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Ideas que respiran

### CHALLENGE 2

## Predictive and prescriptive maintenance of electrical distribution networks

How could we implement predictive and prescriptive maintenance services that simplify the processes of distribution network assets in order to prevent failures, avoid outages, and reduce costs?

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#### Challenge Distribution

#### "Why" of the Challenge

Moving towards a distribution system that is not only able to adapt to new energy demands and sustainability expectations, but also to be resilient to fluctuations inherent to renewable energy sources and unexpected events that may compromise grid stability is imperative is our target.

#### **Current Context**

Estabanell has adopted a proactive approach to the digitalization and resilience of the power grid, with the aim of better adapting to demand fluctuations and the integration of distributed renewable energy sources, including the incorporation of systems and technologies that enable autonomous response to problems, minimizing outages and improving grid reliability. In addition, advanced grid management systems and demand response technologies are being implemented to improve the adaptability of the grid to changing scenarios.



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#### Challenge Distribution

#### What We are Looking for

Advanced monitoring and diagnostics: Solutions that use sensors and big data analytics to monitor in real time the state of the power grid, detecting and diagnosing anomalies early (e.g., anticipate neutral breakage, partial discharges in live MVs, etc.).

Predictive and prescriptive maintenance: Solutions that not only predict when maintenance or repairs should be performed to avoid failures, but also prescribe actions to improve the performance and longevity of network assets.

Automation and autonomous control: Technologies that enable the network to repair itself, known as self-healing systems, minimizing outages and restoring service without human intervention.

Resilience and recovery from adverse risks: Systems that fortify the infrastructure against adverse events, from weather conditions to cyber-attacks, ensuring service continuity and rapid recovery.

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#### FYOU BELIEWETEA

# YOUR SOLUTION SOLVES THE CHALLENGE, DON'T WAIT AND APPLY!

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