- Climate, environment and circular economy
- Environmental monitoring

Environmental monitoring

OVERVIEW AND CHALLENGES

In 2018, environmental standards were tightened up around the world with the objective of **limiting the overall increase in global temperature to below 2°C** by the end of the century. To meet this ambitious target, a reduction in global CO_2 emissions of more than 40% will be required by 2040, along with an acceleration in states' efforts to support the energy transition.

Monitoring is crucially important in order to determine whether the quality of the environment is improving or worsening and to assess the potential **impact of new energy technologies**. This monitoring concerns different areas:

- climate change, via the necessary **inventory of greenhouse gases**, which accumulate in the earth's atmosphere,
- **air quality**, for which the challenge is to determine concentrations of, and exposure to, the various pollutants,
- **monitoring of underground storage and usages**, requiring a combination of methodologies and technologies, from the deep underground environment to the atmosphere.

With respect to usage of the underground environment, the industrial-scale development of new technologies, such as:

- electricity storage,
- geothermal energy ,
- CO_2 storage,
- hydrogen storage,
- energy storage,

will require the development of technologies meeting criteria related to:

- performance,
- **economic sustainability**,
- **safety**,
- protection of the environment.

> *Facilities requiring environmental impact assessment (industrial sites, landfill sites, farms) are controlled by the operators themselves. The more global monitoring of air quality around urban centers, affected by road traffic, heating and the concentration of industries, is the responsibility of regional bodies, which collect data and report to government, to support decision-making where necessary.*

Provide combined monitoring methodologies and technologies from the deep underground environment to the atmosphere.

Our solutions Our networks Our strengths

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Link to the web page :