# **GRSP INFORMAL GROUP ON PEDESTRIAN SAFETY**

# 4<sup>th</sup> meeting

# Tokyo, 15-16 May 2003

## Draft detailed meeting minutes:

#### 1. Welcome

The chairman, Mr Mizuno opened the meeting and welcomed everyone. He thanked JASIC and J-MLIT for hosting the meeting. Mr Mizuno stressed that the group should finalise the preliminary report that will be presented to GRSP in June. The main remaining issue is the final discussion on the scope. He also asked EU and Japan if they have special wishes or ideas that should be included in the gtr, to make these known. Taken these into account in an early stage would improve the acceptability of the gtr when it will be ready.

Mr Mizuno welcomed Mr Césari as new co-chairman of this group as replacement of Mr Friedel.

The secretary, Mr Van der Plas, reminded the group of the documents distributed prior to the meeting and relating to the agenda:

IHRA/PS-WG Pedestrian accident data
ESV summary paper on IHRA/PS-WG report
Introduction of the regulation od pedestrian head protection in Japan; Nishimoto, Toshiyuki
Proposal for a directive of the European Parliament and the Council relating to the protection of pedestrians and other vulnerable road users in the event of a collision with a motor vehicle and amending Directive 70/156/EEC; Commission of the European Communities, Brussels, February 2003
List of conflicts with existing legislation / requirements
Draft preliminary report
Agenda 4th meeting
Technical prescriptions concerning test provisions for pedestrian safety
Vehicle safety standards report 1
US Cumulative 2002 Fleet GVMR

2. Roll call See attendance list (INF GR / PS / 51)

3. Adoption of the agenda

The agenda was adopted without amendments.

#### 4. Discussion on the scope

Mr Kubo (OICA) explained that GRSG is currently discussing INF GR/PS/42 but this group can already start using the categories and the definitions. He explained the content of the document with special emphasis of Category 1-1 and Category 2 which are of relevance to this group.

The difference between a Category 1 and a Category 2 vehicle (weight) was further explained by Mr Kumita (OICA). If the weight of the passengers is higher than the weight of the payload the vehicle falls under Category 1. Weight was chosen as the decisive factor because often shapes of Category 1 and 2 vehicles are similar. He added that there is also no weight difference for Category 1-1 and 1-2 vehicles. If necessary this can be decided separately in each gtr.

Mr Mizuno proposed to use this document as basis for the discussions on the scope.

Mr Saul (US) asked if this document will be discussed at the next WP29. Mr Kubo confirmed that it will be an informal document and the final decision in WP29 is expected in March 2004.

Mr Saul (US) explained INF GR/PS/40. It shows that most vehicles weigh less than 2,5 tonnes and all are below 3 tonnes. The data includes SUVs used for passenger transportation but excludes similar vehicles used for commercial purposes (like delivery vans).

Mr Mizuno remarked that the graph shows the curb weight and not the gross vehicle mass (GVM).

Mr Ishikawa (Japan) presented INF GR/PS/43 showing that in Japan out of 16 vehicles studied, 7 weigh more than 2500 kg GVM.

Mr Mizuno asked how to convert curb weight into GVM. As far as he knows there is no formula existing but roughly about 500 kg could be added for category 1-1 vehicles.

OICA agreed with this.

Mr Doyle (EC) said that heavier vehicles probably can carry more so may need to work with a percentage of the vehicle weight. 500 kg is not an exact figure and only a rough estimate. Is the manufacturer the only one who can give the exact figure?

OICA confirmed this.

Mr Saul (US) agreed the need to add weight to the data in INF GR/PS/40.

Mr Werkmeister (OICA) made an in depth analysis of the EU market and found that passenger cars > 2,5 tonnes only compose 2% of the market. He added that some vehicles with different versions may have versions that fall under the 2,5 tonnes limit and other above the 2,5 tonnes limit and added that it is expected that car manufacturers would make all these cars compliant to pedestrian protection meaning that the 2% market share would be even lower.

