

Minutes of the 8th meeting of the Informal Group on Global Technical Regulation No. 9 – Phase 2 (IG GTR9-PH2)	
Venue	Offices of the “Organisation Internationale des Constructeurs d’Automobiles” (OICA - International Organization of Motor Vehicle Manufacturers), 4 rue de Berri, 75008 Paris / France
Date	9 - 10 Sept. 2013
<u>Status:</u> Final	

A) List of Attendees

The attendance lists for days 1 and 2 are attached as scans at the end of this document.

In addition, Ms. Buckman (Ford), Ms. Versailles (NHTSA - 2nd day only) and Messrs. Bilkhu (Chrysler), Edwards (Alliance), Marks (SABIC – 1st day only), Martin (NHTSA – 1st day only), Stammen and Sutula (both NHTSA) and Tedesco (General Motors) attended the meeting via WebEx/telephone.

B) List of Actions

ID	Open Action Item	Responsibility	Due
A-4-03	Review of TEG FlexPLI thresholds / criteria	All	9 th meeting
A-6-04	Update manual again under consideration of IG comments	Humanetics	early November 2013
A-7-04	Update drawing package under consideration of IG comments	Humanetics	early November 2013
A-8-01	Review proposal on a common title block with the chair of the Informal Group on gtr7	Chair/ Humanetics	beginning of Oct. 2013
A-8-02	Clarify open details from the drawing and the manual reviews bilaterally with those parties that had provided comments and incorporate them accordingly	Humanetics	early November 2013
A-8-03	Draft wording for the preamble to explain the methodology to create the injury risk curves	BAST, JASIC, NHTSA	End of KW 38

A-8-04	Explain in the owner's manual the possible issues with the humidity for consideration during storage and testing of the FlexPLI	Humanetics	early November 2013
A-8-05	Check whether the internal corridors for the femur performance can be published and draft text for this	Humanetics	early November 2013
A-8-06	Check possibilities to reduce weight tolerances for the assembled impactor as well as the components (with the target to use tolerances of 1.5 % as for the EEVC legform)	Humanetics	9 th meeting
A-8-07	Provide a new diagram for the compression characteristics of the new neoprene sheets	Humanetics	9 th meeting
A-8-08	Check whether the agreements of the TEG regarding the acceptable tolerances of the impactor at the time of the impact can be maintained or whether closer tolerances are needed	All	9 th meeting
A-8-09	Provide a recommendation for a common procedure for the velocity measurement that can be used in the user manual	Humanetics (in contact with Concept)	9 th meeting
A-8-10	Provide comments on the draft text of the amendment, if any	All	End of KW 38

C) List of Meeting Documents

(Note: Documents which were submitted on the eve of or during the meeting are indicated in **bold letters**.)

Document No.	Rev.	Handed in by	Document title
GTR9-6-02	2	Chair/Secretary	Minutes for the 6th meeting of the Informal Group on Global Technical Regulation No. 9 – Phase 2 (IG GTR9-PH2)
GTR9-7-02	1	Chair/Secretary	Minutes for the 7th meeting of the Informal Group on Global Technical Regulation No. 9 – Phase 2 (IG GTR9-PH2)
GTR9-8-01	1	Chair/Secretary	Agenda for the 8th meeting of the Informal Group on Global Technical Regulation No. 9 – Phase 2 (IG GTR9-PH2)
GTR9-8-02		Chair/Secretary	(this document)
GTR9-8-03	1	Chair	GTR9 – Working Document of IG GTR9 PH2; Version 1, 04 Sept. 2013
GTR9-8-04		Chair	GTR9 – Draft Preamble of IG GTR9 PH2; Version 1, 04 Sept. 2014

