

**COMMISSION ON SCIENCE AND TECHNOLOGY FOR DEVELOPMENT
(CSTD)**

Twenty-fifth session

Geneva, 28 March to 1 April 2022

**Submissions from entities in the United Nations system, international
organizations and other stakeholders on their efforts in 2021 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 25th 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.

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

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 and sustainability, in particular trade, transport, environmental issues and innovation.
2. UNECE supports the dematerialization of trade documents in multimodal transport through the work of the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) and related capacity-building activities. New recommendations reflect the impact of digitalization on areas of concern and provide guidance on trade portals. A regional report on Digital and Sustainable Trade Facilitation has identified existing gaps as a basis for further action. Under the ongoing project on Enhancing Transparency and Traceability of Sustainable Value Chains in Garment and Footwear, a Sustainability Pledge was issued to engage stakeholders in taking action and using the toolkit of measures developed under the project, which is based on the use of blockchain technologies.
3. The full digitalisation of the TIR system (the so-called eTIR) became a reality in May 2021, thus allowing for completely paperless cross-border transit of goods, under the customs guarantee of the TIR system. A new Road Map to guide the development of Intelligent Transport Systems (ITS) was adopted by the Inland Transport Committee in February 2021. ITS use information and communications technology solutions to provide integrated services relating to different modes of transportation. New recommendations for green and healthy transport to support a sustainable COVID-19 recovery issued in the context of the Transport, Health and Environment Pan-European Programme (the PEP) include the deployment of technologies such as GPS, radio frequency identification, Artificial Intelligence and Big Data analysis.
4. UNECE has continued to contribute to the development of environmental information systems. It facilitates access to environmental information through a range of digital tools that consider the latest technological developments. A new decision by the Meeting of the Parties of the Aarhus Convention adopted updated recommendations on the more effective use of electronic information tools. The aim is to ensure that timely, reliable, and high-quality environmental information, which is essential for evidence-based policies and informing the public, is easily accessible. UNECE together with FAO launched “INForest”- an online data and knowledge platform for forests in the UNECE region, which has been developed to improve access to relevant and reliable data on forest conditions and use for their protection and sustainable management.
5. UNECE work on innovation, including using digital technologies, resulted in new policy guidance documents on high-growth enterprises in Eastern Europe and Southern Caucasus and innovation in Georgia, as part of the programme of Innovation for Sustainable Development Reviews. A draft Action Plan of the SPECA Innovation Strategy for Sustainable Development has been prepared for the consideration of the SPECA Governing Council in November 2021.

II. OVERVIEW OF PROGRAMME-SPECIFIC ACTIONS

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

A. ACTION LINE C1: THE ROLE OF GOVERNMENTS AND ALL STAKEHOLDERS IN THE PROMOTION OF ICTS FOR DEVELOPMENT

Innovation

7. The handbook “[Supporting Innovative High-Growth Enterprises in Eastern Europe and South Caucasus](#)” seeks to assist policymakers in the design of effective policies and institutions to foster the potential of innovative, high-growth entrepreneurship, including with the support of and in areas related to information and communication technologies (ICT).
8. As part of its programme of Innovation for Sustainable Development Reviews, UNECE published the [Review of Georgia](#), which, among other issues, examined the state of ICT infrastructure, and prospects for its development, while considering how these technologies can be harnessed to foster innovation.

Ageing

9. Dependence on digital technologies during the pandemic has focused policy attention on the importance of digital inclusion, in particular for older persons. The latest [UNECE Policy Brief on Ageing](#) examines the ‘digital divide’ between generations and highlights policy priorities for digital inclusion of older persons. The Brief identifies four areas for policy intervention: ensuring equal access to goods and services involving digital technology; enhancing digital literacy to reduce the digital skills gaps; leveraging the potential of digital technologies for active and healthy ageing and ensuring the protection of human rights of older persons in the digital era. Relevant policy experiences are presented under each of these areas.

Housing

10. UNECE published a [Smart Sustainable Cities Profile of Nur-Sultan, Kazakhstan](#), which was prepared using the Key Performance Indicators developed by UNECE and the International Telecommunications Union (ITU) in the context of the United for Smart Sustainable Cities (U4SSC) initiative. The Profile includes an assessment of the state of ICT infrastructure and ICT-based traffic monitoring and recommendations on how to improve sustainability by using ICT on buildings management.

