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Glass Racks
& Heavy Duty Trolley
Tracking



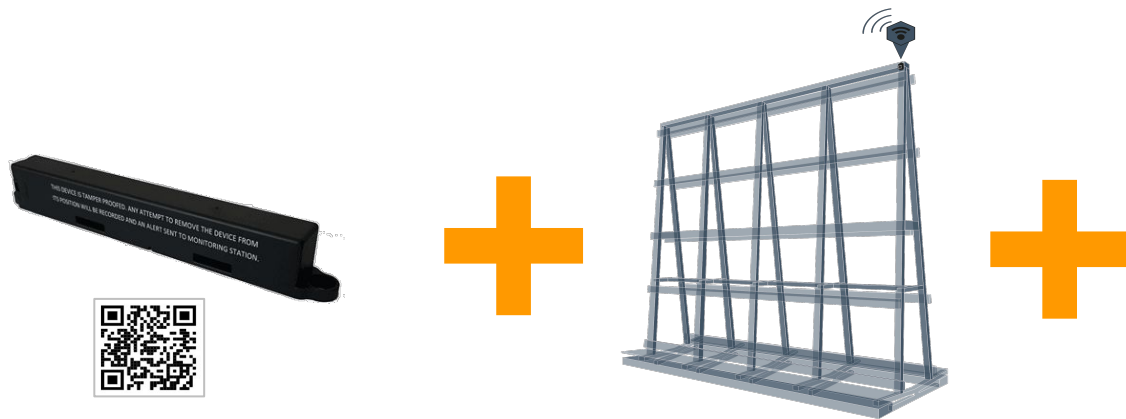
End-2-End Packaged Solution

Industry Challenges

- How do I recover **lost racks** ? locate, collect empty racks efficiently ?
- How can I remove the hassle of chasing customers for lost racks ?
- How can I avoid to **cease production**, because of insufficient racks available at factory?
- How can I automate my **inventory count** and digitise my operations ?
- How can I be notified when racks have arrived on-site?



A complete **End-to-End Retrofit** Solution for Glass and Window Racks Tracking



A **versatile Device**

- Collects locations and movement data
- Confirms delivery and glass damages
- Attaches documentation and pictures

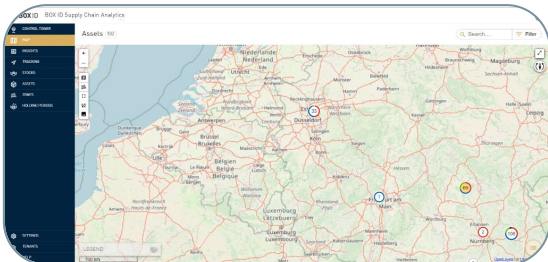
OG Network Connectivity:

- Long battery life / low cost to run
- Covers 70+ countries

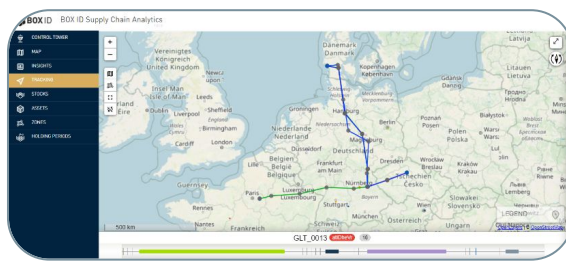
A Software **Platform specifically designed to solve supply chain optimization** challenges:

- Location history tracking
- In-depth insight reports - holding/idle time, automated inventory, asset distribution

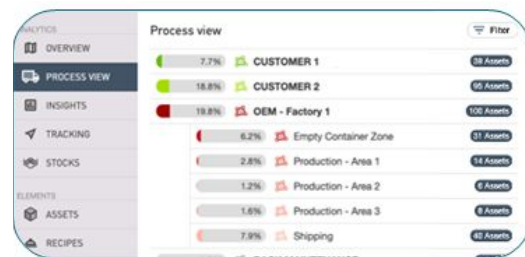
Easy-to-Use software **platform** specifically-designed for Supply Chain Optimisation



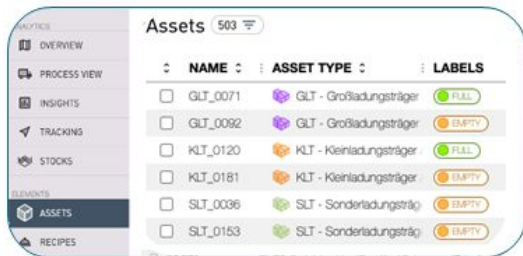
Access your inventory in 1-click
via a map or table interface



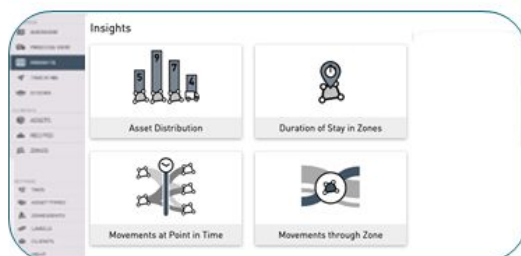
Reference asset's **historical data** to
trace & recover lost A-Frames



