

September 06

Telematics in a different light

Excellent prospects for telematics, however many logistics companies have not yet tapped its full potential. Why is this?, and how could the companies use the potential of telematics better in future? The answers to these questions are in this report.

The future of telematics looks bright. The technology is reliable and the industry expects continuous growth rates according to a study on the Commercial Vehicle Telematics Market conducted by Frost & Sullivan in 2006. Nevertheless, these points could not push companies to use telematics. Mostly the reasons are, that the companies have not found out the true use for themselves. Customers have difficulties to find the best solution for their specific application among the wide range of isolated systems. Each customer needs a different system which means that a standard solution does not always deliver the best solution. Therefore, it is essential to offer scalable systems that are suitable for simple vehicle tracking and tracing or dispatch monitoring purposes as well as managing complex logistics processes. PTV has developed a system that meets the users' demand for individual solutions.

The different trends in the transport and logistics industry support the results from the current study: i.e. a higher percentage of mixed vehicle fleets, the shortage of cargo space, the desire to streamline processes, to offer better services and to save costs, the need for new IT solutions and standardised individual logistics processes. Additionally, external factors such as the increase in freight traffic within the European road network and the growing demand for navigation systems or new EU guidelines on driving and break times have to be taken into account, e.g. drivers are required to provide proof of their driving and break times of the last 15 days.

So, why is there a slowdown in telematics demand? There are many different reasons: many companies are not aware of the benefits or have not found the telematics system that best suit their needs. The lack of standards and costs are further contributing factors.

How to unleash the full potential

The conclusion: The use of telematics has potential, however many companies have not profited enough from it. Mobile solutions, for example, help the user to avoid double entries and to collect and allocate order data after delivery. Data can be processed more efficiently, media disruption and other sources of

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error are avoided and the control headquarters as well as the mobile workforce are provided with real-time information. Telematics systems allow the user to optimise processes involving field personnel by providing easy access to current data. Especially the logistics market benefits from telematics solutions which combine trip planning and dispatching with seamless tracking&tracing and proof of delivery.

Customised solution and standardization – a contradiction?

The requirements in transport and logistics can greatly vary: companies that distribute frozen food, for example, require systems for vehicle tracking as well as cold chain monitoring. International transport companies need navigation systems that help their drivers to quickly find the customer's delivery address. And parcel tracking including proof of delivery is essential for all parcel services.

Each telematics application has to fulfil the following basic requirements: geographic map data that are used for pre-planning and calculation on the basis of kilometres (or miles) also have to be used for mobile navigation or the calculation of the estimated time of arrival (ETA). The system must have access to key and variable data during the tracking&tracing process. It is therefore important to find telematic solutions that cover the entire range of applications within an organization. Moreover, customized solutions are often too expensive for many users.

What is the best solution?

New telematics applications and data services are mainly developed for private users and all types of vehicles. The mass market pushes the development of navigation devices and price structures for mobile communication. By integrating these general data services into the customised solutions, logistics and transport companies could tap the full potential of these new developments.

This means that telematics systems must be combined with logistic information and optimisation processes. Telematics providers, however, often do not have experience in the field of telematics AND logistics. Experiences with telematics product development and optimisation of logistics processes are required which are able to optimise distribution management and tracking&tracing of shipments by using navigation applications. From a technical point of view, using modular systems would be the best way to provide efficient telematics solutions. Optimised applications can be developed for each task. They will then be integrated into a single data platform. Complex applications can thus be easily displayed.

There is a strong trend towards telematics solutions – the logistics and transport companies just have to reap the benefits.

Interview with an expert about the topic telematics

Dr. Joachim Schmidt, an expert on logistics and a board member of the PTV AG, answers current questions about telematics.

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What are the demands from the logistics industry?

Telematics is more than just displaying vehicles on a digital map or linking several systems to each other. Logistics experts will benefit from process integration. With today's telematics systems it is often not possible to view the entire process, and thus cost savings do not become visible.

It would be the best to use the vehicle as an integral part of the information chain. In order to link data collected during the delivery process and to transfer it for further data processing, such as billing or returns. This also applies to the information exchange with the vehicle: new collection or service orders can be sent from the planning system to the vehicle and an built-in navigation system guides the drivers turn-by-turn to the destination – completely automatically.

PTV has extensive expertise in trip planning, transportation management and navigation and is treading a new path. It combines telematics with the logistic transport chain.

The PTV LogisticsPlatform integrates the different functionalities and modules – from the vehicle to the ERP system. This platform provides the basis for all requirements along the logistic transport chain. It uses standard software, can easily be linked to ERP systems and offers customized solutions for easy integration. This means that cost-efficient solutions are created within short implementation periods.

What exactly are the benefits?

To benefit from telematics solutions, it is not enough to just collect the information. It is important to evaluate the data, to compare target and current results and analyse the differences in order to be able to include the information for further planning processes.

To know what exactly must be analysed, forwarders need a planning tool, like the PTV Intertour software, allowing them to plan transport schedules and deliveries. It allows dispatchers to compare, for instance, the results of current consignment tracking and scheduling, and to check whether the delivery service is performed according the schedule. If it does not, Telematics helps to detect problems as early as possible and to solve them, including proposals on how to improve the process.

What are today's telematics software needs?

The market wants scalability. Systems must grow with the user's demand. And the market also requires flexibility, integration and, as a result, compatibility. Customers will benefit most from modular, user-friendly software that offers reliable services.

We provide solutions for the entire information chain, from planning and implementation to control, deliberately using telematics and mobile applications. This also applies to standard solutions. Together with our subsidiary MAP&GUIDE GmbH we are currently developing a standard solution. The map&guide tour assistant, an out-of-the-box solution, allows vehicle fleet operators with less complex applications to easily use telematics. By using a transport scheduling software, like the map&guide

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planner, dispatchers have access to all trip data in real-time while monitoring the transport process. With the PTV LogisticsPlatform users can easily create customised solutions.

The core component of this standard software is based on PTV technology. This new standard is based on two main pillars: our 25-year experience in logistics and our expertise in the telematics domain. PTV provides solutions for major customer-specific projects and logistics companies of any size.

Telematik solutions of the PTV group

- ▶ **PTV LogisticsPlatform** A technology platform for planning and control of the entire transport chain. The PTV eServers are components of the PTV LogisticsPlatform. They are modules for high performance applications that support logistics planning and optimisation processes, offering an easy implementation of logistics solutions at low costs.
- ▶ **PTV Intertour:** A professional, interactive software for strategic and operational trip planning and scheduling. PTV Intertour provides cost-efficient trip management by optimally assigning the orders to the trips, whilst also accounting for all relevant restrictions. Interfaces to an order processing system ensure easy integration into existing system environments. If the software is directly linked to the system, the host system transfers all relevant master and transaction data.

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- ▶ **map&guide planner:** The transport scheduling software combines map-based trip planning with realistic vehicle schedules that maximise time and distance. The map&guide planner easily integrates with your current transport scheduling program, transport management solution or ERP system. The map&guide planner retrieves the order and shipment data from the relevant system via an interface, represents this information geographically and then performs scheduling. Finally, the data is transferred back to the main program enhanced with comprehensive route information.
- ▶ **map&guide tour assistant:** Standard solution for an easy introduction to telematics. By combining the software with a trip planning and transport scheduling software the map&guide tour assistant provides all trip information in real-time. It allows the dispatcher to easily monitor and control the entire transport process.