



Intelligent Urban Transport Systems



## New products, services and technologies at IT-TRANS 2018

### Part 6: Traffic management / Intelligent traffic systems

*Karlsruhe/Brussels, 22 February 2018.* Intelligent traffic systems are vital in today's transport infrastructure. Such systems provide services such as traffic control and information, fleet and vehicle management and are increasingly used to integrate different modes of transport. A state of the art telematics infrastructure delivering intermodal data and information everywhere and at any time is the basis for intelligent traffic with intermodal and integrated mobility services. Products and solutions for intelligent traffic management will be featured at **IT-TRANS 2018**. Around 250 exhibitors from more than 30 countries will gather at the Karlsruhe Trade Fair Centre for the sixth edition of **IT-TRANS**. The International Conference and Exhibition on Intelligent Urban Transport Systems will take place from 6 to 8 March 2018.

### Launch of on-demand ridesharing service by the moovel Group and the Karlsruhe Transport Network (KVV)

Karlsruhe Transport Network (KVV) is joining forces with the Stuttgart-based moovel Group to introduce an on-demand shuttle service in March. The new mobility service is to be tested in a pilot phase during **IT-TRANS**. On these three days, trade fair visitors and local residents can use the new mobility service free of charge.

The idea behind the pilot project is that users place their transport request via the "KVV.mobil" app and are then collected with a van at their location and brought to a destination of their choice – without any rigidly defined timetable. The users share the shuttle vehicle with other passengers. An algorithm calculates the fastest route through the city to one of more than 100 stops that are served. The on-demand ridesharing service is available on each of the three trade fair days, on Tuesday and Wednesday (6 to 7 March) from 8 a.m. to midnight, on Thursday (8 March) from 8 a.m. to 6 p.m. Users will not be charged during the piloting period.

The new mobility service is based on moovel's on-demand platform, which enables the efficient operation of a demand-oriented, flexible fleet using intelligent journey management – so-called "routing", and the grouping of trip requests – so-called "pooling". During the pilot phase, the fleet will consist of ten Mercedes-Benz V-class vehicles. If other persons have booked a similar journey, the moovel algorithm pools the requests so that one vehicle can be

#### CONTACT

Verena Schneider  
T 0721 3720-2300  
F 0721 3720-99-2300  
E verena.schneider@messe-karlsruhe.de

#### KONGRESSZENTRUM KARLSRUHE

Karlsruher Messe- und Kongress GmbH  
Festplatz 9  
76137 Karlsruhe | Germany  
P +49 721 3720-0  
F +49 721 3720-2116  
E info@messe-karlsruhe.de

#### MESSE KARLSRUHE

Messeallee 1  
76287 Rheinstetten | Germany  
P +49 721 3720-5000  
F +49 721 3720-5494

#### MANAGEMENT BOARD

Britta Wirtz

#### CHAIRWOMAN OF THE SUPERVISORY BOARD

First Mayoress  
Gabriele Luczak-Schwarz

Reg.-Ger. Mannheim  
HRB 100147

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[www.messe-karlsruhe.de](http://www.messe-karlsruhe.de)  
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shared by several passengers (“ridesharing”). The routes to destinations in Karlsruhe are suitably dynamic, with travel and arrival times and optimum starting and ending stops calculated individually. To ensure that users get from A to B as quickly as possible, routes are constantly calculated and updated, factoring in real-time data from traffic updates and the public transport network. The algorithm also calculates the expected demand in advance, allowing the fleet size to be projected and managed accordingly.

### **PilotPad – Digital employee communication for public transport**

Swiss company InnoTix AG will present its PilotPad at the **IT-TRANS** trade fair for the first time. PilotPad is a helpful daily companion on the job as well as a universal communication medium providing up-to-date, personalised information for public transport staff. It makes business processes mobile. For example, PilotPad can be used to substantially increase the efficiency of process chains such as incident management, or to deliver training courses via tablets instead of in the classroom. This results in cost savings for public transport operations.

