



SMARTLANE



ESSAY GENERAL CARGO LOGISTICS

PUTTING MORE GOODS ON THE ROAD
WITH AUTOMATED DISPATCHING

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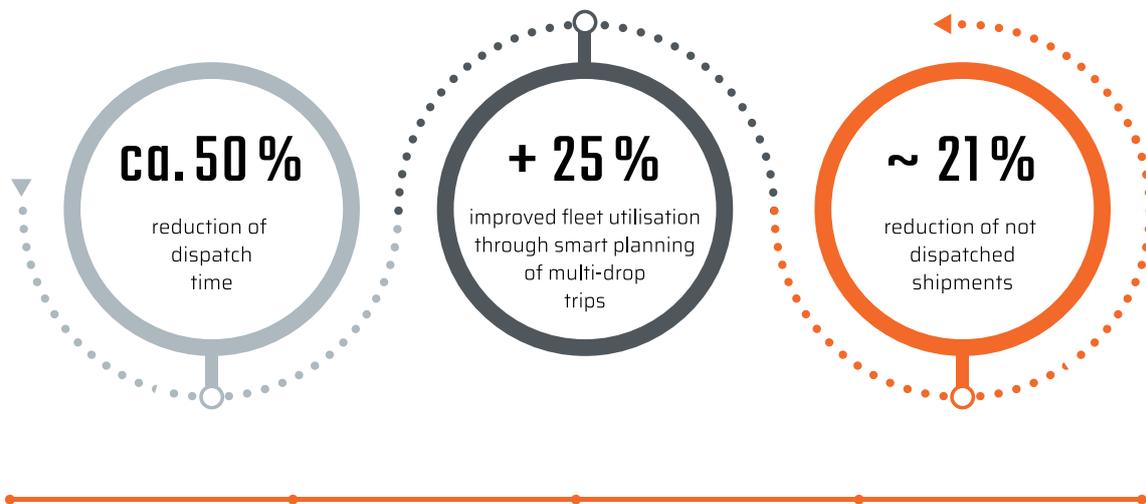


PUTTING MORE GOODS ON THE ROAD WITH AUTOMATED DISPATCHING

› Carriers and part-load logistics providers of all sizes are currently facing gigantic freight volumes. According to a press release by the German Freight Forwarding and Logistics Association (DSLVL) the total volume in the part-load business has again risen 20 % year over year to a total of 130 million items. The reason, apart from seasonal fluctuation, is the backlog the transport and retail industries have to handle because of the pandemic-induced lockdowns, along with a disproportionate increase of B2C orders. According to DSLVL estimates, all this accounts for roughly 17 % of the LTL business volume and is driving up the costs of carrier networks.

As a consequence of these developments, the industry's capacity is at its limits. Carriers respond by renting additional warehouses, acquiring additional vehicles and hiring more subcontractors while having their staff work countless hours of overtime and hiring new staff where possible. Many are planning to expand their hubs or build new depots in the medium term. Factors leading to further cost increases include undelivered shipments piling up at depots, growing numbers of return shipments from B2C business, weekend premiums, etc. Many depots are congested and increasingly unable to work efficiently or profitably, and eventually run into financial difficulties.

THE GOAL: REDUCE DISPATCH TIMES WHILE INCREASING THROUGHPUT



› Operators feel pressured to accelerate their depot turnover. Digitalisation pioneers such as Hartmann International or Wackler Spedition & Logistik have therefore sharpened their focus on automating the dispatch process. By deploying the AI-based software solution Smartlane Transport Intelligence, both companies have been able to streamline their delivery route planning and improve resource utilisation within as little as four weeks. They are putting more freight on the road and increase productivity by:

- › reducing dispatch time by 20 %
- › improving fleet utilisation through smart planning of multi-drop trips
- › cutting shipment delays by more than 10 %
- › improving planning transparency



