

Type Approval Marking and the Mandatory Application of the Unique Identifier (UI)

In the context of Simplification of Lighting and
Light-Signalling Regulations

GRE Regulations after Stage 1 of simplification

UN Regs

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 19
- 20
- 23
- 27
- 31
- 38
- 50
- 56
- 57
- 69
- 70
- 72
- 76
- 77
- 80
- 87
- 91
- 98
- 104
- 112
- 113
- 119
- 123



NEW REGULATIONS

- New 1 "Light Signalling Devices"
- New 2 "Road Illumination Devices"
- New 3 "Retro-Reflective Devices"

INSTALLATION

- R-48
- R-53
- R-74
- R-86

LIGHT SOURCES

- R-37
- R-99
- R-128
- (Simplified structure with reference to a Resolution, R.E.5)

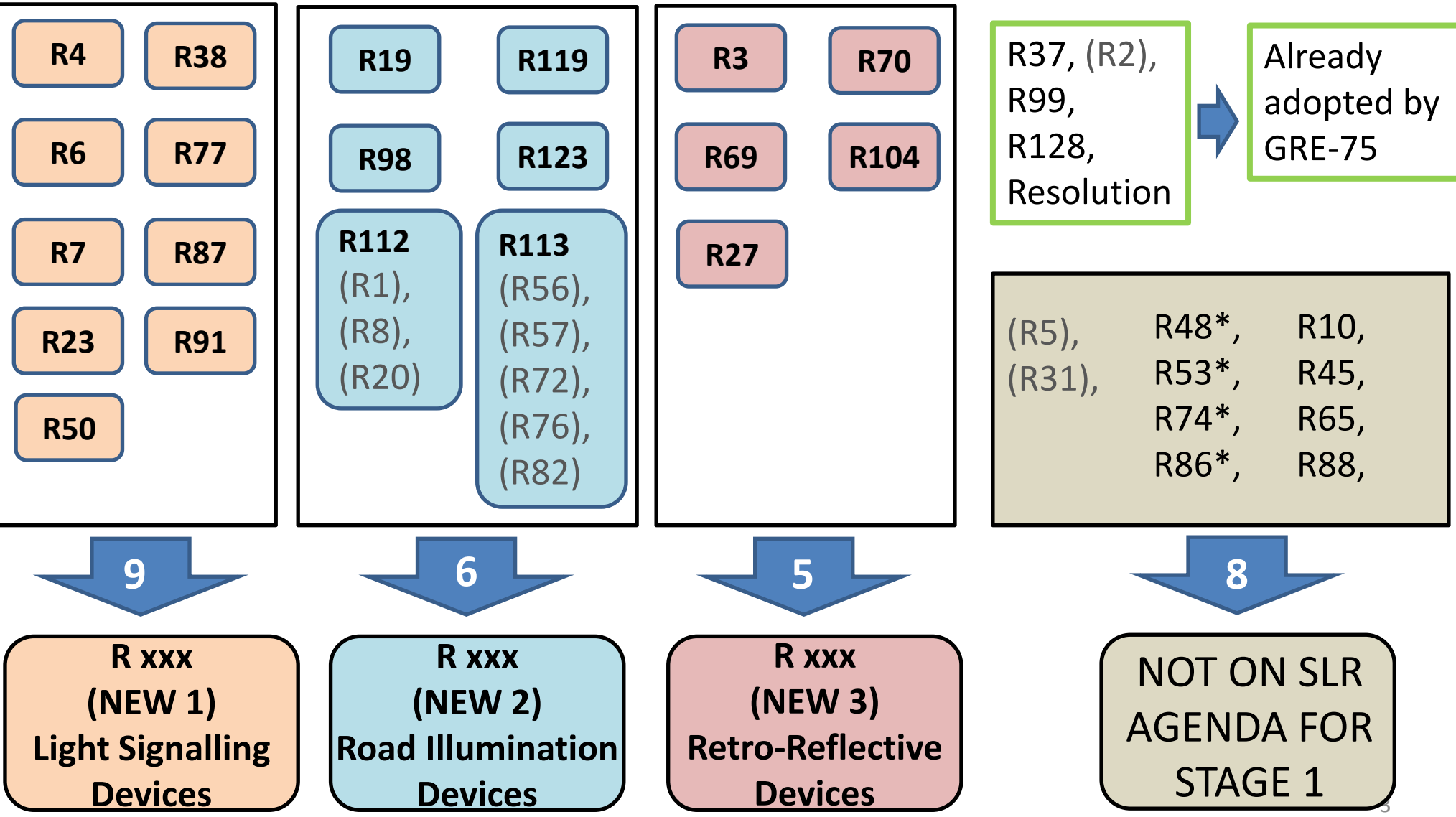
VARIOUS

- R-10
- R-45
- R-65
- R-88

ONLY
14 Live
Regulations

GRE-77-32

GRE Regulations after Stage 1 of simplification



* Definitions and other minor editorial adjustments / synchronisation will be addressed
Regulations in parenthesis are frozen already.

