

The logo consists of the text "PTV" in white on a dark red rectangular background, followed by "LOGISTICS" in white on a black rectangular background. The background of the entire slide is red with abstract white and light red geometric patterns, including lines and dots.

PTV LOGISTICS

PTV LOGISTICS DAY 2024

Sala Joule | Cariplo Factory, Milano

7.nov.2024



PRODUCT VISION & PORTFOLIO



Marco Picciafuoco

7 novembre 2024

PTV LOGISTICS DAY

MILANO

MILANO

**CAMBIA
MENTO**

MENTO
CAMBIA

SAAS

2AA2

CLOUD

cloud

**CONUN
DRA**

COMMUNITY
DRAFT

PTV
OPTIFLOW

PTV
OPTIFLOW

OTTIMIZZAZIONE

ASIMMITTO
AZIONE

**ALGORITMO
INNOVATIVO**

ALGORITHM
INNOVATION

**BEST IN
CLASS**

BEST IN
CLASS

PTV
AXYLOG

VTQ
DOJYXA

EXECUTION
360°

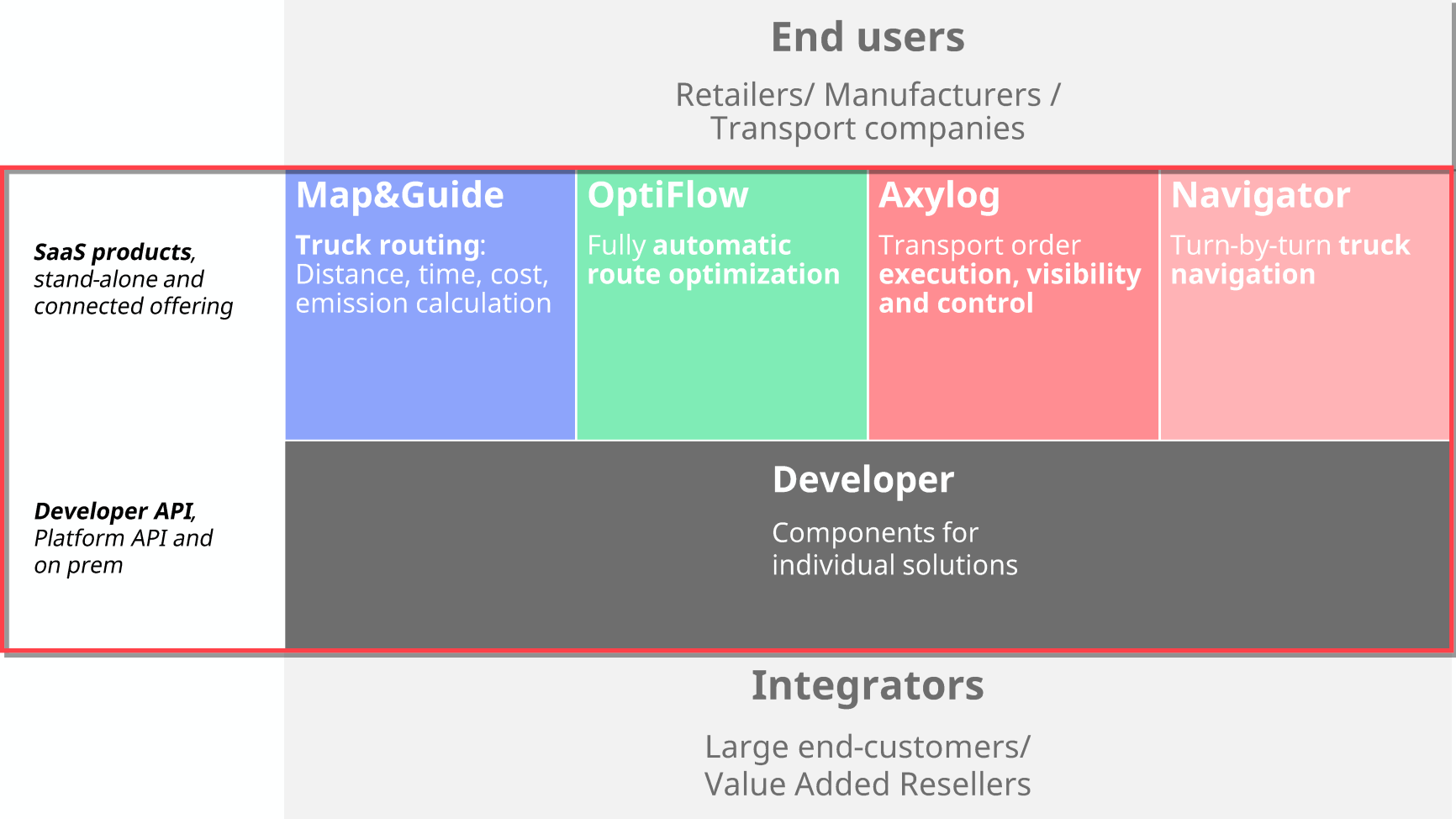


PRODUCT PORTFOLIO





PRODUCT PORTFOLIO





PRINCIPALI OBIETTIVI 2024

- **OTTIMIZZAZIONE -> NUOVI CASI D'USO;**
- **INTEGRAZIONE TRA PIANIFICAZIONE/OTTIMIZZAZIONE ed EXECUTION per PIANIFICAZIONE DINAMICA;**
- **PIANIFICAZIONE/OTTIMIZZAZIONE/EXECUTION più REALISTICI grazie ai DATI STORICI DEL TRAFFICO (time dependant travel times)**



PRINCIPALI OBIETTIVI 2024

- **NEW Route Optimization OptiFlow API** tra quelle già disponibili con i **PTV DEVELOPER**
- **NUOVA VERSIONE** -> **PTV MAP&GUIDE**
- **NUOVA VERSIONE** -> **PTV NAVIGATOR G2** sviluppato in collaborazione con TomTom
- Ulteriori novità: EV-Logistics, AI

PRODUCT HIGH-LIGHTS 2024

PTV OptiFlow

- **Performance:** 15.000+ ordini
- Dati storici del traffico (Time dependent travel times for optimization)
- + Use cases
- Integrazione Ottimizzazione e Execution
- In roadmap:
 - **Multi-Dima** (different vehicle profiles)



Dock Scheduling with PTV OptiFlow

Are your warehouse loading docks a bottleneck in your transport process? Are you struggling with peaks in loading activity? PTV OptiFlow is the solution.



