

5 JUNE 2026 GLOBAL SUMMIT OF WOMEN ISTANBUL

MEGATRENDS IN ROBOTICS

Andie Zhang – Global Portfolio & Technology Manager Collaborative Robots
ABB Robotics

What has happened in the last 2 years in robotics?

More and more humanoid robots entering into our feeds

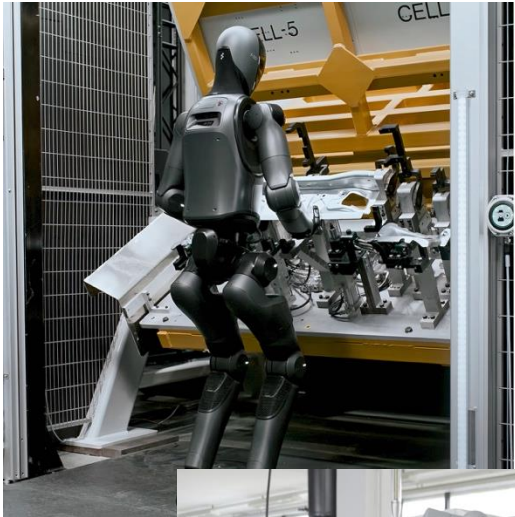


35 humanoid robots on the market in 2024 vs 150 in 2026!

Three Main Application Areas of Robotics

For both humanoid, industrial and other types of robots

Manufacturing & Logistics



Commercial services



Home & Care



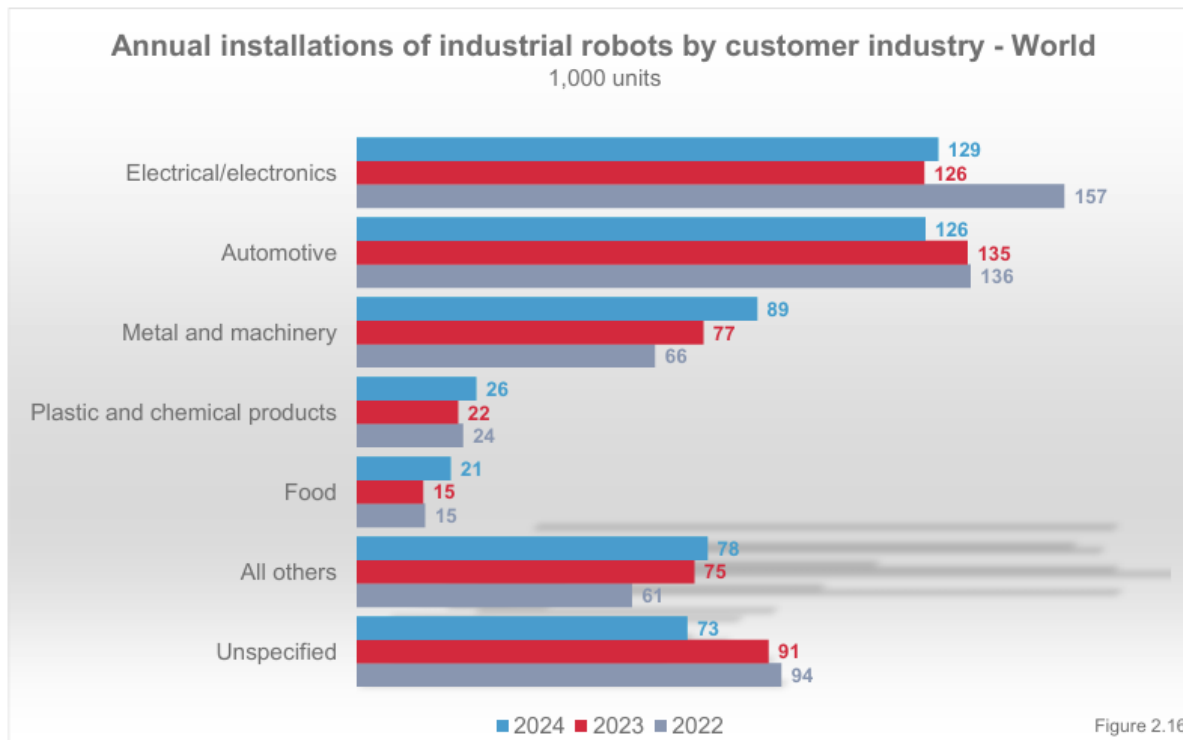
Humanoid Robots Today: Promising Form Factor, Early Commercial Reality

- **Hardware constraints:** battery life, durability
- **Sensing and perception:** dexterous manipulation, situational awareness
- **Software and AI:** data scarcity, autonomous action, real-time decision making
- **Economics:** cost of hardware, ROI uncertainty
- **Safety and regulation:** human-robot coexistence, safety regulations



