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Submissions from entities in the United Nations system, international organizations and other stakeholders on their efforts in 2025 to implement the outcomes of the WSIS

Submission by

United Nations Economic Commission for Europe

This submission was prepared as an input to the report of the UN Secretary-General on "Progress made in the implementation of and follow-up to the outcomes of the World Summit on the Information Society at the regional and international levels" (to the 29th session of the CSTD), in response to the request by the Economic and Social Council, in its resolution 2006/46, to the UN Secretary-General to inform the Commission on Science and Technology for Development on the implementation of the outcomes of the WSIS as part of his annual reporting to the Commission.

United Nations Economic Commission for Europe (UNECE)

Progress made in the implementation of the outcomes of the World Summit on the Information Society at the regional and international levels

7 November 2025

I. EXECUTIVE SUMMARY

1. The implementation of the outcomes of WSIS by the United Nations Economic Commission for Europe (UNECE) remains focussed on areas related to economic development, connectivity and sustainability, with a particular emphasis on access to information regarding environmental issues and business applications on trade and other economic sectors.

2. Access to information is a basic requirement for evidence-based decisions, leading to effective government policies and informed choices by consumers. In the area of environment, UNECE services and promotes the implementation of multilateral agreements and instruments that set legal standards on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention), or criteria for searchability and structure of data dissemination tools for releases of pollution and movement of waste (Protocol on Pollutant Release and Transfer Registers).

3. In 2025, UNECE activities continued to advance effective public access to environmental information through the use of modern digital technologies. They supported the implementation of the principles and pillars of Shared Environmental Information System (SEIS) and the efforts of member States in advancing their digitalization relying on open data, big data and state-of-the-art digital technologies while improving data availability, transparency and public participation in decision-making. Capacity development activities have been conducted to support availability and timely flow of reliable information and data at national level.

4. UNECE maintains hundreds of freely available internationally recognized digital standards and trade facilitation recommendations. It has strengthened traceability and transparency to further advance due diligence across value chains in critical sectors for the green and digital transitions. Through its Sustainability Pledge, UN/CEFACT has established and continues supporting a Community of Practice. Furthermore, in order to facilitate the use of its Public-Private Partnerships Infrastructure Evaluation and Rating System (PIERS), UNECE promotes the use of a Digital Platform to facilitate the efforst of governments to mobilise private sector resources for financing infrastructure projects.

II. OVERVIEW OF TRENDS AND EXPERIENCES IN IMPLEMENTATION

5. Countries across the UNECE region continue to make strides toward harnessing ICTs for sustainable development, with increasing adoption of emerging technologies such as artificial intelligence, blockchain and cloud computing to support climate action, circular economy models, and smart infrastructure. These technologies offer transformative potential for data-driven decision-making and resource optimization. Technological advancements are in particular driven by the private sector. Their integration into public systems remains uneven, constrained by regulatory uncertainty and the need for robust governance frameworks that ensure transparency and accountability. Many governments face challenges in mobilizing sufficient resources and technical and absorptive capacity to modernize digital infrastructure and deploy digital services.

6. Despite progress, the digital divide persists across and within countries in the UNECE region, particularly affecting rural areas, marginalized communities, and population groups with limited access to high-speed connectivity and digital literacy. This gap hinders inclusive participation in the information society and limits the ability of public institutions to leverage ICTs for sustainable development, especially in areas like e-governance, digital public services, and environmental monitoring.

7. A key barrier to the effective use of ICTs is the availability and interoperability of reliable data. Fragmented data ecosystems, inconsistent standards, and limited access to real-time environmental and socio-economic information impede evidence-based policymaking. Strengthening data governance, enhancing cross-border data sharing, and investing in open data platforms are critical steps toward building a resilient digital ecosystem. Addressing these challenges will require coordinated efforts across sectors and borders, with a focus on capacity-building, regulatory innovation, and inclusive digital transformation.

