



ICOS

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National
Network
Belgium

SCIENCE CONFERENCE
BRUSSELS - BELGIUM
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ICOS National Network Belgium – Financial support



In 2011 : the Belgian consultation body for science policy (IMCSP)

- ✓ adopted a list of **priority infrastructures** belonging to the ESFRI roadmap including ICOS
- ✓ discussed **resources** and the **respective role that each authority** will play in building and operate a national network.

Federal Level

- *Annual membership fee for Belgium*
- *1 oceanic station on board of the RV BELGICA - RBINS*
- *1 atmosphere station in Maïdo – Reunion Island- BISA*

Flemish Region

- *UAntwerp acting as Belgian ICOS focal point.*
- *UAntwerp co-hosting (with Italian and French partners) - the Ecosystem Thematic Centre*
- *3 ecosystem stations –Lochristi, Maasmechelen, Brasschaat - UAntwerp*
- *1 ecosystem associated station – RDC – UGhent*
- *2 oceanic stations – VLIZ boy and Simon Stevin vessel*

Walloon Region

- *3 Ecosystem stations – Lonzée, Vielsalm, Dorinne - ULiège + UCLouvain*

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STRENGTH

Belgian stations cover the **three** GHG measurement **ICOS domains** and develop **associated expertise**.

OPPORTUNITY

- ✓ Increase **interactions** amongst thematic stations (ICOS.BE)
- ✓ Act as mediator between the GHG scientific community and agencies that work on **national inventories** (VERBE)
- ✓ Enhance **standardization** and curation of data (Ecosystem Thematic Center, AGROFLUX,...)
- ✓ Increase **visibility** of Belgian scientific community (ICOS FLUXES magazine : ICOS drought in 2018 ; Covid19 measures on GHG emissions in 2020-2021; the NbS for carbon capture by ocean, terrestrial ES and farming)
- ✓ Transfer of expertise (Tree4Flux)
- ✓ **Co-located sites** opportunities (LTER, ACTRIS, LifeWatch, ANAEE)
- ✓ Integration of the total carbon column observation network (TCCON)
- ✓ Explore way of coordination of ICOS with EU-COPERNICUS space-based monitoring

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THREATS

- ✓ Struggling for **stable and sufficient resources** to further sustain and develop the RI. Preparation of 5 years planning (2025-2029)

→ Constraints :

- *Inflation and increase of salary.*
- *Extra funds needed to label the increasing number of stations (ETC)*
- *Competition of available funds (membership fee) between Research Infrastructures.*

- ✓ Deployment of ICOS will be **delayed**

FUTURE

- ✓ Strategic scientific scope of ICOS to be defined.
- ✓ Completed future ICOS network to be designed.

- *Optimal geographical distribution of ocean, atmospheric and ecosystem stations ?*
- *Extension of ICOS beyond EU?*
- *ICOS network to integrate ecosystem-ocean lateral fluxes?*
- *Urban sites to test interactions Ecosystem-Atmospheric / biogenic vs anthropogenic emissions?*