

## Executive Summary World Robotics 2025 - Service Robots

The service robot industry is more heterogenous than the industrial robot industry. IFR Statistical Department is currently aware of 944 service robot producers worldwide. This excludes prototyping services and system integrators. Many companies are still in the funding or prototyping stage and intend to offer a marketable product in the future. On a global scale, 80% of the companies are small or medium-sized enterprises (SMEs) with up to 500 employees.

In 2024, worldwide sales of professional service robots grew by 9%, medical robots by 91%, and service robots for consumer use by 11%. More than 199,000 units for professional service robots and close to 16,700 units of medical robots sold were registered by the IFR Statistical Department. While robot sales for professional robots grew by a modest rate, the size of the RaaS fleet grew by 31% to more than 24,500 units. This reflects the growing importance of more flexible business models allowing firms to scale their robotic operations up or down based on demand.

The top 5 application groups for professional service robots (excluding medical robots) by unit sales in 2024 were transportation and logistics (AP5), followed by hospitality (AP8), professional cleaning (AP2), agriculture (AP1), and search & rescue, security (AP7). Mobile robot solutions are well established in **transportation and logistics** (AP5) with 14% more units sold in 2024. More than every other professional service robot sold in 2024 was built for the transportation of goods or cargo. This is also reflected in the number of suppliers with this application group. The IFR Statistical Department is currently aware of 333 companies that supply various types of logistics robots. Even though sales of robots for **hospitality** (AP8) decreased by 11%, the number of sales in absolute numbers with more than 42,000 sold remains the second highest volume amongst all application groups. Demand for **professional cleaning robots** (AP2) grew by 34%. Sales of more than 25,000 units were reported to the IFR Statistical Department. Sales in **agriculture** (AP1) contracted slightly by 6% with close to 19,500 units sold

For the application group of **search & rescue, security robots** (AP7) 3,128 robots sold (+19%) were reported for 2024. The application group **inspection and maintenance** (AP3) experienced tremendous growth with close to 2,800 robots sold in 2024 (+2476%). Service robots for **construction or demolition** (AP4) tasks constitute a niche market. The application group has nevertheless enjoyed a solid growth rate of 16% in 2024. The only modest increase in the sales of **other professional service robots** of 2% validates the application class scheme used by the IFR statistical department for the annual service robot survey. Only those service robots which cannot be accounted for by the existing application classes are allocated to this application group.

With the separation of medical robots from service robots, medical robots are now covered in chapter 3. Unit sales in 2024 for medical robots were particularly strong with close to 16,700 units sold and a growth rate of 91%. With demographic change and increased demand for medical assistance automating existing tasks becomes more important..

Consumer service robots are produced for a mass market. Service robots for consumer use have experienced a solid growth rate of 11% with close to 20.1 million units sold in 2024. Robots for **domestic tasks** (AC1) were by far the largest group of consumer robots, reaching 97% of all sales in this category. Compared to robots for domestic tasks, robots for **care at home** (AC3) cater to a niche market with only 536 sales registered by the IFR statistical department. These robots must adapt to more unstructured environments, performing more human-centric tasks that demand higher safety requirements and reliability.

Key driver of the market for service robots is demographic change and lack of skilled workers. Today's service robotics market is composed of many niche products for professional services and a few high-volume applications both for professional and domestic use. Pioneers in the field of service robotics stress the significant opportunities for new companies entering this growth market with innovative products beyond the occasional robotics hype. Service robots for professional use are extremely diverse since they are usually designed to perform a specific task. Cost-benefit considerations from an end-user's viewpoint are the main factor with respect to investment in such systems in addition to contributing to qualified and safe jobs. RaaS business models will contribute to the success of service robots by lowering adoption barriers considerably.

The service robot industry is developing at a high pace with a lot of merger and acquisition activity. Many companies identify themselves as "deep tech", meaning that they are willing to accept technological challenges during their product development phase to create technological advancement. Chapter 5 of World Robotics 2025 Service Robots offers an industry structure analysis of more than 900 service robot suppliers currently known to the IFR. This includes a full list of all companies and the applications they provide. Customers of World Robotics Premium are able to download this list in Excel format.

Although the service robotics industry is a young and growing industry, 93% of the suppliers are considered incumbents. This includes mature service robot suppliers as well as companies from other industries that added service robots to their portfolio. The 2010s saw a wave of new service robot manufacturers. Since then, the number of newly established companies steeply declined. IFR's market observation suggests two reasons for the decreasing share: Some market segments have already achieved a level of maturity that sees companies growing, for instance AMRs for warehouse logistics. Sales of AMRs have been growing strongly for many years now and companies grew and became incumbents. Further, founding activities shifted away from the development of robot hardware. The growing relevance of software, especially related to artificial intelligence, has led to a shift in entrepreneurial activities toward this area. Many service applications are based on collaborative industrial robots, purchased from an industrial robot producer. The service robot supplier is therefore not considered a robot producer as the robot is purchased from a third party. These companies act like system integrators, combining different components and developing software to create a solution.