

"Future Prospects for Satellite Environmental Information in support of Development Aid Activities"

Welcome

Maurice Borgeaud

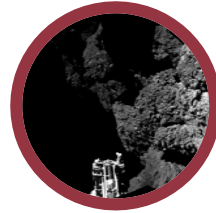
Head of Science, Applications and Climate Department (EOP-S),
ESA Earth Observation Programmes Directorate (EOP)

11th + 12th September, ESA/ESRIN, Frascati

European Space Agency (ESA)



ESA is one of the few space agencies in the world to combine responsibility in nearly all areas of space activity:



space science



human spaceflight



exploration



earth observation



launchers



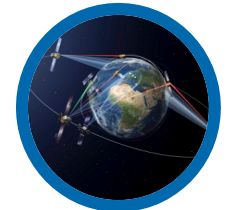
navigation



operations



technology



telecommunications



ESA ESRIN Establishment



Personnel on Site: 774
50.000 Visitors in 2016

Activities:

- Earth Observation
- Vega Launcher
- Corporate Informatics
- ESA Security Office
- Contracts, Personnel
- Site Management
- Communication

Directorate of Earth Observation Programmes



Personnel

555

234
Contractors

321
Staff

Budget

€ **1.6 bn**
in 2017

5 Sites

ESRIN ECSAT
 HQ
ESTEC EBO



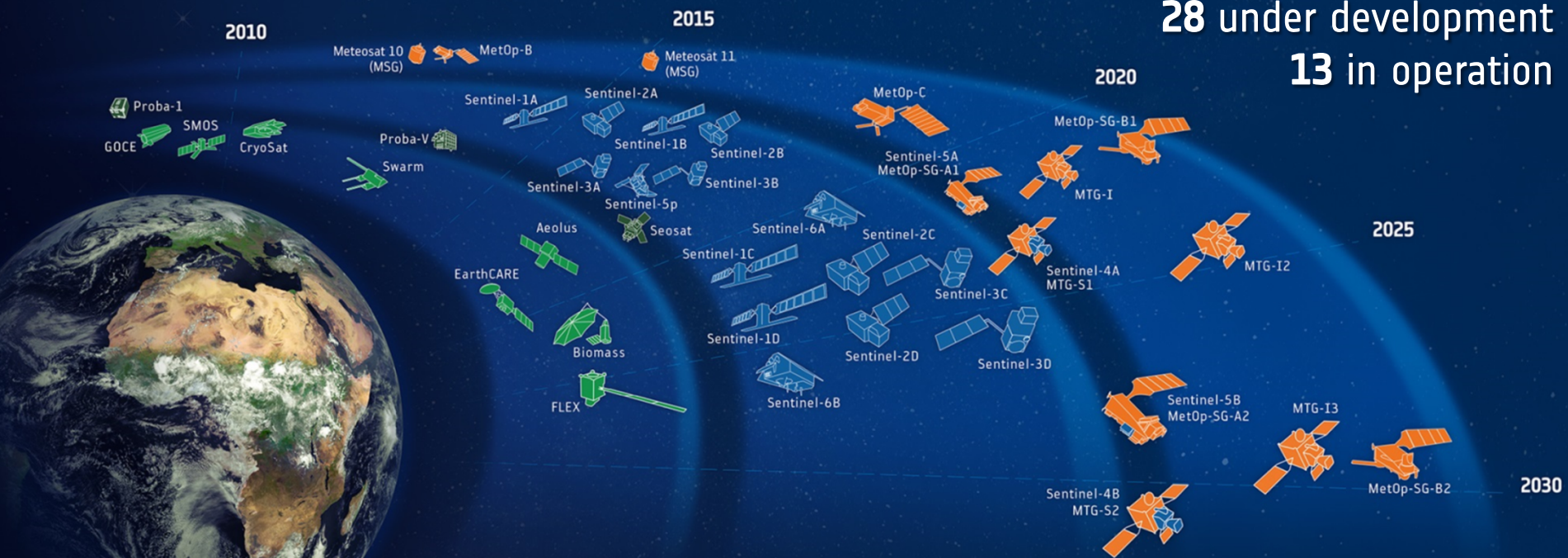
ESA-DEVELOPED EARTH OBSERVATION MISSIONS



Satellites

28 under development

13 in operation



Science

Copernicus

Meteorology

Copernicus – a new Phase in EO



European Earth Observation System, led by the EU

European response to global needs:

- to manage the environment
- to mitigate the effects of climate change
- to ensure civil security

European independence, contribution to global system (GEOSS)



