THE NEXT MOVE - MOBILITY AS A SERVICE
Dear Readers,

Our mobility is undergoing a revolution and must be re-thought and prepared starting right now. Real-time data, autonomous vehicles, Mobility as a Service (MaaS) and electromobility are among the current developments which will change existing solutions and our mobility behaviour in the long term.

But also social and technological change, as well as increasing urbanization are raising new questions which we have to ask ourselves.

The tasks are challenging – we will help you find the appropriate solutions. For we are familiar with all facets of transport and we have already developed new approaches for the design of tomorrow’s mobility. Our four decades of experience in planning and optimizing traffic and transport logistics flow into this. And we are confident that the acquisition of our corporate group by Porsche Automobil Holding SE in 2017 will inspire us to even greater achievements.

We invite you to prepare yourself for the future with “what would happen if?” scenarios in one of our newly-established Mobility Labs. Benefit from our unique network of cities, scientists, researchers and industrial companies, as well as from our expertise as the world market leader. With our new MaaS Accelerator program, you can evaluate new Mobility as a Service offerings and put them into operation.

We’re ready for the next move, are you?

Let’s work together to design our mobility that is fit for the future!

Sincerely,

Vincent Kobesen
CEO PTV Group

We plan and optimize everything that moves people and goods worldwide. All integrated and in real time.

PTV Group
We at PTV Group do not wait until an event occurs, we make predictions, calculate possible scenarios and use these results to make informed decisions.

The ‘PTV Mobility Lab’ is the hallmark of this philosophy. For us, the ‘Mobility Lab’ is not just a space, an idea or project – it reflects our approach and attitude.

For others, autonomous vehicle fleets, real-time traffic management and shared mobility concepts may be pie in the sky. For those of us who have concerned ourselves with these topics for many years, advancing them and providing the scientific support required, they are already a part of everyday life.

Since PTV’s foundation around 40 years ago, a scientific approach and forward-looking thinking have become an inherent part of our company’s DNA. Therefore, close cooperation with research institutes around the world is a matter of course for us. We also maintain a constant dialogue with numerous renowned international organizations, cities, innovative start-ups and established enterprises, sharing our knowledge and expertise with them. This is why we are involved in the emergence of new trends from the beginning and actively promote the development of concepts, ideas and solutions. With our studies and scientific research, we shape the discourse on mobility, pointing us in new directions, pointing out new options. A prime example of this is the Lisbon study in which we participated as a member of the corporate partner board of the OECD.

This mindset is reflected in PTV’s Mobility Lab at our headquarters in Karlsruhe and in many other laboratories around the world. As in any other lab, we bring together the right minds and skills to create fresh ideas. Together we will take a look into the future of mobility and think outside the box. We will carry out experiments, test new algorithms and find solutions to the question of what will move the world in the future.
The latest developments in the mobility sector also affect transport logistics. Co-operations, sharing concepts, autonomous vehicles, multi-modal transport – all this and more has led to an evolution in goods transport. The technologies for developing new logistics solutions and business models are at our fingertips and allow us to take an evolutionary leap.

In order to pave the way for attractive mobility of tomorrow, we must examine and assess the effects early on. This is why the City of Karlsruhe is cooperating with the PTV Group on the “Smart Mobility for the Karlsruhe Region” initiative. In the mobility lab, our software for transport planning and control is used to play through and jointly analye new mobility scenarios. The heart of this is an innovative traffic prediction system, which enables testing of new mobility approaches with historic and real-time data. This gives transport planners a whole bundle of possible strategies.

We are also cooperating with the Dutch Organisation for Applied Natural Scientific Research (TNO): For its city development strategies, it is using PTV Visum and integrating other relevant factors such as air quality and noise emissions.

Our transport planning software also serves as the basis for the transport model under development, which maps all freight and passenger movements in Europe. This data is also integrated in the PTV Mobility Lab.

The requirements of transport logistics are becoming increasingly demanding: In addition to punctuality and reliability, efficiency, economy and climate protection are now on the agenda. Transport logistics processes have become highly complex and logistics must be rethought.

This is where the concept of a “Physical Internet” provides significant impulses: the vision of transporting goods as easily as information through open channels in the web, via an open, global logistics network in which everyone and everything is connected. With shared distribution centres, standardised transport units and an open market for transport, storage and production.

