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Item 10 (d) of the provisional agenda

**Strategic questions of a horizontal and cross-sectoral policy or regulatory nature:
Information and computerization technologies,
and Intelligent Transport Systems**

Information and computerization technologies

Note by the secretariat

Summary

Following Committee's decision during its last session (ECE/TRANS/328, paragraph 53) this document provides an overview of activities in 2023 in the field of information and computerization technologies carried out by working parties of Inland Transport Committee (ITC).

The Committee is invited to encourage the continuation:

- of the work of working party on road transport (SC.1) on the operationalization of eCMR;
- of working party on customs questions affecting transport (WP.30) and of the TIR administrative committee (AC.2) on the eTIR international system and interconnection with national customs systems;
- of WP.30 on digitalizing of the 1954 (private) and 1956 (commercial) temporary importation conventions including their Carnet de Passage en Douane (eCPD);
- of TIR Executive Board (TIREXB)/WP.30 on the International TIR Data Bank (ITDB), the eTIR (web) portal for holders and its mobile applications for customs officers and TIR Carnet holders;
- on the observatory on border crossings status due to COVID-19;
- of working party on transport trends and economics (WP.5) on the international transport infrastructure observatory developed on a Geographical Information System (GIS) platform,
- of WP.5 work and data / GIS tool on climate changes impact and adaptation on transport networks;
- of WP.5 on the Sustainable Inland Transport Connectivity Indicators (SITCIN) tool


as concrete applications and tools based on information and computerization technologies that ensure the implementation of the ITC strategy until 2030 and specifically its second pillar on new technologies and innovations.

I. Background and Mandate


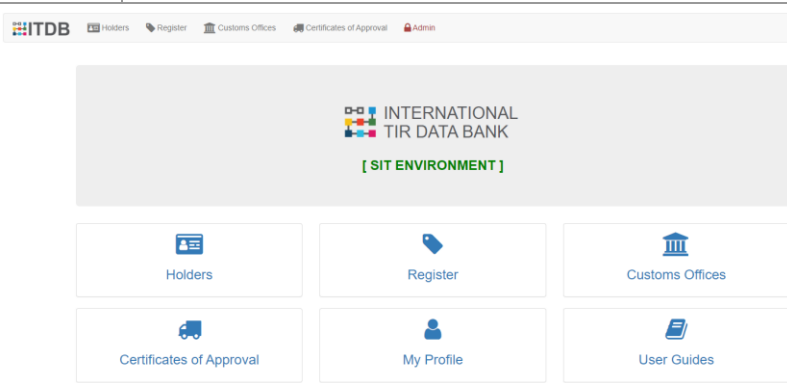
1. This document has been prepared in accordance with the 2023 programme of work of ITC (ECE/TRANS/328, paragraph 33 and ECE/TRANS/2023/11). It is aligned with the ITC strategy 2030 and summarizes those activities on information technology and computerization that implement the second pillar of its mission which is ITC to become the United Nations platform for supporting new technologies and innovations in inland transport.

II. Description of the Information Technology and Computerization Initiatives

A. eTIR International System (TIR Convention) – WP.30 / (AC.2)

<i>Overview</i>	
Tool name:	eTIR International System (application)
Tool type:	Online Platform – Application.
Tool description and current status: 	<p>The eTIR international system aims to ensure the secure exchange of data between national Customs systems related to the international transit of goods, vehicles or containers according to the provisions of the TIR Convention. It also allows Customs to manage the data on guarantees, issued by guarantee chain to holders authorized to use the TIR system.</p> <p>In May 2021, annex 11 to the TIR Convention came into force.</p> <p>The first session of the Technical Implementation Body (TIB) (18–21 January 2020) adopted version 4.3 of the eTIR technical specifications and AC.2 (February 2022) adopted the eTIR concepts and the eTIR functional specifications providing therefore a complete legal and technical basis for those countries that are willing to implement the eTIR procedure, to do so.</p> <ul style="list-style-type: none"> • Azerbaijan, Georgia, Uzbekistan, Pakistan and Tunisia have finalised the interconnection of their national customs systems with the eTIR international system; • International Road Transport Union (IRU) has finalised the interconnection of its systems with the eTIR international system; • For Kazakhstan, Kyrgyzstan and Tajikistan funds were already provided from the RPTC budget and national consultants have been hired to assist on the interconnection projects; • Iran (Islamic republic of) has committed during the AC.2 session to finalise the interconnection project during 2023 and a technical team has been formulated to perform the interconnection; • Ukraine officially expressed interest to interconnect to the system. Funds will be secured for the project to start if possible, in January 2024.
URL:	https://etir.org Simple schematic: https://etir.org/how-does-etir-work
Tool launch date:	The first eTIR transport took place in December 2022 between Uzbekistan and Azerbaijan.
Tool developed by:	TIR secretariat