Mr Saul (US) answered that a larger engine may mean less space under the hood so these versions could be complying less.

Mr Werkmeister (OICA) explained that his remark was just the expected approach car industry would take. Mr Fredrikson (CLEPA) presented INF GR/PS/41 including Swedish accident data from 1994 to 2002. The weight (comparable to GVM) of the passenger cars involved in pedestrian accidents was 97% < 2,5 tonnes. The actual numbers were: 461 < 2,5 tonnes; 14 > 2,5 tonnes. This data confirms the statement of Mr Werkmeister. Mr Ries (OICA) asked if Mr Ishikawa knows the market share of the 7 vehicles > 2,5 tonnes in Japan.

Mr Ishikawa (Japan) answered that data was not available now.

Mr Césari remarked that INF GR/PS/43 only looks at a part of the market and indeed does not give the market share.

Mr Nishimoto (Japan) stated that not many vehicles are above 2,5 tonnes but that they are still important. Mr Nacenta (Spain) asked if cars like Rolls Royce, Phaeton, ... with low production numbers are included in the OICA overview. It is hard to explain to the public that the most expensive cars would not have to comply. Mr Werkmeister (OICA) answered that making a car pedestrian friendly asks for a distinct effort. The production numbers of these cars are very low. So it would be better to concentrate the engineering capacity to 98% of the car population and not to include the remaining 2%.

Mr Saul (US) asked if there is any process that would allow a phase in schedule in a gtr? Or should this be done separately by each country that implements the gtr. He can agree to the point made by Mr Werkmeister but on the longer term the aim should be to cover 100% of the car market.

Mr Mizuno agreed a different lead time for special vehicles could be a good idea and asked if GRSP/WP29 should decide on the lead time.

Mr Kubo (Nissan) answered no discussion was held on that point yet.

Mr Mizuno said that the informal group should indicate the direction but it would be up to GRSP/WP29 to make the decision.

Mr Doyle (EC) mentioned that an EU directive always includes lead time and has provisions for small series production.

Mr Lukaszewicz (Germany) explained that the proposed directive covers vehicles < 2,5 tonnes. A discussion was held in the Council working group and some Member States requested to extend the scope and the EC agreed to reconsider this for Phase 2 and include it in the feasibility study. This group could do the same: decide now on 2,5 tonnes and reconsider this at a later stage.

Mr Doyle (EC) clarified that the feasibility study does not intend to review the scope. Indeed, through the committee procedures, proposals are made to widen the scope but the Commission is trying to stick to 2,5 tonnes. Mr Césari said that the gtr will apply worldwide. When looking at INF GR/PS/40, 20% of the market is left out if you add 500 kg to reach the GVM. He can agree that vehicles would fall outside the scope if they are produced in small quantities and the weight of these vehicles should be irrelevant. It is difficult to explain to the public that the most expensive cars should not comply whilst cheap models would. The main reason for the 2,5 tonnes limit is that test procedures are not validated above 2,5 tonnes.

Mr Ries (OICA) explained that vehicles > 2,5 tonnes will be more or less self regulated by the car manufacturers. Car companies will decide to have pedestrian friendly car > 2,5 tonnes as well.

Mr Rentschler (OICA) confirmed this by saying that the Mercedes S-class with a GVM > 2,6 tonnes would comply.

Mr Mizuno asked for the opinion of the governments and OICA before trying to come to a conclusion. Mr Saul (US) remarked that it is necessary to clarify what the weight is. INF GR/PS/36 should state it is GVM. Looking at INF GR/PS/40 and recalculating it to GVM means that a GVM limit of 2,5 tonnes would exclude 20% of the US market which is not acceptable. A 3 tonnes limit would exclude only 3% of the market. He added that feasibility studies will be important to define the lead time. He added he could agree to the categories 1-1 and 2 derived from 1-1.

