



3B Hungária
delivered by IBCS Hungary

MANUFACTURING (ENERGY SECTOR)

The newly-implemented RTLS shortened the average searching time from an average of 2-3 hours to about 15 minutes, thus significantly cut down on unproductive time of the operators.

90%

shorter average
searching time

Family Business with a Drive for Innovation

3B Hungária is a family business with a 30-year history of designing, producing and assembling of **material handling equipment** and **professional conveying equipment**, primarily for the construction, agriculture, construction, waste processing and power industries. 3B offers an incredibly **wide range of products** (such as elevators, screens, augers, different kinds of sorting systems and over 50 different types of belt conveyors) **with different shell constructions made from the company's own materials**, which are the result of years of development and experience. The 3B factory employs 100 people and has continuously been growing through the development of manufacturing technology.



Different components for the assembly of conveying equipment.



Different components for the assembly of conveying equipment.

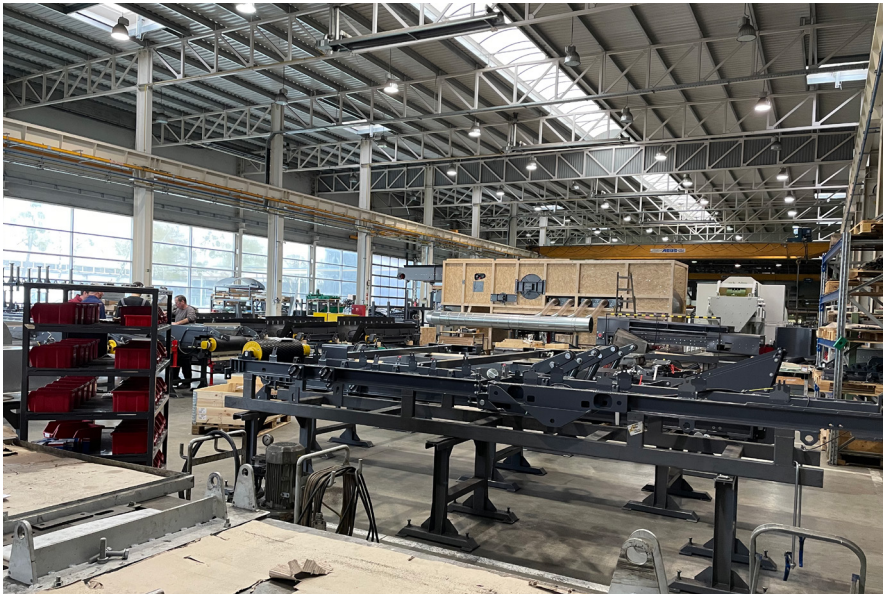
Goals

Cutting Down on (Unproductive) Search Times and Costs

As different conveyor belts are produced at the same time and each is made with a **variety of steel assembly parts**, which are **hard to identify** due to similarity in their size and/or shape. It was a **time-consuming task to find the right part** at the right time within the 3200 m² production facility. Operators spend anywhere between **2 to 3 hours looking for the correct parts** and sometimes they are unable to find certain parts at all, forcing them to remanufacture those, which results in long lead times, a higher possibility of **exceeding the contracted deadlines**, and a waste in the form of **unproductive time**.

The main goal of this project was to **provide the localization of components within a grid** on the floor plan of the production facility with a **60-centimeter accuracy** in order to **minimize the time needed to localize the steel assembly parts**.

This would significantly help to **improve the efficiency of production processes** and at the same time **ensure easy and on-time fulfillment of deliveries**, thus saving costs on penalties for missing the deadlines.



A view into a part of the 3200 m² production facility.

Challenges

Harsh Metallic Environment

The production hall is full of metal constructions, machines, tools, steel components and several overhead cranes that all contribute to the **signal bouncing and blocking**, making it **harder to find reliable and accurate technology for indoor positioning**. These harsh conditions plus the **need for high (60-centimeter) accuracy** were the deciding factors for choosing UWB technology for this particular industrial use case.



Harsh metallic environment full of metallic pallets, components and constructions.

Solution

Say Goodbye to Searching for Components

To cover the 3200 m² of this production hall, IBCS Hungary installed 30 anchors. **Different arrangements and types of anchors** have been used **to get the best ROI** while meeting the needed 60-centimeter accuracy. Additionally one **extra anchor was installed** in the area of the loading platform for **presence detection**, which helps **streamline the loading process and avoid making mistakes in the deliveries**. To enable the tracking of components, the previously used wooden pallets were replaced by metal stacking pallets for easier attachment of the tag and there are currently 570 such pallets equipped with the Sewio tags.

On top of the hardware layer providing the indoor tracking, a software application helping operators to find the necessary components had been developed.

This **indoor navigation software** ensures that forklift operators **immediately see the component** within the map of the facility and its grid system to **quickly identify its location** and also all the pallet IDs connected to a specific order, which significantly **simplifies order fulfillment** for them.

