### **VEHICLE LOGISTICS**

### Software Suite for Efficient End-to-End Vehicle Logistics

Network Planning Yard Management Workshop Track & React Transport Management



## Specialized Efficient Integrated

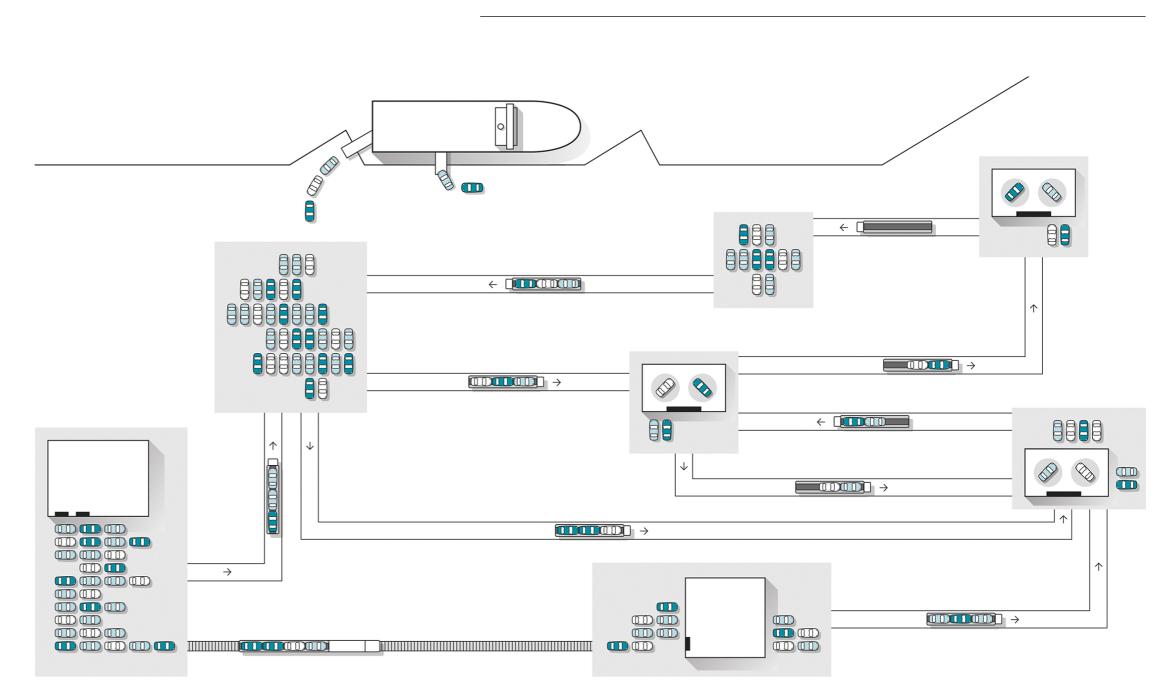
#### **COMPLEXITY IS THE CHALLENGE**

Global trends continue to see supply chains growing with production for multiple markets replacing individualized market centric production. With countless touchpoints being performed by a multitude of organizations from the factory floor to dealer showroom, leveraging logistics complexity has become an ongoing challenge in the automotive industry. The punctual delivery of a customer-specific vehicle hinges on the planning and control of the entire supply chain.

#### **INFORM VEHICLE LOGISTICS ALLOWS FOR**

- planning and controlling a comprehensive logistics network from the plant to the dealer across numerous locations and business partners
- > bringing together all vehicle and transport information into one easy to use system
- efficient planning of operations at vehicle terminals to leverage limited resources
- > delivering each vehicle in the supply chain on time, while remaining cost-effective
- reacting in real-time to current and unexpected changes in the supply chain at all levels
- > optimized organization of all yard and workshop processes
- > planning and control of all transport movements

INFORM's proven IT solution is specifically designed for the needs of the vehicle logistics sector. Users are empowered by having all the important information at their fingertips while the solution intelligently controls and synchronizes the processes of the entire supply chain supported by digital decision making. All the key areas of global vehicle logistics are optimized by the system.



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#### Benefits

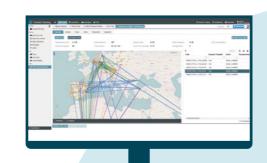
- high punctuality reduced cost
- short delivery and processing times
- high customer satisfaction
- future-proof company structures

## **Overall Modular Solution with Decision Intelligence**

The vehicle logistics solution has a modular design and can be individually configured depending on the area of application. The solution can be specifically adapted to the respective requirements of each company to best fit the overall needs. It makes no difference whether there are several thousand or many millions of vehicles to be planned within the supply chain.

