

-Webinar-

Real-Time Visibility: Track Every Asset, Everywhere, in Real Time

tt twinzo

Quuppa



Activity



Speakers



Abhiraj Verma

Sales Development, Actility



Tomas Vojtek

CSO, Twinzo



René Wermke

Director Sales & Business
Development DACH, Quuppa

Agenda

Speaker	Time	Topics
Abhiraj Verma, Actility	00:00:00 - 00:03:00	Introduction & agenda
René Wermke, Quuppa	00:03:00 – 00:15:00	Technology explained
Abhiraj Verma, Actility	00:15:00 – 00:30:00	Abeeway technology architecture & use cases
Tomas Vojtek, Twinzo	00:30:00 – 00:45:00	Solution demonstration & ROI insights
All Panelist	00:45:00 – 01:00:00	Live Q&A

Webinar Key Points



TECHNOLOGY : Abeeway (LPWAN, GPS), Quuppa (Bluetooth AoA) and Twinzo (3D interface) deliver precise indoor-outdoor tracking & 3D visualization to eliminate visibility gaps in operations



FLEXIBILITY : Modular and flexible setup adapts to any site or use case—balancing accuracy, battery life, and cost.



INDOOR & OUTDOOR : Continuous tracking indoors and outdoors—from factory floors to remote field sites—with sub-meter accuracy.



BUSINESS OPPORTUNITY : Improve safety, boost ROI, and make smarter decisions with real-time data and AI-powered location insights.

The right material, at the right location, and at the right time

René Wermke, Quuppa

Quuppa

twinz

Actility

History & Overview.

- Founded in 2012 (13 Years), 50+ Employees
- Location Technology developed since 2005 (at Nokia Research Center)
- Headquarters in **Finland** with offices in:
 - Bremen (Germany)
 - Washington DC (USA)
 - Shanghai (China)
 - Buenos Aires (Argentina)



Visionary in Indoor
Location Services
2020, 2021, 2022



Associate Member
since 2013 currently
leading the new AoD
profile initiative



Member of the
Forbes Technology
Council

3000+
Deployments

1200+
Customers

250+
Partners

55+
Countries

9,000,000+
sqm Covered

Quuppa

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Mission



“Empower the connected world with reliable location information”

Vision



“Become the market leader in providing accurate and real-time location information for indoor and local area”

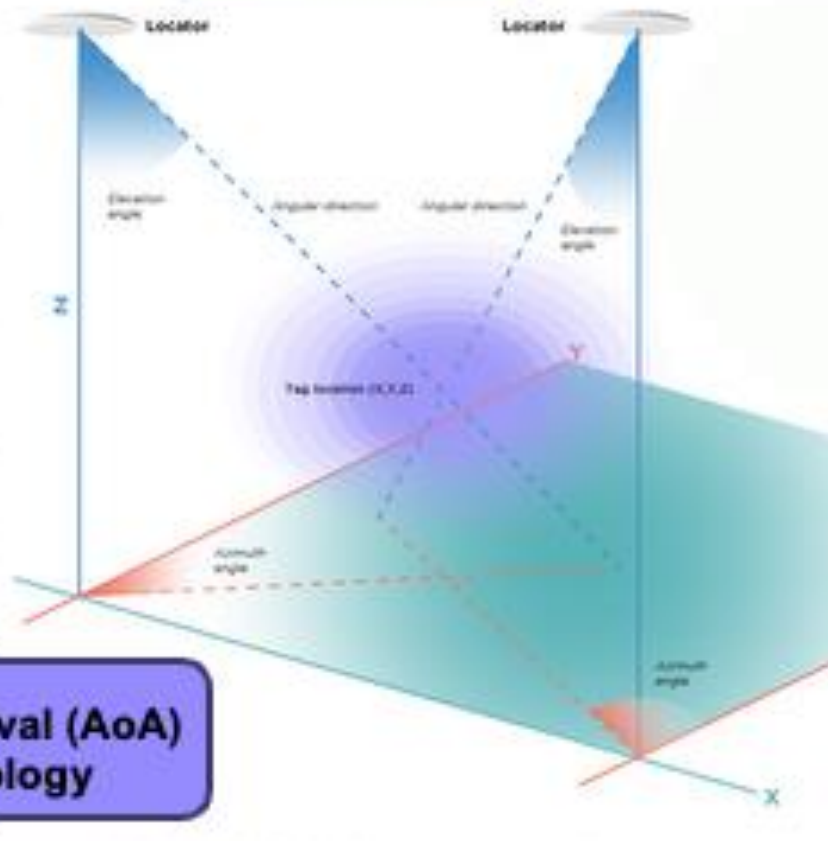
Value Proposition



“Increase efficiency and safety in our customers’ daily business operations via reliable location data ”

Quuppa Intelligent Location System (ILS)