This requires the integration of different modes of transport as well as of new drive concepts, including autonomous vehicles. The following demands form the basis of the concepts of tomorrow: merging of real-time requirements for quotes, warehouse space, logistics platforms, alternative transport methods and consolidation centres for multiple users.

Now digitizing and sharing are the names of the game. And thinking ahead of our time: LaaS – Logistics as a service. The intelligent coordination of resources across individual system borders, with the aim of handling logistics processes more efficiently. We have the appropriate technologies to manage these tasks.

»In our Mobility Lab, interested parties from around the world can get a picture of Smart Mobility in live operation.«

– Karlsruhe
– Melbourne
– Saudi Arabia
– Silicon Valley

DR. UWE REITER
GLOBAL PROJECT DIRECTOR, PTV GROUP
Into the future: PTV’s contribution to the MaaS-Revolution

MaaS – there is currently no way around this acronym in transport and urban politics, at mobility service providers and in the automobile industry. It stands for ‘Mobility as a Service’ and describes a new mobility model. The assumption is that in the future, the focus will not be on ownership of an individual vehicle, but rather on individual transport needs, which will be served by the appropriate service depending on the situation.

Rethinking mobility

Development towards MaaS will be possible with the emergence of new trends and technologies. Many people are overthinking their relationship to their cars. Especially the younger generation no longer defines itself by the ownership of a vehicle. To the contrary: acquiring a driver’s license is regarded as time-consuming and unnecessary. These people also use new forms of mobility, such as car, bike and ride-sharing, and they use app-based taxi and transport services.

The digital revolution, which connects everything and everyone via Internet, be it users and suppliers or vehicles, makes this technically possible. Technology companies and mobility service providers are also investing heavily in the (further) development of self-driving vehicles and ensuring a close competition with traditional automobile manufacturers. In select cities, the first autonomous vehicles are already transporting people from A to B – even if for safety reasons, there is still a driver behind the wheel.

A perfect fit: MaaS and the PTV Group

MaaS will greatly change our daily lives, our cities and our mobility behaviour and therefore pose enormous challenges to mobility service providers, automobile manufacturers and city administrations. With software solutions from the PTV Group, you can make your plans and business models fit for the mobility of the future and successfully implement MaaS concepts around the world.

We offer everything you need: We have years of experience in tour and route planning. Over 2,500 cities worldwide trust our solutions for transport modelling and simulation. We supply leading real-time technologies and expert knowledge in the provision and integration of software components. In addition, we have a unique network of cities, automobile manufacturers, data suppliers, public transport operators, international organisations and research institutions.

FACTS, FIGURES, DATA

INTERNATIONAL STUDIES

2025
Helsinki would like to make private ownership of cars obsolete with a “mobility-on-demand system”

20 million
Uber brokers car-sharing trips per month in China

50 Min.
is the average daily usage of cars in cities.

EU STUDIES

90% of the vehicles could be replaced by shared autonomous vehicles.

7 million
Litres of petrol per year could be saved in the EU with autonomous vehicles.

1,7 million
Tons of CO₂ per year could be saved in the EU by using autonomous vehicles.

LISBON STUDY

210 football fields of land could be freed up by reduced parking needs.

27%
less CO₂ emissions could be achieved by using shared mobility.

21% of the population chooses mobility over their desire to own a vehicle.
MaaS for Automotive/OEMs
Evaluating new business models

The concept of classic passenger cars is changing. Automobile manufacturers are developing new technologies which are making cars more independent and environmentally friendly. Autonomous and low-emission vehicles are technically possible even today, they are no longer a vision of the future.

At the same time, with its technology-based shared mobility offerings, the industry is supporting a change of values - from an I-culture to a we-culture, from ownership to sharing. With PTV Group’s MaaS software components, automobile manufacturers can reliably analyse and plan their market entry and potential for Mobility-as-a-Service. Concrete figures (KPIs) enable them to calculate their business model, check profitability, and optimize their fleet operation.