Mr Nishimoto (Japan) stated it is necessary to include passengers > 2,5 tonnes when looking at INF GR/PS/40 and 43. The market share of heavier cars may be lower but their front shape is similar to those of lighter cars so the feasibility should be similar. He can agree to category 2-1 derived from 1-1 with a weight limit of 2,5 tonnes. Mr Lukaszewicz (Germany) said he can agree to a limit of 2,5 tonnes GVM.

Mr Doyle (EC) sees four important parameters: weight, category, time scale and production numbers. The EU currently has a phased in introduction, provisions for small series production, and applies to passenger cars and passenger cars derived from commercial vehicles all with a weight limit of 2,5 tonnes GVM. For the GTR this could be taken a bit further: stick to 2,5 tonnes GVM initially but go to 2,5 tonnes curb weight at a second stage and include all category 2-1 vehicles (not derived from).

Mr Nacenta (Spain) can agree to 2,5 tonnes GVM, category 1-1 and category 2-1 derived from 1-1. He is not sure about the complete category 2.

Mr Ries (OICA) supports the tentative conclusions of the previous meeting which are supported by the latest documents (INF GR/PS/40 and 43).

Mr Mizuno asked how this would cover the US situation.

Mr Ries (OICA) said it is not clear if light trucks are included in the US data so it would be necessary to reconsider the graph.

Mr Saul (US) answered that light trucks and vans are included and also pick-ups so no need to make any adjustment.

Mr Mizuno asked how to finalise: list all government ideas or decide on a minimum scope or decide on a maximum scope? What about the idea of the EC to include all category 2 vehicles?

Mr Tanahashi (OICA) explained Japan has a limit of occupants for passenger cars and asked which limit would work best: occupants or weight.

Mr Saul (US) said it would be necessary to change §4.3 in the draft preliminary report given the discussion of today.

Mr Doyle (EC) said the main purpose is to try to provide protection to the pedestrian which are hit by certain vehicles. Trucks and buses are excluded because of the complexity this would cause. As first stage he proposed: 2,5 t GVM and 5 years later 2,5 t curb weight subject to review. All cat 2-1 (not derived from) < 2,5 t GVM.

Mr Saul (US) agrees with the concept. Is curb weight sufficiently defined?

Mr Doyle (EC) answered that INF GR/PS/42 it is defined as mass in running order.

Mr Nishimoto (Japan) proposes to use category 1-1 and 2-1 and include a comment it is necessary to come back on the necessity to have a weight limit or not.

Mr Mizuno said there are now two possibilities: 2 phases or cover all category 1-1 and 2-1.

Mr Ishikawa (Japan) answered a 2 phase approach is acceptable if the second phase would be: all passenger cars.

Mr Mizuno confirmed the aim would be to cover all category 1-1 and 2-1 based on feasibility.

Mr Kumita (OICA) explained there is no decision on a category 2-1, only on category 2 in GRSG.

Mr Rentschler (OICA) explained that national authorities have to implement the gtr into their legislation. So the scope should be a recommendation and be translated nationally / regionally.

Mr Mizuno asked for a Japan/US/EC proposal.

Mr Doyle (EC) asked if the application of a gtr is mandatory or optional.

Mr Van der Plas explained that the documents agreed in WP29/AC3 explain that a contracting Party voting yes on a gtr must start the national / regional process to implement the gtr in its national / regional legislation. If after a year the process has not been started or finished, a report has to be provided to WP29/AC3 with the reasons and status. Mr Lukaszewicz (Germany) confirmed this is correct and added if a gtr can not be introduced, it has to be explained why.

The Japan/US/EC proposal recognises that both the IHRA categorisation can be taken into account in the test and the Common Tasks categories in the scope to which the tests are applied.

