Smart Water Metering in Europe and North America

3rd Edition

Smart Water Metering in Europe and North America is the third strategy report from Berg Insight analysing the latest developments in the markets for advanced metering infrastructure (AMI) and automated meter reading (AMR) technologies in the water sector in these two regions. This strategic research report from Berg Insight provides you with over 175 pages of unique business intelligence, including 6-year industry forecasts and expert commentary on which to base your business decisions.

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The number of water AMI endpoints in Europe and North America to twofold by 2028

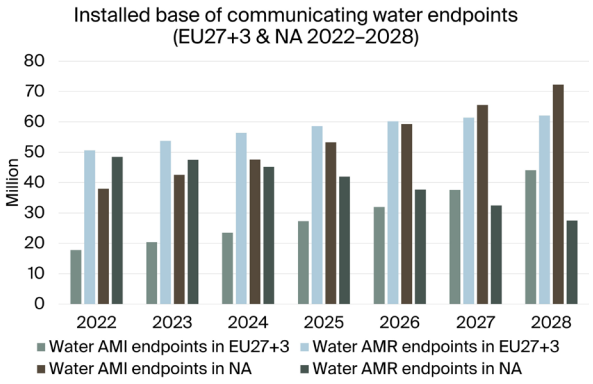
The registration and collection of water meter data has historically constituted a highly resource-consuming manual task, requiring professional meter reading personnel to visit each individual metering point to optically register meter consumption values on a periodical basis. Automated meter reading (AMR) solutions which enable wireless walk- or drive-by meter reading operations have over the years automated the work of meter reading personnel to some extent and are today commonplace within water metering operations. Throughout the past two decades, advanced metering infrastructure (AMI) solutions aimed at addressing the shortcomings of AMR by instead leveraging a fixed communications network infrastructure have evolved. By enabling high-frequency readings of detailed meter data while also allowing for direct two-way communications with the utility backoffice, AMI solutions open up entirely new possibilities for water utilities to make substantial enhancements of operational efficiency, reduce non-revenue water (NRW), and greatly improve water conservation schemes. Today, the term smart metering has become a buzz word within the water sector that is to be considered synonymous with the concept of AMI.

North America today constitutes the leading market for both AMR and AMI solutions globally and had at the end of 2022 an installed base of 86.5 million active water utility AMR and AMI endpoints, representing a penetration of around 75 percent. AMI accounted for 38.0 million of the installed endpoints, equalling an AMI penetration of more than 33 percent. Berg Insight forecasts that the number of water AMI endpoints in North America will grow at a compound annual growth rate (CAGR) of 11.3 percent to reach 72.3 million units in 2028. Large-scale deployments of AMI started to gain traction in the region a decade ago and have since grown steadily with multiple projects covering more than 100,000 endpoints now completed. Today, utilities seeking to replace their existing AMR solutions account for a substantial share of the AMI installations through meter-park upgrades.

Europe is meanwhile the second largest market for AMR and AMI solutions and had at the end of 2022 an installed base of 68.6 million active water utility AMR and AMI endpoints, translating into a penetration rate of approximately 45 percent. Less mature than the North American market, Europe had in 2022 a total of 17.8 million AMI endpoints installed, representing an AMI penetration of around 12 percent. The number is however forecasted to grow at a CAGR of 16.3 percent to reach 44.1 million units in 2028. France and Spain have historically been the primary markets for water AMI solutions in Europe, but markets such as Italy, the UK, Scandinavia, the DACH region and the Benelux are now also emerging as major water AMI markets.

A variety of proprietary and standards-based communications technologies are today used for water AMI deployments. In North America, proprietary RF networking platforms have completely dominated the market and accounted for as much as 92 percent of the installed base of AMI endpoints in 2022. Meanwhile, various proprietary and open-standard RF technologies based on the EN 13757 standard accounted for roughly 47 percent of all AMI endpoints installed in Europe. The category includes Wize, which constitutes the single most deployed technology for water AMI in Europe. Other proprietary RF technologies that are not based on EN 13757 accounted for over 37 percent of the European deployments. Optimised for cost-sensitive and mission-critical IoT applications, LoRaWAN and 3GPP-based LPWA technologies are now also emerging as real contenders within the water AMI markets – particularly LTE-M in the US and LoRaWAN and NB-IoT in Europe. At the end of 2022, LoRaWAN was used to connect a total of 1.6 million endpoints in Europe and this number is forecasted to grow at a CAGR of 36.6 percent to reach 10.6 million in 2028. Cellular communications meanwhile accounted for 3–6 percent of the installed base in both regions and is also forecasted to see massive growth throughout the forecast period, primarily driven by 3GPP-based LPWA deployments.

