

Actility Webinar: **Returnable Assets Tracking**

**Your event will start
in a few minutes**



Actility Webinar: Returnable Assets Tracking

How LoRaWAN-enabled multi-technology IoT location helps you save costs on reusable transport systems management

Tuesday May 31st
17:00-18:00 CET Paris (11AM New York)





Stéphane Sisse , Sales Director at Abeeway



Sebastian Stute, CEO at SmartMakers



Guillaume De Menou, Sales Manager at Zozio



Jérémy Marty, CEO at NomoSense



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, Credev, 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

* ATEX Zone 2 Certified
ATEX Zone 1 pending

A versatile catalogue of trackers to match a wide variety of vertical applications



Industrial tracker

Large battery, hardened casing, high-precision tracking : designed to last *IP65, 19Ah type D battery, temperature and motion sensors.*

Up to 10 years battery life in motion tracking mode at 10 position per day (LPGPS+WIFI)



Micro tracker

Light, handy, yet powerful. Enables you to track and protect things (or people and pets) of value. *IP 65 – ATEX*, 450mAh rechargeable battery Buzzer, multimode button.*

Battery life :

- *Location mode : 90 days battery life at 40 fix per day with indoor/outdoor positioning.*



Compact tracker

Solid and lightweight, built for heavy-duty tracking.

Asset tracking and management, even in the harshest environments.

3xAAA 2.7Ah (8.1Ah total) replaceable batteries, IP 68, ATEX, temperature & motion sensors*

Up to 10 years battery life in LP GPS/WIFI 4 fix per day.

LoRa+LTE-M device available Q1 2023



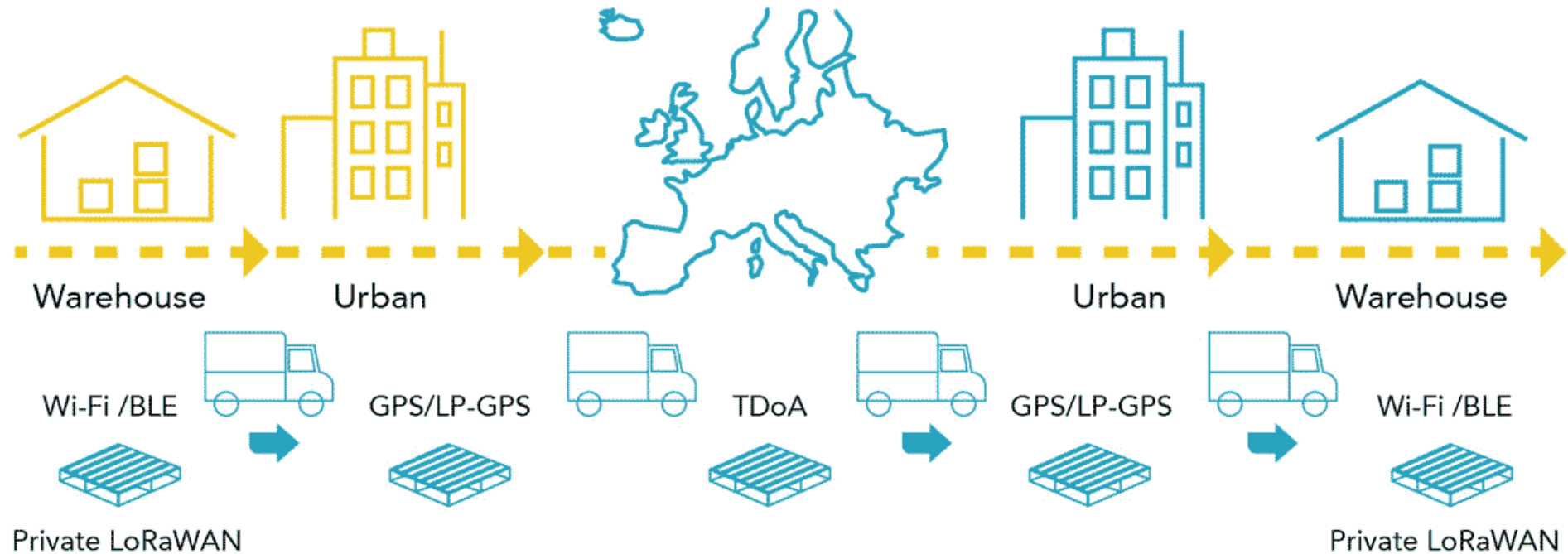
Smart Badge

Sleek, smart, and multi-functional. ideal for worker protection and zone alerts *IP65, ATEX*, Buzzer with 70dB high volume, industrialized magnetic connector, 1300mAh rechargeable battery, multimode button.*

Battery life :

- *Proximity mode : 1 month depending on data precision*
- *Location mode :120 days battery life at 60 fix per day with indoor/outdoor positioning.*

Tracking of a smart pallet, using public and private LoRaWAN Networks



Roaming available using Actility's Thingpark Exchange

Thanks!



Activity

IOT TRACKING FOR RETURNABLE ASSETS

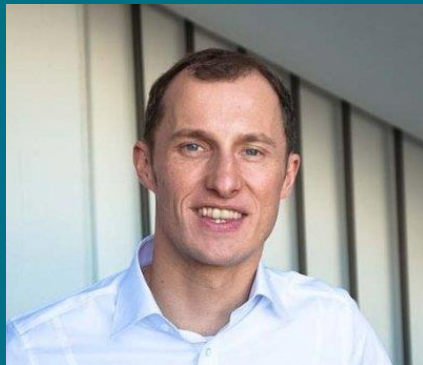
Improve, digitize and automate business processes by knowing the location, condition and status of your all your returnable assets:

- ✓ **at your Facilities**
- ✓ **at your Suppliers**
- ✓ **at your Customers**



About SmartMakers

- **1x Mission** enable companies of all sizes to immediately accelerate their business processes through IoT technology.
- **250+ Customers** in 16 Countries.
- **100.000+ critical assets** monitored 24/7 with the thingsHub Monitoring and Tracking platform



Sebastian Stute

Managing Director, SmartMakers

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Well-known companies trust in IoT from SmartMakers



Mercedes-Benz



O P E L



LEONHARD WEISS
BAUUNTERNEHMUNG



BERESA
LEIDENSCHAFT FÜR BEWEGUNG



NetCologne

SCHAEFFLER



ArcelorMittal

YNCORIS
Industrial Services



ZENNER

PFALZWERKE
Pfalzwerke Gruppe



SW//M

Stadtwerke München

dataport

Agenda

1. Today's challenges
2. Advantages of IoT
3. Customer Success Story
4. Questions & Answers

Agenda

1. Today's challenges
2. Advantages of IoT
3. Customer Success Story
4. Questions & Answers

Don't control your
Supplier or Retailers.

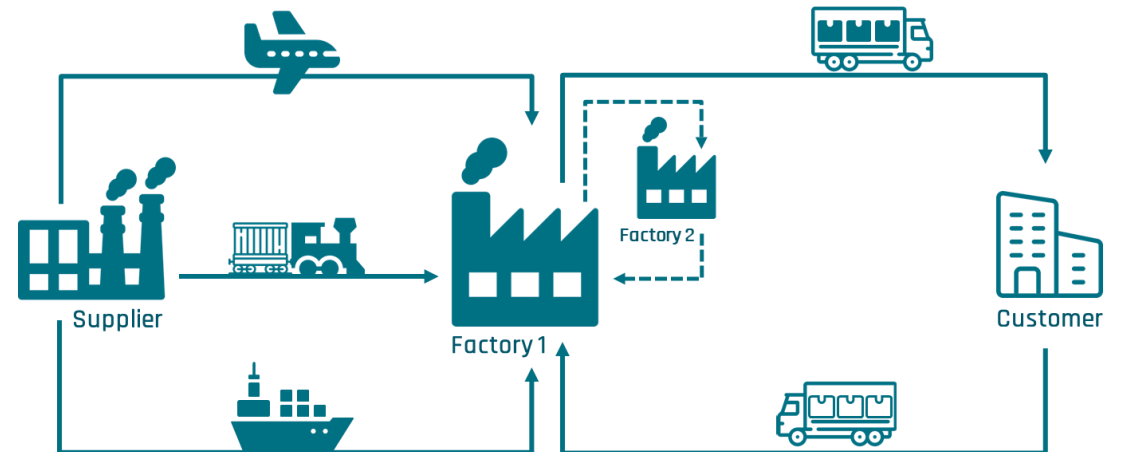
Control your
returnable Asset.

Today's Challenges of Returnable Transport Systems

What are Returnable Assets?



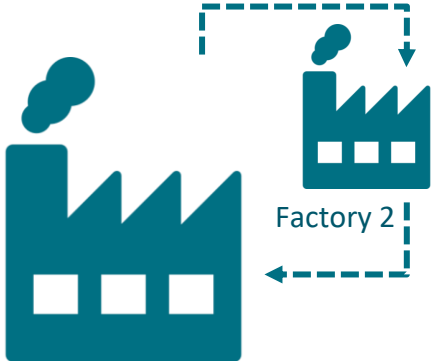
- Unit Load Devices
- Load Carriers
- Containers
- Crates
- Reusable Plastic Boxes
- IBC Containers
- Palettes
- Kegs



Loops of a returnable transport system



Supplier A, B, ...