The intuitive, easy-to-use app, developed in cooperation with multiple public transport operators, runs on a hand-held tablet and provides benefits to all staff:

- Duty rosters always up to date
- Quick, accurate communication of diversions, roadworks and breakdowns
- Damage to vehicles easily recordable in a digital form for forwarding to the maintenance department (including photos and more)
- Directives, messages and training documents available at any time of day (also as instructional videos and e-learning)

The app is available for both Android and iOS and operates offline as well as via WLAN or cellular data networks (SIM card). PilotPad is ready for roll-out within just a few weeks. No major training is necessary. An intuitive web cockpit enables easy data maintenance, and – if required – integrates existing systems that have open standard interfaces (e. g. VDV, LDAP, XML).

### **Fluidtime: Service solution FluidHub enables seamless mobility in cities and regions**

Fluidtime Data Services from Vienna will showcase its cloud-based service solution FluidHub as key highlight at **IT-TRANS** 2018. This smart technology can be understood as the connecting piece within a Mobility as a Service



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(MaaS) ecosystem. FluidHub enables mobility service providers to give their customers an optimised travel experience. That means: a personal profile with travel history and preferred route options (e.g. fast, comfortable, eco-friendly or cheap), intermodal trip information, integrated booking of the whole trip on one tap and different payment options e.g. based on each booking, on a monthly basis or with credits, if the monthly subscription for mobility packages is possible. The app also displays statistics about CO<sub>2</sub>-savings or money savings in comparison to the use of a private car.

The integration of preferred transport services, e.g. metro, bikesharing, carsharing, taxis or ride sharing as well as of technical features for bookings and payments will be handled via the FluidHub interface. As a result, mobility service providers benefit from a centralised access to all modes of transport and an easy contracting process. At the same time, transport service providers, whose mobility offerings will be displayed in the app, reach out to new customers whilst retaining full control of their data. Other beneficiaries are smart cities and regions – FluidHub builds a framework for urban mobility that takes local interests into account.

### **TransMoveo: Big data solutions for public transport**

TransMoveo GmbH from Bad Nenndorf/Germany focuses on big data throughout its line of products and services. The solutions allow for new views on public transport operators' data and create transparency in terms of information and costs. Continuous recording of vehicle positions as well as of meta data ("which vehicle has been where and when?", quality assurance, schedule optimisation), information about fuel consumption and routes driven (relevant for e-mobility applications) are only a few of the applications big data is being used for. In addition, big data provides insights that answer questions asked by controllers ("how much do we have to pay to provide certain transport services?").

All on-board vehicle systems can be used as data sources (i.e. AVL information, passenger counting data, vehicle can bus data (speed, temperatures, power consumption of on-board devices – especially interesting regarding electric vehicles)). Data will be recorded synchronously and transferred to backend systems. Depending on intended usage data will be processed either in real time or be recorded on board of a vehicle and transferred to backend systems using block transfer.

Real time data processing is being used to allow for fast reactions in case of malfunctions and breakdowns to minimise impact and costs and to reduce



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downtime. Additionally, service intervals are easier to schedule depending on needs. Real time data also is being provided to feed passenger information systems.

With TransMoveo managers are flexible in terms of time and space: Relevant information is provided in real time and can be obtained using desk top systems or mobile devices. All data is kept on server systems and can be processed, e.g. to generate reports regarding quality of services, schedule optimisation and for further data analysis.

### **GMV Planner: Tool for management and operation of public transport systems**

At **IT-TRANS** Spanish company GMV will be showcasing its range of intelligent solutions for the management and operation of public transport systems, including the advanced fleet management and passenger information, on demand transport, ticketing and fare collection systems and planning & scheduling suite of applications. Highlights include the GMV Planner, the company's latest product. It comprises a suite of applications allowing for the complete lifecycle management of public transport management.

GMV Planner achieves an efficient allocation of available resources which allows to cut operation costs, such as overtime or excessive fuel consumption down to 50%.

