

UNDERSTANDING THE SUBSURFACE IS VITAL TO ACHIEVE THE GREEN TRANSITION



Our Mission

is to enable the sustainable and responsible use of the Earth's subsurface environment and resources.

Our Vision

is to create the Geological Service for Europe as the scientific reference partner of the EU, delivering knowledge of the Earth's surface and subsurface environment and resources as the foundation of a sustainable future for Europe.

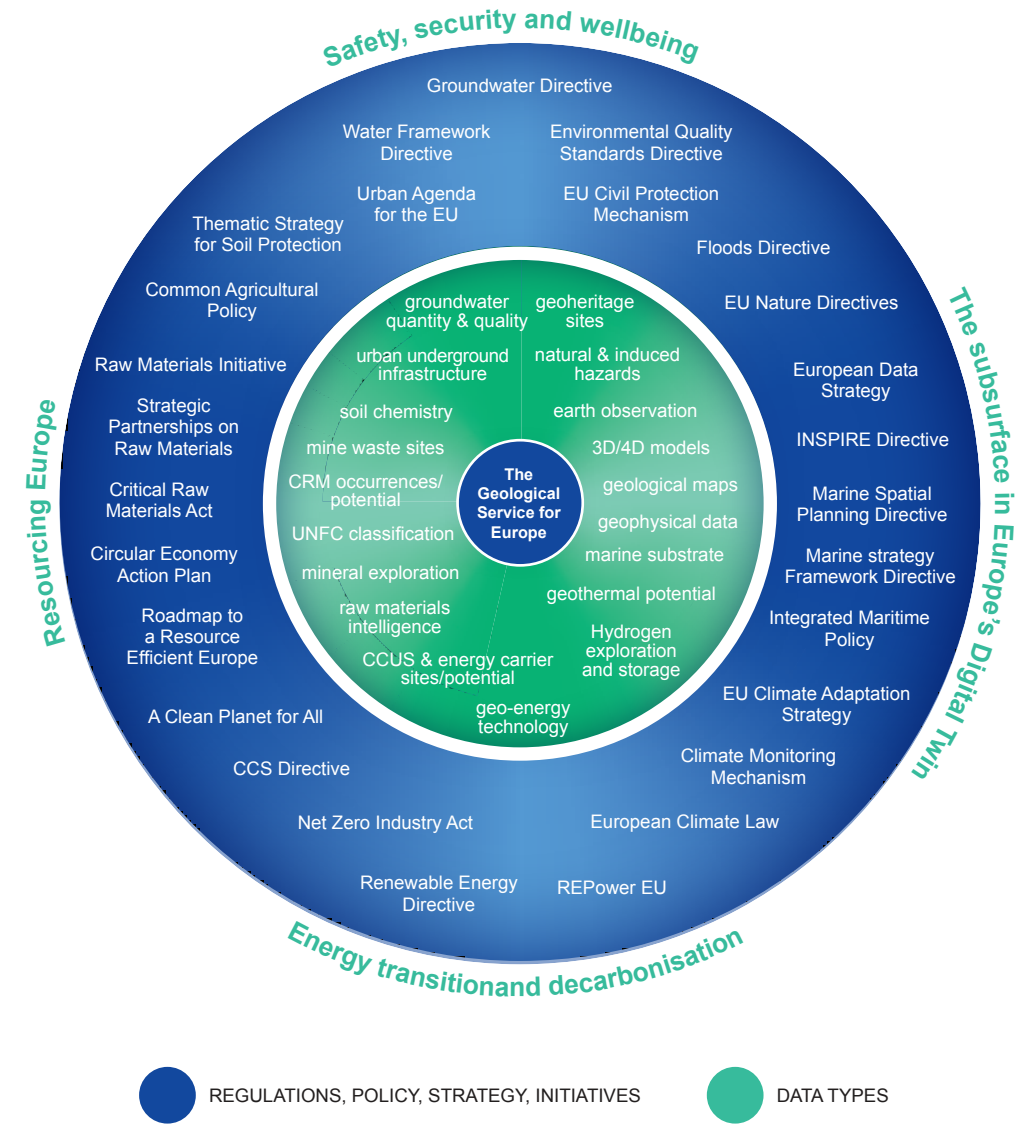
By 2050,

the EU plans to be the first climate-neutral continent through an ambitious, broad-ranging suite of policies: The Green Deal. In the face of disruptions to global supply chains, war in Europe, and global geopolitical tensions, Europe must act to strengthen its resource and energy resilience.

To achieve these transformative changes, sustainable and responsible use of the subsurface is crucial. The subsurface provides renewable geothermal energy, and can store energy, excess CO₂ and nuclear waste. It is a source of raw materials needed for clean energy technologies, and the substrate for offshore wind parks.

Meanwhile, climate change impacts—increased frequency and intensity of flooding and drought, land subsidence, and landslides—and competing uses of the subsurface for urban expansion, agriculture, energy production and mining intensify the need to understand, protect, and manage our subsurface environment and resources.

EuroGeoSurveys—through its member National Geological Survey Organisations of Europe—provides necessary pan-European data and expert knowledge of the subsurface, science-based policy advice, and a platform for sharing knowledge and best practices. We aim to increase our capacity to deliver these essential services by establishing a legally mandated **Geological Service for Europe** with the sustained backing of the EU and its Member States.



OUR THEMES

Resourcing Europe

Mineral raw materials are essential for modern life. While reducing, reusing, and recycling are important, increasing demand for raw materials to achieve the green transition and reduce EU's vulnerability to volatile markets requires diversification and increased domestic sourcing.

Energy Transition and Decarbonisation

Climate change is the major challenge of our time. Geoscience is key to delivering decarbonisation solutions: renewable geothermal energy, heat storage, carbon capture, and sustainable energy storage.

