

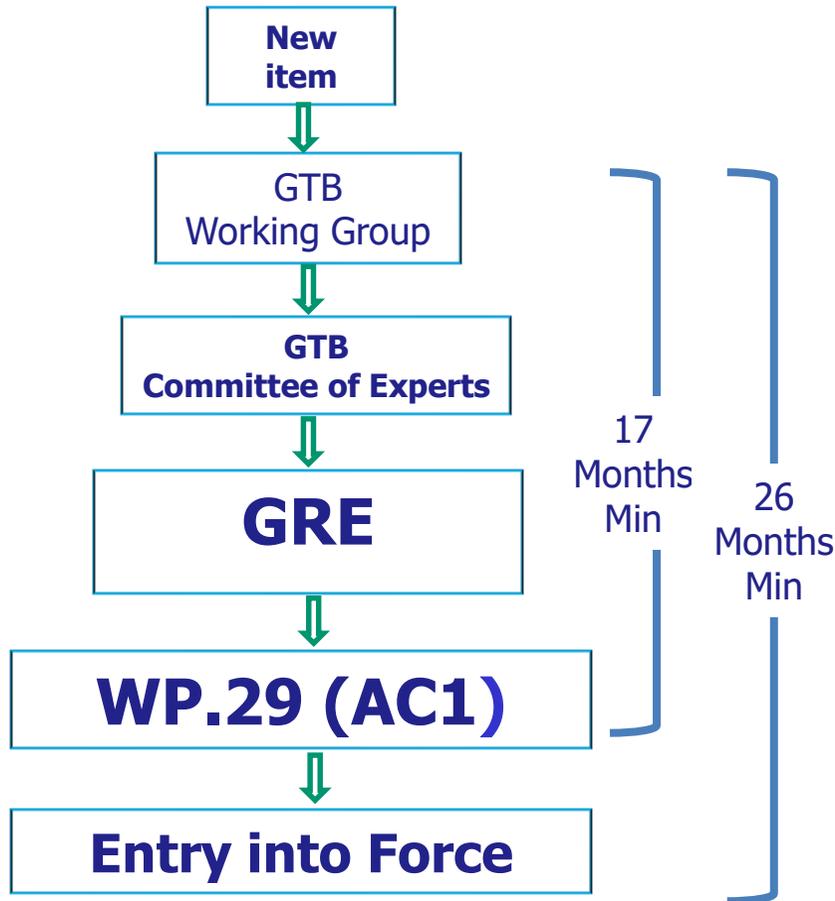
Simplification of UN Light Source Regulations

Dr. Bart P. Terburg

Chairman
GTB Working Group Light Sources

Development and Approval Process

New & Amended UN Automotive Lighting Regulations



Simplification of UN Light Source Regulations

Timeline

- Analysis and feasibility study
 - Mr. Ad de Visser (IEC* Head delegate in GRE & WG LS Chair 2001-2015)
- *IEC = International Electrotechnical Commission
- Project endorsed by WP.29 in 164th session (November 2014)
 - Work carried out in GRE IWG SLR, by IEC delegation
- Formal proposal adopted in April 2016 GRE session
- Adopted by WP.29 in November 2016
- Entered into force **22 June 2017**
- Published **1 March 2018**

Structure UN Light Source Regulations

Similar structure of R37 (Filament), R99 (HID) and R128 (LED):

Scope

Administrative provisions

Technical requirements

Conformity of production

Names and addresses of Technical Services

Transitional provisions

Annexes

Sheets for light source categories

Communication

Example of the arrangement of the approval mark Prescriptions for technical testing

