From business case to deployment capability

Retailers understand the potential return on robotics, but realizing it depends on workforce reskilling and systems integration.

https://www.intel.com/content/www/us/en/robotics/robotics-readiness-gap.html

Goals set

Robotics is already delivering value for retail organizations, with 34% reporting increased productivity, 34% seeing quality improvements, and 32% benefiting from reduced downtime.

There is also optimism about the impact robots will have on the human workforce: 63% of leaders believe robots will make their human workers *more* skilled, not less.

52% of organizations have a defined ROI or payback framework

47% expect a return on their current-year investment within 12 months

But while 58% of retail leaders are confident that their organization will be ready to manage a mixed human-robot workforce by 2030, only 33% currently have a formal human-robot strategy in place.

Capability missing

Robotics has so far freed up or redeployed an average of 12% of the current human workforce capacity in retail, the lowest average across sectors. By 2030, this is expected to increase to an average of 22%, though this remains the lowest average of all sectors.

Leaders believe the expansion of robotics will mean new jobs are needed. Over seven in 10 (71%) believe that they will need entirely new human roles to manage, maintain and collaborate with robots.

28% of organizations are ready with the skills and staffing needed to deploy robotics at scale

32% have a robust training program to upskill employees

The specialist capability required is limited. Only 18% report strong capability in AI and machine learning (model training, inference, optimization), falling to 16% for robot operation and fleet management and 11% for edge computing and on-device AI infrastructure.

The story for retail



Systems disconnected

Retail readiness is limited with regard to the connected foundations required for robot fleets:

- 37% are ready (either fully or mostly) to provide cybersecurity for connected robots
- 35% are ready to provide 24/7 operational support
- 33% are ready for integration with existing IT/OT systems

Data is one of the weakest areas, with just 29% ready with the right high-quality and task-specific data needed.

66% of organizations say integration with existing systems is blocking robotics at scale

Primary readiness gaps:

Strategy Skills Safety Shape Scale

Robot types set to shape retail:

Autonomous mobile robots	Fixed industrial arms	Service robots
Inspection and sensing robots	Drones	Exoskeletons