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Submissions from entities in the United Nations system and elsewhere on their efforts in 2016 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 20th 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 2016**

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.   UNECE remains very active on trade facilitation, in particular through its United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT), which developed new recommendations in 2016. It has continued to work with the UN Economic Commission for Asia and the Pacific (UNESCAP) in support of the United Nations Network of Experts for Paperless Trade in Asia and the Pacific (UNNExT). 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 and the Balkans, including regarding 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 monitors the implementation of Recommendations on the more effective use of electronic information tools. Work is also carried out on monitoring the development of a Shared Environmental Information System (SEIS) across the UNECE region. UNECE manages a number of web-based portals that provide access to environmental information and knowledge.

4.   UNECE carries out regular assessments of innovation performance in countries with economies in transition, considering policy, institutional and regulatory aspects that influence the adoption and dissemination of technologies, including ICT. These assessments cover now the contribution of innovation to address the challenges that governments face to meet the Sustainable Development Goals. This second cycle of reviews was initiated with the review of Belarus, to be followed by a new review of Kyrgyzstan.

5.   UNECE remains strongly involved 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 passenger mobility, logistics, intermodal issues and transport of dangerous goods. Work on automated vehicles, including technical regulations and guidelines on cybersecurity and data protection, continued.

6.   UNECE will strive to adapt its tools to better support the implementation of the 2030 Sustainable Development Agenda, including in areas related to the implementation of the outcomes of WSIS. It will continue to work with numerous partners, both in the private and the public sector, to advance these objectives.

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

Economic Cooperation and Integration

7.   UNECE carries out Innovation for Sustainable Development Reviews (previously, the Innovation Performance Review series) in countries with economies in transition. These policy advisory participatory exercises consider the factors that drive innovation in the country, including the use of ICT and the broader overall regulatory, policy and institutional environment that facilitates technology adoption and diffusion. Since 2016, the reviews also focus on specific challenges to the attainment of national governments' sustainable development goals, in line with the UN 2030 Agenda for Sustainable Development. In 2016, UNECE carried out an Innovation for Sustainable Development Review of Belarus and initiated work on a review of Kyrgyzstan, to be completed in 2017.

Trade

8.   The UNECE through its United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) aims at facilitating national and international trade and business transactions. Both the public and private sectors jointly develop, maintain and support recommendations and business standards at UN/CEFACT. 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, the Single Window concept, which is promoted in the trade facilitation recommendations, encourages the adoption of ICT based solutions by public and private actors to achieve efficiency and promote better governance of international trade. The Trade Facilitation Implementation Guide provides the roadmap for implementing trade facilitation measures, especially those linked to use of ICT based solutions.

B.   ACTION LINE C2: INFORMATION AND COMMUNICATION INFRASTRUCTURE

Transport

9.   UNECE is committed to placing Intelligent Transport Systems (ITS) on the agendas of policymakers as ITS are key in shaping the future of sustainable mobility. Multiple ITS related activities were conducted in 2016. The policy segment of the seventy-eighth Inland Transport Committee dealt with transport and innovation in the field of Information and Communication Technologies (ICT). It covered questions related to the role of governments in harnessing the full potential of transport innovations, tomorrow's passenger mobility and logistics.

10.   UNECE jointly with International Telecommunication Union (ITU), organized the 2016 Symposium on the Future Networked Car. The symposium took place during the Geneva Motor Show and thus addressed a large professional audience from the telecommunication and transport sectors. The international symposium examined advances in the area of connected vehicles, from the perspectives of business, technology and regulation. Technical sessions highlighted the relevance of the work to be done on cyber security.

11.   As part of its ongoing work on the role of ITS in intermodal transport and logistics, the Working Party on Intermodal Transport and Logistics – a subsidiary body of the UNECE Inland Transport Committee- held a

workshop titled 'Promoting sustainable intermodal transport through innovative solutions'. A number of innovative practices were discussed showing how this sector is seeking to increase its market share through the use of intelligent transport systems.

12.   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.

13.   UNECE is giving high importance to the work on Connected and Automated Vehicles, which addresses major challenges related to transport. The amendment to the 1968 Convention on Road Traffic entered into force on 23 March 2016. This amendment provides for the use of advanced technologies towards automatization under the condition of system compliance and approval according to United Nations vehicle regulations or the possibility of overriding the system by the driver.