GTR9-8-05			(not used)
GTR9-8-06		OICA	OICA comments on the draft text, based on document GRSP-53-29
GTR9-8-07		Humanetics	Proposed Title Block for Regulation Drawings
GTR9-8-08		Humanetics	Comments to JAMA presentation GTR9-7-06c and Proposed Changes, FlexPLI GTR Manual
GTR9-8-09		Humanetics	Comments to Cellbond Flex PLI Drawing Check Document GTR9-6-23
GTR9-8-10		Humanetics	Comments to JASIC's Comments Provided with Document GTR9-7-05c
GTR9-8-11		JASIC	Comparison of Effect of Different Approaches on Injury Risk Functions
GTR9-8-12		OICA	Possible Influence of Temperature and Humidity on the flexPLI Behavior
GTR9-8-13		OICA	FlexPLI Manual: FlexPLI Preparation before Car Testing
GTR9-8-14		OICA	Request for Transitional Provisions for FlexPLI Usage
GTR9-8-15		BASt	FlexPLI Biofidelic Assessment Interval (BAI): Open Issues
GTR9-8-16		TRL	Change to foam flesh used by EEVC lower & upper legforms
GTR9-8-17		OICA	FlexPLI Version GTR - Testing of Vehicles with Different Bumper Systems
GTR9-8-18		JASIC	Femur Certification Corridors for the Inverse Test (Zero Cross Timing)
GTR9-8-19		JASIC	Femur Certification Corridors for the Pendulum Test (Zero Cross Timing)

D) Summary of the Meeting

1. Welcome

Mr. Damm welcomed the attendees of the 8th meeting at OICA offices in Paris. He thanked OICA for providing the meeting rooms and the equipment. Also, he appreciated that Humanetics provided the WebEx access for the meeting.

The meeting was chaired by Mr. Damm (chair) and Dr. Konosu (vice-chair) and the secretariat will be provided by Mr. Kinsky.

2. Roll call of participants

See attendance list.

3. Adoption of the agenda
(all)
(this document)

Several new documents had been handed in on short notice. They were incorporated in the agenda as shown in the revised version of the agenda (document GTR9-8-01r1).

The agenda was adopted without further changes.

4. Finalization of the minutes of the 6th meeting and review of the draft minutes of the 7th Meeting
(all)
(documents GTR9-6-02r1 and GTR9-7-02) A-7-01

During the 7th meeting, no agreement could be reached on the wording for item 12.1 of the minutes of the 6th meeting. The chair had developed a proposal to solve the open issues which was accepted by BAST and OICA. In addition, some further comments had been forwarded by the Alliance. The amendments were discussed and adopted where necessary. Consequently, action item A-7-01 was closed and the final minutes of the 6th meeting will be shared as document GTR9-6-02r2.

For the minutes of the 7th meeting, some comments were received from BAST. They were incorporated in the draft minutes and the final minutes were adopted as document GTR9-7-02r1.

5. Further results from the individual reviews of drawing package and manual, if any, and feedback on comments already provided
(Humanetics, all)
(GTR9-5-31r1, GTR9-6-06, GTR9-6-23r2, GTR9-7-04, GTR9-7-05c, GTR9-7- A-7-02,
A-7-03,
A-7-05
(A-6-04 and

06c, GTR9-7-14, GTR9-8-07, GTR9-8-08, GTR9-8-09, GTR9-8-10, GTR9-8-13) A-7-04 are due in early Nov.)

Mr. Burleigh started presenting Humanetics' proposal for a common title block for all drawings (see document GTR9-8-07. The explanation was noted and the chair mentioned that it will be necessary to double-check with the chair of the Informal Group on gtr No. 7 whether the proposal meets the needs of the future Mutual Resolution No. 1 (**action item A-8-01**).

Then, Mr. Burleigh responded to the comments that Humanetics had received on the drawing package as well as on the manual:

Referring to the comments received from JAMA (see document GTR9-7-06c1), Mr. Burleigh explained (see document GTR9-8-08) that the special tools needed for the FlexPLI usage and maintenance will be part of the FlexPLI, details will be provided with the drawing package and the manual. Regarding the brand names of the data acquisition systems and their components he agreed that the names will be removed in the final versions of the documents. In addition, some further comments will be considered as shown in document GTR9-8-08 and some further details can be discussed bilaterally between Humanetics and JAMA. Mr. Takahashi pointed out that the comments were provided by JASIC and not by JAMA. Therefore, Humanetics should use "JASIC" as the reference in their document. Mr. Burleigh apologized for that. Finally, Mr. Burleigh explained that Humanetics already considered some further changes to be helpful. It was agreed that these changes can be made.

