



**SHINE A LIGHT ON YOUR SUPPLY CHAIN BLIND SPOTS:**  
Trust based supply chains of the future through visibility & traceability

# WELCOME



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# Content

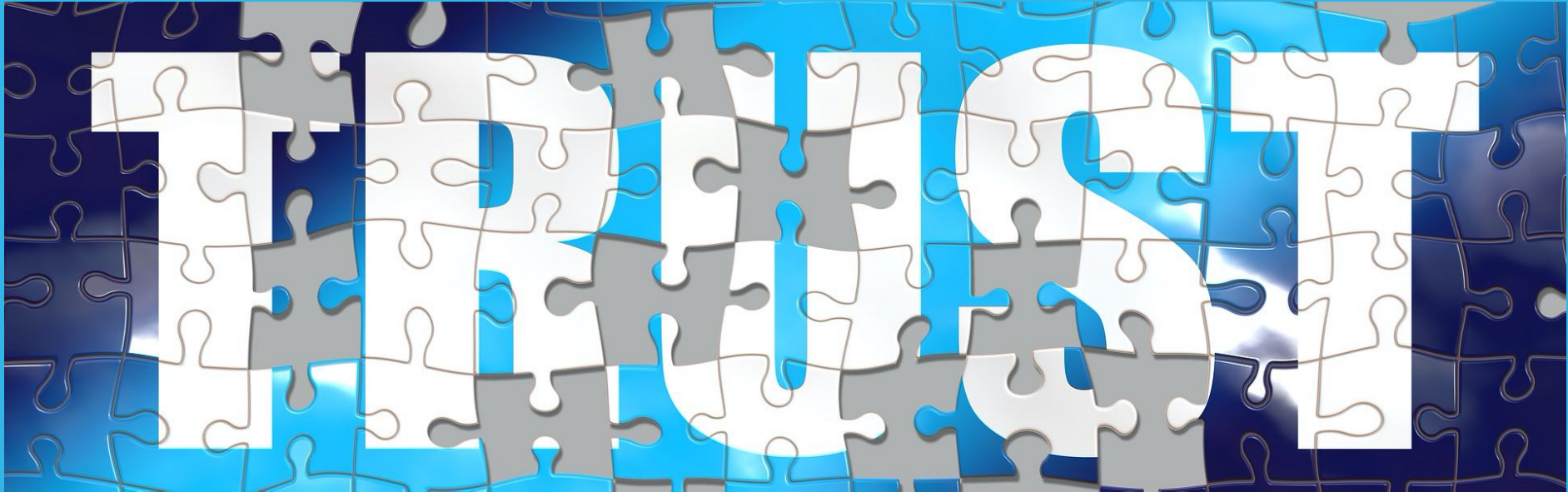
The emergence of supply chain blind spots: How complexity hinders visibility

How independent data illuminates blind spots? A showcase of examples

Traceability and Visibility: Tools to create a shared trusted version of truth.