Cost Optimization with PTV OptiFlow

PTV OptiFlow inherently focuses on finding the most economical delivery plans by defining specific costs for various factors.



Integration of Deliveries & Pickups with PTV OptiFlow

Are your logistics operations hampered by the inefficiencies of separate delivery and pickup processes? PTV OptiFlow revolutionizes this process.



Simplify Route Planning Amid Complex Tariff Structures with PTV OptiFlow

PTV OptiFlow offers a sophisticated solution that integrates distinct costs at the order level for any subcontractor in your plan.



Enhanced Prediction of Planned Arrival Times based on Historical Traffic Information in PTV OptiFlow

Tired of your drivers getting stuck in traffic and failing to meet your scheduled delivery times? PTV OptiFlow addresses this challenge.



Enhancing Planning Reliability with PTV OptiFlow

PTV OptiFlow creates robust plans that eliminate the need for post-planning adjustments, ensuring optimal and reliable logistics operations.



Optimizing Outsourcing Decisions with PTV OptiFlow

Do you rely on rules of thumb to decide which volumes to outsource? PTV OptiFlow eliminates guesswork by leveraging the various cost structure details.



Mastering the Art of Choosing Between Cross Docking and Direct Delivery with PTV OptiFlow

Making strategic decisions on whether to cross dock a delivery for consolidation with other shipments or to proceed with direct delivery is crucial for operational efficiency.



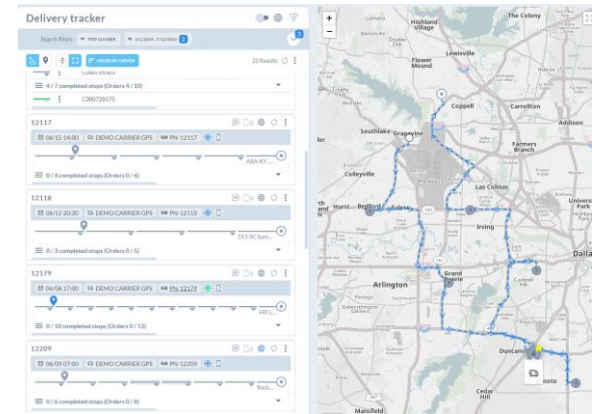
Integrated Depot and Route Optimization with PTV OptiFlow

Are you tired of the task of breaking down your planning process by first assigning deliveries to a depot and then optimizing routes for each depot individually?