Prescriptions for conformity of production

**Light Source
Technical Specifications**

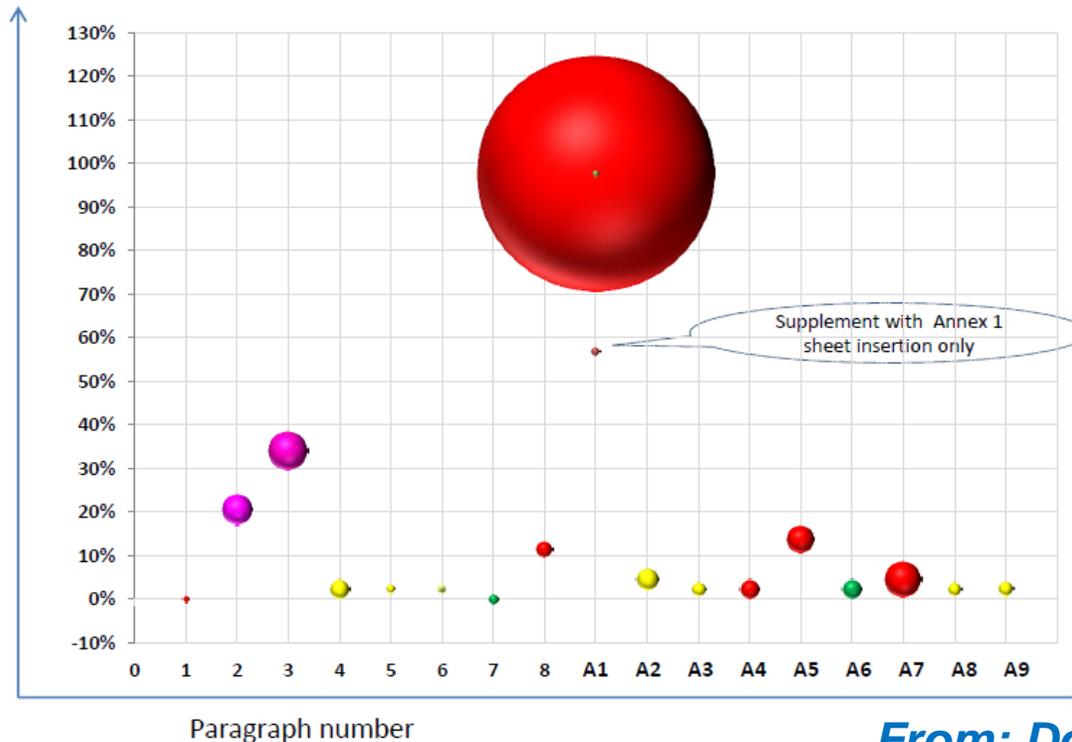


Analysis and Feasibility Study

Analysis amendments Statistics

Bubbles	
Size	Colour
Reflects number of pages per paragraph/annex	Green Common text shared between light source regulations
	Yellow Common text with minor technology related lines
	Purple Common text with frequent technology related lines
	Red Totally different paragraphs

