

HYBRID | DECENT WORK

REGIONAL FORUM ON PHYSICAL AI FOR DECENT WORK

HUMAN-CENTRED APPROACHES TO AI-POWERED ROBOTICS IN SERVICE SECTORS

2 – 4 DECEMBER 2026
ITCILO CAMPUS AND ONLINE

Under the umbrella of the Turin School of Development (TSD)

Information Note

International Labour Organization

THE WORLD BANK
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Development Economics

TURIN SCHOOL of DEVELOPMENT

ITC International Training Centre

BACKGROUND AND RATIONALE

AI-powered robotics and Physical AI are rapidly moving from experimental environments into real-world deployment across manufacturing, logistics, hospitality, education, care and other service sectors. Humanoid and semi-humanoid systems are increasingly capable of interacting with people, navigating dynamic environments and supporting service-related tasks, while advances in multimodal AI and large language models are accelerating their practical applications.

At the same time, many countries are facing growing **labour shortages and demographic pressures**, particularly in **labour-intensive service sectors** such as caregiving, hospitality, and domestic work. In several contexts, demand for these services is increasing while workforce availability is declining, creating mounting pressure on institutions, labour markets and social systems. This situation creates a highly dynamic interplay of opportunities and threats for workers, businesses, and clients alike. Might workers be displaced? Or could the technology be deployed in a way that it will increase the productivity, wages, working conditions and quality of service? What are the overarching employment effects in terms of quantity and quality of jobs? What are the repercussions for skills and training needs for workers in these sectors? And what policy levers need to be set to manage these transitions with a human-centred perspective that benefits both workers and consumers?

Technological adoption is progressing rapidly, while governance frameworks, institutional preparedness and public policy responses remain fragmented and underdeveloped. This creates an urgent need for human-centred and evidence-based policy dialogue on how Physical AI can augment, rather than substitute, human labour, while supporting decent work, social justice and sustainable service provision; and what policies and institutions are needed to guide these processes responsibly.

WHAT?

FLAGSHIP ACTIVITY: REGIONAL FORUM ON PHYSICAL AI FOR DECENT WORK

In response to the rapid emergence of Physical AI and robotics in labour-intensive service sectors, the regional Forum on Physical AI for Decent Work is organised under the umbrella of the Turin School of Development (TSD), highlighting the importance of bringing together academia and policy makers, to drive evidence-based approaches for human-centred transitions and decent work.

The Forum will take place as a three-day event at the UN Campus in Turin on 2-4 December 2026, combining policy dialogue, expert exchanges and practice-oriented discussions.

The Forum creates an interregional platform for policy dialogue and knowledge exchange on the impact of Physical AI and robotics on labour-intensive service sectors, with a focus on governance, skills, decent work, as well as the required policy needs and approaches to guide human-centred transitions.

The Forum will be held in a hybrid format, welcoming both in-person and online participants. Participants joining in person at the UN Campus in Turin will also have the opportunity to experience AI-enabled and robotic systems first-hand, adding a practical and interactive dimension to the discussions.

As part of the Forum, one day will be conceived as a high-visibility day, welcoming a wider audience, including university students and institutional representatives, extending the reach of the policy dialogue to the next generation of researchers and practitioners.

Content

Over the three days, the Forum will be structured around a set of interconnected thematic pillars that move from understanding the transformation underway to identifying the policy and institutional responses needed to guide it.

The programme combines policy dialogue, expert inputs, comparative perspectives and practice-oriented exchanges:

1. Global Perspectives on Physical AI and the Future of Service Work

Emerging applications of robotics and Physical AI across labour-intensive service sectors, including hospitality, logistics, education, public services and customer interaction. Comparative perspectives on robotics adoption, labour transitions and future scenarios across different regional and economic contexts.

2. Labour Scarcity, Demographic Change and the Care Economy

The role of robotics and assistive technologies in contexts characterized by ageing societies, workforce shortages and increasing demand for care and social services.

