PTV GROUP

Keeping People and
Goods Moving Faster

CHALLENGE

As a software provider that supports decision making around traffic and logistics, PTV Group must incorporate large, disparate datasets into models and planning tools that help cities, companies, and people save money, enhance road safety, and minimize the environmental impact of traffic flows. PTV's business model includes providing very complex, customized projects, as well as packaged software that relies on standardized models.

"Predicting demand on the road is a multifaceted problem," says Carmen Nowack, solution director data at PTV Group. "To solve it, we need a really accurate model of the real world."

PTV has long tapped into many data sources - from demographic data to road information and traffic flows of commercial and private vehicles, pedestrians, bicycles, and public transportation - to build its models. Recognizing the importance of accurate, comprehensive data from commercial and passenger vehicles, PTV looked for more efficient ways to access it. "Telematics service providers have a lot of data that could inform traffic management, but it is time-consuming to negotiate separate contracts with them and integrate with their data," Nowack comments. "Data is just not their main business model."

PROFILE

PTV Group improves mobility and transport — by using world-class software, data and scientific know-how gained from four decades of experience in planning and optimizing the movement of people and goods.

HIGHLIGHTS

- Calibrated existing traffic models and created data quality measurements
- Developed new sellable projects based on automotive data within a short, three-month period
- Expect to bring new software offerings to market faster

USE CASES

Traffic Planning
Transport Network Modeling and Simulation
Real-Time Traffic Management
Mobility-as-a-Service
Logistics and Fleet Management

AUTOMOTIVE DATA TYPES

Anonymous
Historical, real-time (piloting)

AUTOMOTIVE DATA PARAMETERS USED

Vehicle location
Vehicle speed
Vehicle mode
Engine on/off

CLOUD PLATFORM

Cloud-agnostic

CARMEN NOWACK

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SOLUTION DIRECTOR DATA, PTV GROUP

WHY OTONOMO?

Otonomo helped PTV to take advantage of new automotive data sources faster and with much less effort. "Otonomo has a density of data on its platform that enables it to be used fairly quickly, and the company continues to add data providers in the connected car market," Nowack says. "Today, there are not many providers who can deliver this quality and quantity of automotive data. The most important benefit is that I don't need to address the unique requirements of individual data providers — Otonomo does that for me. Instead of performing data research, we can utilize more time for business development."

PTV started working with Otonomo at the beginning of 2018, and the collaboration gained speed throughout the year. Otonomo's ability to provide one year of historical data at the start of the proof of concept made it much easier for them to assess the feasibility and value of the Otonomo data. Integration took place during the proof of concept. "The Otonomo API was easy for our developers to work with," Nowack reports.

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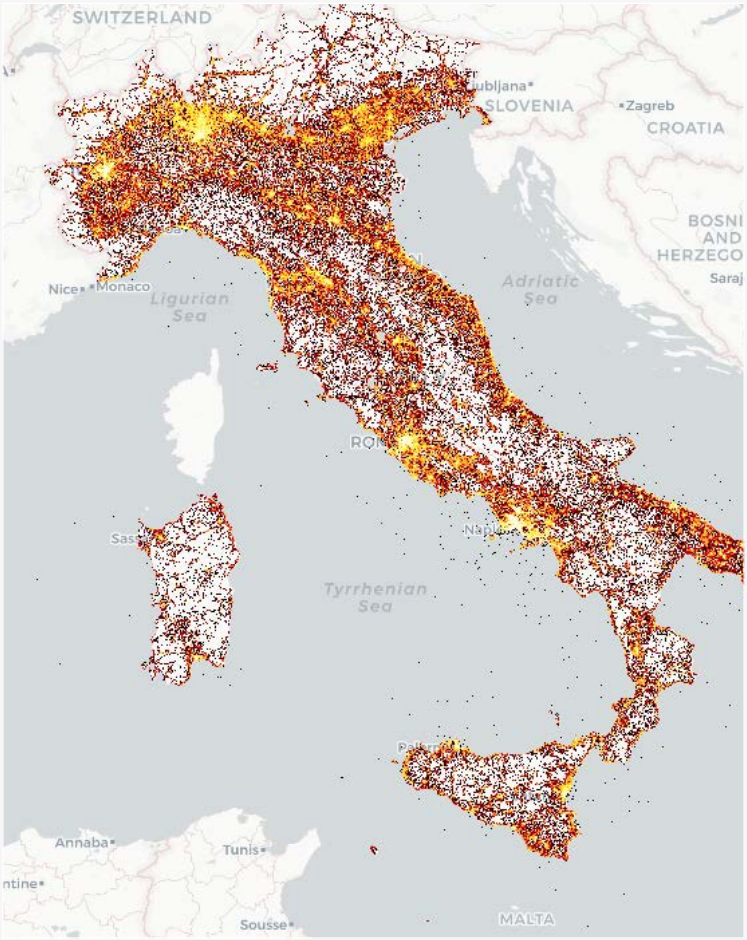

Heatmap visualizing the density of traffic movement throughout Italy

SOLUTION

PTV has taken a step-by-step approach to using Otonomo data in different aspects of its software. The company started by using Otonomo data as an additional data source to calibrate existing models and is continuing by incorporating it into traffic models, simulations, and logistics solutions that predict arrival times for commercial fleets. The models use aggregated, anonymous data. "Since the logic for many use cases was already in place, we have been able to develop our first sellable projects within a short, three-month period," Nowack says.

PTV is also evaluating future ways to use Otonomo data services, such as improving fleet management. Problems under consideration include cost calculations and drivers' service hours. "Seeing more data gives us new ideas about what we could do with it," Nowack notes.

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RESULTS

The first benefit that Otonomo has delivered is in improving PTV's existing traffic models. "With additional automotive data, we can more effectively measure the quality and accuracy within our models," Nowack explains. Over time, automotive data offers the potential to make these models usable within PTV Real-Time Traffic Management solutions.

Another aim of PTV Group's partnership with Otonomo is to expand the addressable market for its solutions by building more packaged software. "We see a lot of market interest for solutions that can tap into automotive data, and Otonomo can help us realize our new ideas faster," Nowack concludes. "The use cases that interest us most include real-time traffic management solutions with our software PTV Optima or the evaluation of new MaaS services (mobility as a service) solutions.

"Collaborating with PTV Group has deepened Otonomo's understanding of the real-world problems that automotive data solves," said Ben Volkow, CEO at Otonomo. "This practical experience has helped us improve the data processing capabilities of the Otonomo Platform and has helped us educate the market on the value of automotive data."

ABOUT OTONOMO

The Otonomo Automotive Data Services Platform fuels a network of 15 OEMs and more than 100 service providers. Our neutral platform securely ingests more than 2 billion data points per day from over 18 million global connected vehicles, then reshapes and enriches it, to accelerate time to market for new services that delight drivers. Privacy by design is at the core of our platform, which enables GDPR and other privacy-regulation-compliant solutions using both personal and aggregate data. Use cases include emergency services, mapping, EV management, subscription-based fueling, parking, predictive maintenance, usage-based insurance, media measurement, in-vehicle package delivery, and dozens of smart city services. With an R&D center in, Israel, and a presence in the United States, Europe, and Japan, Otonomo's investors include Bessemer Venture Partners, Aptiv, Dell Captial, Hearst Ventures, StageOne Ventures, and Maniv Mobility.

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