

Economic and Social Council

Distr.: General 30 August 2017

Original: English

Economic Commission for Europe

Inland Transport Committee

Working Party on Transport Trends and Economics

Group of Experts on Benchmarking Transport Infrastructure Construction Costs

Geneva, 10 and 11 July 2017

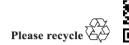
Report of the Group of Experts on Benchmarking Transport Infrastructure Construction Costs on its third session

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GE.17-14979(E)







I. Attendance

- 1. The Group of Experts (hereafter called the Group) on Benchmarking Transport Infrastructure Construction Costs held its third session on 10 and 11 July 2017. The session was chaired by Mr. A. Maciejewski (Poland-TEM Project).
- 2. Representatives of the following United Nations Economic Commission for Europe (UNECE) member States participated: Cyprus, Czech Republic, Finland, Lithuania, Norway and Turkey.
- 3. Representatives of the following United Nations specialized agency attended the meeting: UNECE Trans-European Motorway (TEM) Project. Experts from the following intergovernmental organization participated: International Transport Forum (ITF). Experts from the following non-intergovernmental organization participated: Europlatforms EEIG.

II. Adoption of the agenda (agenda item 1)

Documentation: ECE/TRANS/WP.5/GE.4/5

4. The Group adopted the agenda.

III. Transport Infrastructure Construction costs: Presentations of good practices at national levels for evaluating and calculating them (agenda item 2)

- 5. The Group of Experts recalled that based on the Terms of Reference of the Group the Experts should focus their work on identifying models, methodologies, tools and good practices for evaluating, calculating and analysing inland transport infrastructure construction costs.
- 6. The representative of ITF, Mr. D. Makovsek presented the ITF and CEDR joint initiative on a database of road infrastructure delivery cost as well as the work of ITF on contract design and procurement performance.
- 7. On the database of road infrastructure delivery cost he mentioned that it would help improve the procurement methodology of major road infrastructure projects and save procuring authorities massive amounts of money. The database would serve as a benchmarking tool that could possibly answer different questions:
- (a) Is the lowest bid for a proposed project suspicious as being abnormally low, compared to the cost of similar projects in the database?
- (b) How similar or different (e.g. higher or lower) is the (normalised) cost per km of a motorway (e.g. 2x2 lanes) in one country compared to other countries?
 - (c) What is the source of the cost differentials between similar projects?
- 8. In terms of procurement and contract design, such a database would be able to assess how different contracting arrangements perform (e.g. design-bid-build vs design & build) in terms of end cost not only on-time/on budget performance. Furthermore, cost-saving opportunities may arise for various procuring authorities. Also, procuring authorities will be able to defend their decisions with respect to road project delivery based on well-established empirical information.

- 9. On the contract design and procurement performance he mentioned progress achieved of ITF working group on private investments on transport infrastructure.
- 10. The Group welcomed the presentation of OECD¹/ITF on the impact of different types of procurement contracts on the costs of infrastructure and noted that synergies could be identified in the respective work of the two organisations, in the interest of complementarity and avoiding duplication. Specifically, the benchmarking of infrastructure costs as produced by the Group could serve as a basis for selecting the most appropriate contract for various projects. At the same time, the Group noted that OECD/ITF was, for the moment, focusing its attention on a limited number of countries, whereas the work of the Group is meant to take stock of the entire UNECE region. The Group also noted that the work of ITF is focusing on the road sector, as well as that the time-line for the completion of this exercise will go beyond the mandate of the Group. The Group also noted that, in the interest of producing a quality report, it was very important that parallel initiatives such as the OECD/ITF project had been taken into consideration and invited OECD/ITF to attend future sessions and to keep Group informed of progress in its work.

IV. Transport Infrastructure Construction costs: Presentations of terminologies used (agenda item 3)

- 11. The Group recalled that it had agreed that the secretariat and the members of the Group should collect and upload on Group's electronic space existing terminologies prepared at National and International level.
- 12. The Group considered document ECE/TRANS/WP.5/GE.4/2017/1 on terminologies used in the Economic Commission for Europe (ECE) region for construction costs of Road infrastructure prepared by the road team of experts led by the Turkish road transport expert, Mrs. L. Unal.
- 13. The Group welcomed the presentation of the delegation of Turkey on seven core definitions and related references and decided:
 - (a) to accept these definitions as presented;
 - (b) to delete the references to the life-time of each defined project;
- (c) to include the definition of a "new construction" as provided by the delegation of Turkey in a revised document on definitions for the next session.

V. Transport Infrastructure Construction Costs: Overview of main concerns and considerations (agenda item 4)

- 14. The Group recalled the information provided by the secretariat at its previous sessions on the challenges regarding the organization of Group's future sessions and the participation of specialized experts. The biggest challenge is that Group's objectives are referring to different transport modes (road, rail, inland waterways) including different nodes (ports, intermodal terminals). Therefore, different experts should be identified and invited from the member States.
- 15. The Group welcomed the presentation by the delegation of Turkey Mr. C. Tabak on freight villages. The presentation focused on the importance of freight villages for integrating transport modes and presented various operating models for freight villages. He also illustrated the freight villages and rail freight developments in Turkey.

