

# Mobile Navigation Services



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## Mobile navigation services take off in Europe and North America

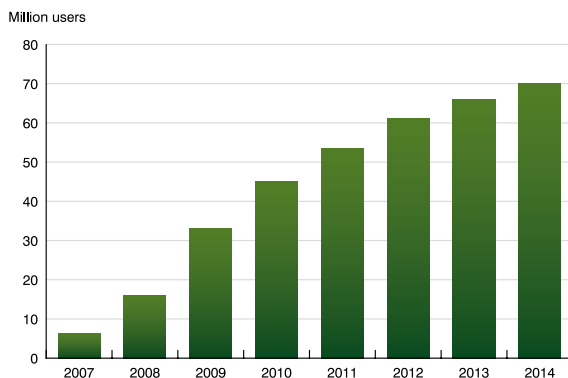
The personal navigation solution markets in both Europe and North America are still dominated by the Personal Navigation Device (PND) segment. However, more and more handset owners are discovering mapping and navigation software and services for mobile phones. Navigation services are available as on-board solutions with map data stored in the memory of the handset, and off-board services that rely on maps stored on a server. These solutions are gradually converging into hybrid services that store frequently used maps in the internal memory of the device and leverage wireless connectivity to access new maps, dynamic content such as traffic information, fuel prices and weather, and location-based services like location messaging and sharing of geo-coded content.

Multiple navigation solutions and device types are likely to co-exist also in the future. Although PNDs and in-car navigation systems often provide a better user experience than many handset-based navigation services, new handset models designed especially for navigation services will close the gap considerably. Moreover, handset navigation services are also well suited as a complement to other solutions, especially for use outside the car. Pedestrian navigation features gradually being introduced include improved map data and multimodal navigation, which will enable users to plan routes taking into account all available modes of transportation, including trains, busses, trams, ferries and airplanes.

Navigation services are marketed by network operators, handset vendors and various service providers. Even though the most common offering in both Europe and North America is daily or monthly subscriptions, both network operators and handset vendors have introduced one-time fees for lifetime use. Moreover, advertisement funded services have been launched in several markets by various actors, including mapping and directory providers. In the future, more services are likely to combine subscriptions with ►

► advertisement funded service components. Significant revenues from advertisements are not likely to materialise until usage increases substantially and more partnerships have been formed.

Following the introduction of new GPS handsets, OEM and after-market sales of on-board navigation software for smartphones increased to more than 1.3 million licenses in 2007. In Europe, where a clear majority of on-board software was sold, handset vendors and network operators have marketed numerous GPS handset and software bundles. In North America, network operators have focused on off-board navigation services. Following the breakthrough in 2006, operators have managed to increase net subscriber additions and the total subscriber base reached 4.7 million active subscribers in North America in Q4-2007. In Europe, where the availability of GPS-enabled handsets is still much lower, the off-board navigation subscriber base grew to 1.5 million in Q4-2007. However, increasing availability of mass-market GPS handsets is likely to allow the larger European mobile market to surpass the North American market also for navigation services. Berg Insight forecasts the number of active navigation service subscribers, i.e. those that have used a navigation service at least once in the past quarter, to reach 40 million in Europe and 30 million in North America in 2014. By then, most GPS-enabled handsets are likely to have mapping and navigation software as part of the standard feature set, similar to media players today.



Million users of mobile navigation services (Europe and North America 2007–2014).

### This report answers the following questions:

- Can the success for portable navigation devices be repeated with mobile devices?
- What are the business models and revenue opportunities for mobile navigation?
- What are the main differences and similarities of the European and North American markets?
- Who are the leading suppliers of on-board and off-board mobile navigation solutions?
- What navigation offerings are available from the mobile operators in the EU and the US?
- How are industry leaders such as Nokia, TomTom and Garmin positioning themselves on the emerging market?
- Will it be on-board or off-board turn-by-turn navigation solutions that prevail in the mobile space?

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## About the Author



**André Malm** is a telecom analyst with a Masters degree from Chalmers University of Technology. He joined Berg Insight in 2006 and his areas of expertise include location-based services, wireless M2M and personal navigation services.

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