3. Skills, Learning and Human–Machine Collaboration

The implications of Physical AI for skills development, workplace transformation, lifelong learning and new forms of human–machine collaboration

Cross-cutting focus: Governance, Ethics and Human-Centred Robotics

Across all three pillars, the Forum will examine governance frameworks, ethical considerations and public policy approaches to ensure that Physical AI supports decent work, inclusion and social justice.

Expected outcomes

The Forum contributes to a stronger global policy dialogue on the impact and governance of Physical AI in the world of work. It will yield emerging answers to the questions on the potential labour market impact of these emerging technologies as well as the required policy responses to manage human-centred transitions that benefit workers, businesses, and consumers alike.

Outputs include:

- Strengthened global policy dialogue on Physical AI and service-sector transitions for better labour market outcomes
- Cross-sectoral and international partnerships
- Greater understanding of the possible impacts of Physical AI on labour markets in the service sectors
- Knowledge-sharing and dissemination
- Inputs for future training and research initiatives
- Increased academic and policy collaboration
- Follow-up capacity development activities and pilot initiatives

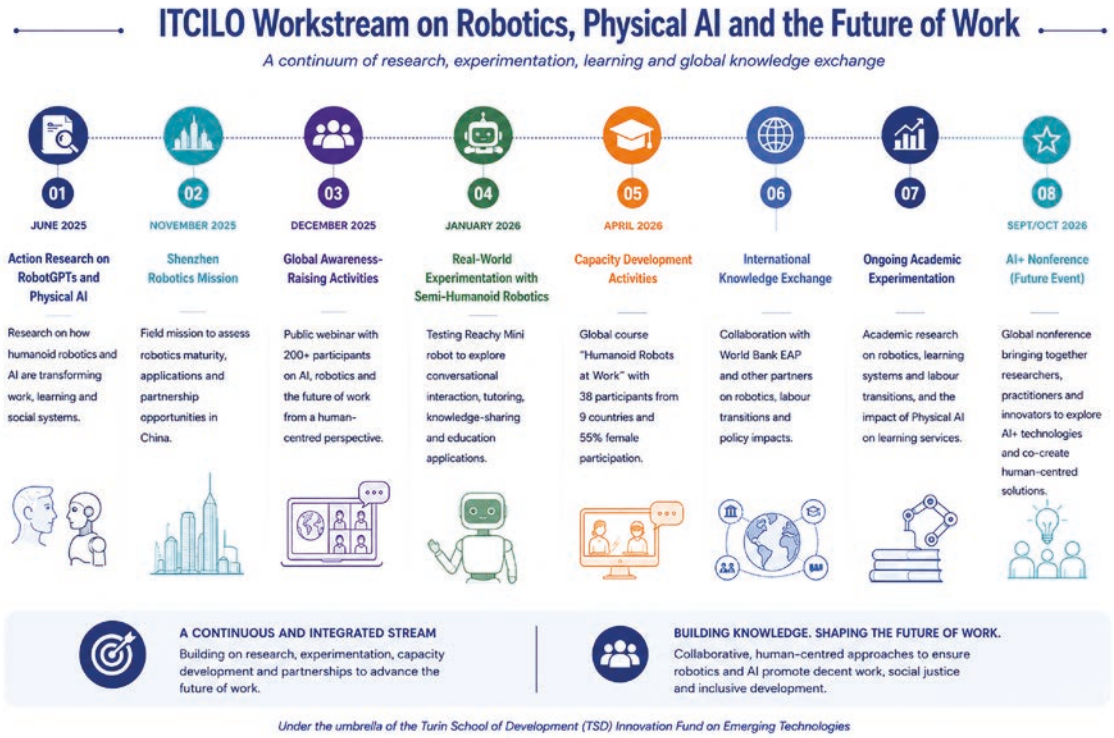
The Forum is conceived as part of a longer-term strategic stream on Robotics and the Future of Work, combining research, experimentation, capacity development and global convening activities under a human-centred and future-oriented framework.

WHY?

