EUROPEAN COMMISSION
ENTERPRISE AND INDUSTRY DIRECTORATE-GENERAL

Aerospace, Maritime, Security and Defence Industries
GMES

COPERNICUS PROGRAMME
CITIZENS' SUMMARY

WHAT IS COPERNICUS?

The management of natural resources and biodiversity, the monitoring of the state of the oceans and the chemical composition of our atmosphere - important factors for climate change - the response to natural and man-made disasters, and efficient border surveillance all depend on precise and timely information on our Earth. Copernicus is the new name of the European Earth observation programme previously called GMES (Global Monitoring for Environment and Security). Copernicus is delivering the necessary information, using satellites, ground based, sea-borne and airborne facilities to provide environmental information. In a world facing an increased risk of natural and other disasters, this information can make our planet more secure and allow for the monitoring of the state of the environment on land, at sea and in the atmosphere.

Copernicus is structured in six Services: Marine, Atmosphere, Land and Climate change monitoring as well as support to Emergency and Security. Copernicus uses observations from satellites and in-situ sensors such as buoys, balloons, air sensors to provide timely and reliable added-value information and forecasting to support for example, agriculture and fisheries, land use and urban planning, fight against forest fires, disaster response, maritime transport or air pollution monitoring.

The Copernicus information helps us understand better how and in what way our planet may be changing, and how this might influence our daily lives. Copernicus also boosts commercial applications in many different sectors by providing full and open access to Earth observation data and added value information. This triggers the creation of large downstream value-adding service markets. Copernicus has the potential to significantly improve the living conditions of our generation and the generation of our children.

Copernicus is a long-term programme initiated in 1998 and built on partnerships between the Union, the Member States, the European Space Agency (ESA) and other relevant European stakeholders. It is built on existing capabilities such as *in-situ* infrastructures, as well as national or international Earth Observation missions. These are complemented by new dedicated infrastructures developed in common, in particular the Sentinel satellite missions.

THERE ARE OTHER SERVICES BASED ON EARTH-OBSERVATION. WHAT IS THE ADDED VALUE OF COPERNICUS?

Earth observation services already exist in Europe, but they are dispersed at intergovernmental, national or regional level. With the exception of meteorological services, the long-term service availability and continuity of these services is not ensured.

In order to respond to ever growing challenges at global level, such as climate change, Europe needs a well-coordinated and reliable Earth observation system of its own. Copernicus is that system.

- **WHAT IS AT STAKE WITH COPERNICUS?**

Initially developed as a scientific project fourteen years ago, it has evolved towards an operational service system with an initial operational phase (2011 – 2013). A fully fledged Copernicus programme is expected to be in place from 2014 onwards.

If Copernicus was not implemented, this would cause a significant loss of opportunity for Europe, in terms of the money already invested so far, about 3.2 billion euros, the loss of market opportunities and stimulus for innovation as well as a loss of global influence in strategic areas such as climate change.

- **WHAT IS THE DIFFERENCE BETWEEN COPERNICUS AND GALILEO?**

Galileo and Copernicus are complementary systems making use of satellite technologies. Galileo is essentially a satellite *navigation* system providing positioning and timing services worldwide. GMES is an '*Earth observation*' system providing information on the state and evolution of our planet.