HORIZON-CL5-2022-D1-02-01
Verification and reconciliation of estimates of climate forcers
Research and Innovation Actions
EXPECTED OUTCOMES (all)

- Enhancing the ability to ascertain whether and **to what extent** emission reduction efforts are producing the desired atmospheric signals for key greenhouse gases on relevant spatial and temporal scales.

- Better understanding of apparent discrepancies between reported GHG emissions and removals, measured atmospheric signals and modelled levels, with the aim of reducing and/or reconciling them on the long run.

- Reduced uncertainty of national GHG inventories through **improved comparability with models and observations and piloting top-down approaches** recognised in the 2019 Refinement of the IPCC 2006 GL.

- Contribution to **improving the attribution of GHG fluxes** (anthropogenic vs natural) as well as non-GHG atmospheric climate forcers (such as aerosols), including feed-backs.

- Support the **Paris Agreement**, in particular the Global Stocktake, and the implementation and monitoring of **EU climate policy instruments**.

- Provide input (such as open data, models, methods and protocols) and **contributions to international programmes and assessments** (such as IPCC, Global Carbon Project).
SCOPE

- Reconciling national GHG inventories with relevant assessment and monitoring systems at a range of scales. Aerosols and their precursors should also be included, as well as other air pollutants.

- Use of top-down techniques that can support the verification of national GHG inventories and other regulated estimates of emissions and removals, in order to improve or supplement the methods/approaches currently used. **Ideally case studies in collaboration with one or more national inventory compilers.**

- Decrease uncertainties, identify and constrain irreducible differences and improve the attribution of emissions and removals (in particular the separation of natural versus anthropogenic fluxes).

- Address the need for versatility of applications (mobile sources, individual point sources, land) relevant to current and potential future reporting and compliance systems, open data standards, transfer of information and tools, and replicability of tools outside Europe (mainly in developing countries) should also be addressed.

**INDICATIVE BUDGET**
EUR 5 million per project (EUR 15 million in total)

**Important!**
Use of Copernicus EO + Galileo/EGNOS