»We are in the process of becoming an all-round mobility service provider. Worldwide, there are more vehicles, more traffic jams and open ecological questions – these require the development of state-of-the-art mobility solutions which are custom-tailored to location-specific challenges. Ford intends to offer autonomous SAE-Level-4-capable vehicles for commercial applications in the year 2021.«

DETFLEF KUCK
TECHNICAL EXPERT, FORD RESEARCH, AACHEN

MaaS for logistics experts
Services for digital transport logistics

The transport logistics market is changing rapidly. Collaborations across enterprise and system boundaries enable more efficient and more reliable deliveries. Self-driving, electric vehicles and shared mobility fleets help reconcile economic efficiency and climate protection.

Cities need new delivery concepts in order to make commercial traffic more effective. Logistics service providers and shippers want to know how many trucks they need to operate their fleets in a cost-efficient and resource-friendly manner. New concepts such as crowd delivery or the combined transport of passengers and goods could enrich freight transport planning and management in highly dynamic urban environments. The components provided by PTV help logistics experts master the challenges that lie ahead.

»Evolving towards a ‘Physical Internet’ will help solve the global logistics challenges and make sure that the sharing and circular economy promises become reality through hyper-connected logistics service providers and users. To this end, logistics service providers need to develop appropriate solutions and services. And manufacturers, retailers and e-commerce players will have to offer demand-based services and enhance their supply chains in terms of agility and scalability.«

DR. BENOÎT MONTREUIL
PROFESSOR AT GEORGIA TECH, COCA COLA CHAIR IN MATERIAL HANDLING & DISTRIBUTION, HEAD OF THE PHYSICAL INTERNET CENTER AND THE SUPPLY CHAIN & LOGISTICS INSTITUTE
New mobility begins now: The PTV MaaS Accelerator Program

The PTV MaaS Accelerator program components allow you to model, simulate, execute and control Mobility as a Service operations in any city worldwide.

The program is aimed at automobile manufacturers and mobility suppliers who would like to provide shared mobility services, using their own vehicle fleets. City administrations, which would like to calculate and control the impact of MaaS on traffic, also benefit from this program.

The components can be used individually or combined to form a custom-tailored MaaS portfolio. Since the program is being continuously developed and expanded, PTV Group is offering interested companies a strategic multi-year cooperation partnership.

The benefit: Partners gain exclusive access to new components, unlimited use licenses for the underlying PTV software products, and can contact a PTV project team for training, support and additional services.
PTV's MaaS Accelerator Program: All components at a glance

PTV Maas Modeller
Planning, navigation, optimization
Create your own MaaS business model, identify potential market opportunities, and build a business case for MaaS services.

PTV MaaS Simulator
Detailed simulation
Simulate and evaluate the impact of MaaS services on traffic flows, identify potential bottlenecks, and optimize the allocation of resources.

PTV MaaS Operator
Real-time prediction, navigation, optimization
The central component of a multimodal MaaS operating system in real-time: Optimization of trip and route planning, traffic forecasts, and coordination of requests, vehicle assignments, and capacity utilization.

PTV MaaS Controller
Traffic and infrastructure control in real-time
Our MaaS solution for traffic management in real-time, allowing you to manage connected vehicles and public transport, optimize signal control systems, and automate traffic control.

PTV's MaaS Accelerator Program:
All components at a glance

So while we're paving the way to smarter cities, it all starts with you. How?

Join us at www.ptvgroup.com

Imagine a city where people change seamlessly between multiple modes of transportation, from cycling to walking, and using shared cars and rail-based transport. But how do you make it seamless? This is where we come in. We specialize in solutions that help optimize transport networks and transform cities to make them more livable. Technology is a force that is intertwined with the evolution of urban environments and is leading cities to more dynamic transportation systems. Our MaaS Accelerator Program allows you to create a balanced ecosystem of new mobility services and public transport.

Our components to accelerate Mobility-as-a-Service come in four stages:

1. Calculate KPIs to create an effective business model for MaaS-Fleet within any city infrastructure
2. Operate a multimodal MaaS-Fleet in real-time, optimizing the trips and capacity of vehicles related to the infrastructure and traffic data of the city
3. Provide detailed visual of mobility scenarios, taking into account autonomous vehicles, pedestrians, bicycles, and public transport
4. Integrate all of the components to build an overall city operating system including real-time control of connected transport and traffic prediction

HARNESSING THE POWER OF MOBILITY FOR SMARTER CITIES
Scan this page to experience the future of mobility!
MaaS for public transport
From public transport supplier to mobility service provider

Increasingly, new mobility concepts are overtaking established transport models. Public transport service providers have also noticed this and are currently relying on an individualization of existing public transport options.

