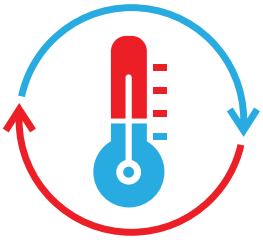
# TELEMETRY SYSTEM CASE STUDY

CASE STUDY

## THE CHALLENGE

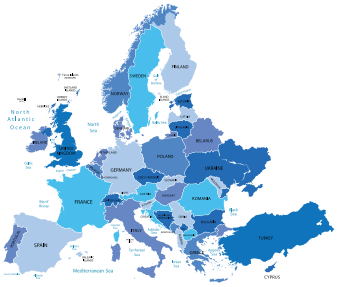
A major global coatings manufacturer with plants, warehouses, and clients throughout Europe. Focused on improvements to their supply chain with the automotive industry. The automotive industry has strict requirements for the temperature of the products upon delivery. **Managing these requirements calls for constant monitoring of product temperature and location of each tank container.**

Shipping raw materials like latex between plants within Europe including long distance trade lanes, across the continent.
**Transit times ranged between 24 hours and 12 days.**



Many of the products require heating.
**Tank container heating costs are significant.**

Utilizing multiple tank operators for thousands of shipments annually. Tank operators providing status updates on shipments, ETA and heating times. Otherwise, limited logistics visibility which leads to **delays in planning for deliveries and supply chain inefficiency.**



**Shipments are 90% intermodal, typically via vessel and rail** and a small portion via road (10%) at the beginning and ends of the supply chain.

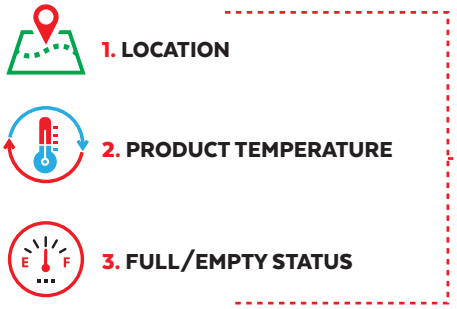
**Regularly paying demurrage fees**
when tank unloading is delayed.

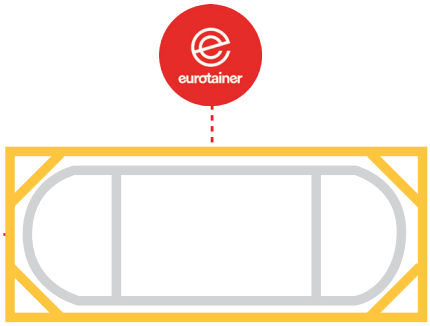

Occasional **product contamination issues due to improper cleaning of tank containers.** Off spec product disposal or remanufacturing costs incurred.

## THE SOLUTION

Replace use of one-way shipments with a fleet of dedicated tank containers.
**Install telemetry systems on all tank containers to monitor and track the containers.**

### TELEMETRY SYSTEMS TO MONITOR:



# TELEMETRY SYSTEM CASE STUDY CONT.

CASE STUDY

## THE SOLUTION CONT.

### 1. LOCATION

Obtain regular and consistent information on tank container location to enable better delivery planning to automotive industry clients.

### 2. PRODUCT TEMPERATURE

The client is now able to monitor the temperature of the product in transit so that they can determine if steam heating is required. They can make the decision quickly and based on accurate data.

Has reduced non-compliance with their end client's product temperature requirements.

Tank containers are now delivered every time at the required temperature.

Tank container heating at third party heating stations are now more closely monitored.

Our client can now see the exact time it takes to heat the product in the tank container to the required temperature.

Our client can see exactly how long the heating process takes and the third parties providing the heating services are no longer able to "round up" the heating the times as in the past.

### 3. FULL/EMPTY STATUS

The client is alerted through the telemetry platform when the tank container is loaded (product level exceeds 80% of tank capacity) and when the tank is emptied (product level falls below 20% of tank capacity). These notifications allow the client's logistics team to make real time decisions on the next steps for the subject tank container based on its location, destination and also future orders.

## THE RESULTS AND BENEFITS

### *CURRENT*

**40% reduction in total supply chain cost.**

Payments are faster. Supplier invoices are reviewed and approved for payment quickly and efficiently.

Strong cost control benefits.

Average tank heating time per tank decreased from 14 hours to 6 hours!

Lower cleaning costs as tank containers could be dedicated to a certain product.

Access to the telemetry software to third party logistics providers.

The client's accounts payable department also has access to the platform for use in validating invoices.

Improved control over third party logistics service providers.

Enhanced decision making when unplanned events occur – port strikes, railway delays and highway traffic issues.

Demurrage, storage and detention costs have been reduced significantly as the fleet is now more closely managed.

Issues and delays are discovered quickly and resolutions to these and other problems are implemented immediately.

The client has now established a university internship focused on this program.

### *FUTURE*

Adding telemetry services to their fleet of tank containers in the Americas.

Geofencing functionality.

Integration of telemetry data with ERP system.

Solar powered telemetry systems.