B. ACTION LINE C3: ACCESS TO INFORMATION AND KNOWLEDGE

Environment

11. Activities under the Convention on Access to Information, Public Participation in Decision-making, and Access to Justice in Environmental Matters (Aarhus Convention) aim to promote effective public access to environmental information. In 2021, the Task Force on Access to Information

continued to support active dissemination of environmental information, as open digital data records, and the use of modern digital technologies by both public authorities and the general public.

12. The Meeting of the Parties to the Convention adopted in October 2021 [decision VII/1](#) on promoting effective access to information. This decision outlines new measures to increase accessibility of environmental information, including through electronic information tools, and adopts updated [recommendations](#) on the more effective use of these tools. These updated recommendations consider the developments in the Shared Environmental Information System, geospatial information management, Earth observation data, e-Government, open government data, reuse of public sector information and other relevant initiatives and technical developments. An [Addendum](#) to these recommendations includes supporting explanatory notes on terms, standards and approaches used in the recommendations.
13. 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. 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 for fact-based decision-making, including with regard to spatial planning, human health and the shift to a sustainable and circular economy.

Forestry

14. In 2021, UNECE together with FAO developed [“INForest”](#)- a data and knowledge platform for forests in the UNECE region created to improve access to relevant and reliable data on forest conditions and use for their protection and sustainable management. Until then, forests data was scattered over various thematic sources, often arranged, and presented in formats that limited their accessibility, in particular to non-specialists and the general public. The aim of building “INForest” was to ensure timely, reliable, and high-quality data availability for all.
15. The platform provides the most up-to-date information on the forests in the region and their changes over the past decades, including in forest area, structure, products, and services, as well as the forests’ contribution to the economy, environment, and health. The data presented is drawn from international, reliable sources including the Sustainable Development Goals indicators, FAO Global Forest Resources Assessment and thematic sets collected by UNECE and FAO.
16. [“INForest”](#) offers the possibility to select customized information on forests and the forest-based sector in the UNECE region in one place and highlights the wealth of information that is available. Data collected is presented in an innovative way, giving users the flexibility to define the scope of the search, format and geographic coverage of the data selected. National versions and dedicated national sites can be developed on the basis of the already available international “INForest” tool.

Trade

17. The [UNECE Regional Report 2021 on Digital and Sustainable Trade Facilitation](#) was produced based on the results of the United Nations Global Survey on Digital and Sustainable Trade Facilitation. The purpose of this Survey is to assess progress in implementing trade facilitation measures and thus help identify policy, legal, procedural, regulatory, and technical gaps that affect implementation.

18. UN/CEFACT published [Recommendation 38 on Trade Information Portals](#), which provided a basic understanding of this trade facilitation mechanism. The Recommendation outlines the technical requirements and procedures, while drawing particular attention to the key success factors related to the management of these portals and the related legal framework/environment.

Environment

19. The secretariat of the Aarhus Convention and of the Protocol on PRTRs in cooperation with partner organizations, continued its efforts to strengthen countries' capacities 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. Knowledge management tools, such as the [Aarhus Clearinghouse](#) and its online databases, support these efforts.
20. Digital education offers multiple possibilities for both teachers and learners, regarding both access and contents. Digital technology, if implemented correctly, can remove many barriers faced by learners. In the context of the preparation of the UNECE Strategy for Education for Sustainable Development for 2030, the Ad Hoc Group for Strategic Planning prepared a [focus document](#), which among other issues, considered how digital education and ICTs can be used to advance education for sustainable development. The document, which was presented at the 15th meeting of the UNECE Steering Committee on Education for Sustainable Development, proposed several expected accomplishments for future implementation.

C. ACTION LINE C7: ICT APPLICATIONS: BENEFITS IN ALL ASPECTS OF LIFE

1. C7. E-Business

Trade

21. As part of its mandate to develop, update, and diffuse recommendations and standards to facilitate national and international trade and business transactions, the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) published [Recommendation 45 on Minimum Standards for Ship Agents and Ship Brokers](#). This Recommendation, which updates the 1988 UNCTAD minimum standards for ship agents, aims to reflect the effects of increased digitalization on the requirements for ship agents and ship brokers. In partnership with the International Maritime Organization (IMO), the definitions in this Recommendation were brought closer in line with the Convention on the Facilitation of International Maritime Traffic (1965), which was amended in 2018 to include the digital exchange of shipping information between ships and ports, an area of UN/CEFACT's expertise.
22. As part of the multi-agency [United Nations Development Account project Transport and Trade Connectivity in the Age of Pandemics](#), UNECE has worked on the harmonization of standards for the digitalization of data and document exchange in multimodal transport and trade. The objective is to use the standards of UN/CEFACT, notably the Multimodal Transport Reference Data Model, to facilitate interoperability and data exchange between documents, modes of transport and sectors. This will allow for seamless exchange of information, for example in digital corridors, and will limit person-to-person contacts in the supply chain.