PRODUCT HIGH-LIGHTS 2024

PTV Axylog

- Integrazione Ottimizzazione e Execution
- Gestione degli esiti a livello articolo
- Rilevamento automatico da parte dell'app dell'arrivo al punto di consegna
- Gestione sensori (temperature, apertura porte)
- Calcolo CO2 dei viaggi effettuati
- AI integrata per il riconoscimento immagini
- In roadmap:
 - Integrazione piattaforme e-CMR



PTV Developer

**Location Service APIs
to solve vehicle
routing problems**



PRODUCT HIGH-LIGHTS 2024

PTV Developer

Geocoding

- ▶ [Geocoding & Places API](#)
- ▶ [Geocoding & Places OSM API](#)

Maps

- ▶ [Raster Maps API](#)
- ▶ [Vector Maps API](#)
- ▶ [Vector Maps OSM API](#)

Map Matching

- ▶ [Map Matching API](#)

Routing

- ▶ [Routing API](#)
- ▶ [Routing OSM API](#)
- ▶ [Matrix Routing API](#)
- ▶ [Matrix Routing OSM API](#)

EWS

- ▶ [EWS Road Distance API](#)

Optimization

- ▶ [Route Optimization API](#)
- ▶ [Route Optimization OptiFlow API](#)
- ▶ [Sequence Optimization API](#)
- ▶ [Loading Space Optimization API](#)

Other

- ▶ [Data API](#)
- ▶ [Account API](#)

16 APIs

>160
dedicated
features

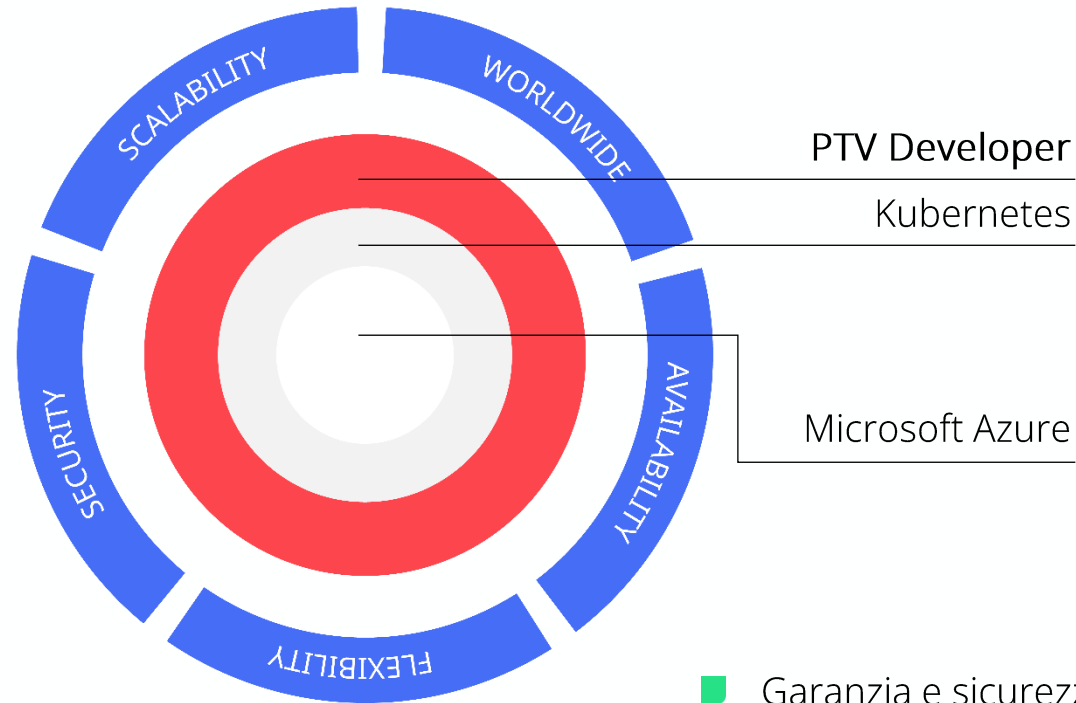
> 80
technical
concepts

> 70 code
samples

Developer
Blog

PRODUCT HIGH-LIGHTS 2024

PTV Developer



- Garanzia e sicurezza di **Microsoft Azure**.
- Scalabilità e solidità con **Kubernetes**.
- **Standard OpenAPI** per una perfetta integrazione nelle **applicazioni web-based** basate sulle moderne **API RESTful**.
- **Aggiornamenti** continui
- **GDPR compliant**