The Approach to the New Simplified Regulations

3 New Regulations:

Light Signalling Devices (LSD)

Road Illuminating Devices (RID)

Retro-Reflective Devices (RRD)

Each Regulation includes a number of different devices with different technical requirements

Each Regulation will be affected by an incremental change of series of amendments as the stringency evolves in relation to the adopted amendments.

A change to the series of amendments may affect only one device, a combination of devices or all devices. It therefore becomes necessary to record and indicate the progress of amendment of each device. This is managed by means of a “change index” that is associated with a particular series of amendments.

The “Change Index” records the progress of amendment of the particular device in relation to the changes in the series of amendment of the complete Regulation.

This information is introduced into a table (table 2) of the main text of the Regulation, e.g.

Extract of the new LSD Regulation ECE/TRANS/WP.29/GRE/2017/9

3.3.2.4. The two digits of the approval number which indicate the change index in force at the time of issue of the approval.

Table 2: Series of amendments and change index to be used for marking

<i>Lamp</i> <i>- Series of amendment 00 -</i>	<i>Change index</i>
Daytime running lamp	0
Front direction indicator lamp	0
Front direction indicator lamp (Vehicle category L)	0

The historical record of the progress of the “Change Index” Recorded in Annex 8 of the Regulation

Series of amendments to the Regulation	00	01	02	03	04	05
Function (Lamp)	Change Index for the specific function (lamp)					
Rear direction indicator lamp	0	0	0	0	0	1
Rear direction indicator lamp (Vehicle category L)	0	1	1	1	1	2
Rear end-outline marker lamp	0	0	0	0	0	1
Rear fog lamp	0	0	0	0	1	2
Rear position lamp	0	0	0	0	0	1
Rear position lamp (Vehicle category L)	0	0	0	0	0	1
Rear-registration plate illuminating lamp	0	0	0	0	0	1
Rear-registration plate illuminating lamp (Vehicle category L)	0	0	0	0	0	1
Reversing lamp	0	0	1	2	3	4
Side direction indicator lamp	0	0	0	0	0	1
Side marker lamp	0	0	0	0	0	1
Stop lamp	0	0	0	1	1	2
Stop lamp (Vehicle category L)	0	0	0	0	0	1
Stop lamp (central high mounted)	0	0	0	0	0	1

- Any amendment that results in a change in stringency will trigger a new series of amendment
- The particular function(s) that trigger this change of series of amendment will receive an incremental increase of its “change index”
- In the case of an amendment affecting all functions they will all be subject to an incremental increase of all change indices.

A device type approved according to a lower level of series of amendments to this regulation may be installed on a new type of vehicle, provided that the change index related to each individual lamp, being part of this device, does not differ from that indicated in Table 2.

A new series of amendments shall have no impact on existing devices, type approved according to previous series of amendments to this regulation, provided that the change index related to each individual lamp, being part of this device, does not differ from that indicated in Table 2. In this case no impact means no modification or update of the type approval documents and markings on the device is required.

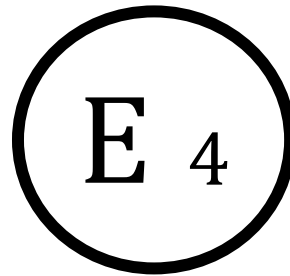
Example of a Single Light Signalling Device Approval Marking

Rear direction
indicator lamp
(variable)