In response to Cellbond's comments provided during the last meetings (see document GTR9-6-23r2), Mr. Burleigh noted (see document GTR9-8-09) that several of the comments will be considered accordingly. For the material specifications, Mr. Burleigh felt that Nylon should be sufficient to describe the material. Ms. Dausse explained that Nylon is a commercial name but the material is Polyamide and therefore this description should be used, preferably with a more detailed specification (such as Polyamide 6) since Polyamide refers to a group of plastic materials. Mr. Burleigh will double check this.

With document GTR9-8-10 Mr. Burleigh explained that several of the details in JASIC's comments (see document GTR9-7-05c1) will be corrected while other details are felt to be needed in the way as stated.

Finally, it was noted that BAST's comments provided with document GTR9-7-14 were already covered by the discussion above.

After some further discussion on how the comments can be considered accordingly it was agreed that open details can be discussed bilaterally between Humanetics and those parties that provided the comments (**action item A-8-02**). It is also mentioned again that Humanetics aims for finalizing the drawing package and the manual by early November 2013 (ongoing action items A-7-04 and A-6-04).

On behalf of OICA Mr. Schmitt presented document GTR9-8-13 on the preparation of the FlexPLI for the car testing. He explained that car manufacturers feel a need to better explain the preparation of the legform for the car testing to assure reliable and repeatable test results. Mr. Burleigh promised to double check the procedure but noted that it seems acceptable at a first glance. Mr. Hardy added that it should be better explained that zeroing can be a software procedure applied to signals already recorded by the data acquisition system and is not necessarily applied when the data are recorded. Mr. Burleigh will consider this comment accordingly.

Finally, the secretary noted that the action items A-7-02, A-7-03, A-7-04 and A-7-05 from the last meeting are closed with the activities presented above.

6. Testing activities with the FlexPLI (update)

- 6.1. Update on master leg testing and from logbooks as well as from testing with other legforms, if any (BAST, all) (documents GTR9-7-10, GTR9-7-11 and GTR9-7-12) A-7-06

Ms. Medri informed the group that NHTSA is currently finalizing a test program with the FlexPLI. A report on this will be available in late 2013. However, no issues are expected.

Mr. Schmitt presented document GTR9-8-17. He explained that the presentation shown by Shape during the 6th meeting (see document GTR9-6-19r1) may lead to the conclusion that vehicles are already close to meet both, the European pedestrian safety requirements as well as the US bumper requirements. However, he explained that the vehicles in the different markets have different structural parts resulting in different performances, even if their appearance is identical. Simply changing the bumper fascia, as presented by Shape, may be misleading. Before final conclusions on this can be drawn complete vehicles must be tested in the different market configurations. Mr. Schmitt concluded that OEM's still see significant conflicts between pedestrian safety requirements and requirements of part 581.

Since no further comments were received on the testing activities with the FlexPLI master legforms action item A-7-06 was closed.

- 6.2. Description of test procedure, finalization of open issues (rebound, impactor thresholds, etc.) (BAST, JARI, all) (documents GTR9-6-07, GTR9-7-16r1, GTR9-7-17r1, GTR9-8-11, GTR9-8-12, GTR9-8-15) A-4-03, A-6-09, A-7-07, A-7-08, A-7-09

Mr. Takahashi presented a comparison how different approaches to derive the injury risk function could influence the injury risk curves (see document GTR9-8-11). He also noted that BAST and JASIC had used different datasets as well as methodologies for their work and that this of course has a significant influence. However, comparing the two approaches it was recognized that they finally lead to conclusions (threshold values) that are very similar and therefore should serve for the

purposes of this Informal Group.

Mr. Martin commented that the biggest differences results from the scaling of the anthropometric data. However, threshold values shall reflect the UMTRI (University of Michigan Transport Research Institute) anthropometry data of the 50th percentile American male (AM50) because the FlexPLI was made referring to these data.

After some further discussion on the details is finally agreed that BAST, JASIC and NHTSA will draft a text for the preamble explaining the methodology to create the injury risk curves (**action item A-8-03**).