#### Network Planning

INFORM's network planning of vehicle logistics networks can be used holistically from regional markets to global networks. It includes all modes of transportation to optimize and design the lowest cost network, that promises stability and excellent service. Complex tendering processes can be automated. By using the network planning tool, routes and modes of transport can be optimized depending on the expected volume, with consideration to restrictions, CO<sup>2</sup> emissions and business rules. Rolling logistics budget forecasts can be generated automatically.



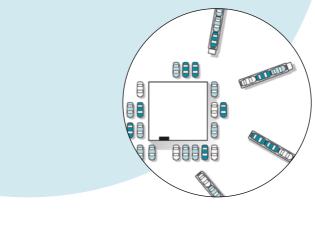
### Track & React

Knowing the location of a vehicle and its current condition, is paramount to on-time delivery and customer satisfaction. The system stores and manages the information for every vehicle in the system (VIN, origin, position, destination, delivery date, etc.) which can be traced throughout the entire logistics network at any time. Delays, damages, and special events are documented and can be sent as alarms to the user or to business partners to enable prompt reactions in order to maintain a high service level

#### Administration

Central administrative requirements such as resource and VIN management, logistics process management, contract management, invoicing, EDI messages and user administration are directly linked to the complex processes of operative vehicle logistics in the central system. This integration enables transparency throughout the entire supply chain and makes certain that services and efforts are captured in the field. Reporting and Controlling can be performed at a completely new level.





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Yard management is about optimizing for the present, tracking what has happened in the past, and planning future volumes to ensure that the yard can operate as efficiently as possible. With synchronicity of inbound and outbound vehicles being a main issue at many yards, optimizing the current footprint is paramount to success. The system plans the expected utilization of parking spaces for days and weeks in advance. With numerous activities being performed on a yard and vehicles needing to be moved from positions spread across acres of land, the yard management creates an unparallel advantage by optimizing round trip tours to maximize efficiency and minimize walking or shuttle bus trips to move yard workers to their next job, with real-time synchronized planning of movements, workshop tasks, and outbound transport. Real-time optimization is a main differentiator of INFORM's yard management solution.

### INTEGRATED SOLUTION

### Transport Management

By considering available truck-fleet, drivers and vehicles ready to be shipped, as well as those expected to be ready for shipment in the coming days, the system finds the optimal transport loads and routes for vehicles to the dealer. It performs match making tasks to find the optimal VIN load for each truck. Drivers can retrieve and report tasks via a mobile application. Documentation of damage, service invoicing, and staff deployment planning can be implemented efficiently and automatically to assure the maximum utilization of resources

#### Yard Management



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#### Workshop Management

Workshop tasks are generated automatically, including all spare parts required. The workshop schedule can be optimized by planning each resource and job to the minute which increases efficiency significantly, level workloads, and constantly updates based on priority status and progress. Pre-delivery inspections, upfitting and refurbishment to vehicles are integrated into yard timetables, considering personnel, resources and spare parts, and intelligently controlling all aspects for each vehicle.

# **INFORM** as an Expert for Vehicle Logistics

#### MASTERING COMPLEXITIY

INFORM VEHICLE LOGISTICS enables intelligent, strategic, and comprehensive planning of the entire transport network. All information regarding locations, logistics service providers, and partners is recorded in one system which can be utilized to design an optimized distribution network. The most economical and stable network is calculated and determined for the transport of the vehicles. All vehicles transported in the supply chain are tracked and managed within the system to aid in operational decision making and transparency.

Additionally, the system can control all processes within yards and workshops. Optimization of the yard begins from the drop of the ramp and continues through to the final outbound transport. In between the arrival and departure of the vehicles, activities such as parking allocation, location tracking, movements, equipment checks, damage inspections, and technical modification/PDI, are all managed and optimized using INFORM's proprietary system. Being able to view all information centrally at any time and controlling all vehicles at once is only possible with an intelligent vehicle logistics system. From network planning to yard management to transport control - the system allows companies to master the complexity of the entire supply chain.

### **VEHICLE LOGISTICS EXPERTISE**

#### **01** Reliable business partner

INFORM's technology experts develop intelligent ITsystems over many years of experience and proven success in a wide variety of logistics sectors. INFORM offers professional and standardized solutions that are adapted to the individual requirements of a company.

#### **02** Dedicated vehicle logistics team

Our consulting and development teams have a proven track record in vehicle logistics – worldwide. They are fully dedicated to drive the performance of OEMs, logistics service providers, and ports.

#### **03** Future proof flexible solution

Using our vehicle logistics system, companies can also benefit from the built-in Business Process Modelling Tool (BPM). It allows for mapping internal as well as customer-specific operational processes and to implement and activate them independently at any time – as required by their IT department.

#### 04 Optimization technology

Real-time control, decision intelligence and transparency of the entire vehicle supply chain is the core competence of INFORM's IT-solutions. The system thinks along with you and uses mathematical algorithms to capture, optimize and control complex processes, huge amounts of data and large numbers of vehicles.