¹ Organization for Economic Cooperation and Development

- 16. The Group also welcomed the presentation by the General Secretary of Europlatforms, Mr. M. Martínez Torres which focused on the costs associated with the design, construction, operation and maintenance of logistics centres. The Group also noted that Europlatforms is preparing a study on how to reduce the carbon footprint of logistics centres.
- 17. The Group underlined the importance of considering logistics terminals in depth and agreed to establish a sub-group, to be led by Europlatforms, with the participation of the delegation of Turkey and other interested stakeholders. The Group agreed that the starting point of the work on this subject would be, similarly to the road sub-group, the establishment of a commonly agreed terminology, on the basis of which a data collection questionnaire could be developed.
- 18. The members of the sub-group on logistics terminals informed that a first list of terms and definitions would be communicated to the secretariat approximately two weeks following the session. The Group highlighted that the endeavour is time-sensitive and agreed to consider the first draft documents, to be delivered by the sub-group on logistics terminals by the new sub-group at its next session in October 2017.

VI. Discussions on the structure of the final report of the Group of Experts (agenda item 5)

- 19. The Group considered document ECE/TRANS/WP.5/GE.4/2017/2, welcomed the presentation of the delegation of Turkey on the questionnaire on benchmarking road transport infrastructure costs and approved the questionnaire subject to the following changes:
 - (a) Question 1 (Social and Economic Indicators):
 - (i) it would be necessary to include in the list of terms a definition of high classified and medium classified roads, to facilitate the respondents;
 - (ii) to delete, in question 1, the paved and unpaved roads as well as the percentage of paved roads;
 - (iii) to delete the annual investment of transportation;
 - (iv) to add the number of PPP projects per country and amount invested by the private sector;
 - (v) to add the total length of existing bridges and tunnels;
 - (vi) to add the cost of design as a percentage of spending on infrastructure;
 - (vii) to replace the references to "annual" investment or construction with an average of the last five years (2012-2016), calculated in US dollar value of the previous year (2016).
 - (b) Question 2 (Construction costs of tunnels and bridges):
 - (i) to add the category of "under-water tunnels";
 - (ii) to add two more categories of bridges, namely pedestrian bridges and precast beam bridges.
 - (c) Questions 3 10(construction costs of asphalt and concrete roads):
 - (i) To delete terrain type in the entire questionnaire;
 - (ii) to delete the "median" column;

- (iii) motorways and expressways will be deleted from questions referring to single carriageway;
- (iv) For each category (asphalt/concrete) there will be two questions, one for single carriageway to collect data on the cost per km and on one dual carriageway to collect data on costs per lane x km.
- (d) Question 11 decided to be deleted.
- 20. The road experts' sub-group agreed to transmit to the secretariat the amended and final version of the questionnaire approximately two weeks after the session. The Group requested the secretariat to take the necessary action to distribute the questionnaire to UNECE member States as soon as possible thereafter with a deadline for replies of end of September 2017.
- 21. The secretariat was requested to collect and consolidate the preliminary results of the questionnaire for the next session in October. Taking note of the short timeline for replies, the Group agreed that, at its next session, the group would consider the replies received and decide on an extension of the deadline to collect further replies. The Group noted that, given the short time-frame, the secretariat document will be informal (English only).
- 22. The Group decided to prepare an interim status report for distribution to member States at the end of the year. To this end, the Group agreed to review a first draft of such a document, outlining the main outcomes of the first year of the work as well as the challenges faced, at the next session in October 2017. The secretariat was asked to prepare this document, which will be finalised after the next session, to include the outcomes of the discussions of the next session and the consideration of (a) the preliminary results of the road infrastructure questionnaire, (b) the first drafts by the logistics sub-group.
- 23. The Group agreed that the final report should include a chapter/section on how the data collected can be used, as well as next steps, conclusions and recommendations for developing a user-friendly tool based on the outcomes of the work of the group. Against this background, the Group noted that elements of funding for the development of a benchmarking tool may need to be considered as part of the next phase/steps.
- 24. Under this item, the Group also noted with concern that non-road modes were under-represented in the Group's work and that further efforts should be made to ensure that experts from railways, inland waterways and ports attend the sessions and contribute to the outcome of the work.
- 25. The Group called for interested stake-holders to participate in the work and decided to make efforts to reach out to organisations and member States in search of partnerships that would facilitate, inter alia, the collection of data for rail, inland waterways and ports. The Group was requested to transmit to the secretariat any contact information in this regard.

VII. Other business (agenda item 6)

26. There were no other items.

VIII. Date and place of next meeting (agenda item 7)

27. The Group of Experts forth session is tentatively scheduled to take place in Geneva on 16 and 17 October 2017.

IX. Adoption of main decisions (agenda item 8)

28. The Group adopted the list of main decisions of its third session and requested the secretariat and the Chair to prepare the full and complete report to be circulated to the members of the Group for comments on items other that those contained in the list of main decisions.