On behalf of OICA Ms. Dausse presented document GTR9-8-12. She explained that Industry had concerns whether or not the behavior of the impactor could be influenced by changes in humidity and temperature in the surrounding environment. Originally, OICA had planned to conduct some testing on this. However, research on the material properties especially for the (blue) polyamide segments lead to the conclusion that this would need significantly more efforts than originally planned. Polyamide material is sensitive to moisture but does not take it up in a short period of time. However, this may need to be considered during any testing and during the storage of the impactor: No issues are seen in moderate climate areas while it could have an influence when climate conditions are more extreme. Ms. Dausse also added that the influence most likely will be low since the loading to the respective areas of the FlexPLI is limited.

On request of Mr. Burleigh Ms. Dausse explained that the influence on the dimensions is low. Also, she confirmed again that this needs to be considered for storage and testing to avoid that the impactor takes up too much humidity. The chair proposed that this could be covered by the manual: Someone handling the legform in e.g. tropical areas should specifically take note of this issue. Mr. Knotz wondered whether this can be done in a sound way during daily testing.

Finally, it was agreed that Humanetics should take a specific note on this in the owner manual (**action item A-8-04**).

Mr. Zander presented document GTR9-8-15 raising some further open issues on the rebound issue. First, he presented the test results of BAST, Bertrandt and JARI for the femur sections of the three master legforms. He explained that the reproducibility of test results was good and that therefore all test results can be used for the definition of femur corridors if wished for. Then, Mr. Zander proposed corridors for the inverse tests based on the achieved maxima. These corridors could be verified using the test results achieved at BAST, Bertrandt and JARI: In about 97.5 % of the tests the femur results passed the proposed corridors.

In addition, Mr. Zander examined the test results when using the zero crossing for the definition of femur corridors. Finally, he developed different scenarios that could be used for the corridors. Mr. Zander concluded that BAST would prefer the corridors to be based on the maxima of the femur

time history curves.

Dr. Konosu presented documents GTR9-8-18 and GTR9-8-19. He explained that the time of the femur zero crossing was not validated in the certification of the impactor and that JASIC therefore has concerns to use this time to cut rebound test data during a vehicle test. This is the reason why JASIC proposes to describe their femur zero crossing timing corridors in the regulatory text.

Mr. Stammen wondered why different percentages for the scatter of the test results are used. Mr. Zander responded that for the reproducibility of tests a scatter of 10 % is accepted while for the assessment narrower corridors are wished for and therefore 5 % are chosen. This procedure was taken from the respective ISO standard.

Mr. Roth explained that the BAST approach seems acceptable: The stiffness of the femur influences the behavior of the FlexPLI during the whole impact and therefore also the time history curves while the maxima are at about the same level.

Discussion came up on the need of the femur corridors. Mr. Bilkhu stated that currently not enough data may be available but that the corridors could be implemented later when more experiences are available. Also, he would prefer to just have a value to be controlled.

Mr. Stammen stated that it may be sufficient to have the crossing defined just for one channel. However, he preferred to decide for the zero crossing as a criterion since there seems to be no influence of the time of the zero crossing on the maximum values. He also pointed out that the curves presented do not seem to show issues and therefore it may be possible to just use the proposed zero crossing corridors as criterion. Mr. Stammen also wondered whether corridors for the maximum values had already been proposed for the femur in the beginning of the discussion.

Mr. Zander felt that the corridors for the maxima are needed. Also, just using one channel could create issues since the zero crossings of the three femur channels are not necessarily at the same time.

Mr. Burleigh confirmed that Humanetics internally uses corridors for the maximum values. Mr. Zander added that the idea of femur corridors was discussed officially but without conclusion in the beginning of the FlexPLI discussion. Also, Mr. Zander explained that defining corridors for the maxima is in line with the corridors for the tibia. Corridors may not need to be as tight as the tibia corridors for obvious reasons but would allow a good overall assessment of the impactor.

Dr. Konosu replied that, however, defining corridors for the maxima here would mean to have an indirect assessment since the zero crossing is the important point according to BAST's BAI. Therefore, it would be more appropriate to define this criterion – the reliable zero crossing – directly. Mr. Takahashi added that there is no injury assessment for the femur so it may not be needed to define respective corridors. Mr. Knotz agreed to comments already made by

Mr. Zander: If the zero crossing is incorrect – what could be done to adjust the impactor?