2b

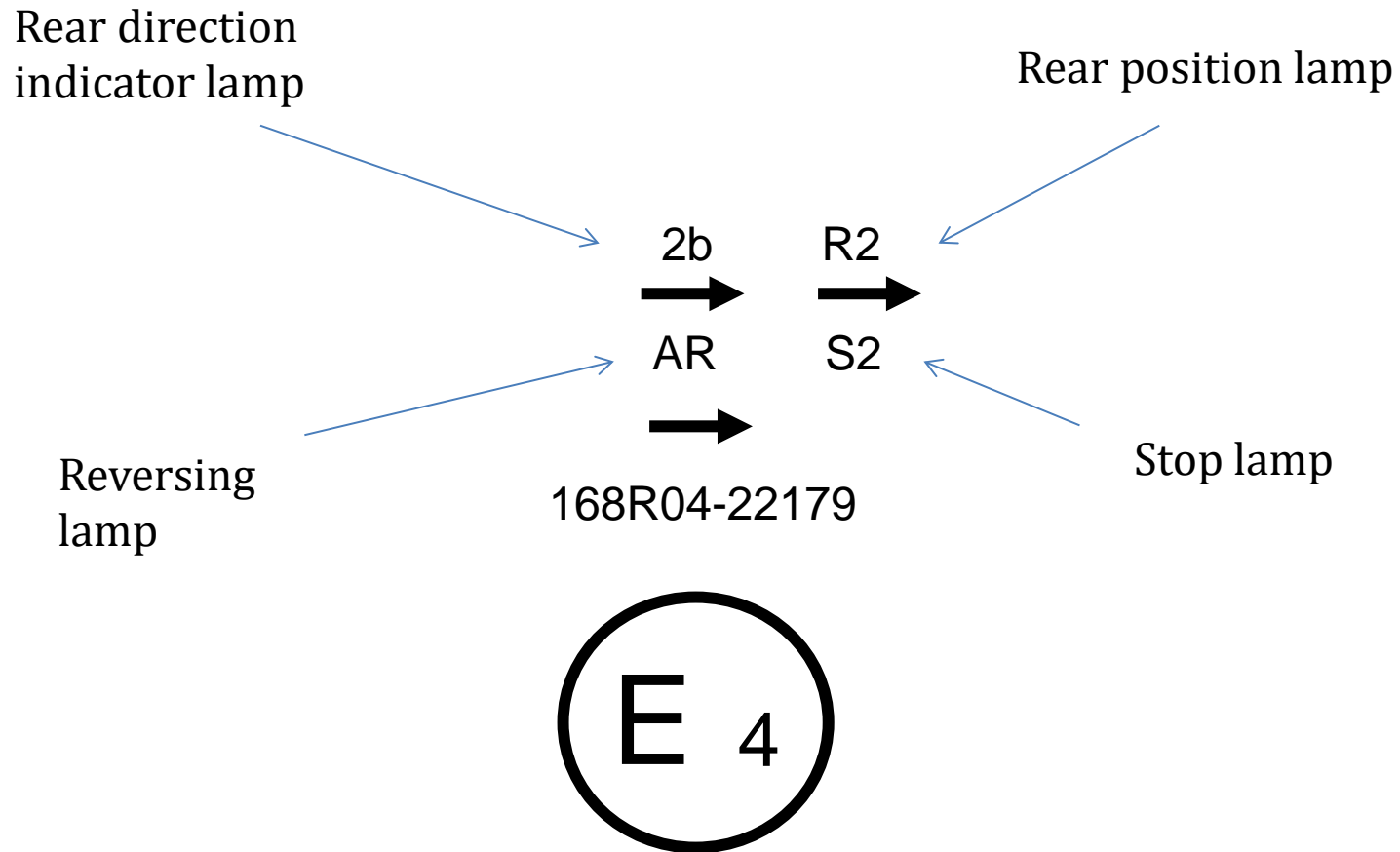


168R04-22179



R-168 series 04.
Approval number
22179

Example of a Combined Light Signalling Device Approval Marking



The approval marking is read in conjunction with Annex 8 to identify the change index of each device

Annex 8 Provides a single placeholder for the historical record of the progress of the “Change Index”