Immediate steps you can take to reveal blind spots in your supply chain





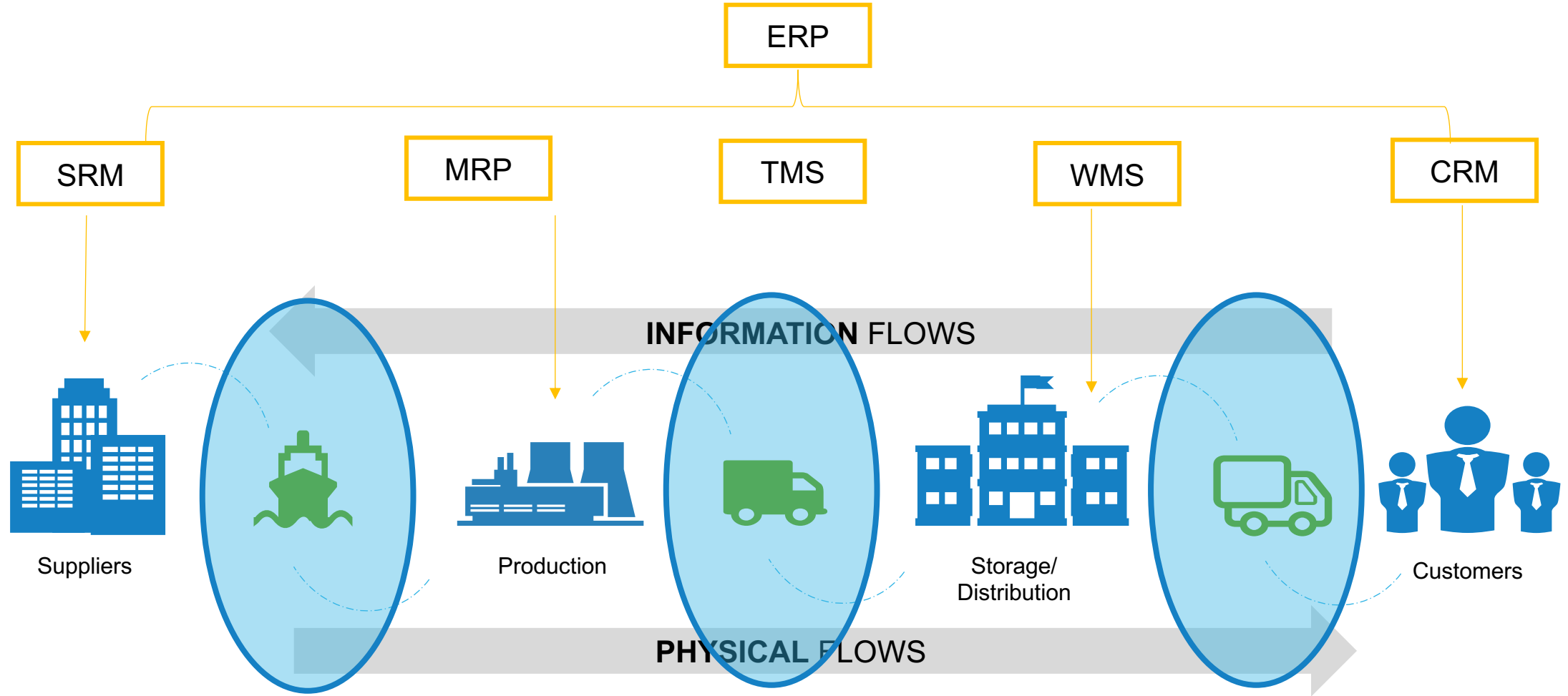
# TOUCHPOINTS

In complex supply chains it's evident that cross functional trust and stakeholder cooperation, excels when parties can hypothetically **see, handle,** and **touch** inventory.

# The lack of trust - the lack of TOUCHPOINTS - creates supply chain inefficiencies

- ✔ Overcompensation: The Bull Whip effect
- ✔ Increased inventory: I will ship two just in case
- ✔ Expediting: Where is that container?
- ✔ Administration: I sent you the paperwork last week!
- ✔ Financial: How much cash is tied up in inventory in transit?
- ✔ Customer service: What, it has not arrived again.

# New emerging technologies have been increasing virtual touchpoints in supply chains with trusted data



# Conflicting interests of stakeholders involved in managing inventory along the supply chain can lead to inefficiencies

GOAL	SHIPPER	3rd PARTY
Right product	✓	
Right quantity	✓	
Right condition	?	?
Right place		✓
Right time		✓
Right customer		✓
Right price	✓	

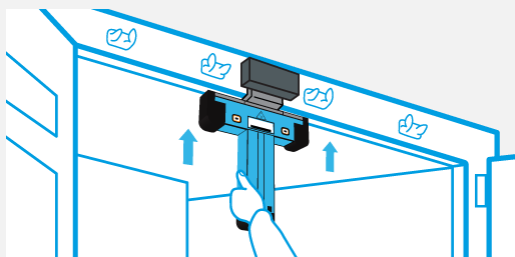


**Given these challenges, the best solution would be to travel with the inventory!**





# Monitoring inventory with technology at the edge of the network ensures continuous touchpoints



Data through monitoring devices



Data analytics and notifications



Global device logistics

# Visibility

(Noun) the state of being able to see or be seen.

