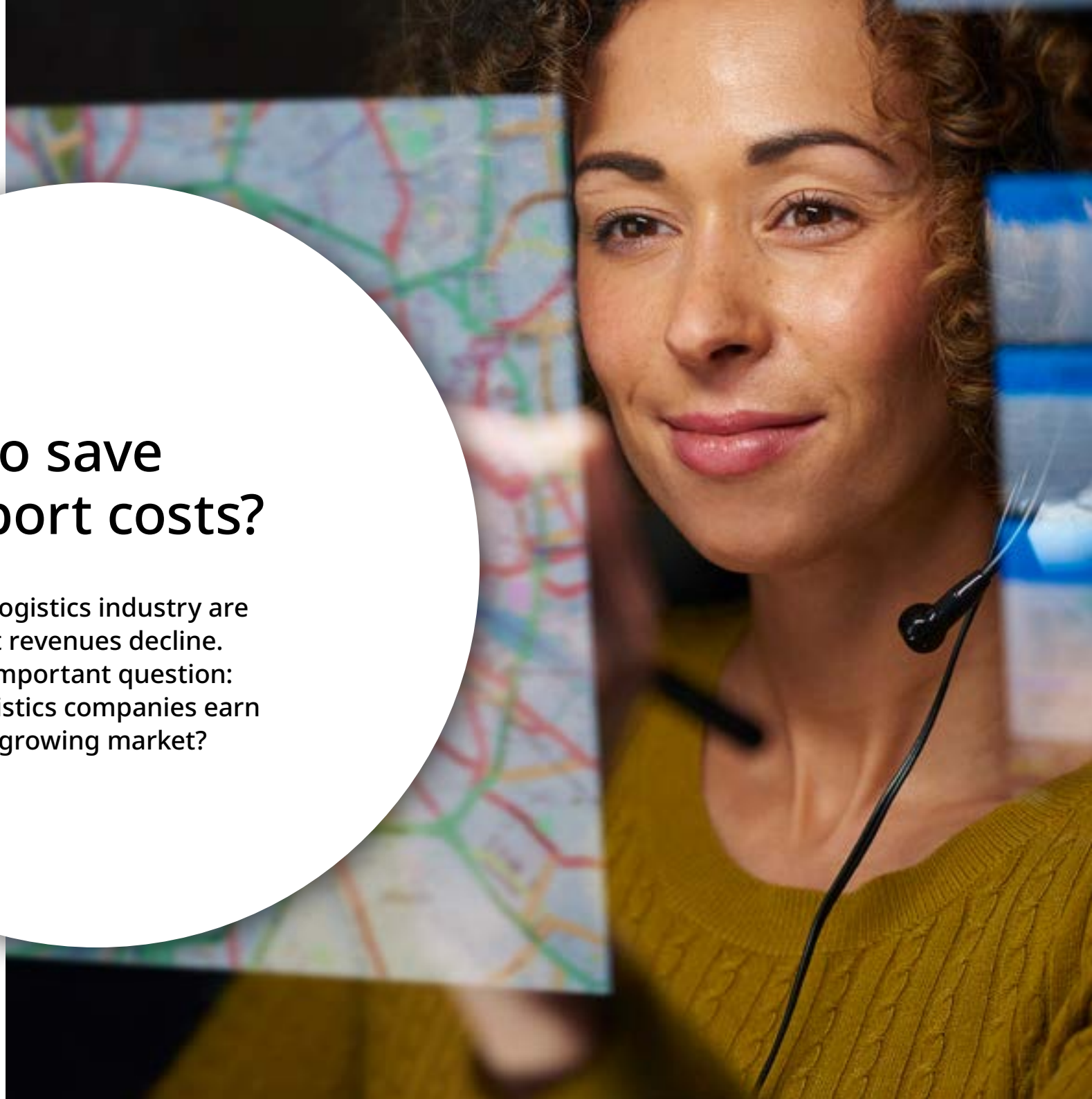


White Paper

How to save transport costs?

Sales in the logistics industry are growing, but revenues decline. It raises an important question: How can logistics companies earn more in this growing market?



INTRODUCTION

The demand for transport logistics is increasing, but are your returns also increasing? A route planning software helps to save on fuel and personnel costs, and to use vehicles and drivers more efficiently.

Read how in this white paper.

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TRANSPORT COSTS CONTINUE TO RISE

The demand for transport is growing. That seems like good news for logistics companies. However, all that extra work has so far yielded little. In fact, because transport costs rose even faster than turnover, the return on investment decreased slightly.¹



In particular, fuel costs and wage costs have risen sharply. In addition, due to the growing demand for transport, logistics companies have invested extra in equipment and personnel.

