

## ARKEMA TAKES THE LEAD IN DIGITIZING SINGLE WAGON LOADS WITH EVERYSSENS

A global leader in Specialty Materials, Arkema operates more than 100 production facilities in Europe. To transport its products between these sites and deliver them to its customers, the group uses, among other modes, rail transport with **single railcars of the RTC (Rail Tank Cars) type**.

This type of transport was chosen because it provides a high level of safety for the transport of hazardous materials. However, it offers limited visibility on the date and time of arrival. After having carried out a pilot, Arkema chose the EverySens solution to **monitor its European fleet of 500 rail cars**.

### KEY FIGURES

3000 railcars shipped per year  
A fleet of 500 railcars  
10 departure sites



*"The digitalization of our supply chain is a key lever to increase the quality of our customer service: it is one of our priorities. We wanted to be more proactive in managing the contingencies of rail transport, which is essential to our customers for safe and responsible transportation."*



**Jean-Marc Viallatte,**  
Vice President Supply Chain Group - Arkema

*"We chose EverySens for their expertise in the rail environment, but also for the quality and interoperability of the solution, which allows us to create a single source of reliable data."*



**Damien Roussel,**  
Supply Chain Project Manager - Arkema



# Digitizing rail transport:

## A strategic performance lever

Rail is a strategic mode for Arkema. Some products can only be transported by railcar because of hazardous materials regulations. In Europe, **10 facilities use rail as a supply and/or shipping mode every week**. Every year, about 3,000 railcars are shipped to **serve customers in Europe**, depots and Arkema plants.

Arkema is one of the main users of single railcars. Most of its shipments originate in France, but travel throughout Europe. The group carries out **long-term projects to promote modal shift** and reduce its carbon footprint. It therefore plans to increase the share of rail transport in its shipments.

By partnering with Everydens to **digitalize its rail logistics**, Arkema is pursuing four major objectives.

### 1. Security and Safety

Arkema monitors the safety and security of the hazardous materials it ships from end to end, and therefore wants to be able to locate its railcars at any time. The Everydens solution allows Arkema to easily access this information on a single platform.

### 2. Quality of service

In order to inform its customers of delivery dates and their possible delays, Arkema benefits from alerts sent by Everydens in case of anomaly in the routing, as well as the calculation of the ETA (Estimated Time of Arrival), based on location tracking and artificial intelligence.

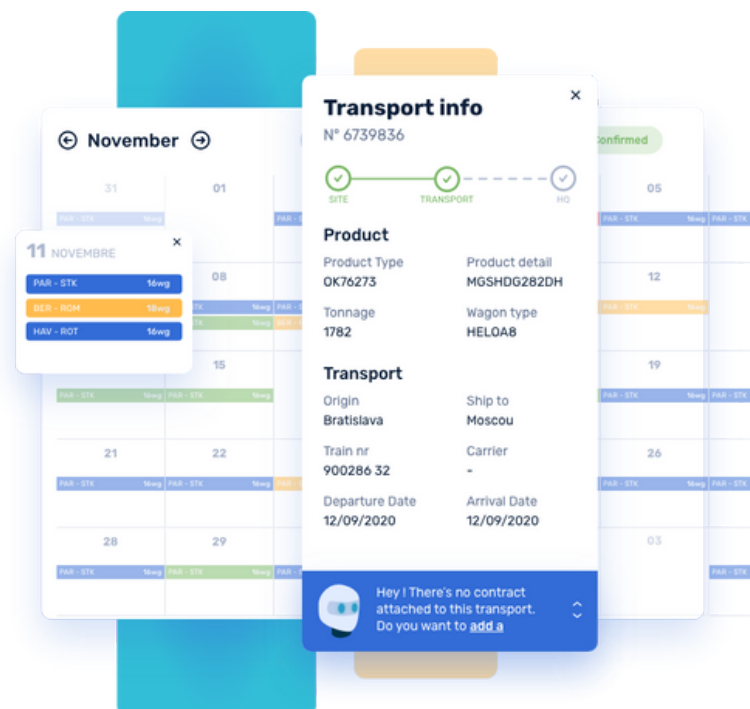
The system will soon be extended to include return flows of empty railcars, enabling Arkema to gain visibility on the forecast availability of its fleet and better plan its customer deliveries.

### 3. Fleet productivity

By accurately measuring turnaround times and their segments, Arkema can assess the productivity of its wagon fleet and ensure that it is correctly sized.

### 4. Performance of railway undertakings

The accumulation of wagon tracking data, analysis of journey times and downtime enables Arkema to assess the performance of the railway undertakings and to work with them to improve performance.



# Single Wagons: How to manage them efficiently?

## ZOOM

### The specificities of wagonload transport



Rail freight users who do not have **sufficient volume to fill a full train** can choose to ship only one or more wagons at a time, using the single wagonload system.

Shipped from sites with rail links, single wagons then pass through various marshalling yards where trains are reassembled by destination with wagons from different customers. This mode of transport is frequently used by the **chemical industry**, as some products cannot be transported by road due to their hazardous nature.