23. A package of standards to be used in the digitalization of key documents accompanying goods transported by various modes (maritime, road, railway, air, and inland water transport) is being developed. The objective is not to impose solutions (ready electronic documents) to the various stakeholders, but to facilitate interoperability. Initial pilot implementation cases started, with the digitalization of the multimodal Bill of Lading of the International Federation of Freight Forwarders Associations (FIATA) and a test of the concept focusing on the exports of wood products from Belarus to Central Europe, using road, railway, river and sea transportation (a Dnieper – Danube pilot test).

Transport

24. The new legal framework for the full digitalisation of the TIR system (the so-called [eTIR](#)) entered into force on 25 May 2021, opening eTIR to 77 countries across five continents. This landmark change will allow for completely paperless cross-border transit of goods, under the customs guarantee of the TIR system. The eTIR international system ensures the secure exchange of data on the international transit of goods, vehicles, or containers according to the provisions of the TIR Convention between national customs systems.
25. A Task Force set up by UNECE under the Transport, Health and Environment Pan-European Programme (THE PEP) issued in April 2021 a set of [key recommendations](#) for green and healthy transport to support a sustainable COVID-19 recovery. These concerned the deployment of innovation and smart mobility solutions, utilizing technologies such as GPS, radio frequency identification, Artificial Intelligence and Big Data analysis, as the cornerstone of a swift move towards sustainable transport solutions that should be embraced by the public and private sectors.
26. Intelligent Transport Systems (ITS) use ICT solutions to provide integrated services relating to different modes of transportation. They can include from speed signs and other road infrastructure that monitor and adapt to changes in conditions and congestion, to vehicle-to-vehicle communications and autonomous driving technologies – where UN regulations play a key role –, and integration with rail and inland waterway transport. ITS can unlock major benefits in terms of safety, efficiency and environmental performance for mobility and the movement of goods. However, with the rapid pace of innovation, ensuring interoperability and harmonization of technological solutions between countries remains a key challenge to realizing their potential at a large scale.
27. The UNECE Inland Transport Committee – the UN’s regulatory platform for road, rail and inland water transport – endorsed a new [Road Map to guide the development of Intelligent Transport Systems \(ITSs\)](#) in February 2021. The Road Map reflects the need for international harmonization, going beyond national and regional jurisdictions. Different voluntary standards are being developed in neighbouring countries, or even within the same country. Therefore, it is imperative to develop and implement guidelines, regulations, and agreements on technical and technological compatibility to assure the safety of all road users.

2. **C7. e-Environnement**

Environment

28. In 2021, the Aarhus secretariat, in collaboration with multiple 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). New content has been added to established electronic tools. 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.

Trade

29. UNECE is implementing the project ‘Enhancing Transparency and Traceability of Sustainable Value Chains in Garment and Footwear’, in collaboration with the International Trade Centre (ITC). The project, which is based on the deployment of blockchain technology, aims at setting up a multi-stakeholder policy platform, developing policy recommendations, traceability standards and implementation guidelines, and build capacity and conduct pilots on the project deliverables. As part of this work, UNECE has launched "[The Sustainability Pledge](#)" inviting governments, garment and footwear manufacturers and industry stakeholders to engage and apply the toolkit of measures developed in the context of this project.

D. C11: INTERNATIONAL AND REGIONAL COOPERATION

C11: Regional action plan

30. UNECE, together with ESCAP, is supporting the countries of the United Nations Special Programme for the Economies of Central Asia (SPECA) in their efforts to spur innovation while fostering regional co-operation on sustainable development. A draft Action Plan of the SPECA Innovation Strategy for Sustainable Development was prepared for the consideration of the SPECA Governing Council in November 2021, which proposed several cooperative activities. The aim is to develop and consolidate national capacities to design and implement innovation policies for sustainable development, considering not only national contexts and existing constraints but also recognizing any possible transboundary effects.