

EuroGeoSurveys feedback on the proposed regulation for a Net Zero Industry Act

Introduction

[EuroGeoSurveys](#) (EGS) is a not-for-profit association, established in 1971, providing vital subsurface knowledge to support the EU's competitiveness, social well-being, environmental management and international commitments. EuroGeoSurveys coordinates a network of 37 Geological Surveys of Europe, a workforce of more than 10,000, collaborating through 10 scientific expert groups and 1 task force. We address European issues in the field of geoscience (science of the subsurface) and collaborate on projects that inform EU and national policy for the benefit of all European citizens. EuroGeoSurveys – and a future sustainable Geological Service for Europe – enables sustainable and responsible use of our subsurface resources. As the scientific reference partner of the EU, we deliver subsurface knowledge as the foundation of a sustainable future for Europe.

EuroGeoSurveys welcomes the proposed Net Zero Industry (NZI) Act as a positive action toward improving the regulatory and investment environment to support the EU's decarbonization of the industry and climate neutrality goals.

Specifically, we note the significant important roles that the National Geological Survey Organisations (NGSOs) collectively have already played during the preparation and transposition of the 2009 CCS Directive. That early engagement was solidified in continuous activities of one of EGS's dedicated expert groups, the GeoEnergy Expert Group, and project-based focus on CO₂ storage. Many of our Members manage their national geo-data repository. Where national and pan-European CO₂ storage atlases have been prepared, EGS members have been involved. This national overview and expertise in geo-data contributes to acceleration of implementation of CCS in-country.

Summary of recommendations

- As an established partner, the **National Geological Survey Organisations (NGSOs)**, supported by EGS, **should be an invited party to the Net-Zero Europe Platform, under Article 29 (8)**.
- The **NGSOs, supported by EGS, should have the following roles** in implementing the NZI Act:
 - As a **source of national data and expertise**, including data and expertise on competing subsurface uses that must be prioritised, and with their capacity for EU-scale data and knowledge harmonisation.
 - As a **coordinated expert network** with extensive experience, achievements, and links to the broader European CO₂ storage expert community.
 - As a **data infrastructure provider** with existing INSPIRE standard-harmonised datasets, UNFC expertise, and a commitment to harmonised pan-European data provision via the publicly available [European Geological Data Infrastructure \(EGDI\)](#).
- The NGSOs, with EGS support, can provide **technical support to simplify procedures related to reporting and permitting**.
- To accelerate progress toward CCS in Europe, we propose that **EGDI hosts an EU key register, legislated within the NZI Act, for harmonised CO₂ storage data** from Member States and industry, delivered via the NGSOs and with support from EGS.
- EGS involvement via supporting the roles of the NGSOs through guidelines, best practice, and data harmonisation, offers the possibility to implement some components of a **Geological Service for Europe**, reducing administrative burden to the Commission and to the Member States.

Position of EuroGeoSurveys on the proposed NZI Act

Given the recent and long-anticipated renewed roll out of CCS initiatives, and the pivotal importance of CO₂ storage projects, we would like to again offer the support of the National Geological Survey Organisations (NGSOs) and, collectively, EuroGeoSurveys (EGS) as an objective EU-level authority, re-establishing a role of advisor and observer to the EC that EGS played during the first IEG-CCS meetings. EGS supports and facilitates best practise, data harmonization, and capacity building of the NGSOs and can be a major player in CCS.

Many of the points emphasized in the NZI draft regulations are a perfect answer to our, often long-standing, points of concern. We therefore explicitly welcome and support this document.

In particular, we support:

- Recognition of the importance of CCS as a pillar of the NZI Act.
- Focus on CO₂ storage as the strategic bottleneck for fast-tracking CCS implementation.
- Data disclosure of potential storage reservoirs where confidentiality can be lifted.
- Engaging the expertise and know-how of the oil and gas sector.
- Making the evaluation of CCS an explicit obligatory part of national energy and climate planning.
- Strengthening the pan-European context of CCS as a cross-border solution.
- Development of alternative sources of energy and energy storage to complement CCS.

We also note that the proposed NZI Act highlights the importance of the availability of a skilled workforce required for net-zero industry in Europe. This includes geoscientific skills. However, global geoscience student numbers have been in general decline for almost a decade. EGS and the NGSOs, as a large European expert network, already engage in geoscientific training in key fields required for compiling and analysing data and knowledge relating to CCS and could act to **support domestic training of geoscientists**.

We highlight the following **important challenges**, related to the NZI Act:

1. **EU data harmonisation challenge:** *Data input will be organised at Member State level, and even with EU directives, regulations and guidelines in place, it will be difficult to integrate and interpret correctly without region specific knowledge of the subsurface.*
2. **Agenda challenge:** *Even if supportive, the oil and gas industry will be a steering player, and views may implicitly filter through in a way that is beneficial to the sector, but not necessarily objectively optimal for achieving the goals of the CCS Directive and NZI Act.*
3. **Multi-thematic challenge:** *The deep subsurface serves not only to store CO₂, but also to solve other climate and energy related challenges including, e.g., geothermal, heat, cold, and hydrogen storage, groundwater management, subsurface infrastructure etc. This competition for subsurface space requires cross-thematic awareness and expertise when evaluating potential, opportunities and updating outlooks for CO₂ storage, which can't be provided by Member State CCS experts alone.*

As an established partner, the **NGSOs supported by EGS** have the expertise and profile to assist the Commission directly as **part of the Net-Zero Europe Platform**, as an invited party under **Article 29 (8)**. The GeoEnergy Expert Group of EGS has already functioned in this capacity for the CCS Directive, proving its objectivity, high level of geological expertise, understanding of the sectoral players, and broad thematic awareness of subsurface management. In a similar capacity, we are a respected partner to the Commission for raw materials, but also groundwater and hazards, soils, and by extension all geology relevant domains. As such, we are developing ourselves with Horizon Europe support into a permanent Geological Service for Europe.