Meanwhile, Industrial Robots Continue to be Deployed in Manufacturing

Over 500,000 new robots installed annually - driven by high volume industries like Electronics and Automotive



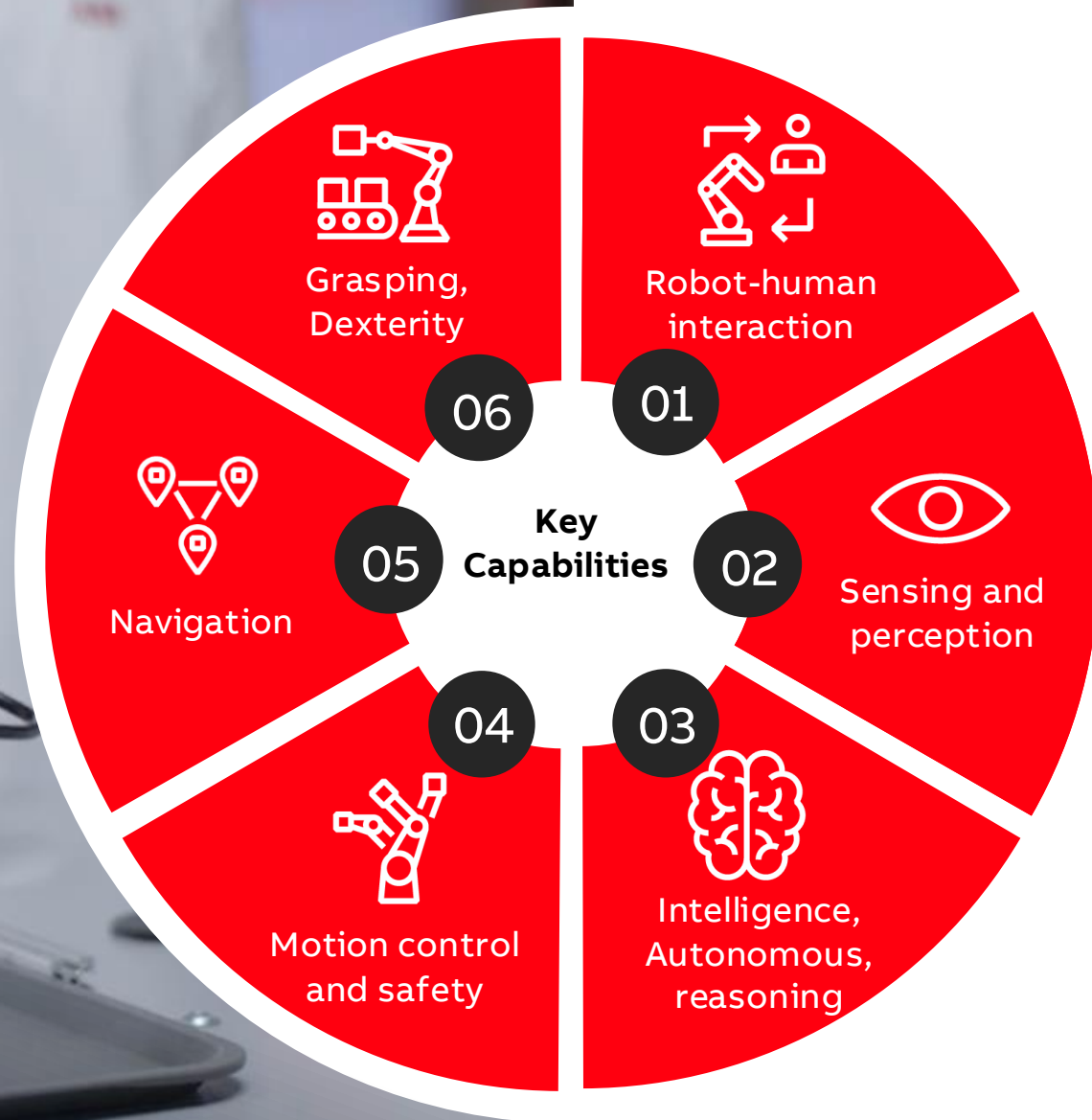
Industrial robots are improving manufacturing efficiency around the world, including here in Turkey

- Çemsan faced **labor shortage** and long operator training time
- 15 GoFa cobots deployed for **welding**
- **4x increase** in welding efficiency
- Defects nearly **eliminated**
- Operators fully trained on robots in **2 weeks**
- Robots can be flexibly **re-positioned anywhere**



**WHAT ABOUT
PHYSICAL AI?**

Autonomous Versatile Robots



Real-world Physical AI



Summary: Where robotics is going

- **Robot density** is increasing worldwide, driven by labor shortage
- **Both humanoid robots and industrial robots** will be able to solve more problems with Physical AI capabilities
- **The first Physical AI deployments** are likely to be industrial use cases, solving specific problems, with real ROI



AABB