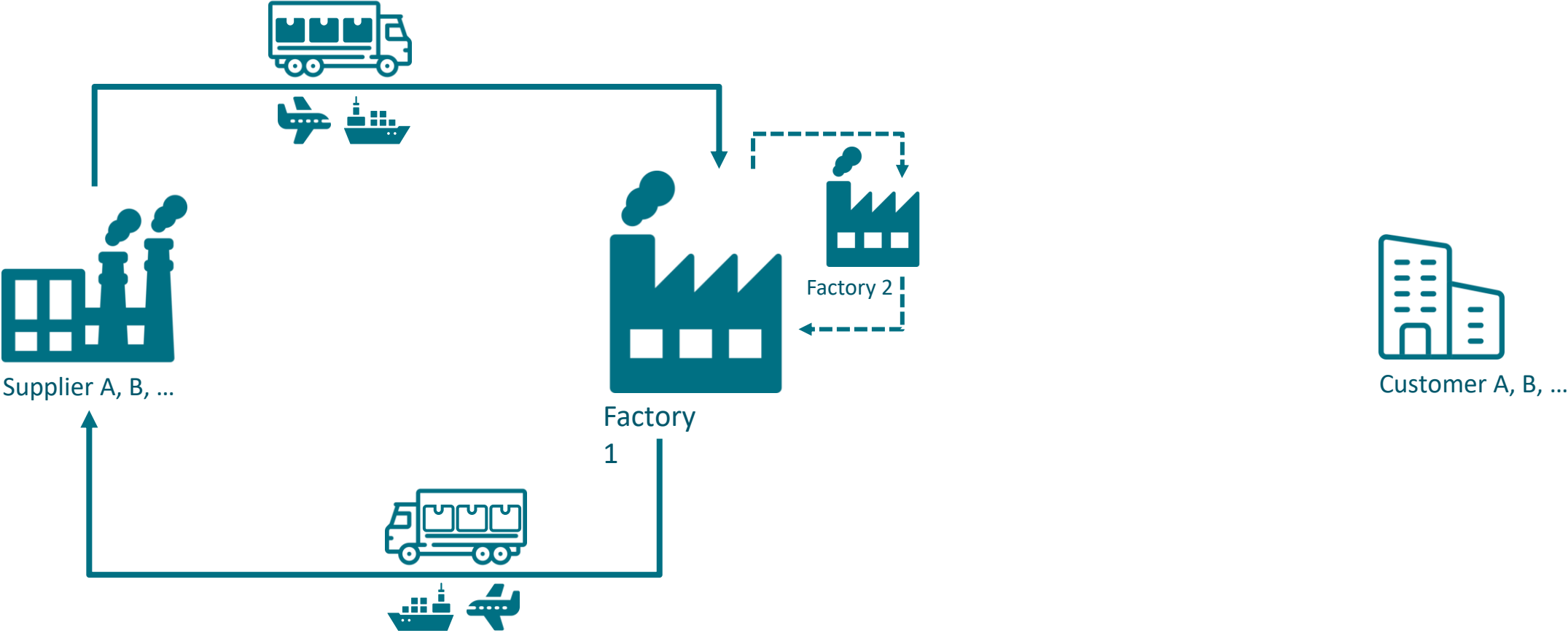


Factory
1

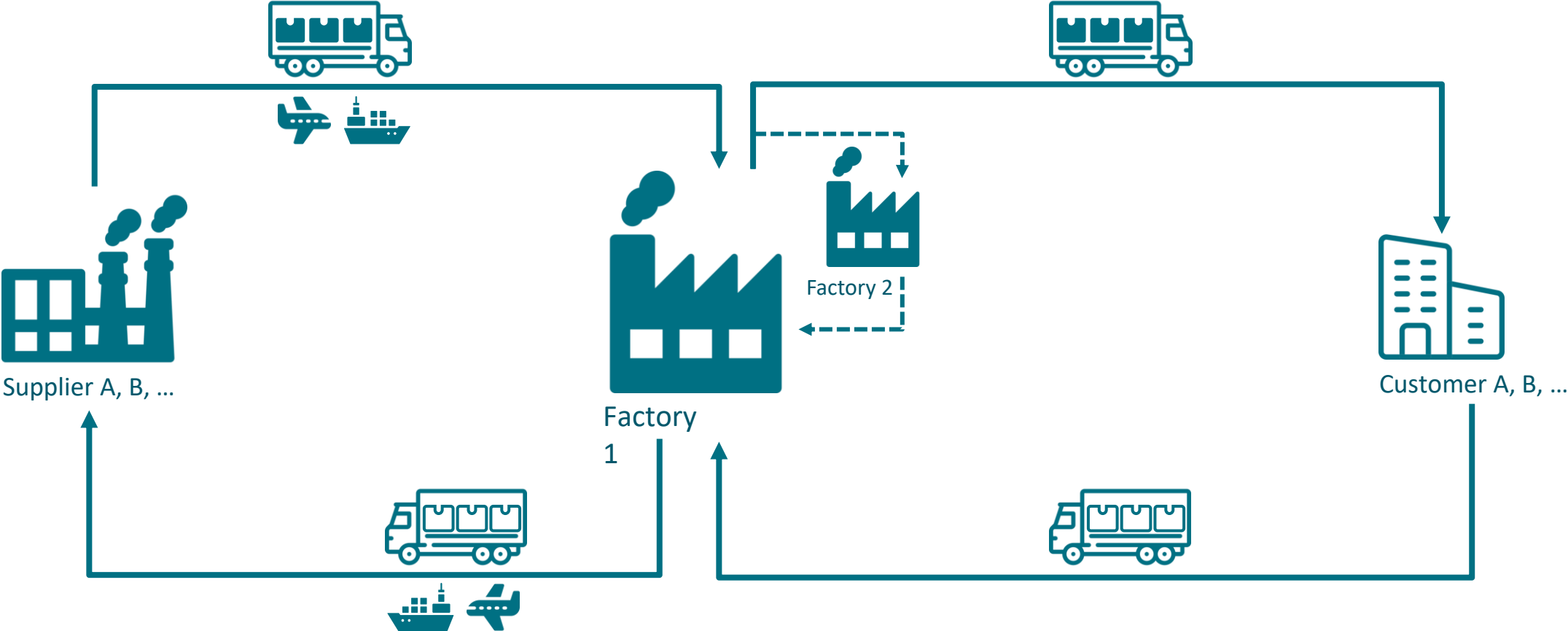


Customer A, B, ...

