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Economic Commission for Europe**Inland Transport Committee****Working Party on Inland Water Transport****Working Party on the Standardization of Technical
and Safety Requirements in Inland Navigation****Fifty-first session**

Geneva, 14-16 June 2017

Item 2 (c) of the provisional agenda

**Inland waterways infrastructure: Inventory of Most Important Bottlenecks
and Missing Links in the E Waterway Network (Resolution No. 49, revised)****Proposal on mainstreaming the Inventory of Most Important
Bottlenecks and Missing Links in the E Waterway Network
(Resolution No. 49) with the TEN-T core network corridors****Note by the secretariat****I. Mandate**

1. This document is submitted in line with Cluster 5: Inland Waterway Transport, para. 5.1 of the programme of work 2016-2017 (ECE/TRANS/2016/28/Add.1) adopted by the Inland Transport Committee at its seventy-eighth session on 26 February 2016.
2. At its sixtieth session, the Working Party on Inland Water Transport (SC.3) decided to consider possibly mainstreaming the Inventory of Most Important Bottlenecks and Missing Links in the E Waterway Network (Resolution No. 49) and a list of prioritized infrastructure projects established by European Union (EU) Regulation No. 1316/2013 of the European Parliament and of the Council of 11 December 2013 establishing the Connecting Europe Facility (CEF).¹ The intent of SC.3 was to use the outcome of this work as a basis for further updating the Inventory of Main Standards and Parameters of the E Waterway Network (Blue Book).

¹ <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R1316&from=EN>.

3. At its fiftieth session, the Working Party on the Standardization of Technical and Safety Requirements in Inland Navigation (SC.3/WP.3) supported this idea and decided to include this item in the agenda of its fifty-first session (ECE/TRANS/SC.3/WP.3/100, para. 14). The Working Party asked the secretariat to prepare a proposal.

II. Proposed approach and work

4. The proposal to streamline Resolution No. 49 with the list of prioritized infrastructure projects established by Regulation (EU) No. 1316/2013² is based on the fact that the trans-European transport network (TEN-T) waterways are waterways of international importance, according to the European Agreement on Main Inland Waterways of International Importance (AGN) and, as such, are included in the Blue Book and Resolution No. 49.

5. SC.3/WP.3 may wish to consider the following steps for streamlining Resolution No. 49 and Regulation (EU) No. 1316/2013:

- assess conformity between the waterways or waterway sections from the list of pre-identified projects of the core network in the transport sector (Annex I to Regulation (EU) No. 1316/2013) and the waterways included in the E waterway network;
- assess conformity between the bottlenecks on the waterway sections identified in Resolution No. 49 and those specified in Regulation (EU) No. 1316/2013;
- identify target parameters and harmonize them, where necessary;
- update the information on the planned timelines in Resolution No. 49;
- adoption of the amendments by member States;
- prepare amendments to the Blue Book;
- regularly update the information in UNECE documents.

6. The added value for all UNECE member States may be a regular updating of the Blue Book, avoiding possible divergence between UNECE and TEN-T databases, establishing a link between AGN and TEN-T waterways, avoiding the duplication of work related to this issue and thus ensuring progress in the implementation of AGN.

7. The added value for EU member States and EC may be the possibility to use the information on the bottlenecks that is maintained by UNECE, the accessibility of UNECE databases hosted in a Geographical Information System (GIS) and in the Blue Book, and improving connection between EU and neighbouring countries.

² See ECE/TRANS/SC.3/WP.3/2017/3.

III. Conformity of the TEN-T waterways and bottlenecks to AGN and Resolution No. 49

8. A proposal to establish conformity between the waterways and bottlenecks of the core network corridors and those listed in Resolution No. 49 is given in the table below. For certain cases, it was not possible to find the exact location of waterway sections mentioned in Annex I to Regulation (EU) No. 1316/2013; here, a number of options are proposed that may be relevant.

