, and are continuously improved to build harmonised, long time data series with successor missions like Envisat and Copernicus Sentinels

Innovation

A tandem mission was implemented following the launch of ERS-2, which shared the **same orbit** as ERS-1. This enabled an accurate, **three-dimensional digital map** of Earth's land surfaces and allowed to detect small changes on Earth's surface with a range precision of 1 cm, opening **new fields of applications**.

Data Access

<https://earth.esa.int/eogateway/missions/ers/data>



For more information visit:

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