

**Minsait will attend the Enlit Fair in Frankfurt from November 29th to December 1st**

## ELECTRIFICATION POSITIONS ITSELF AS A DRIVER OF THE ENERGY TRANSITION

- **Despite its role in the decarbonization process, electricity still plays a minor role in the energy consumption of processes such as heating, transport and construction**
- **Minsait advocates combining variable renewables and new technologies to complete the leap from a linear to a circular economy**
- **The evolution towards clean energy will involve a shift from an extensive fossil fuel system to a mineral-intensive one**

**Madrid, November 28th, 2022.-** The share of electricity in energy consumed is minimal. In a country, it accounts for between 20% and 30% of the total, compared to the majority use of fossil fuels to ensure the mobility of people, the habitability of housing and the construction of an economic system that is still linear.

To successfully complete the journey towards a circular economy, the full potential of electrification must be harnessed. "The integration of a higher proportion of variable renewable technologies, such as wind and solar photovoltaic technologies, is essential to decarbonize the electricity sector and continue to meet the growing demand for energy," argues Maurizio de Stefano, director of Energy & Utilities at Minsait, an Indra company. The company will be present at the Enlit Europe event, which will take place from November 29th to December 1st in Frankfurt (Germany).

First, it is necessary to clear the way of pending challenges. "The inherent variability of wind and solar photovoltaic generation poses challenges to system operators and regulators. Systems around the world are undergoing significant changes driven by the increasing availability of low-cost variable renewables, the deployment of distributed energy resources and advances in digitalization," the Minsait executive explains.

Network flexibility and automation are other actions to be undertaken. A process that, when approached from a phigital environment, is completed with disruptive technology that helps companies achieve the desired transition. The more networks are connected, the more variable the energy sources and the greater the need for intelligent systems to ensure their performance, reliability and safety.

"A smarter digitalized network," De Stefano says, "can improve the flow of sources such as wind or solar. It will transmit real-time data on how much, when and where electricity is available and is able to predict consumption needs to match them."

### Growing with common sense

The energy transition through electrification is not without material costs. A plug-in vehicle is more efficient, but requires six times more mineral consumables than the conventional car. Meanwhile, an onshore wind plant requires nine times more resources than a gas plant of the same capacity. The needs at source are greater but, in exchange, the generation of energy does not pollute and makes it possible to replace the linear economy and its high environmental cost with a circular economy based on efficient consumption with less impact on the planet's health.

This transition to clean energy involves moving from an extensive system based on fossil fuels to an intensive system sustained by minerals, displacing the use of hydrocarbons in combustion engines, boilers and conventional machinery and increasing the use of lithium, cobalt and rare earth elements (REE) to manufacture batteries, wind blades and converters.

In any case, during the adaptation phase, a balance will need to be found between growth and the common good. According to Maurizio de Stefano, "a growing global GDP needs greater availability of energy, but renewables alone are unlikely to be able to guarantee that dream of cheap resources in sufficient quantity because of the need for abundant metal and oil to transition".

"In the same way", concludes the Director of Energy & Utilities at Minsait, "we must assume that energy sobriety will have to play a much greater role, while we wait for a reduction in the unbridled economic growth of disposable products. The challenge will be to develop new jobs in a world of lower consumption, one that is more relocalized and based on repairing and recycling".

### **About Minsait**

Minsait ([www.minsait.com](http://www.minsait.com)) is Indra's leading company in digital transformation and Information Technologies. Minsait possesses a high degree of specialization and knowledge of the sector, which it backs up with its high capability to integrate the core world with the digital world, its leadership in innovation and digital transformation, and its flexibility. Thus, it focuses its offering on high-impact value propositions, based on end-to-end solutions, with a remarkable degree of segmentation, which enables it to achieve tangible impacts for its customers in each industry with a transformational focus. Its capabilities and leadership are demonstrated in its product range, under the brand Onesait, and its across-the-board range of services.

### **About Indra**

Indra ([www.indracompany.com](http://www.indracompany.com)) is one of the leading global technology and consulting companies and the technological partner for core business operations of its customers worldwide. It is a world-leader in providing proprietary solutions in specific segments in Transport and Defence markets, and a leading firm in Digital Transformation and Information Technologies in Spain and Latin America through its affiliate Minsait. Its business model is based on a comprehensive range of proprietary products, with a high-value, end-to-end focus and with a high innovation component. In the 2021 financial year, Indra achieved revenue of €3.390 billion, with nearly 52,000 employees, a local presence in 46 countries and business operations in over 140 countries.