

Summary

Executive summary

The term Intelligent Transport Systems (ITS) refers to information and communications technology applied to transport infrastructure and vehicles. Berg Insight's definition of ITS for public transport includes systems installed in public transport vehicles as well as at terminals, stops, depots and similar. Included are also backoffice IT systems which ensure that public transport services can be planned, scheduled and managed to achieve efficient operations. An important part of ITS for public transport is further solutions providing travellers with updated information about routes, departure times, possible disturbances and connecting services. The history of these different types of solutions dates back several decades and current state-of-the-art solutions include for example real-time intermodal and multi-operator journey planners, automated fare collection systems using contactless cards or NFC-enabled handsets for account-based ticketing, and advanced mobility analytics software.

Public transport plays an increasingly important role in societies as a result of continuing population growth in cities and shifting consumer preferences. Approximately 60 billion and 13 billion public transport passenger journeys are carried out in Europe and North America respectively each year. Available modes include for example local and regional buses and trolleybuses, regional and suburban rail transport, metros and trams, and local waterborne passenger transport services. In 2016, the number of registered buses and coaches in Europe and North America reached 856,000 vehicles and 547,000 vehicles respectively, not including school buses. The economic value of public transport services in Europe is estimated to around € 150–160 billion per year, while the corresponding number in North America is around € 70–80 billion.

Berg Insight is of the opinion that the market for ITS in public transport is in a growth phase which will last for several years to come. Increased spending on ITS as a response to growing issues such as congestion, climate change and stagnating ridership numbers contribute to a positive market situation. Individual markets may however experience temporary fluctuations, depending on the political climate, austerity measures and local developments. The total market value of public transport ITS for buses and trams in Europe is forecasted to grow at a

compound annual growth rate (CAGR) of 7.0 percent from € 1.40 billion in 2017 to reach € 1.96 billion by 2022. The penetration of on-board computers with GPS location functionality and wireless communication in buses and trams in Europe is estimated to increase from 80.4 percent in 2017 to 91.7 percent in 2022, however varying considerably between regional markets. In North America, the total market value of public transport ITS is forecasted to grow at a CAGR of 7.5 percent from € 0.95 billion in 2017 to reach € 1.37 billion in 2022 and the penetration rate is estimated to increase from 83.8 percent in 2017 to 93.1 percent in 2022.

A group of international aftermarket solution providers have emerged as leaders on the market for public transport ITS. Major providers across Europe and North America include Canada-based Trapeze Group and Germany-based INIT with significant installed bases in both regions. IVU is furthermore a dominant player primarily in the German-speaking part of Europe and has also expanded to North America. Clever Devices and Conduent hold leading positions on the North American public transport ITS market, and the latter is also an international provider of fare collection systems. Additional companies with major market shares in North America include Routematch, Cubic Transportation Systems and Avail Technologies. Examples of companies with major market shares on national markets in Europe include ENGIE Ineo and RATP Smart Systems which hold leading positions in France, and Vix Technology which is a major provider on the UK market. Other significant players include the Spanish groups GMV, Indra and Grupo ETRA, French Thales, Italy-based PluService, Atron in Germany, Scandinavian FARA and Consat, and the Austria-based companies Swarco and Kapsch PublicTransportCom. Volvo Group is moreover a notable player from the vehicle OEM segment, while companies such as Scania, Daimler, New Flyer and Iveco also offer some conventional OEM telematics features for their buses.

The outlook for the public transport ITS market is positive, as several major developments encourage increased investments in such technologies. The ITS market is likely positively affected by international public transport-related initiatives such as the ITxPT Association as well as APTA's standards programs for public transport vehicles and ITS. The development of ITS has in recent years focused on increasing the level of integration and utilising technology advancements for fare collection purposes. Another major driver is the ongoing global developments related to the concept of smart cities, where ITS in general and public transport ITS in particular constitute key elements to enable sustainable smart mobility.