# Each Day INFORM Systems Optimize in Vehicle Logistics

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- Handling of 400,000 parking spaces in yards and maritime terminals
- Planning of 1.300 truckloads



- Assigning of more than 60,000 tasks at vehicle terminals and workshop centers
- Processing of 300,000 vehicle related status messages through interfaces
- Managing the volume of 50,000 VINs around the world

## What our Clients Say

THE VEHICLE LOGISTICS SYSTEM ENABLES US TO USE ALL RESOURCES EFFICIENTLY AND IMPROVE OUR PROCESSES. THIS LEADS TO SHORTER THROUGHPUT TIMES AND CONSIDERABLE COST SAVINGS.

Björn Beckmann, Logistik, VW Mexico

### >>> THANKS TO THE INFORM SYSTEM, OUR WORKFLOW EFFICIENCIES AND COSTS ARE STREAMLINED BEYOND OUR EXPECTATIONS.

Alain Guillemyn, Manager Purchasing & IT, ICO nv

THE MOST IMPORTANT THING IS THAT WE HAVE BEEN ABLE TO INCREASE OUR DELIVERY RELIABILITY FROM AN AVERAGE OF 85 PERCENT TO 97 PERCENT THROUGH FASTER AND MORE EFFICIENT ORDER PROCESSING. OUR MAIN GOAL HAS BEEN ACHIEVED AND WE ARE VERY SATISFIED.

Derek Bull, Logistics Manager, Kaufmann

THE SYSTEM ENABLES US TO INCREASE THE HANDLING CAPACITY OF OUR TERMINAL AND CARRY OUT THE PROCESSES EFFICIENTLY AND TRANSPARENTLY TO ENSURE THAT OUR CUSTOMERS ARE ALWAYS INFORMED ABOUT THE STATUS OF EACH INDIVIDUAL VEHICLE.

Aleksandr Kovaljov, Member of the Board, Paldiski Northern Port







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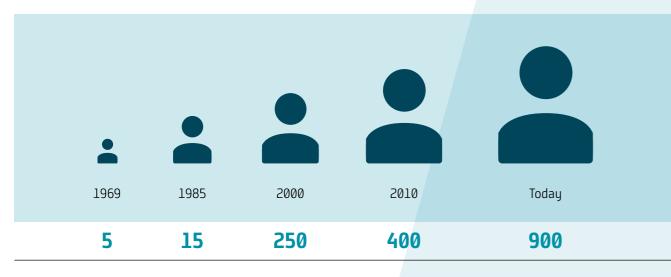




# Why INFORM?

INFORM develops software for the optimization of business processes using Digital Decision Making based on Artificial Intelligence and Operations Research. The company supplements classic IT systems and increases the profitability and resilience of many companies. While data management software only provides information, INFORM systems can analyze large amounts of data in a matter of seconds, calculate numerous decision variants, and suggest the best possible solution to the user for implementation. Today, more than 850 software engineers, data analysts, and consultants support more than 1,000 customers worldwide in manufacturing, trade, airports, ports, logistics, banks, and insurance companies. Processes, including sales planning, production planning, personnel deployment, logistics and transport, inventories, supply chain management, as well as fraud prevention in insurance, and payment transactions are optimized.

### **Employee development**



#### PROJECTS IN MEDIUM-SIZED COMPANIES AND CORPORATIONS – WORLDWIDE

Every day, our systems manage tens of thousands of employees at airports, move millions of new vehicles from plant to dealer on schedule, ensure punctual delivery of food to supermarkets and restaurants, and monitor over 250 million fund transfers for fraud prevention in payment transactions. Our employees are experts in their specific fields because, in order to optimize operational workflows through software, we need to understand them. Ultimately, our customers expect time and cost savings in highly-complex, decision-making situations – in a container port, where a container has to be moved every three seconds, for example, or in plant construction, where a machine is assembled in 30,000 processes using 5,000 parts, all which must arrive in the assembly hall in the correct sequence at the right time.

Long before terms such as artificial intelligence and machine learning were on everyone's lips, INFORM was already developing intelligent algorithms for its software products. These algorithms complement classic IT systems by analysing large amounts of data in seconds.

> SYSTEMS WITH DIGITAL **DECISION MAKING**

> > INFORMATION SYSTEMS

INFORM supplements classic IT systems with mathematical Algorithms based on Operations Research. Using our optimization software you can act





#### Intelligent

With a high planning quality appropriate to the complexity

**Ouick** With short computing times and fast adaptability of the algorithms

Digital decision making systems from INFORM propose independently optimized solutions to the user for implementation.

> Information is merely managed and does not provide users with any support in decision-making.



#### Interactive

In cooperation with people who are always in control

**VEHICLE LOGISTICS** – the comprehensive system for optimizing vehicle logistics.

Learn more: vehiclelogistics.software



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