

Progress towards the Copernicus CAMS CO₂ service

Richard Engelen
Deputy Director of CAMS
Project Coordinator of CoCO2









The EU Copernicus programme



Observations feeding into value-added Services



Atmosphere



Climate



Land



Marine



Emergency



Security

Copernicus is the European Union's operational Earth Observation and Monitoring programme, looking at our planet and its environment for the ultimate benefit of all citizens.

User-driven with free and unrestricted data access







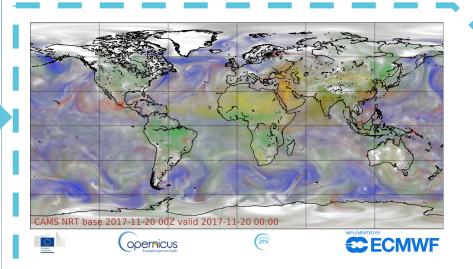


Copernicus Atmosphere Monitoring Service

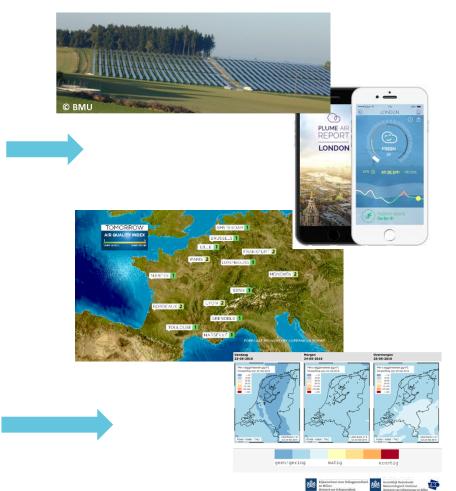


Transforming satellite observations into user-driven services.