THE KEY: PHASED SWITCH-OVER FROM MANUAL TO AUTOMATED DISPATCH

- › When making the gradual shift from manual to automated dispatch, the AI-based Smartlane Transport Intelligence technology merges data from the TMS as well as warehouse management systems, ERP software etc., identifies repeating patterns, and transforms the results into dispatch scenarios with optimised delivery routes in an automated, high-speed process. The solution accounts for all parameters that are relevant for the given case such as availability of goods, delivery vehicles and personnel, stowage position mapping, vehicle size restrictions imposed by specific destinations, maximum allowable trip duration, fluctuating transport volumes and the resulting cost increases, and many others. Stowage position mapping relates to the placement of cargo on specific vehicles because certain processes at the depot cannot be changed for vehicle loading. The processed data is then presented to the dispatchers and managers on the TMS for selection and execution of the most feasible or „driveable“ route options.



- › All the preparatory steps are done automatically by Smartlane Transport Intelligence, replacing the tedious, time-consuming and error-prone manual process of aggregating the relevant data from multiple sources for route planning. The result: faster and more efficient delivery routes thanks to the automated optimisation of fleet utilisation. Furthermore, shipments spend less time at the depot waiting to be delivered.

As for the dispatchers themselves, the AI technology streamlines their stressful day-to-day work, enabling them to put more shipments on the road per day and deliver better-informed reports on the current situation as well as forecasts. By being relieved of a significant portion of the dispatch effort, they can assume a more valuable role in customer service and retention and improve service quality significantly. What is more, the AI solution provides an unprecedented level of transparency regarding the factors influencing dispatch decisions, the outcome of the optimisation effort, and any remaining optimisation potential. Since the benefits of strategic process modifications become measurable, carriers are able to compare various strategic approaches and identify the best one. This allows them to gain valuable business insights into their operations.

Not only that, there are substantial financial benefits that can translate to true competitive advantage for part-load distributors. For example, several reference customers have reported that using Smartlane Transport Intelligence enabled them to reduce their operational fleet by 13 % and save 21 % in costs. The AI-based software can thus increase profitability noticeably and help struggling sites improve their margins.

DEPLOYING THE SOFTWARE THE ELEGANT WAY

- › The idea of changing routine processes ‘in-flight’ may sound rather daring. Especially under current operating conditions, with dispatchers constantly operating in disaster mode while facing virtually insurmountable difficulties trying to handle the enormous increase of shipment volumes, companies find it hard to carve out enough time for a dispatch automation project.

This is exactly what Smartlane pursues a „parallel“, non-disruptive implementation strategy. As a solution designed to read and process TMS data via an interface during routine operations, Smartlane Transport Intelligence is ideally suited for step-by-step, assisted implementation „in the background“. It is designed specifically for the particular challenges facing the part-load distribution business, i.e. for implementation in this high-stress, fast-paced environment.

Putting more freight on the road while reducing costs, planning times and the dispatcher workload, and cutting CO₂ emissions by improving fleet utilisation through smart multi-drop delivery route planning - all this does not have to seem like a vision for a distant future. It is already a reality for some segment leaders who have decided to embrace existing AI technology with a proven track record.

DEPLOYMENT EXAMPLE

HARTMANN INTERNATIONAL

OVERVIEW

- › 500+ employees
- › 165 vehicles (7,5t - 40t) - entire fleet including cargo transport
- › Part-load distribution and supply chain logistics
Subcontractors and rented vehicles used as needed
- › About 3,000 delivery orders per day at peak times
- › Transport management system without route optimisation functionality

BENEFITS OF USING SMARTLANE

- › Reduction of dispatcher workload by cutting dispatch time by four hours per day
- › All planning constraints accounted for
- › Prioritisation of urgent orders
- › Optimisation time reduced to under 30 minutes
- › 90 % of dispatch process covered by Smartlane
- › Only very minor process adjustments required
- › Go-live after one month

FUTURE OUTLOOK

- › Concept for integration of order collection
- › Phased implementation of unconstrained route optimisation