Waterways mentioned in Regulation (EU) No. 1316/2013 *E Waterways* *Missing links and bottlenecks in the Blue Book*

North Sea-Baltic Core Network Corridor

Berlin - Magdeburg - Hannover	E 70, E 70-02, E 70-04,	<i>Bottlenecks:</i> Elbe - Havel - Kanal; Untere Havel - Wasserstraße;
Western German canals	E 70-06, E 70-08, E 70-05, E 70-10, E 70-12	Berlin region waterways (connection to Westhafen Berlin); Havel - Oder - Wasserstraße.
Mittellandkanaal Twente Canal	E 70, E 70-02, E 70-04, E 70-06	<i>Missing link:</i> Twente-Mittellandkanal of 55 km. <i>Bottlenecks:</i> Mittellandkanal: - sections which have not yet been modernized; - canals branching off from the Mittellandkanal; Twente Canal: upgrading of the waterway and of the Eefde lock.
Rhine	E 10	-
Waal	E 10	-
Noordzeekanaal	E 11, E 11-01	<i>Bottlenecks:</i> - IJmuiden sea locks; - modernization of the fairway, under-bridge height and locks on the Zaan
IJssel	E 12, E 70	<i>Bottleneck:</i> from Arnhem to Zutphen
Amsterdam locks and Amsterdam - Rijnkanaal	E 11, E 11-02	<i>Bottleneck:</i> the Beatrix lock

Mediterranean Core Network Corridor

Milano - Cremona - Mantova - Porto Levante/Venezia - Ravenna/Trieste	E 91, E 91-02, E 91-03, E 91-04, E 91-05	<i>Missing links:</i> Milano - Po Canal from Milano to Pizzighettone; Padova - Venezia Canal from Romea lock to Padova. <i>Bottlenecks:</i> Piacenza - Casale Monferrato; Mantova - Adriatic Sea Canal from Ostiglia to Baricetta lock; Veneta Lateral Waterway from Marghera to Porto Nogaro; Ferrara waterway from Ferrara to Porto Garibaldi.
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Waterways mentioned in Regulation (EU) No. 1316/2013 E Waterways Missing links and bottlenecks in the Blue Book

Orient/East-Med Core Network Corridor

Hamburg - Dresden - Praha - Pardubice	E 20, E 20-06, E 30	<p><i>Missing links:</i> Danube - Oder - Elbe Connection of 479 km.</p> <p><i>Bottlenecks:</i> Elbe: - from Lauenburg upstream to the border between Germany and the Czech Republic; - from Mělník to Chvaletice; - from Chvaletice to Pardubice (a lock at Přelouč); - from the State border to Ústí nad Labem; Vltava: from Mělník to Praha.</p>
Děčín locks	E 20	Not indicated as a bottleneck; included in Table 2 of the Blue Book as a project.

Rhine - Alpine Core Network Corridor

Basel - Antwerpen/ Rotterdam - Amsterdam	E 10, E 10-09, E 11	<p><i>Bottlenecks:</i> - from St. Goar to Mainz; - Kehl/Strasbourg (low under-bridge height).</p>
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Atlantic Core Network Corridor

Le Havre - Paris	E 80, E 80-02, E 80-04	-
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North Sea - Mediterranean Core Network Corridor

Maas, including Maaswerken ³	E 01, E 01-02, E 01-04	<p><i>Missing links:</i> Meuse - Rhine link.</p> <p><i>Bottlenecks:</i> Maasroute; Ivoz-Ramet and Ampsin-Neuville (construction of locks); Pont d'Ougrée - Liège section.</p>
Albertkanaal/ Canal Bocholt- Herentals	E 05 E 01-01	<p><i>Bottlenecks:</i> Albertkanaal: Wijnegem passage and Kanne - Liège section; Bocholt - Herentals Canal: Bocholt - Dessel section; Zuid-Willemsvaart, section Bocholt - Belgium/ Netherlands border; Canal de Lanaye.</p>
Rhin - Scheldt corridor: Volkeraklock and Kreekaklock, Krammerlock and Lock Hansweert Terneuzen-Gent	E 06, E 03	<p><i>Bottlenecks:</i> Schelde - Rhine connection: the Kreekrak locks, the Volkerak locks and the Terneuzen locks.</p>

³ Note of the secretariat: De Maaswerken is a project for the Meuse river which aims at reducing the risk of flooding and improving the fairway launched in 1997.