14.   Within the World Forum for Harmonization of Vehicle Regulations, UNECE worked on technical performance requirements for automated vehicles to be included in United Nations vehicle regulations, thus paving the way towards automated / autonomous driving. In addition, guidelines for cyber security and data protection were drafted in order to bring more clarity on connectivity issues.

Housing

15   UNECE has cooperated with ITU on the role of ICTs and smart sustainable cities through the preparation of studies, guidance documents, indicators and standards. Under the umbrella of the ITU-T Study Group 5 on Environment and Climate Change and the UNECE Committee on Housing and Land Management, ITU and UNECE have successfully formulated the definition for "Smart Sustainable Cities". They have also developed a comprehensive list of key performance indicators (KPIs) to monitor the progress achieved by cities towards smart sustainable city transitions. The UNECE - ITU Smart Sustainable Cities KPIs will help cities evaluate their performance against the Sustainable Development Goals.

16.   ITU and UNECE together with various other UN agencies, municipalities, academia, industry and other organizations, have launched an initiative called "United for Smart Sustainable Cities" (U4SSC) with the aim to advocate policies that will encourage the use of ICTs to facilitate and ease the transition to smart sustainable cities. U4SSC will also promote the integration of ICTs into urban operations based on the needs of cities in order to advance the Sustainable Development Goals (SDGs).

C.   ACTION LINE C3: ACCESS TO INFORMATION AND KNOWLEDGE

Environment

17.   Timely, reliable, high quality and easily accessible environmental information is essential for evidence-based policies and informing the public. At the same time, organizing a vast array of environmental data and making it available in a comprehensible manner is a challenging task. UNECE has been contributing to the development of a Shared Environmental Information System (SEIS). The Working Group on Environmental Monitoring and Assessment is supported by the UNECE secretariat and the European Environmental Agency. The two organizations, working in tandem, help to review the online availability and accessibility of data and information provided by the countries in the pan-European region under SEIS. In cooperation with UNEP, they also help to ensure that the data and information are compatible with those produced and shared at other governance levels, such as under the Global Environment Outlook (GEO) process led by UNEP.

18.   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. Following a re-launch of the System in June 2014, it was last subject to a connectivity test on 15 January 2016. The results of the test were discussed by the national points of contact for the System in an internet teleconference on 15 February 2016.

19.   Activities under the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention) are carried out under the auspices of the Task Force on Access to Information.[1] The work has been 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 has also continued monitoring the implementation of Recommendations on the more effective use of electronic information tools to provide public access to environmental information adopted through decision II/3 of the Meeting of the Parties to the Convention[2]. In 2016, the Task Force carried out a survey to assess the implementation of the Recommendations[3] and collected a number of case studies related to the effective use of electronic information tools.[4]

20.   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. PRTRs allow access to specific environmental information for everybody, with virtually no restrictions. 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 2016, work focused on how to improve knowledge sharing and access to information contained in PRTRs. A document on systemic issues concerning the implementation of the Protocol and recommendations on how to address them (ECE/MP.PRTR/WG.1/2016/5) [5] has been prepared by the Compliance Committee under the Protocol with the involvement of Parties and stakeholders.

Trade

21.   All UN/CEFACT deliverables are available on the UNECE website free of charge. These include business process models and message schemas for all aspects of the trading process under a Buy-Ship-Pay model. Participation in the development as well as the resulting standards are completely free of charge.

22.   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, Spanish and Arabic. In 2016, several trainings events were organized to disseminate the information contained in the TFIG and to train

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[1]   http://www.unece.org/env/pp/tfai.html
[2]   http://www.unece.org/fileadmin/DAM/env/pp/a_to_i/1st_meeting/ece.mp.pp.2005.2.add.4.e.pdf
[3]   The outcomes of the survey are available from http://www.unece.org/env/pp/aarhus/tfai5.html#/
[4]   More information is accessible http://www.unece.org/env/pp/aarhus/tfai/case_studies.html
[5]   http://www.unece.org/env/pp/prtr/wgp5.

trainers (Sudan, Ghana, Nigeria, Tajikistan, Serbia, Albania).

Forestry

23.   UNECE compiles databases with information on forest resources, which in 2015-2016 were integrated in the UNECE Statistical Database. The aim is to make this information available in an electronic format and improve the knowledge base, both amongst partners in the forest sector and also more broadly.

D.   ACTION LINE C4: CAPACITY-BUILDING

Environment

24.   The Secretariat of the Aarhus Convention manages a database of capacity-building activities from around the world on Pollutant Release and Transfer Registers[6]. 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. Via the www.prtr.net website anyone can use this database, including National Focal Points and stakeholders who wish to add information.

