

Author: G R Draper

Informal document No. **GRE-66-21**
(66th GRE, 4-6 October 2011
agenda item 17(b))

GTB Document No. CE-4684
Date: 2011-09-16

The GTB Glare and Visibility Study

GTB TASK FORCE “COORDINATION of AUTOMOTIVE VISIBILITY and GLARE STUDIES (TF CAVGS)”

Overview for GRE66 – 06 October 2011

For more information
www.gtb-lighting.org/VGS/indexVGS.htm

GTB

*The International Automotive Lighting
and Light Signalling Expert Group*

Groupe de Travail “Bruxelles 1952”

Motivation for the study

- At its 65th session GRE invited GTB to lead a comprehensive study of the whole issue of glare and visibility during night-time driving.
- Forward Lighting and Light Signalling
- GRE agreed that in the case that the result of the forward lighting study reveals alternatives to the adopted mandatory requirements for automatic leveling and cleaning, the provisions of Regulation No. 48 will be re-examined at any time during the 90 months transitional period.

Objectives of the study

- To improve the understanding of different factors that influence visibility and glare and their respective weighted importance.
- To identify results of the study that might reveal alternatives to the adopted mandatory requirements for automatic levelling and cleaning for the passing beam and front fog lamps.
- To identify options that decrease the possible glare of signalling lamps.

Factors to be included in the study

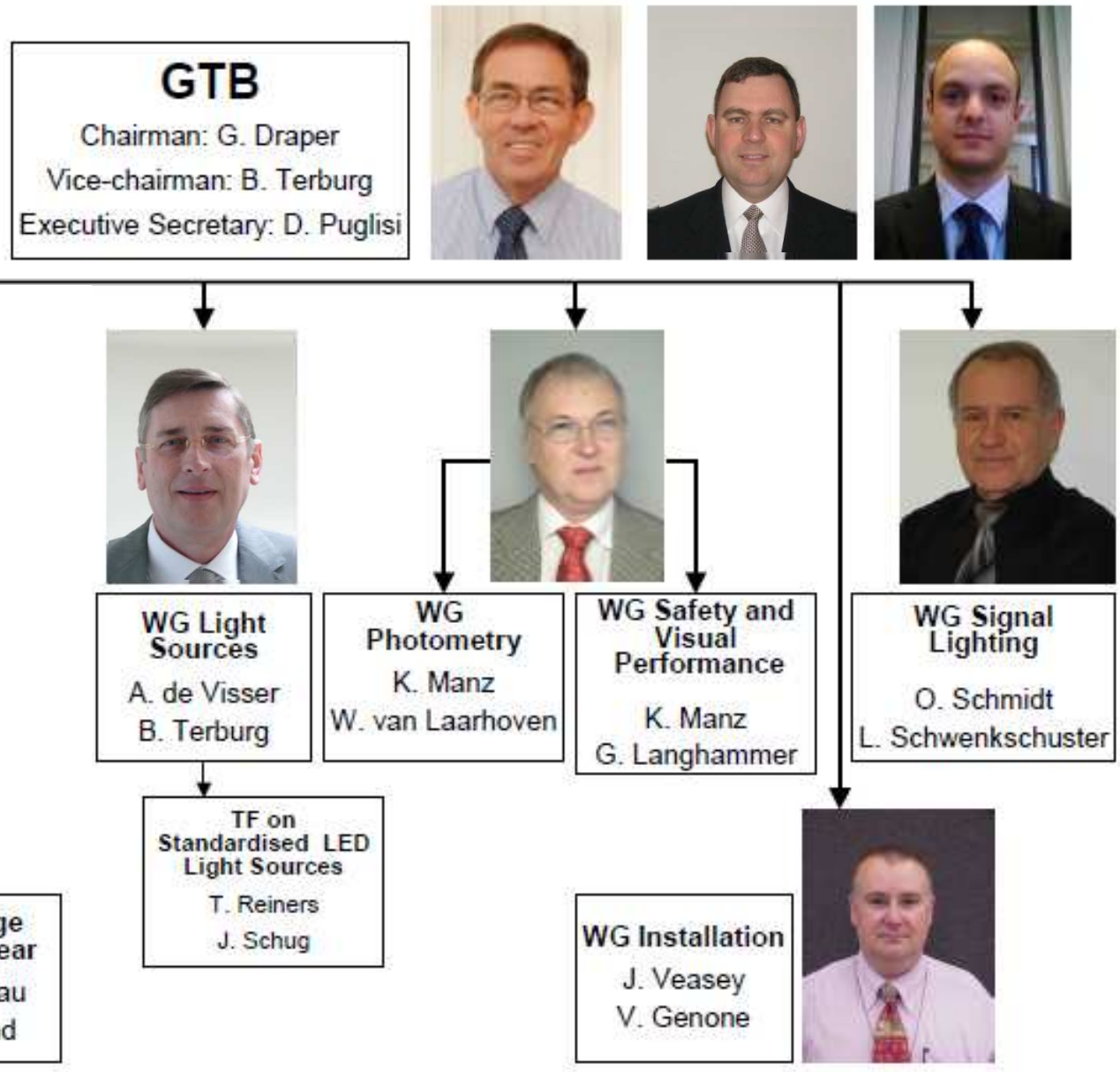
For full details please refer to the Task Force Terms of Reference