At the same time, the trend is towards the collectivisation of individual transport. The mentality of a young urban generation which is online 24/7 demands multimodal, easy-to-use offerings. The future belongs to collaborative transport.

PTV Software provides intelligent components that help plan and control transport supply and demand in order to spot new potential. This is how we are advancing the vision of a car-free city.

»If we at transport companies limit ourselves exclusively to public passenger transport and we do not approach the topic ‘mobility’ holistically, then in a few years, we will be overtaken by other suppliers and be degraded to mere operators.«

DANIEL LANDOLF
CEO POSTBUS, CHIEF EXECUTIVE OFFICER, POSTAUTO SCHWEIZ AG

MaaS for Smart Cities
Linking technology and quality of life

There is no question about one thing: sustainable mobility is the key to a future-oriented city. It is one of the main tasks of politicians to create an environment worth living in for their citizens.

To achieve this goal, those responsible must work together with suppliers of technology and mobility, for only together can they form an ecosystem which will offer the basic conditions for a functioning society. PTV software helps city administrations recognize the impact of new technologies. An example: The use of self-driving, shared vehicles will definitely reduce air pollution. How do we know this? We have already modelled and simulated the city of the future.

»Even today, our customers are well cared for at our train stations thanks to modern systems and information technologies. It is our explicit goal to digitalize Zurich’s central station by 1 April 2019 and turn it into the most digital and personal transport hub in the world. The train station of the future will be a crucible: it will be an integrated part of the city, a pulsing transit location, and temporary home, all in one.«

MARKUS STRECKEISEN
HEAD OF PROPERTY MANAGEMENT, SBB IMMOBILIEN
Win-win:
Research and Practice

To design future-proof mobility solutions, we have been working closely with research institutions and universities from the very start. Our collaboration is a real win-win for all parties involved.

It starts with university students who gain hands-on experience using our software while they are studying and extends to an exchange of ideas with scientists from all over the world. We, for instance, discuss how Big Data can be used in transport modelling, how autonomous vehicles could influence traffic simulations, and how to develop multimodal models for freight and passenger transport.

The PTV Scientific Network consists of academics who use our software for research purposes. In exchange, we learn how a research prototype should be able to interact with our software. We can then design the software accordingly, so that it becomes even more efficient. We also support the network in launching new concepts and finding investors.

The PTV Scientific Advisory Board consists of eight members who are leading experts in their fields. They promote fresh ideas and new perspectives on all aspects of mobility. Their aim is to substantiate implementation of new scientific approaches and turn these into robust software tools. Of course, the latest research results are taken into account to optimize our products - to the benefit of all our users.

Research is indispensable to us, as it helps us develop new mobility solutions. A close cooperation between science and industry ensures a successful leap from lab to market.

The so-called fourth industrial revolution is changing the nature of urban logistics. Increasingly, consumers expect goods to be delivered on demand, creating opportunities for vehicle sharing services. These changes to urban logistics combined with e.g. the imminent arrival of autonomous delivery vehicles, have profound potential to reduce the implications for the road infrastructure. Transport planners and traffic engineers need to plan now for these developments.

The so-called fourth industrial revolution is changing the nature of urban logistics. Increasingly, consumers expect goods to be delivered on demand, creating opportunities for vehicle sharing services. These changes to urban logistics combined with e.g. the imminent arrival of autonomous delivery vehicles, have profound potential to reduce the implications for the road infrastructure. Transport planners and traffic engineers need to plan now for these developments.

To design future-proof mobility solutions, we have been working closely with research institutions and universities from the very start. Our collaboration is a real win-win for all parties involved.

The so-called fourth industrial revolution is changing the nature of urban logistics. Increasingly, consumers expect goods to be delivered on demand, creating opportunities for vehicle sharing services. These changes to urban logistics combined with e.g. the imminent arrival of autonomous delivery vehicles, have profound potential to reduce the implications for the road infrastructure. Transport planners and traffic engineers need to plan now for these developments.

The so-called fourth industrial revolution is changing the nature of urban logistics. Increasingly, consumers expect goods to be delivered on demand, creating opportunities for vehicle sharing services. These changes to urban logistics combined with e.g. the imminent arrival of autonomous delivery vehicles, have profound potential to reduce the implications for the road infrastructure. Transport planners and traffic engineers need to plan now for these developments.