PRODUCT HIGH-LIGHTS 2024

PTV Developer

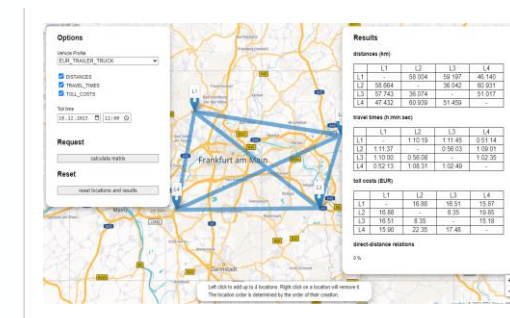
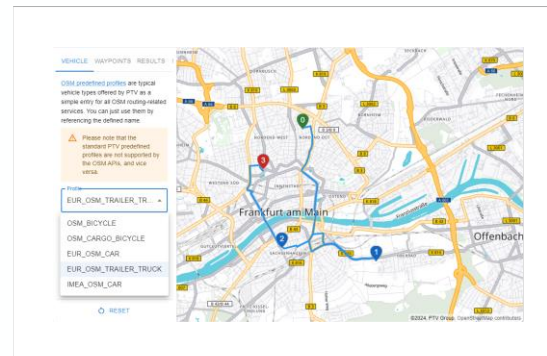
■ Calcola costi affidabili per preventivi e fatture (inclusi i costi dei pedaggi odierni e futuri)

■ Calcola le emissioni per la per essere conforme alla CSRD

■ Calcola ETA precisi per migliorare la puntualità e potenziare il servizio clienti

■ Traccia gli ordini e i veicoli per rilevare le interruzioni e garantire un servizio clienti migliore

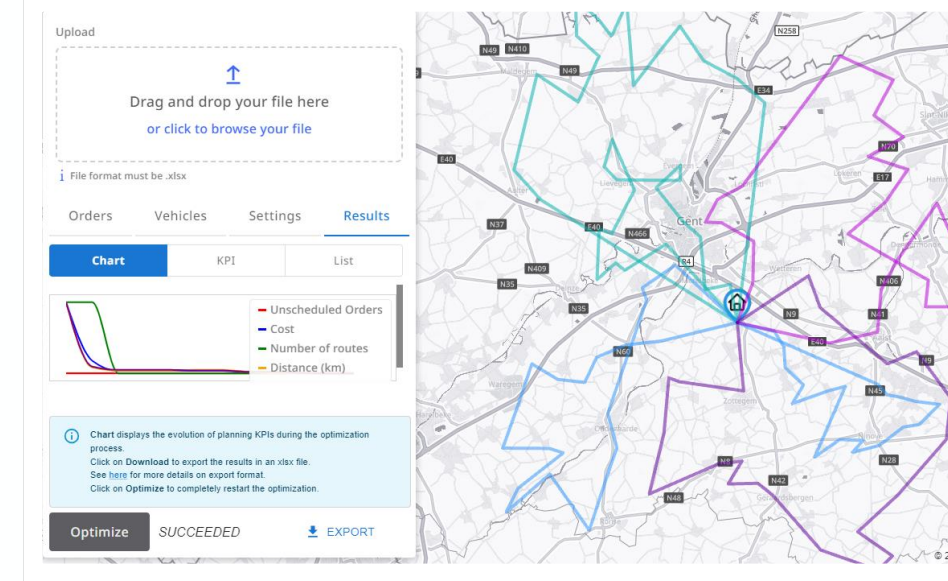
■ Genera valore e risparmi ottimizzando e calcolando i percorsi migliori per la tua flotta



PRODUCT HIGH-LIGHTS 2024

PTV Developer

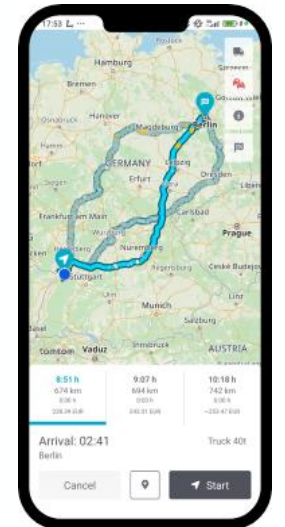
- OptiFlow Route Optimization API, 50.000* + orders
- OSM
- Pedaggi
- Traffico
- Low Emission Zone
- AI per il data cleaning degli indirizzi
- Calcolo percorsi per mezzi elettrici



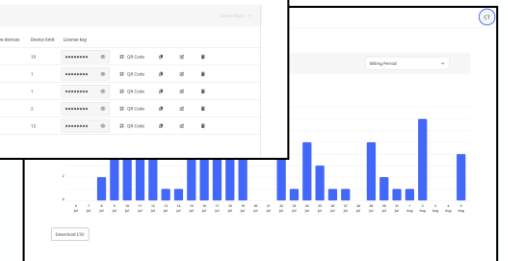
PRODUCT HIGH-LIGHTS 2024

PTV Navigator (G2)

- Most accurate and up-to-date map data, global
- Traffic information, historical and live-traffic
- Online and (brand-new) Hybrid Navigation
- Most modern UI and best UX
- Toll calculation
- Tour handling, multi-stop routes
- Route Assistant, all relevant info along the route
- Administration system for partner and large fleets
- No device binding
- Usage based pricing: Pay as you grow
- Reduced complexity in all aspects

A screenshot of the PTV Navigator app's administration system. It shows a table with columns for 'Destination', 'Status', 'Active Devices', 'Device ID', and 'Current Step'. The table lists several destinations and their corresponding status and device information.