Sewio RTLS was integrated by IBCS engineers who were, thanks to their experience, able to significantly reduce the time necessary for the implementation, thus improve the projects ROI.



Detail of the Sewio tag attachment to the metallic pallet.



Detail of the Sewio tag attachment to the metallic pallet.



The installation of Sewio anchors by the gate and in between the metallic constructions.



The installation of Sewio anchors by the gate and in between the metallic constructions.

Solution Numbers:

3,200 m²

area covered

31

receivers (=anchors)

570

tracked objects (=tags)

60 cm

accuracy

Results

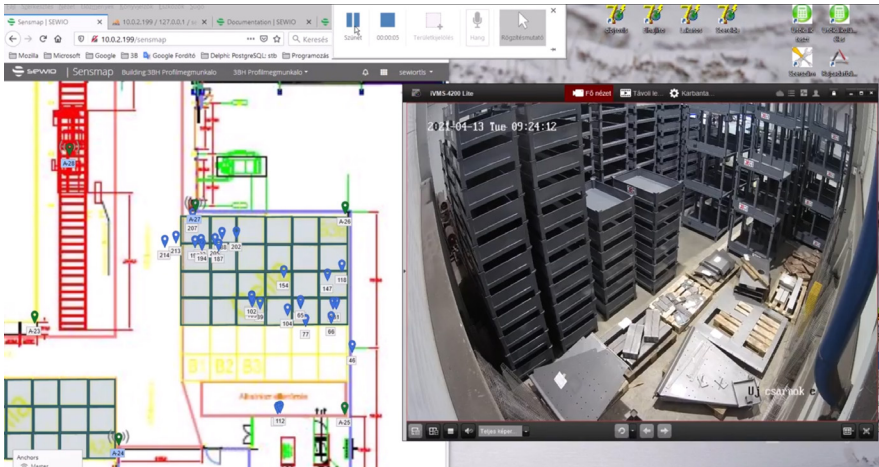
The Unbelievable Drop In Average Searching Time

The **process of searching for components is now fully digitalized.**

The ability to immediately locate the components needed for production **eliminated the non-productive time** wasting and significantly **shortened the overall lead time.**

The actual time for component searching went down from an average of **2-3 hours to 15 minutes** – an unbelievable 90% drop.

Having the Sewio RTLS infrastructure in place, 3BH now has **true control over the whole manufacturing process.** Thanks to it, they are able to **increase the manufacturing quality and efficiency, reduce unproductive time and eliminate unnecessary costs,** which ultimately also leads to an increase in customer satisfaction.



A screenshot from the RTLS Sensmap, monitoring the movement of pallets within the production facility.

Results:

90%

shorter average searching time

3 months

implementation time

Full control

over the manufacturing process

Key Factors for Choosing Sewio RTLS

- Unlike other technologies, Sewio's UWB-based RTLS is able to provide **high accuracy even under harsh metallic conditions**;
- The guaranteed long battery life of four years, even with the short refresh rate needed for tracking movement, **decreases the total cost of ownership**;
- The ability to **scale the system easily and quickly** to track more objects and expand the system to more halls;
- **Open and well-documented API**;
- **Quick response** and resolution time from support;
- **Short deployment time** (3 months).

Partner



IBCS Hungary is part of the IBCS Group the premier Enterprise Mobility Systems Integrator in the emerging markets of Eastern Europe, providing **end-to-end barcode, UWB and RFID solutions** that increase performance, efficiency and productivity within the enterprise, reduce costs and realize competitive advantage.

Founded in 1992 and based in Budapest, IBCS Hungary is the trusted strategic partner for customers seeking seamless communication across different technologies, by challenging the marketplace and going the extra mile, to ensure the delivery of technology solutions that work the first time.

Our customers operate in sectors like retail, transport and logistics, warehousing, manufacturing and healthcare and we support them with the most innovative tools in the field of voice picking, barcode technologies, warehouse management systems, and software development for quick and accurate inventory. Our commitment is Relentless Innovation.

IBCS Hungary Budapest

Aradi utca 16.

H-1043 Budapest

Hungary

<https://www.ibcs.hu>



Powered by

Sewio Networks, s.r.o.

Sewio Networks is a manufacturer of a **real-time location system (RTLS)** for indoor tracking that drives business results for companies in the intralogistics, retail, sport, entertainment and livestock industries. Sewio system is built on **ultra-wide band technology (UWB)** and delivered with RTLS Studio, remote management and visualization software.

It gives partners and customers a precise, easy-to-integrate, reliable and fully scalable IoT solution for indoor tracking that allows process visibility, boosts production efficiency, simplifies the inventory process and increases safety. Founded in 2014, Sewio is headquartered in the Czech Republic with offices in Germany and France. Sewio has 70+ system integration partners and powers customers in 37 countries. Customers include: Volkswagen, Budvar, Pirelli, Matador, TPCA, Škoda.

JIC INMEC, Purkynova 649/127

612 00 Brno

Czech Republic

<https://www.sewio.net/>