Waterways mentioned in Regulation (EU) No. 1316/2013 E Waterways Missing links and bottlenecks in the Blue Book

Canal Seine Nord; Seine - Escaut	E 05, E 02	<i>Missing links:</i> Seine - Nord Europe link of 106 km. <i>Bottlenecks:</i> Lys Mitoyenne - Lys (Menin - Deinze section) and Lys Derivation Canal up to Schipdonk. <i>Bottlenecks:</i> Network Nord Pas-de-Calais - lifting of bridges and upgrading of links with Belgium.
Dunkerque - Lille	E 01	<i>Bottlenecks:</i> Dunkerque - Escaut link and Escaut up to Condé.
Antwerpen, Brussels, Charleroi	E 04	<i>Bottlenecks:</i> Charleroi - Bruxelles Canal: Lembeek - Bruxelles section; Marchienne, Viesville and Gosselies Locks; Sea Canal Bruxelles - Schelde, section Wintam - Willebroek; Dender, Aalst - Dendermonde section; Beneden-Nete.
Waterways upgrade in Wallonia	E 01, E 01-02, E 01-04, E 04, E 05	<i>Bottlenecks:</i> Condé - Pommeroeul Canal; Nimy - Blaton - Peronnes Canal; Canal du Centre, Obourg Lock; Haut Escaut on section Bléharies - Hérinnes - Tournai passage.
Canal Saône- Moselle/Rhin	E 10, E 10-02	<i>Missing links:</i> Saône - Moselle link of 206 km; Saône - Rhine link of 304 km..
Rhône	E 10, E 10-04	<i>Bottlenecks:</i> Rhône - Sète Canal.
Rhine - Danube Core Network Corridor		
Komárom - Komárno	E 80, E 81	<i>Bottlenecks:</i> Danube: - section from Sap (1,811.0 km) to 1,708.2 km; - road bridge Medved'ov (1,806.35 km); - railway bridge Komárno (1,770.4 km) ; - road bridge Komárno (1,767.8 km); Váh (E 81): from Komárno (0.0 km) to Žilina (240.0 km).
Main - Main- Donau Canal	E 80	<i>Bottlenecks:</i> Main upstream from Würzburg.
Danube (Kehlheim- Constanța/Midia/ Sulina)	E 80	<i>Bottlenecks:</i> section from Straubing to Vilshofen; bridges at Bogen (2,311.27 km), at Passau (2,225.75 km); section from 1,811.0 km to 1,433.0 km; the road/rail bridge at Dunaföldvár (1,560.55 km); the road/rail bridge at Baja (1,480.22 km); section from 845.5 to 175.0 km; section from 170 km to the Black Sea at several critical points, i.e. at 73, 57, 47, 41 and 37 nautical miles and at the Sulina bar at the mouth of the Sulina Canal where it meets the Black Sea.
Sava	E 80-12	<i>Bottlenecks:</i> sections from 515.2 to 178.0 km;

Waterways mentioned in Regulation (EU) No. 1316/2013 *E Waterways* *Missing links and bottlenecks in the Blue Book*

between Brčko and Serbian/Croatian State border ;
between Sisak and Brčko.

București - Dunăre Canal E 80-05 Missing link: Danube - Bucuresti Canal of 73 km.

Other Sections on the core network

Brunsbüttel-Kiel (Nord-Ostzeecanal) E 60-03 -

9. Some of missing links and bottlenecks on waterways of EU member States from the AGN and the Blue Book could not be identified in Annex I to Regulation (EU) No. 1316/2013.

10. To continue this work, SC.3/WP.3 may deem it necessary to identify the exact location of each bottleneck on the map. This could be done separately by both data providers (EC and UNECE) using GIS. Then, as the next step, both data sources may be compared to obtain a harmonized database. SC.3/WP.3 may wish to instruct the secretariat to hold consultations with EC and European coordinators of the core network corridors.