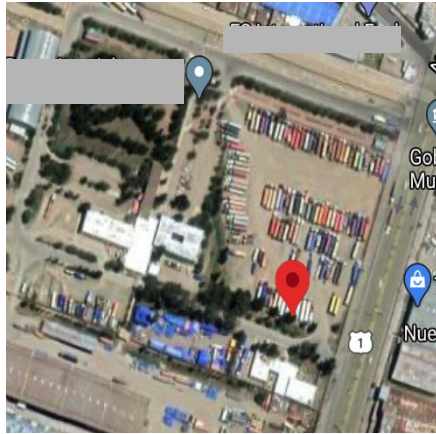
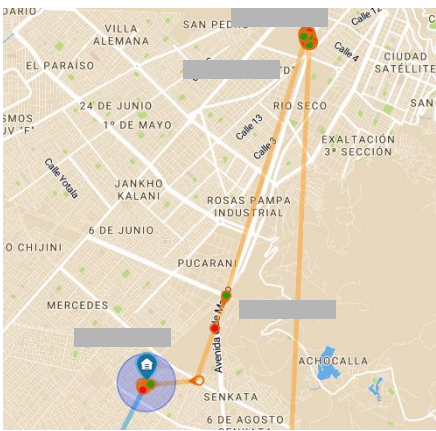
**Supply chain visibility** is all about knowing where the inventory is at a particular time, and how well components, parts, or products in transit can be traced as they move from the manufacturer to their final destination. Improving and strengthening the supply chain is the ultimate goal of supply chain visibility.

# Example 1: Security

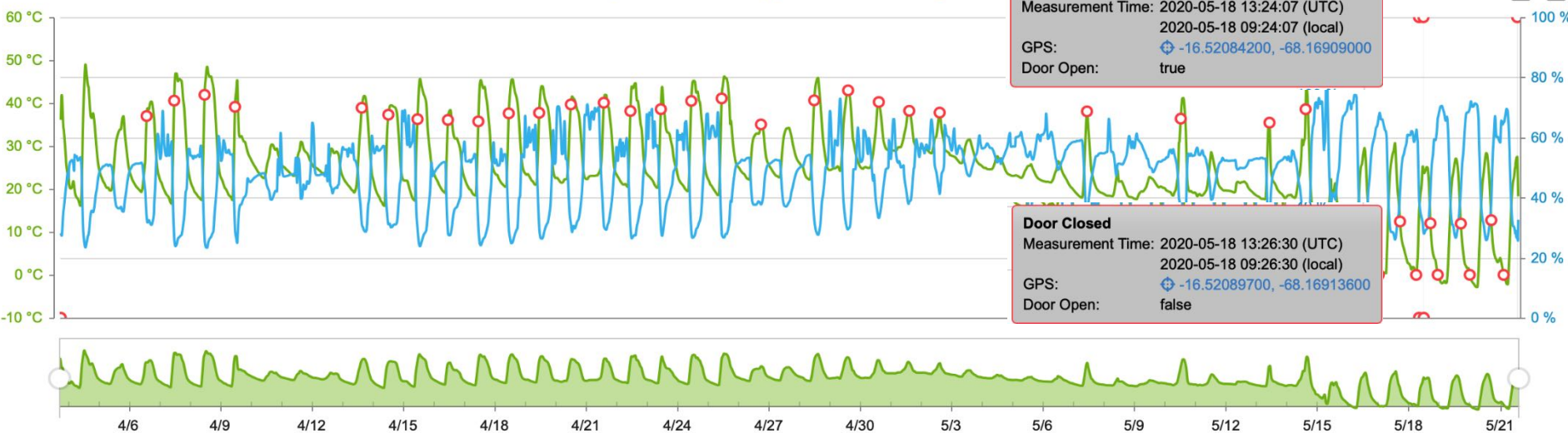
The risk to cargo

## Key observations

- Containers shipped to in-land customs warehouse
- Unplanned, 6 days
- Negative impact on temperature and humidity
- Multiple door openings
- Security Implications (C-TPAT, AEO Status)