25.   A subregional workshop on the Protocol on PRTRs for countries in Eastern Europe, the Caucasus and Central Asia was held on 19 - 21 September 2016 in Minsk. The workshop was organized by the secretariat of the UNECE Protocol on PRTRs and the secretariat of the Convention on Long Range Transboundary Air Pollution (Air Convention) in cooperation with partners in Belarus. The event aimed to promote the implementation and ratification of the Protocol on PRTRs in these countries

Trade

26.   UNECE, together with UN Economic Commission for Asia and the Pacific, has continued supporting the United Nations Network of Experts for Paperless Trade in Asia and the Pacific (UNNExT). The network is a platform for exchange of knowledge and best practices in Trade Facilitation and Electronic Business. UNNExT has published a series of technical guides on Single Window Implementation in the areas of business process analysis (BPA), data harmonization, legal framework, Single Window masterplan development and design for aligned trade forms.

27.   In 2016, UNECE and OSCE jointly organized a three-day training workshop on trade facilitation using the TFIG for SPECA participating countries at the OSCE Border Management College in Dushanbe, Tajikistan. In addition, a training event was organized in Belgrade, Serbia, for South-eastern European countries on national trade facilitation bodies and the use of international standards. The workshop used the Trade Facilitation Implementation Guide (TFIG) and also covered the streamlining and automating of trade document procedures and the Single Window for import and export for the Parties to the CEFTA2006.

28.   In 2016, UNECE finalized the work on a joint project between UNECE and the Eurasian Economic Commission. It provided methodological support and technical assistance to the countries of the Eurasian Economic Union (EAEU) (Armenia, Belarus, Kazakhstan, Kyrgyzstan, and the Russian Federation), and the Eurasian Economic Commission (EEC) to implement advanced trade facilitation and electronic business measures such as document harmonization and Single Window facilities. UNECE led the organization of two training seminars on Business Process Analysis (BPA) and the development of a methodology for BPA. In addition, the last of a series of five national seminars (notably, on a reference model for Single Window implementation) for EAEU countries was organized in 2016 in Minsk, Belarus. EAEU countries are already using the results of this training and the methodology for multiple purposes, including developing their

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

reference model for the electronic Single Window, carrying out further BPAs, in order to reengineer business processes and to adapt them for the use of electronic business and document exchange and establishing Single Window mechanisms. In addition, this work contributes to the functioning of the Integrated Information System for Mutual and Foreign Trade (IISVVT) of the countries of the Eurasian Economic Union, using international standards for data exchange.

29.   UNECE continues its support to the Port Community System (local Single Window) in the Odessa region in Ukraine (see www.singlewindow.org). The 2016 annual Trade Facilitation and Single Window seminar in Odessa, co-organized with the UNECE Transport Division, focused on electronic corridor development, port community systems and the Single Window. Ukraine is already finalizing the work on the second level of the concept of its Single Window initiative: a maritime Single Window, reflecting Directive 2010/65/EU. UNECE organized a national seminar on the Single Window and Data Harmonization for Ukraine in October 2016. The aim is to advance the same approaches, international standards and codes as in the European Union and other regions and countries, which intensively use the UN/CEFACT tools for the electronic exchange of trade information.

30.   In the past year, UNECE has also supported the development of the World Trade Organization (WTO) Trade Facilitation Agreement (TFA) by organizing a series of conferences on how UN/CEFACT deliverables can support the establishment and maintenance of Single Windows, the implementation of National Trade Facilitation Committees, and on implementing the Trade Facilitation Agreement. In addition, to enhance the support of the WTO TFA, two new itineraries were added to the Trade Facilitation Implementation Guide: one itinerary guiding the setting up a National Trade Facilitation Body, another itinerary guiding the development of a National Trade Facilitation Roadmap.

31.   UNECE and UN/CEFACT have made major contributions to ePhyto awareness and capacity building, inter alia on the: STDF Seminar on Electronic SPS Certification in June 2016 and UNNEXT workshop on Electronic SPS November 2016.

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

Trade

32.   UN/CEFACT has an ongoing project to develop a Recommendation for ensuring legally significant trusted transboundary electronic interaction. It is also researching the base elements to be considered in cyber security with a view to develop a high-level recommendation on the subject.

