



DECENT WORK

GLOBAL FORUM ON PHYSICAL AI FOR DECENT WORK

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

2 – 4 DECEMBER 2026

HYBRID

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

Information Note



International
Labour
Organization



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: GLOBAL FORUM ON PHYSICAL AI AND THE FUTURE OF WORK

In response to the rapid emergence of Physical AI and robotics in labour-intensive service sectors, the Global 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 a global platform for policy dialogue and knowledge exchange on the impact of Physical AI and robotics on labour-intensive service sectors, with a particular focus on the possible employment impacts, 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.

Day 1 of the Forum is conceived as a high-visibility day: in addition to registered Forum participants, it will welcome 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

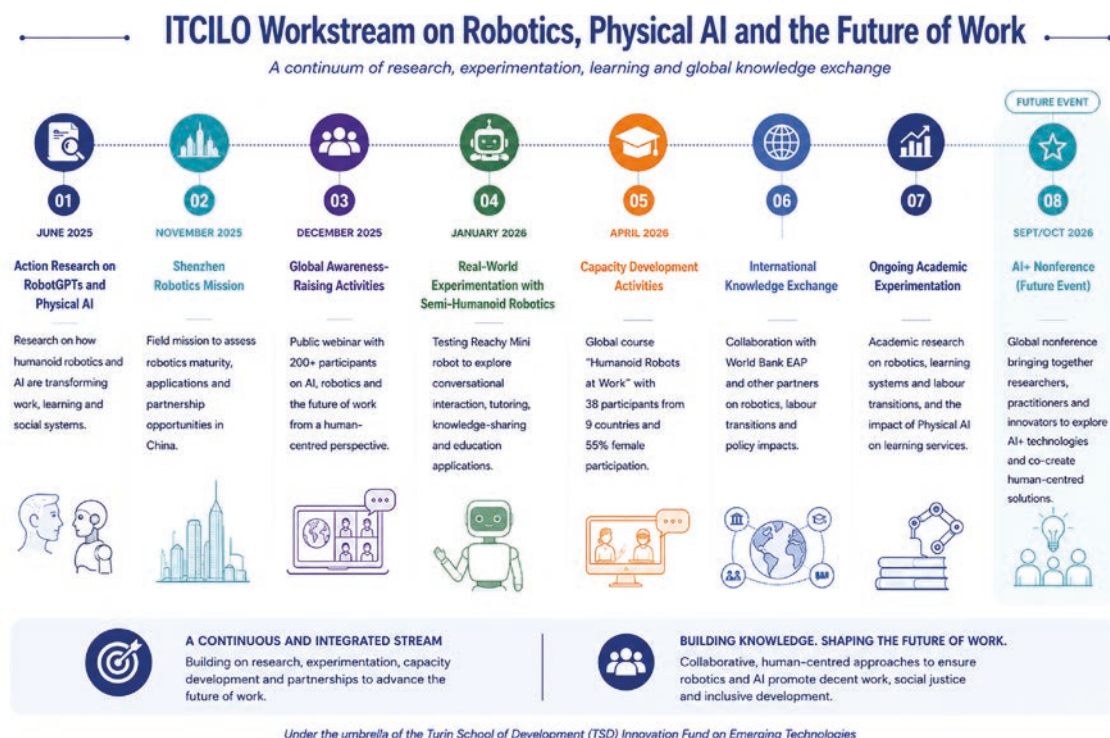
The Forum is conceived as part of a longer-term strategic stream on Robotics and the Future of Work, combining research, experimentation, capacity development and global convening activities under a human-centred and future-oriented framework.

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.

Day 1 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, University of Munich, 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 application 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 open Day 1 will be communicated separately.

LANGUAGE

This event will be held in English.

COST

The participation fee for in-person attendance is **€1,355**, covering tuition (€840) and subsistence (€515). Online participants are required to pay the tuition fee only (€840).

AGENDA (TENTATIVE DRAFT)

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

The first day is open to a wider audience beyond registered participants, including students from local universities, institutional representatives and other interested stakeholders.

MORNING

Introduction to Robotics and Global Demographic Change Speaker. Opening keynote setting the scene for the entire Forum — an introduction to robotics and Physical AI through the lens of global demographic change. This session frames the overarching narrative: why demographic shifts are driving renewed urgency around automation and robotics, and what this means for the discussions that follow over the three days.

Global Demographic Change: A Closer Look. Short panel deepening the discussion on global demographic trends — ageing societies, workforce decline, and shifting dependency ratios — before moving into sector-specific dynamics.

Zooming In: Labour Shortages Across Service Sectors. Building on the demographic panel, this session narrows the focus to labour-intensive service sectors most exposed to demographic pressure and workforce shortages — including care, hospitality, logistics, education, public services and customer interaction. Reflection on the scale and nature of the gap across these sectors.

AFTERNOON

Responding to Scarcity: An Introduction to Physical AI. The afternoon answers the question raised in the morning: can Physical AI help address labour shortages? Introduction to what Physical AI is, its current state of adoption, and its relevance to labour-intensive service sectors. Followed by a real showcase segment featuring robotics companies presenting practical, real-world applications of Physical AI across different sectors (e.g.: hospitality, logistics, care, education).

DAY 2 — Policy Responses: From Labour Shortage to Labour Transition

MORNING

From Labour Shortage to Labour Transition: Framing the Policy Question Introduction to the shift in framing — from viewing labour shortages as a problem to be solved, to understanding labour transitions as a process to be governed. What does a human-centred transition look like?

Country Case Studies: Comparative Perspectives on Labour Transitions A closer look at how different countries are experiencing and responding to labour shortages and the adoption of Physical AI: countries' perspectives to broaden the comparative lens.

AFTERNOON

Policy Preparation for Human-Centred Transitions Translating the morning's evidence and comparative insights into policy direction. What governance frameworks, institutional capacities, and policy levers are needed to prepare for and manage the labour transition driven by Physical AI?

DAY 3 — Skills, Collaboration, and the Future

MORNING

Human-Robot Collaboration in Practice. Deep dive into how humans and robots can effectively collaborate in shared workspaces. Models of human-machine collaboration, trust, and task allocation in service settings.

Skills for the Age of Physical AI. What skills will workers need as Physical AI becomes part of everyday service work? Discussion of emerging skill needs, reskilling and upskilling strategies, and the implications for training systems. Session closes with a live demonstration.

AFTERNOON

What's Next in Human-Machine Collaboration, and Machine rights. Closing session of the Forum, taking a step back from policy and practice to reflect on where human-machine collaboration

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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