Locator



Angle of Arrival (AoA)
methodology

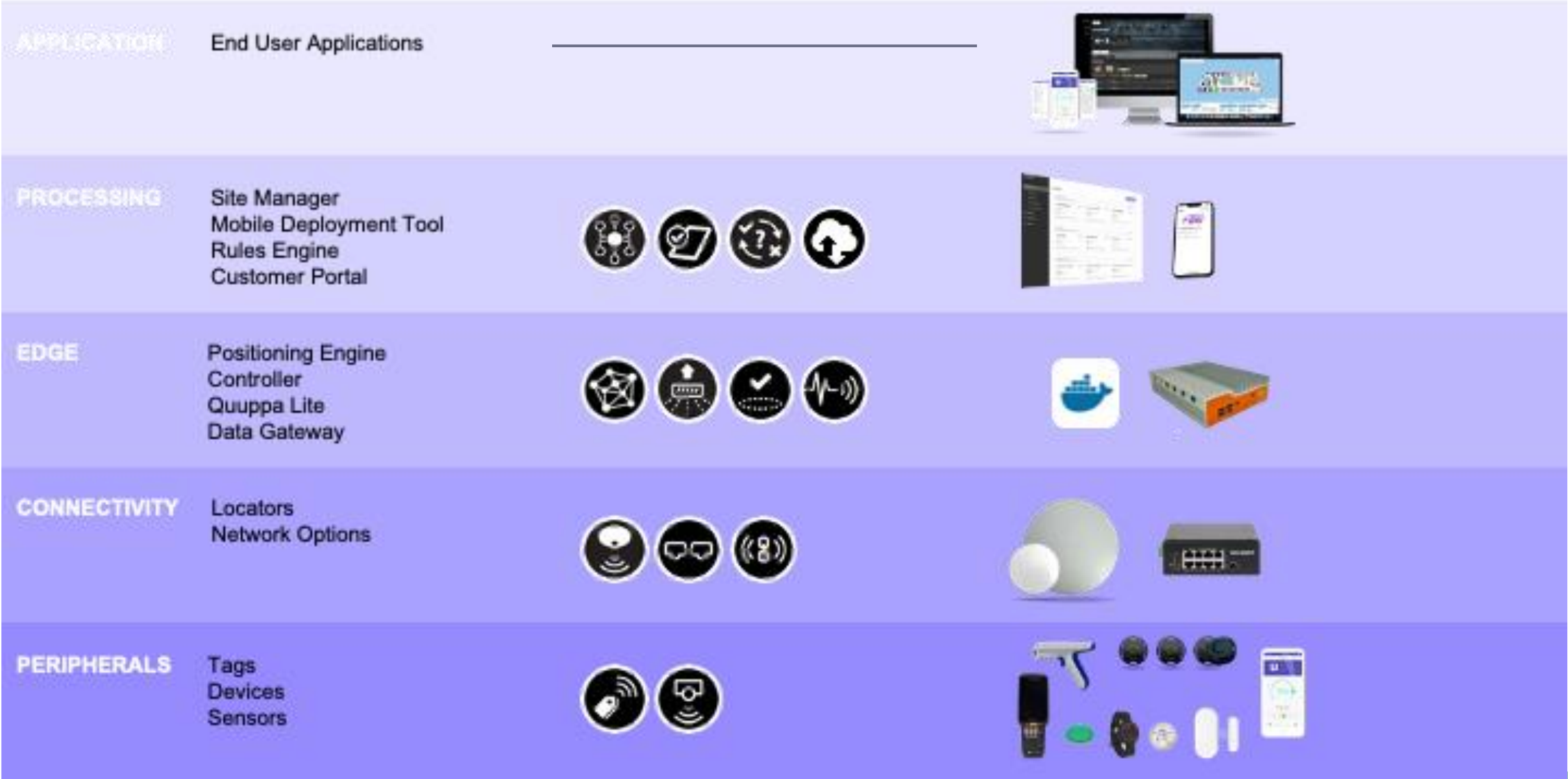


Advanced Algorithms



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Quuppa Intelligent Locating System™



Key Benefits of Quuppa RTLS



Accurate

Achieve real-time, sub-meter accuracy consistently with a long range, even for fast-moving objects in the most challenging of environments.



Versatile

Leverage Bluetooth® interoperability to access a world of billions of trackable sensors and mobile devices such as smartphones and barcode scanners.



Scalable

Manage multiple projects across multiple sites to build a truly scalable location-based solution with varied accuracy levels.



Open

Quuppa's open API makes it easy to integrate into your existing systems according to your needs & innovate by building future-proof applications.



One Location Platform for Many Vertical Markets



Industry 4.0

- Manufacturing
- Warehousing
- Distribution Centres
- Factories
- Logistics Hubs
- Yard / Construction



Healthcare

- Staff & Patient Safety
- Equipment Tracking
- Optimised Workflows
- Hospitals
- Emergency Rooms
- Elderly Care Facility



Smart Office

- Find You Colleague
- Space Optimisation
- Access Control
- Return To Work
- Hybrid Working
- Smart Services



Retail & Entertainment

- Customer Analytics
- Inventory Management
- Order Fulfillment
- Museums
- Exhibition Centres
- Customer Experience



Safety & Security

- Staff & Inmate Safety
- Regulatory Compliance
- Automated Surveillance
- Mining Industry
- Hotels



