



# Earth Observation for the Green Deal

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# The EU Green Deal

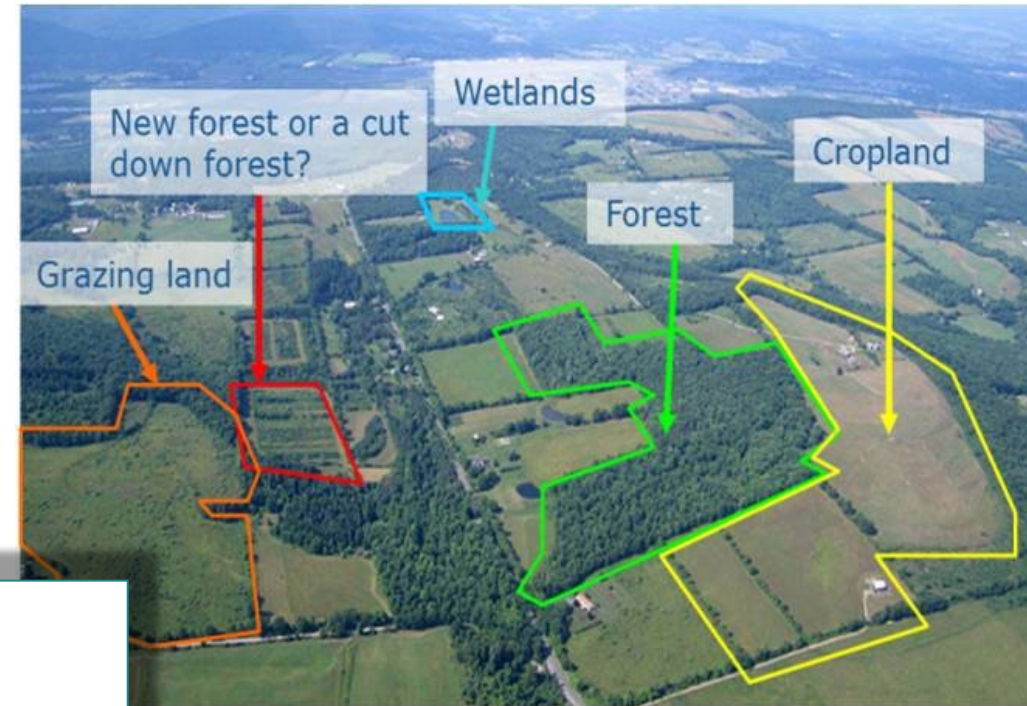


# A Set of Tools is available

- Copernicus is operational: Infrastructure and services, DIAS, Integrated Data Management
- Destination Earth under development:
  - Digital twins in highest detail to investigate “what if” scenarios
  - Themes: extreme events, climate adaptation, ocean
  - High performance computing, high speed networking, cloud technologies
- Others: Green Data Space, Statistical and geospatial data, in-situ data, Galileo
- These tools are increasingly put in use within European legislation

# Legislation Example: Amendment of the LULUCF Regulation

- Strengthening the role of the land use, land-use change and forestry sector in climate action
- Enhancing monitoring requirements using digital technologies supported by the European Environment Agency and Copernicus
- Copernicus could help
  - facilitate Member States' GHG reporting
  - provide monitoring of progress;
  - support decision-making on mitigation actions.



Proposal for a

## **REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**

**amending Regulations (EU) 2018/841 as regards the scope, simplifying the compliance rules, setting out the targets of the Member States for 2030 and committing to the collective achievement of climate neutrality by 2035 in the land use, forestry and agriculture sector, and (EU) 2018/1999 as regards improvement in monitoring, reporting, tracking of progress and review**



# Legislation Example: New CAP Regulation

- Greener, fairer, more animal-friendly, more flexible
  - Higher environmental and climate ambitions,
  - Fairer distribution for SMEs and young farmers
- Copernicus is part of an integrated system to monitor agri-environment-climate policy
  - CAP's impact,
  - environmental performance, and
  - progress towards Union targets

Art.65.4(b): “‘area monitoring system’ means a procedure of regular and systematic observation, tracking and assessment of agricultural activities and practices on agricultural areas by Copernicus Sentinels satellite data or other data with at least equivalent value;”