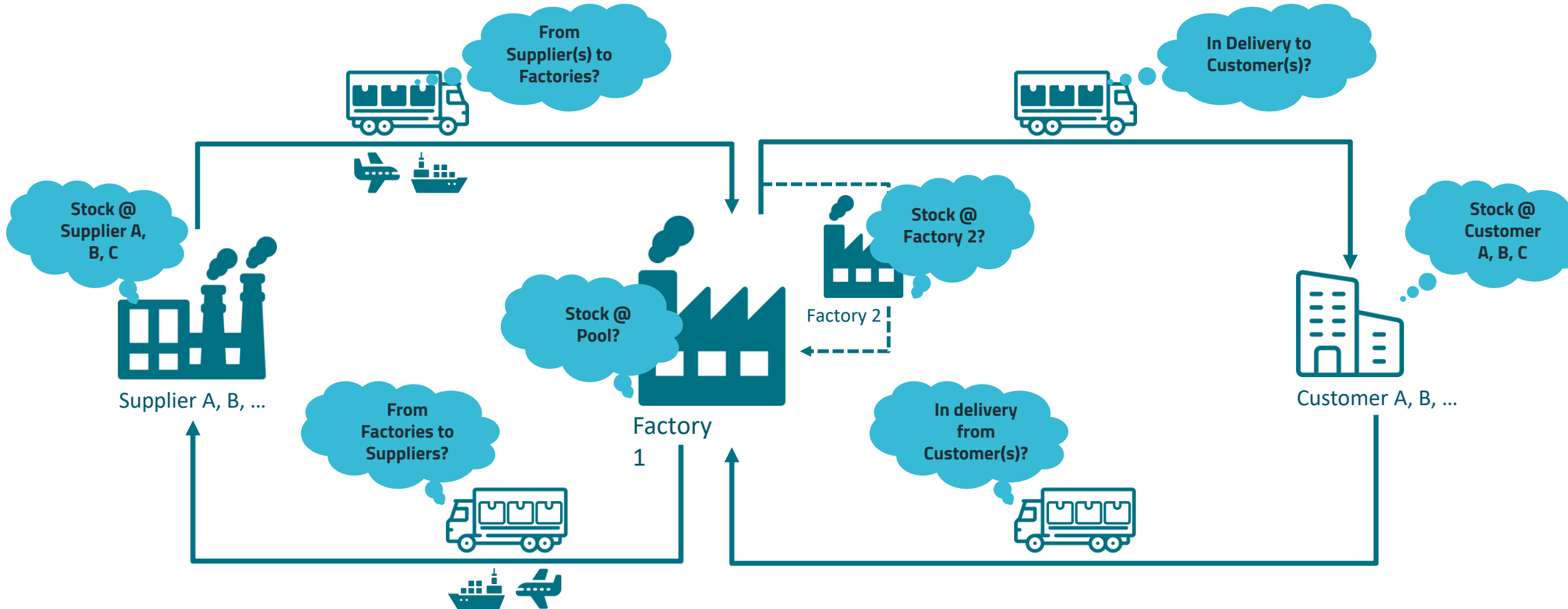
Loops of a returnable transport system



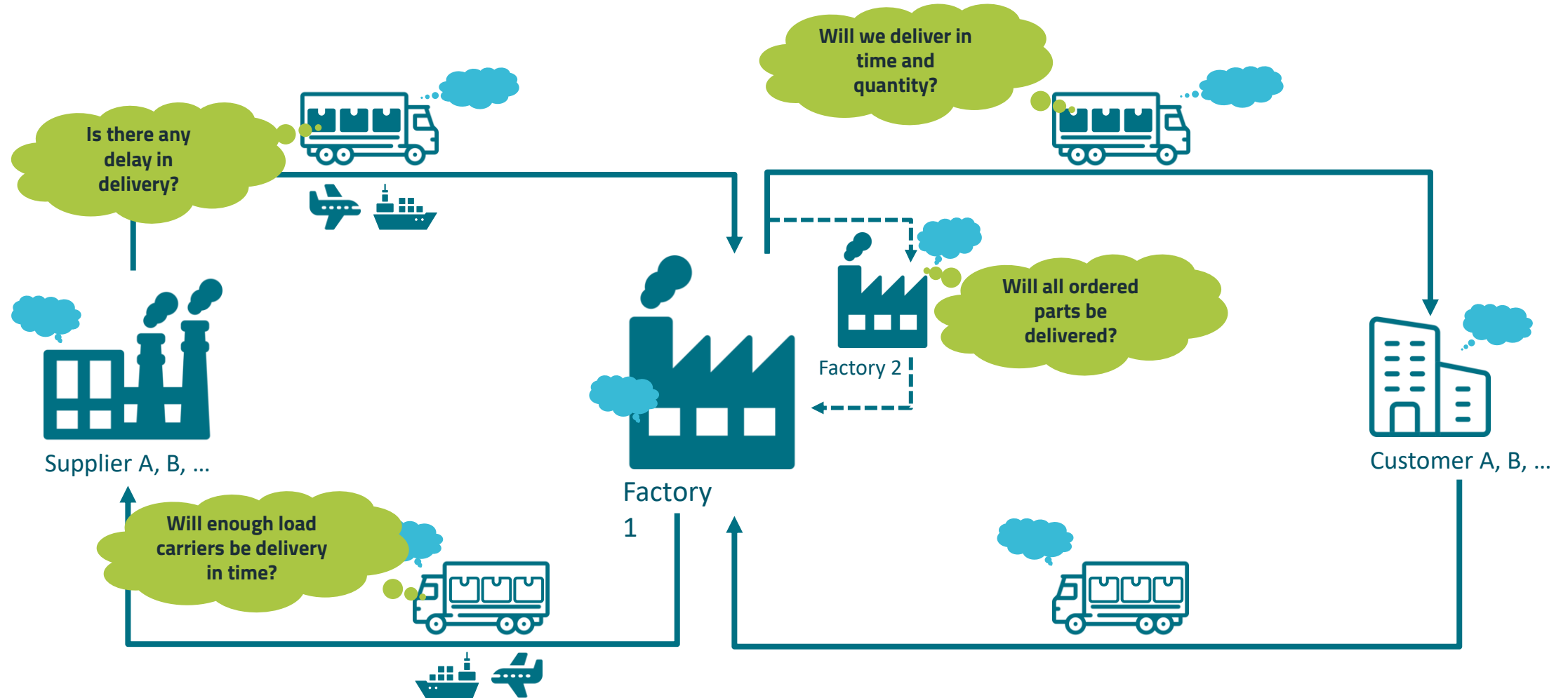
Loops of a returnable transport system



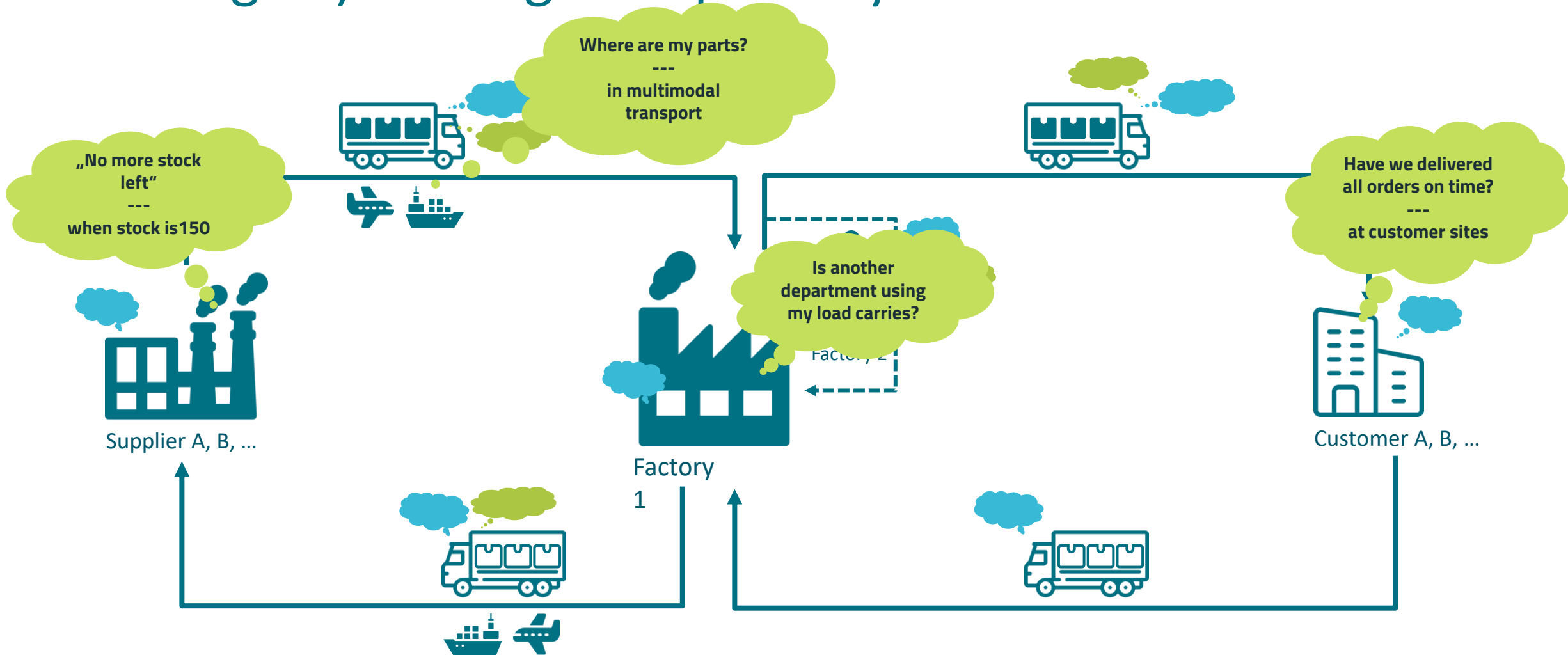
Challenge 1) time consuming inventory management