After a long discussion on this Mr. Knotz finally proposed to use the zero crossing timing corridors proposed by JASIC (for both, inverse as well as pendulum certification test) as well as the femur maxima corridors internally used by Humanetics (also for both, inverse as well as pendulum certification test) and to put them into the owner's manual for monitoring. Users of the legform can double check whether their legforms are still meeting the corridors. These femur corridors can be used in addition to the tibia corridors from the gtr No. 9 for the assessment of the Biofidelic Assessment Interval proposed by BAST. Mr. Burleigh had confirmed earlier in this meeting that all impactors which were delivered by Humanetics to their customers met these corridors. Mr. Burleigh is requested to check whether Humanetics can publish their femur maxima corridors (**action item A-8-05**) for the use in the owner's manual and to draft a text for this.

The second part of the BAST presentation (GTR9-8-15) dealt with further open issues regarding the FlexPLI biofidelic assessment interval. Here, Mr. Zander stated that the limited biofidelic properties of the FlexPLI in some rare cases during short time periods should not overlay the altogether very humanlike behavior and proposed to keep the word "biofidelic" in the definition. Besides, the interval definition was further modified by BAST, addressing the phenomenon of not all tibia and femur bending moments always commonly crossing zero. After a further discussion it was decided by the majority of the group to eliminate the word "biofidelic" but to take over the remaining changes to the current wording.

The secretary noted that with the discussion before the action items A-4-03, A-6-09, A-7-08 as well as A-7-09 can be closed; action item A-7-07 had already been closed before the draft minutes of the 7th meeting were shared.

7. Review of the draft gtr 9 amendment
- 7.1. Review of draft text as kindly prepared by Japan
(All)
(document GRSP-53-29e, GTR9-8-03, GTR9-8-06)

The chair noted that Japan had kindly prepared a draft text that was available as informal document for the last GRSP session in May in Geneva (see document GRSP-53-29e). Also, the chair noted that comments on this document are available from OICA (see document GTR9-8-06).

However, the chair proposed to refer to the consolidated gtr No. 9 text to have a better overview on the necessary amendments. For this purpose, the chair had provided a dual pane document comparing the gtr No. 9 and the draft amendments (document GTR9-8-03). This document was reviewed in detail and several comments were considered to modify the wording.

The following subjects were discussed in more detail:

Following the discussion under agenda item 6.2 above it remains unclear whether the definition under section 3.23 in the draft amendment should refer to the “Biofidelic Assessment Interval” or just to the “Assessment Interval”. This needs to be decided later.

For section 3.24 defining the primary reference height it was agreed to principally use OICA’s proposal. The text was modified accordingly. Mr. Broertjes wondered why a tolerance of ± 25 mm for the height will be needed. The secretary stated that this value is also part of the existing legislation in the European Union and that it is intended to prevent industry from having to test numerous variants that may be caused by different optional equipment of the same vehicle. Also, the EU legislation on vehicle dimensions allows a height tolerance. After some further discussion it was agreed that the tolerance is put into square brackets for the time being, meaning that a decision on this needs to be made later.

When discussing the limit values in section 5.1.1, Ms. Medri requested to put the limit values into square brackets for the time being. Ms. Buckman wondered whether the relaxation zone defined for the bending moments can be extended also to the ligaments. The vice-chair explained that such a relaxation is currently not foreseen in gtr No. 9 for the knee area of the EEVC legform and therefore does not see a justification for this. Mr. Zander supported this statement. Mr. Broertjes and Mr. Zander wondered whether such a relaxation zone is still needed. The secretary reminded the group that the relaxation zone was originally foreseen for one or two fixation points to allow the installation of a screwable recovery hook at the vehicle. However, in the future there may be an extended need for sensors e.g. for forward looking active systems to protect vulnerable road users. It was finally decided to keep the whole part covering the relaxation zone in square brackets for the time being.