■ Door Open ■ Internal Temperature ■ External Temperature ■ Internal



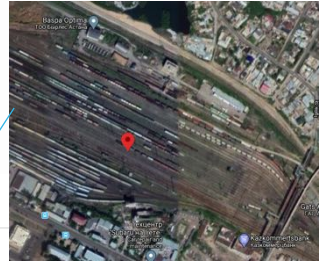
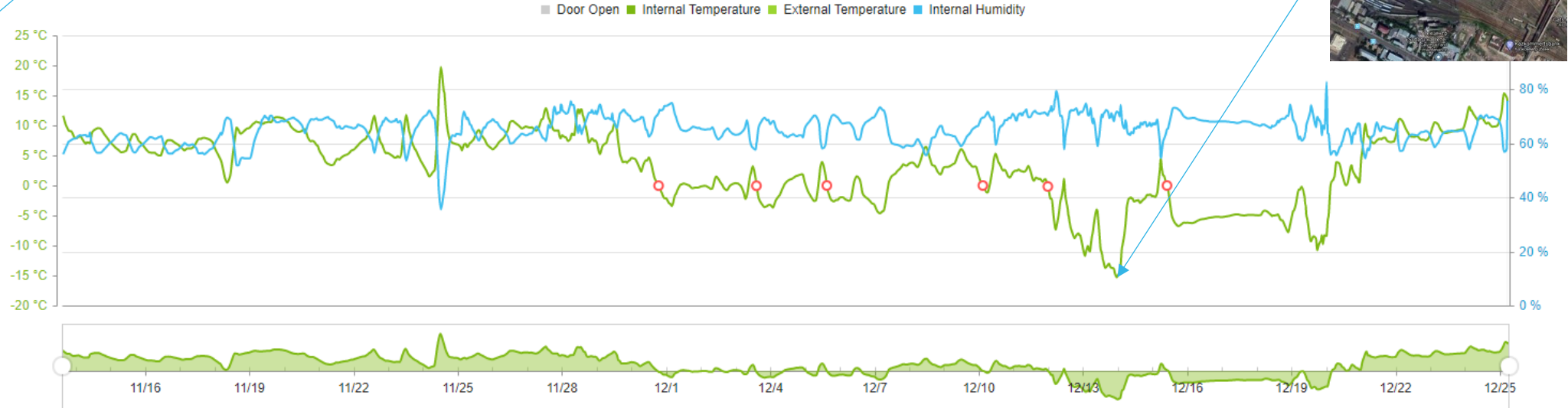
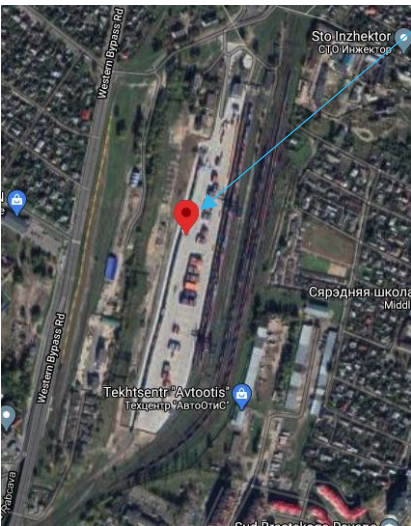
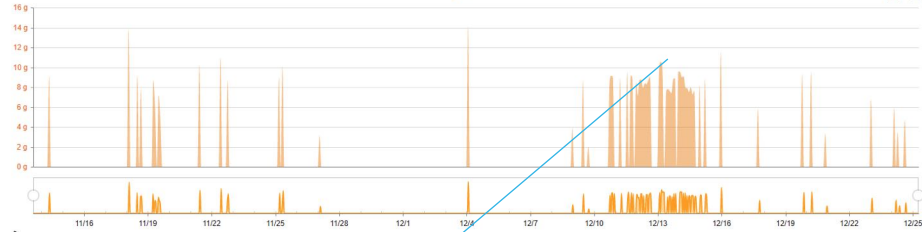
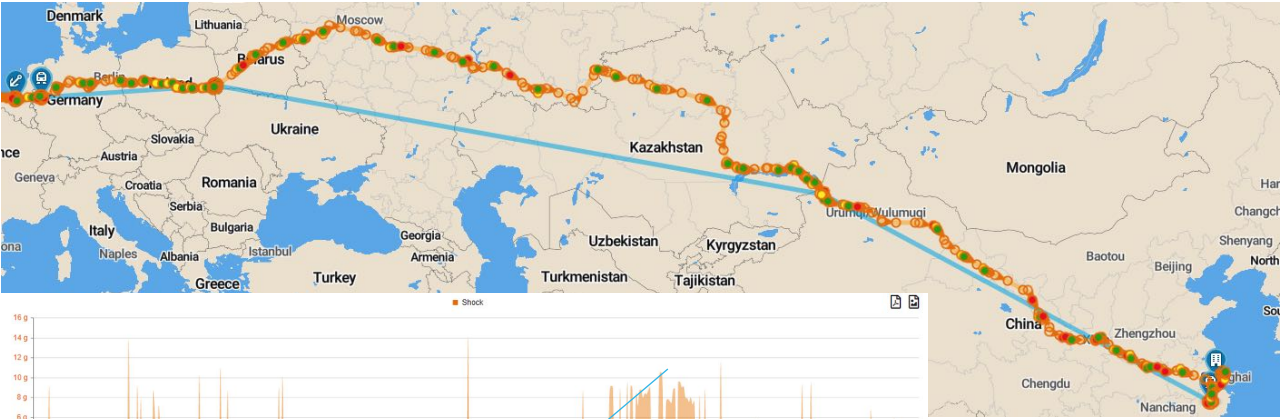
Door Closed Event	2020-05-19 09:19:12
Door Open Alarm	2020-05-19 09:16:04
Door Closed Event	2020-05-19 09:05:41
Temperature Normalized Event	2020-05-19 08:58:43
Door Open Alarm	2020-05-19 08:58:43
Temperature Normalized Event	2020-05-19 07:47:16
Temperature Alarm	2020-05-19 00:15:40
Temperature Alarm	2020-05-18 18:17:14
Door Closed Event	2020-05-18 14:04:52
Door Open Alarm	2020-05-18 13:57:28