Stage 1: [date1] Category  $1-1 < 2,5 \text{ t GVM}^*$ Category  $2-1 < 2,5 \text{ t GVM}^*$ Stage 2: [date1 + 5 years] Category 1-1 (all)

Category 2-1<2,5 t mass in running order \*\*

\* GVM as defined in GRSG/2003/10, annex 3, §4

\*\* mass in running order as defined in GRSG/2003/10, annex 3, §3

Mr Nishimoto (Japan) confirmed that if Japan would be allowed to adopt the gtr as of stage 2, this proposal is agreeable.

Mr Saul (US) explained that Japan could vote yes for the gtr and explain yearly to WP29/AC3 that their national legislation is more severe and that they wait for stage 2. A footnote could be introduced to explain this.

5. Review of the draft preliminary report (INF/GR/PS/36)

Mr Mizuno explained some minor corrections were already made by him and the secretariat whilst also OICA had proposed some changes. However, these changes are only editorial and do not change the substance of the text. An updated working document was distributed.

The meeting went over the complete document. The final document will be numbered INF GR/SP/47 and will be the informal document used during GRSP/33.

Some paragraphs sparked some discussion and this is reflected here. For the final document including all changes please see INF GR/PS/47.

§1.6

Mr Rentschler (OICA) asked how to fit the GTR time schedule in with that of phase 2 in the EU. The timing is currently not in line.

Mr Doyle (EC) answered the terms of reference was drafted by the EC and it is reasonable to assume that the gtr will be taken into account.

Mr Rentschler (OICA) asked if a paper would be helpful if available in time for the monitoring committee to reflect on it.

Mr Doyle (EC) confirmed this but added that such timing might be unreasonable for this group. The call for tender for the feasibility study will require the gtr work/papers to be taken into account. The date of 1/7/04 is the finishing date of the study. Decisions may be made thereafter.

Mr Hahn (EC) said it is necessary to set a date for the first proposed draft gtr.

Mr Doyle (EC) answered that this group is sponsored by the EC. So the EC will look at the work of this group. Mr Mizuno said the group would try to finalise its proposal as soon as possible but full support of all members will be needed.

Mr Werkmeister (OICA) said the gtr would have more chance of success if the date of 1/7/04 is met than if we stick to the timeschedule mentioned in the terms of reference.

Mr Hahn (OICA) added that ACEA is doing its own feasibility study which will be available early 2004. Mr Van der Plas explained that this group is reporting to every GRSP. Also for the May 2004 session of GRSP a report will be made and this report could be taken into account in the EU feasibility study. Everyone agreed with this proposal.

§4.1

Mr Saul (US) asked if there is any accident data on light trucks / SUVs in relation to child head against the bonnet. He wonders if the impact of the child head for these vehicles might not be against the bonnet leading edge. In the EU the upper leg against the bonnet test is included and this may offer some protection for the child head as well. It might be useful to consider this in a feasibility study for stage 2.

Mr Mizuno said it is possible to consider this in a next stage. IHRA had assigned the upper leg test a lower priority than the adult / child head and lower leg tests. Accident studies showed that the impact zone for the child head is between a wrap around distance of 900 and 1700 mm.

Mr Van der Plas explained a comment received from the Netherlands: This concerns the sentence "The bonnet leading edge appears not to be a problem so no tests needed." The last part of this sentence, this is the conclusion "so no tests needed", is according to the Netherlands a tricky one because this conclusion highly depends on the design of car fronts. The design of car fronts is not "frozen", so although nowadays the bonnet leading edge appears not to be a problem, the bonnet leading edge could (just like in the past) be a problem again, depending on future car fronts.

Mr Doyle (EC) supported this comment and said this could be taken into account in a later stage since future shapes might require such a test.

Mr Werkmeister (OICA) explained that the shape of current vehicles is what it is because of aerodynamics, CO2, ... and this will not change in the future so there will no need for this test in the future.

Mr Doyle (EC) referred to the small Japanese cars with a flat high front end where the bonnet leading edge would come into play, so the test would have to be taken into account.