Moreover, GMV Planner allows to reduce administration time down to 90% by managing big data integrated across multiple applications which cater to the different stakeholders in the operations lifecycle management. GMV's stand will feature a control center from where public transport authorities and operators can manage their fleets in real time. The demonstration is based on real data from GMV customers recorded and replayed during the demonstration. It will include fleet management, operations control and real time passenger information, planning, dispatching and rostering, and ticketing and fare collection systems.

### **Intelligent traffic solutions by Pilotfish, PPS/EDV and Metropolis Service**

Gothenburg-based Pilotfish has created an open standardised vehicle platform based on the European initiative ITxPT coupled with innovative cloud-based fleet management applications for public transport. The vendor neutral system is based on a new standard called EN 13149. This allows clients to



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connect other third-party systems and apps. Based on the open platform Pilotfish offers operators a range of services, such as the ecodriving application, tacho download, passenger Wifi, and automatic fault management. The company is now expanding into the German, Norwegian and French bus transport markets.

PPS/EDV GmbH, located in Braunschweig/Germany, will showcase its multimodal dispatch system "cover" for timetabled bus, tram, rail and fully-flexible public transport services such as Call-a-Bus systems. Transport requests are split from start to destination into timetabled services and flexible parts. Using given parameters, the flexible parts are optimised and bundled with the flexible parts of other passengers. At present, cover is fully operational in Flanders, Belgium for De Lijn in one of the largest public Call-a-Bus systems in the world. Known as the 'Belbus' it links 112 regions, which is around two-third of the entire area of Flanders. In cover an automatic updating process integrates all timetables for bus, tram and rail in Belgium to deal with up to 5,000 bookings per day.

Aschaffenburg-based Metropolis Service GmbH is a mobility center connecting local public transport and private transport. The company offers a package of solutions, software and suitable hardware for ready to use fleet management with an affiliated service center. The service includes phone call and email management, route scheduling and accounting for demand responsive transport (DRT). The fleet management system is adapted to the clients' needs. Apart from fully automated DRT route planning, this includes app-based and online orders as well as cashless payments. Currently, the technology is in operation at the City of Frankfurt transport service for the disabled and a number of demand responsive taxi services in Germany and Austria. At **IT-TRANS**, Metropolis will present their concept combining software and services during an interactive show. Visitors are invited to order a ride via phone, app or internet, to watch the fully automated routing and take a virtual ride.

## **DISCLAIMER**

The published articles express the personal opinions of the authors and in no way represent the views of the International Association of Public Transport (UITP) or Karlsruher Messe- und Kongress GmbH. Some slight amendments might have been made to the articles provided by the exhibitors. Status: As of February 2018. Subject to alterations.



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**IT-TRANS**, International Conference and Exhibition on Intelligent Urban Transport Systems, celebrated its debut in Karlsruhe in 2008. Within a short period, the biennial event was established as the most important platform for the industry. It is organised by the International Association of Public Transport (UITP) and Karlsruher Messe- und Kongress GmbH. **IT-TRANS** 2018 is under the patronage of Violeta Bulc, EU Commissioner for Traffic and Transport and is supported by the Association of German Transport Companies (VDV), the Italian Transport Association (ASSTRA), ITS Spain and the Polish Chamber of Railway. **IT-TRANS** is aimed at all players in the public transport sector, and in particular at decision-makers from transportation companies and representatives of the private sector, government and professional associations. At seminars, workshops and presentations held during the three-day conference, international speakers will discuss innovations and how to practically implement IT solutions for public transport. About 250 international companies and service providers will present their latest products at the exhibition. The next **IT-TRANS** will take place at the Karlsruhe Trade Fair Centre from 6 to 8 March 2018.

**More information:** [www.it-trans.org](http://www.it-trans.org) and [www.twitter.com/IT\\_TRANS](https://www.twitter.com/IT_TRANS) and <https://www.facebook.com/ittrans.org/>

### Photos and captions:

#### On-demand Ridesharing (Credit: moovel Group)

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#### Pilotfish Driver Console (Credit: Pilotfish)



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