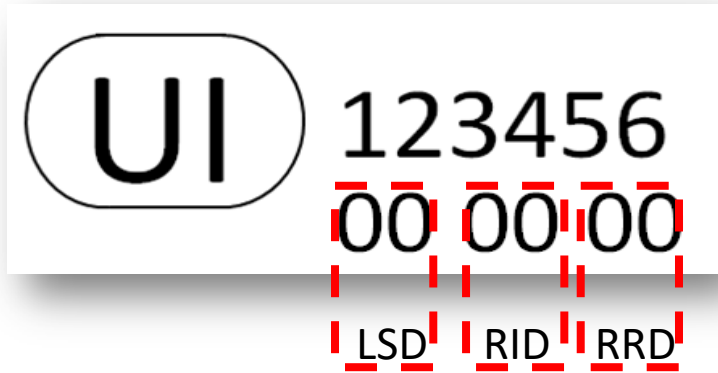
Series of amendments to the Regulation	00	01	02	03	04	05
Function (Lamp)	Change Index for the specific function (lamp)					
Rear direction indicator lamp	0	0	0	0	0	1
Rear direction indicator lamp (Vehicle category L)	0	1	1	1	1	2
Rear end-outline marker lamp	0	0	0	0	0	1
Rear fog lamp	0	0	0	0	1	2
Rear position lamp	0	0	0	0	0	1
Rear position lamp (Vehicle category L)	0	0	0	0	0	1
Rear-registration plate illuminating lamp	0	0	0	0	0	1
Rear-registration plate illuminating lamp (Vehicle category L)	0	0	0	0	0	1
Reversing lamp	0	0	1	2	3	4
Side direction indicator lamp	0	0	0	0	0	1
Side marker lamp	0	0	0	0	0	1
Stop lamp	0	0	0	1	1	2
Stop lamp (Vehicle category L)	0	0	0	0	0	1
Stop lamp (central high mounted)	0	0	0	0	0	1

The 05 Series of amendments is introduced by a general change that affects all the functions (lamps)

Proposal concerning the Unique Identifier marking

Road Illumination Devices (RID)
Light Signalling Devices (LSD)
Retro-reflective devices (RRD)

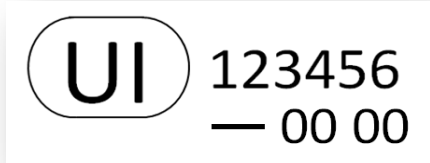
The database will provide all information concerning the type approval status and the status of any extension to the type approval



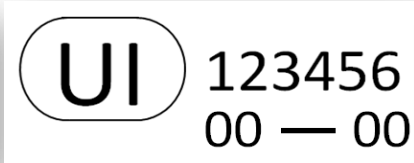
two digits indicating the series of amendments for RID, LSD, RRD

if the product is concerned by all three regulations

Variants:



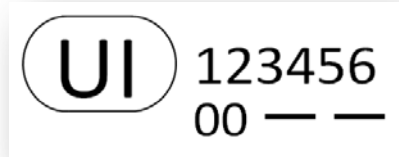
if no LSD



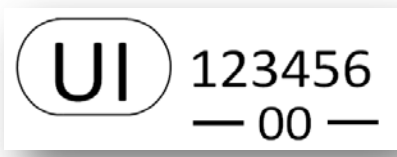
if no RID



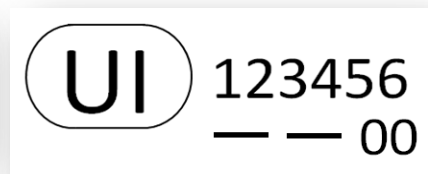
if no RRD



if LSD only



if RID only



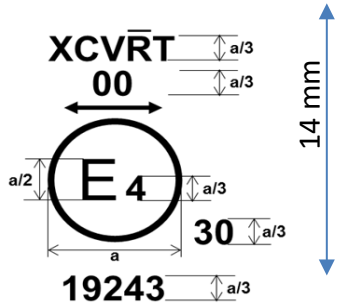
if RRD only

The need for the Unique Identifier marking solution?

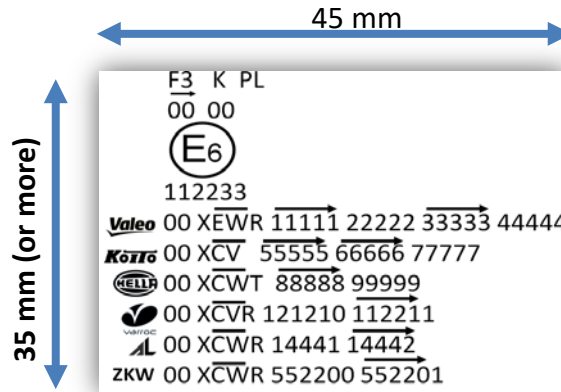
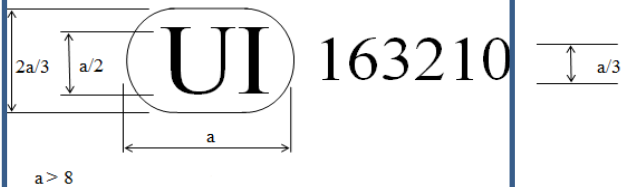
Example of a possible APPROVAL MARK OF A SINGLE ROAD ILLUMINATION DEVICE

