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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)**

### **Harmonization of the definition of bottlenecks and missing links on European inland waterways**

#### **Note of 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 fiftieth session, the Working Party on the Standardization of Technical and Safety Requirements in Inland Navigation (SC.3/WP.3) decided to start discussion on harmonizing the definitions of bottlenecks applied in Europe and asked the secretariat to collect opinions from member States, River Commissions and other interested parties for its next session (ECE/TRANS/SC.3/WP.3/100, para. 15).
3. A brief overview of the work done in Europe in terms of the definitions of bottlenecks and missing links and answers to the questionnaire on the application of these definitions by member States and River Commissions received by the secretariat so far, are reproduced in the present document. This overview does not identify all the studies and publications on this issue; more detailed overview can be found in the publication "A Methodological Basis for the Definition of Common Criteria regarding the Identification of Bottlenecks, Missing Links and Quality of Service in Infrastructure Networks" (ECE/TRANS/205).

4. SC.3/WP.3 may wish to come back to the discussion of this issue in the light of recent developments and existing legislative framework and provide its recommendations for the Working Party on Inland Water Transport (SC.3).

## **II. Overview of the work done in terms of the definitions of bottlenecks and missing links on European inland waterways**

### **A. UNECE Inland Transport Committee**

5. The UNECE Inland Transport Committee (ITC) has been concerned about infrastructure network missing links and bottlenecks since the early 1990s, largely in the context of developing efficient and effective trans-European transport networks.<sup>1</sup> Attempts have been made to identify bottlenecks and missing links, but problems of definition and methodology have been a recurring theme in relation to all inland transport modes. The report on the most recent study undertaken by ITC in 2005 is set out in the publication “A Methodological Basis for the Definition of Common Criteria regarding the Identification of Bottlenecks, Missing Links and Quality of Service in Infrastructure Networks”.

6. The report considered the inter-relationship between bottlenecks, missing links and quality of service in terms of capacity, quality of transport service and traffic flows and offered recommendations separately for each of the three modes for indicators against which a section of network could reasonably be assessed as a bottleneck.

7. It was concluded that separate approaches to bottleneck identification (and to some extent missing links) were needed for the three individual modes, road, rail and inland waterway; it was recommended also that countries be encouraged to understand border crossings and modal interchanges as the equivalent to links in the networks and identify them as bottlenecks or missing as appropriate.

8. In relation to inland waterway networks, it was mentioned that, for inland waterways, speed is typically less of a consideration in terms of quality of service as compared to other transport modes. Additionally, capacity of the network as a whole is significantly influenced by the fact that inland waterways are constructed to very different specifications with marked differences in capacity.

9. It was further mentioned that, compared to the road and railway sectors, the infrastructure capacity on inland waterways is more dependent of weather conditions, since a low level of water is often the major cause of restrictions. The other main factor relates to infrastructure and involves insufficient lock capacity. Many policies aimed at removing bottlenecks, therefore, focus on improving/adding locks and barrages and represent long-term projects requiring substantial financing.

10. It was recommended that the standards-based guidelines adopted by ITC continue to be employed. National administrations were encouraged to continue the identification of basic bottlenecks and strategic bottlenecks in the context of the European Agreement on main inland waterways of international importance (AGN) following the definitions elaborated by the ad hoc Group of Experts on Inland Waterway Infrastructure (TRANS/SC.3/WP.3/AC.1/4, para. 18) and endorsed by SC.3 at its thirty-seventh session (TRANS/SC.3/133, para. 18):

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<sup>1</sup> TRANS/WP.5/R.44, TRANS/WP.5/R.60.

(a) basic bottlenecks - sections of E waterways whose parameters are not in conformity with the requirements of European Inland Waterways, class IV;

(b) strategic bottlenecks - other sections satisfying the basic requirements of Class IV but which nonetheless ought to be modernized to improve the structure of the network or to increase the economic capacity of inland navigation traffic.

11. It was recommended that national administrations review the identification of missing links as established in the Inventory of Main Standards and Parameters of the E Waterway Network (Blue Book) based simply on their expert knowledge of their own network without formal guidelines, save that their thinking should have an explicit focus on expediting international freight movement and that they should be aware of possibilities for development in multi-modal transport.<sup>2</sup>

12. It was mentioned that, in view of the progress already made in this area, relatively little extra work might be needed.

## **B. European Conference of Ministers of Transport**

13. The European Conference of Ministers of Transport (now the International Transport Forum) had for some time taken an interest in infrastructure planning at the pan-European level for road, rail and inland waterway. It had reported work identifying bottlenecks in individual countries and convened conferences where the terms “bottleneck” and “missing link” had very much been part of the language in terms of which the need for infrastructure and other improvements were identified.