Percentage of supplements amending a paragraph/annex



R37 03 series
In effect for 28 years
44 Supplements

From: Document WP.29-164-18

Concept for Simplification

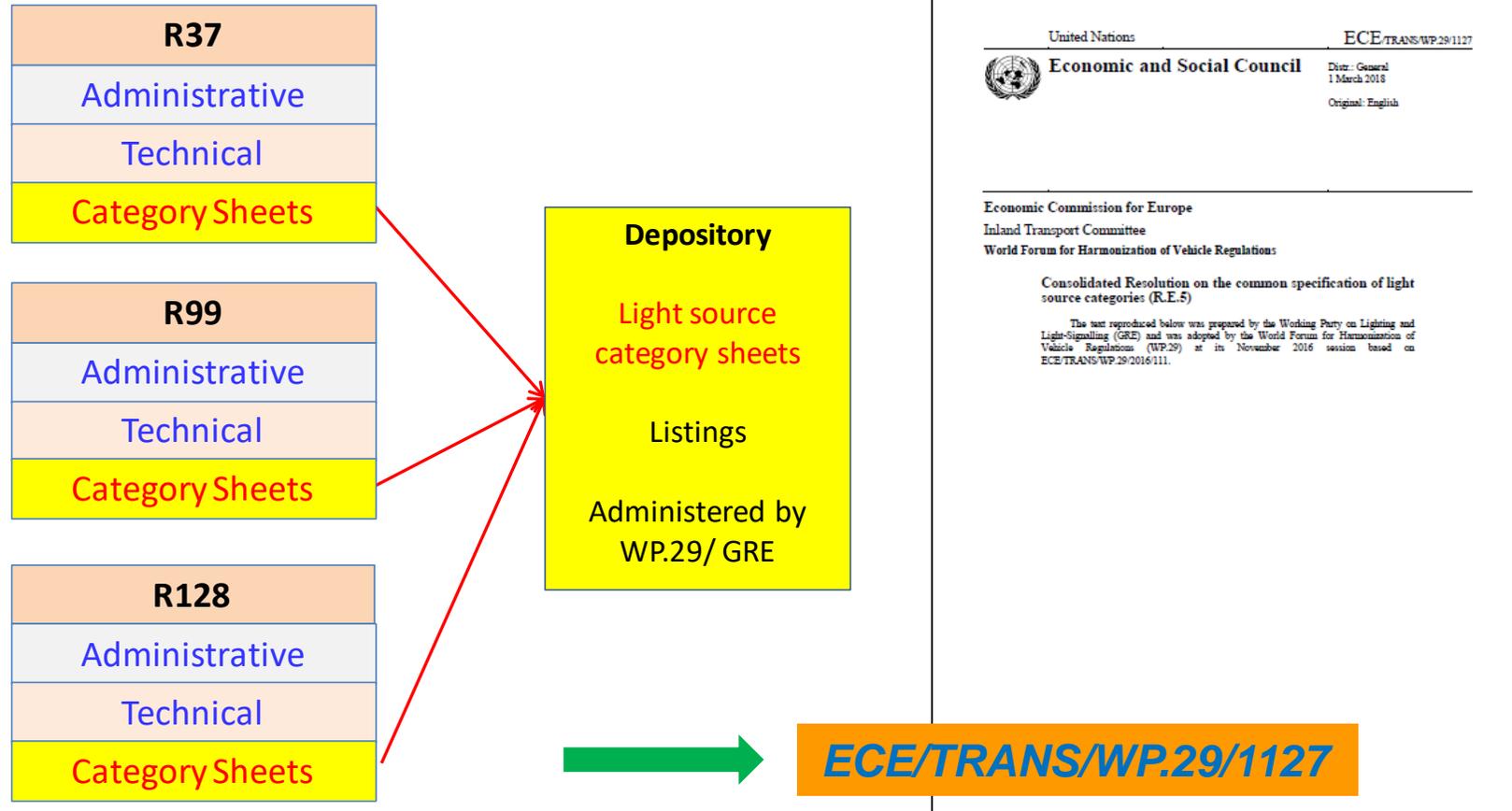
- Create a depository (“Consolidated Resolution”) containing all light source category sheets from [Annex 1](#) of each of the light source regulations:
 - » Regulation 37 (filament lamps)
 - » Regulation 99 (HID)
 - » Regulation 128 (LED light sources)
- Depository contains an index with the date of introduction phase out, amendment/correction, use restrictions, etc.
- A reference to the depository is added in each of the light source regulations
- The regulations are not amended when only light source categories are inserted

Consequences

- Significantly less amendments of the light source regulations
- The processing of light source category sheets is complete after GRE and WP.29 adoption and posting in the depository
- Submission to UN Office of Legal Affairs (OLA), NY not necessary
 - Elimination of 6 month period for category sheets (only)
- After extraction of data sheets remaining regulatory texts of R37, R99, and R128 are significantly condensed
 - E.g: Regulation 37 condensed from ~200 to ~ 40 pages

Simplification of UN Light Source Regulations

➤ Simplification of Light Source Regulations – New structure as of **22 JUN 2017**



Structure of the Regulation (e.g. R37)

REGULATION	CONTENTS	Page
1.	Scope	
2.	Administrative provisions	
2.1.	Definitions	
2.2.	Application for approval	
2.3.	Inscriptions	
2.4.	Approval	
3.	Technical requirements	
3.1.	Definitions	
3.2.	General specifications	
3.3.	Manufacture	
3.4.	Tests	
3.5.	Filament position and dimensions	
3.6.	Colour	
3.7.	UV radiation	
3.8.	Observation concerning selective-yellow colour	
3.9.	Check on optical quality	
3.10.	Standard filament lamps	
4.	Conformity of production	
5.	Penalties for non-conformity of production	
6.	Production definitely discontinued	10
7.	Names and addresses of technical services responsible for conducting approval tests, and of administrative departments	16
8.	Transitional provisions	16

CONTENTS (continued)	
ANNEXES	
Annex 1:	Sheets for filament lamps
Annex 2:	Communication concerning the approval or extension or refusal or withdrawal of approval or production definitely discontinued of a type of filament lamp pursuant to Regulation No. 37
<u>Annex 3:</u>	Example of the arrangement of the approval mark
<u>Annex 4:</u>	Luminous centre and shapes of filament lamps
<u>Annex 5:</u>	Checking the colour of filament lamps
<u>Annex 6:</u>	Minimum requirements for quality procedures by the manufacturer
<u>Annex 7:</u>	Sampling and compliance levels for manufacturer test records
<u>Annex 8:</u>	Minimum requirements for spot checks by the administrative authority
<u>Annex 9:</u>	Compliance approved by spot check

 **To resolution R.E.5**

Reference to R.E.5 from Regulation (e.g. R128)

"Annex 1

Sheets¹ for LED light sources

The sheets of the relevant LED light source category and the group in which this category is listed with restrictions on the use of this category shall apply as incorporated in Resolution R.E.5 or its subsequent revisions, applicable at the time of application for type approval of the LED light source.