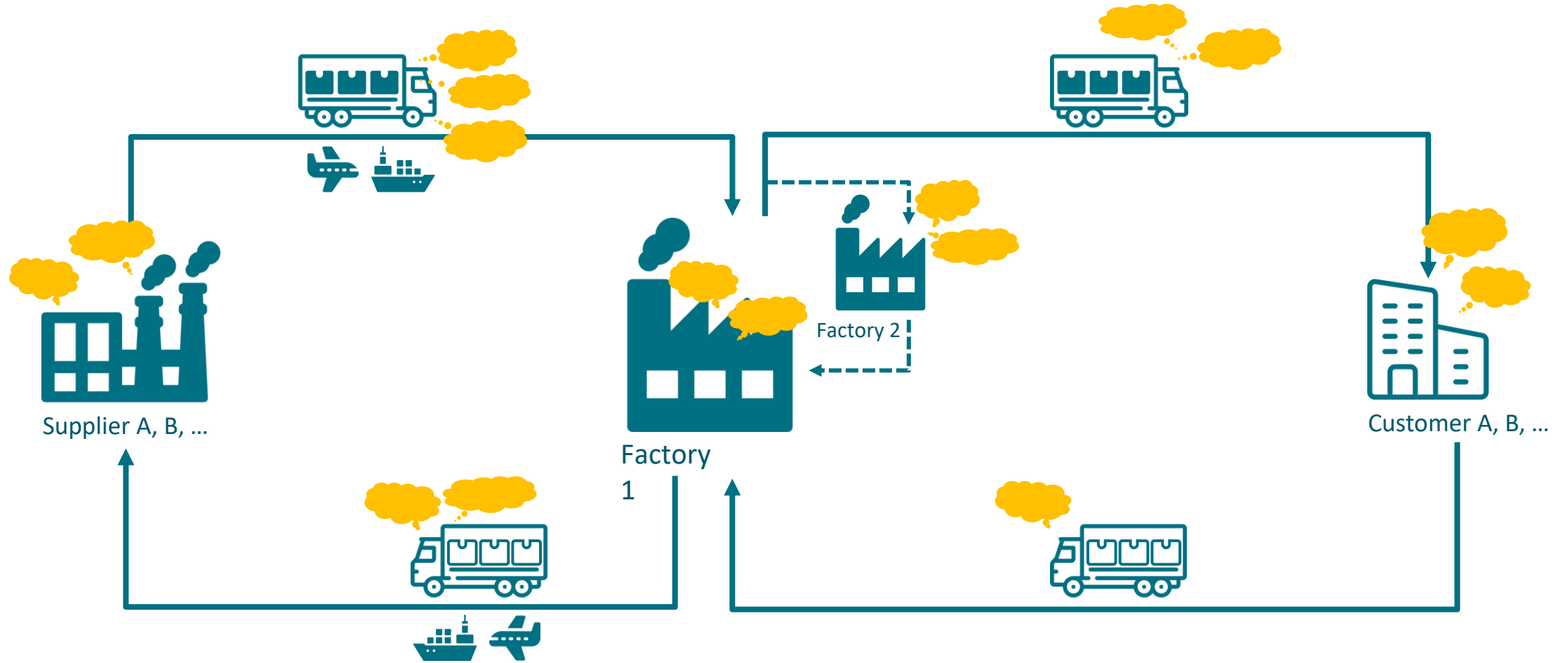


Challenge 2) preventing delays in operation

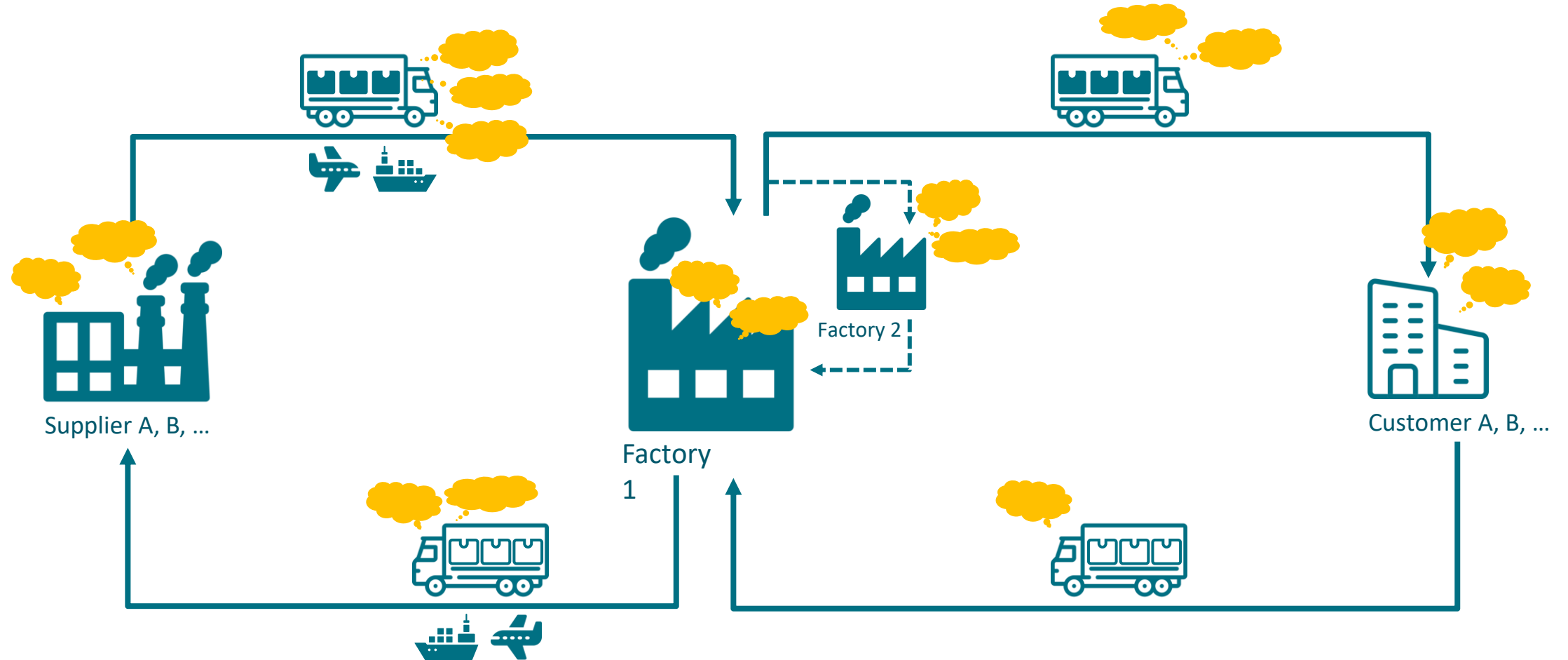


Challenge 3) missing transparency

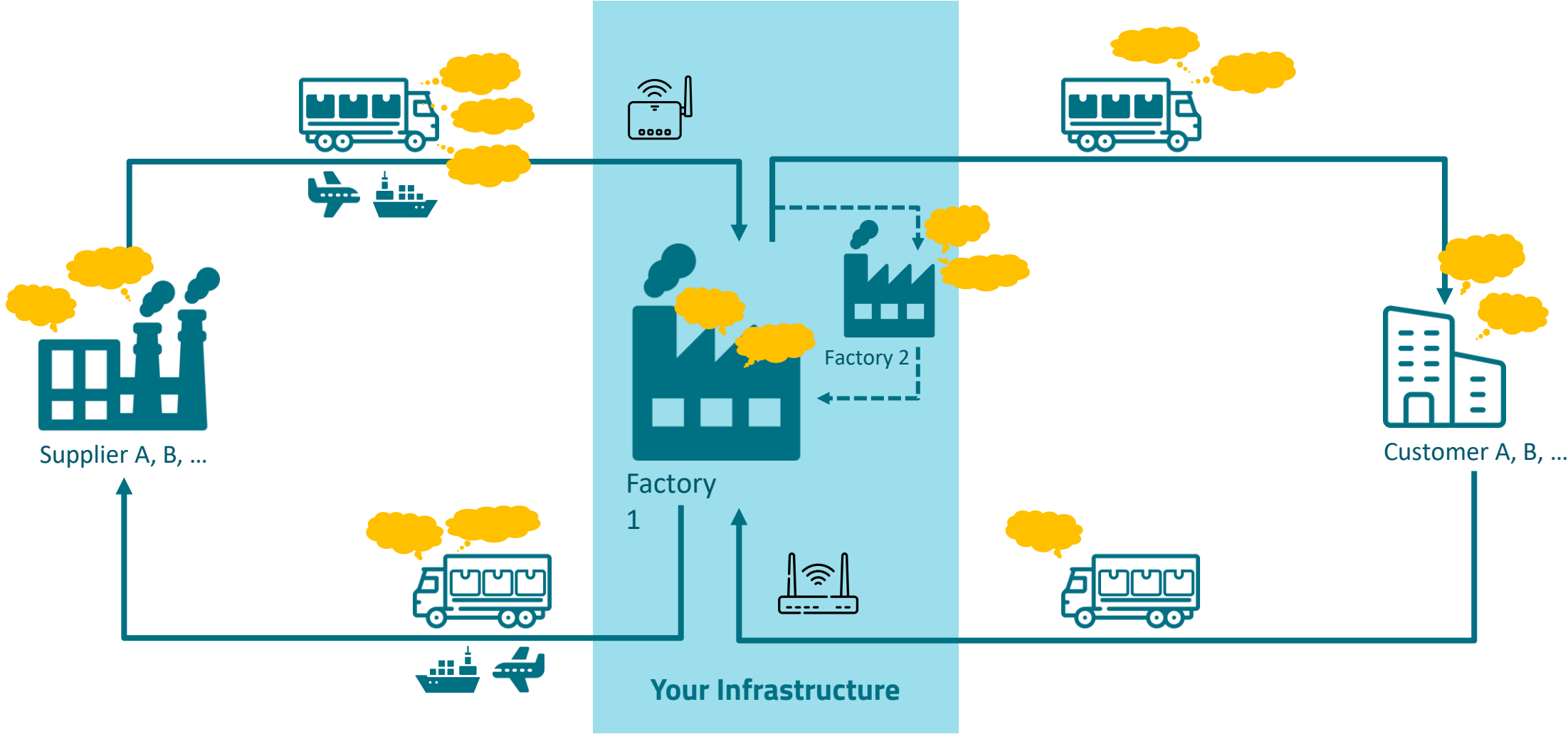




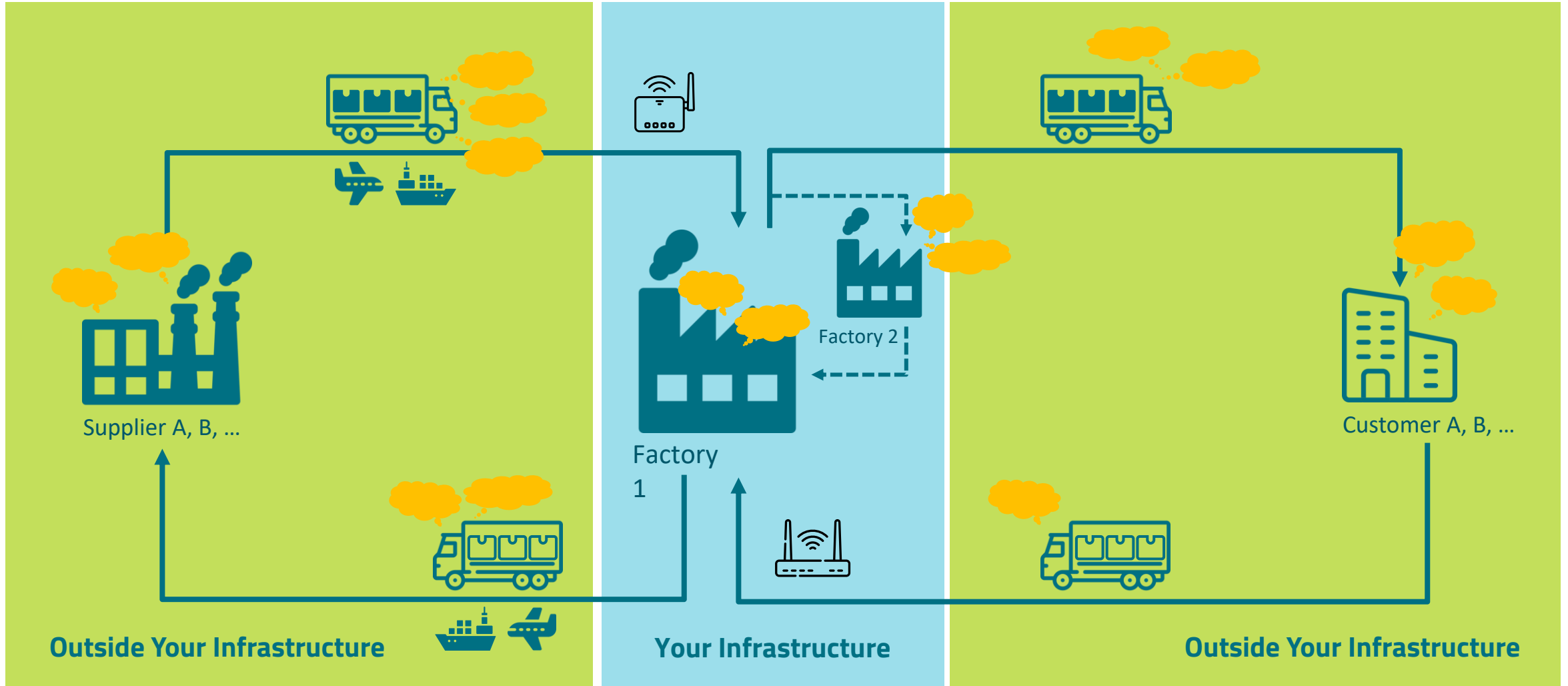
Why RFID, UWB, RTLS can't answer most of these questions?



RFID, UWB, RTLS require extensive infrastructures with readers & gateways ...