Enhancing Safety, Security and Wellbeing for EU Citizens

Natural and human impacts threaten the success of the UN Sustainable Development Goals: climate change, urban expansion, increased land use are increasing impacts from landslides, flooding and drought, coastal erosion, subsidence, and soil and groundwater pollution.

The Subsurface in Europe's Digital Twin

Digital data & information, modelling and visualisations have advanced our understanding and management of the subsurface, and new digital technologies present opportunities to accelerate the green transition. We need interoperable harmonized pan-European subsurface data to sustainably manage resources, climate change, decarbonisation, and safety and wellbeing for European society.

EUROGEO SURVEYS



- Delivers research on raw materials exploration and sustainable production
- Provides analysis of the raw materials sector
- Promotes the use of mineral raw materials reporting standards



- Delivers expertise on geo-energy technologies, risks and hazards
- Provides expertise to support planning and implementation of integrated energy systems, energy networks and infrastructure



- Delivers subsurface expertise including on groundwater, soils, geohazards, geoheritage and climate change risks
- Develops technologies for 3D spatial planning to support risk and geohazards management



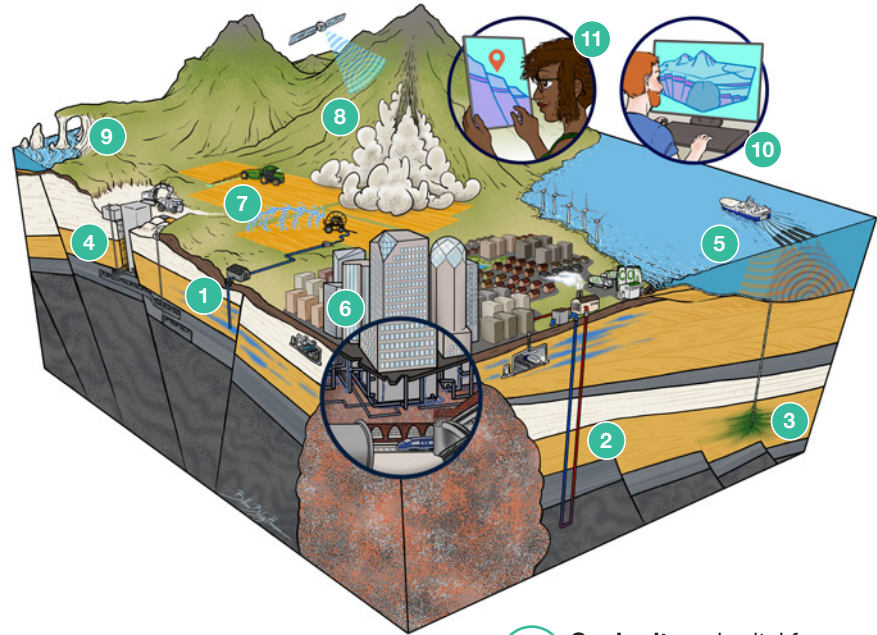
- Innovates generation, conceptualisation, organisation, visualisation and delivery of subsurface information
- Develops multi-dimensional geological models and datasets
- Works to achieve the interoperability between platforms
- Applies AI, Big Data and machine learning to geoscience applications

Through the European Geological Data Infrastructure, EuroGeoSurveys delivers pan-European harmonised, standardised, accessible data to drive socially, environmentally, and economically sustainable exploration, use, protection, and management of subsurface resources; optimising development and deployment of renewable energy, geological storage infrastructure and technologies; strengthening the EU's minerals and energy supply chains; improving geohazard monitoring and assessment; promoting international best practice; and supporting sound science-informed policy.

SUBSURFACE KNOWLEDGE: KEY TO THE GREEN DEAL

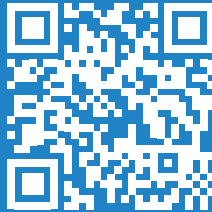
HOW CAN WE WORK TOGETHER?

- 1 **Groundwater** provides 65% of Europe's drinking water.
- 2 Subsurface knowledge is crucial to delivering **renewable energy**.
- 3 The subsurface can provide **storage space** for CO₂, heat and cold, hydrogen, compressed air or nuclear waste.
- 4 New **critical raw materials** discoveries are needed for renewable technologies and energy.
- 5 To safely develop offshore **wind farms**, we must understand seabed geology.
- 6 To create **green cities** requires understanding the subsurface in which they are rooted.



- 7 We need **healthy soils** to grow food.
- 8 Subsurface knowledge helps us mitigate **hazard risk** from climate change impacts: flooding, landslides, and subsidence.
- 9 **Geoheritage** is vital for conservation and management of Europe's natural heritage.
- 10 Subsurface **mapping and modelling** and delivery of pan-European harmonised data is the foundation of a sustainable future.
- 11 **Spatial information** enables data-driven policy and decision-making.

- Support us in establishing the legal basis for the **Geological Service for Europe**: We need a legal foundation to secure delivery of complete, up-to-date, high-quality pan-European data and knowledge services through the European Geological Data Infrastructure.
- Support us in promoting our ambitious **Strategic Research and Innovation Agenda (SRIA)** and collaborate in research actions. In our SRIA, we have framed the most pressing current and future research and innovation priorities around our four thematic goals:
 1. Resourcing Europe
 2. Energy transition and decarbonisation
 3. Enhancing safety, security and wellbeing for EU citizens, and
 4. The subsurface in Europe's Digital Twin.
- **Engage with us** to allow us to deliver policy support, expand our network and raise awareness of the importance of sustainable and responsible use of the Earth's subsurface.



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