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Fourth session

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Report of the Group of Experts on Improving Safety at Level Crossing on its fourth session

Contents

	<i>Paragraphs</i>	<i>Page</i>
I. Attendance.....	1-2	3
II. Adoption of Agenda (agenda item 1).....	3	3
III. Programme of Work (agenda item 2).....	4-27	3
A. A review and analysis of the economic costs of level crossing accidents based on data provided by countries	4-7	3
B. An evaluation and analysis of the safety performance of types of level crossings in UNECE member States and in selected non-UNECE member States such as Australia, India, New Zealand and South Africa	8-9	4
C. A summary of good practices including education.....	10-12	4
D. A survey of prevailing national legislation and/or legal arrangements at level crossings.....	13-18	5
E. A survey of technology and technological solutions to improve safety at level crossings.....	19	5
F. Identification of the key causes and possible solutions related to human factors contributing to unsafe conditions at level crossings.....	20-22	5
G. Enforcement.....	23-24	6
H. Development of a road/rail interface strategy with recommendations.....	25-27	6
IV. Other Business (agenda item 3).....	28-29	7
V. Date and Place of Next Meeting (agenda item 4).....	30-31	7

VI. Adoption of Report (agenda item 5)..... 32 7

I. Attendance

1. The Group of Experts on Safety at Level Crossing (GE.1) held its fourth session in Geneva from 29-30 January 2015, chaired by Mr. Martin Gallagher (United Kingdom of Great Britain and Northern Ireland). Representatives of the following UNECE member States participated: Austria, Belgium, Finland, France, Germany, Hungary, Ireland, Italy, Lithuania, Norway, Poland, Portugal, Romania, Russian Federation, Sweden, Switzerland, Turkey United Kingdom of Great Britain and Northern Ireland (UK), United States of America.
2. The following non-governmental organizations were represented: European Railway Agency (ERA), International Union of Railways (UIC) and Operation Lifesaver Estonia. Two private companies also attended: Community Safety Partnerships Ltd (CSP) and Cognito Ltd. at the invitation of the secretariat.

II. Adoption of the Agenda (agenda item 1)

3. The Group of Experts adopted the annotated provisional agenda for the fourth session (ECE/TRANS/WP.1/GE.1/7).

III. Programme of Work (agenda item 2)

A. A review and analysis of the economic costs of level crossing accidents based on data provided by countries

4. The Group of Experts received a presentation from the United States of America on the Federal Railroad Administration, United States of America rail related facts and annual rail fatalities as well as an overview of the National Corporative Highway Research Programme (NCHRP) 755 Report The Comprehensive Costs of Highway-Rail Grade Crossings Crashes. This included a demonstration of the Transportation Research Board (TRB) spreadsheet based tool which allows users to input values to assess costs for specific situations.
5. On behalf of GE.1 subgroup, Poland summarized for the work of the subgroup between the third and fourth GE.1 sessions. This included a review of available methodologies and studies for estimating rail/road accident costs and the economic costs of casualties. It had also sought inputs from GE.1 members in relation to relevant national case studies and, in particular, from GE.1 infrastructure managers for average or typical costs factored into their calculation of economic costs of level crossing accidents.
6. In light of the lack of responses, the subgroup has extended the deadline to the middle of March 2015, and asked GE.1 members intending to submit responses to do so as soon as possible. The subgroup also indicated that it required financial assistance to develop a comprehensive model. The Chair suggested that examples of policy decisions taken by Governments to improve the safety of level crossings where there was no compelling business case should also be included.
7. For the next session, GE.1 requested the subgroup to:
 - (a) Complete its analysis of additional responses received from GE.1 members on national case studies and average or typical costs of level crossing accidents;

(b) Provide a summary of its findings to date, and to document the best practices in this area, with particular reference to the United States of America and UK approaches, and the World Bank accident costs methodology, in an informal or formal paper, and

(c) In the event that a partner willing to fund research is identified, to present the outcomes of the subgroup's further research between the fourth and fifth sessions of GE.1.

