1. The IG/R.66 was invited by Prof. Aparicío (INSIA) to hold its 1st meeting in Madrid. The list of participants (20 experts) is shown in Annex 1. The agenda of the meeting is given in Annex 2.

2. The working documents (WD), circulated before the meeting among the interested GRSG delegates and experts are listed in Annex 3. WD.8 was distributed in hard copy among the participants on the meeting, but this document is already available in electronic format.

3. The Working Method and Rules of IG/R.66 – including the estimated preliminary timetable – are summarized in Annex 4. The discussion was based on WD.1 and WD.2. Assuming 2 meetings (1-1.5 days meetings) in a year the majority of the experts estimated at least 3 more years work, but some of the experts felt it an optimistic figure. The expert of the European Commission recalls that the group received a double mandate, one of which is “to enhance safety in bus rollover accident.” He said that the Commission was indeed concerned by the fact that a two-point belt will not provide the highest level of protection against injuries to the head in case of rollover.

4. General survey about the available accident statistics and information was discussed, based on WD.3. The document was corrected (WD.3/Rev.1) and supplemented by the opinion of UK expert, sent by e-mail just before the meeting. The experts made voluntary pledges to prepare some information for the next meeting:
   - Spanish (INSIA) and EU experts will analyse the final ECBOS report
   - Czech and Spanish (IDIADA) experts will study the possibilities regarding to the APSN project
   - German experts will look around their home accident data base
   - Spanish (INSIA) expert offered an in depth analysis of a double decker’s rollover accident
   - French experts offered a detailed statistical analysis based on bus rollover accidents contained in their accident database concerning 96 bus accidents.
   - Hungarian expert offered also a detailed accident analysis based on 300 bus rollover accidents and also promised to check the presentations (in this subject) of the last 3-4 international Meeting of Bus and Coach Experts held in Hungary.

5. The German experts expressed their strong reservation concerning the accident analysis based on media data, since those data are not reliable enough for the purpose of a statistical analysis. Very often the omission and the misinterpretation of essential facts by the media lead to an incorrect description of the accident.

6. Brief presentations were given in this subject (accident analysis):
   - French experts showed a valuable power point (P.P.) presentation about the effectiveness of seat belts for children in coaches.
   - Spanish expert (INSIA) introduced briefly their working document WD.8. (detailed discussion at the next meeting)
   - Hungarian expert showed in P.P. presentation the different ways of collecting accident statistics, their advantages and disadvantages, compatibilities and possible evaluation.
7. Looking over the rollover process of buses, as a mechanical process, based on WD.5:
   – Hungarian expert made a P.P. presentation proving that this process is similar for all bus categories
   – Czech expert showed a video (made by a fixed traffic camera in Turkey) about a real bus rollover accident
   – DVD presentation was shown about a severe rollover test, made by VOLVO, demonstrating the benefits of wearing seat belts during a rollover accident.

8. Brief; preliminary discussion, on the required protection level for all bus categories in rollover, based on WD.4. The possible injury mechanisms proposed in the French presentation (see para.5.) are very close to the ones mentioned in this document.

9. There was consensus among the experts that the first important task is to collect and evaluate rollover accident data, for small and double-deck vehicles.

10. The next meeting will be held in Warsaw, 27-28\textsuperscript{th} of June. The deadline for circulating working documents to be discussed on the meeting is 1\textsuperscript{st} of June. The next meeting after Warsaw will be in Budapest.
**LIST OF PARTICIPANTS**  
(IG/R66meeting, Madrid, 2006 January)

<table>
<thead>
<tr>
<th>Name</th>
<th>Country</th>
<th>Institution/company</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annie Luchie</td>
<td>Belgium</td>
<td>CLCCR</td>
</tr>
<tr>
<td>Allan McKenzie</td>
<td>U.K.</td>
<td>OICA/SMMT</td>
</tr>
<tr>
<td>Petr Pavlate</td>
<td>Czech Republic</td>
<td>TÜV-UVMV</td>
</tr>
<tr>
<td>Michael Becker</td>
<td>Germany</td>
<td>EVOBUS</td>
</tr>
<tr>
<td>Dr Gregor Steinmetz</td>
<td>Germany</td>
<td>EVOBUS</td>
</tr>
<tr>
<td>Alan Davis</td>
<td>France</td>
<td>IRISBUS</td>
</tr>
<tr>
<td>Augustin Gomez</td>
<td>Spain</td>
<td>CASTROSUA</td>
</tr>
<tr>
<td>Jose Burgos</td>
<td>Spain</td>
<td>IDIADA</td>
</tr>
<tr>
<td>Pascale Reyntjens</td>
<td>Belgium</td>
<td>VAN HOOL</td>
</tr>
<tr>
<td>Jean-Paul Deneufocount</td>
<td>EU</td>
<td>European Commission</td>
</tr>
<tr>
<td>Patric Botto</td>
<td>France</td>
<td>CEESAR</td>
</tr>
<tr>
<td>Jerzy Kownacki</td>
<td>Poland</td>
<td>MTI</td>
</tr>
<tr>
<td>Harry Jongenelen</td>
<td>Nederland</td>
<td>RDW</td>
</tr>
<tr>
<td>Ana-Maria Gonzales</td>
<td>Spain</td>
<td>ASCABUS</td>
</tr>
<tr>
<td>Emilio Agarte</td>
<td>Spain</td>
<td>INSIA</td>
</tr>
<tr>
<td>Prof. Francisco Aparicio</td>
<td>Spain</td>
<td>INSIA</td>
</tr>
<tr>
<td>Teresa Vicenta</td>
<td>Spain</td>
<td>INSIA</td>
</tr>
<tr>
<td>Adolfo Diaz</td>
<td>Spain</td>
<td>INSIA</td>
</tr>
<tr>
<td>Rocio Grimaldi</td>
<td>Spain</td>
<td>INSIA</td>
</tr>
<tr>
<td>Dr Matolcsy, Mátyás</td>
<td>Hungary</td>
<td>GTE</td>
</tr>
</tbody>
</table>