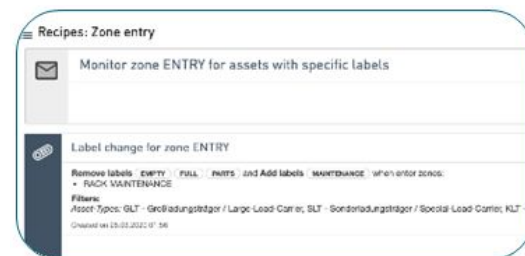
Insights into stock movement to ensure
the right internal processes are followed



Assign labels based on location
triggers or conditional information



Optimise operations with deep insights
into stock movements, cycle & dwell times



Manage efficiently operations by
setting up rules & automated workflow

Logistics Feature rich **dashboard** with proven track record

CONTROL TOWER

MAP

INSIGHTS

TRACKING

STOCKS

ASSETS

ZONES

HOLDING PERIODS

SETTINGS

TENANTS

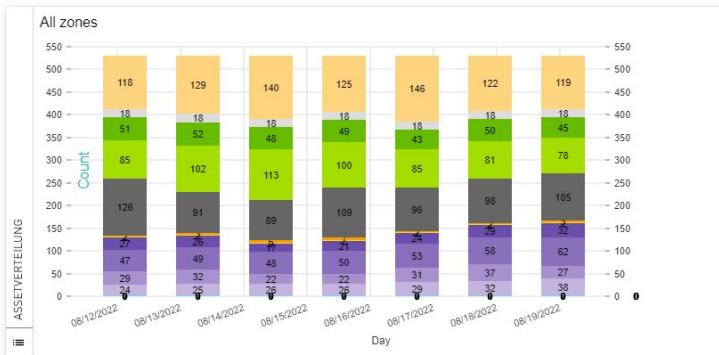
HELP

Control Tower



NAME	STATE	ASSETS
Puffer Learout GLT	⚠️ ⚡ Understock ⚠️ ⚡ Understock	8
Monitor OVERSTOCK: Wood pallets at production site / ma:	⚠️ ⚡ Overstock	121
Customer 1 - Spain	⚠️ ⚡ Max. Duration ⚠️ ⚡ Overstock	41
Buffer Storage SLT	⚠️ ⚡ Understock	8
Monitor: Empty containers in Buffer zone	⚠️ ⚡ Understock	36
Assets outside zones	⚠️ ⚡ Overstock	153
Monitor DURATION OF STAY: Containers at Suppliers / ma:	⚠️ ⚡ Max. Duration	143
LLC Puffer	⚠️ ⚡ Understock	28
Monitor SHORTAGE: GLT in Empty Container Zone / min. 1:	⚠️ ⚡ Understock	8
MONITOR: KLT Buffer in Production	⚠️ ⚡ Understock	11
Restand EPAL Partner 1 Lagerrelatz XY	⚠️ ⚡ Overstock	51

Edit



143 Assets

CONTAINERS AT SUPPLIERS

38 Assets

DAMAGED CONTAINERS

144

ASSETS OUTSIDE ZONES

27.1%

143 Assets

_MONITOR DURATION OF STAY: CONTAINERS AT SUPPLIERS / MAX. 3 HOURS

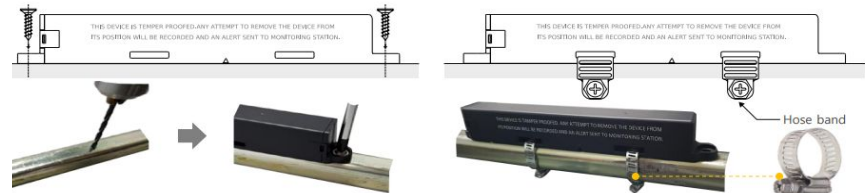
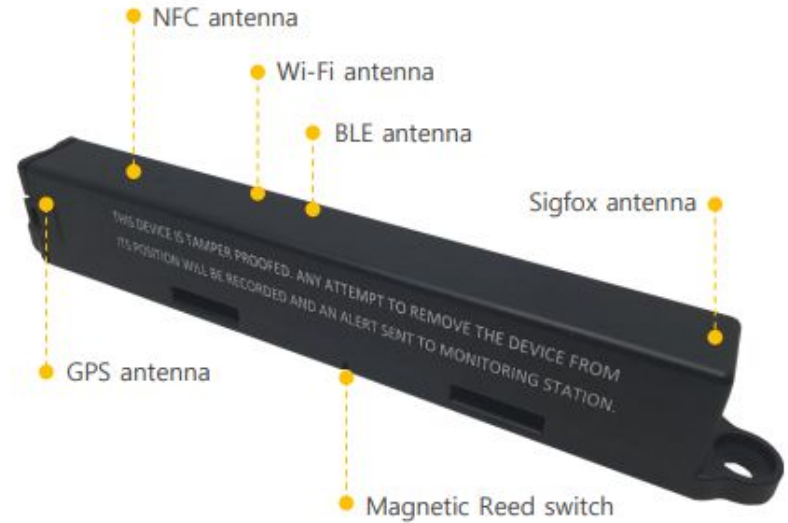
1 ⬆️