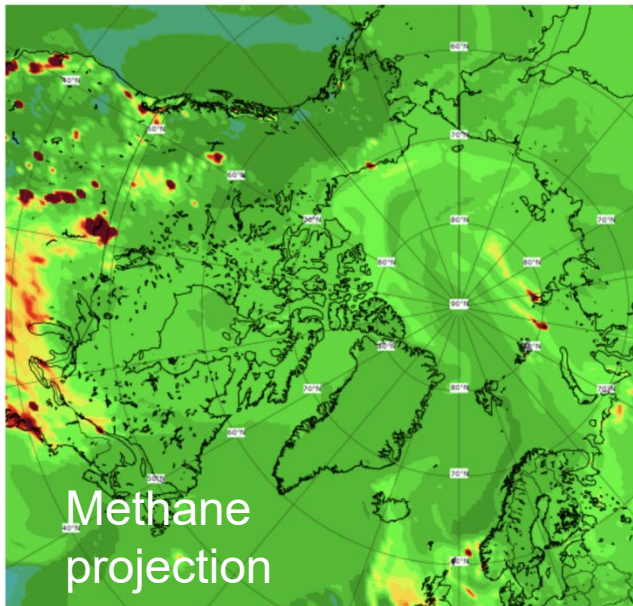


# Policy Implementation

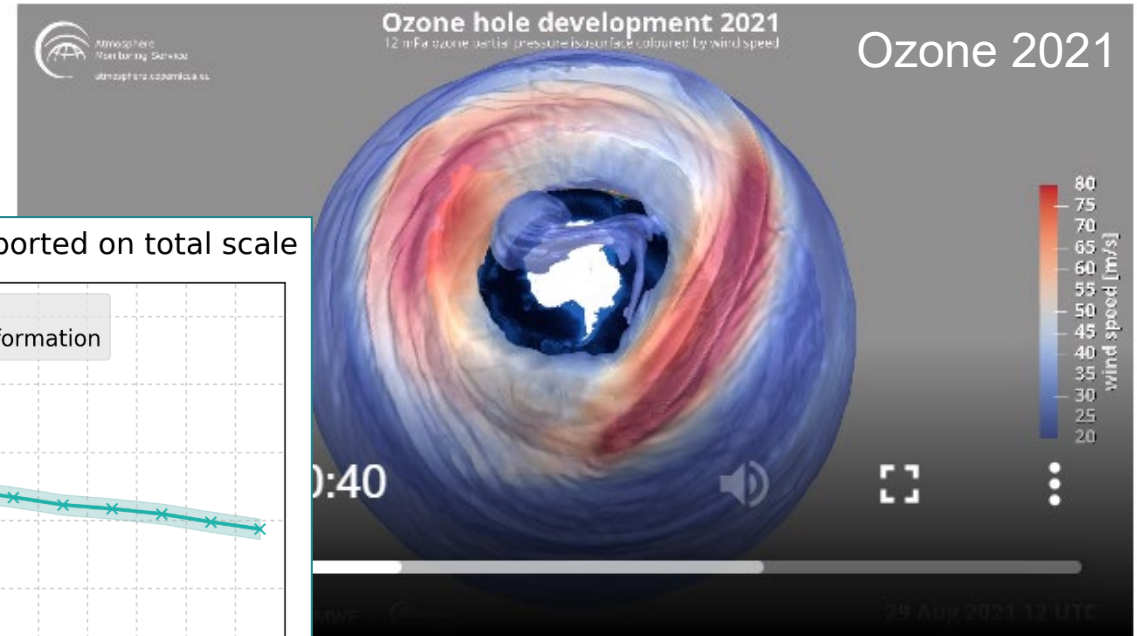
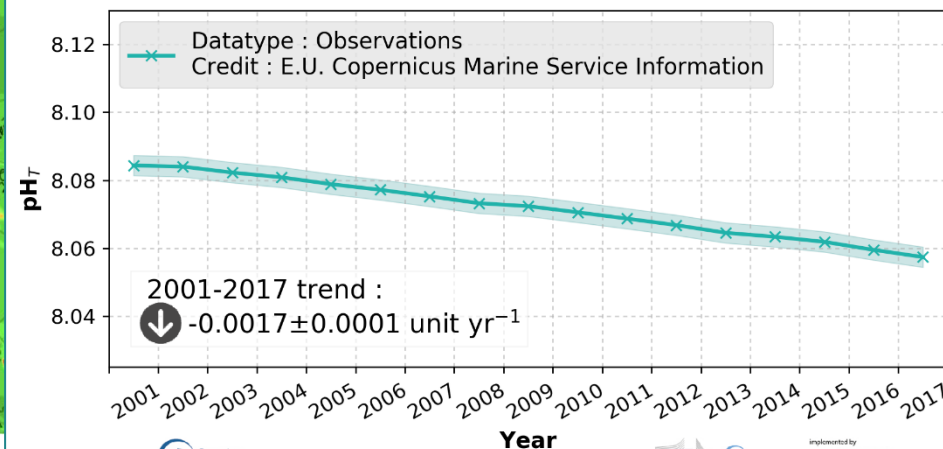
- Increasing number of processes ongoing for exploiting EO-based data and services for EU policies;
  - Examples: ozone monitoring, UN SDG reporting, Methane Observatory, air quality, arctic policy, sectoral GHG emissions and ETS, renewable energies, anthropogenic CO<sub>2</sub> emissions, etc.

Methane at surface [ ppbv ] (provided by CAMS, the Copernicus Atmosphere Monitoring Service)

Thursday 16 Apr, 00 UTC T+84 Valid: Sunday 19 Apr, 12 UTC



Yearly Mean Surface Sea Water pH reported on total scale





# Knowledge Centre for Earth Observation

- Knowledge Centre for Earth Observation (KCEO) (DG-DEFIS, DG-JRC) helps EU policymakers to fully exploit the growing amount of EO data, products and applications by
  - assessing needs of EU policies and translating these into technical requirements for EO products and services
  - analyzing research needs and priorities for innovating EU Earth Observation programmes
  - bringing together an active community of scientists, policymakers and specialists



# Accelerator S4GF – Outlook

- Coordination between Commission and ESA
  - Commission participation in the Working Group
- Technical: Existing and planned Activities to be mapped on the functional blocks of the accelerator
  - No duplication
  - New activities should be coherent with those already in place
- Governance: Many aspects will need further reflection
  - Different levels of association to the accelerator have to be possible
  - Contributions in kind vs. funding



# Thank you



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