FULL, FREE AND OPEN ACCESS TO DATA

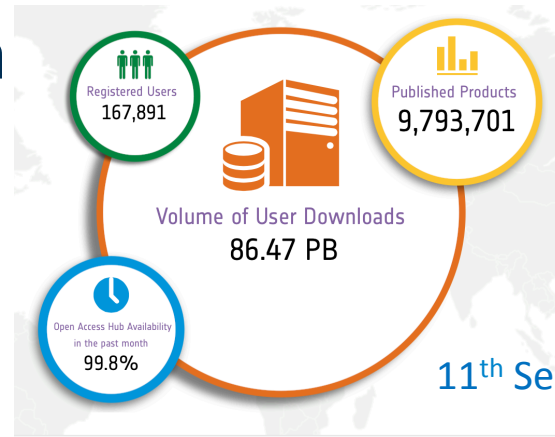


- ATMOSPHERE MONITORING
- MARINE ENVIRONMENT MONITORING
- LAND MONITORING
- CLIMATE CHANGE
- EMERGENCY MANAGEMENT
- SECURITY



Copernicus : Big Data Revolution

Free, full & open data policy



ESA EO Data
Archive
Petabyte



BIOMASS



Mission Measure of forest biomass and height (200 m. pixel resolution)

Payload P-Band radar

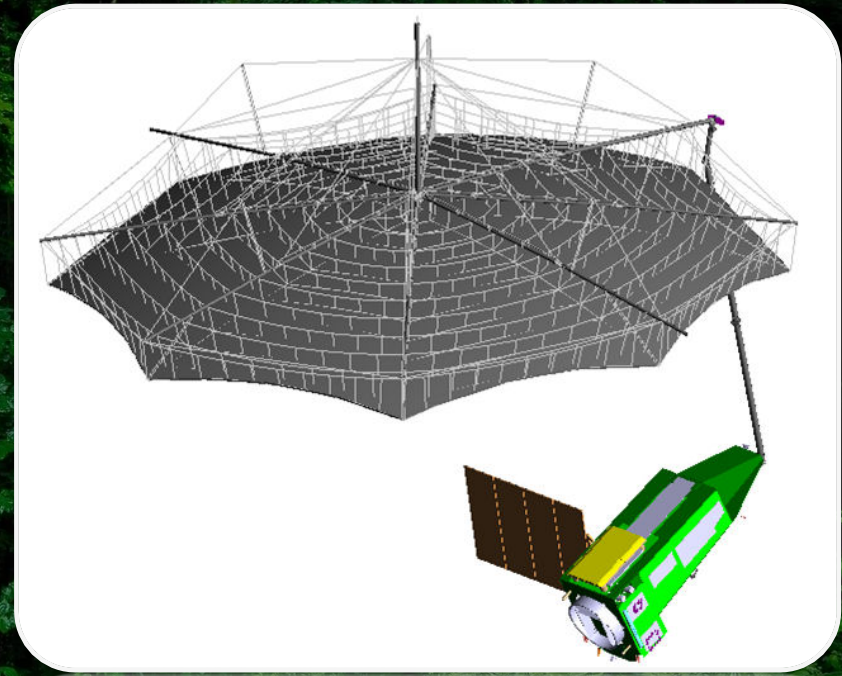
Orbit SSO, alt: 666 km; LTAN: 6h00

Satellite 1250 Kg

Consortium Prime: ADS-UK, Instrument: ADS-DE

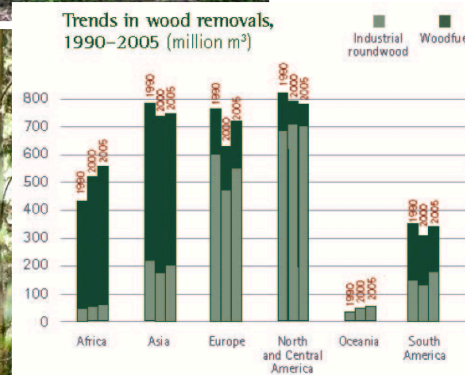
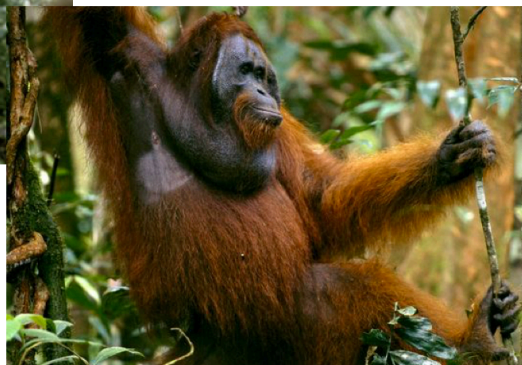
Launch date 2022

Lifetime 5.5 years



Importance of BIOMASS: Changes in biomass affect the services we gain from forests

Changes in forest biomass have major effects on the socio-economic, material, protective, biodiversity & cultural benefits offered by forests



Sustainable Development

UN SDGs



Supporting Smart
Decision-Making

Climate Action

Paris



Monitoring &
Understanding

Disaster Risk Reduction

Sendai



Providing Key
Infrastructure

Thank you for your attention!

www.esa.int