ela
INNOVATION

Success story

» **Temperature & humidity**

monitoring for the production
of electronic boards »

CEQUAD   ercogener

CEQUAD monitors & controls

the production of its electronic boards by monitoring temperature and humidity.

CEQUAD, a manufacturer of electronic boards, has deployed a comprehensive IoT solution to continuously ensure optimal temperature and humidity conditions in its production areas.

Integrated by **Ercogener**, this solution is based on a communicating box coupled with Bluetooth Low Energy sensors from ELA Innovation, designed for demanding industrial environments.

By maintaining strict parameters throughout the manufacturing chain, CEQUAD guarantees the **quality of its printed circuit boards** and prevents the risks associated with uncontrolled variations.

» The project players

ela INNOVATION	ercogener	CEQUAD
Manufacturer	IoT solution Provider	End User

« This system has become a daily reflex. It helps us to make the right decisions, at the right time, and to secure the quality of our production. Traceability also enables us to protect ourselves in the event of litigation. »

Christelle Phillipe, Site Director, CEQUAD.

» Customer needs

✓ Monitor drying oven temperatures (up to 120°C)

✓ Control humidity in component storage cabinets

✓ Receive instant alerts when thresholds are exceeded

✓ Ensure complete traceability to meet quality and audit requirements

✓ Start processes only when conditions are right

» Equipement

(1)

(2)

- ✔ Beacons Bluetooth Blue PUCK T EN12830(1)
- ✔ Beacons Bluetooth Blue PUCK RHT(2)
- ✔ Gateway Ercogener 1AA6 (3)
- ✔ Eskiot Saas platform developed by Ercogener (Desktop & Mobile) (4)

(3)

(4)
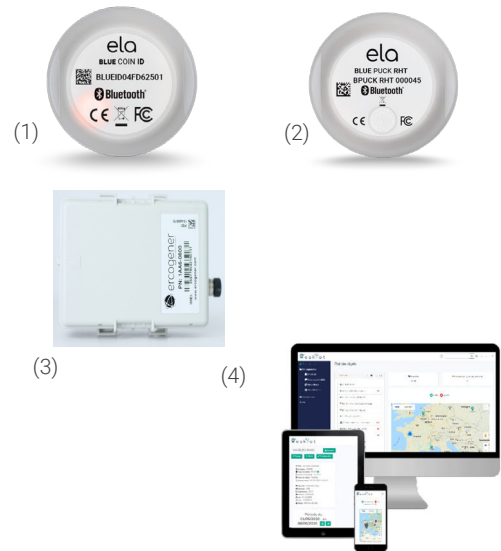
» Technical operation

ELA Innovation's **Bluetooth beacons a**re installed at strategic points in CEQUAD's production facilities. These sensors measure: temperature in drying ovens and humidity in dry cabinets.

The Ercogener gateway collects data from these sensors via Bluetooth and transmits it to a cloud platform via 4G cellular networks, guaranteeing real-time updates, with data historization. The system can trigger alerts as soon as an environmental parameter exceeds predefined thresholds.

Alerts are sent directly to Ercogener's Eskiot platform or by email, enabling immediate intervention.

» The results

- ✔ Production optimization: process start-up only under ideal conditions.
- ✔ Immediate responsiveness: anomalies are corrected in real time
- ✔ Full traceability: enhanced support for quality audits and potential disputes

» The benefits

- ✔ Autonomy and robustness of BLE sensors (resistance to industrial conditions)
- ✔ Plug & play integration with Ercogener gateway
- ✔ Continuous data transfer without wired infrastructure
- ✔ Scalable and adaptable to other areas of the plant