0G-enabled trackers

Easy to Deploy, Long Life

- GPS & WiFi Geolocation ideal for indoor & outdoor location tracking
- SJI or UnaTag (excellent for indoor tracking)
- Up to 5 years battery life
- Multiple attachment methods that tailor to various asset types e.g. screws, rivets, cable ties, hose band all possible.
- Connects on the 0G Network

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Clear & Quantifiable Benefits

Increase Operational Efficiency

- No production delay for unavailable frame
- Improve time taken to cycle the racks through the supply chain
- Reduce operational handling through more efficient collection

Reduce Loss

- Identify and locate assets 'at risk' when if they move out of expected supply chain
- Prevent long dwell times for empty racks at customer sites

Improve Customer Experience

- Avoid tough conversations with customers chasing for lost racks & imposing penalties

First Estimation of Net Gain: **US\$1m per 1,000 Trolley/ A-frames**

	Without IoT	IoT Solution Impact	With IoT	Financial Impact over 5 years
Business case components				
Glass Trolley Cost	\$ 2,500		\$ 2,500	
Trolley Utilisation Rate	60%	10% Increase in Utilisation Rate	70%	
Number of Rotations (per year)	10,000		10,000	
Fleet Size	1,000		857	
Cycle Time (in days)	36.50		31.29	
CAPEX				
Total CAPEX Immobilised	\$ 2,500,000		2,142,857	\$ 357,143
Loss Rate	10%	5% Reduction in Loss Rate	5%	
Cost of Replacing Lost Trolley (per year)	\$ 250,000		\$ 107,143	
Replacement Costs (over the term)	\$ 1,250,000		\$ 535,714	\$ 714,286
Cost to Repair Trolleys (per year)	\$ 55,000	25% Reduction in Repair Costs	\$ 41,250	
Cost to Repair Trolleys (over the term)	\$ 275,000		\$ 206,250	\$ 68,750
OPEX				
Lifespan of the IOT Solution (year)	5		5	
Operational Effort Spent per Trolley per week (hours)	0.17	25% Reduction in handling time due to automation	0.13	
Cost per Hour of Operational Handling	\$ 30		\$ 30.00	
Number of weeks (per year)	52		\$ 52.00	
Total Handling Cost (over the term)	\$ 1,300,000		\$ 835,714	\$ 464,286
IOT Solution Running Cost (monthly)	\$ 10,030		\$ 102,857	
IOT Solution Running Cost (over the term)			\$ 601,800	\$ 601,800
Net Gain Over Term				\$ 1,002,664

Proven benefits expressed by glass specialists



“Before AGP came to market, the time from ordering the glass to delivery was unpredictable, and customers never quite knew specifically when their products would arrive. We have completely **disrupted the market by delivering in four days**”

AGP. New Zealand



“We have an overview of our **rack inventory at all times**. That transparency and flexibility has truly had a positive impact on our business.” CEO.

Weha Therm. Germany



Better Glass transportation visibility to reduce operational costs, improve monitoring of liabilities and evidence for penalties

AGC. Japan

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Weha Therm keeps track of racks

Case study

WHEA THERM is a German specialist manufacturer of high-quality insulating and single glass product. They use specially designed racks to transport glass frames to customer locations. Customers return empty racks.






Problem

- Racks may be mishandled, not returned on time, or lost
- Daily frictions in production management and customer management

Solution

- ✓ IoT tracking devices with 5 to 7 years battery life, maintenance-free
- ✓ Real time tracking platform from Box ID systems
- ✓ Low power Sigfox OG network

Result

- ↑  Reduction of manual process and bottlenecks in rack management
- ↑  Timely and predictable return of empty racks
- ↑  Reduced loss and theft ratios
- ↑  Higher rack fleet utilisation
- ↑  Automatic continuous inventory for optimal planning and load carrier



Customer



OG Network operator



Solution partner



We have a unique experience in asset tracking deployments

Sigfox OG network, present in 75 countries, has been chosen by major Supply Chain professionals to provide “just enough” telemetric data from assets that are non powered and rarely maintained.

OVER
1,500,000
Active trackers

PSA
GROUPE



> 100 000 containers
equipped to track flows between
suppliers and assembly plants

DHL



> 800 000 roller cages
equipped to reduce handling costs
and Capex

KONVOY



> 120 000 kegs
equipped to optimize usage and faster
rotations with breweries

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Why unabiz ?



TECH
AGNOSTIC



FAST
PROTOTYPING



PRODUCT
DESIGN



FIRMWARE
DEVELOPMENT



HIGH RADIO
PERFORMANCE

We have deployed more than **10 Million Devices**.

We have a team of engineers who specialises in the customisation of **Low Power Wireless & Scalable solutions**.

We provide one of the fastest prototyping service in the market.

We guarantee quality products with ISO 9001:2015 certification at the **lowest price**.

Our services are endorsed by international clients around the globe.

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