B. An evaluation and analysis of the safety performance of types of level crossings in UNECE member States and in selected non-UNECE member States such as Australia, India, New Zealand and South Africa

8. On behalf of its subgroup, on CSP summarized the analysis and further research of the subgroup between the third and fourth GE.1 sessions (Informal document No. 2). This included reviewing rail safety statistics and data from publicly available national statistics relating to Australia, Canada, India, New Zealand, and the United States of America, and comparing it to data from Eurostat and ERA. CSP also raised the question of identifying an appropriate body or organization to collect and host the data.

9. For the next session, GE.1 requested the subgroup to:

(a) Compile a list of the most suitable indicators of safety performance at level crossings taking account of existing approaches and data available in UNECE countries, and to propose the most appropriate benchmarking indicators globally;

(b) Identify and recommend an appropriate body or organization to collect and host the proposed indicators of safety performance at level crossings;

(c) Analyse the data collected by the subgroup to date in UNECE countries including Canada and the USA, and in select non-UNECE countries such as Australia and New Zealand about the safety performance of different types of level crossings; and

(d) Prepare an informal or formal paper.

C. A summary of good practices including education

10. On behalf of GE.1 subgroup, Finland summarized the work of the subgroup between the third and fourth sessions (Informal document No. 3). This included an analysis of national case studies, a compilation of examples of good practices relating to items 2(a) to (g) provided by other GE.1 subgroups, and results from the Finnish study on level crossing safety improvement measures. Finland also presented a table which could record and summarize good practices in the areas of work undertaken by the subgroups.

11. The Chair recommended that the table be circulated to GE.1 for feedback before the fifth session. Types of safety improvements or good practices which have been shown to provide incremental improvement in safety levels were particularly relevant and requested for the table. UK referred to an education-related project on reducing the risks at level crossings, which was currently underway and could potentially be incorporated into the work of this subgroup. United States America referred to its success with improving safety at level crossings by the installation of low cost gate barriers. The secretariat suggested that the good practices identified by the subgroup could be ultimately incorporated into a revised section on level crossings safety in the Consolidated Resolution on Road Traffic.

12. For the next session, GE.1 requested the subgroup to:

(a) Complete the table of good practices, using information provided by GE.1 members, and in particular the UK and USA; and

- (b) Prepare an informal or formal paper detailing the above actions.

D. A survey of prevailing national legislation and/or legal arrangements at level crossings

13. On behalf of its subgroup on, ERA summarized the work of the subgroup between the third and fourth GE.1 sessions (Informal document No. 4). This included reviewing information in national legislation and legal arrangements on level crossings warnings and other protective devices. The subgroup also reviewed the 1968 Convention on Road Traffic and identified important aspects of level crossings safety which were not addressed or were outdated.

14. The Group of Experts also received a presentation from the Secretary of the Group of Experts on Road Signs and Signals (GE.2) on the work of GE.2, including an online tour of the Road Signs Management System, which is a web based platform created by the secretariat for Contracting Parties to the 1968 Convention on Road Signs and Signals to provide input on the signs and signals used in their countries.

15. Finland, Ireland, Italy, Poland, Sweden, UK and USA cited examples of what was or was not working well in their countries or provided information on current projects. UIC referred to the guidelines target commercial drivers which it is currently finalizing in partnership with the International Road Transport Union (IRU).

16. The Chair requested GE.1 members to provide to the subgroup these examples as well as to identify important gaps in their national legislation.

17. For the next session, GE.1 requested the subgroup to:

(a) Compile a list of good practices on national legislation including on the aspects of road speed limits and ITS communication requirements. Based on the information provided by GE.1 members;

(b) Further consider and identify relevant amendments to the 1968 Convention on Road Signs and Signals, the 1968 Convention on Road Traffic, and the Consolidated Resolution on Road Traffic (which could be provided to GE.2 or WP.1 depending on the timing of finalization of the work of GE.1); and

(c) Prepare an informal or formal papers.

