ela INNOVATION

Success story

» Automatic inventory
of railway equipment

»

EIFFAGE RAIL

CHARLIE

Eiffage Rail inventorises & optimises
hundreds of high-value items of railway equipment
thanks to Bluetooth

Charlie Solutions has provided **Eiffage Rail** with a innovative solution to efficiently **locate** and **inventory** high-value equipment on over 100 rail construction and maintenance sites. By integrating ELA Innovation's sensors into their IoT solution, Chaarlie Solutions is enabling Eiffage Rail to accurately track its equipment.

Many subcontractors work on the same site, which can lead to unintentional exchanges, losses and even thefts.

ELA Innovation and Charlie Solutions have deployed a solution on these sites that makes it possible to **locate** equipements, **track** its conformity and **monitor** stocks, with the aim of streamlining logistics operations.

The project players

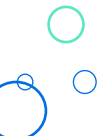|		
ela INNOVATION	CHARLIE	EIFFAGE RAIL
Manufacturer of IoT sensors	Supplier of IoT solutions	End User

« I log on to the dashboard, go to my list of equipment and geolocate it. This lets me know where it is and which team has it. With our technicians, we have set up an alert system to receive notifications at programmed frequencies depending on the type of equipment. This enables us to optimise our maintenance monitoring and regulatory checks on our equipment. »

Edris Pougetoux, Equipment Manager, Eiffage Rail.

Customer needs

✓ View equipment distribution in real time
✓ Find out quickly what stocks are available
✓ Tracking entries and exits from storage areas
✓ Monitor equipment compliance

⟫ Equipement

- ✓ 460 Bluetooth Blue COIN ID beacons (1)
- ✓ Charlie Solutions BLE Gateway (2)
- ✓ « Charlie Connect » Application (mobile Gateway) on 30 operators' smartphones.
- ✓ Charlie Gestion' IoT platform (PC & Mobile) (3)

(1)

3,5 cm   6,5 cm

9 cm

CHARLIE

(2)

(3)

⟫ Technical operation

From a technical point of view, the IoT equipment management solution is based on a set of **Bluetooth beacons** attached to each of the 460 pieces of equipment. Each piece of equipment is assigned a **unique identification number.** 1 wired gateway has been installed to monitor the equipment in the storage area, and when the equipment is deployed on site, the operators' smartphones will act as trackers to ensure that it is located. The various items of equipment are detected automatically using the 'Charlie Connect' monitoring application, so no human action is required. The manager can easily control his fleet via the 'Charlie Gestion' IoT platform (PC & mobile) by creating dashboards and alerts when a device needs to be checked. In this way, they can find out in real time on which site a particular piece of equipment is located, whether it is stored in the warehouse, and the rate of use and conformity of the equipment. What's more, each piece of equipment can be scanned using a QR code for instant access to its technical documentation.

⟫ The results

- ✓ Reducing material losses (locating equipment on site)
- ✓ Improving equipment compliance
- ✓ Documentary access in the field (users manuals and VGP)
- ✓ Easier communication between stakeholders

⟫ The benefits

- ✓ Location beacon autonomy of up to 5 years
- ✓ Simple deployment of the solution
- ✓ Robust beacons capable of withstanding shocks, water and dust
- ✓ Pick to light function on beacons to locate equipment more easily