The Global Service Robotics Market

The Global Service Robotics Market is a strategy report from Berg Insight analysing the latest developments on this market covering floor cleaning robots, robot lawn mowers, milking robots, humanoid robots, telepresence robots, powered human exoskeletons, surgical robots, AGVs, AMRs and UAVs.

This strategic research report from Berg Insight provides you with 240 pages of unique business intelligence including 5-year industry forecasts and expert commentary on which to base your business decisions.

Highlights from this report:

- **Insights** from numerous executive interviews with market leading companies.

- **New data** on the 10 most important service robotics segments.

- **Comprehensive overview** of the service robotics value chain and key applications.

- **In-depth analysis** of market trends and key developments.

- **Updated profiles** of 89 major vendors and their service robotics activities.

- **Detailed view** on the involvement of IT and technology companies in this industry.

- **Market forecasts** by region for each robot category lasting until 2026.

The Global Service Robotics Market
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The future is here: Service robotics will change our lives

Robots are now being increasingly adopted for service applications, both by consumers and professionals. The service robot market comprises many different types of robots, most of which can be used for applications in multiple industries. At a consumer level service robots are commonly used for tedious and repetitive tasks such as domestic chores, or for leisure and entertainment purposes. At a professional level, service robotics often represents an investment that has potential to significantly increase efficiency and reduce costs by replacing traditional methods. Industries that will experience changing dynamics due to the entrance of service robots include agriculture, construction, medical, logistics, hospitality, entertainment and domestic consumer goods.

Ten major segments of the service robot market are believed to hold great market potential looking at the next ten years. These include floor cleaning robots, robot lawn mowers, milking robots, telepresence robots, surgical robots, automated guided vehicles, autonomous mobile robots, unmanned aerial vehicles as well as humanoid, assistant and social companion robots. The installed base of service robots in these segments reached 29.6 million worldwide at the end of 2016. The largest segment in terms of installed base is the floor cleaning robot segment, which alone accounted for 80 percent of the total at the end of 2016 with an estimated global installed base of 23.8 million units. The other two large segments include the UAV segment as well as the robot lawn mower segment, which are estimated to have had around 4.0 and 1.6 million units installed respectively at the end of 2016. Moreover, 0.1 million AGVs and 0.05 million milking robots are estimated to have been active worldwide at the end of 2016. The remaining segments including humanoid robots, assistant robots and companion robots, telepresence robots, powered human exoskeletons, surgical robots and autonomous mobile robots are all estimated to have had less than 50,000 units installed each at the end of 2016. The strong market growth is expected to last for years to come, driving the number of active service robots worldwide to 264.3 million by 2026, which corresponds to CAGR of 24 percent between 2016 and 2026.

Short range connectivity technologies such as Wi-Fi and Bluetooth are the most commonly used connectivity choices in service robots today. Berg Insight estimates that 18.5 percent of all service robots at the end of 2016 featured some short range connectivity technology. ▶
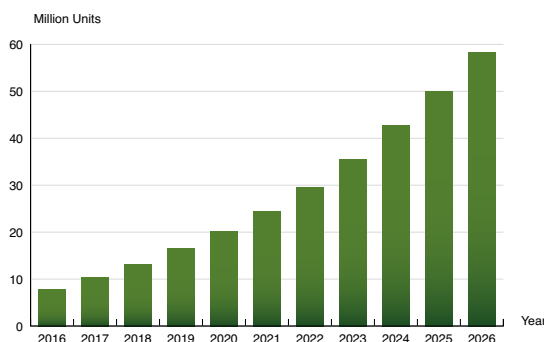
▶ Additionally, Berg Insight estimates that there were 63,000 cellular connected service robots active at the end of 2016, which only represents 0.2 percent of the global installed base. Cellular connectivity technology is today most commonly used by telepresence robots as well as by exoskeletons. It is estimated that 30.1 percent of all telepresence robots that were active at the end of 2016 featured cellular connectivity. This figure is estimated to be 15.0 percent for exoskeletons. Additional segments that featured cellular connectivity to some extent include the humanoid, assistant and social companion robot segment and the robot lawn mower segment. Berg Insight forecasts that 88.3 percent of all service robots active in 2026 will feature some kind of short-range connectivity. The corresponding percentage for cellular connectivity is forecasted to be 13.9 percent equal to 36.8 million units.

In recent years, many government and industry research funding programs have been initiated. Examples of such programs include the National Robotics Initiative in the US, the SPARC program in the EU, the Robot Revolution Initiative in Japan, the Made in China 2025 program and the Industrie 4.0 program in Germany. Most of these programs are aimed at the larger field of robotics and automation. However, as many robotics technology concepts are used by both industrial and service robots, these programs will undoubtedly have a significant effect on the development of the service robot industry as well. Another driver on the market is the increasing inflow of venture capital on the market that amounted to US$ 5.3 billion during H1-2017. The robotics industry is also experiencing increasing M&A activity. A total of US$ 18.8 billion was spent on robotics related M&As in H1-2017. There are four categories of actors engaged in the service robotics industry: industrial robot manufacturers, large technology firms, consumer goods manufacturers and startup companies. Major companies such as Amazon, Intel, Google and IBM that have invested heavily into service robotics during the past decade are important for the future robotics development. However, the number of companies that can be regarded as startups in the service robotics industry is growing rapidly and their role in the industry is just as important as the large actors.

This report answers the following questions:

- What is the current status of the service robotics industry?
- Which are the main actors targeting each of the 10 most important robot segments?
- How will technology developments affect the service robotics market?
- Which are the main drivers and barriers on this market?
- Which government and industry robotics initiatives influence the future of service robotics?
- How are IT and tech companies positioning themselves in the service robotics value chain?
- What connectivity technologies are used today in the different robot segments?
- How will the market evolve in Europe, North America, Latin America, Asia-Pacific and MEA?

Service robot shipments (World 2016–2026)

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About the Authors

Egil Edvardsen is an M2M/IoT Analyst with a Master's degree in Innovation and Industrial Management from the School of Business Economics and Law at the University of Gothenburg. His areas of expertise include service robotics and related markets and technologies.

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The Global Service Robotics Market is the foremost source of information about the emerging service robotics market covering the ten most important robot categories. Whether you are a robotics manufacturer, telematics service provider, telecom operator, content provider, investor, consultant, or government agency, you will gain valuable insights from our in-depth research.

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