The value of a route planning software

In short: the turnover in transport is growing, but the yield is decreasing. This raises several questions: How can transport companies earn more in this growing market? How can companies prevail against the competition in this highly competitive industry and still make money? And can transport companies keep their costs under control or even reduce them?

A route planning software offers a solution. It automatically distributes all orders across the fleet. The orders indicate at which location a truck must stop, and the software then calculates the optimal routes along those locations. This way, you get the most efficient transport planning and save valuable kilometres and hours.

¹ 'Increase in wage costs and sharp rise in diesel prices put pressure on efficiency growth', Panteia commissioned by the National and International Road Transport Organisation (NIWO), 2 July 2018.

SAVE ON MILEAGE

The challenge is well-known: What is the shortest route between a number of locations? With each additional location that is added to a trip, the number of possible routes grows exponentially. Things get even more complicated when more than one vehicle is involved.

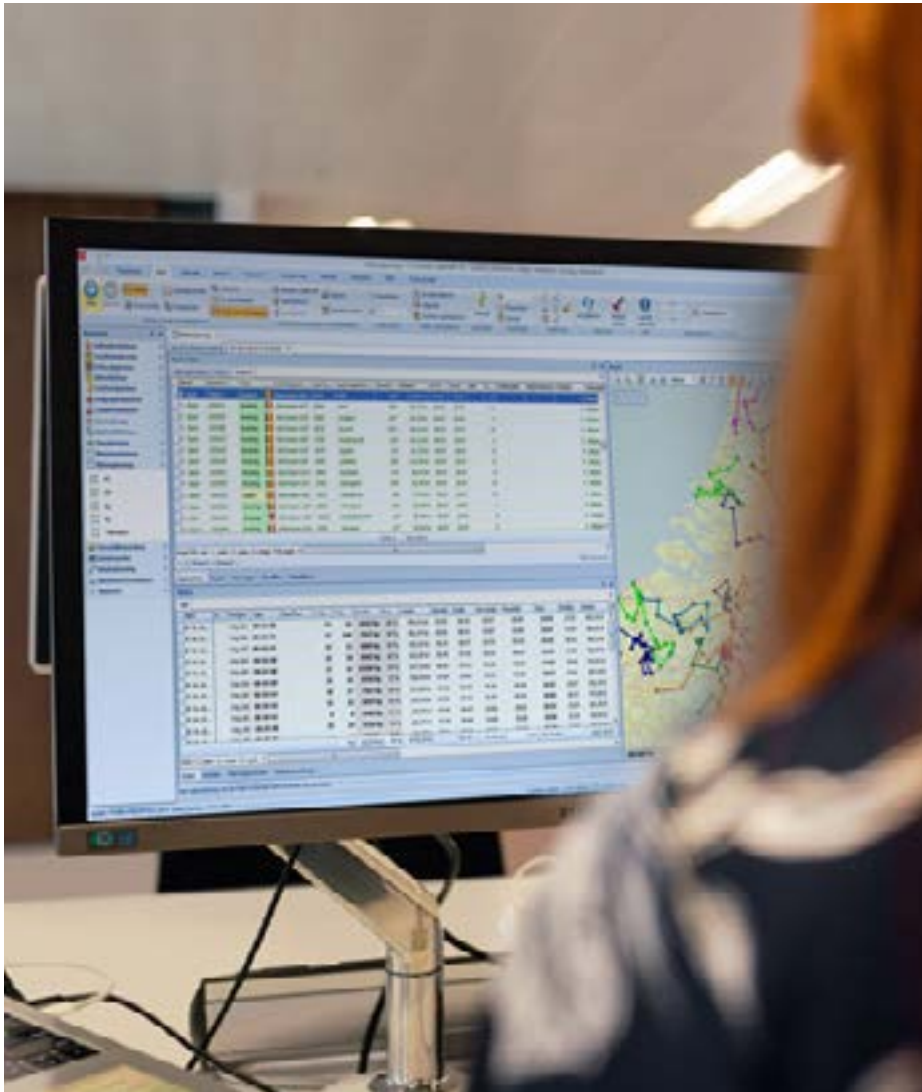
No manual calculation

Manually calculating the optimal route is virtually impossible. Even a route planner that calculates and compares all options one by one needs far too much time. This is especially true for companies with a large fleet of vehicles and hundreds of delivery orders.

