ICOS INTEGRATED CARBON OBSERVATION SYSTEM

ICOS EVALUATION

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INTEGRATED CARBON OBSERVATION SYSTEM

PURPOSE OF THE EVALUATION

COUNCIL REGULATION (EC) No 723/2009 of 25 June 2009 on the Community legal framework for a European Research Infrastructure Consortium (ERIC)

ICOS ERIC Statutes



Article 10

Statutes

Article 2

The Statutes of an ERIC shall contain at least the following

- (a) a list of members, observers and, where applicable, of changes in membership and representation in complia
- (b) the tasks and activities of the ERIC;
- (c) the statutory seat in compliance with Article 8(1);
- (d) the name of the ERIC in compliance with Article 8(2
- (e) the duration, and the procedure for the winding-up in
- (f) the liability regime, in compliance with Article 14(2);
- (g) the basic principles covering:
 - (i) the access policy for users;
 - (ii) the scientific evaluation policy;
 - (iii) the dissemination policy;
 - (iv) the intellectual property rights policy;
 - (v) the employment policy, including equal opportunities,
 - (vi) the procurement policy respecting the principles of transparency, non-discrimination and competition;
 - (vii) a decommissioning, if relevant;
 - (viii)the data policy;
- (h) the rights and obligations of the members, including the obligation to make contributions to a balanced budget and votir
- the bodies of the ERIC, their roles and responsibilities and the manner in which they are constituted and in which the including upon the amendment of the Statutes, in compliance with Articles 11 and 12;
- (j) the identification of the working language(s);
- (k) references to rules implementing the Statutes.
- The Statutes shall be publicly available on the website of the ERIC and at its statutory seat.



ICOS ERIC shall undertake and coordinate activities, including but not limited to: (h)scientific and management evaluation of the activities,

the strategic orientation and operation of all components of ICOS RI by external evaluators. bservation System Research tion from ICOS RI to user

rch into multi-scale analysis otocols, long-term data and promoted by the linking of activities, including but not

- (a) quantification of GHG atmospheric concentrations and terrestrial and oceanic fluxes over Europe and key regions of European interest, including the North Atlantic Ocean;
- (b) facilitation of European research programmes and projects;
- (c) contribution to the mobility of knowledge and/or researchers within the European Research Area (ERA) and increasing the use of intellectual potential throughout Europe;
- (d) coordination and support of development of technology and protocols for high-quality and cost-efficient measurements of GHG concentrations and fluxes also to be promoted beyond Europe;
- (e) contribution of timely information relevant to the GHG policy and decision-making;
- (f) facilitation of the analysis of carbon sequestration and/or GHG emission reduction activities on global atmospheric composition levels, including the attribution of sources and sinks by geographical regions and activity sectors;
- (g) facilitation of the aims of the ICOS RI to establish a template for the future development of similar integrated and operative GHG observation networks beyond Europe;
- (h) scientific and management evaluation of the activities, the strategic orientation and operation of all components of ICOS RI by external evaluators.

Interest and concepts by

INTEGRATED CARBON OBSERVATION ESFRI

Interest and concepts by



European Commission



Supporting the Transformative Impact of Research Infrastructures on European Research

European Commission

Report of the High-Level Expert Group to Assess the Progress of ESFRI and Other World Class Research Infrastructures Towards Implementation and Long-Term Sustainability



Last but not least: National evaluations!

Multiple purposes

- Multiple stakeholders: national authorities, ESFRI, EC
- unfortunately, this means multiple evaluations
- Ideally, there would be a better harmonisation between ESFRI, EC, national agencies and General Assemblies of the ERICs

Main purpose defined by the ICOS ERIC General Assembly

Five main criteria to review ICOS performance:

- 1. Internal management that oversees, integrates, and steers all core activities;
- 2. Finances with focus on financial sustainability
- 3. Based on this, how well the different parts function together and as entities and how well ICOS functions as one distributed and well-integrated infrastructure;
- 4. How well ICOS outputs (i.e., data and services) fulfil user expectations;
- 5. How well ICOS integrates into European and global greenhouse gas information systems.



ICOS

INTEGRATED CARBON OBSERVATION SYSTEM

THE IDEAL APPROACH

The mission of ICOS

The Integrated Carbon Observation System (ICOS) is a distributed research infrastructure operating standardized, high-precision, and long-term observations and facilitating research to understand the carbon cycle and to provide necessary information on greenhouse gases. ICOS-based knowledge supports policy- and decision-making to combat climate change and its impacts. ICOS is the European pillar of a global GHG observation system. It promotes technological developments and demonstrations, related to GHGs, by the linking of research, education and innovation.



The mission of ICOS

The Integrated Carbon Observation System (ICOS) is a distributed research infrastructure **operating standardized**, **high-precision**, **and long-term observations** and **facilitating research** to understand the carbon cycle and to provide necessary information on greenhouse gases. ICOS-based **knowledge supports policy- and decision-making** to combat climate change and its impacts. ICOS is the **European pillar of a global GHG observation system**. It promotes technological developments and demonstrations, related to GHGs, by the linking of research, education and innovation.



Effects of activities according to strategic areas is demonstrated via results from measuring KIIs.



Quality of activities is demonstrated via results from measuring KPIs.



INTEGRATED CARBON OBSERVATION SYSTEM

THE REAL APPROACH

Categories to review ICOS performance:

- Internal management that oversees, integrates, and steers all core activities;
 3 sub-categories
 - 11 KPIs some specific to the life-cycle situation
- 2. Finances with focus on financial sustainability
 - 2 sub-categories
 - 4 KPIs some specific to the life-cycle situation
- 3. Internal engagement and integration;
 - 2 sub-categories
 - 5 KPIs some specific to the life-cycle situation
- 4. How well **ICOS outputs** (i.e., data and services) fulfil **user expectations**; 5 sub-categories
 - 11 KPIs some specific to the life-cycle situation
- How well ICOS integrates into. European and global greenhouse gas information systems 7 KPIs



Effects of activities according to strategic areas is demonstrated via results from measuring KIIs.



Quality of activities is demonstrated via results from measuring KPIs.

Evidence by documents and data

- Analysis of internal rules and policies, agreements between ERIC and non-ERIC parts of the RI etc.
- Data analysis (e.g. on use of ICOS data in publications)

ICOS-related publications



ICOS Science Conference

Submitted Abstracts



Evidence by surveys

Very general and very detailed survey questions to internal and external target groups.

1. ICOS RI is well managed.

2. The management of ICOS RI activities has improved over the past five years.

5. ICOS RI has a clear mission and strategy

6. ICOS RI has the ability to further develop and improve its activities.





Timeline

- Mandate was given by General Assembly in November 2019
- Costitution of the Evaluation Committee in January 2020
- Concept development during spring 2020
- Surveys in September 2020
- Evidence report November 2020
- Final report scheduled for end of December 2020





Some experiences

- The development of the evaluation concept was much more work than expected. Unclear mandate by the General Assembly required thorough conflict of interest management.
- High overall workload for ICOS ERIC Head Office for supporting concept development and preparing evidence report: 2 FTE
- Some ,first-time experience' will give solid ground for future evaluations.
- Timing at the transition from implementation to operation very useful.
- Important and very useful feedback for optimising operations.