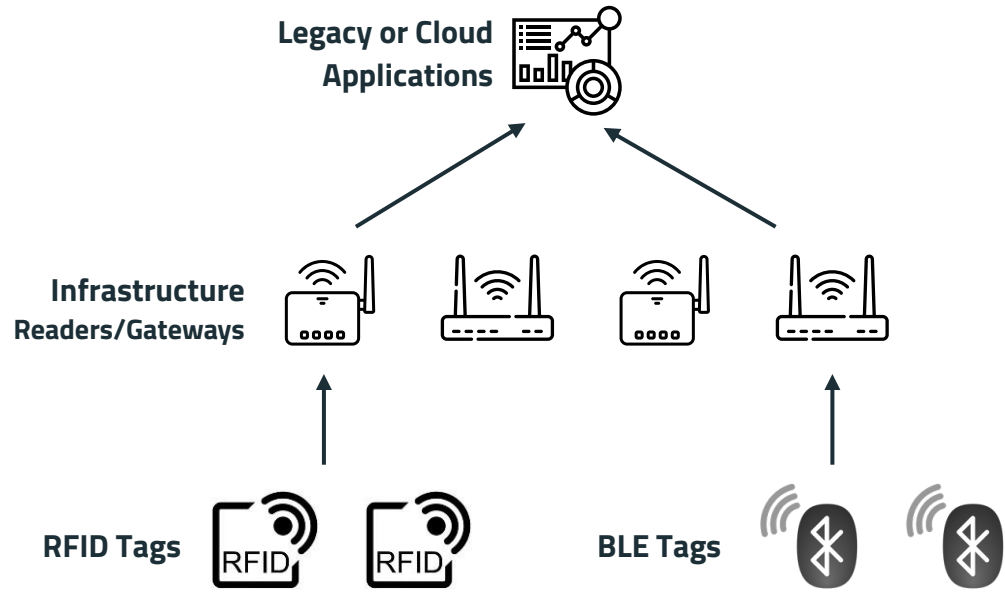


... but most of the time your assets move outside of your infrastructure



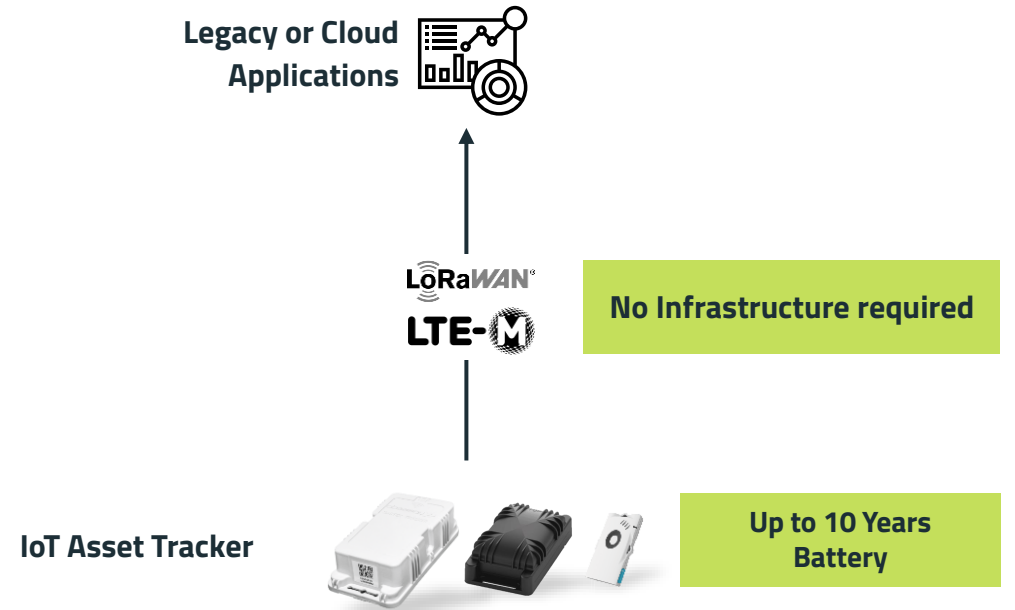
The advantages of IoT track and tracing

Known Approach



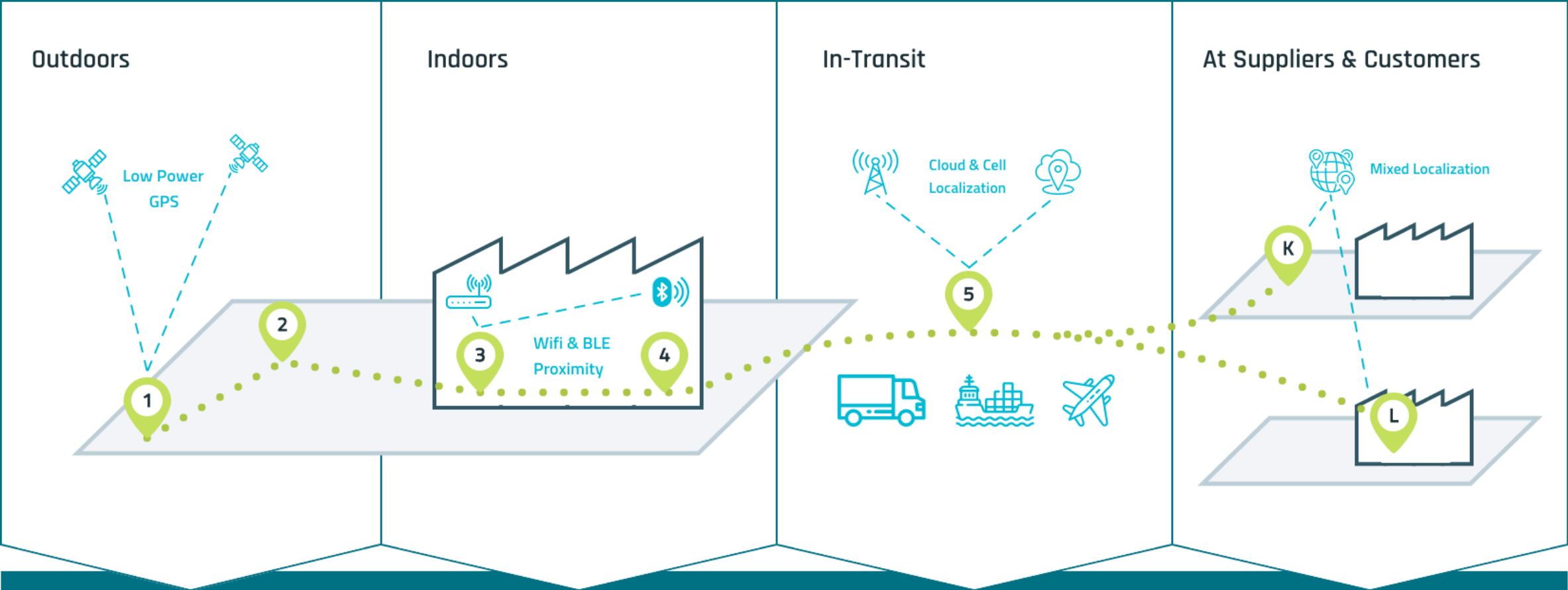
Automated asset tracking **less than 60%** as the required infrastructure is not always available

IoT Approach



Nearly 100% automated track and trace.
No or low infrastructure required.

IoT tracking works EveryWHERE



thingsHub EveryWHERE Location Engine. To be able to determine and transmit the position of critical equipment in any situation.

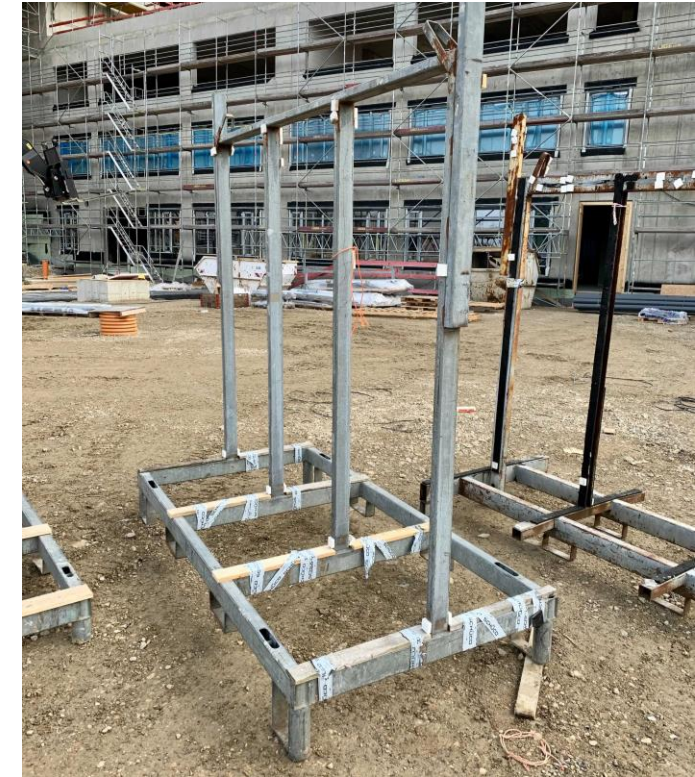
Solutions in comparison

| | RFID | BLE | SMARTMAKERS IOT ASSET TRACKING |
|--|------------------------------------|------------------------------|--------------------------------------|
| Can track assets Indoor, Outdoor & InTransit | ✗ | ✓* Mobile Gateways needed | ✓ |
| Can monitor conditions during transport (impacts, temperature) | ✗ | ✓* Mobile Gateways needed | ✓ |
| Can be used unchanged if logistics processes are changed | ✗ | ✗ | ✓ |
| No additional infrastructure required | ✗ | ✗ | ✓ |
| Deployment time | Several months, often two years | Several months | Several weeks |
| Total visibility at best | < 60% | < 75% | Near 100% |

Customer Success Story

Company and Challenge

Window Manufacturer → Retailers (direct Customer) → Construction Companies



- More than 30,000 load carriers on German market
- 200 € to 700 € purchase price per load carrier
- 20+ Production Sites
- Is partly using RFID additionally



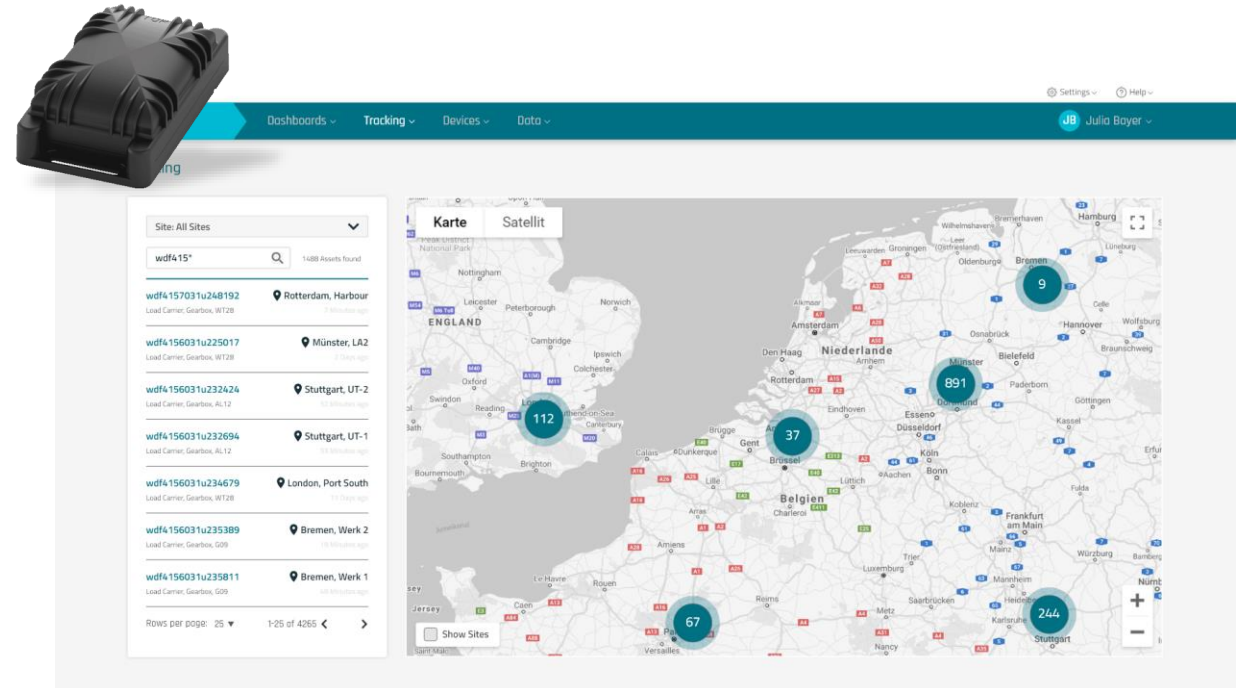
Challenge

Large losses of assets and high inventory management efforts.

The load carriers are used by the direct customers for delivery to the end customers.

Rollout and Results

- Few thousand Load Carriers tagged with SmartMakers IoT Asset Trackers in **first week** of the system rollout
- thingsHub tracking platform data integration to ERP system done in several days
- Four weeks preparation for the rollout
- High system acceptance among employees due to very easy handling of the trackers and web access to all data via their desktop computers or mobile phones



Total Visibility of all Assets
98,6% + 47%

Inventory Efforts per Asset / Month
7min ↓ -14min

Total loss of Load Carriers
< 1% ↓ -3,8%

● ● ●
And more

Do you have any further questions? We are here for you.