Many planners don't even try to find the optimal solution anymore. They often use a simplified planning method, for example by sending the



vehicles more or less to the same regions every day. And if not all orders fit into one route, the remaining orders are transferred to the routes of neighbouring regions. That has long been a perhaps acceptable solution, but is acceptable still good enough?



Maps

With a route planning software, you can crack down any planning issue, no matter how complex it is. The basis of the software consists of map data that is always up to date. You can be confident that the system uses the most recent road network data to calculate the most efficient route for each trip.

Automatically distribute orders

With the help of intelligent algorithms, a route planning software calculates the optimal distribution of orders among the available vehicles. The system then calculates the optimal route for each vehicle along the locations to be visited. All that takes just a few seconds.

The algorithms identify combinations of vehicles and orders, so planners get an optimal planning proposal within minutes. The result: fewer kilometres per vehicle – and less costs.

SAVE ON PLANNING TIME AND RESOURCES

Manually planning routes is time-consuming. With each additional order, the complexity increases and so does the planning time. Not to mention all the restrictions that planners have to consider: Delivery agreements, time window, emission-free zones, driving and rest times, load capacity, loading and unloading equipment, etc.

With a route planning software, manual planning is no longer necessary. All orders are automatically distributed to the fleet within seconds, every day. This saves valuable planning time and allows your planners to tackle other important tasks. Better said: Your company will be able to handle many more orders with the same number of planners.

More time for customers and drivers

Route planning is a complex puzzle, with its pieces turning and changing until the very last moment. Your planners can spend hours doing it. With a route planning software, you free up time. Time for other things, such as the coordinating with customers, guiding drivers and charters, or searching for return freight.

To be clear, a route planning software cannot replace your planning department. It is a tool that allows the planners to do their job better, so they no longer have to manually drag orders to vehicles. The planners will have more time to ensure the quality of the planning and increase the level of your customer service.



More time for optimisation

With a route planning software, there is more time available for optimisation. Planners know best where the operational bottlenecks are, but manual planning leaves them little time to look for strategic solutions. If they are given a good planning software, they can deal with strategic and tactical issues: Which trips can be better outsourced? Does it make sense to invest in expanding the transport capacity?



SAVE ON TOLL COSTS

In more and more European countries, there are toll roads. No wonder then, that toll costs, in addition to fuel and wages, are an increasingly large part of the transport costs.

Of course, you can pass these toll costs to customers and include them in the quotes. But calculating toll costs manually is a time-consuming job.

In addition, different rates often apply to different roads and different vehicle classes, so mistakes can quickly be made. And every such a mistake can cost you a lot of money.



Automatically calculate toll costs

For a route planning software, calculating toll costs is easy. After optimising distribution of orders among the available vehicles, the software calculates not only the most efficient routes but also the associated toll costs. This is super-fast and easy, so you can immediately send your customers correct quotations and invoices.

What happens if for some reason you are unable to pass on the toll costs? Then you can easily calculate alternative routes with the route planning software: Is it better to avoid certain toll roads or countries? What is the effect on the number of kilometres, delivery times and fuel and labour costs? That way, you can make informed decisions.



Proactively inform customers

With PTV Logistics's route planning technology, it's possible to calculate the exact toll costs for almost all European countries. And when new tolls are introduced in a certain country, PTV enables you to calculate the impact on your transport costs well before the introduction date.

What happens when toll rates go up? In that case, many transport companies use PTV's toll calculation function to proactively warn their customers about tariff increases. This way, they can pass on unwanted or unexpected cost increases without lengthy discussions.

SAVING ON FUEL COSTS (AND CO₂)

While vehicles on average consume less and less fuel, this does not necessarily translate to falling fuel costs. In fact, research² shows that fuel costs per kilometre have actually risen in the transport sector. The main reason is rising diesel prices.

² 'Increase in wage costs and sharp rise in diesel prices pressure on yield growth', Panteia commissioned by the National and International Road Transport Organisation (NIWO), 2 July 2018.

A route planning software helps you save fuel costs. By optimally distributing the orders among available vehicles and calculating the most efficient route per vehicle, the number of kilometres travelled by each vehicle decreases. And fewer kilometres driven mean lower fuel costs.

Optimal use of fuel-efficient vehicles

However, a route planning software does more than just save mileage. When distributing the orders across the fleet, the software considers the characteristics of each vehicle: Is it a van, box truck, truck with a trailer or an LHV? Is the truck equipped with a Euro V or Euro VI engine? Are some of the trucks powered by LNG or electricity?