ALL this marking shall be visible when the lamp is fitted on the vehicle

minimum marking size



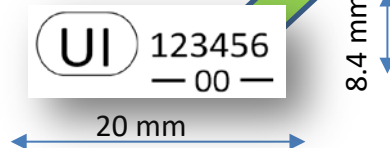
≥ 5 mm on plastic
≥ 8 mm on glass



The only visible part of the device when the lamp is fitted on the vehicle is the lens (80% optical area) Ø60mm

OR

Unique Identifier mark



Why do we need the Unique Identifier marking solution?

- Mandatory use of Unique Identifier is a prerequisite for an effective transition towards the simplified lighting and light-signalling regulations.
- The principle of grouping a number of devices into a single regulation is not compatible with the use of detailed approval markings on devices
- The current practice of one marking per one (series of the) regulation cannot be applied

Why do we need the Unique Identifier marking solution?

- When individual devices will undergo substantial amendments, this will result in new series of amendments applicable to those particular devices, while others will remain unaffected.
- As a result part of the markings within LSD, RID or RRD would in principle have to be updated.
- With different markings for each device within one regulation the traditional marking becomes extremely complicated.
- This will be in more so critical in the case of minimum performance based requirements (Phase 2 SLR).

Why do we need the Unique Identifier marking solution?

- The concept of more devices combined in one regulation will not be user friendly (for TAAs), who will have to decide based on the traditional markings which set of requirements applies to individual devices (e.g. R4, series 01, suppl. 27, rev.3, amend.1, Corr,1; R7, series 02, suppl.26, rev.6, amend.1-4)

Why do we need the Unique Identifier marking solution?

- Use of an electronic system of UI is a clear benefit compared to E-marking paper version processing. TAAs will be in position to identify the level of product compliance and performance more easily and will be able to relate it to products certified in different certification environments.

Why do we need the Unique Identifier marking solution?

- Ensuring the full benefit of international harmonisation (including beyond the 1958 Agreement) the choice for decision on application of a traditional marking or UI marking cannot be left up to an individual applicant (i.e. the industry), but should become a requirement for Contracting Parties applying the simplified lighting and light-signalling regulations.

Why do we need the Unique Identifier marking solution?

- The use of the "Unique Identifier" (which the GRE-IWG-SLR wants to mandate in the simplified LSD, RID and RRD regulations) has been foreseen since June 2012 when WP29 launched the simplification activity. (ECE-TRANS-WP29-2012-119) and is conditional upon access to the UN secure internet database
- When the "Unique Identifier" is used there is no requirement for the lamps to carry the conventional type approval markings (E-mark).
- If it is technically not possible to use the "Unique Identifier" (e.g. if the access to the UN internet database cannot be secured or the UN secure internet database is not operative) the use of conventional type approval markings is required until the use of the "Unique Identifier" is enabled.

- The following interpretation of the Revision 3 of the 1958 agreement, Schedule 5 paragraph 3, doesn't help simplifying the Lighting and Light-Signalling Regulations.
" The benefit of the UI is for the manufacturer. And if the manufacturer requests, the Contracting Party (Approval Authority) must (obligation acc. to the Revision 3) upload the documents onto DETA, upon which a UI is automatically generated"
- A clear undertaking is necessary to be able to include the mandatory use of DETA into the Lighting and Light-Signalling Regulations but, as the Revision 3 doesn't provide for this mandate it may need to be brought to WP.29 to determine if there is any other way.
- The opinion of the GRE-IWG-SLR is that the absence of the across the board mandate does not preclude the possibility for individual regulations to require a mandatory use of UI and DETA.

1. **Mandatory use of Unique Identifier is a prerequisite for** an effective transition towards **the simplified lighting and light-signalling regulations**
2. To ensure the full benefit of international harmonisation (including beyond the 1958 Agreement) **the choice for decision on application of a traditional marking or UI marking** cannot be left to an individual applicant (i.e. the industry), but **should become a requirement for Contracting Parties applying the simplified lighting and light-signalling regulations**
3. The opinion of the GRE-IWG-SLR is that **the absence of the across the board mandate does not preclude the possibility for individual regulations to require a mandatory use of UI and DETA.**
4. Maybe an agreement/**decision by WP.29** will be (legally) sufficient?