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## The Copernicus Programme and Climate Change

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Copernicus is the EU's Earth Observation and Monitoring Programme and constitutes a key contribution to the objectives of the Union's 2020 Strategy. It is a civil, user-driven programme under civil control, which builds on the existing national and European capacities and ensures continuity of the activities and achievements of its predecessor programme GMES. Its main purpose is to implement the next, fully operational phase of this European flagship initiative, which will notably encompass the launch of six families of dedicated, EU-owned earth observation satellites and instruments - the so-called Sentinels - and the ramp-up of the 6 Copernicus Services in the fields of atmosphere monitoring, marine environment monitoring, land monitoring, climate change, emergency management and security. In addition to the space- and service-components, Copernicus also includes an in-situ component that ensures coordinated access to additional data from airborne, seaborne and ground-based sensors. Copernicus earth observation data and the service will be made available on a full, open and free-of charge basis to users, including EU institutions, Member States' authorities, the private sector for the development of commercial downstream applications and services, international partners, the global scientific community, and interested citizens. Copernicus is a large-scale industrial project that contributes significantly to Europe's competitiveness, growth and jobs in the strategic high-tech domain of Space. It also constitutes a major asset for the EU's climate and environment policies from the local to the global level. Copernicus will generate concrete benefits and applications in many other areas such as maritime safety and security, agriculture, the prevention and management of disasters, urban and infrastructure planning, etc. In the area of climate change, there is a strong need for improving our capabilities to monitor, forecast, and make projections about current and future trends. Such activities are essential to effectively develop policies on the level of the European Union, its Member States, or on local level. Strategies need to be developed on adaptation and mitigation and also strategies to reduce our vulnerability towards the effects of Climate Change. The Copernicus Climate Change Service will become Europe's main contribution to the global efforts which aim to better understand and monitor Climate Change.