B. ITDB/ TIRExB –WP.30

<i>Overview</i>	
Tool name:	International TIR Data Bank
Tool type:	Data bank / Portal
Tool description / Current Status: 	<p>The International TIR Data Bank (ITDB) was introduced by the ECE TIR secretariat in 1999, in accordance with the Terms of Reference of the TIR Executive Board (TIRExB) established by the TIR Administrative Committee. ITDB is a web platform offering both secured web application and web services serving as an international TIR data repository for customs authorities and national road transport associations using the TIR procedure. ITDB contains:</p> <ul style="list-style-type: none"> • 1,156 web application users • 30,089 authorized TIR Carnet holders (transporter companies) • 282 customs stamps and sealings records • 2,991 customs offices enabled to use TIR procedures <p>Since 2022, ITDB included a notification feature allowing key stakeholders to be notified immediately upon change of status of the TIR Carnet holder (withdrawal, end of activity) or in case of exclusion in one of the TIR Convention contracting parties/countries.</p>
URL:	https://itdb.unece.org
Tool launch date:	1999
Tool developed by:	TIR secretariat
	

C. eTIR Portal –WP.30

<i>Overview</i>	
Tool name:	eTIR Portal
Tool type:	Web Portal / Application
Tool description / Current Status:	<p>The eTIR Portal is a web application intended for the TIR Carnet holder as a complement to the ITDB in order to allow them to access their own TIR Carnet holder status information, to access the directory of Road transport national application but in the future to also submit their advance TIR/cargo information to the eTIR international system:</p> <ul style="list-style-type: none"> • 34 web application users
URL:	https://etirportal.unece.org
Tool launch date:	January 2023
Tool developed by:	TIR secretariat
 <p>The image shows two parts of the eTIR Portal interface. On the left is a 'Sign in' form with fields for email (valdesj@un.org) and password, a 'Forgot password?' link, and 'Login' and 'Register' buttons. On the right is a promotional banner with the text 'Working with you eTIR portal Turning borders into bridges' over a background image of a truck and a globe.</p>	
 <p>The image shows a screenshot of the eTIR Portal dashboard. It features the 'eTIR PORTAL' logo at the top left. The main content area includes a large QR code in the center, surrounded by various icons and text related to TIR operations. The dashboard is designed with a clean, professional layout using blue and green accents.</p>	

D. eTIR Mobile apps –WP.30


<i>Overview</i>		
Tool name:	eTIR Mobile apps	
Tool type:	Mobile applications	
Tool description / Current Status: 	<p>eTIR Customs apps and eTIR Holder apps are two mobile applications completing respectively the ITDB and the eTIR Portal to allow on one hand the Customs officers to access all ITDB as well as TIR Transport data from their mobile devices, and on the other hand for the Holder personnel to access their own ITDB data and TIR Transport as well as maps of the customs offices.</p> <p>It is available both for Google/Android and Apple/iOS users.</p>	
URL:	https://play.google.com/store/apps/details?id=org.unece.etir.customs https://play.google.com/store/apps/details?id=org.unece.etir.holder	
Tool launch date:	April 2023	
Tool developed by:	TIR secretariat	
		

E. eCPD –WP.30


<i>Overview</i>	
Tool name:	Digitalisation of Carnet de Passage en Douane (eCPD)
Tool type:	Online Platform – Application
Tool description /Current Status:	<p>The “Carnet de Passages en Douane” – or “CPD” system – facilitates the temporary importation of private and commercial vehicles.</p> <p>The CPD system is based on two international conventions (the 1954 Customs Convention on the Temporary Importation of Private Road Vehicles, and the 1956 Customs Convention on the Temporary Importation of Commercial Road Vehicles). Hosted by ECE, the conventions combined have 96 contracting parties, where the system is implemented and managed by the Fédération Internationale de l’Automobile (FIA) on behalf of the Alliance Internationale de Tourisme (AIT)/FIA CPD network and their affiliated members.</p> <p>On 20 October 2021, the FIA and ECE signed a Memorandum of Understanding (MoU) to formalise their cooperation on the digitalization of the CPD Distribution System.</p> <p>The work on the digitalization of CPD is in progress and the two secretariats are working together to define the high-level architecture of the future eCPD system including the conceptual specifications.</p> <p>On 14 December 2023 the first meeting of the informal group of experts on the digitalization of the “Carnet de Passages en Douane” will be organised. The meeting will be online and experts from all contracting parties to the two conventions, delegates of WP.30 as well as experts from other digitalization initiatives will be invited. The informal group will start discussing the possibility/need to amend the conventions in order to include provisions that refer to the digital Carnet as well as on the possible high level architecture of the system that would operate the electronic carnets.</p>
URL:	https://carnetdepassage.org/
Tool launch date:	2024 – 2025
Tool developed by:	FIA – Sustainable Transport Division

