

# SUCCESS STORY

## Location of health devices: Montélimar hospital center locates its perfusion devices

### THE CLIENT NEEDS

- Locate medical equipment in the hospital with an accuracy of less than 10 meters
- An easy to use solution
- A beacon size adapted to the equipment to locate

### THE ADVANTAGES

- Beacon size: 36mm diameter
- **Low installation** costs
- Accuracy of **5 to 10 meters**
- Beacons **100% autonomous**
- Important battery life
- **High** refresh rate

### THE RESULTS

- **Saves time** for the biomedical team.
- Better knowledge of the **usage rate** of each device
- Facilitates the **sharing of material** between departments

### ELA Innovation and Apitrak allow the CH of Montélimar to geolocate its perfusion devices

The **Hospital Center of Montélimar** puts its trust in Apitrak and ELA Innovation to meet a **major challenge...** It consists in **geolocating perfusion devices** within the health establishment while answering a **given number of constraints**. Indeed, the size of the beacons have to be adapted to the equipment, the precision of localization has to be adjustable, finally the proposed solution has to be simple to use and maintain.

To meet this challenge, Apitrak deployed an **Indoor mesh network geolocation solution** based on a set of ELA Innovation beacons.

### THE KEY PLAYERS



Tag  
manufacturer



apitrak

Integrator - Installer



GROUPEMENT HOSPITALIER  
MONTÉLIMAR - DRACULPHAT  
PORTES DE PROVENCE

End user

*«The form factor of the tags was very important to the customer, which is what made us choose the COIN range from ELA Innovation. Compact, this tag fits particularly well with small medical devices such as syringe pumps withstanding harsh conditions».*

V. Lê - CEO - Apitrak

## THE EQUIPMENT

- 120 Fixed beacons named **anchors**<sup>1</sup> 100 mobile beacons **Wirepas MESH**<sup>2</sup>
- 4 **Apitrak Gateway**<sup>3</sup>
- IoT platform **Apitrak Explorer**<sup>4</sup>



## THE OPERATE MODE

From a technical point of view, the location solution is based on a **mesh network of fixed and mobile beacons**. The rooted tags, also known as anchors<sup>1</sup>, are **installed at regular intervals** (20 - 25 meters) throughout the site, while the mobile ones are **positioned directly on syringe pushers and infusion pumps**<sup>2</sup>. The mobile Blue COIN ID Mesh tag **emits signals** to all surrounding anchors, which in turn pick up all dialogues and **transmit the information to the gateway**. However, as the data collected by the beacons is raw, it is **transformed into GPS data** (altitude, latitude, and longitude) by the Wirepas Positioning Engine and **visualized on the Apitrak Explorer web application**.

The battery-powered infrastructure, requiring **no connection**, facilitates the deployment of the solution and ensures an extremely competitive total cost of ownership.



For 20 years, ELA Innovation has been designing and manufacturing beacons, tags, and industrial sensors that are 100% autonomous. Based on wireless communication technologies, Bluetooth Low Energy, RFID Active and LoRa, its robust and compact products meet many industrial needs such as: indoor/outdoor people and equipment location, automatic inventory, access control, or refrigerated truck temperature monitoring.