In short, you can use any vehicle for the routes for which it is best suited. For example, on a long journey you'll benefit more from a fuel-efficient Euro VI-powered truck, than on a short drive. For last-mile delivery, it may be more efficient to use an electric vehicle in the city centre. This way, too, you can save on fuel costs.

Extra advantage: less CO₂ emissions

Fuel costs are determined not only by number of kilometres and fuel consumption. Other important factors are the driver's behaviour and altitude differences of the route. A route planning software allows you to consider driving behaviour when scheduling drivers. What about routes with uphill drive, which require extra fuel? In this case it might be useful to reroute to a route with less height differences even if that means adding some extra kilometres.

An additional advantage is that by saving fuel you also reduce the amount of CO₂ emissions and other harmful substances. For more and more clients, this is an important criterion in tender procedures. Plus, there is a growing prospect of governments taxing CO₂ emissions. In that case, less CO₂ emissions mean fewer costs.



MORE EFFICIENT USE OF TALENTS AND RESOURCES

You want to use your fleet as efficiently as possible. As long as your trucks are not full, they incur costs that do not generate turnover. Moreover, if the distribution of orders across your fleet is not optimised, you will need more trucks and therefore more drivers. Given the global shortage of truck drivers, this may be a challenge.

Automatic scheduling for fuller vehicles

It is impossible to manually plan that all trucks will be full. With multiple vehicles and numerous orders per vehicle, you quickly lose the overview. Planners then fall back to fixed patterns: for example, they let the vehicles drive more or less the same rounds every day, sometimes only half full. Those rounds are not necessarily the most efficient ones.

Companies who start using a route planning software often discover that they incurred unnecessarily high costs for years. With the software, the smart algorithms find new, efficient combinations of orders that planners have overlooked. The result is fuller vehicles.

Maximum effectiveness and efficiency

The definition of a full vehicle is of course different from company to company, and from route to route. Sometimes the maximum permitted weight is reached before the truck is fully loaded. But be it number of load metres, maximum weight, or the permitted volume, a route planning software optimally distributes the orders among the vehicles. And optimal means maximum effectiveness and maximum efficiency.



MORE INSIGHT INTO TRANSPORT COSTS

Reducing costs starts with insight – of transport costs and of the various cost components. You can gain this insight with a route planning software. Every day, week, or month, you can generate the management reports you need with just a few clicks.



How many kilometres has your company driven in the past day, week or month? What was the fuel consumption and how much CO₂ was emitted? Which vehicles are the most heavily loaded? And which drivers perform best? Immediately, you will have all the information you need to further improve your operations.

Strong basis for strategic decisions

To plan is to look ahead but looking into the recent past can also help. What changes are happening in your company? Is the number of orders growing? When does it make sense to invest in additional vehicles and start a new recruitment campaign for more drivers? And what type of vehicles and which drivers do you need?

Management reports also help you in discussions with customers and partners. For which customers do you incur the largest transport costs? Are the returns sufficient or should you increase your rates? A route planning software provides the facts and figures to help you substantiate your strategic decisions.

To outsource or not to outsource?

Another recurring question is which trips your company should carry out by itself, and which can be outsourced. Is it worth sending a truck to distant destinations to deliver just a few orders? Are there fellow carriers who can do this more efficiently and cheaply? Or should you look for additional customers in those regions?

A route planning software is an indispensable link in data-driven business operations. Every schedule is stored, allowing you to collect a wealth of data about all your trips, customers, vehicles and drivers. This data is indispensable if you want to methodically reduce your transport costs.



Our software solution:

PTV ROUTE OPTIMISER



Functions:

- Automatically assign orders to resources
- Optimise the sequence of stops
- Take restrictions into account
- Create optimised route plans
- Link with TMS, ERP, WMS & Telematics
- Multi-depot planning & planning of sub-depots
- Multi-user
- ETA calculation & communication
- Extensive reporting possibilities

Benefits:

- Visualisation on the map
- Increased overview & transparency
- Reduced planning time
- Reduction of transport costs
- Better vehicle utilisation
- Improved customer service

PTV Route Optimiser customers



[REQUEST A FREE DEMO →](#)

WONDERING IF A ROUTE PLANNING SOFTWARE FITS YOUR COMPANY?

Please contact us directly for a free consultation. It's always possible for us to visit you on-site, view the current situation and discuss all possibilities. We have offices and experts all over the world.

PTV Logistics Headquarters

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76131 Karlsruhe
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Contact us!