F. The international transport infrastructure observatory –WP.5

<i>Overview</i>	
Tool name:	International Transport Infrastructure Observatory
Tool type:	Geographical information system (GIS)
Tool description / current status:	<p>The International Transport Infrastructure Observatory is an initiative of ECE Sustainable Transport and the Islamic Development Bank (IsDB). It is a multi-stakeholder, web-based GIS platform which hosts data on a large variety of transport infrastructure networks and nodes across different modes including road, rail, inland waterways, ports, airports, intermodal terminals, logistics centres and border crossing points.</p> <p>Three types of services:</p> <p>(a) Offering an electronic repository of ECE inland transport conventions, project outputs, and deliverables of designated Groups of Experts.</p>

	<p>(b) Promoting sustainable regional and interregional connectivity: the observatory provides the possibility to all regional and interregional organizations to create their own maps illustrating their transport infrastructure initiatives, corridors, projects, reports and studies and anything else they consider useful for the purpose of further enhancing regional connectivity.</p> <p>(c) Financing transport infrastructure: the observatory operates as a marketplace for financing transport infrastructure by providing an electronic interface between Multilateral Development Banks (MDBs) and Governments. Governments can upload their transport infrastructure projects in need of funding as well as select which MDBs they wish to reach out to.</p> <ul style="list-style-type: none"> ▪ ITIO contains data from 79 United Nations Member States to be expanded with a further 27 United Nations Member States by 2024. It currently accommodates over 20 accredited users from Government institutions, regional organisations and multilateral development banks. An ITIO promotion film has been produced by ECE and IsDB and is available online. ▪ An ITIO follow-up extrabudgetary project is under preparation to improve and expand ITIO functionalities and scope for geographical outreach.
URL:	itio-gis.org
Tool launch date:	2022
Tool developed by:	Sustainable Transport Division / external consultants

G. Climate Change Impacts and Adaptation to Transport Networks and Nodes tool – WP.5 (Group of Experts)

<i>Overview</i>	
Tool name:	Climate Change Impacts and Adaptation to Transport Networks and Nodes tool
Tool type:	Geographical information system (GIS)
Tool description: 	<p>This tool assists analysis of possible future impacts of climate change on transport networks. By using the tool, experts can identify sections of networks projected to be exposed to the effects of changing climate and whose service delivery may be reduced in the future if they were not adapted to those effects.</p> <p>By using the tool in its GIS environment users are able to match a map that provides specific transport infrastructure for instance roads with the projects of a specific climatic factor for instance precipitation. The projections have been developed in cooperation with World Meteorological Organization (WMO) and they are for 100 years. By bringing together these two maps the user will be able to identify possible hot spots, which means locations / spots in the road networks that might be, as one example, flooded in the future. At this stage the tool provides a good but very high-level identification of those possible hot spot maps.</p> <p>The tool includes six indices related to specific climate-related hazards which are considered of significant importance to transportation. The tool presents changes – mainly increase or decrease – in a number of days of a given hazard (e.g. very hot days, icing days, high-precipitation days, dry days, etc.) in a year between the baseline period and the future period. It presents these results on the GIS maps which show the projections overlaid with the transport</p>

	<p>networks: E-Roads, E-Railways or E-Waterways. These changes are presented for different climate scenarios.</p> <p>Two sessions of the Group of Experts on Assessment of Climate Change Impacts and Adaptation for Inland Transport (WP.5/GE.3) were organised during 2023. The 24th (9–10 March) and the 25th (30–31 October 2023) sessions.</p>
URL:	itio-gis.org
Tool launch date:	2022
Tool developed by:	Sustainable Transport Division / external consultants


H. eCMR - Additional Protocol to CMR concerning the Electronic Consignment Note – SC.1

<i>Overview</i>	
Tool name:	eCMR
Tool type:	To be decided
Tool description:	<p>The eCMR is based on the provisions of the Convention on the Contract for the International Carriage of Goods by Road (CMR) (1956) and especially on the provisions of the Additional Protocol to CMR concerning the electronic consignment note (2008).</p> <p>The Working Party on Road Transport (SC.1) of the Sustainable Transport Division which administers the CMR Convention and has been mandated by the Governments to administer the eCMR protocol decided to establish a formal group of experts on the operationalization of the eCMR procedure for two years (2022 and 2023) to discuss and agree on the requirements of article 5 of the Additional Protocol to CMR including the objective/scope, the high level architecture, and the conceptual specifications for a future environment that would support the conclusion and exchange of electronic consignment notes in accordance with the provisions of CMR and its Additional Protocol. Such work should also include an impact assessment of possible implementation scenarios of a future eCMR environment.</p> <p>The group of experts finalised its two years mandate requesting ITC to prolong its duration in order to finalise its workplan. The group of experts was able during the two years of work to prepare a first draft on the conceptual specifications of the future eCMR tool(s), with an aim to define and analyse all processes and incidents being described in the CMR convention that have to be digitalised. Group’s work also focused on analysing the high-level architecture of the future eCMR system including aspects relevant to the electronic word such as the storage of data, the authentication of the users / electronic consignment note, as well as, the integrity of the messages.</p>