It was agreed to change the sentence to: "The bonnet leading edge appears not to be a priority concern at this time." §4.4

Mr Saul (US) explained this is an important part for the US and asked what the requirements are from WP29 on cost effectiveness. It would be necessary to do a 'breakdown' exercise: % pedestrian fatalities - % fatalities by vehicles outside the scope of the gtr - % fatalities due to ground contact - ...

Mr Van der Plas explained what the documents agreed on WP29/AC3 say: TRANS/WP.29/882 §7: "In the case of a new gtr, the Working Party must give consideration to the technical and economic feasibility, the benefits and potential cost effectiveness, including those of any alternative regulatory requirements and approaches." However it is not clear how detailed this should be.

Mr Saul (US) said he would like the group to perform a cost effectiveness study.

Mr Van der Plas suggested to ask WP29 to discuss how the sentence in §7 should be understood and how detailed the studies should be and have them report back to us.

Mr Doyle (EC), Mr Saul (US) and Mr Césari agreed this was a good idea.

§4.5

Mr Hahn (OICA) remarked that NCAP results can not be used for comparison with legislation because EURO-NCAP does not test the worst case but the best selling car.

Mr Césari said that when discussing feasibility this remark can be taken into account but this preliminary report is a general discussion and should not mention the details of the discussions.

Mr Hahn (OICA) also explained that a recent conference at the university of Aachen gave results of EU funded projects dealing with sensing / detection technologies. The main conclusion was that systems will not be available on the market before 2010.

Mr Fredrikson (CLEPA) proposed a change in the report regarding §4.5 3rd bullet about sensor techniques adding that development work is ongoing in the industry: "No sensor techniques are available yet to offer other solutions, but development work is ongoing in the industry."

§5

Mr Ries (OICA) remarked that feasibility should be linked to the test tool that is used.

§7

Mr Saul (US) asked if this would encompass the sentence in the terms of reference on active safety.

Mr Doyle (EC) answered it could. Including a reference to other measures in the preamble could be a good idea. He also warned that infrastructure measures are very difficult to be instituted, and these measures can only be given as guidance.

<u>§</u>8

Mr Hahn and Werkmeister (OICA) again asked to have a version of the draft gtr before 1/7/04.

Mr Rentschler (OICA) said the big chance to align the second phase of the EU provisions with the future gtr is only given, if the milestones of this gtr will already be fixed in Spring 2004, since the decisions regarding EU Phase 2 will be finalised in July 2004 at the latest.

Mr Doyle (EC) referred to the previous discussion where he had clarified this point and repeated that this group is a result of the EU initiative to sponsor it. It would thus be wrong if the EU would not take the work of this group into account. He feels that it would not be a good idea to try to bring forward the time schedule of this group but has no objection to include something if the group would agree.

Mr Mizuno said the current timeschedule is already very difficult to meet and very good cooperation from everyone will be necessary to succeed.

§4.3

Mr Ries (OICA) explained that the  $3^{rd}$  meeting had agreed on a tentative scope. Only the weight limit for category 1-1 still needs to be revised. Additionally category 2-1 does not exist but is category 2 now. The last proposal of this meeting creates more problems than it solves and contradicts what was discussed and decided during the three previous meetings. OICA thus recommends to go back to the first conclusion: category 1-1 < 2,5 t GVM; category 2 derived from category 1-1 < 2,5 t GVM.

Mr Lukaszewicz (Germany) supports this saying that we should stick to the scope used in the EU since the EEVC tests have been validated to this.

Mr Doyle (EC) agreed this is indeed the EU scope however 'derived from' means one of the vehicles existed first, and both will have similar car fronts. So if a M1 would be derived from a N1 also the N1 realistically could be expected to comply.

Mr Nishimoto (Japan) said he could accept the OICA proposal for category 2 and agree to further discuss 'derived from'.