Autonomous e-mobility services open up many new opportunities. At the same time, they give rise to a lot of questions: Will public authorities assume responsibility for deciding which path to use? We still have some time before the mobility revolution starts moving full speed ahead. However, we should use this time to ensure that MaaS won’t end up in chaos!

Autonomous e-mobility services open up many new opportunities. At the same time, they give rise to a lot of questions: Will public authorities assume responsibility for deciding which path to use? We still have some time before the mobility revolution starts moving full speed ahead. However, we should use this time to ensure that MaaS won’t end up in chaos!

Autonomous mobility on demand (AMoD) has the potential to significantly reduce passenger cost-per-mile travelled, mitigate congestion and pollution, and possibly increase safety. Researchers at Stanford University are investigating models and algorithms to harness the full potential of AMoD systems. Here they focus on synergies with existing transport infrastructures.

Autonomous mobility on demand (AMoD) has the potential to significantly reduce passenger cost-per-mile travelled, mitigate congestion and pollution, and possibly increase safety. Researchers at Stanford University are investigating models and algorithms to harness the full potential of AMoD systems. Here they focus on synergies with existing transport infrastructures.

What will mobility and transport look like in the future? There is not one single future which is certain to develop, but an array of possible future scenarios which could potentially unfold - both probable and desirable ones. We should act in a way which allows us to realign probable and desirable future scenarios: It is up to us to shape this future. And we should make the most of our scope to act.

What will mobility and transport look like in the future? There is not one single future which is certain to develop, but an array of possible future scenarios which could potentially unfold - both probable and desirable ones. We should act in a way which allows us to realign probable and desirable future scenarios: It is up to us to shape this future. And we should make the most of our scope to act.

Vehicle automation and the entry of heavy-weight IT companies into the transportation sector might prove to be a double-edged sword. The combination of sharing economy and fleet management strategies, however, has the potential to turn a threat into an opportunity. It’s the chance to transform mobility to the benefit of our cities, societies and public transport service providers.

Vehicle automation and the entry of heavy-weight IT companies into the transportation sector might prove to be a double-edged sword. The combination of sharing economy and fleet management strategies, however, has the potential to turn a threat into an opportunity. It’s the chance to transform mobility to the benefit of our cities, societies and public transport service providers.

Vehicle automation and the entry of heavy-weight IT companies into the transportation sector might prove to be a double-edged sword. The combination of sharing economy and fleet management strategies, however, has the potential to turn a threat into an opportunity. It’s the chance to transform mobility to the benefit of our cities, societies and public transport service providers.

The so-called fourth industrial revolution is changing the nature of urban logistics. Increasingly, consumers expect goods to be delivered on demand, creating opportunities for vehicle sharing services. These changes to urban logistics combined with e.g. the imminent arrival of autonomous delivery vehicles, have profound potential to reduce the implications for the road infrastructure. Transport planners and traffic engineers need to plan now for these developments.

The so-called fourth industrial revolution is changing the nature of urban logistics. Increasingly, consumers expect goods to be delivered on demand, creating opportunities for vehicle sharing services. These changes to urban logistics combined with e.g. the imminent arrival of autonomous delivery vehicles, have profound potential to reduce the implications for the road infrastructure. Transport planners and traffic engineers need to plan now for these developments.

The so-called fourth industrial revolution is changing the nature of urban logistics. Increasingly, consumers expect goods to be delivered on demand, creating opportunities for vehicle sharing services. These changes to urban logistics combined with e.g. the imminent arrival of autonomous delivery vehicles, have profound potential to reduce the implications for the road infrastructure. Transport planners and traffic engineers need to plan now for these developments.

The so-called fourth industrial revolution is changing the nature of urban logistics. Increasingly, consumers expect goods to be delivered on demand, creating opportunities for vehicle sharing services. These changes to urban logistics combined with e.g. the imminent arrival of autonomous delivery vehicles, have profound potential to reduce the implications for the road infrastructure. Transport planners and traffic engineers need to plan now for these developments.