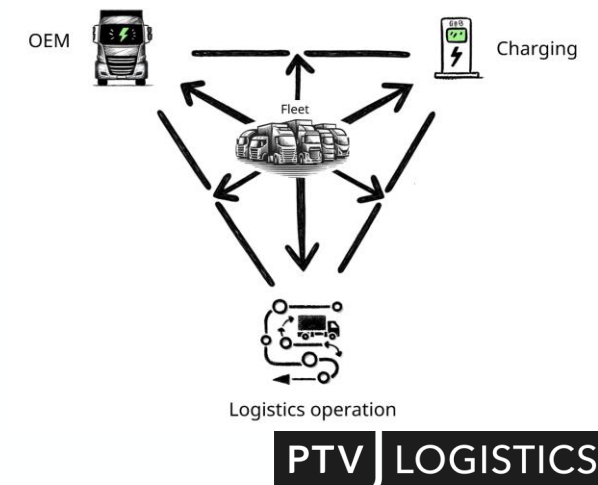
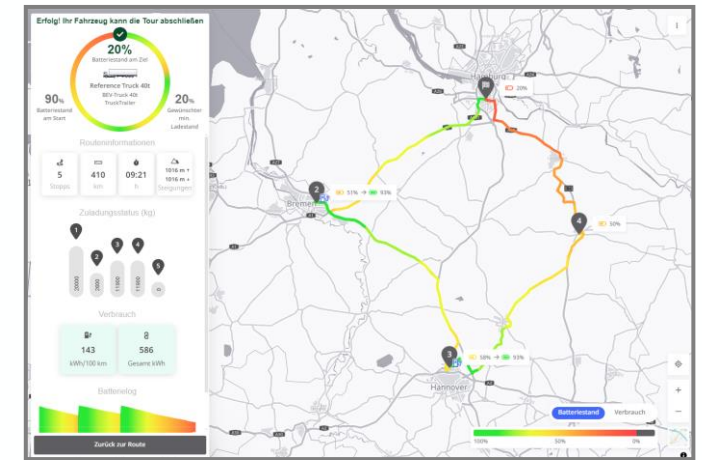
Destination	Status	Active Devices	Device ID	Current Step
Destination 1	Not Map (0.000)	0	10	00:00:00
Destination 2	Not Map (0.000)	0	10	00:00:00
Destination 3	Not Map (0.000)	0	10	00:00:00
Destination 4	Not Map (0.000)	0	10	00:00:00
Destination 5: Remote configuration	Not Map (0.000)	0	10	00:00:00



PRODUCT HIGH-LIGHTS 2024

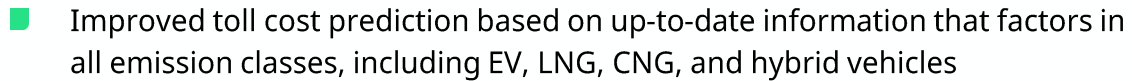
EV Truck Route Planning

- Calculation of realistic energy consumption for electric trucks and vans
- Large data base for electric commercial vehicles (more than 400 plus reference vehicles)
- Consideration of multi-stop, loading/unloading, journey elevations, weather conditions, battery aging and more...
- Optimized charging scenarios
- PTV Truck Route Planner/Analyst
 - White label
 - Consulting tool
- Embedded features in standard products
 - PTV Developer
 - PTV Map&Guide
 - PTV OptiFlow



A large white semi-truck is driving away from the viewer on the right side of a two-lane road inside a modern tunnel. The tunnel has a high, arched ceiling with recessed lighting strips. The road is marked with white lines, and the overall atmosphere is clean and futuristic.

- World map coverage
- Standard static and custom dynamic routing, providing faster calculation times and more accurate results, even for complex routes
- Seasonal and regional traffic patterns, anticipation of future traffic incidents
- Supported decision making through full route comparisons considering cost, distance, time, emissions and regional regulations



-

* The GC distance (great circle distance) is used for the allocation of the trip emissions to the individual orders.



PTV LOGISTICS

To make road logistics
intelligent, efficient and sustainable.