¹ From 22 June 2017 onwards, the sheets for gas-discharge light sources, the list and group of light source categories with restrictions on the use of this category and their sheet numbers are incorporated in Resolution R.E.5 with symbol ECE/TRANS/WP.29/2016/111."

Annex 6,

Table 1, amend to read:

" ...

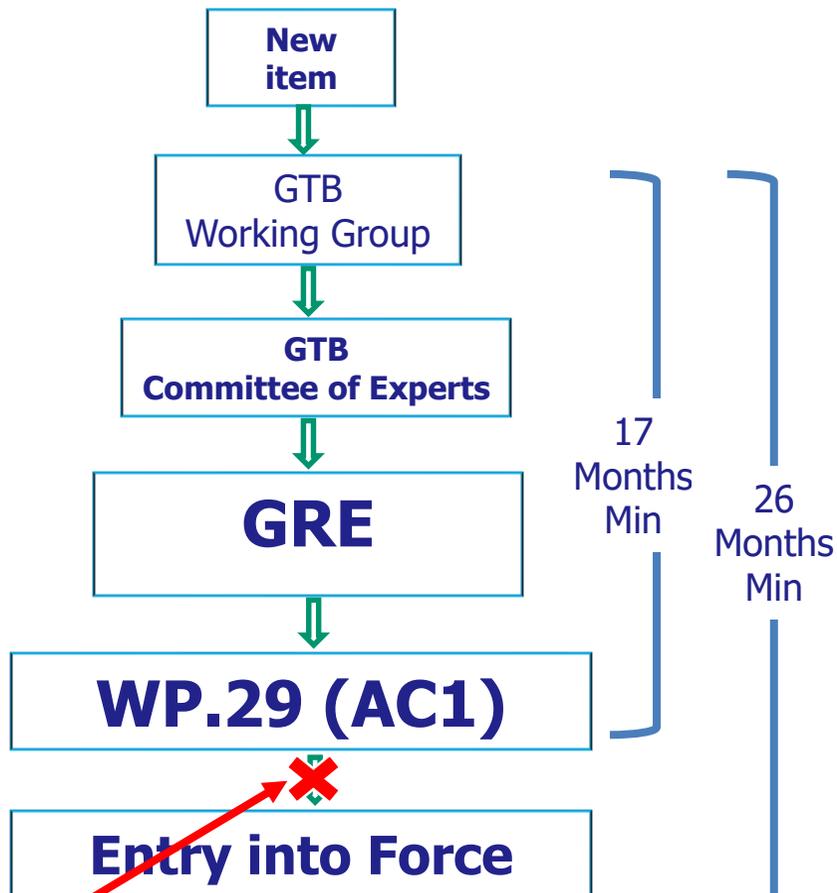
Consolidated Resolution R.E.5

- Resolution Document is listed under “R.E.5” in the **Resolutions** Section on the UN web site:

<http://www.unece.org/trans/main/wp29/wp29wgs/wp29gen/wp29resolutions.html>

Development and Approval Process

New & Amended **Light Source Data Sheets**



This step eliminated for new light source category sheets → 9 months quicker to market

Summary

Evaluation **Simplification** vs. major objectives

Reduce the administrative burden



- Fewer pages of regulation text
- One Consolidated Resolution to maintain

Smaller

Reduce burden on governments



- Number of supplements reduction
- Process completed after WP.29 and posting in R.E.5

Smarter

▪ Reduce regulatory burden for industry



Approvals earlier due to elimination of 6 month period

Safer

Thank You

This overview summarizes the collective efforts of industry partners actively working on automotive lighting in GTB, ELMAPS, IEC Committees, their task forces and corresponding national committees

Bart Terburg

Phone: + 1 (603) 289-2530

E-mail: bart.terburg@osram.com