

# GREENPLAN ROUTE PLANNING AND EXECUTION

**Up to 30%  
cost savings**  
fewer miles, fewer routes



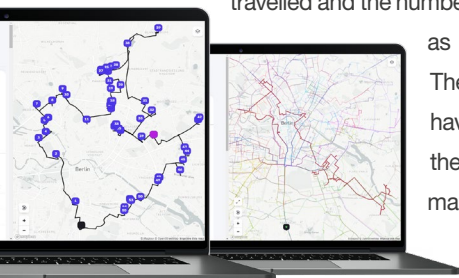
**Higher quality and  
punctual deliveries**  
thanks to ex ante calculation with  
predicted driving times

**Utmost adaptability  
of route planning**  
combining dispatcher intelligence and  
the best algorithm



# BENEFITS OF GREENPLAN

What's the best way of **cutting transport costs**, especially at a time of rising energy prices? And how can you enhance route planning efficiency while at the same time reducing distance travelled and the number of routes and vehicles as well as lowering CO<sub>2</sub> emissions? These are questions you may have been considering. We have the answer: take your transport management capabilities to the



next level with our **unique and intelligent algorithm for automatic route optimization** and planning. Greenplan delivers these benefits as one of the most powerful solutions in routing and scheduling. It can be used together with our TMS solution or as a **stand-alone transportation management** tool. Greenplan enables you to automatically calculate your routes at the touch of a button, avoid unnecessary routes, and reap the benefits of **precise ETA calculations** that factor in traffic speeds at specific times of day.

## ENGINE, PLANNING, EXECUTION – THE PERFECT ROUTE PLANNING SET-UP FOR YOUR SPECIFIC NEEDS

Greenplan offers three distinct models, each perfectly suited to elevate your route planning to the next level:

### Greenplan Engine

**Greenplan Engine** may be the piece that is missing to optimize your Transport Management System. Featuring our state-of-the-art route planning algorithm, it seamlessly connects to all common TMS via REST APIs. This allows your dispatchers to create even more efficient routes, uncover hidden cost savings, and significantly enhance the quality of all your deliveries. **Engine** is the ideal tool if you already have a TMS in place and want your dispatchers to continue using it while benefiting from the best possible routes. Enhance your route planning with this foundation for our **Greenplan Planning** and **Execution** modules.

### Greenplan Planning

Tailored planning for your specific use. **Greenplan Planning** provides a customized route planning solution that can be adjusted and optimized to meet your daily operational needs. It also enables tactical optimization of your monthly or quarterly master routes. Customization includes strategic consulting to assess the optimization potential of your long-term network setup, depot structure, or entire fleet. With our **Business Rule Engine**, you can establish a highly adaptable route planning setup, eliminating the need for the post-processing of routes and taking account of all your all your flexible optimization targets. Benefit from a unique and fully dynamic planning approach, or overlapping districts and time-of-day-dependent speed profiles.

### Greenplan Execution

Plan and execute routes with precision using **Greenplan Execution**. This comprehensive route management solution combines **Greenplan Engine** and **Planning**, enabling real-time management of your routes, stop orders, pickups, and other specific operational scenarios. With **Execution**, route planning becomes a stress-free process in your dispatchers' daily workflow. Begin planning by taking account of traffic patterns, avoiding missed time windows, and reducing the need for corrections to already planned routes. Your dispatchers will have optimal security and control over pickup and delivery execution throughout the day. Adjust routes on the go in a matter of seconds, enable same-day deliveries, and enjoy our user-friendly interface for seamless transport management execution.



**GREENPLAN**  
EXECUTION



**GREENPLAN**  
PLANNING



**GREENPLAN**  
ENGINE

## UTMOST ADAPTABILITY

### FULLY CUSTOMIZABLE ROUTE PLANNING SET-UP

Greenplan combines the world best algorithm with the intelligence and experience of your dispatchers, resulting in a fully customizable route planning set-up “tailor-made” for your requirements.

The superiority of our solution has been backed up by official comparisons and awards.