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ZOZIO

**Real time
management
of your logistics**

Cosmetics



2018

FOUDING IN 2018
COMMERCIALIZATION
SINCE 2019

15

TEAM MEMBERS
IN 2021
1 OFFICE IN PARIS

20+

DEPLOYED IN MORE THAN 20
COUNTRIES

250%

OF GROWTH PER YEAR

100+

OPERATING IN MORE THAN 100
PLANTS WORLDWIDE

Several Key Customers and Partners

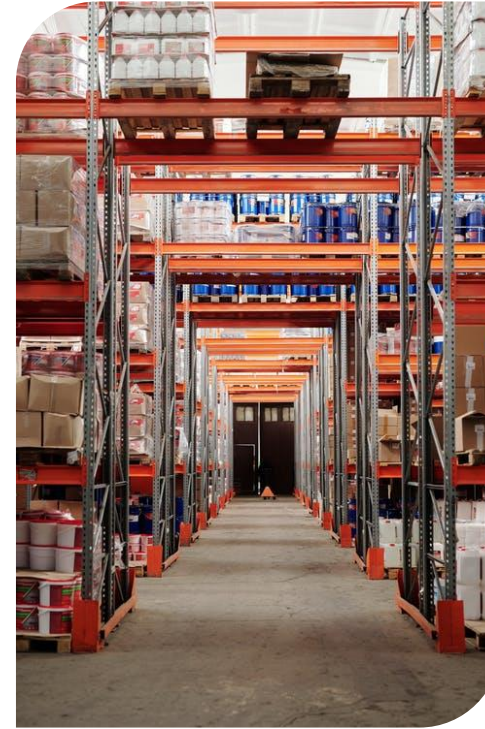


Zozio's answers to industrials painpoints



Complete assets traceability is not yet achieved

Continuous inventories are required on a weekly basis



1hour/day/operator lost to search assets

1min delay can cost tens of thousands of €





ROBIN – Asset management solution

Connected to the business software and the geolocation system, Robin retrieves field and business data and displays them **on the platform**:

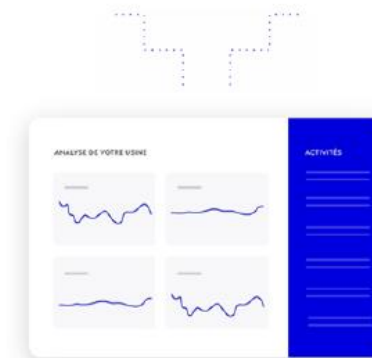
- **Ergonomique et user-friendly** (no code)
- **Modular and scalable** (modifiable in a few clicks)
- Intelligent thanks to **AI and Machine Learning engines**



Interfacing with your business data (ERP, WMS)



Indoor & Outdoor tracking system



BI platform for workers and managers



1. Focus on end users needs

We help you to choose the best technology according to your specifications & our plant survey.

1

3. Project deployment

Thanks to our best technology partner's our solutions on the shelf are installed in few days.

3

2. Project management

We accompany you in project management, specific development and adaptation to your needs.

2

4. Monitoring & Run care

To offer you the best service, everything is monitored to deliver a traceability service.

4



2018

CRÉATION EN 2018
COMMERCIALISATION
DEPUIS 2019

15

15 COLLABORATEURS
EN 2021
1 BUREAU À PARIS

250%

CROISSANCE PAR AN

20+

PRÉSENT DANS PLUS DE 20 PAYS
DANS LE MONDE

100+

PRÉSENT DANS PLUS
DE 100 SITES INDUSTRIELS
DANS LE MONDE



Lack of **real time visibility**



30/45 minutes per day lost in the search for tanks



Long and time-consuming inventories





What was the initial need ?

1) Monitoring of mobile tanks

Location



Traceability



Follow up



2) Digitalize the flows

Maceration times



Fixed tanks



Production capacities



Residue management



Expiry dates



Sizing of the tank fleet





How does it work ?

1) Abeeway compact tracker

- GPS
- LoRaWAN connectivity
- ATEX



2) Data collection & pairing

QR code printing from ERP



QR code on the tank



QR code & Tracker Flash



Data connected



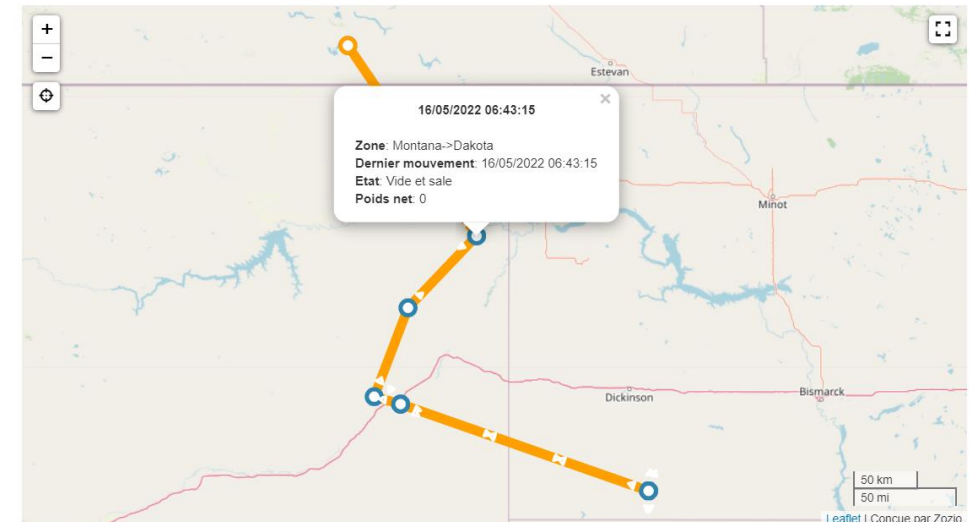
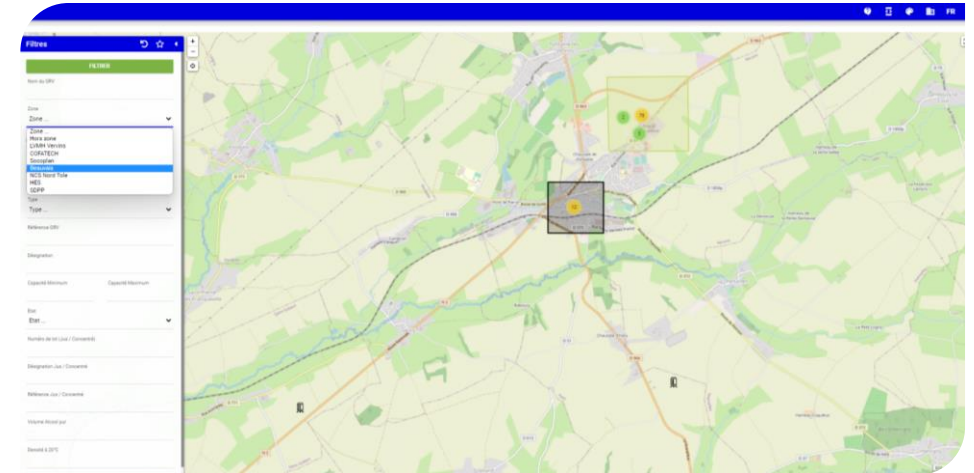
Traceability

APPLICATIONS

- Real time location
- History
- Real time inventories
- Creation of a digital twin of production flows between subcontractors

RESULTS :

- Operational time saving: Search for tanks according to availability and location
- Meeting safety standards through automated monitoring





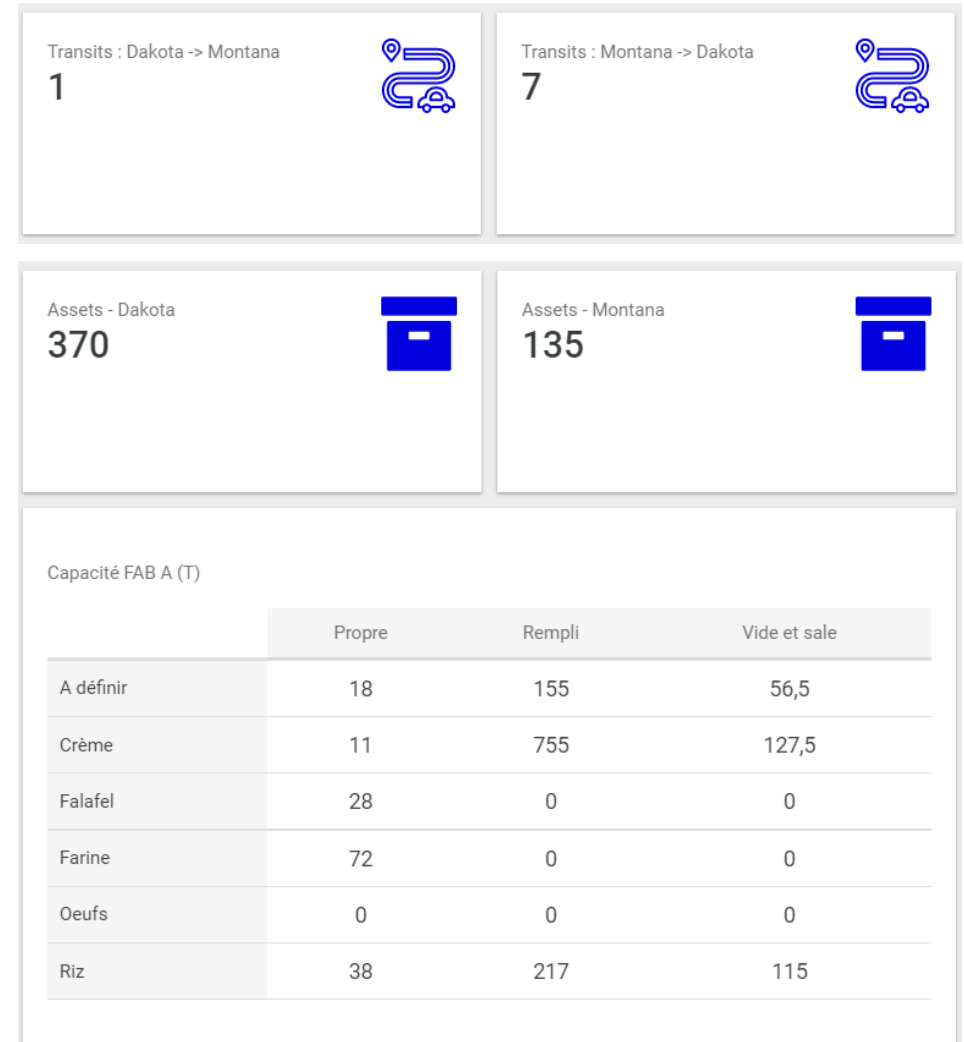
Tanks fleet management

APPLICATIONS

- Alert management and automatic emailing
- Visualization of the entire fleet, its whereabouts and its conditions
- Know the rate of use of the tanks

RESULTS :

- Improve the use and monitoring of the fleet, understand the movements of subcontractors.
- Time savings
- Optimization of the number of tanks in the fleet





