

Europe's Robotics Moment: From Trustworthy AI to Trustworthy Robots

Dear Executive Vice-President,

Europe stands at the threshold of a technological transformation that will be as consequential as the internet, the smartphone and artificial intelligence. The next revolution will not take place only on screens or in data centres. It will unfold in factories, hospitals, logistics hubs, construction sites, farms, public infrastructure and homes. It will be driven by intelligent machines capable of acting in the physical world.

As leaders of European robotics research, technology developers, robotics companies, and industrial end-users, we believe Europe must act now to secure a leading position in AI-based robotics and embodied intelligence. This is not only a matter of competitiveness. It is about Europe's future prosperity, technological sovereignty, social resilience and capacity to respond to profound demographic and geopolitical change.

The challenge is clear. Europe is expected to lose up to 20 million people from its labour force over the coming decade due to demographic trends. At the same time, global competition in robotics is accelerating rapidly. What was once a specialised industrial market is evolving into a foundational technology platform with the potential to rival the scale and impact of the automotive, computing and smartphone industries.

The world's leading economies have already recognised this shift. The United States is mobilising unprecedented levels of private capital around AI-powered robotics platforms. China has elevated "Physical AI" and advanced robotics to strategic national priorities and is coordinating investment, industrial policy and deployment at scale. Robotics is increasingly becoming a source of economic strength, industrial leadership and geopolitical influence.

Europe cannot afford to watch from the sidelines.

The good news is that Europe starts from a position of strength. European researchers, engineers and entrepreneurs have built world-leading capabilities in robotics, industrial automation, collaborative robots, autonomous systems and human-machine interaction. Our universities, research institutes and industrial champions form one of the strongest robotics ecosystems in the world.

Yet excellence in research alone is no longer sufficient. Europe has often led in invention but lagged in industrialisation and scale. We cannot repeat this pattern in robotics. The next decade will determine who owns the platforms, the data, the intellectual property, the manufacturing capacity, the standards and the value chains that will shape intelligent machines for generations to come.

We therefore call for the establishment of a dedicated European AI-Based Robotics and Autonomous Systems Programme: a strategic initiative that aligns research, infrastructure, investment, procurement, industrial policy, skills and regulation under a common European framework.

Its objective should be clear: Europe must become a global leader not only in robotics innovation, but also in robotics deployment, production and market creation. Similar demands are made by the euROBOTICS June 2026 "Vienna Statement"¹.

To achieve this ambition, five priorities should guide European action.

First, **Europe must accelerate research, innovation and infrastructure.** Sustained investment is needed in the next generation of intelligent machines, combining advances in artificial intelligence, robotics, sensing, manipulation and autonomy. Europe should expand access to high-performance computing, AI factories, embodied-AI data platforms, testing facilities and certification infrastructure. It should strengthen collaborative networks connecting researchers, start-ups, SMEs and industrial leaders across borders and create stronger incentives for the transfer of research into commercial applications.

Second, **Europe must create pathways from laboratory breakthroughs to large-scale deployment.** Strategic pilot programmes should demonstrate robotics at scale in manufacturing, logistics, healthcare, infrastructure maintenance, agriculture, public services and defence. Europe must become faster and more effective at transforming successful prototypes into widely adopted solutions that strengthen productivity, resilience and competitiveness.

¹ [2026 Vienna Statement](#)



Third, **Europe must build globally competitive robotics value chains.** Europe already possesses many of the capabilities required, from advanced manufacturing and precision engineering to industrial software and automation. What is needed now is a coordinated industrial strategy that enables these strengths to converge into world-leading robotics ecosystems. Success should be measured not only by scientific excellence, but by the number of European robotics companies that become global market leaders and the volume of private investment attracted to the sector.

Fourth, **Europe must become a launch customer for its own innovations.** Public procurement has played a decisive role in building European capabilities in aerospace, defence and space. Robotics should be treated with the same strategic ambition. Hospitals, infrastructure operators, public authorities and defence programmes can create early markets that accelerate adoption, provide valuable operational feedback and enable European companies to scale. Procurement should be recognised as a strategic tool for innovation, competitiveness and technological sovereignty.

Fifth, **Europe must establish a regulatory and standards framework** that enables innovation while preserving trust. Europe has already helped shape the global discussion on trustworthy AI. It should now lead in trustworthy robotics. Regulatory sandboxes, harmonised deployment frameworks, certification pathways and common standards can provide innovators with the certainty needed to scale safely and responsibly. Standards, certification and interoperability frameworks should be viewed not only as regulatory instruments, but also as strategic assets that help strengthen European competitiveness and accelerate market development.

At the same time, **robotics is not only an industrial transformation.** It is a societal transformation. AI-based robotics can help address labour shortages, support ageing societies, improve working conditions and strengthen Europe's social model. Increased productivity must translate into broader prosperity, economic opportunity and social cohesion. Public trust, transparency and accountability will remain essential foundations of long-term success.

Europe must lead the global conversation on how the benefits of robotic productivity are shared broadly across society. While the increase of productivity through AI-based robotics will be a major contribution to economic development and competitiveness, we have to make sure that this will lead to welfare for the society at large and will not increase social disparities. We must ensure that robotics strengthens human capabilities rather than replacing human dignity. And we must foster public trust through transparency, accountability and democratic oversight.

The rise of intelligent robotic labour should be viewed not as a threat, but as an opportunity to address labour shortages, improve working conditions, support the ageing workforce and Europe's social model. If managed wisely, robotics can help sustain healthcare systems, strengthen industrial competitiveness and improve quality of life for millions of Europeans.

This is precisely why **Europe is uniquely positioned to lead.** Europe has already demonstrated that innovation and values can advance together. We helped define the global conversation around trustworthy AI. We now should take the chance to lead in trustworthy robotics.

Europe is uniquely positioned to lead this transformation. We have the scientific excellence, industrial capabilities, entrepreneurial talent and values needed to shape the future of intelligent machines. But leadership will not happen automatically.

The scale of the opportunity demands political ambition, industrial commitment and coordinated European action.

The European Parliament, the European Commission and Member States have a unique opportunity to act in the form of a dedicated European AI-Based Robotics and Autonomous Systems Programme. Research programmes need to be expanded extensively – but they alone will not be enough. Europe needs an integrated strategy that aligns innovation, infrastructure, procurement, investment, industrial policy and regulation around a common objective.

We are convinced that Europe has everything required to lead.

Now is the time to build the industry, the infrastructure and the institutions for trustworthy European robotics.

This letter was initiated on behalf of the European Network of Excellence euROBIN.

Signed,