# Example 2: Shock & temperature

Quality assurance on the Silk Road

## Key observations

- Arrived 8 days overdue
- 24d 7h from Duisburg to Yiwu (+6d 7h)
- Humidity was moderate to high throughout journey 53.6 to 82.8%
- Temperature range  $-15.3^{\circ}\text{C}$  to  $+19.73^{\circ}\text{C}$
- Shocks of 1.99g to 14.07g were detected



# Example 3: The unplanned transshipment

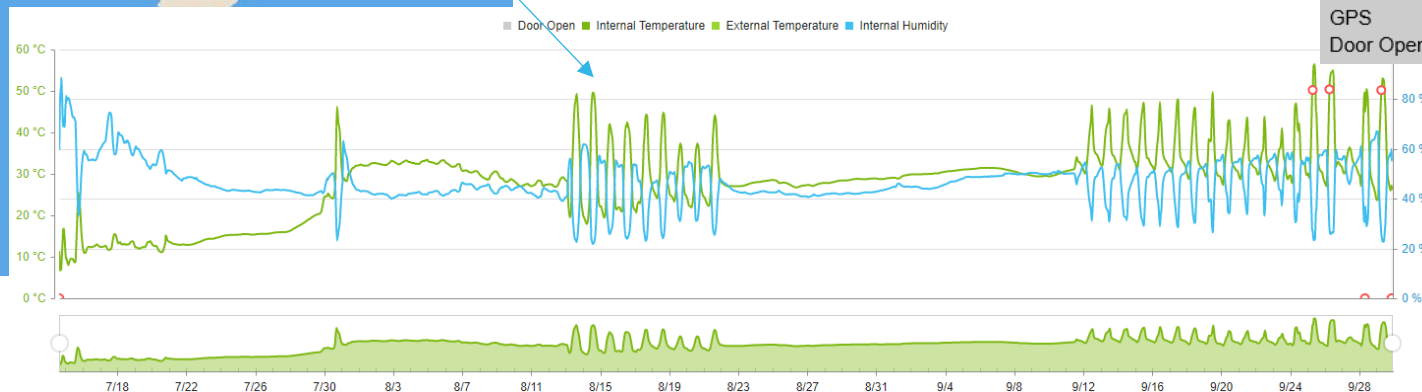
## The Mediterranean tour



## Key observations

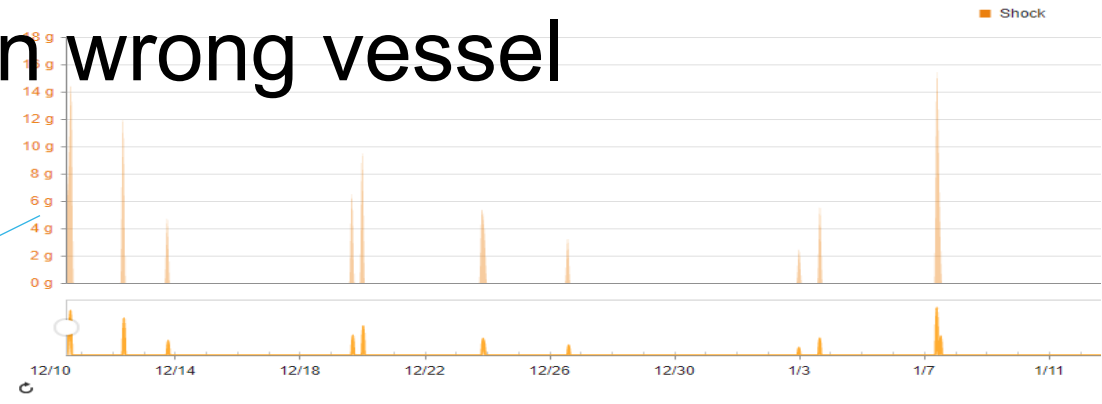