III. OVERVIEW OF PROGRAMME-SPECIFIC ACTIONS

8. The following sections describe the work done by the various UNECE subprogrammes to support individual WSIS Action Lines.

B. ACTION LINE C3: ACCESS TO INFORMATION AND KNOWLEDGE

Environment

9. The Working Group on Environmental Monitoring and Assessment continued to regularly evaluate the performance of environmental information systems in line with the principles and pillars of open data and the Shared Environmental Information System (SEIS) in support of the outcomes of the Ninth Environment for Europe Ministerial Conference (5-7 October 2022, Nicosia). UNECE organized a regional training on the production and use of biodiversity statistics and indicators in November 2025. Furthermore, UNECE launched a call for submission of national SEIS progress reports on the environmental theme "biodiversity and protected areas" in early November 2025. The summary progress report on the environmental theme "waste and circular economy", which was prepared based on national reports, identified various remaining gaps in implementing the pillars and principles of SEIS across the UNECE region. The Working Group on Environmental Monitoring and Assessment remained the knowledge platform for the development of

environmental monitoring, assessment and information systems supported by the Joint Task Force on Environmental Statistics and Indicators.

10. Activities under the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention) aimed to support governments and stakeholders to advance effective public access to environmental information using the best available state-of-the-art digital technologies. In 2025, they continued focusing on active dissemination of environmental information, such as through open digital data records, the modernisation of digital environmental information systems and the use of modern digital technologies by both public authorities, business operators and the public in accordance with the updated recommendations on the more effective use of electronic information tools[1]. Most of the Parties to the Aarhus Convention submitted their 2025 national implementation reports[2] highlighting the progress achieved in these areas. At its eighth session (Geneva, 17-20 November 2025), the Meeting of the Parties to the Convention is expected to consider and adopt decision VIII/1[3] on promoting effective access to information outlining the priorities for further work in this area.[4]

11. The Protocol on Pollutant Release and Transfer Registers (Protocol on PRTRs) to the Aarhus Convention provides minimum standards for equal rights and transparency in the use of environmental data and offers a legal framework for enhancing public access to information. Free web-based access to geo-referenced environmental data empowers the public, decision-makers in government and industry, scientists and journalists to make informed choices. Ongoing work covers issues such as comprehensive data gathering and links with other electronic databases; modern means to provide easy to access information; and promotion of knowledge about use of pollutant releases and transfers data for fact-based decision-making, including with regard to spatial planning, human health and the shift to a sustainable and circular economy.

12. Under the Convention on Long-range Transboundary Air Pollution, three eLearning courses were developed to raise awareness about air pollution and its effects, ways to prevent and reduce harmful emissions, emission inventory development, monitoring air pollution effects, and the Convention and its protocols as an international framework for cooperation on cleaner air. The courses are designed to build capacities of a wide range of stakeholders, including policymakers, government officials, staff from intergovernmental/non-governmental organizations, private sector professionals, students/academia, and others. Taking the courses should enable learners to contribute to, and ultimately drive forward actions on cleaner air. The courses are accessible to learners free of charge on the UNCC:eLearn platform, which is managed by UNITAR.

Public-private partnerships (PPPs)

13. UNECE's PPP and Infrastructure Evaluation and Rating System (PIERS) Digital Platform was launched in December 2023 to enable governents to mobilise private sector resources for financing infrastructure projects. It is freely accessible and user-friendly, allowing member States and other stakeholders to self-assess the alignment of their PPP and infrastructure projects with the SDGs

[1] See https://unece.org/environment/documents/2022/02/updated-recommendations-more-effective-use-electronic-information
[2] See https://aarhusclearinghouse.unece.org/national-reports/reports (questions XI-XIV).
[3] https://unece.org/environmental-policy/events/Aarhus_Convention_MoP8
[4] See https://unece.org/environmental-policy/events/Aarhus_PP_8TFAI_API_workshop and https://unece.org/environmental-policy/events/ninth-meeting-task-force-access-information-under-aarhus-convention

using the UNECE PIERS methodology. As of mid-2025, it was used to assess over 220 PPP projects from more than 55 countries.

