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Submissions from entities in the United Nations system and elsewhere on their efforts in 2017 to implement the outcome 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 21st 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) **December 2017**

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 United Nations Economic Commission for Europe (UNECE) has focussed its actions on implementing the outcomes of WSIS on areas related to economic development and sustainability. The work of the UNECE to support the WSIS objectives is carried out at the subprogramme level and the variety of activities reflects the multi-sectoral character of the organization.

2. Trade facilitation, including through the use of electronic tools, is an important area of work for the UNECE. The United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT), developed new recommendations in 2017 to reflect the adoption of the WTO Trade Facilitation Agreement. Numerous capacity-building activities have been carried out on trade facilitation and electronic business in different locations. In particular, UNECE has provided methodological support and technical assistance to the countries of the Eurasian Economic Union, including guidance on single window implementation and business processes analysis to facilitate the use of electronic business and document exchange.

3. Access to information and knowledge on environmental matters through the use of electronic tools remains an important area of activity for UNECE, in particular in connection with the Aarhus Convention and its Protocol on Pollutant Release and Transfer Registers (PRTRs). The Task Force on Access to Information was mandated by the Meeting of the Parties to the Aarhus Convention at its sixth session to prepare the update of Recommendations on the more effective use of electronic information tools taking into account 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 developments. Work is also being carried out on reviewing the progress in establishing a Shared Environmental Information System (SEIS) across the UNECE region. In addition, UNECE manages a number of web-based portals that provide access to environmental information and data on environmental matters and forest issues.

4. UNECE is very active in the development of Intelligent Transport Systems and transport innovation, which will be key in shaping the future of sustainable mobility. The Inland Transport Committee and its subsidiary bodies have been involved in different related activities, including the digitalisation of transport documents, new regulatory requirements, emergency responses in the transport of dangerous goods and the use of ICT in the inland water transport sector. Work on automated and connected vehicles, including technical performance requirements, regulations and guidelines on cyber security and data protection, continued. The first UN regulation addressing the connectivity of vehicles, concerning provisions for emergency call systems (UN "eCall"), was adopted.

5. UNECE works, together with ITU, to promote policies that will encourage the use of ICTs in the transition to smart sustainable cities through the preparation of studies, guidance documents, indicators and standards.

II. OVERVIEW OF PROGRAMME-SPECIFIC ACTIONS

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 PUBLIC GOVERNANCE AUTHORITIES AND ALL STAKEHOLDERS IN THE PROMOTION OF ICTS FOR DEVELOPMENT

Trade

6. The aim of the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) is facilitating national and international trade and business transactions through the development, maintainance and support of recommendations and business standards, as a result of the collaboration between the public and private sectors. The overall objective of the recommendations and standards is to support institutions in their efforts to increase efficiency and transparency in trade transactions. For example, Recommendation 42 on Trade Facilitation Monitoring Mechanisms has proposed methods to measure the effectiveness of tools such as the Single Window.

B. ACTION LINE C2: INFORMATION AND COMMUNICATION INFRASTRUCTURE

Transport

7. UNECE is strongly committed to advance Intelligent Transport Systems (ITS), which will shape the future of sustainable mobility. A ministerial resolution was signed at the 70th anniversary session of UNECE's Inland Transport Committee (ITC), which envisaged the use of the ITC as a platform to further advance intelligent transport systems and automated driving, as well as to promote the digitalisation of transport documents.

8. UNECE, jointly with International Telecommunication Union (ITU), organized the 2017 Future Networked Car symposium, which took place during the Geneva International Motor Show. The symposium examined advances in the area of connected and automated vehicles, from the perspectives of business, consumers, technology and regulation. Technical sessions highlighted the relevance of the work on the expected benefits from the "5G" for road vehicles, on artificial intelligence and ethical considerations and on cyber security threats mitigation.

9. The joint meeting of the Committee of experts on the Regulations concerning the International Carriage of Dangerous Goods by Rail (RID) and WP.15, through its Informal Working Group on Telematics, continued work on ITS applications aimed, inter alia, at improving the speed and efficiency of emergency responses involving dangerous goods in transport.

10. Work on connected and automated vehicles continued to address major challenges related to transport such as traffic management and sustainability from the environmental, safety, security and economic point of views. The Global Road Traffic Safety Forum is continuing to explore the aspects related to the integration of these new technologies in the existing traffic.

11. Within the World Forum for Harmonization of Vehicle Regulations, UNECE worked on technical performance requirements for connected and automated vehicles to be included in United Nations vehicle regulations. This work covered fundamental technical principles, including appropriate performance metrics and test procedures. In addition, guidelines for cyber security and data protection were adopted. These guidelines were used as a basis document for the 39th International Conference of

Data Protection and Privacy Commissioners (Hong Kong, 25-29 September 2017) Resolution on Data Protection in Automated and Connected Vehicles. The adoption of a new UN Regulation with provisions for emergency call systems (UN "eCall") is the first UN Regulation addressing the connectivity of vehicles.