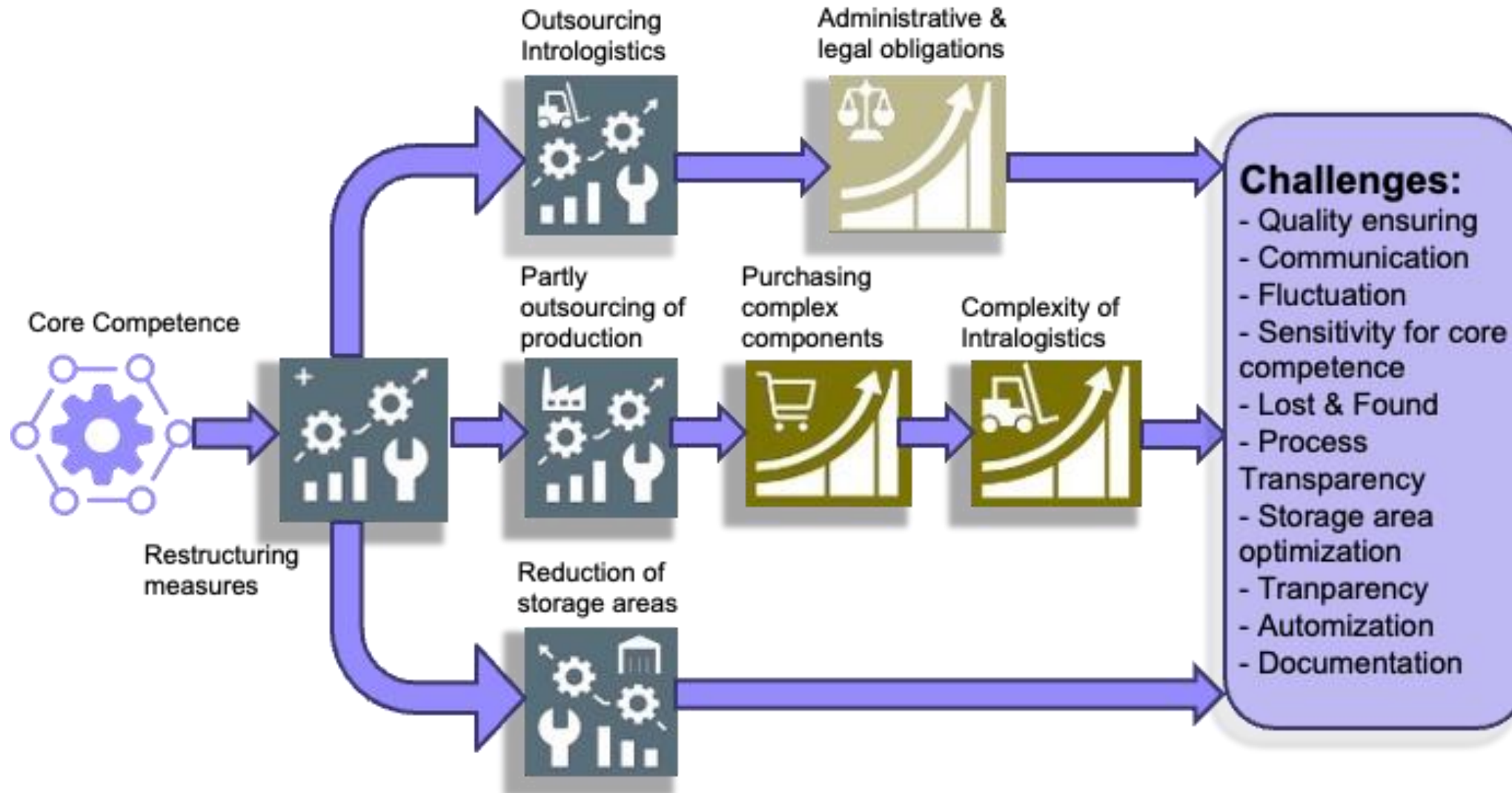
Sports

- Game & Player Analysis
- Fan Engagement
- Online Betting Services
- Ice Hockey
- Swimming Pools
- Horse Racing

Quuppa

Providing an open, versatile, reliable and scalable hardware & software platform across industries

Industry Trends from the past decade



The Future of Intralogistics.



Challenge:

- Inside a fully automated production line transferring Material in-between warehouse multiple work steps resulted in a digital gap.

Use Cases/Solution:

- PDI Digital Labels replaced the state of the art printed documentation.
- Using the Quuppa location services tracking the PDI ESLs closed the digital gap inbetween buildings and workstations.

Results:

- Fully automated process transparency also outside machines.
- Real time & individual information on the ESL based on product type, rack ID, process flow and actual location of the material carrier.
- Minimizing searching times for material wagons.
- Minimizing manual interaction like scanning etc.



Filling the Digital Gap with RTLS- driven process control and ESL based paper- replacement.

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Panel 2 - Smart Geolocation Solutions for End-to-End Asset Visibility

Abhiraj Verma, Actility

Quuppa twinzo Actility

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Activity at a glance

ThingPark

ThingPark is the leading industrial-grade LPWAN IoT platform, enabling both public and private customers to deploy and scale IIoT use cases throughout the world.



Profile



2008

Company founded



130+

People. Multi-cultural team, 80% engineers



100 M€+

Funding raised with from Bosch, BPI, Cisco, Creadev, FoxConn, IdInvest, Inmarsat, Orange and Swisscom



10

Country locations in North America, Europe and APAC



40.000+

LoRaWAN gateways connected on Activity-supplied public networks



200.000+

LoRaWAN Abeeway trackers delivered yearly

IoT product & services portfolio

Connect



- LPWAN & cellular infrastructure
- Device & GW management at scale
- Professional services & radio planning
- End-to-end carrier-grade security
- Network interconnection & roaming

Integrate



- Seamless integration with all leading IoT platforms
- Large ecosystem of pre-integrated solution providers
- Immediately actionable data from any device
- Largest device decoder catalogue

Locate



- Assets & people
- Indoor & outdoor
- Multi-technology fused geolocation (WiFi, GPS, BLE, TDoA)
- Patented ultra-low-power GPS

Clients & partners



Public operators

50+

Large scale operators



Enterprise networks in

100+ countries

Smart Cities, Manufacturing, Oil & Gas, Facility management, Tracking and Logistics



Distributors & resellers

120+

local partners in all regions

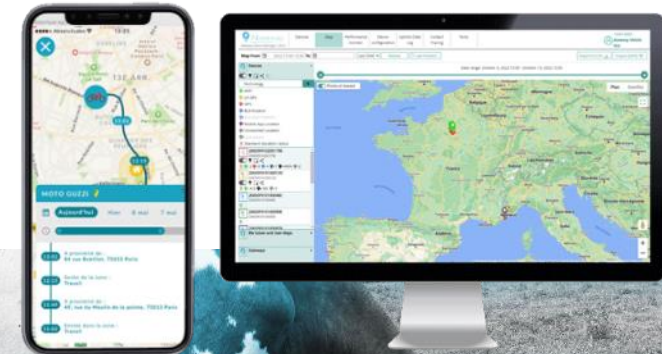


Ecosystem & Solutions

ThingPark Market, largest IoT B2B marketplace
Pre-integrated IoT solutions: Industry 4.0, farming, logistics and transportation, energy & utilities, facility management, etc