Mr Saul (US) repeated the gtr should include pick-ups, vans and SUVs. Pick-ups would fall under category 2 so if this category would be eliminated all pick-ups and SUVs built on pick-up platforms would not be included and this would leave out up to 30% of the US market which is unacceptable. It is acceptable to include these vehicles in a second stage so still supports the proposal made earlier.

Ms Lalande (Canada) said she can support the US since they have the same fleet.

Mr Césari suggested that stage 1 should cover those vehicles for which the tests are validated. This would mean: Stage 1: category 1-1 < 2.5 t GVM; category 2 derived from category 1-1 < 2.5 t GVM

Stage 2: category 1-1; category 2 < 2,5 t mass in running order + remark that countries can limit the scope.

Mr Nishimoto (Japan) repeated that category 1-1 < 2,5 t GVM is not acceptable for Japan.

Mr Ries (OICA) said the problem can not be solved by a 2 stage approach because we end up with the same problems and arguments. Also OICA is not in favour of 2 stages. The mandate is to finalise by 2005 so he feels the group can not go beyond that.

Mr Mizuno suggests two proposals:

Option 1 Stage 1: category 1-1 < 2,5 t GVM; category 2 derived from category 1-1 < 2,5 t GVM and if a country wants to extend the scope they can

Stage 2: category 1-1; category 2 < 2,5 t mass in running order Option 2Stage 1: category 1-1

Stage 2: category 1-1; category 2 < 2,5 t mass in running order

Mr Lange (OICA) repeated there is no need for two stages if stage one has the option to widen the scope.

Mr Doyle (EC) said that option 1 would be a bad gtr if it says that nationally there can be extra requirements.

Mr Lange (OICA) agrees if this discussion would be about technical requirements but does not see a problem for the scope.

Mr Doyle (EC) explains that a gtr should clearly state what to do and to what. If a Contracting Party signs up and waits until the date of the second stage to apply the gtr they would not have to cover the first stage. It may be necessary to get some more information on how a gtr will be applied.

Mr Nishimoto (Japan) said he can accept that countries can extend the scope nationally.

Mr Saul (US) repeated that if category 1-1 would go from < 2,5 t GVM in a first stage to all vehicles in a second stage this would be acceptable. Category 2 however is necessary to cover for the pick-up trucks.

Mr Lange (OICA) suggested to have 3 options for the each of the regions.

Mr Ries (OICA) repeats to have one scope and to have flexibility for authorities to adapt the scope nationally and keep the scope agreed during previous meeting because the tests are only suited for vehicles < 2,5 t GVM.

Mr Saul (US) answered this is not acceptable for the US and Japan.

Mr Doyle (EC) does not feel that options in a scope are possible. In the EU Type Approval system the categories and the requirements are stated so that every nation in the EU knows exactly what is required.

Mr Lukaszewicz (Germany) asks for flexibility on the application of a gtr.

Mr Rentschler (OICA) explained that a gtr can have different levels of severity.

Mr Nishimoto (Japan) repeats that they really want to have the possibility to extend the scope nationally. Mr Saul (US) proposes three stages:

stage 1: category 1-1 < 2,5 t GVM; category 2 derived from category 1-1 < 2,5 t GVM

stage 2: category 1-1; category 2 derived from category 1-1 < 2,5 t mass in running order

stage 3: category 1-1; category 2 < [2,5] t mass in running order

Mr Lange (OICA) said this could be agreed if it are options and not stages.

Mr Ries (OICA) repeated tests are validated only up to 2,5 t GVM so impossible to go beyond that.

Mr Mizuno explains that the IHRA shapes do not differentiate on mass (there is no limit) and suggests to keep the first proposal (see bottom of page 3) and ask for GRSP guidance.

Mr Doyle (EC) said that for him the option would be: accept the gtr or not.

Mr Lukaszewicz (Germany) explained that options are not uncommon in ECE and already exists for example in Regulation 44.

Mr Ries (OICA) said the second stage should be linked to further research.

