

Europe's Meteorological Missions

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MORE THAN JUST WEATHER

It is easy to take our daily weather forecasts for granted, but the social and economic benefits of accurate forecasts are huge – and this is largely thanks to satellites

Over **95%** of the 40 million observations processed every day for weather forecasting are provided by satellites

Errors in one-day forecasts have been reduced by **64%** thanks to data from satellites



EARLIER AND MORE ACCURATE WEATHER WARNINGS



Around **1/3** of the economy in the European Union is **sensitive to weather**

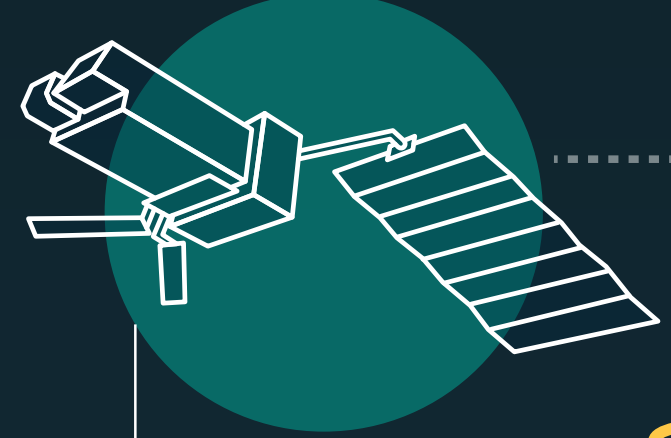


In the European union, the socio-economic benefits of weather forecasting are estimated to be up to **€61 billion/year**

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WATCHING THE WEATHER

Europe's fleet of weather watchers include two families – MetOp and Meteosat, which use different orbits to provide complementary information for weather forecasting



MetOp
POLAR ORBIT
800 km above Earth and from pole to pole

GEOSTATIONARY ORBIT

36000 km above Earth in a fixed position above the equator, keeping pace with the rotation of the planet

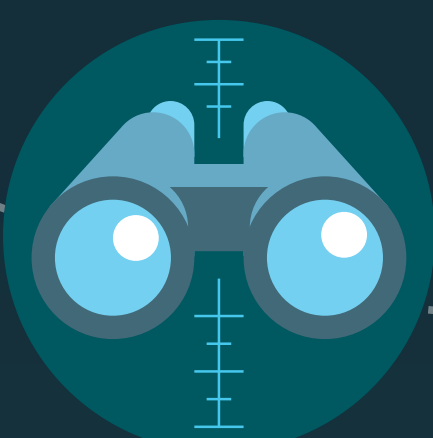
Meteosat



Orbits Earth every **100 minutes** achieves global coverage in about five days

Returns images of the Earth disc every **15 minutes**

Data are used to forecast the weather up to **14 days ahead**



Data are used to predict rapidly developing weather events up to **six hours ahead**

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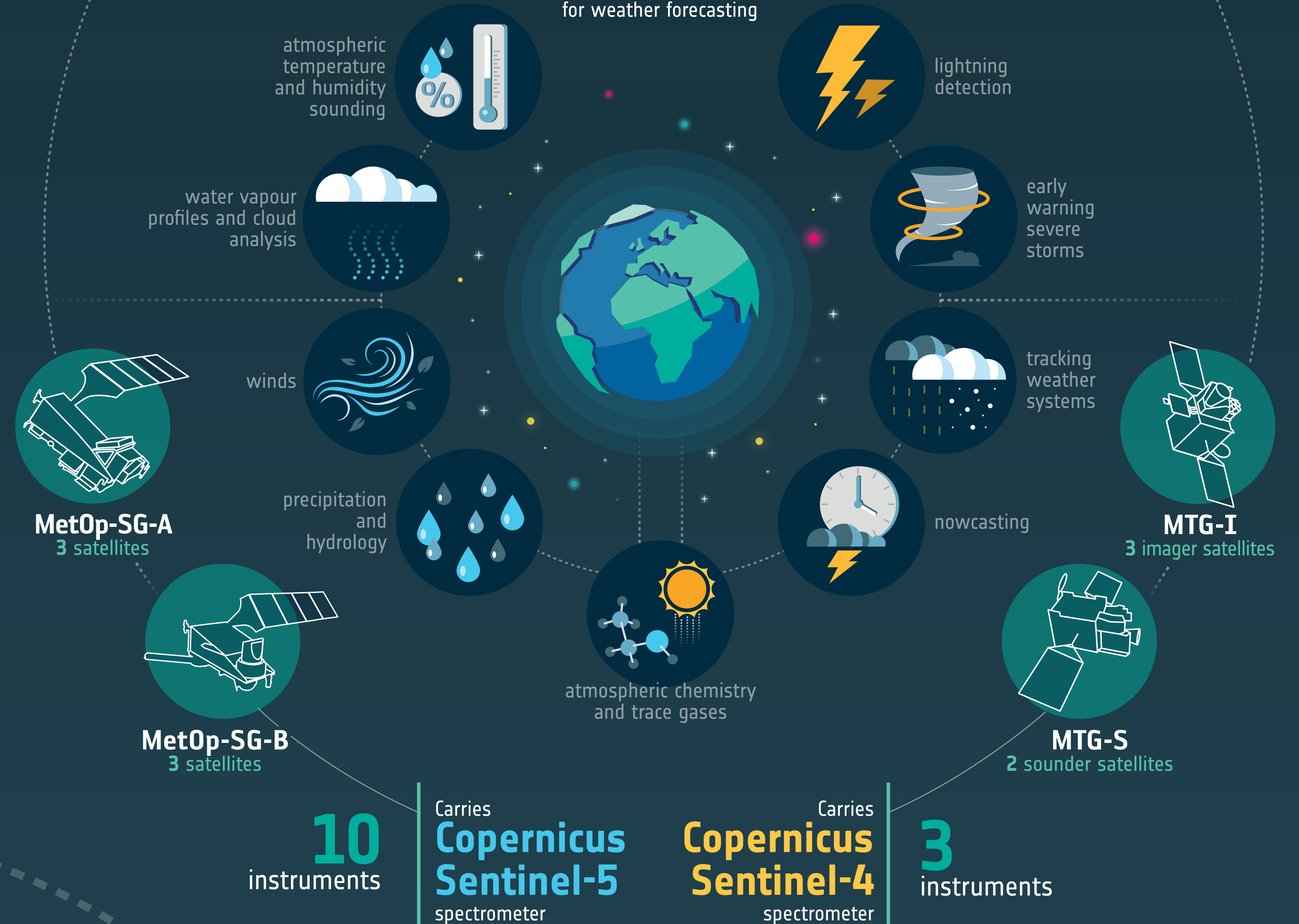
STATE-OF-THE-ART EUROPEAN TECHNOLOGIES

Weather satellites record a variety of weather and atmospheric phenomena. Next-generation weather satellites will significantly improve on current capabilities

METOP SECOND GENERATION (METOP-SG) POLAR ORBITING SATELLITES

METEOSAT THIRD GENERATION (MTG) GEOSTATIONARY SATELLITES

critical inputs for weather forecasting



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NEXT GENERATION WEATHER FORECASTING

The successful cooperation between ESA and Eumetsat ensures the continuity of essential information for global weather forecasting and climate monitoring for decades to come