F.   ACTION LINE C7: ICT APPLICATIONS

1.   **C7.B e-Business**

Trade

33.   Since 1989, UNECE has developed and maintained electronic business standards through the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT)[7]. 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

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

(UN/LOCODE) which has more than 100,000 Trade & Transport Locations used by transport and postal authorities in some 250 countries and territories. UN/CEFACT has also developed XML schema syntax to enable information exchange related to cross border trade from invoices and 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; the Single Window related Recommendations (Number 33, 34, 35), to enhance the efficient exchange of information between trade and government, and a Core Component Library (CCL) and related products.

34.   Recent key deliverables from UN/CEFACT include UNECE Recommendation No. 40 on "Consultation approaches. Best Practices in Trade and Government Consultation on Trade Facilitation Matters" and Recommendation No. 4 on "National Trade Facilitation Bodies", which has been revised to reflect recent developments in Trade Facilitation globally, especially the WTO's TFA. Three new recommendations, namely on Public Private Partnership (PPP) in Trade Facilitation, on Trade and Transport Facilitation Monitoring Mechanism (TTFMM) and on Single Window Interoperability (SWI) have been finalized.

35.   UN/CEFACT has launched an important new set of deliverables, which are rethinking the exchange of trade-related information. Until now, this has been principally document-centric, providing information on each individual trade document and often transferring the same information from one document to the next. With its two Reference Data Model projects, UN/CEFACT is now taking a process-centric approach where the information is organized according to the business process and shared through "pipelines" or "incremental" messages. Two such Reference Data Models are being finalized, one for Supply Chain and the other for Multi-Modal Transport. It is expected that others will soon follow for other domains.

36.   In the course of 2016, the following projects were finalized: Revision of Recommendation 1 on UN Layout Key for Trade Documents, Supply Chain Reference Data Model (SCRDM) Project, eCROP Data Exchange, Technical Note on Terminology for Single Window and Other Electronic Platforms, Supply Chain Reference Data Model for International & National Trade, Extension of Cross Industry Invoice Technical Artefacts, Verified Gross Mass Exchange UNSM (VERMAS) Electronic Interchange of Fisheries Catch Data (FLUX), Pipeline Data Carrier and Traceability Framework.

37.   In addition, the following new projects were launched in 2016: Library Publication Format Project, Single Window recommendation project on core principles for the operation of Single Windows, Electronic Consignment Note UNSM (e-CMR), Procedures for Reference Data Model & Associated Artefacts Publication, Multi Modal Transport Reference Model (MMT), Core vocabulary related to single windows and similar platforms, and Revised Cross Industry Scheduling.

38.   The results of the Global Survey on Trade Facilitation and Paperless Trade (2014- – 2015) conducted by all United Nations Regional Commissions in collaboration with OECD, UNCTAD, ITC and other organizations. were launched during the Fifth Global Review of Aid for Trade at the WTO. The Survey covered not only the implementation of some important measures included in the WTO TFA but also of measures aimed at enabling paperless trade, or the conduct of trade using electronic rather than paper-based data and documentation.

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

Environment

39.   In 2016, 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[8], PRTR Learn[9], the UNECE Public Participation website[10], and the Aarhus Clearinghouse for environmental democracy[11].

Trade

40.   In 2016, UN/CEFACT concluded a project on Transboundary Movement of Waste, which is handling the risks of adverse effects to human health and the environment by transboundary movements of waste. The purpose of the project is to derive XML schema based on existing Core Components and Business Information Entities for many of the information exchanges laid down by the Basel Convention on the Control of Transboundary Movements of Hazardous Waste and their Disposal. This information is exchanged between competent authorities, exporters of waste, importers of waste and recovery or disposal facilities.

41.   In addition, UN/CEFACT contributes to the ePhyto and eCITES projects, as the cross-border exchange of permits between Government agencies requires international standards and rules. For example, both ePhyto and eCITES are based in the UN/CEFACT eCERT standard which provides a generic standard for electronic certificates in agriculture trade. The project will help developing countries to improve trade and increase food security and safety.

G.   ACTION LINE C11: INTERNATIONAL AND REGIONAL COOPERATION

Environment

42.   UNECE services the International PRTR Coordinating Group, which aims to improve coordination between international organisations, Governments and other interested parties in their ongoing and planned efforts related to the further development and implementation of PRTR systems. The Coordinating Group also helps to promote capacity-building for PRTR systems in developing countries and countries with economies in transition.

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[8]   http://www.prtr.net
[9]   http://prtr.unitar.org
[10]   http://www.unece.org/env/pp/welcome.html
[11]   http://aarhusclearinghouse.unece.org/