12. In the inland water transport sector, UNECE has supported the use of ICT in multiple areas, including River Information Services, in particular virtual aids to navigation, the introduction of modern technologies in related areas such as variable message traffic signs and provisions applicable to vessels using liquidified gas.

Housing

13. UNECE and ITU continued to cooperate on the role of ICTs in the transition to smart sustainable cities through the preparation of studies, guidance documents, indicators and standards. The UNECE Committee on Housing and Land Management endorsed an updated list of key performance indicators (KPIs) to monitor the progress achieved by cities in this transition. The UNECE - ITU Smart Sustainable Cities KPIs are used by cities to evaluate their progress towards achieving the urban related Sustainable Development Goals. So far, in the UNECE region, Smart Sustainable City Profiles have been carried out evaluating the performance of the cities of Goris (Armenia) and Voznesensk (Ukraine).

14. ITU and UNECE together continue to provide the secretariat for the "United for Smart Sustainable Cities" (U4SSC) initiative. In 2017 this initative lanuched a publication on "Enhancing innovation and participation in smart sustainable cities" containing a series of case studies on smart governance, smart people and smart economy that showcase best practices for the transition to smart sustainable cities.

C. ACTION LINE C3: ACCESS TO INFORMATION AND KNOWLEDGE

Environment

15. In 2017, UNECE continued to support the development of a Shared Environmental Information System (SEIS) across the pan-European region. 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. The UNECE Working Group on Environmental Monitoring and Assessment assists countries of the Caucasus, Central Asia and Eastern and South-Eastern Europe to improve environmental data collection, supports the establishment of national environmental information systems and enhances capacity to produce good quality state-of-the-environment assessments and reports, based on the effective use of environmental indicators. The Working Group is also supported by the European Environment Agency and UNEP. The Working Group and the UNECE Joint Task Force on Environmental Statistics and Indicators together assist countries in developing their capacities to monitor and report on the implementation of environment-related Sustainable Development Goals.

16. Activities under the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention) aimed to promote effective public access to environmental information. The work of the Task Force on Access to Information[1] has focused on the scope of environmental information, its quality and associated costs, the application of certain restrictions on access to environmental information, dissemination of environmental information through electronic information tools and further development of the Aarhus Clearinghouse for environmental democracy and national nodes. The Task Force presented the

[1] http://www.unece.org/env/pp/tfai.html

assessment of the implementation of Recommendations on the more effective use of electronic information tools to provide public access to environmental information[2] to the sixth session of the Meeting of the Parties (Budva, Montenegro, 11-14 September 2017)[3]. It continued to collect case studies related to the effective use of electronic information tools.[4] The Task Force was further mandated to prepare an update of the recommendations, taking into account 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.

17. The Protocol on Pollutant Release and Transfer Registers (Protocol on PRTRs) to the Aarhus Convention is the only legally binding instrument to ensure minimum standards for equal rights and transparency in the use of environmental data. It 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. In 2017, in addition to improving knowledge sharing and access to data contained in PRTRs, the work focused on promoting: (a) use of PRTR data to track the extent of pollution and to develop action to reduce it; (b) combination of PRTR data with other data (e.g. health-, energy-related) to make use of the full potential of PRTR systems in supporting sustainable development.

18. In 2017, the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP) had its fortieth anniversary. Since 1977, the programme has developed into the backbone of the science-policy interface for the Convention on Long-range Transboundary Air Pollution. The exchange of experience and know-how through EMEP's network of scientists over the years has enabled continued progress towards ever more refined, accurate and comparable data, which is freely accessible to the public through the UNECE website.

Trade

19. UN/CEFACT publishes free of charge a number of technical standards developed in cooperation between public and private actors with the aim of making ICT developments accessible to all; these include the UN/EDIFACT syntax directories, the UN/LOCODE location codes and the UN/CEFACT Core Component Library and associated XML schemas. The UNECE Trade Facilitation Implementation Guide (TFIG) is a web-based, interactive knowledge management tool that covers all the major trade facilitation instruments from all key international organizations. It provides a single source where policymakers and implementers can find essential trade facilitation information. The TFIG helps policymakers and implementing managers identify, examine and select available solutions and possible paths for their trade facilitation reform efforts. It is a core tool to support the WTO Trade Facilitation Agreement. The Guide is available in English, French, Russian, and Spanish and Arabic.

