

# BRAINY L

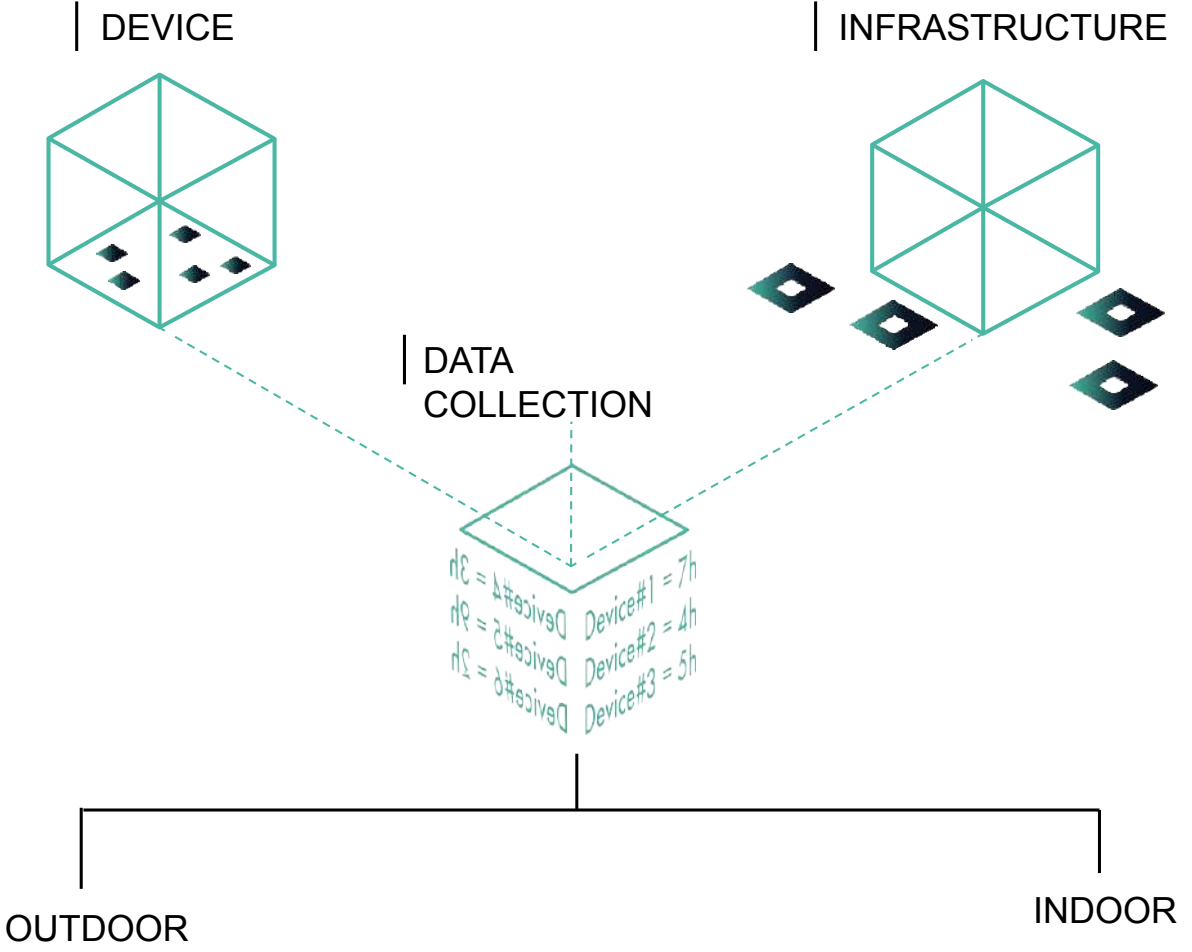
## What is it?

Brainy L is a localization and tracking solution for objects and people in indoor and outdoor environments.

## How?

Brainy L, via telecommunication infrastructures based on IoT technologies, is able to collect outdoor and indoor position and movement data of devices.

WEL's Web-platform operates the control, the monitoring and the analysis of all collected data.