Washing management & Maintenance

APPLICATIONS

- Management of periodic re-checks
- Management of HSE and ADR statuses
- Alerting and anticipating the next maintenance date
- Counting the number of cycles

RESULTS :

- Better quality achieved
- Washing management with the planning
- Time savings

| Asset | Contenant | Site | Zone | FAB | Poids net | Capacité | Capacité | Type d'asset | Etat | Maintenance | Actions |
|-------|-----------|--------|-----------------------|-------|-----------|----------|----------|--------------|--------------|-------------|---------|
| | AM-565 | Dakota | Stockage FAB A | FAB A | 6.133165 | 11 | 11 | Crème | Rempli | Non | |
| | AM-801 | Dakota | Stockage FAB A | FAB A | 0 | 11 | 11 | Crème | Vide et sale | Non | |
| | AM-816 | Dakota | Conditionnement FAB A | FAB A | 3.140905 | 7.5 | 7.5 | Riz | Rempli | Non | |
| | AM-798 | Dakota | Stockage FAB A | FAB A | 0 | 7.5 | 7.5 | Riz | Vide et sale | Non | |
| | AM-390 | Dakota | Stockage FAB A | FAB A | 12 | 12.5 | 12.5 | Crème | Rempli | Non | |
| | AM-262 | Dakota | Stockage FAB A | FAB A | 0 | 5 | 5 | Crème | Vide et sale | Non | |
| | AM-199 | Dakota | Stockage FAB A | FAB A | 3.35 | 5 | 5 | Crème | Rempli | Non | |
| | AM-400 | Dakota | Conditionnement FAB A | FAB A | 3.07 | 5 | 5 | Riz | Rempli | Non | |



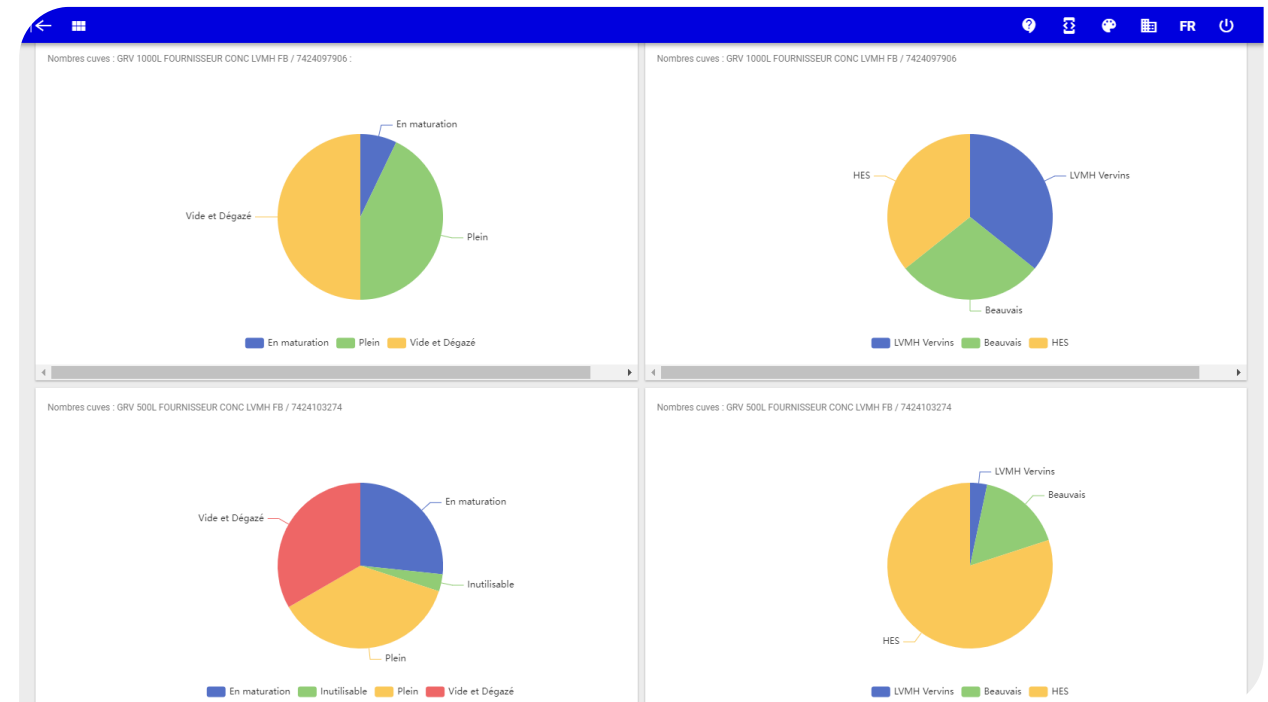
Production planning

APPLICATIONS

- Management of FIFO / LIFO
- Use-by date integration
- to know exactly which tanks are available for production at all times

RESULTS :

- Less product loss
- Time savings
- Less tanks immobilization





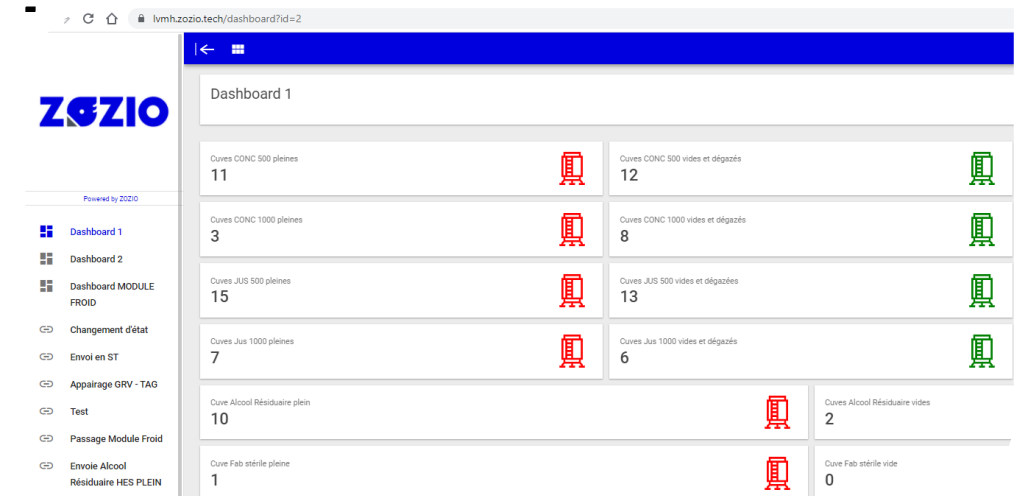
Production management / Optimization

APPLICATIONS

- 🌐 Create exclusion zones for specific containers and alert in real time
- 🌐 Dashboard for managing tanks according to their status
- 🌐 Visualization of the production/stock capacities

RESULTS :

- 🌐 Production gain thanks to JIT
- 🌐 Quality gain: Digital management of tank status (maturing, empty and degassed, full...)





CONTACT US



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OPÉRATEUR DE SERVICES IoT

nom●sense

Use Case : Asset Tracking

SOCIÉTÉ DU GROUPE **nomotech**

NomoSense

As a service provider, our solutions are dedicated to industrial players, local communities and more generally all building managers.

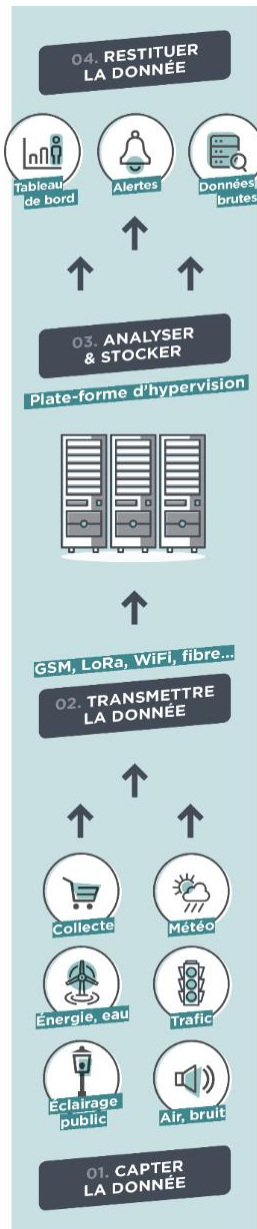


Our services portfolio :

- **Geolocation** : equipment and inventory
- **Counting and flow analysis** : vehicles, pedestrian / riders and tunnel counting
- **Environment** : temperature, humidity, air quality, remote reading...
- **People safety** : People safety and geolocation of people in ATEX zones



Technical solution



1

Sensors

- Temperature, Humidity
- Geolocation
- Counter
- ...

2

Connectivity

- 3G,4G – ISP aggregation
- LoRa Public, LoRa Private
- LTE-M, NB-IoT
- ...

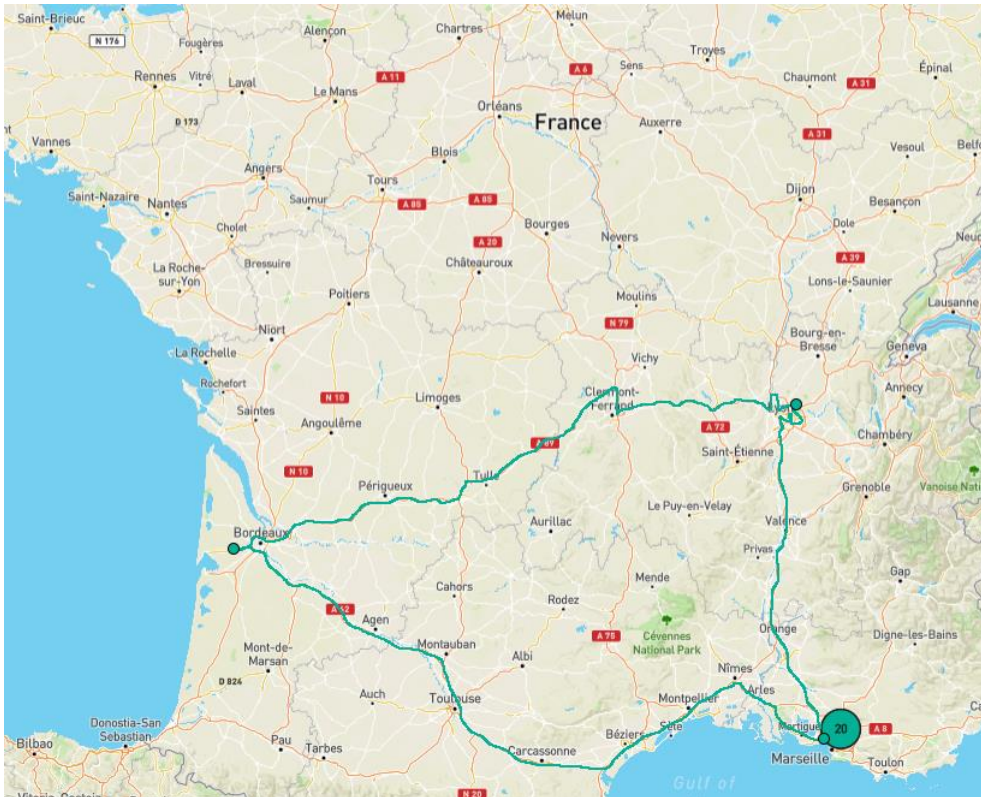
3

Visualising – alerting

- Things administration
- Measure storage
- Analyse - Machine learning
- Multi source restitution (API, dashboard, alerting,...)