The so-called fourth industrial revolution is changing the nature of urban logistics. Increasingly, consumers expect goods to be delivered on demand, creating opportunities for vehicle sharing services. These changes to urban logistics combined with e.g. the imminent arrival of autonomous delivery vehicles, have profound potential to reduce the implications for the road infrastructure. Transport planners and traffic engineers need to plan now for these developments.

The so-called fourth industrial revolution is changing the nature of urban logistics. Increasingly, consumers expect goods to be delivered on demand, creating opportunities for vehicle sharing services. These changes to urban logistics combined with e.g. the imminent arrival of autonomous delivery vehicles, have profound potential to reduce the implications for the road infrastructure. Transport planners and traffic engineers need to plan now for these developments.

The so-called fourth industrial revolution is changing the nature of urban logistics. Increasingly, consumers expect goods to be delivered on demand, creating opportunities for vehicle sharing services. These changes to urban logistics combined with e.g. the imminent arrival of autonomous delivery vehicles, have profound potential to reduce the implications for the road infrastructure. Transport planners and traffic engineers need to plan now for these developments.

The so-called fourth industrial revolution is changing the nature of urban logistics. Increasingly, consumers expect goods to be delivered on demand, creating opportunities for vehicle sharing services. These changes to urban logistics combined with e.g. the imminent arrival of autonomous delivery vehicles, have profound potential to reduce the implications for the road infrastructure. Transport planners and traffic engineers need to plan now for these developments.

The so-called fourth industrial revolution is changing the nature of urban logistics. Increasingly, consumers expect goods to be delivered on demand, creating opportunities for vehicle sharing services. These changes to urban logistics combined with e.g. the imminent arrival of autonomous delivery vehicles, have profound potential to reduce the implications for the road infrastructure. Transport planners and traffic engineers need to plan now for these developments.

The so-called fourth industrial revolution is changing the nature of urban logistics. Increasingly, consumers expect goods to be delivered on demand, creating opportunities for vehicle sharing services. These changes to urban logistics combined with e.g. the imminent arrival of autonomous delivery vehicles, have profound potential to reduce the implications for the road infrastructure. Transport planners and traffic engineers need to plan now for these developments.

The so-called fourth industrial revolution is changing the nature of urban logistics. Increasingly, consumers expect goods to be delivered on demand, creating opportunities for vehicle sharing services. These changes to urban logistics combined with e.g. the imminent arrival of autonomous delivery vehicles, have profound potential to reduce the implications for the road infrastructure. Transport planners and traffic engineers need to plan now for these developments.

The so-called fourth industrial revolution is changing the nature of urban logistics. Increasingly, consumers expect goods to be delivered on demand, creating opportunities for vehicle sharing services. These changes to urban logistics combined with e.g. the imminent arrival of autonomous delivery vehicles, have profound potential to reduce the implications for the road infrastructure. Transport planners and traffic engineers need to plan now for these developments.

The so-called fourth industrial revolution is changing the nature of urban logistics. Increasingly, consumers expect goods to be delivered on demand, creating opportunities for vehicle sharing services. These changes to urban logistics combined with e.g. the imminent arrival of autonomous delivery vehicles, have profound potential to reduce the implications for the road infrastructure. Transport planners and traffic engineers need to plan now for these developments.

The so-called fourth industrial revolution is changing the nature of urban logistics. Increasingly, consumers expect goods to be delivered on demand, creating opportunities for vehicle sharing services. These changes to urban logistics combined with e.g. the imminent arrival of autonomous delivery vehicles, have profound potential to reduce the implications for the road infrastructure. Transport planners and traffic engineers need to plan now for these developments.
International and national research projects, which focus on traffic planning and logistics related topics, are revealing more frequently how many touch points these topics share, especially when it comes to traffic management using real-time data.

Their interplay will help design mobility for the future. At the request of the German Federal Ministry of Transport and Digital Infrastructure, Prof. Dr. Christoph Walther, Head of Global Research at the PTV Group, served as specialized coordinator for six years. He provided scientific assistance for the formulation of the German Federal Transport Plan 2030.

The mobility and fuel strategy of the German government (MKS), for which he is active as one of their three coordinators, can build on this.

In 2016, at the suggestion of the German Ministry of Transport, Walther was asked to join the Road Transport System Economics and Social Development committee of the World Road Association (PIARC), where he leads the “Reliability and Travel Time Assessment” working group.

