

INNOVATION PURPOSE

At **SYSTRA SUBTERRA Ingeniería** we want to be a benchmark in the mobility, water and energy, and mining engineering sector, with a clear commitment to research, development and above all in the search and implementation of innovative, sustainable and accessible solutions that improve the safety, efficiency and sustainability of our projects and services; appropriate to the needs of our clients and the environment where we operate. while fostering a culture of continuous innovation within our organization.

We are committed to pushing the boundaries of engineering, developing cutting-edge technologies that reduce construction times and minimize environmental impact.

Through collaboration with academic institutions, research centers, and strategic partners, we seek to integrate sustainable materials and smart monitoring systems into our projects, thus ensuring maximum safety and durability.

INNOVATION STRATEGY

Innovation is a priority for **SYSTRA SUBTERRA** as a fundamental means for the development and application of new solutions in the field of geotechnical engineering and tunnel and underground engineering. This knowledge allows us to define the main lines of research and strategies, which will evolve as different milestones are reached or according to the needs of the market.

Our innovation activity is characterised by:

- **Research and develop solutions for the development of new methodologies** applied to engineering projects in the mobility, water and energy, and mining sectors.
- **Incorporate new technologies** in the development of our projects, such as Artificial Intelligence, digitalization, among others

SYSTRA SUBTERRA drives innovation incrementally, in tools, processes and services, and even in our own business model. In this way, it aims to position itself as an organization capable of constantly transforming and continuously adapting to the needs of customers, who want to be agile and innovate.

For this reason, and to achieve the purpose, innovation objectives have been established focused on:

- **Strengthening of its agile and innovative culture** based on Participatory Leadership.
- **Continuous development** of innovation capabilities.
- **Development of innovation projects aimed at improvement and the development of new solutions/tools**
- **Favouring the open innovation model** through collaborations that provide complementary capabilities to those of the organisation itself.

In terms of resource management, **SYSTRA SUBTERRA** allocates financial, human and technological resources to support innovation initiatives and the search for collaborations.

To measure and evaluate the progress of the objectives, KPIs are defined as: the return on investment in innovation, the ideas generated, collaborations and the development of solutions; which are measured quarterly or semi-annually and adjusting the strategy as necessary. The communication and dissemination of advances on innovation achievements is carried out through meetings with Senior Management and the organization of an annual innovation workshop to share results with customers, partners and the academic community.



The strategic lines of innovation defined in our current five-year Strategic Business Plan are as follows:

- **Smart mines of the future:**
 - Geotechnical digital twins,
 - Big data, for early prediction of geotechnical conditions
 - Advanced real-time monitoring and remote sensing
 - Advanced Geotechnical Modeling
- **Sustainable underground structures:**
 - Thermoactivation of underground structures
 - Circular economy in the construction of underground works
 - Energy storage: reversible hydro, H2, CAES, ...

This strategy is designed to align innovation efforts with the company's strategic objectives, promoting a proactive and collaborative approach towards the development of innovative solutions in the tunneling and underground works sector.

José Miguel Galera
CEO SYSTRA SUBTERRA

