

## Title of the challenge:

### **Energy self-sufficient and water self-sufficient materials**

## The company:

**ISA Interconexión Eléctrica S.A. E.S.P.** is a multi-Latin company with more than 56 years of experience. ISA operates the businesses of Electrical Energy, Roads and Telecommunications and ICT, to connect millions of people in Colombia, Brazil, Chile, Peru, Bolivia, Argentina and Central America, through more than 4,700 team members.

ISA is committed to mitigating and adapting to climate change, the rational use of resources, the development of programmes that generate a positive impact on the environment, the integral development of the communities where ISA operates and the quality, reliability and availability of the services provided by the company. After more than five decades of leadership in the region, ISA has transcended the physical act of connecting one point to another to connect people, making each connection an inspiring act.

See more at: <https://www.isa.co/>

## Full description\*

Our roadways (highways) and all types of constructions (warehouses, buildings, transmission lines, etc.) have a carbon footprint and a water footprint that represents a negative impact on our sustainability indicators. Therefore, we are looking for technological solutions and/or business models that enable us to build with fewer materials or with any type of sustainable materials, aiming to create constructions that are energy self-sufficient (even net-positive) and water self-sufficient, both during the construction phase and throughout their use or entire lifespan. This applies not only to our existing infrastructure, but also to the new infrastructure we intend to develop in energy communities in LatAm and certain locations in the Caribbean.

Within the ISA initiative regarding energy transition and therefore, the reduction of our carbon footprint and water footprint, we are looking for companies and individuals with solutions aimed at improving these indicators through innovative and bold proposals that can help us quickly achieve our reduction goals.

On the other hand, considering our plans to bring energy, water, and economic development to low-income rural areas in LatAm and in the near future to the Caribbean, our company's robustness and heavy administrative layer make these solutions expensive and therefore technically and financially unfeasible. Here, we are looking for companies that can collaborate with us as allies to create prosperous energy communities (electricity, heat, and cooling) while also allowing us to establish a new line of business that prioritizes the well-being of people while ensuring the long-term financial sustainability of the solutions without requiring further capital injections from our side over time.

## What are we looking for?

The ally must have an advanced business idea supported by concrete numbers, or a product or technology that is at least in a T2 or T3 development stage, so that it can be tested on our roadways, infrastructure (buildings and transmission lines), or in the rural areas where we aim to establish energy communities. This idea or development should include a plan for the necessary training of users or those who will operate the equipment, as well as the conditions required for its implementation in the local environments.

## What are we offering?

ISA is not only a good client to showcase, but we can also offer or provide:

- Our highways and possibly some of our substations.

- Small communities in urban and rural areas that are interested but lack energy, water, and possibly connectivity services.
- General description of the localities, including population size, productive vocation, and general socioeconomic conditions of the environment.
- The necessary economic resources to test the solutions and to explore the proposed business models.

If the solution proves to be successful, and depending on the type of proposal, we can proceed with a strategic provider relationship or make an investment as an owner or shareholder.

This collaboration with ISA provides an excellent opportunity for companies and individuals with business ideas or technology developments to test their solutions in real-world scenarios, leveraging the company's infrastructure and resources to create positive impacts in both urban and rural communities.

## Opportunity area

Smart production.

## Looking for partners from the following regions

Europe.

## Specific areas

Others.

## Technologies

IoT; Cloud services; Modelling & Digital Twin; Artificial Intelligence; Virtual Reality; Robotics; Additive Manufacturing; Augmented Reality; Others.