ela INNOVATION

Success story

Automatic inventory
of electroportable equipments

NGE

CHARLIE

NGE secures 3 500 equipment units

thanks to Charlie Connect IoT solution

In the construction, the monitoring and maintenance of equipment is becoming a key issue. Indeed, the numerous **losses and thefts of equipment**, which represent nearly **1 billion euros** in the construction sector every year, often lead to **delays in delivery and consequent financial penalties** for companies in the sector. Furthermore, figures show that almost **16% of workplace accidents** in the construction sector are **linked to poorly maintained or defective equipment**.

As a major player in this sector, the company **NGE** works on a number of different sites and on a succession of short-term projects, making it difficult to **ensure an accurate inventory of its equipment**.

To meet this challenge, NGE chose Charlie Solution and ELA Innovation to deploy an automatic inventory solution on **3 railway sites**, enabling it to **track and ensure the conformity of 3,500 items of electro-portable equipment**.

The key players

ela INNOVATION — IoT sensor manufacturer

CHARLIE — IoT solution provider

NGE — End-user

> « The Charlie tool allows us to quickly identify equipment on worksites, and assures us that they are compliant to allow employees to work in complete safety! Our equipment is constantly changing its place of use, without returning to the workshop. Charlie allows us to quickly locate the last position of the equipment and brings us a real gain in productivity to optimize site requests. »
>
> Philippe Gutleben, Chief Operating Officer of TSO (NGE's rail subsidiary)

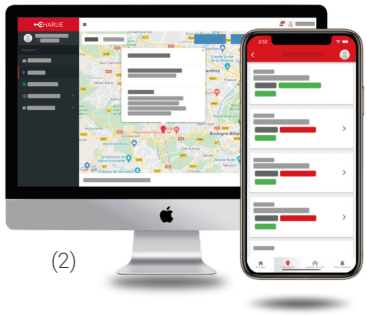
The client needs

- ✓ Real-time management of electro-portable tool fleet
- ✓ Automatic inventory and equipment location
- ✓ Control and monitoring of equipment conformity

The equipment

(1)

- 3 500 Bluetooth Blue COIN ID(1) beacons
- Smartphones of field operators (Gateway)
- «Charlie Connect» IoT platform (PC & Mobile) (2)


(2)

The operating mode

From a technical point of view, the IoT automatic inventory solution relies on a series of **Bluetooth beacons** (1) fixed to each of the 3 500 pieces of equipment to be tracked. Each tool is then associated with a unique identification number. As the Bluetooth communication protocol is integrated into all smartphones, this technology makes it possible to use field operators' smartphones as a **gateway** to transfer data to the **company's server/ cloud**. Equipment detection is automatic, thanks to the «Charlie Connect» monitoring application(2), requiring no human action. Managers can easily control their tooling fleet via the IoT platform (PC), creating **dashboards** and **alerts** when a device needs to be checked**.** In this way, they can find out in real time on which jobsite a given piece of equipment is located, as well as its **utilization rate** and **ensure compliance**.

Fields operators, meanwhile, can consult the mobile application while on site, to **locate equipment more quickly**, but also to be **alerted when a device has not been checked**.

The results

- Reduction in the number of workplace accidents due to poorly maintaned equipment
- Reduced loss and theft of equipment
- Reduced costs associated with eqipment buy-back
- Improved team responsiveness and performance

The advantages

- Easy-to-install wireless solution
- Simple handling by operators
- Robust, industrial Bluetooth beacons