The following experts excuse themselves by e-mail:

- Juhami Intosalmi          | Finland      | Vehicle Administration |
- Colin Copelins            | U.K.         | IRU                     |
- Louis Turner              | U.K.         | Dept. of Transport      |
- Bohuslav Kovanda          | Czech Republic | TÜV-UVMV              |

Ms Turner made some comments and proposals in her e-mail, these are presented in WD.3/Rev.1.
AGENDA OF THE MADRID MEETING

The meeting will be held in INSIA (Madrid, Ctra. de Valencia Km 7.) on 16 – 17 January, 2006. The proposed agenda is the following:

16, January (Monday)

10.00  Morning session

- The working method of IG/R.66, the main rules. Working document: WD.1

Coffee break

- Accident statistics and accident analysis. Survey about the available sources. Working document: WD.3
- Ways of collecting accident data. Advantages and disadvantages. Change of view. Brief power point (PP) presentation

13.00  Lunch break

14.00  Afternoon session

- The rollover process and the severity of rollover accidents for all bus categories. Working document: WD.5; PP, and DVD presentations

Coffee break

Required protection level for all bus categories in rollover. Working document: WD.4; WD.8, PP presentation

17, January (Tuesday)

10.00  Morning session

- Requirements on extending the scope of R.66. Working document: WD.6

Coffee break

- Other subjects, if any.
- Conclusion of the meeting
## WORKING DOCUMENTS OF IG/R.66

<table>
<thead>
<tr>
<th>Number</th>
<th>Title</th>
<th>Prepared by</th>
</tr>
</thead>
<tbody>
<tr>
<td>WD.1.</td>
<td>The working method of IG/R.66</td>
<td>Chairman</td>
</tr>
<tr>
<td>WD.2</td>
<td>Preliminary time-table of IG/R.66</td>
<td>Chairman</td>
</tr>
<tr>
<td>WD.3.</td>
<td>Accident statistics and accident analysis (Available sources)</td>
<td>Chairman</td>
</tr>
<tr>
<td>WD.4.</td>
<td>Required protection level for all bus categories in rollover (Possible approach)</td>
<td>Hungarian expert</td>
</tr>
<tr>
<td>WD.5.</td>
<td>The rollover process and the severity of rollover accidents, considering all bus categories</td>
<td>Hungarian expert</td>
</tr>
<tr>
<td>WD.6</td>
<td>Requirements on extending the scope of R.66 (The first reflections, starting to think about it)</td>
<td>Hungarian expert</td>
</tr>
<tr>
<td>WD.7</td>
<td>Agenda of the Madrid meeting</td>
<td>Chairman</td>
</tr>
<tr>
<td>WD.8</td>
<td>Spanish accidents with buses involved injury mechanism analysis</td>
<td>Spanish expert (INSIA)</td>
</tr>
</tbody>
</table>
Annex 4.

WORKING METHOD AND RULES OF IG/R.66

1. The following countries and international organizations supported the set up of an Informal Group – dealing with the extension of the scope of Reg.66 – and expressed their interest in this work:

- Czech Republic
- Finland
- France
- Germany
- Hungary
- Italy
- Netherlands
- Norway
- Poland
- Spain
- Sweden
- UK
- CLCCR
- EU
- IRU
- OICA

2. The GRSG delegates of these countries and organizations will get all the documents of IG/R.66 being available in electronic format, whether they attend the meetings or not.

3. The main task of IG/R.66 – coming from the decisions of WP.29 and GRSG – are the followings:
   a) to collect the available, existing rollover statistics and information
   b) to evaluate accident statistics and in depth accident analysis
   c) to define the required protection level for all bus categories
   d) to propose needed technical research to reach the enhanced safety level in bus rollover accidents
   e) to specify requirements of extending the scope of R.66 (general agreement about the changes, needed to the extension)
   f) to draft the proposed modifications (paragraph by paragraph)
   g) to propose other possible actions to enhance safety in rollover

4. Concise written reports shall be prepared about the IG/R.66 meetings and presented to GRSG as informal documents. This is the chairman responsibility. First a draft will be distributed among the participants of the meeting for comments and correction and after that the final version will be sent to GRSG and to the delegates listed in para.1.

5. When working on the draft of the modification of R.66 the chairman will need certain help. Similarly to the past, when R.66.01 was prepared, a small editorial group (3 persons) could fulfill the basic requirement: well edited text and figures in good English should be presented to GRSG.

6. Between the meetings the participants may communicate between themselves and can make comments by e-mail, but in this case all participants shall be informed.

7. The working documents to be discussed at a meeting shall be circulated among the participants at least 3 weeks before the meeting.

8. The IG/R.66 never makes decision just prepares proposals. The draft will reflect the majority’s opinion, but that of the minority shall be also fixed in the Report of the meeting.

9. On the proposal of the chairman IG/R.66 elected Prof. Aparicio as the vice chairman of the group, who can continue the work if the chairman is prevented.

10. Assuming 2 meetings in a year and 1-1,5 days long meetings (before the two GRSG meetings providing time enough to send the meeting’s Report to GRSG) the expected duration of the work is 3 more years and after that an editorial meeting is conceivable.

11. The subjects listed in para.3. will be discussed in parallel, i.e. overlapping each others but the main order will be:
   - in the 1st year: “a”, “b” and “c”
   - in the 2nd year: “d”
   - in the 3rd year: “e”, “f” and “g”