Mr Césari suggests to ask GRSP for guidance.

Mr Yamaguchi (OICA) explained that the ninth vehicle in INF GR / PS / 44 has a mass in running order < 2,5 t and a GVM > 5 t. This vehicle would be included if category 2 is included whilst these vehicles have never been considered.

Mr Doyle (EC) suggested following approach: In an attempt to cover for all these concerns a matrix was proposed. The headings would cover all categories considered necessary by the group. This may include special categories to cover for vehicles not defined in the proposed GRSG categories. The group wants to stress that the intention clearly would be to comply with the GRSG Common Tasks categories when these are completed.

The rows of the matrix would list all the tests the group would agree upon. It was recognised that technical feasibility will be critical in establishing the application of these tests. Hence a staged in approach with a possible distinction in the application date could be included in the proposed gtr tests.

Each Contracting Party signing up to the gtr would then be listed in this matrix indicating which test for which category they require. This could be seen as different levels of severity which are allowed in a gtr as explained in TRANS/WP.29/882 §7: "The GR develops the draft regulation, giving consideration to the objective of the proposed global technical regulations and the need to establish alternative levels of stringency or performance." Rather than having a national option to extend the scope outside the scope of the gtr, this solution would cover all options in the gtr.

Example of the matrix:

	Cat X	Cat Y	Cat Z	
gtr test A	CP α, CP β, CP ω	СР б		
gtr test B	CP α, CP β	СР б		
gtr test C		СР б	CP w	

Example: Cat X = Category 1-1 < 2,5 tonnes GVM of TRANS/WP.29/GRSG/2003/10

### Cat Y = Category 1-1 of TRANS/WP.29/GRSG/2003/10

Cat Z = Definition to cover for the US pick-up trucks

Mr Lange (OICA) said he liked the approach.

Mr Nishimoto (Japan) said he could accept this because it solves the Japanese problem and is a better solution than previous proposals.

Mr Lukaszewicz (Germany) agreed it is a good proposal and solves all problems.

Mr Saul (US) likes the idea of having a special definition for the US pick-up trucks. But a feasibility study is necessary before the boxes can be filled in.

Mr Ries (OICA) can accept the proposal.

Mr Mizuno concluded that the proposal is agreed.

### 6. Presentation of EURO-NCAP results

Mr Huguet (Spain) presented INF GR/PS/45 concluding that:

- for the child head impact area a methodology was developed to assess the EURO-NCAP data in the light of EU Phase 1.

- for the lower leg it is possible to meet the EU Phase 1 requirements already now.

Mr Hahn (OICA) repeated that EURO-NCAP only tests the best selling cars and not the worst cases.

#### 7. Presentation of the JARI child and adult head impactors

Mr Matsui presented INF GR/PS/46. The objective of the research was to develop head impactors that meet the requirements of ISO, IHRA and J-MLIT. The conclusion is that the technical specifications of the developed child and adult headform impactors meet the requirements of ISO, IHRA and J-MLIT.

#### 8. Next Meeting

The next meeting will take place on September 10 to 12 in Canada. The exact meeting place and hotel information will be informed later.

## 9. A.O.B.

Mr Césari thanks JASIC and J-MLIT for their hospitality, the organisation of the meeting, the excellent reception and asks everyone to come with an open mind to the meetings in order to finish the gtr on time.

List of new documents.			
INF GR/PS/41	Swedish accident data		
INF GR/PS/42	TRANS/WP.29/GRSG/2003/10 proposal for common definitions		
INF GR/PS/43	Category 1-1 GVM		
INF GR/PS/44	Light duty trucks examples		
INF GR/PS/45	EURO-NCAP results and what they mean in relation to EU Phase 1		
INF GR/PS/46	JAMA / JARI child and adult head impactors		
INF GR/PS/47	Preliminary report to GRSP 33		
INF GR/PS/48	Draft meeting minutes 4th meeting		

List of new documents: