	of the 10 th meeting of the Informal Group on Global Technical Regulation No. 9 – (IG GTR9-PH2)
Venue	Offices of the German Association of Automotive Industry (VDA), Behrenstrasse 35, 10117 Berlin / Germany
Date	24. Nov 2017, 9:00 am – 3:00 pm
Status: D	raft

A) List of Attendees

The attendance lists for the days is attached as scan at the end of this document.

B) 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
GTR9-10-01		Chair	Agenda for the 10th meeting of the Informal Group on Global Technical Regulation No. 9 – Phase 2 (IG GTR9-PH2) – Draft
GTR9-10-03		Chair	Consolidated version of GTR9 incl. all amendments before 10th meeting (for reference only)
GTR9-10-04	c1	JASIC	JASIC review of document DRAFT_GRSP-2014-15- Rev1e
GTR9-10-05		Humanetics	FlexPLI Drawing and User Manual Status
DRAFT_ GRSP/2014/15 Rev.1		Chair	Draft for amendment to document UNECE/WP.29/GRSP/2014/15
GTR9-10-06		TRL	Comments by TRL - Correction List
GTR9-10-07		TRL	Comments by TRL – Request for more details

C) Summary of the Meeting

1. Welcome

Mr. Damm welcomed the attendees of the 10th meeting at VDA offices in Berlin. He thanked VDA for providing the meeting rooms.

The meeting was chaired by Mr. Damm (chair) and the secretariat was provided by Dr. Pfeifer.

2. Roll call of participants

See attendance list.

3. Adoption of the agenda (all)

The agenda was adopted without further changes.

During the meeting two new documents (GTR9-10-06 and GTR9-10-07) were provided by TRL (agenda point 5. and 6.1.).

Additionally JASIC provided document GTR-10-04corr1e including editorial changes to align some text phrases in the draft gtr 9 with UN R127 (agenda point 6.1.).

Humanetics provided the document GTR9-10-05 (agenda point 5.).

4. Review of the draft minutes of the 9th Meeting (all) (document GTR9-9-02)

The minutes of the 9th meeting were adopted without any changes.

Mr. Damm explained that the activities of the group were frozen since 2013 due to some missing input by NHTSA. NHTSA announced a couple of months ago to be ready now with the research study and to be in the position to remove all square brackets in the draft amendment of the gtr. So that the gtr 9 amendment for phase 2 might be adopted soon.

The target of the 10th meeting of IWG GTR9-PH2 is to prepare a final working document for submitting to UNECE GRSP session in Dec. 2017. This working document will be a revision of GRSP/2014/15 including all amendments (e.g. GRSP/2014/30; GRSP-60-17 and further changes as discussed in the 10th meeting).

5. Review of the amendments to the draft manual as well as to the drawing package (Chair, Humanetics, all)

(documents GTR9-9-07r3 and GTR9-9-11r4 and GTR9-10-05)

Mr. Burleigh presented the status of the activities (GTR9-10-05):

- Drawing package updated, 6 drawings rev B same package as delivered in 9th meeting
- Drawings still have disclaimer note. Awaiting formal request from UNECE to remove the

disclaimer. \rightarrow Question: Who is informing WP.29? Furthermore in the progress report should be noted that drawings are ready now and disclaimer can be removed.

• User manual has had no alteration since last submission in 9th meeting but still has copyright statement. Details of changes prior to this were in doc GTR9-9-08

The drawings are available on the website (GTR9-9-11):

https://wiki.unece.org/download/attachments/15763958/GTR9-9-11-Rev4.zip?api=v2

It is planned to move this drawing package from the IWG website folder into the official UNECE MR1 website folder as soon as the draft gtr is adopted.

The chair will contact the secretariat to organize the formal request by WP.29 to Humanetics for removal of the disclaimer note.

TRL raised a couple of questions (see document GTR9-10-06) regarding the manual and the drawings. Humanetics agreed to check these open questions bilaterally with TRL as soon as possible.

It was also decided to upload a high scaled version of the pictures 12, 13, 14, 16, 24, 25, 26, 27 and 28 on the UNECE website under MR1 as additional package for the drawings.

- 6. Final discussion/decision on open details
- 6.1. Detailed review of the draft documents (all)

(documents DRAFT UN ECE/TRANS/WP.29/GRSP/2014/15-Rev.1 and GTR9-10-03, GTR9-10-04corr1e, GTR9-10-07)

Before starting the review Mr. Damm explained the content of the documents:

GRSP/2014/15-Rev.1: Document including all changes from several documents as discussed

in the IWG and TF BTA

GTR9-10-03: Document for information only (consolidated version of several

documents)

GTR9-10-04 corr1e: Amendments made by JASIC including in GRSP/2014/15-Rev.1

The group decided to work on **GTR9-10-04 corr1** and to check all comments and to agree or disagree with proposed wording. Proposed changes (coloured words/sentences) are then checked paragraph by paragraph.

There was a general agreement to correct all spelling errors in the document. Furthermore the phrase "gtr" should be changed into "GTR", "USA" should be amended into "Unites States of America".

Major changes were done in paragraphs 6.3.1.1., 6.3.1.1.3. and 6.3.1.1.6.1. It was agreed to amend UN R127 too. The title of figure 16 was changed. The coordinate system as defined in figure 12, 13 and 14 is not in line with the manual. Humanetics agreed to change the coordinate systems in the manual.

The 200 ms value in paragraph 8.1.2.3.1. should be checked by Humanetics as soon as possible. (**Note:** The value was checked and confirmed.) The word "neoprene" should be replaced by "foamed neoprene" in the whole document.

Figure 22a, 22b, 23a, 23b and 23c should be amend by a table including the x- and y-coordinates

for the curves in the diagram. \rightarrow Humanetics agreed to provide such data.

Figure 15 and paragraph 6.3.1.1.4. should be described more detailed regarding the compression characteristics and the measurement procedure. \rightarrow Humanetics agreed to provide such data and discuss this with TRL in detail

Figure 26 shall be replaced. ACL, PCL have to be checked and corrected in the drawing. → To do Humanetics/Secretary of IWG

The whole document should be checked regarding the definition and use of the word femur (see paragraph changes in 3.14 and 3.15). The consistency of the wording/meaning must be proven. It was agreed to amend UN R127 too.

Finally, all proposed changes are agreed and some new wordings are included in the document GTR9-10-04 corr1e.

6.2. Update of the preamble (all)

(documents DRAFT UN ECE/TRANS/WP.29/GRSP/2014/15-Rev.1 and GTR9-10-03 and GTR9-10-04corr1e)

<u>Discussion on Bumper Test Area</u>

Korea asked how to define the bumper test area in cases where the beam is extended by some (plastic) parts to contain sensors or similar components. Is this the part of the bumper test area?

The members of the IWG explained that such extensions are normally no structural parts and would not be part of the bumper beam according to paragraph 3.9 in GTR9. This parts are not as stiff as the bumper beam. Korea agreed on this explanation.

→ The group decided to include this short notice into the preamble.

<u>Discussion on definition of outermost point</u>

Korea asked how to define the outermost point in cases where the gauge has contact with more than one point. The members of the group referred to paragraph 3.14. It is described to move the gauge as much as possible outwards to have a final contact with one point.

→ The group decided that this question is addressed in the draft text of the GTR

Update the preamble

A new paragraph 162 in chapter "B Phase 2" was included and the table with the list of documents was amended by the documents of the 10th meeting.

6.3. Review of the draft final report (Chair, all)

(document UN ECE/TRANS/WP.29/GRSP/2014/16)

The final report was amended by additional text.

The following action items have been identified during the meeting. It is planned to address these items before the upcoming session of GRSP.

ID	Open Action Item	Responsibility	Due
A-10-01	Add clarification to preamble regarding definition of structural cross-member (para. 3.9)	Chair	early Dec. 2017
A-10-02	Contact UNECE WP.29 Secretariat for the submission of documents to GRSP (coloured text?)	Chair, Secretary	end of Nov. 2017
A-10-03	Update Justification in document GTR-10-04 corr.1	Chair, Secretary	early Dec. 2017
A-10-04	Check of consistency of the femur definition (para. 3.15) throughout the whole text of the regulation (with or without flesh and skin)	BASt	early Dec. 2017
A-10-05	Check of the coordinate system in figures 12 to 14	Humanetics	early Dec. 2017
A-10-06	Check of the time period for the certification test (200 oder 250 ms)	Humanetics	early Dec. 2017
A-10-07	Update of the Figure 26 of the knee	Secretary, Humanetics	early Dec. 2017
A-10-08	Approval to add the figures of the FlexPLI (assembly etc.) to the addendum 3 of M.R.1	JAP	end of Nov. 2017
A-10-09	Change of the word neoprene to foamed neoprene throughout the text of the regulation.	BASt	early Dec. 2017
A-10-10	Check and clarify the comments in documents GTR9- 10-06 and GTR9-10-07 with regard to the user manual and the drawings	Humanetics	early Dec. 2017
A-10-11	Provide xls-files with the data for the graphs in figures (will be added to addendum 3 to M.R.1)	Humanetics	early Dec. 2017
A-10-12	Add procedure for the testing of the neoprene material	Humanetics	early Dec. 2017

A-10-13	Add an explanation on the transitional period to the preamble (para. 219/220 of the preamble)	Chair	early Dec. 2017
A-10-14	Re-number the preamble according to the amendments	Secretary	early Dec. 2017
A-10-15	Check the consistency of the word FlexPLI (without dash and without space) throughout the whole text	BASt/ Secretary	early Dec. 2017

Attachment to section A) List of Attendees

List of Attendees	IG GTR9-PH2 10 th Meeting		
Date, Place	24 Nov. 2017, Berlin/Germany, VDA offices	A offices	
NAME, First Name	Position / Organization	Email	Signature
Pleiler, Sanda	Technical Optice / VDA	ofeifer ovda, de	Plain
Takinori, TANAKA	Goil Reserve, / NTSE	y-tong by of 18 30.40	田中 克松
BURLEIGH MARK.	DESIGN ENGINEER/HUMAN-	MEURLEIGH@HUMANETICS.EU	EU MJ Buley
ZANDER CLIVER	RAPT / Germany	zandero @ boxt. do	Down He
Gaas, Thorsten	Volles was fen Als	thous ten accor avolls yagende	T. Gam
Schinke, Stefan	Volksware 16	stelan, schinker rolleswagen de	S. 3.1.100
DAUSSE, Trina	RENAULT	icina dausse 6 renault.com	" Donney
Walthed, the	Volvo Cars	ova. walkhed Dobocesson	S
Post, Auga	Hyunder Motor Euge	a pott @ hyundai - surgne con	1.1614
Kwoun, Invong	Research engineer / Hyundai	Rucnir87@ hyundai. com	mel
Kim. Janiae	Sexior December / Myandui	king) 1@byundai. Com	Ch.
Park, I'm Scop	KATRZ	Jspark@ troso. Fr	St.
DAMM, RICHARD	RMUI, DE	RICHARD DAMA BRUN, BUNDAG	A A
Kingky Thomas	OPEL	Homas Kinsky@opel. Com	webex / Phone
Hardy Brian	TRL	bhardy@trl.co.uk	webex phone