Actility subsidiary, specialist in low power IoT geolocation solutions, providing:

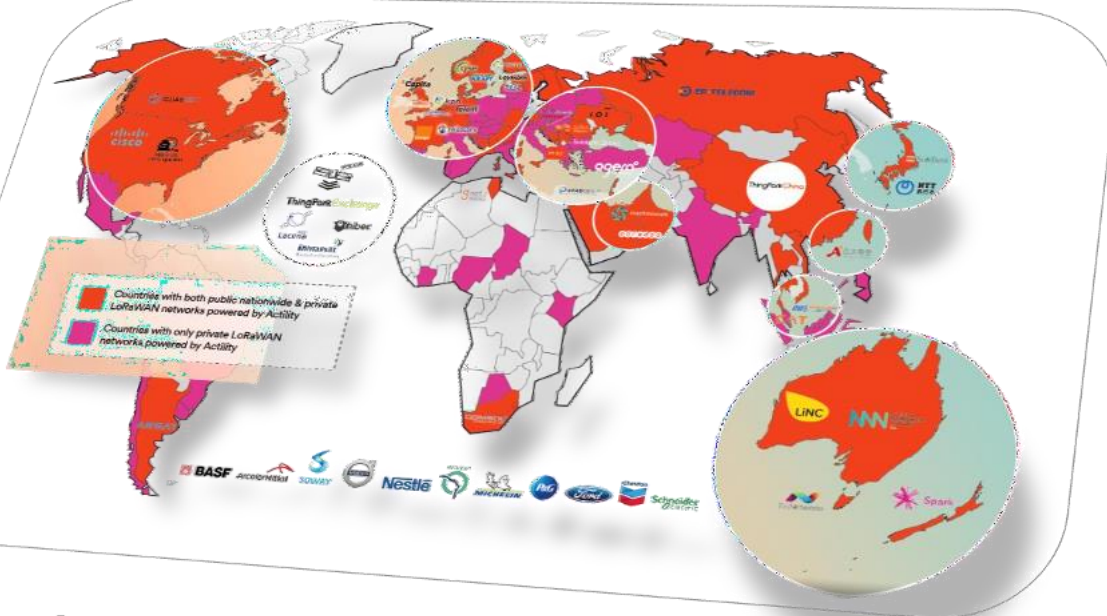
- Reliable and flexible tracking, both **outdoors & indoors**
- Smart **multi-technology location** system optimized for long-range and low-power consumption leveraging LoRaWAN™ connectivity.
- **Location fusion back-end**
- **Patented Low-Power GPS** algorithm
- **Advanced, programmable edge processing** and location-solving algorithms
- Abeeway Device Manager App and B2C Mobile App



Actility Global Footprint

Actility deploy IoT networks across campuses, regions and whole countries

- ✓ **Thousand + of industrial enterprise** networks worldwide.
- ✓ Over **35K public network** base stations worldwide.
- ✓ **20 billion** IoT transactions per year.
- ✓ **24/7 regional georedundant datacenters.**
- ✓ **50+ large-scale Tier-1** service providers.
- ✓ **20 interconnected networks** across countries and space through **Roaming** platform.



Actility  twinzo Quuppa

Abeeway unlocks the value of LPWAN-enabled geolocation for IoT Vertical Segment

- ✓ **200k trackers** sold a year worldwide.
- ✓ Over **50 partners.**
- ✓ **Large-scale Tier-1** service providers – Proximus, KPN, Orange, and others.
- ✓ Trending solutions on major verticals – **connected construction, mining, oil and gas, assets tracking, search and find, vehicle car parking**



Indoor Monitoring Challenges



Blind Spots & Black Zones

Occur in **warehouses, loading bays, and storage zones** where assets (like pallets or trolleys) vanish from digital view.



Response Latency

Impacts the **speed of order picking, dispatch coordination, and delay resolution** — slowing down the entire supply chain.



Fragmented Tracking Systems

Common in logistics setups where **indoor BLE/Wi-Fi tracking doesn't sync with outdoor GPS/LoRa** movement, causing data gaps.



Compliance & Safety Gaps

Crucial in environments with **vehicle-human interaction zones, high shelves, or dangerous machinery**.



Manual Data Collection

Seen in older logistics facilities relying on **manual barcode scans or clipboard check-ins**, leading to errors and inefficiencies.



Low Operational Visibility

Prevents logistics managers from having a **live overview of asset location, workflow bottlenecks, and worker productivity**.

Strategic Partnership



Abeeway, Quuppa, and Twinzo deliver a unified, real-time tracking solution for industrial and logistics environments—combining ATEX-certified multi-tech trackers, sub-meter BLE indoor accuracy, and 3D digital twin visualization. This powerful ecosystem enables end-to-end asset and personnel visibility, accelerates response times, and drives operational efficiency at scale.