In section 6.3.1.1, tolerances are described for the FlexPLI. OICA had proposed (see document GTR9-8-06) to put the tolerances for the dimensions, also for the next sections, into the respective drawings to allow a better readability of the text. This was agreed. For the weight tolerances, OICA wished to lower these tolerances. The vice-chair noted that the former FlexPLI Technical Evaluation Group (TEG) had checked and accepted the tolerances. Mr. Burleigh explained that the tolerances are foreseen to allow different measuring equipment and to cover tolerances e.g. from the rubber. However, OICA stated that the current weight tolerances are much higher than for the EEVC legform and therefore it may be an issue for the vehicle design processes. These tolerances should be reduced from currently ± 5 % to maximum ± 1.5 %. After some further discussion it was finally agreed that Mr. Burleigh will check whether the weight tolerances can be brought to the same level as they are for the EEVC legform (**action item A-8-06**).

In subsection 6.3.1.1.3 OICA requested to use tolerances that refer to a point that can directly be measured (i.e. to not use the wording “... but not including the connection part to the knee joint...”). It was agreed that the measurement should be taken from the upper and the lower ends of the legform to avoid this.

Regarding the storage time for the impactor conditioning (see subsection 6.3.1.1.5) it was agreed to not specify the storage time but to say “... for a sufficient period of time...” and to give a

recommendation for this in the user manual.

Humanetics mentioned that in Figure 14 an update will be needed for the thickness of the neoprene rubber sheets: the new material has a thickness of 5.6 mm (was 5 mm). To reflect this change, also the diagram in Figure 15 (b), will need to be updated; Humanetics will provide the new diagram as soon as possible (**action item A-8-07**).

When discussing the test procedure, some discussion came up on the height tolerance of the impactor at the time of first contact with the bumper (see section 7.1.1.3): Mr. Zander proposed to reduce the height tolerance to 8 mm. Mr. Schmitt and Mr. Takahashi wished to maintain the 10 mm as stated in the draft legislation. Dr. Konosu pointed out that it is also very important to confirm the feasibility to meet the tolerance at all test labs if the tolerance will be changed. Mr. Knotz joined Mr. Zander and stated that 8 mm should be sufficient while Mr. Broertjes also stated that the 10 mm agreed in former discussion should be kept. It was finally agreed to keep the current tolerance for the time being. All parties are requested to check this and this item should then be clarified during the next meeting (**action item A-8-08**).

Mr. Zander also proposed to reduce the yaw angle in subsection 7.1.1.3.2 from $\pm 5^\circ$ to $\pm 2^\circ$. He stated that the influence of this angle is significant for the test results. It was agreed to keep current tolerance for the time being and to discuss these details together with the height tolerance during the next meeting and review then the respective decisions of the former TEG, if needed.

For subsection 7.1.1.3.3 Mr. Takagi noted that the wording used here should also reflect a possible decision in the discussion on the headform test issue in GRSP. Specifically, the term “selected impact location” should refer to either the “measuring point” or to the “first point of contact”. It was agreed that this will be kept in mind for the discussion at GRSP in December 2013.

For the impact velocity defined in section 7.1.1.4, Mr. Knotz wondered whether the way to measure the speed should be specified. He explained that different way to execute this may result in slight differences in the recorded speed. It was agreed that Mr. Burleigh will, in cooperation with Mr. Knotz, provide a recommendation for the velocity measurement in the owner manual (**action item A-8-09**). All attendees will check their measurement procedures to allow a decision on this during the next meeting.

Several other items were amended without attendees seeing a further need for detailed discussion. All amendments were incorporated in document GTR9-8-03r1 that will be made available as soon as possible at the website of the informal group.

The chair finally requested all members to double check the wording again and to provide further comments by the end of the calendar week 38 to allow the consideration of the comments in the official document (**action item A-8-10**).

- 7.2. Discussion on open items (OICA, all) A-7-10
(New document expected from OICA on action item A-7-10)

OICA had prepared a document to describe the possible transition from the existing EEVC legform impactor to the FlexPLI (see document GTR9-8-14). Mr. Schmitt explained that manufacturers need some time to bring in the necessary changes into their new models. In addition, several OEM's have experienced the limited availability of the FlexPLI. Mr. Burleigh commented that this situation should have changed and promised that Humanetics will complete new orders with high priority.