- Arrived 24 days overdue
- Unplanned transshipment in Port Algeciras (ES)
- Shocks of 19.4g detected during this transshipment
- Toured the Mediterranean
- Temperature exceeding tolerance in ports
- Quality checks triggered at ports

**Door Opened Alarm**  
Measurement Time: 2019-03-20 20:39:49 (UTC)  
2019-03-20 20:39:49 (local)  
GPS  
15.83785500, -87.93410000  
Door Open: true



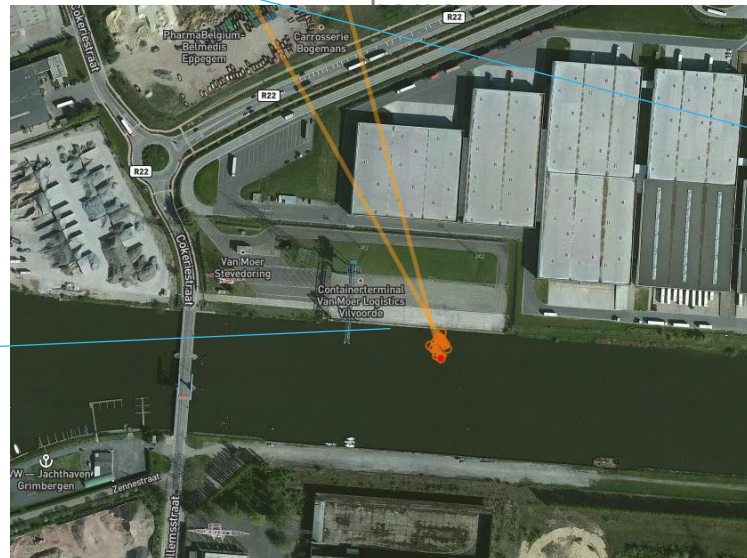
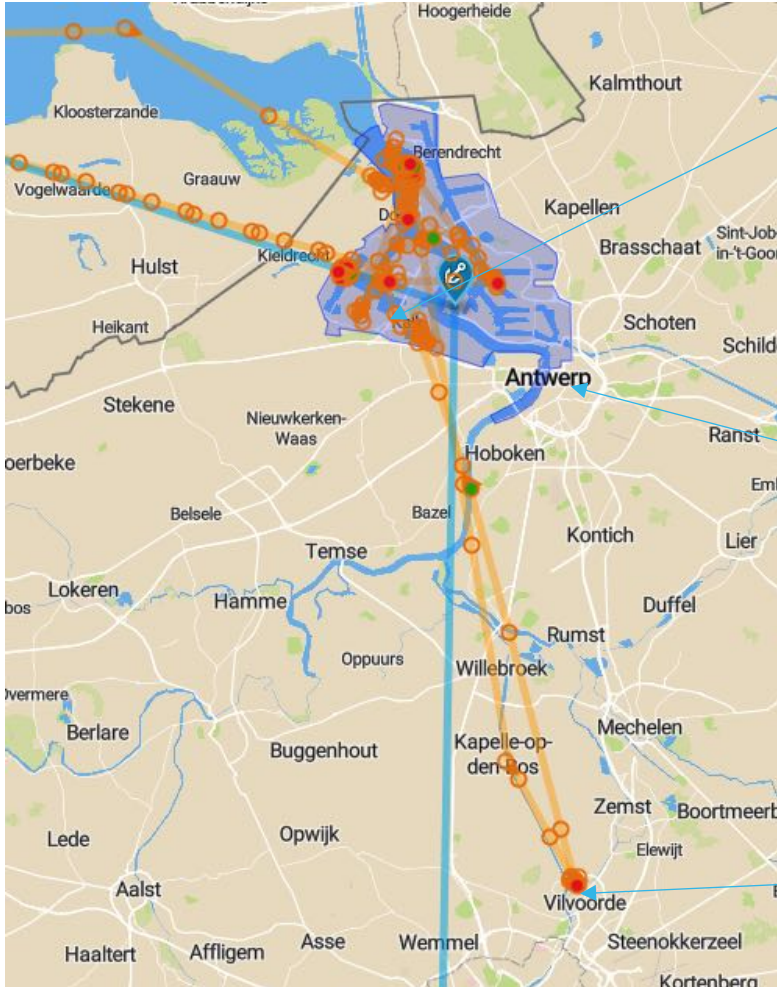
# Example 4: Container loaded on wrong vessel