CAMS 2.0 building blocks

Expenditure and Technical Management

Regional

atmospheric

products

acquisition processing Observations

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Global atmospheric products

Air quality emissions

Supplementary services

CO₂ service element GHG emissions and fluxes

Evaluation and quality control

Expert panel & Fitness for Purpose

Data Store & User Support

hematic Copernicu training Communications engagement











Overall concept

Atmosphere Monitoring



Satellite CO_{2,} CH₄ & NO₂ data provision

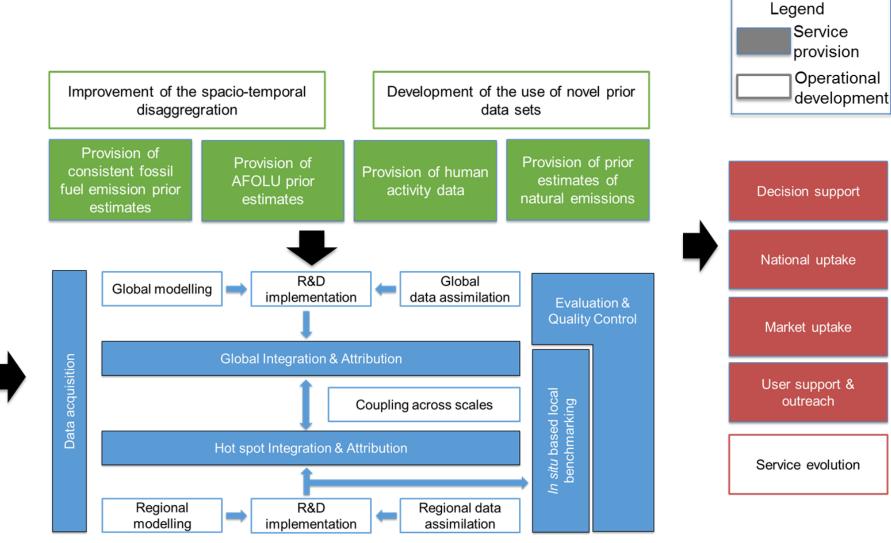
In situ data provision

Meteorological data provision

Auxiliary data provision

Enhancement of satellite retrievals

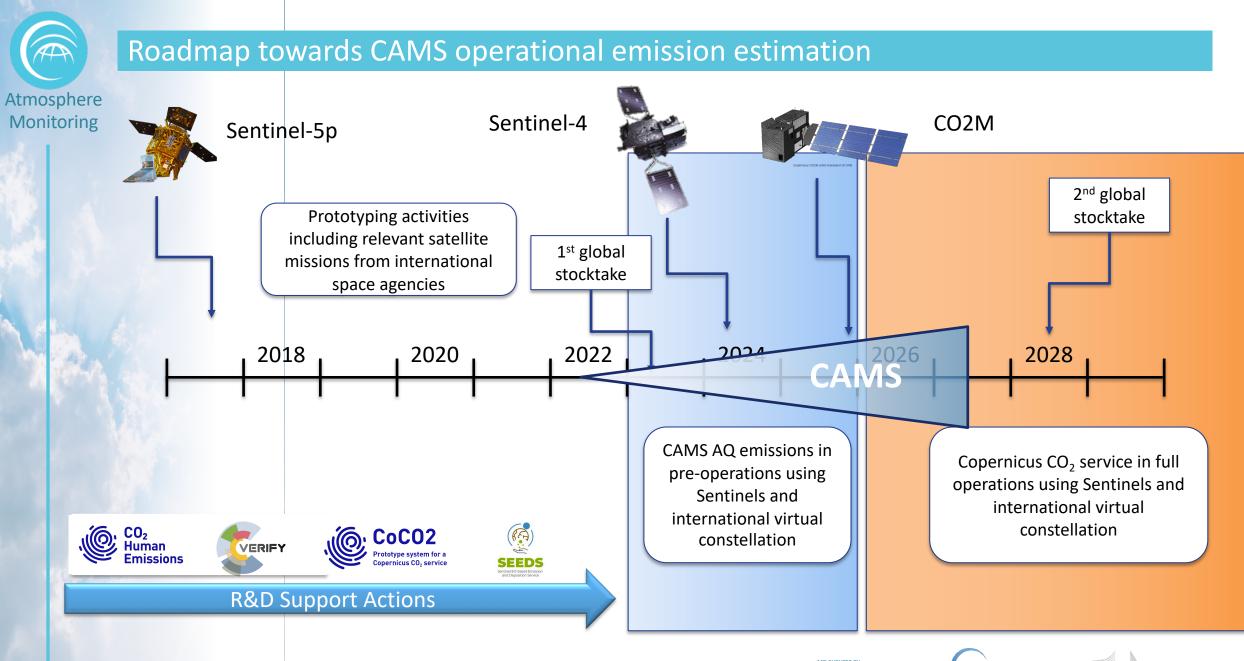
Development of use of new or novel observations



















Foreseen activities based on CAMS Contribution Agreement

	CAM2_5100: Emission inventories
	of greenhouse gases
	CAM2_5200: Development and
	provision of global observation-
	based emissions and fluxes
CAM2_5000: CO ₂	CAM2_5300: Development and
and other	provision of hot-spot observation-
greenhouse gas	based emissions
emissions and	CAM2_5400: Co-design of specific
fluxes	user services
	CAM2_5500: Provision of
	supplementary greenhouse gas
	services

- Use synergies between GHG and AQ
- Implement mature elements from research projects
- Discuss with stakeholders and users
- Test pre-operational systems
- Go live!

	CAM2_6100: Global emission
	inventories of reactive gases and
CAM2_6000: Air quality emissions	aerosols
	CAM2_6200: Regional emission
	inventories of reactive gases and
	aerosol
	CAM2_6300: Observation-based
	emissions of reactive gases and
	aerosol
	CAM2_6400: Observation-based
	emissions from wildfires

	CAM2_8100: EQC management
	CAM2_8200: EQC of global
	products
CAM2_8000:	CAM2_8300: EQC of regional
Evaluation and	products
Quality Control	CAM2_8400: EQC of emission and
	surface fluxes products









CAMS timeline for CO2MVS

2021

2022 - 2025

2024 - 2026

2026 -

Ensure service continuation

Ramp-up of CO2MVS through uptake of R&D activities

Preoperational testing

Operational



https://www.ecmwf.int/en/about/suppliers/copernicus-procurement

https://atmosphere.copernicus.eu/current-tenders