- Effect of luminous intensity distribution on human observation
- Beam performance due to installation
- Lamp performance
- Light source performance
- Traffic conditions
- Environmental lighting conditions
- Human factors
- Public awareness and education of importance of headlamp aim and on proper operation of aiming devices
- Maintenance and care of lighting equipment on the vehicle
- Weather conditions with regard to glare
- Accident studies if results are available from third party (e.g. insurance company)

Factors not to be included in the study

- Cost benefit calculations
- Windshield (condition, scratches) and visually impaired observers.

Organisation of the task force






TF for the Coordination of Automotive Visibility and Glare Studies

A. de Visser
B. Terburg

GTB

The International Automotive Lighting and Light Signalling Expert Group

Groupe de Travail "Bruxelles 1952"

Scope of the TF CAVGS Activity

Project management and quality control of activities by GTB working groups in relation to automotive visibility and glare studies

Informal communication with GRE, OICA and CLEPA through liaisons

Optional collaboration with SAE and CIE through liaisons

Communication via GTB Committee of Experts to GRE

Public accessible section on the GTB web site (www.gtb-lighting.org/VGS/indexVGS.htm)

Scope of the GTB working group activity

Activities in the area of Automotive Visibility and Glare related to M and N Class vehicles

-coordinated by TF CAVGS

-conducted by GTB working groups; portions of these activities may be outsourced to third parties.

Priority I:

Head Lighting:

Total performance of the passing beam as installed and in use during night time

Priority II:

Front Fog lamps:

Total performance of the front fog lamps as installed

Signal Lighting:

Total performance of signalling lamps as installed

Terms of Reference

TF CAVGS

- Draft and control the execution of the terms of reference for the studies including work program (including timescales of deliverables);
- Ensure coherence with the project plan, the “quality objectives”;
- In the case of third party contracted research, review of any associated costs.

