

## THE ENVISAT MISSION AND SYSTEM

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### **Abstract:**

While our planet, throughout its long history, has undergone a natural evolution in its physical characteristics, it is now recognised that our growing human activities can directly affect our environment. An increasing population and expanding development demands are placing heavy stress upon the finite resources of the Earth's system. There is also an increased awareness of the human and economic impact of the variability of our environment, particularly when facing natural disasters such as floods, earthquakes or volcanic eruptions. This growing concern has resulted in international agreements aimed at monitoring and minimising manmade environmental damage.

For the monitoring of environmental changes, the major contribution from satellites through their systematic observation of the Earth is now fully acknowledged. They offer both global observations for worldwide environmental needs and regional observations to support local environment monitoring. Continuity of these observations is of paramount importance to identify and separate seasonal variations from long-term trends. The main objective of the Envisat programme is therefore to endow Europe with an enhanced capability for the remote sensing of the Earth from space. It significantly increases Europe's capacity to take part in the study and monitoring of the Earth and its environment, following the very successful ERS-1 and ERS-2 missions.