In this and other projects, we put our unique expertise in transport planning and logistics into practice. We know how to link the two effectively in order to make mobility more efficient, sustainable and intermodal.

“For me, the exciting thing about research projects is to see how the solutions and concepts are implemented – first in pilots and then in reality across all modes of transport to achieve environmentally-friendly mobility.”

Prof. Dr. Christoph Walther
Head of Global Research, PTV Group

In our research projects, we address a variety of topics in which we can deploy the entire bandwidth of our expertise. From climate protection to Big Data to networking and cooperation in transport and logistics.

Networked Logistics: In the course of the Aeolix project, an European logistics platform shall be established for cities, shippers and logistics service providers. It is aimed at achieving greater efficiency and productivity while reducing effects on the environment. We are particularly concerned with the design of the Aeolix Governance (management and assignment of rights) and the provision of services for the route planning, geocoding, and arrival time calculation platform.

Transport and Mobility: The concern of Transforming Transport, the beacon project in the Big Data sector for the transport and logistics industry, is all sides of the transport of people and cargo – on all transport routes and with all forms of transport. The focus is on practical examples of mobility in order to show how Big Data can be used to reduce costs and environmental effects and increase efficiency. We are cooperating on both pilots, Sustainable Connected Trucks and Integrated Urban Mobility.

Walking and Biking vs Traffic Jams: The EU project FLOW aims to make a contribution to reducing traffic jams in cities and making passenger transport more sustainable both financially and ecologically. We are analysing the effects of the planned measures on traffic jams in Budapest, Dublin, Gdynia, Lisbon, Munich and Sofia. We are also developing an assessment process in order to estimate the total economic consequences of measures for pedestrians and cyclists, taking into account multimodal aspects.

To E or Not To E: In the iHub research project, the goal is to develop a platform with which a mixed fleet of electrical and conventionally-powered trucks can be planned and deployed as needed. For this purpose, we are developing algorithms for mixed fleets which take all relevant restrictions into consideration. We are also responsible for the navigation system which is calibrated for the new electric vehicles. The goal is to make the change to electromobility easier for cargo logistics companies.

Basis for decisions: The Federal Government’s Mobility and Fuel Strategy describes which drive and fuel options exist in the traffic and transport sector and what energy infrastructures will be required in order to fulfill the goals of the climate protection plan by 2050. In addition to these options, measures are being examined with which the shift towards more environmentally-friendly transport options can be supported. These measures and options will be assessed individually and in bundles in order to develop so-called transistor paths to the target horizon of the climate protection plan.
»Moving the world from Karlsruhe: For this we need people who think creatively about solutions, take on responsibility and embody team spirit. Proximity to the customer, agile methods and permanent learning – our product developers are specialists with maximum drive.«

FRANK FELTEN,
VICE PRESIDENT SOFTWARE DEVELOPMENT,
PRODUCT MANAGEMENT & RESEARCH,
PTV GROUP, KARLSRUHE

»Life even happens in real time in the ‘eternal city’. Our team develops solutions which use real-time data to make our mobile life simpler and better. With great expertise and even greater passion.«

LORENZO MESCHINI
MANAGING DIRECTOR PTV SISTEMA, ROME
OUR LOCATIONS

PTV BRANCH OFFICES

PTV Headquarters Germany Karlsruhe (DE)
PTV North America Portland (OR, US)
PTV América Latina Mexico City (MX)
PTV North America Washington D.C. (US)
PTV Brasil São Paulo (BR)
PTV UK Birmingham (GB)
PTV Spain Barcelona (ES)
PTV Loxane France Logistics Paris-Cergy (FR)
PTV France Traffic Strasbourg & Lyon (FR)
PTV Benelux Utrecht (NL) | Ieper (BE)
PTV Nordics Gothenburg (SWE)

PTV Austria Vienna (AT)
PTV Italia Perugia & Bologna (IT)
PTV Sistama Rome (IT)
PTV Poland Warsaw (PL)
PTV Middle East Dubai (AE)
PTV Africa Johannesburg (ZA)
PTV Asia Pacific Hong Kong (HK)
PTV Asia Pacific Singapore (SG)
PTV China Shanghai (CN)
PTV Japan Tokyo (JP)
PTV Asia Pacific Sydney (AU)