# SOFTWARE

REAL TIME  
MONITORING AND  
ALERTS

DIGITAL  
TWIN

DATA  
ANALYSIS

CONFIGURATION  
& SET UP

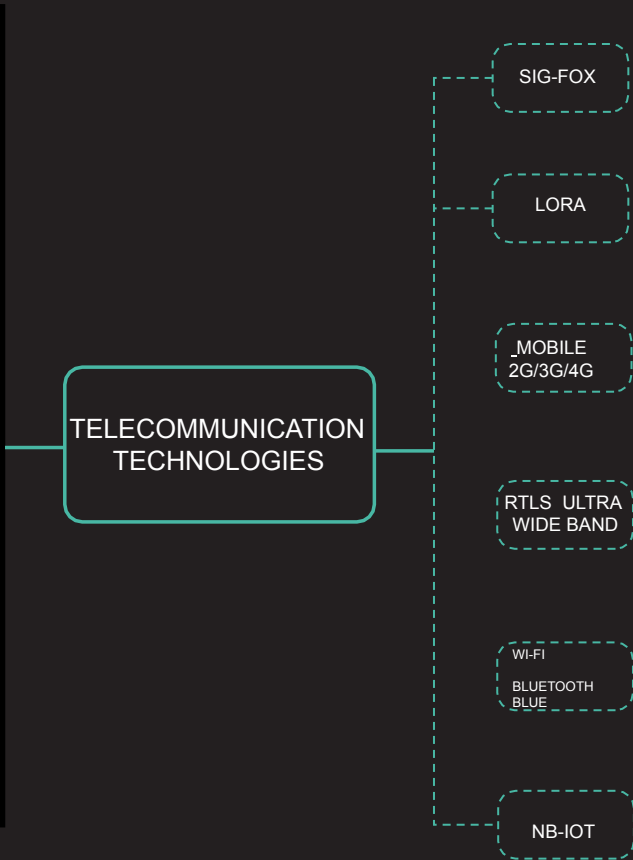
# HARDWARE

TAG

WEARABLE

HUB BOARD  
IOT

ANTENNA



# Applications



Hospitality



Museum



Retail

# CASE STUDY — *SBS*

## Our customer

SBS Steel Belt Systems is an engineering and manufacturing company specialized in the design and production of steel strip systems for continuous industrial processes.

## Its Needs

SBS asked for WEL's support in the digitalization of its business processes with a focus on the traceability of material and human resources.

The automation and traceability have led to more consistent allocation of working hours per job and to advanced supervision of resources assigned to each process and succeeded in evident cost reduction and increased production quality.

## QUALITATIVE ADVANTAGES:

- Compliance with financial facilitation of Industry 4.0 legislation
- Enabler of spaghetti chart methodology
- Enabler of Variance analysis
- Management of functions such as access control, presence detection



BUZZER

## QUANTITATIVE BENEFITS:

- Process efficiency and production increased by 13%
- New proposals based on precise labor cost evaluation, revenues increased by 18%
- Working hours efficiency increased by 6%



# DATA SHEET

TECNOLOGIA	FIELD OF APPLICATION	ADVANTAGES	LIMITATIONS
SIG-FOX	<p>Outdoor Wherever massive data transmission is not necessary, bad coverage areas (LPWAN).</p>	<p>_ low cost _ extended coverage through an existing infrastructure _ low consumption</p>	<p>_ 12 bytes x message _ maximum of 6 messages every hour _ unidirectional protocol</p>
LORA	<p>Indoor e Outdoor Where we want to implement a dedicated network for large-scale IOT solutions (LPWWAN).</p>	<p>_ 10-15km of coverage with a single gateway _ suitable for rural environments _ not covered by Mobile network _ bidirectional protocol</p>	<p>_ creation of proprietary communication infrastructure (LORA)</p>
MOBILE 3G/4G	<p>Indoor e Outdoor Where a massive broadband data exchange and dynamic device management is required.</p>	<p>_ real time _ broadband connection _ extended cover (existing mobile network)</p>	<p>_ pricing _ power consumption</p>
ULTRA WIDE BAND	<p>Indoor Where it is necessary to have minimal tolerances in resolving the position and tracking of specific tags.</p>	<p>_ tolerance up to 3-5cm _ enabler of tracking analysis</p>	<p>_ creation of a proprietary communication infrastructure</p>
NB-IOT	<p>Bassa frequenza di acquisizione (no handover), LPWAN.</p>	<p>_ costo e consumi contenuti _ gestito da mobile operators</p>	<p>_ base stations predisposte (mobile network update)</p>