C. ACTION LINE C4: CAPACITY-BUILDING

Environment

14. The secretariat of the Aarhus Convention and of the Protocol on PRTRs in cooperation with partner organizations, continued its efforts to strengthen countries' capacities[5] to disseminate and reuse environmental information and promote modernization of nationwide digital environmental information systems using best available state-of-the-art digital technologies, including establishing and improving PRTRs. Progress in this area will be discussed at the eighth session of the Meeting of the Parties to the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention), the fifth session of the Meeting of the Parties to the Protocol on Pollutant Release and Transfer Registers (Protocol on PRTRs), their joint High-level Segment and associated meetings that will take place in Geneva from 17 to 21 November 2025. The events will provide a platform for Parties, Signatories, international organizations, civil society and other stakeholders to discuss achievements and challenges in effectively engaging the public in promoting environmental democracy, digital transformation, circular economy and sustainable development. A number of substantive decisions are expected to be adopted at the events, together with the future work programmes guiding the activities of both treaties in the next intersessional period for 2026-2029 - including in the context of the rapid progress of digital information tools.

15. The Convention and the Protocol provide global minimum standards to establish publicly accessible information infrastructure required for Pollution Information Systems. Knowledge management tools, such as the Aarhus Clearinghouse and its online databases, support these efforts. Under the Environmental Monitoring and Assessment Programme the use of new technologies was promoted and capacity development activities were conducted to support data availability and timely flow of reliable information and data at national level.

E. ACTION LINE C7: ICT APPLICATIONS

1. C7. E-Business

Sustainable trade and trade facilitation

16. The United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT), hosted by the UNECE, develops policy recommendations, standards, and initiatives to simplify and harmonize sustainable and digital cross-border trade procedures and operations. With its newly developed Recommendation N°49 on "Transparency at Scale – Fostering Sustainable Value Chains" and the UN Transparency Protocol (UNTP), UN/CEFACT's work on traceability and transparency seeks to further advance due diligence across value chains in critical sectors for the green and digital transitions—such as agri-food, minerals, and textiles—in alignment with emerging technical regulations and voluntary sustainability standards. Moreover, through its Sustainability Pledge—which, as of September 2025, includes around 120 pledges from approximately 850 global actors, including leading brands, manufacturers, NGOs, industry associations, and sustainability initiatives in more than 30 countries—UN/CEFACT has established

[5] See Report on capacity-building (ECE/MP.PP/2025/6) and its accompanying document (AC/MOP-8/Inf.3) available from https://unece.org/environmental-policy/events/Aarhus_Convention_MoP8.

and continues supporting a Community of Practice. This community demonstrates the feasibility and benefits of implementing traceability systems using digital tools.

2. C7. e-Environment

Environment

17. In 2025, the Aarhus secretariat, in collaboration with UNITAR, OECD, EEA, UNEP, OSCE, CBD and other partner organizations, continued to provide up-to-date information on available electronic tools for access to environmental information and Pollutant Release and Transfer Registers (PRTRs). The related good practices and case studies can be accessed at the PRTR.net global portal, PRTR Learn, the UNECE Public Participation website, the Aarhus Clearinghouse for environmental democracy, and the online Aarhus Convention and Protocol on PRTRs national implementation reporting tools.

D. C11: INTERNATIONAL AND REGIONAL COOPERATION

C11: Regional action plan

18. UNECE, together with ESCAP, is supporting the countries participating in the United Nations Special Programme for the Economies of Central Asia (SPECA),[6] which provides a platform for supporting governments and helping them collaborate on a range of areas, including water management, the rational use of energy resources, sustainable transport, trade, innovation, PPP, gender equality and strengthening statistical capacity for monitoring progress towards the SDGs, including digital-related aspects.

[6] The SPECA participating States are Afghanistan, Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. A detailed overview of the Programme is available at: https://unece.org/speca.