18. This would facilitate discussion at the fifth session on relevant amendments to the 1968 Convention on Road Signs and Signals, the 1968 Convention on Road Traffic, and the Consolidated Resolution on Road Traffic.

E. A survey of technology and technological solutions to improve safety at level crossings

19. As the Group of Experts did not receive Informal document No. 5, it agreed to defer discussion on this item to its next session.

F Identification of the key causes and possible solutions related to human factors contributing to unsafe conditions at level crossings

20. On behalf of its subgroup, Austria and Cognito Ltd summarized the work of the subgroup between the third and fourth GE.1 sessions (Informal document No. 6). This included an analysis of the relevant responses provided by UNECE member States to the

July 2014 questionnaire of GE.1 and an overview of the elements of the level crossings human factors recording toolbox based on the five function model of human factors (performance, motivation, cognition, perception at attention) presented at the third session. A number of exercises were carried out at the meeting to illustrate that people tend to see only what they are anticipating to see.

21. Italy invited the subgroup to visit Rome and examine its database of analysed level crossings accidents. The Chair thanked the subgroup for their work to date and emphasized that there were gaps in the research which could not be filled unless the subgroup was able to obtain funding to refine and finalize the proposed toolbox. Potential partners were invited to contact the subgroup members directly.

22. For the next session, GE.1 requested the subgroup to:

(a) Provide a summary of its findings to date, [including a list of the gaps in the research on human factors,] and to the extent possible, to document the draft toolbox that has been developed to date, in an informal or formal paper, and

(b) In the event that a partner willing to fund the research is identified, to present the outcomes of the subgroup's further research between the fourth and fifth sessions.

G. Enforcement

23. On behalf of its subgroup, the UK summarized the work of the subgroup between the third and fourth GE.1 sessions as reflected in Informal document No. 7. This included a further analysis of the relevant responses provided by UNECE member States to the July 2014 GE.1 questionnaire, and the analysis of a supplementary questionnaire regarding enforcement of regulations at level crossings. As only eight responses to the supplementary questionnaire had been received to date, the subgroup has extended the deadline for responses to 20 February 2015, and asked GE.1 members intending to submit responses to do so as soon as possible.

24. For the next session, GE.1 requested the subgroup to:

(a) complete its analysis of all responses from the second - more detailed - questionnaire;

(b) further analyse the effectiveness of enforcement on user behaviour; and

(c) prepare a report to GE.1 based on its findings and conclusions.

H. Development of a road/rail interface strategy with recommendations

25. As agreed at the third session, the Group of Experts returned to the question on whether the presentation by Ireland on a Level Crossing Safe System Model (LCSSM) could be part of the identification of good practices, or whether it was appropriate to go further and include this as part of a stronger recommendation from GE.1. The LCSSM is comprised of 10Es (expectations, economics, engineering, environment, ergonomics, enable, education, encourage, enforce, emergency preparedness) and involves a process of continual improvement.

26. GE.1 expressed its appreciation to Ireland for sharing the LCSSM. It agreed that the LCSSM could be revisited in the future if there was consensus among GE.1 members.

27. GE.1 agreed that a road/rail interface strategic report would flow from the completion of the work of the subgroups in relation to items 2(a) to 2(g) above.

IV. Other Business (agenda item 3)

28. UIC confirmed that the official launch of ILCAD 2015 would take place in Istanbul on 3 June 2015, and invited GE.1 members to participate.

29. United States of America provided information on its upcoming event Railroad Railways Right of Way fatalities in the first week of August 2015 in the State of North Carolina.

V. Date and Place of Next Meeting (agenda item 4)

30. The Group of Experts was informed that its fifth session will be on 15-16 June 2015 in Geneva.

31. The secretariat advised that the deadline for the submission of formal documents (for translation into the UNECE official languages) was 27 March 2015.

VI. Adoption of Report (agenda item 5)

32. The Group of Experts adopted the report of its fourth session.