The unplanned trip to Brussels



## Key observations

- Unplanned 2-day trip to Brussels via barge
- Missed its original vessel to Lagos
- As a result container spent 23 days in Antwerp (+17 days)
- Largest shock during the journey (15.45g) was during loading on



# Traceability

(Noun)

**Supply chain traceability**, is the ability to identify, track and trace elements of a product or substance as it moves along the supply chain from raw goods to finished products.

# Traceability – driving consumer confidence



**TRACKABILITY**

Record real-time data about product as they move through the supply chain.

**Track Forward**

“RECORDING”



**TRACEABILITY**

Connected evidence to prove where something has come from.

**Trace Back**

“KNOWING”



**TRANSPARENCY**

Enable customers and consumers to access relevant data about their products.

**See Through**

“SHOWING”



**TRUST**

Enhance consumer trust by sharing data and taking quick, correct actions.

“BELIEVING”



# Traceability Chains



## WHAT

- Provide consumers, suppliers, manufacturers, carriers, retailers, and regulators greater transparency on their goods.
- Increasing ability for stakeholders to meet new regulatory pressures, and allowing the retail value chain to work together more seamlessly.

## HOW

- Digitize the existing safety process, regulations, and product information on the blockchain creating a single historical record on an item by item basis
- Vendors create new levels of trust through information sharing

## BENEFITS

- Improve track and trace capabilities for the consumer and industry, resulting in preventing counterfeit items, and quicker response to recalls
- Enhanced flow and better traceability will have a material impact on shelf life management
- Lowers the ability of companies to commit product fraud, certified custom or specialty products could be sold at a premium because they are verified
- Ensure products are being sold that meet the requirements of a demanding government

# Curate data that is relevant to the consumer



## CONSUMER SAFETY

Ensuring safe, secure & legitimate product is available in the supply chain for consumers



## CONSUMER ENGAGEMENT

Increasing connectivity between consumer and supplier, creating a trusted, transparent relationship



## BRAND PROTECTION

Enhancing product security, deters entry of counterfeits and maintains brand strength



## FUTUREPROOF

Implementing a state-of-the-art solution creates a strong foundation for long-term success



# Immediate steps to take to reveal blind spots in your supply chain and increase trust

- ✓ Take a new look at inventory
- ✓ Measure the performance of your upstream, and downstream supply chains
- ✓ Assess if 'resilient trust' exists in your supply chain organization?
- ✓ Analyze if you know all the conditions experienced by your products in transit?
- ✓ Can you confidently answer customers' & consumers' questions related to ethical sourcing and procurement?

- **The pessimist, complains about the wind**
- **The optimist, expects it to change**
- **The realist, adjusts the sails**

**It is time we used the tools at our disposal to adjust our course!**



QUESTIONS ?