One-Stop Solution For Seamless Indoor And Outdoor Tracking

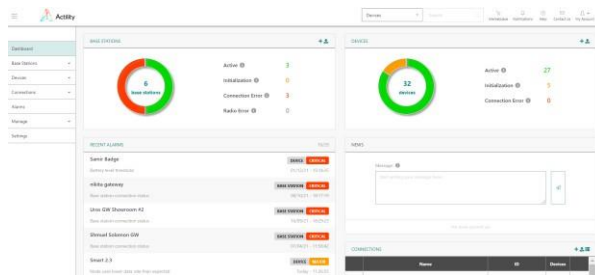
Low-power Wide Area Networks



Quuppa Positioning Engine / Twinzo Application



ThingPark Connectivity Management

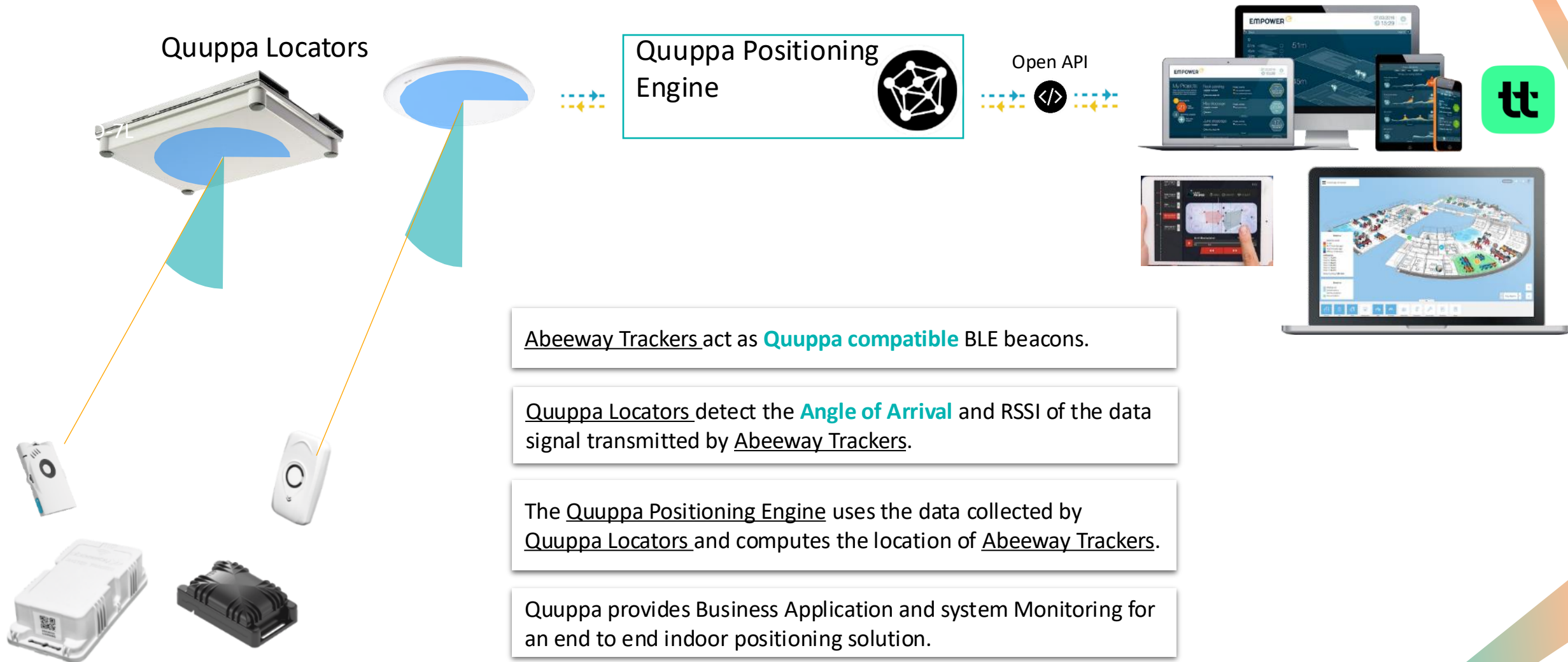


Low-Power Multi-technology Trackers



MANUFACTURING, AUTOMOTIVE, CONSTRUCTION, MINES, OIL & GAS AND LOGISTICS INDUSTRIES

Quuppa-Abeeway-Twinzo Intelligent Indoor Geo-Localisation



Beyond Indoors....

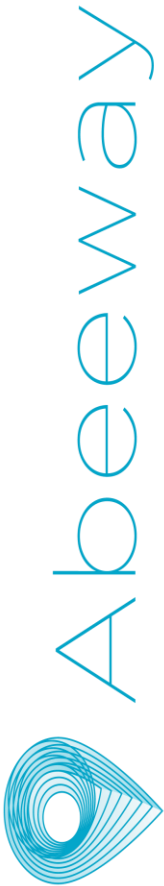
Beyond enabling a high precision indoor position solution with Quuppa, Abeeway devices support several additional use cases:

- Send position information on demand by applying other (GPS/LPGPS/WiFi/BLE) geo-localization technologies
 - **This results in high precision indoor and outdoor positioning**
- Initiate SoS operation mode either from remote or by pushing the trackers' button
- Make the device beep by sending special downlink messages.
- Make the tracker beep autonomously upon detecting a BLE beacon that marks dangerous zone

Geolocation Technologies Overview

Technology	Characteristics	Benefits	Remarks	Indoor/Outdoor	Use Case
GPS	<ul style="list-style-type: none"> • Sensitivity: -145 dBm • Accuracy: 1–15m 	<ul style="list-style-type: none"> • Ubiquitous outdoor solution 	<ul style="list-style-type: none"> • Ephemeris sent to device (GPS downlink needed) 	Outdoor	Vehicle tracking, Remote field ops
LP-GPS	<ul style="list-style-type: none"> • High sensitivity: -165 dBm • Accuracy (50–90%): 10–18m 	<ul style="list-style-type: none"> • No cold start, fix time 10s • Very low power 	<ul style="list-style-type: none"> • Patented solution → TPX LE • DA-GPS to improve accuracy (roadmap) 	Outdoor, Light Indoor	Logistics, Smart city
Wi-Fi	<ul style="list-style-type: none"> • Sensitivity: -86 dBm • Accuracy: 20–40m 	<ul style="list-style-type: none"> • Simple • Low cost 	<ul style="list-style-type: none"> • Accuracy depends on hotspot density 	Outdoor, Indoor	Warehouses, Asset location in facilities
BLE	<ul style="list-style-type: none"> • Sensitivity: -78 dBm • Accurate short range 	<ul style="list-style-type: none"> • Very low power consumption 	<ul style="list-style-type: none"> • Can also be used for firmware upgrades 	Indoor	Inside worker, Pallet tracking
Quuppa	<ul style="list-style-type: none"> • Real-time < 1s • Accuracy < 1m 	<ul style="list-style-type: none"> • Long battery life • Solution for diverse use cases 	<ul style="list-style-type: none"> • Scalable 	Outdoor, Indoor	Unified logistics, Inter-zone tracking, Mobile assets