THE BROADER ITCILO WORKSTREAM ON ROBOTICS AND EMERGING TECHNOLOGIES

The Forum forms part of a broader ITCILO workstream on Robotics, Physical AI and the Future of Work developed under the Turin School of Development (TSD) Innovation Fund framework on Emerging Technologies. The initiative contributes to strengthening global academic-policy dialogue on emerging technologies and the future of work, while fostering research, experimentation, capacity development, and global knowledge exchange on human-centred approaches to robotics and AI. The Forum is therefore conceived not as a stand-alone event, but as the flagship convening activity within a broader ecosystem of activities facilitated by ITCILO.

It aligns with the ILO Innovation Sparks Initiative and, in particular, with the Turin School of Development (TSD) Innovation Fund framework on Robotics and fair digital transitions.



WHO?

Participants

The initiative seeks to bring together policymakers, labour market analysts, skills and TVET practitioners, researchers, social partners, international organizations, development institutions, robotics companies and innovation ecosystems to jointly explore opportunities, risks and policy implications related to the deployment of Physical AI in service environments.

The high-level session will additionally be open to a wider audience, including students and faculty from local universities and other interested stakeholders.

Partnerships and contributions

The Forum is intended to serve as an open and collaborative platform bringing together diverse institutions and perspectives.

ITCILO has already established collaborations with a wide range of public and private sector partners working on emerging technologies, robotics, AI, and the future of work. On the institutional and academic side, collaborations have included organizations such as the Compagnia di San Paolo Foundation, the World Bank East Asia and Pacific team, academic entities such as Politecnico di Torino, KoreaTech, Technical University of Munich (TUM), and several ILO departments and initiatives. On the private sector side, ITCILO has engaged with robotics and technology companies including Oversonic Robotics, Digit International, UBTECH, and Pollen Robotics, contributing to joint reflections, learning activities, experimentation, and knowledge exchange on human–machine collaboration and the future of work.

Thematic contributions include, among others:

- Robotics and ageing societies
- Service robotics deployment
- Labour market transitions
- Human-centred AI governance and ethics
- Robotics and public policy
- Physical AI in education and training systems
- Employment policy responses to robotics and Physical AI
- Labour market analysis, skill anticipation and sectoral diagnosis
- Job quality, decent work and productivity in technology-enabled services

Possible exchanges may also build on ongoing dialogue with institutions and experts working on robotics, demographic transitions, service innovation and future labour market governance.

APPLICATION

The deadline for submitting applications to the event is **9 November 2026**. The Forum will be held in a hybrid format, combining in-person and online participation.

Participants joining in person at the UN Campus in Turin will have the unique opportunity to interact directly with physical AI and humanoid robotic systems on-site — a hands-on experience that goes beyond what any screen can convey.

Attendance modalities for the high-visibility day will be communicated separately.

LANGUAGE

This event will be held in English.

COST

The participation fee for in-person attendance is **€1,420**, covering tuition (€840) and subsistence (€580). Online participants are required to pay the tuition fee only (€840).

AGENDA

DAY 1 — Setting the Scene: Demographics, Labour Shortages and Physical AI

MORNING

Exploring the Nexus between Digital Technologies, Demographic Change and the Future of Work: The Forum opens by placing Physical AI within the broader transformations reshaping the world of work. The session introduces the links between technological change, demographic pressures and decent work, establishing a common framework for the discussions that follow.

Megatrends Shaping the Future of Work in Europe and Asia — Demographic and Technological Forces: An examination of the demographic and technological forces transforming labour markets across Europe and Asia. The session considers how ageing societies, changing workforce dynamics and advances in AI and robotics are converging, and what these developments may mean for the future of work.

Demographic Change, Labour Shortages, AI and Decent Work: A panel exploring how demographic change is intensifying labour shortages, particularly in labour-intensive service sectors. The discussion will examine the nature and scale of these pressures and their implications for employment, working conditions and decent work.

AFTERNOON

Responding to Scarcity — An Introduction to Physical AI: The afternoon turns to the potential technological response. This session introduces Physical AI and explores whether AI-powered robotics could complement human work and help address labour shortages in service sectors, while considering the conditions required for its responsible adoption.

AI Robots Fair and Live Demonstrations: A practice-oriented showcase of AI-powered robotic systems and their emerging applications. Live demonstrations will allow participants to engage directly with the technologies and connect the policy discussion with concrete developments across service environments.