The water AMI and AMR markets in Europe and North America are largely served by local or regional players and only a few companies such as Itron, Sensus (Xylem), Honeywell, Kamstrup, the Arad Group and the Minol-ZENNER Group have managed to establish a major presence in both regions. At the end of 2022, the top 5 water AMI endpoint vendors in North America in terms of installed base were Sensus, Badger Meter, Itron, Aclara (Hubbell) and the Neptune Technology Group (Roper Technologies). The top 5 water AMI endpoint vendors in Europe comprised Diehl Metering, Itron, Birdz (Veolia), Sensus and Kamstrup. The SUEZ subsidiary SUEZ Smart Solutions also constitutes a key player in the European water AMI market by having been instrumental to the development and deployment of Wize technology.



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Insights from 30 new executive interviews with market leading companies.

360-degree overview of next generation RF and cellular standards for water AMI communications.

Comprehensive overview of the water utility markets in Europe and North America.

Profiles of the key players in the water AMI and AMR industry in Europe and North America.

In-depth analysis of the development of AMI deployments in Europe and North America.

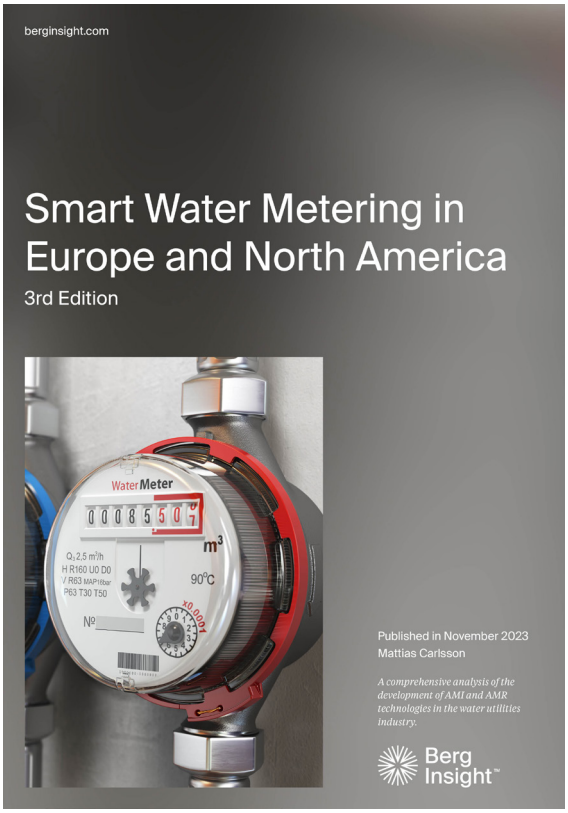
Detailed market forecasts by region and technology lasting until 2028.

The report answers the following questions

- Which are the main water utilities in Europe and North America?
- Which major trends are shaping the water AMI markets in Europe and North America?
- What are the main differences between the European and North American water AMI markets?
- Which are some of the largest water AMI projects in each region?
- Which are the leading providers of water AMI and AMR solutions in Europe and North America?
- What are the main communications technology alternatives for water AMI deployments?
- How will the communications technology landscape for water AMI change in the coming years?
- What is the outlook for emerging LPWA networking technologies in the water AMI market?

About Berg Insight's IoT market research

Our market reports offer comprehensive information and analysis on key IoT technologies and markets, addressing important concerns including total addressable market, market penetration, market shares, industry landscape, regulatory environment, market trends and forecasts. Our research portfolio today comprises more than 65 items, where each market report focuses on a specific vertical application area or cover horizontal themes. All market reports come with complementary data sets in Excel format that can be easily analysed and converted into tables and charts. We offer a range of different license options together with bundled packages and subscriptions to suit your specific needs.



SMART UTILITIES

Smart Water Metering in Europe and North America

Are you looking for detailed information and comprehensive data about the smart water metering market in Europe and North America? This report covers the latest developments in the markets for AMI and AMR technologies. The installed base of water utility AMI endpoints in Europe and North America amounted to 55.8 million units in 2022 and is forecasted to grow at a CAGR of 13.0 percent to reach 116.4 million units in 2028. Get up to date with the latest information about vendors, water utilities, products and markets.

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Who should read this report?

Smart Water Metering in Europe and North America is the foremost source of information about the development of the European and North American water AMI and AMR technology markets. Whether you are a vendor, utility, telecom operator, investor, consultant, or government agency, you will gain valuable insights from our in-depth research.

AUTHOR

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Mattias is an IoT analyst covering mainly the smart cities and utilities sectors. He is Berg Insight's lead analyst of smart electricity, gas and water metering research. Mattias also heads research projects within emerging smart city verticals such as smart streetlighting, smart parking, air quality monitoring, smart waste management and smart city surveillance. Mattias holds a Master's degree in Industrial Engineering and Management from Chalmers University of Technology and joined Berg Insight in 2022.

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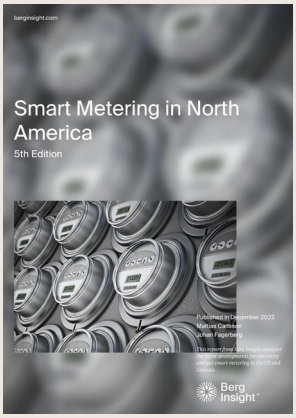

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