A customizable combination of HW capabilities to provide the best trade-off Accuracy - Power Consumption





Abeeway Combo Cellular-LPWAN Tracker

What's Unique

Adds **Cellular (LTE-M / NB-IoT)** connectivity to LoRaWAN for:

- Wider coverage in areas with no gateway infrastructure
- Real-time updates, even in mobile/remote use cases
- Two-way communication for OTA configuration anytime

What It Enables (vs. LoRaWAN-only Compact)

- **Live asset tracking on the move:** e.g., in transit across regions
- **On-demand tracking and command/control** in real time
- **Multi-site deployment** without dependency on LoRa infrastructure
- **Global livestock and field equipment tracking**
- **Backup/failover connectivity** for critical logistics operations

Best Used For

- Mobile fleets, roaming vehicles, cross-border assets
- Assets without stable LPWAN coverage
- Critical operations needing continuous visibility and configuration flexibility



Optimization of intralogistic with digital twins

Tomas Vojtek, twinzo

Quuppa

twinzo

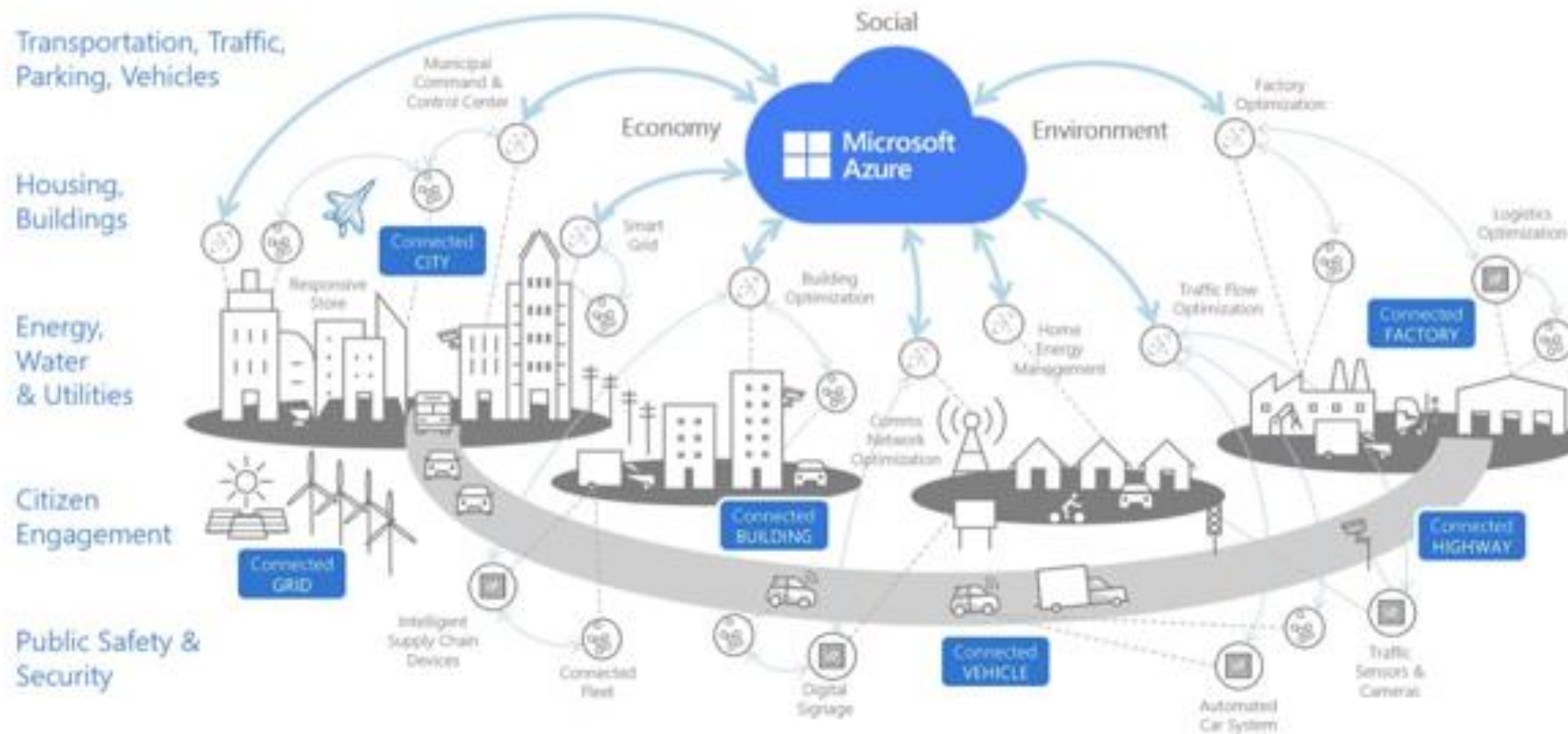
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What is digital twin?