When a shipper chooses single wagonload logistics, it is the railway company that has control over the routes. For each shipment, the shipper knows the departure date and the estimated transit time. This particular operating mode **complicates the monitoring of deliveries** and the management of wagon availability. This hence limits the responsiveness of incident management.

In this context, Arkema's main objective is to **monitor its wagonload shipments** by being able to **inform the customer in the event of delays**.

### Anticipate wagons' arrival

Traditional logistics visibility solutions are not able to calculate a predictive time of arrival for a single wagon for several reasons:

- The route that a single wagon will take is not known by the principal.
- A single wagon may be associated with different trains during the journey.
- A single wagon may be subject to prolonged stops in yards or at the recipient's premises.

The algorithm created by EverySens overcomes these obstacles, making it unique on the market. Arkema thus benefits from real-time updated ETAs on its wagonloads.

### Improve operational productivity

At good issue in the Arkema ERP, shipments are sent via API to EverySens. This automatically triggers shipment tracking and ETA calculation.

In terms of productivity, a reliable ETA on single wagons has several advantages.

At destination sites, this visibility allows operational teams to **organise the unloading** of wagons more efficiently.

On the customer service side, locating wagons becomes quick and easy. This frees up time for higher value-added tasks. In the event of delays, teams can **notify customers** and take corrective action.



# Fleet Management:

## Managing the day-to-day and optimising the long-term

### Wagons turnaround: an essential indicator

For a given fleet size, the shorter the wagon turnaround time, the more goods Arkema can transport. This indicator is therefore particularly important.

The railway company may have commitments on transit time or delivery time. However, since Arkema had little data on the routes of its wagons, it could not really check whether these commitments were honoured.

With EverySens, Arkema now has an **automatic report on turnaround times** by departure zone, broken down into travel time and waiting time. The chemical company thus uses reliable indicators to collaborate with the railway companies in order to improve performance.

### Decreasing retention to improve the fleet's cost-effectiveness

For many industrial rail shippers, the wagon fleet size has a significant impact on logistics costs.

In order to be able to reduce the fleet (and therefore costs) without risking shortage, wagons must be used **as efficiently as possible**.

However, shippers still frequently face wagon immobilization issues.

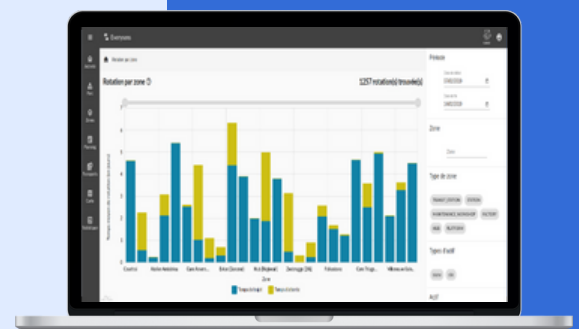
Getting **alerts and detailed reports on the immobilization** of their wagons on the EverySens solution has allowed Arkema to become more proactive in avoiding wagon retentions.



*"Monitoring retention is critical to control our rail flows. The data and analysis tools provided by EverySens allow us to be more reactive and to make reliable optimization decisions. A wagon that achieves more rotations is a wagon that brings more value to Arkema."*



**Damien Roussel,**  
Supply Chain Project Manager - Arkema



# Why Everydens for Arkema?

## Bringing rail to the same standard as road and sea

Everydens is the European leader in rail software. Designed for shippers and freight forwarders in the railway world, Everydens digitizes a range of time-consuming transport processes.

With **more than 5 years of expertise in the industry** and its issues, the company's mission is to bring rail to the same standard as road and sea transport, with an intuitive software suite that enables end-to-end rail logistics management.

## Easily integrating wagon rental companies' data

Fully interoperable, the Everydens solution integrates real-time data from **different rental companies** (Ermewa, VTG, Atir-Rail, Millet and Wascosa) **using different sensors** (Amsted, Nexxiot, Ovinto among others), thus securing Arkema's transport data.

This integration capability is essential to establish **a single, shared source of reliable data across Arkema's business units**. Accessing the data through the rental companies' solutions would mean managing the wagons via 5 different platforms. Everydens aggregates and processes the data from the rental companies' sensors for a maximum level of reliability. Arkema thus owns the data and has access to it via a single centralized portal.



*"Everydens has demonstrated its ability to meet our needs. The success criteria we set for the pilot were met.*

*Everydens is not only a expert in rail, but also in intelligent data collection and processing, as evidenced by their ETA tool for single wagons."*



**Jean-Marc Vialatte**, VP Supply Chain Groupe - Arkema

## Processing data intelligently

False information can cause more damage than no information at all. When choosing a service provider, it is therefore important to ensure the quality of the data processing.

Aggregating different sources implies a **thorough cleaning of the data**, as they come from different technologies, different frequencies and offer different levels of accuracy.

Without reliable data, the whole system collapses: alerts can be distorted, KPIs cannot be used for decision making, etc.

On all these points, Everydens has implemented smart **processing and corrective algorithms** to improve the quality of the data, in order to provide reliable geolocation, indicators and alerts.