## **C. European Commission**

14. European Commission (EC) addressed the methodology of defining bottlenecks and missing links in the context of the development of infrastructure network and, later, the Trans-European Transport Network (TEN-T), in particular, in the following documents:

- Decision No. 1692/96/EC of the European Parliament and of the Council of 23 July 1996 on Community guidelines for the development of the trans-European transport network;<sup>3</sup>
- the study “The Northern Transport Axis” (2007);
- the project “TEN-CONNECT: Traffic Flow: Scenario, Traffic Forecast and Analysis of Traffic on the TEN-T, Taking into Consideration the External Dimension of the European Union” (2007-2009);
- Regulation (EU) No. 1315/2013 of the European Parliament and of the Council of 11 December 2013 on Union guidelines for the development of the trans-European transport network.<sup>4</sup>

15. A bottleneck is defined in Regulation (EU) No. 1315/2013 as a physical, technical or functional barrier which leads to a system break affecting the continuity of long-distance or cross-border flows and which can be surmounted by creating new infrastructure or substantially upgrading existing infrastructure that could bring significant improvements

<sup>2</sup> The draft report as applied to inland waterways was considered by SC.3/WP.3 at its thirty-second session (see ECE/TRANS/SC.3/WP.3/2008/13).

<sup>3</sup> Official Journal L 228, 09/09/1996 P. 0001-0104.

<sup>4</sup> <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32013R1315&from=EN>.

which will solve the bottleneck constraints. This definition is applicable to all modes of inland transport being parts of the TEN-T core network. The Regulation also uses the term “missing (infrastructure) links”, but does not introduce a definition for it.

### **III. Answers of Member States to the questionnaire**

#### **A. Austria**

16. There is no formal definition of the term “bottleneck” in national law. However, the term “bottlenecks” is used in infrastructure projects in the context of the Blue Book and Regulation (EU) No. 1315/2013. In terms of basic and strategic bottlenecks, there are no formal definitions of these terms in national law, and there are no basic bottlenecks in Austria, but strategic bottlenecks are taken into account in infrastructure projects.

17. There is no formal definition of the term “missing link” in national law, but the term is used in AGN.

#### **B. Belarus**

18. In accordance with the commitments assumed by the Republic of Belarus in the framework of AGN (Decree of the President of the Republic of Belarus “On adherence of the Republic of Belarus to the European Agreement on Main Inland Waterways of International Importance” from February 28, 2008) the terms “bottleneck”, “basic bottlenecks”, “strategic bottlenecks” and “missing links” are applied in accordance with the Blue Book and Resolution No 49.

#### **C. Bulgaria**

19. Bulgaria applies the term “bottleneck” in accordance with Resolution No. 49, the Blue Book and Regulation (EU) No. 1315/2013, as long as the definitions given in these documents are explicit. There are no basic bottlenecks in Bulgaria identified in the Blue Book while strategic bottlenecks are identified on the common Bulgarian-Romanian section of the Danube having low fairway depth during dry seasons (below 2.50 m, the value recommended by the Danube Commission) at critical sections.

20. Bulgaria applies the term “missing link” in accordance with Resolution No. 49, revised, and the Blue Book. There are no missing links in Bulgaria identified in the Blue Book.

#### **D. Czech Republic**

21. The Czech Republic applies the terms “bottlenecks” and “missing links” in accordance with the Blue Book and Resolution No. 49, revised. The definitions of “basic bottlenecks” and “strategic bottlenecks” for the inland waterway infrastructure are not applied.

#### **E. The Netherlands**

22. The Netherlands specify bottlenecks in terms that are in accordance with the definitions given in the Blue Book and Regulation (EU) No. 1315/2013. Bottlenecks are

waterways or waterway sections that do not meet, or are not expected to meet, at the present time or in future, the policy target requirements in terms of the waterway class, waiting time or berthing capacity and considered as such by the Ministry of Infrastructure and the Environment; this term is used in the context of most plans for upgrading the inland waterway infrastructure aimed at higher national targets.

23. The definitions of “basic bottlenecks”, “strategic bottlenecks” and “missing links” in relation to national inland waterways are not applied.

24. Most of the E waterway sections in the Netherlands already meet the criteria for basic bottlenecks (class IV) according to the Blue Book, and, therefore, the advantage of the definition used in Regulation (EU) No. 1315/2013 is that it is not linked to the target values of class IV. At the same time, a link to the international and/or national police target requirements is desirable; for this reason, a possible modification of the definition given in Resolution No. 49 is proposed:

“Those sections of the European waterway network ~~of international importance~~ that have parameter values being substantially lower than **international and/or national** target requirements are called bottlenecks.”

## **F. Slovakia**

25. Slovakia applies the definitions of bottlenecks and missing links in accordance with Regulation (EU) No. 1315/2013. The definitions of “basic bottlenecks” and “strategic bottlenecks” for the inland waterway infrastructure are not applied.

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