MOBILITY LABS

Karlsruhe (DE)
Damman (SAU)
Melbourne (AU)
Silicon Valley (US) - coming soon

PTV BRANCH OFFICES COMING SOON

PTV Russia Moscow (RUS)
PTV India Pune India (IND)

MOBILITY LABS

Karlsruhe (DE)
Damman (SAU)
Melbourne (AU)
Silicon Valley (US) - coming soon
AN EXCERPT FROM OUR CUSTOMER LIST

Public Transport
- DB Network Mobility Logistics
- ITS Vienna Region
- KVV Karlsruher Verkehrsverbund
- Latin America Association of Metros and Subways (ALAMYS)
- Neue Urbane Mobilität Wien
- Österreichische Bundesbahn (ÖBB)
- Postauto
- Ruter AS
- Schweizer Bundesbahnen (SBB)
- Trafikstyrelsen
- Upstream-Mobility.at

System Integrators
- Kratzer Automation
- Microlise
- Siemens
- T-Systems
- TIS
- ST (Tecnologie telematiche transport traffic Turino)

Industry & Trade
- Airliquide
- Auchan
- BMW AG
- EON
- Esselunga S.p.a.
- Geroldsteiner
- Lekkerland
- Novartis
- REWE
- RWE
- Serta Simmons Bedding

Transport Logistics
- Arcese Trasporti
- Chronopost
- DACHSER
- Denner
- DHL
- DPD
- Ekol Logistics
- Fercam
- Gefco
- H. Essers
- Hermes
- Jcatton

Public Authorities
- Bundesministerium für Wirtschaft und Energie
- Ministerium für Verkehr Baden-Württemberg
- City of Dubai
- City of Lublin
- City of Mexico
- City of Sao Paulo
- City of Vienna
- Transport for London
- UK Department for Transport
- VAO - Verkehrsauskunft Österreich GmbH

Consultants
- AECOM
- Atkins
- CH2M
- GEVAS
- Jacobs
- Mott MacDonald
- MVA
- Obermeyer
- Sorbana Jurong
- SSP Consult
- Steer Davis Gleave
- WSP I Parsons Brinckerhoff

Organizations
- CAF
- Bekom
- ITF International Transport Forum, OECD
- The World Bank
- World Resources Institute

Events
- Formel 1 Circuit Abu Dhabi
- Olympics Vancouver 2010
- Olympics London 2012
- Olympics Sochi 2014

Education & Research
- DLR - Institute for Transport Research
- ERTICO ITS Europe
- ETH Zurich
- Höriba Mira
- KIT Karlsruhe Institute for Technology
- TRANSYT POLITECNIKA
- Technical University of Graz
- Technical University of Munich
- University of Melbourne
The sale of 100 percent of the shares of PTV Planung Transport Verkehr AG (PTV), Karlsruhe, to Porsche Automobil Holding SE (Porsche SE), Stuttgart, was completed in September 2017. The aggregate investment amounts to more than EUR300 million. This transaction is part of Porsche SE’s long-term investment approach. They see substantial growth potential in the area of optimizing flows of people and goods – PTV’s core competence.

Vincent Kobiesen, CEO of PTV Group, is delighted to welcome Porsche SE on board: “We have now found the right strategic investor that allows us to remain independent and achieve our ambitious goals even more effectively.”

In recent years, PTV Group has recorded positive revenue development and double-digit growth rates. For the first time in the company’s history, PTV succeeded in achieving a turnover of more than EUR100 million in the FY 2016/17 (statements as of 31 March).

The experienced management team will continue to spearhead the development of PTV’s business activities. It is planned to boost growth in terms of regional offices and personnel.

There is a great demand for cutting-edge technologies for smart mobility all over the globe. More than 2,500 cities deploy PTV products. Trips and routes for over one million vehicles are planned with our software.

The simulation of the Olympic Route Network during the Olympic Games in London was based on PTV’s traffic simulation tool. PTV software is also used for the development of the European transport model. As part of the EU Commission’s Trimode project, this model encompasses all passenger transport and freight movements in Europe. Vehicle manufacturers, service providers, logistics service providers, technology suppliers and urban planners are interested in new mobility offerings, such as Mobility as a Service (MaaS).

PTV has therefore developed a special programme, which provides a complete portfolio of technologies for planning, operating and controlling MaaS applications around the world. It is a key issue for the future that PTV will continue to invest in.