Winner of **amazon**  
**last mile challenge**  
(42% better than the MIT)

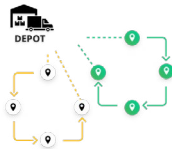
## IMPROVED EFFICIENCY

### THANKS TO FULLY DYNAMIC ROUTES & OVERLAPPING DISTRICTS

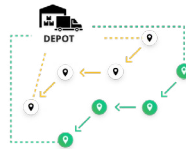
Greenplan can plan fully dynamic routes (without districts) as well as overlapping districts.

Our efficient algorithm calculates large instances quickly, while at the same time determining the optimal routes.

Day 1



Day 2

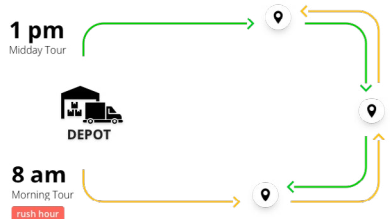


## BETTER QUALITY

### PREDICTED SPEED PROFILES

Greenplan calculates routes based on the traffic situation, taking account of factors such as the street, the day of the week or time of day in order to obtain the most realistic results.

This leads to realistic driving times and more precise ETAs.



## MADE FOR DISPATCHERS

Greenplan was created with the work of dispatchers in mind. Successful route planning relies on the planning intelligence and experience of dispatchers, which can now be elevated to the next level with our route planning algorithm. Greenplan offers a route planning set-up with the **utmost adaptability**, resulting in a fully customized tool tailored to the needs and requirements of your business. Instead of calculating new routes that do not align with the criteria and rules observed by your dispatchers, our Greenplan route planning experts collaborate on-site with dispatchers to create a suitable new model.

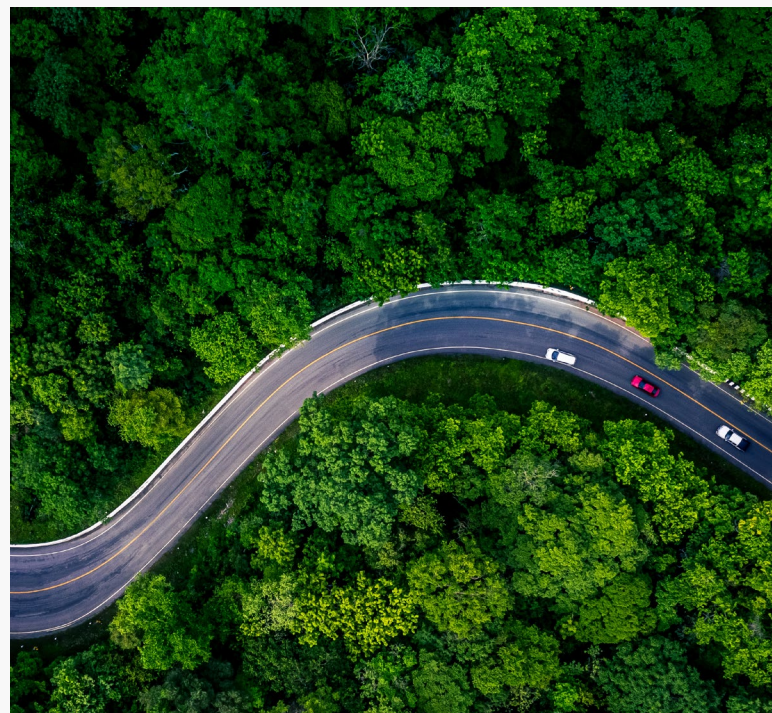
Our **Business Rule Engine** provides dispatchers with a manipulation layer to apply specific parameters and rules for optimizing routes, leading to **less stressful working days**. The constant replanning of routes at the start of the day can be avoided, as dispatcher intelligence has already been considered. With the fully customized Greenplan routing setup, dispatchers finally gain the necessary freedom in their route planning to **enhance operations and save valuable resources**.

**Greenplan Engine** can be easily integrated into existing TMS via REST APIs. This ensures that your dispatchers won't have to learn how to operate a new interface. They can continue working with your existing TMS, enhanced with Greenplan routes.

By choosing **Greenplan Planning**, you will benefit from the best and most accurate route plans, for example for daily operations or even quarterly blueprint routes. You eliminate the need for the post-processing of routes, address all your optimization targets, and meet all your specific requirements.

