



SCOPE OF THE NEWEU SPACE PROGRAMME



in 360+ airports &

helipads in

23 countries

surveillance and

tracking services

to 210+ satellites

rapid support

over crisis

areas

EU GDP enabled

by satellite

navigation

of space data and

information

Access to space

Support to start-up

Market Uptake

Communication

Governance

Security



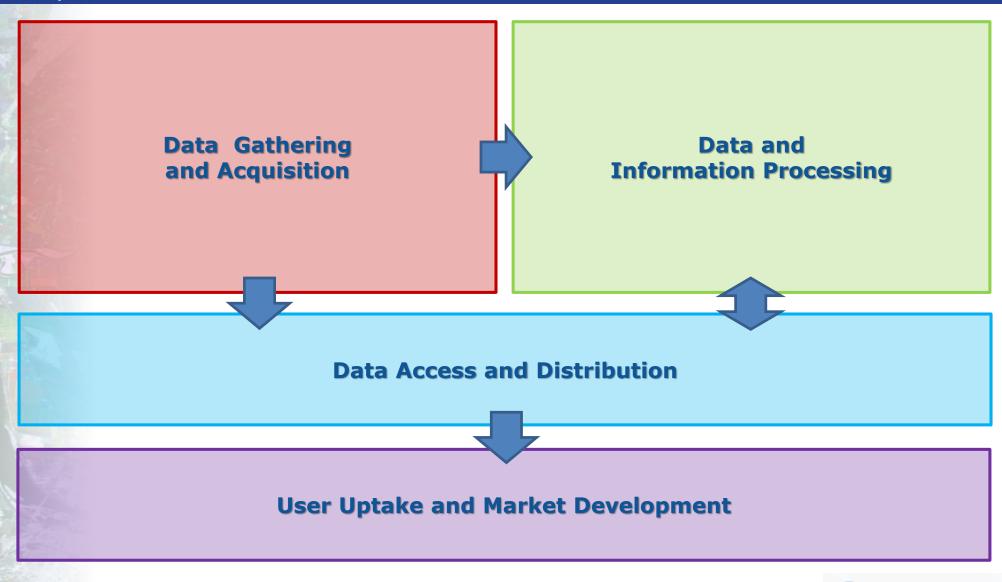




Cross-cutting activities



Copernicus: Functional Blocks

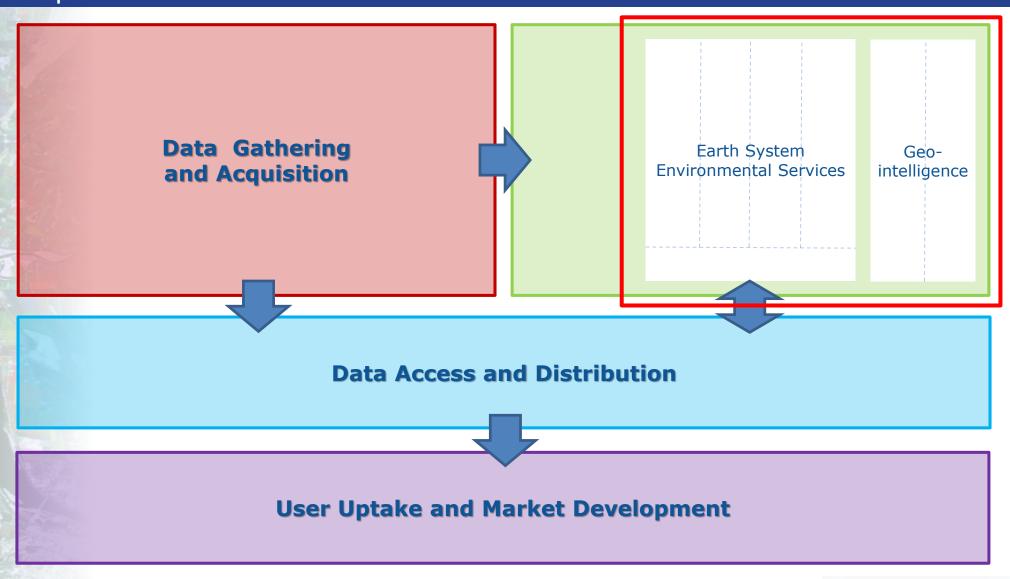








Copernicus: Functional Blocks

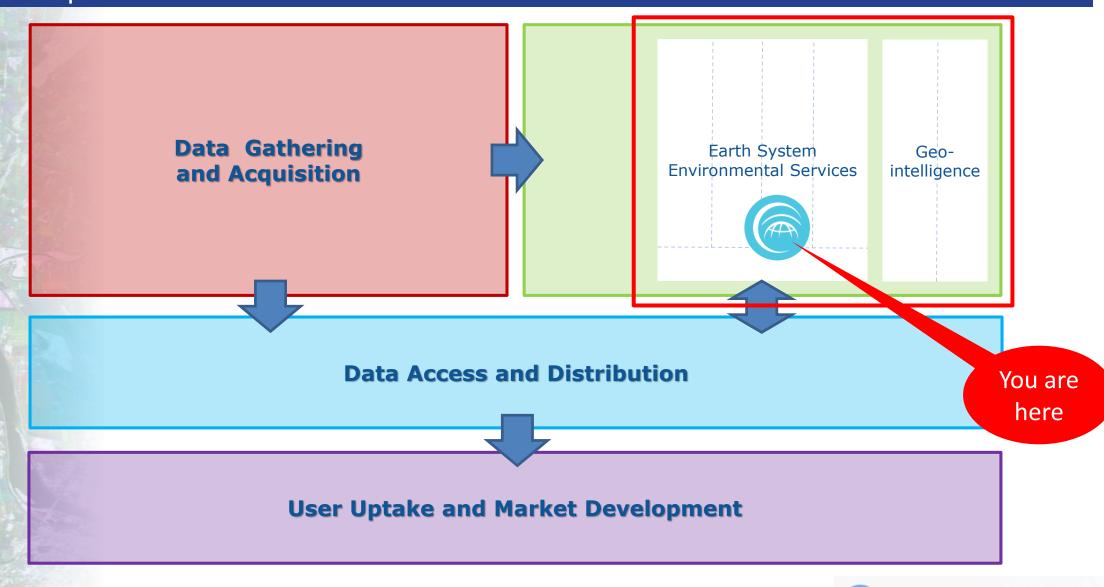








Copernicus: Functional Blocks



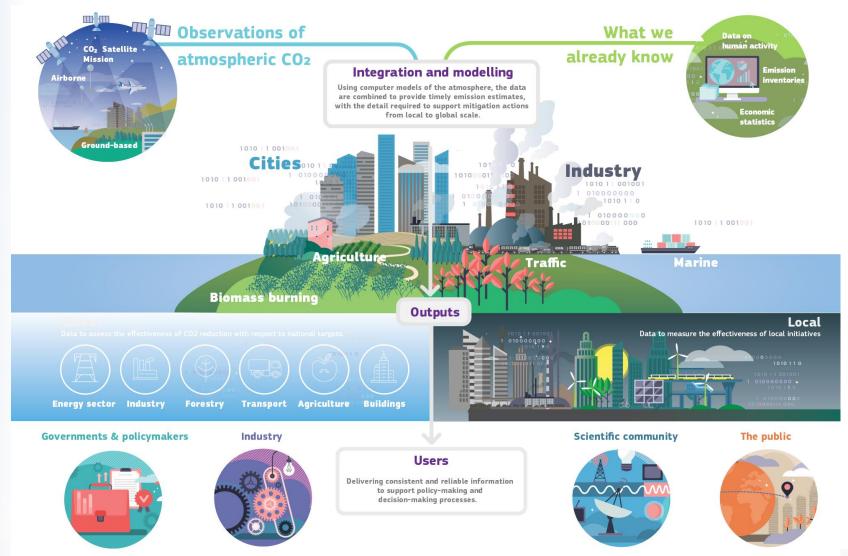






CO2 Monitoring and Verification Support

Atmosphere Monitoring





Monitoring

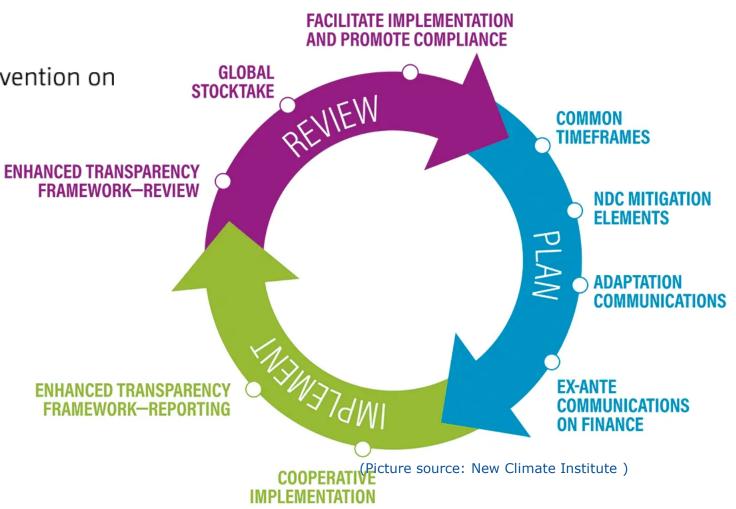
1st Use case: UNFCCC and Global Stocktake



United Nations

Framework Convention on Climate Change

- Periodic Global Stocktake
- "Cycle of Ambition"
- 2023, 2028, 2033, etc.









Support Design Choices



Observations

Satellite CO₂

Sentinel & Virtual Constellations

In situ CO₂ networks

ground&airborne measurements

Auxiliary information

NO₂, CO, Nightlights, Meteorology

Decision Support System

Synthesis & assessment Global Stocktake

Actionable measures for country and city

Prior Information

Emissions, Model parameters, Fluxes

inventory reports, economy statistics

Integration & Attribution

Coupled data assimilation

& uncertainties

Earth system models

(Atmosphere, C cycle, Land & Ocean, Emissions)

Outputs

Hot-spot fossil fuel emissions

Quantification of power plants, industrial facilities and urban areas

Country & city fossil fuel emissions

reduction of inventory uncertainties, monitoring time series







Busy context



























Take away;

- CoCO2 feeds into the operational CO2 MVS;
- Need to connect properly into the context;
- Stay relevant and ahead of the pack!