Following his explanation Mr. Schmitt proposed to allow a transitional period of three years for new vehicle models. Also, he proposed that countries not yet having legislation on pedestrian safety also should allow adequate leadtime before requiring compliance with the FlexPLI requirements.

For models already on the market Mr. Schmitt explained that they may already have been approved with the EEVC legform impactor and therefore already provide some protection from leg injuries. Therefore, and considering that redesigns of vehicles especially in the second half of their lifespans may be too costly compared to the possible benefits, OICA proposes that vehicles, which have already complied with the requirements of the first phase of gtr No. 9, can be exempted from meeting the FlexPLI requirements.

Mr. Broertjes stated that in principle he can support the proposal of OICA but that certain details may need to be discussed in the next meeting.

- 7.3. Drafting and preferably agreement on final version of the text for preamble and regulation (All)
(documents GTR9-8-04, GTR9-8-14)

See discussion above.

In addition, the chair had provided a draft for the preamble (see document GTR9-8-04). He noted that several items will be reviewed following the discussion during this meeting.

8. Review of activity list, work plan and identification of further open issues (Chair, all)
(documents GTR9-5-28, GTR9-4-03r1)

The chair informed the attendees that for the December 2013 sessions of GRSP in Geneva it is planned to submit six documents:

- Part B with the text of the technical amendments to gtr No. 9 as an official document
- A consolidated version of the document mentioned above as an informal document

- Part A with the draft preamble as an official document
- A draft final report of the work of this group as an informal document
- Addendum 3 of the Mutual Agreement with the FlexPLI information as an informal document
- A draft amendment to UN Regulation 127 covering also the amendments for the FlexPLI as an official document

The chair pointed out that all official documents for the December 2013 GRSP are needed at 20 September 2013 the very latest to assure that they can be translated in due time and are available for discussion during this GRSP session. This may be a challenge especially seeing the amount of work needed for this.

After some discussion it was agreed that the secretary will provide the revised version of the dual-pane document (document GTR9-8-03r1) immediately after the meeting to all people on the IG mailing list for review as already agreed (see **action item A-8-10**). Mr. Damm will, together with Dr. Konosu, Mr. Schmitt and Mr. Kinsky, incorporate the comments into the text of the technical amendments to gtr No. 9 as well as into the UNECE R127 wording to provide these document in due time to the GRSP secretariat.

9. Review of action list

10. A.O.B.
(document GTR9-8-16)

Mr. Hardy presented document GTR9-8-16 explaining that the supplier of the CONFOR foam informed TRL as the producer of the EEVC legform impactor (the legform currently used in gtr No. 9) that the foam in its original version will no longer be available. This also will affect the upper legform impactor, used for the high bumper test (as well as the bonnet leading edge test which is not included in gtr No. 9 requirements). The supplier of the foam will offer two different foams in the future that have similar material properties. However, currently it has not yet been fully clear whether it could influence the performance of the legforms. TRL therefore invites users of their legforms to provide feedback on impactor certification as well as on vehicle testing with the new foam. In the worst case, TRL may need to request changes to the certification limits of the impactors as currently described in gtr No. 9.

11. Next meeting
Please note: If needed, there may be a possibility to hold a final meeting on 16 - 17 December in the eve of the GRSP sessions (17 – 20 December) in Geneva.

The chair informed the attendees that a meeting room has been reserved for the afternoon of Monday, 16 Dec. as well as for the morning of Tuesday, 17 Dec. to have a further meeting. It was agreed that this meeting will be needed.




















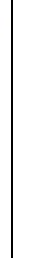


Consequently, it was agreed that the **9th meeting** of the IG will be held

- on **16 Dec. 2013 from 1 p.m. – 6 p.m.** and
- on **17 Dec. 2013 from 9:30 a.m. to 12:30 p.m.**

at UNECE offices in Geneva. The meeting room will be communicated in due time before the meeting












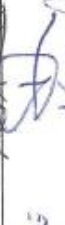

The chair concluded the meeting thanking all attendees for their contribution to the activities of the Informal Group.

Attachment to section A) List of Attendees

List of Attendees		IG GTR9 PH2 8th Meeting		9 Sept. 2013	
Date, Place		OICA offices, Paris			
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OICA offices, Paris

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