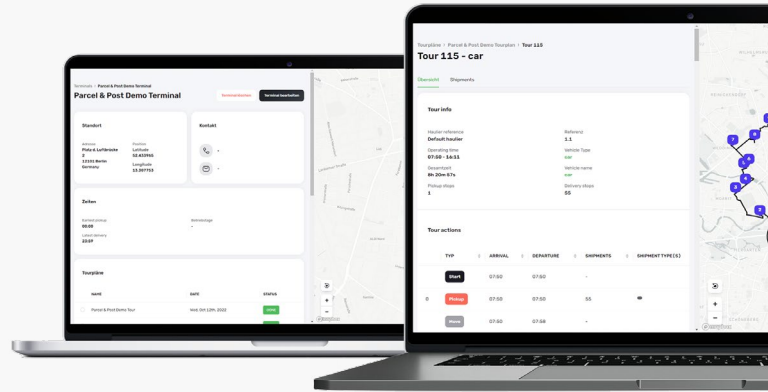
With **Greenplan Execution**, your team receives a new user-friendly interface that allows for intra-day adjustments in seconds, facilitates same-day deliveries, and provides optimum security and control over your deliveries and pickups.

Ultimately, this results in routes that offer cost efficiencies of up to 30%, ensure punctual deliveries with a rate of up to 98% of your communicated ETAs, reduce both routes and vehicles, and lower CO<sub>2</sub> emissions simultaneously. Greenplan leaves you with optimized routes, improved operations, and happier dispatchers.



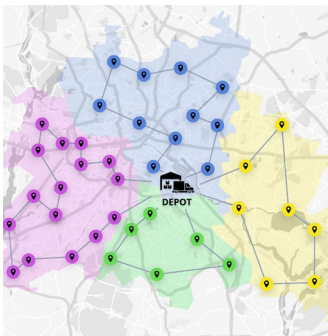
# GLOBALLY UNIQUE VALUE PROPOSITION: OVERLAPPING DISTRICTS

Delivery areas can be optimized as a whole thanks to a unique, fully dynamic planning approach that is not dependent on geographical borders. Overlapping districts offer the optimum compromise between handling time (driver's knowledge) and journey time.



PostEurop  
Innovation  
Award

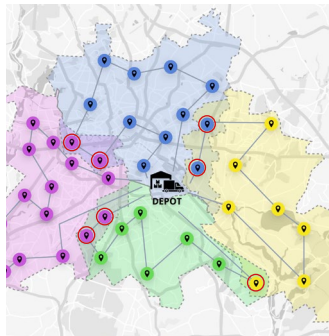
## Fixed districts Optimum handling times



**Advantages:** Drivers are familiar with all addresses

**Disadvantages:** Longer driving times, more vehicles on the road

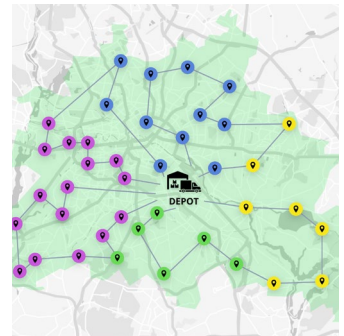
## Overlapping districts Optimum compromise



### Ideal combination of both approaches:

drivers still familiar with over 80% of addresses  
 overlapping districts allow for intelligent load distribution

## Dynamic planning Optimum efficiency



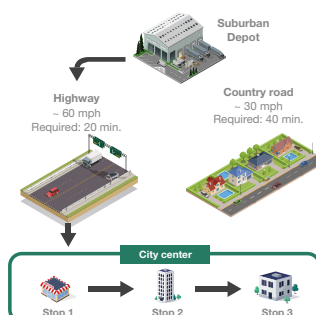
**Advantages:** Most efficient routes (driving time)

**Disadvantages:** High percentage of new addresses for drivers, resulting in longer handling times

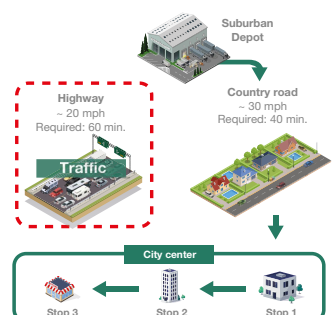
# TIME-OF-DAY-DEPENDENT DRIVING TIMES

Planning meets reality: Greenplan takes time-of-day-dependent traffic flow speeds into account during planning. This guarantees optimal planning of stops and adherence to the specified time windows. Driving times can vary each day due to the current traffic situation. The Greenplan algorithm makes its calculations using travel times that are dependent on the time of day. To do so, it uses realistic, historical data - right down to the level of specific roads and at 5-minute intervals, 288 times per day.

Example 1: Midday route (noon)



Example 2: Afternoon route (5pm)





### Courier, Express, Parcel & eCommerce



European Express  
Company: Nearly 30%  
reduction in km driven



### Road Freight & Carriers



Global Road Freight  
Company: 8% better  
than next competitor  
(European tender)



### Field Services



German Facility  
Management Company:  
Jobs increased from 3 to  
7 per day/technician on  
average



FMD

### Grocery & Home Delivery



European Retailer with up  
to 7.5% cost reduction  
based on scenario  
(8 countries)



# START YOUR TRIAL NOW:

## We'll calculate your savings:

# 30%

greater efficiency  
compared to other solutions

# 20%

reduction in CO<sub>2</sub> emissions

# 98%

punctuality rates for your  
agreed delivery times (ETA)

## THE BEST ROUTES WITHIN 4 WEEKS - GREENPLAN – ROUTE PLANNING & EXECUTION:

- ✓ Your dispatchers and our experts will work hand in hand to set up a customized model for optimized route calculation that takes your requirements into account.
- ✓ Having established a model enhanced by your dispatcher intelligence, Greenplan delivers cost-efficient, high-quality routes to ensure that time windows are perfectly met.
- ✓ At the end of the trial you will be able to evaluate the performance (from the perspectives of dispatchers and management), receive an individual implementation roadmap as well as a business case calculation considering ROI and cost efficiencies.

## See for yourself:



**“Start your  
Greenplan  
trial now!”**

- 1 Scan the QR code
- 2 Fill out the contact form
- 3 We'll calculate your individual savings potential

# GREENPLAN WINS INDUSTRY-LEADING AWARDS



**PostEurop  
Innovation Award  
2020**

for overlapping  
districts

**2020**



**Amazon Last Mile  
Challenge 2021\***

\*42% better than  
second place (MIT);  
220 participants from  
22 countries

**2021**



**of 7 scale-ups to make  
500m online purchases  
more sustainable**



Google Cloud

**2022**



**Best Product  
LogiMAT 2023**

in the category  
"Software,  
Communication  
& IT"

**2023**

## EPG IN NUMBERS



★★★★★ **MORE THAN  
1,600 CUSTOMERS**



**900+**  
EMPLOYEES WITH  
VAST **LOGISTICS  
KNOWLEDGE AND  
INDUSTRY EXPERTISE**

OUR SOLUTIONS  
ARE AVAILABLE IN  
**50+ LANGUAGES**



**LYDIA™ VOICE  
FASTEST GROWING**  
VOICE SOLUTION IN THE WORLD  
AND **#1 VOICE SOLUTION** FOR  
ANDROID DEVICES

**35+ YEARS**  
LOGISTICS EXPERIENCE



**600,000+**  
USERS WORKING  
DAILY WITH  
EPG SOLUTIONS

**TOP 5**  
WAREHOUSE  
MANAGEMENT SYSTEMS  
**WORLDWIDE**



## EPG – Smarter Connected Logistics

EPG is a leading international provider for a comprehensive Supply Chain Execution Suite (EPG ONE™) and employs 900 people at 23 locations around the world. The company group provides its more than 1,600 customers with WMS, WCS, WFM, TMS and voice solutions to optimize logistics processes – from manual to fully automated logistics environments. EPG solutions cover the entire

supply chain: From warehouse and road to ground and cargo handling solutions at airports. With the EPG AEST™ Aviation Execution Suite, EPG offers an all-in-one solution for airport logistics and ground handling. Logistics consulting, cloud services, managed services and logistics training courses at the company's own academy round out the comprehensive list of solutions from EPG.