Forestry

20. UNECE continues to compile databases with information on forest resources, focusing on collection, validation and electronic dissemination of qualitative and quantitative statistics on forest resources, products, functions and services and sustainable forest management practices. In 2017. data

[2] http://www.unece.org/fileadmin/DAM/env/pp/a_to_i/1st_meeting/ece.mp.pp.2005.2.add.4.e.pdf

[3] See annex to document ECE/MP.PP/WG.1/2017/4 and its accompanying document AC/WG-21/Inf.2 available from http://www.unece.org/env/pp/aarhus/mop6_docs.html (category II)

[4] More information is accessible http://www.unece.org/env/pp/aarhus/tfai/case_studies.html

was collected on wood energy, forest ownership and game meat production in the region. This information is available online to improve the knowledge base amongst partners working in and outside of the forest sector.

D. ACTION LINE C4: CAPACITY-BUILDING

Environment

21. The Secretariat of the Aarhus Convention manages a database of capacity-building activities from around the world on Pollutant Release and Transfer Registers[5]. The Secretariat encourages National Focal Points and stakeholders to contribute to the capacity-building activities database as this greatly facilitates information exchange and the planning of future activities.

Trade

22. UNECE, has been active in the Central Asian region, supporting countries to implement measures foreseen in the WTO Trade Facilitation Agreement and other trade facilitation initatives. Training events were organized in association with the OSCE on Single Window implementation, national trade facilitation bodies, trade facilitation road map, business process analysis and streamlining and automating trade document procedures.

E. ACTION LINE C5: BUILDING CONFIDENCE AND SECURITY IN THE USE OF ICTS

Trade

23. UN/CEFACT has completed a White Paper on ensuring legally significant trusted transboundary electronic interaction. This cornerstone work outlines an infrastructure to enhance security and confidence across the supply chain. It will be published officially in January 2018. UN/CEFACT is also currently studying the base elements to be considered in cyber security to prepare a high-level recommendation on the subject.

F. ACTION LINE C7: ICT APPLICATIONS

1. C7.B e-Business

Trade

24. Since 1989, UNECE has developed and maintained electronic business standards through the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT)[6]. Among the most well-known and used of these standards is the United Nations Electronic Data Interchange Standard (UN/EDIFACT). This standard facilitates the exchange of information in many areas, including transport, customs, government and business procurement, just-in-time manufacturing and finance. UN/CEFACT also issues and continues to develop a host of data codes for exchanging information, including the United Nations Location Code (UN/LOCODE). UN/CEFACT has also developed XML schema syntax to enable information exchange related to cross border trade from invoices and

[5] http://apps.unece.org/ehlm/pp/NIR/RLsearch.asp

[6] http://www.unece.org/cefact/index.html

accounting messages to agricultural and fishery messages. This is also accompanied by a full set of code lists which are internationally recognized and used. Among its other recommendations are the United Nations Layout Key for Trade Documents (an updated revision was published in May 2017); the Single Window related Recommendations (Number 33, 34, 35, 36 and the Technical Note on Single Window Terminology – the latter two were approved in May 2017) to enhance the efficient exchange of information between trade operators and government, and a Core Component Library (CCL) and related products.

25. Recent key deliverables from UN/CEFACT include UNECE Recommendation No. 41 on "Public Private Partnership in Trade Facilitation", Recommendation No. 42 on "Trade and Transport Facilitation Monitoring Mechanism (TTFMM)", Recommendation 36 on "Single Window Interoperability" and a Technical Note on Single Window Terminology. In the course of 2017, two other projects were completed: Extension of Cross Industry Deliverables and an updated version of the Sustainable Fisheries message FLUX. Work is almost completed on a Multi-Modal Transport Reference Data Model, an electronic CMR, a recommendation on Core Principles of Single Window Operations, a Recommendation on Traceability Framework and a Recommendation on Single Submission Portals (a private-sector driven equivalent to a Single Window). Work is also underway in collaboration with OASIS on a Business Document Header/Envelope joint standard.

*2. **C7.F e-Environment***

Environment

26 In 2017, the Environment subprogramme (Aarhus secretariat) in collaboration with UNITAR and the OECD continued to provide up-to-date information on available electronic tools for access to environmental information and Pollutant Release and Transfer Registers (PRTR). The tools include the PRTR global portal[7], PRTR Learn[8], the UNECE Public Participation website[9], and the Aarhus Clearinghouse for environmental democracy[10].

27. The Convention on the Transboundary Effects of Industrial Accidents requires that its Parties provide for the establishment and operation of compatible and efficient industrial accident notification systems. The aim is to obtain and transmit industrial accident notifications containing information needed to counteract transboundary effects in the event of an industrial or chemical accident. Contingency plans can then be activated and assistance requested and offered. This treaty requirement has been implemented primarily through the creation of the web-based UNECE Industrial Accidents Notification (IAN) System.

7 https://www.prtr.net
8 https://prtr.unitar.org
9 https://www.unece.org/env/pp/welcome.html
10 https://aarhusclearinghouse.unece.org/