Data

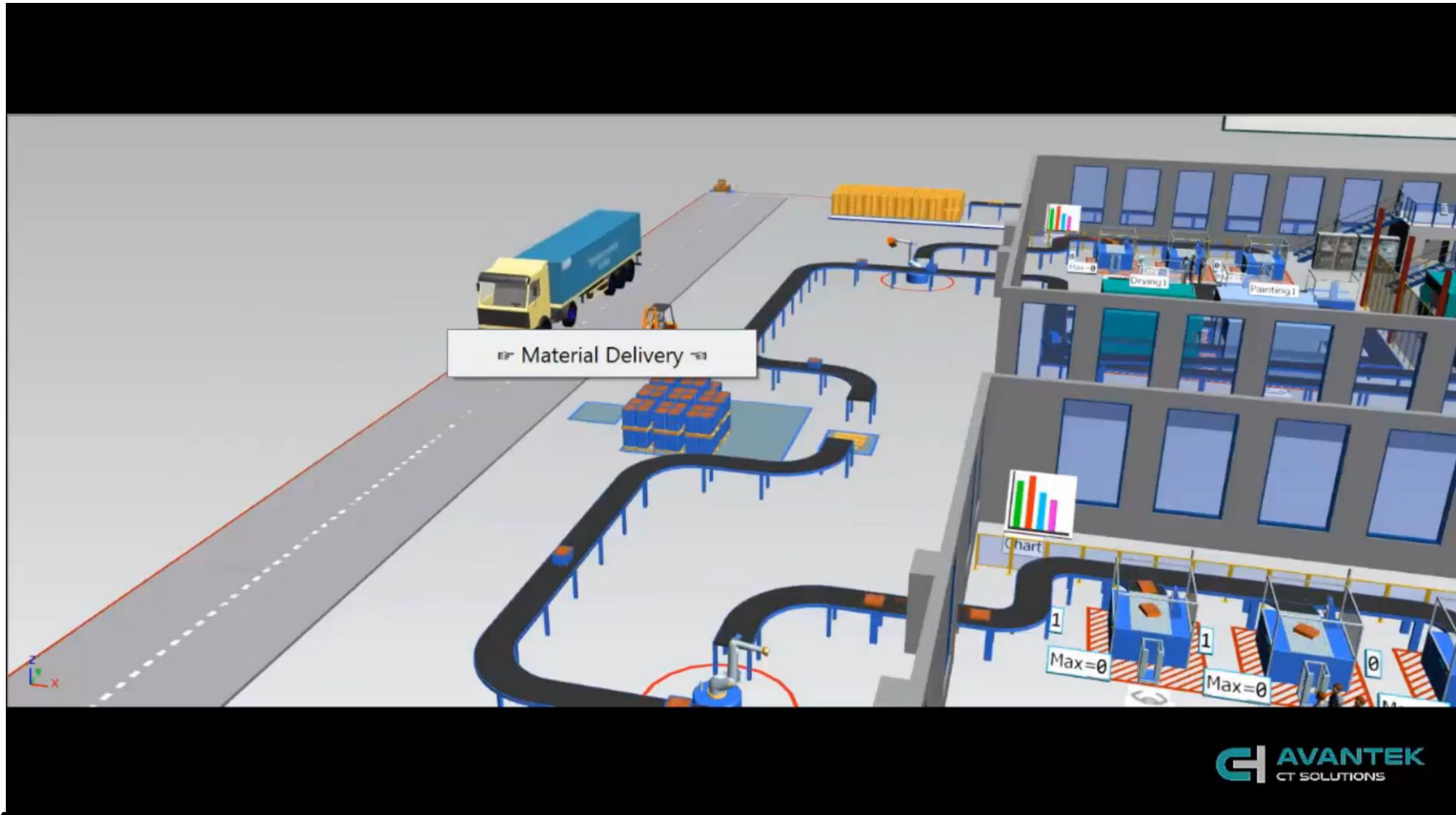
Azure Digital Twins



BIM – Building Information Management



Process simulation



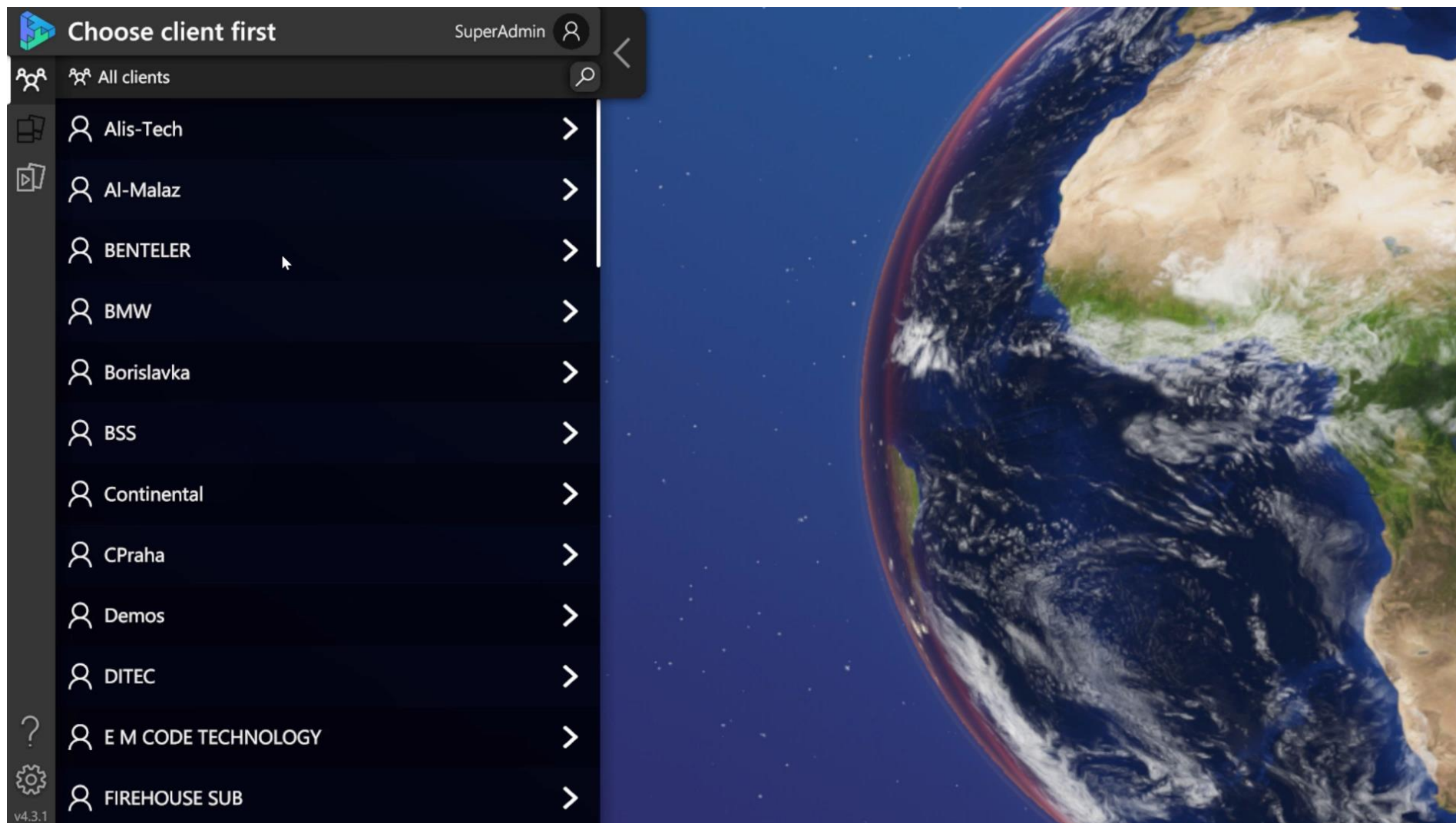
Factory simulation



3D scanning



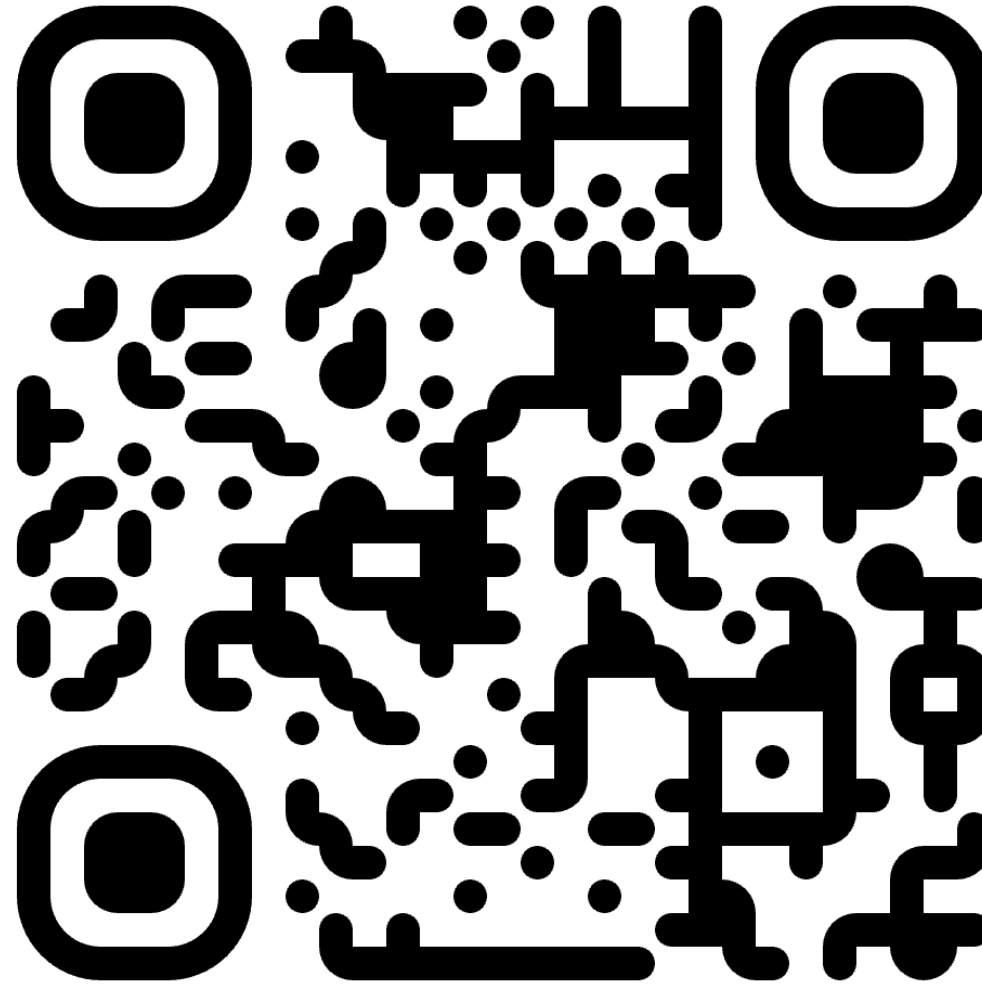
Twinzo's Approach



Results

Action	Impact	Value Outcome
20% forklift fleet reduction	Reduced operational equipment	\$1 Million in OPEX savings yearly
95% reduction in idle time	Increased production output	\$7.5 Million more in produced goods
Rebalanced workforce shifts	Improved staff utilization	Lower employee churn

Get Twinzo for FREE!



Thank You!



Continue the discussion and contact **Actility, Quuppa, and Twinzo** technical and commercial experts directly at:

abhiraj.verma@actility.com

rene.wermke@quuppa.com

tomas.vojtek@twinzo.com