We propose the following roles of the NGSOs and EGS in the implementation of the NZI Act

1. As source of data and expertise:

Data on the deep subsurface, as is the case for (potential) CO₂ storage sites, requires specific expertise to be used, displayed and interpreted. In most cases, the source of this data and the expertise on the geological nature of the subsurface and its suitability for safe CO₂ injection and storage is held by the NGSOs. The NGSOs are also in the unique position of assessing injection and storage potential in the broader perspective of sometimes multiple or possibly interfering subsurface usage priorities, such as geothermal and hydrogen storage. Data and knowledge of these other fields, also commonly held by the NGSOs, are pivotal to making well-informed and effective decisions on a long-term and sustainable management of the subsurface. In this regard, the NGSOs can provide technical support to simplify procedures and harmonise documentation related to reporting and permitting, with EGS providing the framework for collaboration and discussion of harmonising these processes.

Furthermore, not only is geological data particular in its nature, geology and the way it is studied is also very different from country to country. Local knowledge at national level is therefore indispensable for creating reliable assessments. And harmonising such diverse data and datasets EU-wide is a challenge. EGS and its NSGO members are currently engaged in the 5-year [Geological Service for Europe \(GSEU\)](#) project, an important component of which is to deliver pan-European inventories, characterisations and knowledge for underground capacities for CO₂. This includes integrated and harmonised European databases and resource atlases as well as an associated knowledge and competence hub for NGSOs and stakeholder communities. This data and knowledge provision is central to the aims of **Article 17** in relation to national reporting of geological data relevant to CO₂ capture and storage. **We therefore stress the unique position of the NGSOs, their diverse expertise, their relation with national governments, and that we are building the capability to provide a central point of collection and delivery of national CO₂ storage data and knowledge via the GSEU, and to harmonise it at EU level with the support and guidance of EGS.**

2. As an expert network:

The current GSEU project builds upon achievements from prior European assessments and the GeoERA programme, and the joint activities of our GeoEnergy Expert Group (GEEG), which currently comprises 68 members from 35 countries. The potential for bringing together data and expertise reaches far beyond EGS members. This includes, e.g., our engagement with the CO₂GeoNet association, the pan-European network of excellence on CO₂ storage for research organisations. CO₂GeoNet initiated the CO₂StoP project, which produced the first pan-European CO₂ storage atlas now displayed through the EGDI, a service provided by EGS and GSEU. **As the authoritative national research and public policy advisory bodies that deal with subsurface data, including but not limited to CO₂ storage, and with strong links to the wider CO₂ storage research community, the NGSOs comprise a coordinated network that should act as a structural expert group to the proposed governance Platform, outlined in **Article 29**, with the coordination and support of EGS.**

3. As a data infrastructure provider:

EGS also has the existing data and knowledge infrastructure to serve as the framework for data and knowledge collection and delivery. From our extensive project work, we have existing INSPIRE standard harmonised datasets, which are publicly available. We are also central to efforts for promoting and implementing UNFC standards and training in Europe in partnership with UNECE, are active in the UNECE EGRM Bureau, are the largest community of UNFC practitioners and with the largest pool of potential UNFC experts. We have a common commitment to harmonized pan-European open data and standards. We already have in place an open access web portal hosting the EGD. Our information and knowledge are well-positioned to support EU storage portfolio analyses, supported by resource classification principles such as set out in e.g., UNFC and SPE-SRMS. **We therefore put forward our data framework, structure and infrastructure, EGD, as the logical framework for data collection, processing and delivery.**

To accelerate progress toward CCS within Europe, data access is key. With this aim, we further propose that the Regulation require data to be shared, after accommodating data embargo periods. National data (also from industry and other parties) should be delivered by the NGSOs, and harmonised with support from EGS through a central data hub within EGD. This would act as **an EU key register for harmonised CO₂ storage / CCS data and knowledge**, accelerating CCS within Europe.

Importantly, **we see also the coordination and support roles for EGS in implementation of the proposed NZI Act as a pilot for a component of a future Geological Service for Europe based on a sustainable network of NGSOs.**

We support a coordinated EGS-level response to ensure the EU consistency of the various programmes, and to support national-level requirements of and contributions to implementation of the NZI Act. We see EGS as a powerful, efficient tool for the EU for implementing the Act, through implementing some components of the Geological Service for Europe. The EGS-facilitated sharing of knowledge, guidance, and best practices (and, when needed, technical and administrative support on a case-by-case basis) will facilitate efficient data and knowledge delivery. This will reduce administrative burden and provide a more streamlined basis for EU-level subsurface management, decision support, resource classification, visualization, and integration of results with other types of geoscience data and information, and linking of national and European scale data through a single open access gateway – the European Geological Data Infrastructure (EGDI).

Furthermore, the same coordinated NGSO efforts supported by EGS could serve required geological data and advice for both the NZI and the CRM Acts. The collection, harmonized compilation, and delivery of such geological data through the same infrastructure will provide a better basis for subsurface management, decision support, resource classification, visualization, integration of results with other types of geoscience data and information, and linking of national scale and European scale data through a single open access gateway in the European Geological Data Infrastructure (EGDI). This will reduce administrative burden in implementing both the CRM and NZI Acts with the potential to also provide a framework for delivering subsurface data that may be required for emerging sectors and new and competing uses of the subsurface, that may include storage of fuel, heat, cold, water, infrastructure, etc – all areas in which the NGSOs can provide valuable data, information, and knowledge.