GTB WORKING GROUP ACTIVITIES

Coordinated by TF CAVGS

GTB working groups, operating within their terms of reference

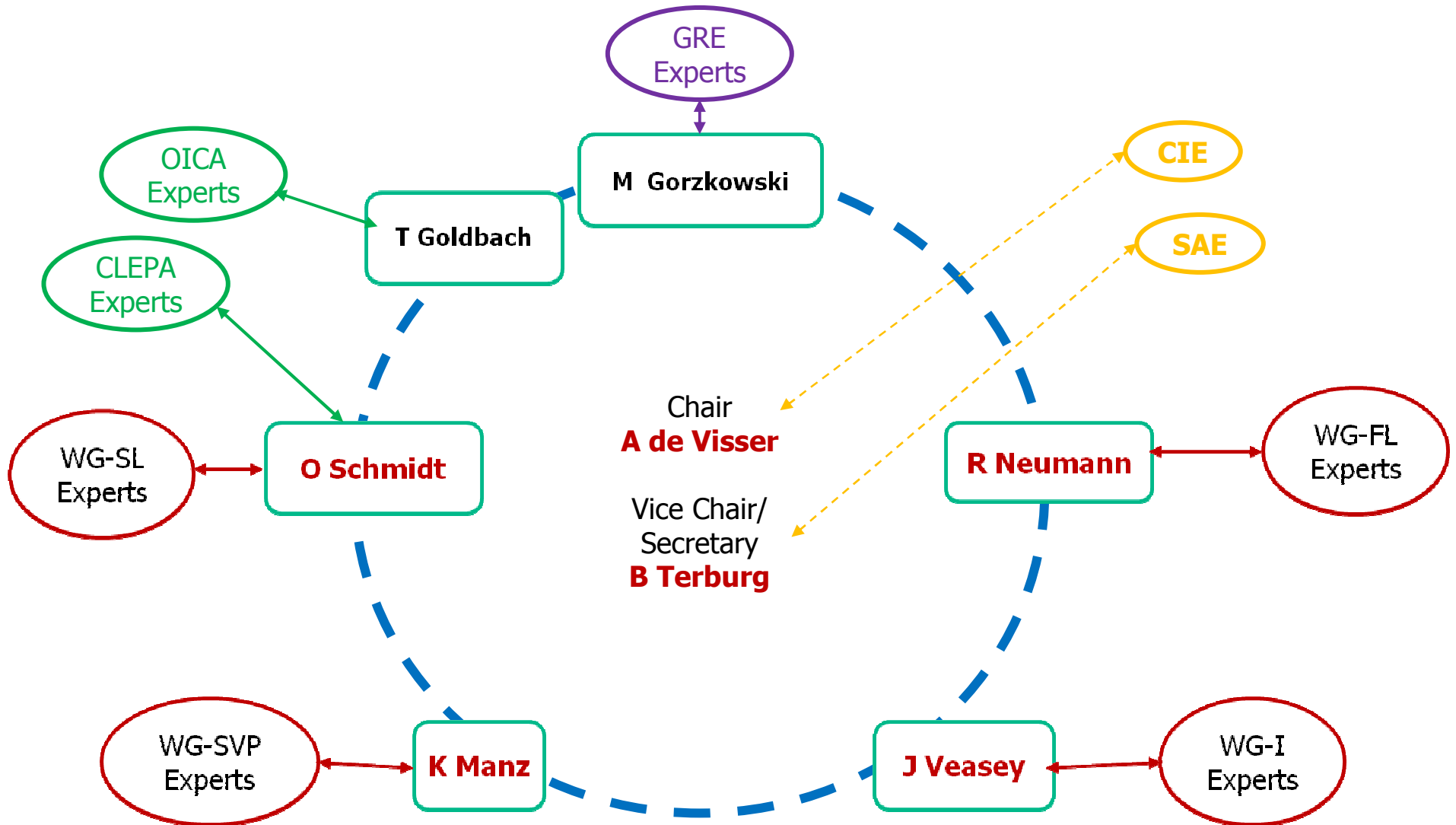
The work program is described in a separate living document owned by TF CAVGS.

TF CAVGS LIAISONS

To ensure a close link with associated organisations, persons responsible for liaison to these organisations have been added as members to the TF CAVGS

- Proper contacts for the efficient progress of the studies through adequate two-way dissemination of information to their constituents and to the TF CAVGS.
- Not expected to provide official positions to TF CAVGS.
- In the case of technical studies undertaken in the associated organisations, contacts will be maintained by the involved GTB working group persons.

The GTB CAVGS Task Force



GTB TASK FORCE

“COORDINATION of AUTOMOTIVE VISIBILITY and GLARE STUDIES (TF CAVGS)”

Thank You

For more information please refer to the publicly accessible section of the GTB web site

(www.gtb-lighting.org/VGS/indexVGS.htm)