Asset tracking : Use case

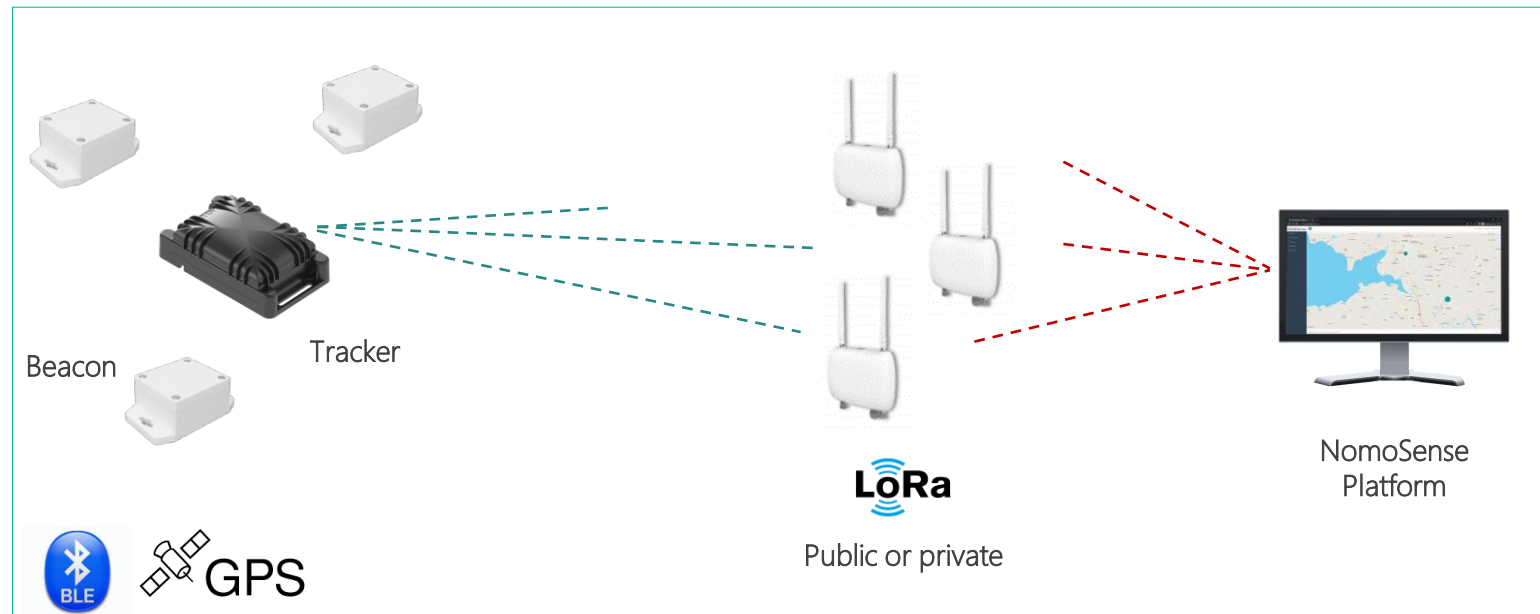
Customer issue: How to optimize and control the sending and receiving of boxes from suppliers at a national level ?



- How do I know my equipment location ?
- How long my equipment is at my supplier warehouse, so I can ask them to send it back ?
- How long will it take for the boxes to arrive at my supplier?
- If the box is broken, at what point in the journey did the equipment crash?

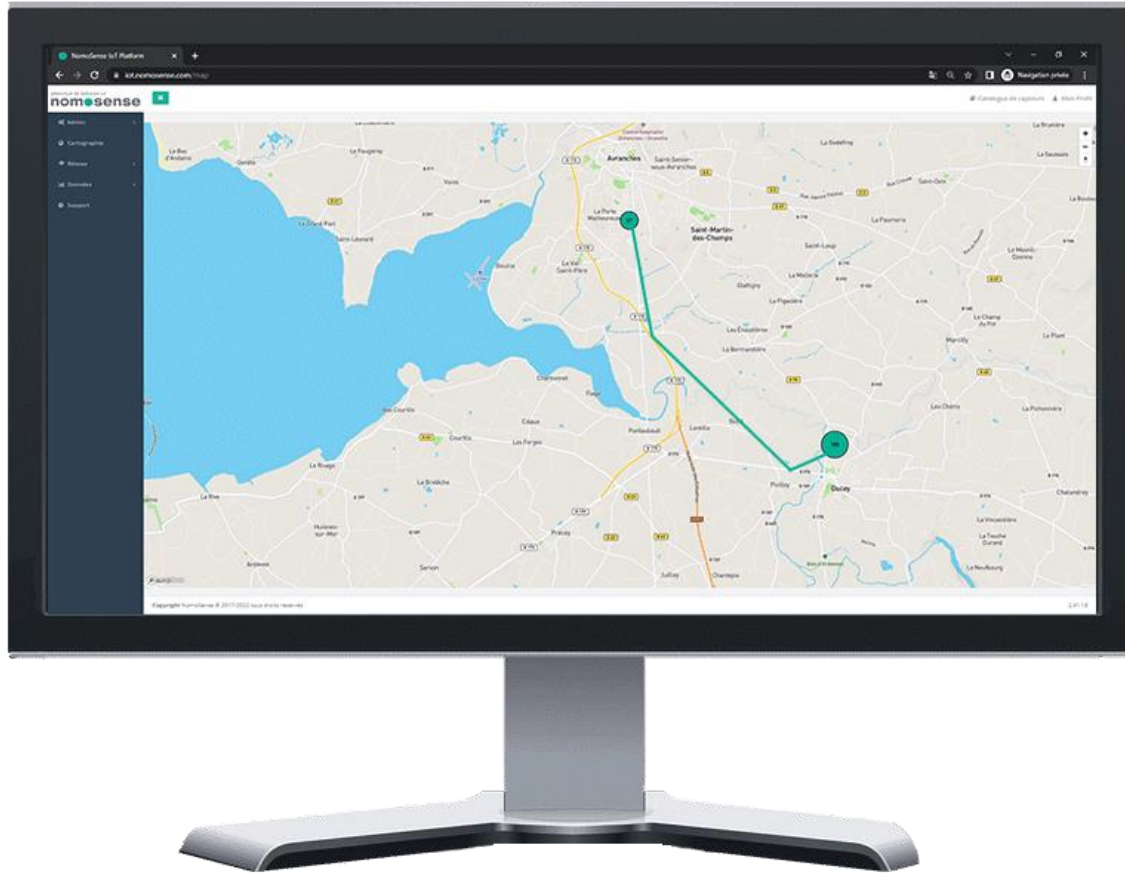
Asset tracking : Use case

Geolocation architecture



Truck construction is a complex process which requires to transport pieces from different warehouse of our customer and its own supplier warehouse. NomoSense solution helps our customers to optimize logistics between each warehouse, to simplify inventory management or to stop equipment loss.

Customer example



On NomoSense platform :

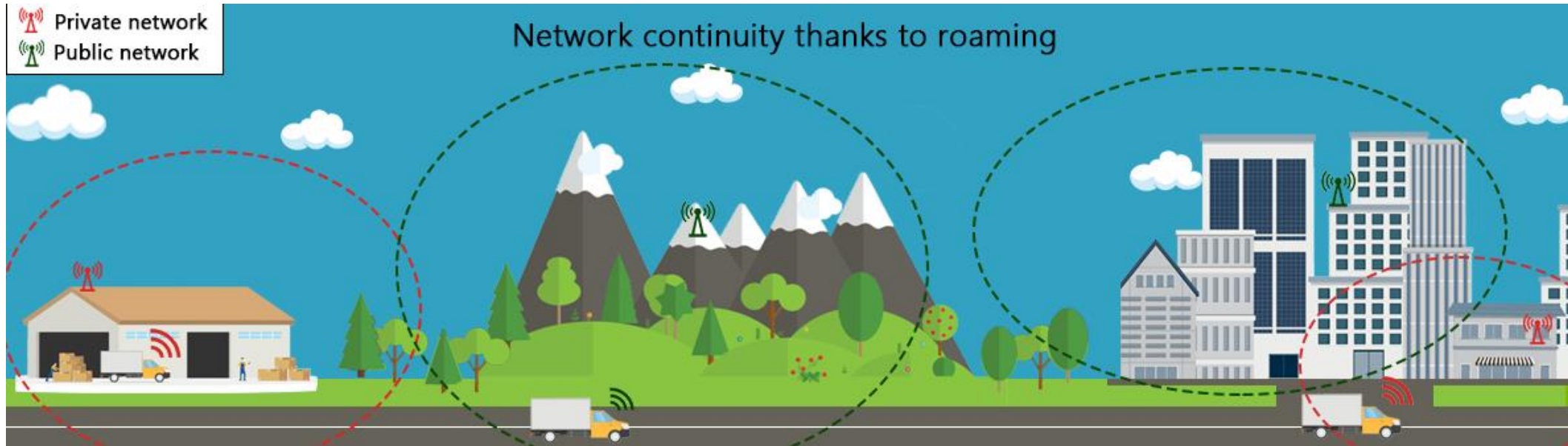
- Viewing position of the material on the map
- Travel time visualization
- Visualization of raw data and technical information of the equipments (battery level, last measurement date...)
- Crash detection alerts

Solution benefits :

- Remote monitoring of equipment during travel
- Follow up with suppliers in case of forgotten material in the warehouses
- Inform suppliers in case of delay
- Reduce loss and theft of equipment while traveling
- Reduction and optimization of travel time

Asset tracking : Use case

Integration of the ThingPark Exchange solution for LoRa roaming



This allows us to improve asset tracking solutions with better indoor precision thanks to public-private LoRa roaming or to connect the services abroad thanks to public-public LoRa roaming.

Q & A

Question and Answers



Stéphane Sisse , Sales Director at Abeeway



Sebastian Stute, CEO at SmartMakers



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Jérémy Marty, CEO at NomoSense