URL:	-
Tool launch date:	-
Tool developed by:	-

I. Sustainable Inland Transport Connectivity Indicators (SITCIN) tool – WP.5

<i>Overview</i>	
Tool name:	SITCIN tool
Tool type:	Web Application
Tool description /current status: 	<p>The main objective of the Sustainable Inland Transport Connectivity Indicators (SITCIN) tool is to enable countries to measure their degree of transport connectivity, both domestically and bilaterally/sub-regionally as well as in terms of soft and hard infrastructure. The connectivity indicators will enable governments to evaluate and assess the following:</p> <ul style="list-style-type: none"> • The progress they are making towards achieving the transport-related sustainable development goals and their commitments under the Vienna Programme of Action for landlocked developing countries (LLDCs) for the decade from 2014 to 2024. • The effectiveness and efficiency of the transport systems and the level of compliance of national administrative and legal frameworks with United Nations legal instruments relating to transport and border-crossing facilitation, providing a domestic and a cross-border perspective and improving competitiveness, safety, energy efficiency and security in the transport sector. • Their efforts in implementing United Nations legal instruments relating to transport and their work towards harmonizing and standardizing rules and documentation, including through implementing international conventions on transport and transit and regional/bilateral agreements. <p>Two hundred fifteen indicators were prepared, grouped into three inland transport modes, three pillars of sustainability and 39 thematic clusters.</p> <ul style="list-style-type: none"> ▪ SITCIN.org has so far been used by seven member States that have self-assessed the performance of their inland transport systems (or aspects thereof). ▪ In 2023 and 2024 measures are being taken to upgrade the SITCIN.org technical interface/ incl. through the deployment of French and Russian language versions thereby expanding the geographical outreach of the tool. Furthermore, additional tailored SITCIN.org functionalities are under development, e.g., enabling users to measure progress in a specific area: i.e., customs/ border management or for specific country profiles: i.e., LLDCs.
URL:	sitcin.org
Tool launch date:	2022
Tool developed by:	External consultants / Sustainable Transport Division

J. Observatory on Border Crossing Status due to COVID-19 –

<i>Overview</i>	
Tool name:	Observatory on border crossing status due to COVID-19
Tool type:	Web Application
Tool description: 	<p>In February 2020, ECE, in partnership with other United Nations regional commissions and partner organizations, established an Observatory on border crossing status due to COVID-19. This tool collects and illustrates, on a systematic basis, information about the status of inland freight border crossings, including policies and good practices. ECE and its partners informed Customs authorities in almost all United Nations Member States about the tool and began gathering their inputs as well as any official, publicly available information of relevance. The main objective of the Observatory is to be an information-sharing platform in order to support decision-making on appropriate measures taken for the borders and facilitate the movement of goods by inland transport:</p> <ul style="list-style-type: none"> (a) The transport sector is being informed about measures imposed by different governments adapting their itineraries / transport solutions accordingly. (b) The governments are being informed about good practices implemented by other governments ensuring that borders are open, facilitating the flows of goods while preventing the spread of the virus. <p>The Observatory, as of October 2020, is a platform that provides updated information on the status of 174 United Nations Member States including the national practices and measures implemented in response to the pandemic. The Observatory had 106,000 unique views during the last four months from 207 countries / and all regions of the world.</p> <p>The last update of the observatory was provided in July 2023. Even though the conditions at the borders have been regularized and no disruptions are being observed due to COVID 19 the secretariat provided some last updates and keeps the observatory active since it constitutes a very good source of case studies / measures being implemented during the pandemic for future reference.</p>
URL:	Observatory on Border Crossings Status due to COVID-19 Home - Observatory on Border Crossings Status due to COVID-19 - UNECE Wiki
Tool launch date:	2020
Tool developed by:	TIR secretariat
Link with the seventieth ECE central theme Digital and green transformations for sustainable development in the ECE region.	
<p>During the pandemic the borders closed. The observatory assisted thousands of users to be informed on the current status of the borders for each United Nations Member State. Also, countries used the observatory to learn from each other and identify good practices implemented.</p>	

III. Considerations by the Committee

2. The Committee may wish to take note of and support the above information technology and computerization activities and initiatives / tools of contracting parties, WP.30, WP.5, SC.1 and the TIR secretariats in the year 2023.