DAY 2 — Competencies for Human–Robot Collaboration in the Service Sector

MORNING

Competencies for Effective Human–Machine Collaboration in the Service Sector: A keynote and expert exchange on how human–robot collaboration may transform occupations and workplaces. The session will explore the technical, transversal and organisational competencies that workers, managers and institutions will need to facilitate effective collaboration while safeguarding human agency.

Physical AI at Work in the Service Sector — Emerging Good Practice: A sector-focused discussion of emerging applications and experiences in care, hospitality, logistics and education. The panel will examine how Physical AI is being introduced in different service environments, with particular attention to work organisation, skills, human oversight and the quality of human–robot interaction.

AFTERNOON

AI and Ethics: A keynote exploring the ethical questions raised by increasingly capable AI-powered systems, with particular attention to human dignity, agency and responsibility. The session will consider the principles needed to guide the development and use of Physical AI in the world of work.

Ethical Guardrails for Intelligent Machines in an Age of Increasing Autonomy: A panel examining how ethical principles can translate into practical safeguards for human–robot collaboration. The discussion will address human oversight and the allocation of rights, responsibilities and obligations among humans and machines, exploring the governance approaches needed to support responsible and human-centred adoption.

DAY 3 — Steering Fair and Human-Centred Transitions

MORNING

Active Labour Market Policies for Fair Transitions towards Human–Machine Collaboration: A policy dialogue on how active labour market policies can help harness Physical AI for decent work in the service sectors of fast-ageing societies. The session will consider how governments can anticipate change, support workers and enterprises, and ensure that technological adoption contributes to a fair and human-centred transition.

Governing the transition: Government, social partners and other stakeholders' perspectives: Country and civil-society case studies will ground the policy discussion in concrete experiences. The session will compare approaches to governing technological and demographic change and examine how governments social partners and civil-society actors can contribute to inclusive, responsible and socially just transition pathways.

Closing Remarks: The Forum will conclude by bringing together the principal insights emerging from the three days and highlighting priorities for future policy dialogue, international cooperation and capacity development on Physical AI and decent work.

CAMPUS LIFE

A THRIVING UNITED NATIONS CAMPUS AND COMMUNITY OF PROFESSIONAL PEOPLE FROM AROUND THE WORLD

- **Three organizations** from the United Nations system on campus
- **More than 300 training courses** and activities in a stimulating international environment
- **Thousands of participants** from all over the world

ENVIRONMENT AND SURROUNDINGS

Grab a campus bicycle and explore the Turin Centre. Located in a leafy park on the banks of the Po River, it's a great place for study and collaboration. Experience innovative learning and training methods in modern classrooms equipped with simultaneous translation services.

HOUSING, DINING, AND MORE

Comprising more than 280 private dormitories, the **Turin Campus provides a broad range of services for course participants and partners** including a free-flow restaurant, travel agency, laundromat, post office, gym, medical services and a reception desk open 24/7.

COMMUNITY ENGAGEMENT AND DIVERSITY

Participants can enjoy social events organized by the Turin Centre as well as by their course facilitators. Whether on or off campus, people from different cultural backgrounds have the opportunity to listen to live music together, cook and share traditional foods, or team up to play games and network.

WITHDRAWAL, CANCELLATION POLICY, AND REFUNDS FOR OPEN COURSES

If an enrolled participant wishes or must withdraw from a course, they may choose to apply to a different course or be substituted by another candidate. The participant must notify the Centre, in writing, of their decision at least 14 days prior to the start date of the course. Cancellation of participation in regular courses will result in the following penalties:

- 14 days or more prior to the start date of the course: No penalty, 100% refund of amount paid less applicable bank charges
- 8 to 13 days prior to the start date of the course: Penalty of 50% of course price, refund of residual amount paid (if any) less applicable bank charges
- 7 days or less prior to the start date of the course: Penalty of 100% of course price.

INFO

FOR FURTHER INFORMATION PLEASE CONTACT

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SCAN THE QR CODE OR VISIT

bit.ly/4b5Gg8A

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