Economic Commission for Europe
Inland Transport Committee
Working Party on Road Traffic Safety
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Item 5 (b) of the provisional agenda
Convention on Road Signs and Signals (1968):
Amendment Proposals on Variable Message Signs (VMS)

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Amendment Proposals on Variable Message Signs (VMS)

Submitted by the Government Spain

This document contains some answers and comments to the “Comments and considerations by the Secretariat” issued in the Annex II within ECE/TRANS/WP.1/2012/1/Add.1.
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<th>WP.1 Secretariat</th>
<th>WP.1 ad hoc VMS group “VMS Unit”</th>
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<td><strong>A. General Comments</strong></td>
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<td>1.</td>
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<td><strong>B. Wording</strong></td>
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| 2. | We agree on the proposed new article 8 paragraph 1ter:  
“Variable Message Signs shall only be used for as a temporary measure [..]”

With respect to the proposed new article 8bis, paragraph 1:  
“When used, pictograms should always provide the main unit of information in any VMS message.”

3. With respect to the word “pictogram”, we see two alternatives:  
a. Using the word “symbol” instead… Symbol is not correct, technically speaking, but is commonly used as an equivalent to pictogram, pictograph, and the like. There’s no point on using the term “inscription” as it refers to text and symbols (pictograms) are the only representation strategy that makes sense in terms of international communication. That is why we insist on symbols as the basis for the main unit of information.

b. Define “pictogram” in the Convention.

4. With respect to the term “unit of information”, we think it is important and it should get a definition in the Convention. Below follows the contextual note in the EasyWay program Deployment Guideline 01-VMS harmonization¹:

> “VMS display a number of information elements such as pictograms, abstract signs, numbers, words (e.g. descriptors, a toponym) and abbreviations. Such elements are clustered into coherent informative segments or information units (IU). An information unit may be described as the answer we obtain for a question that is meaningful to drivers [3, 4]. For example, if I ask to myself “What happens?” or “What should I do?” the first question could be answered with “congestion” or “strong wind” and the second could be answered with “slow down” or “take exit A-23”. An information unit may be made by one or several words or pictograms. In order to ensure intelligibility, information units are normally placed in the same line on the VMS, thus helping a coherent read” (p. 16).

Also this principle is included:  
“PRINCIPLE 3.1. The Information Units (IU) should be placed on the VMS following a recommended order that depends on message type i.e. Information Unit 1–Main Event; Information Unit 2–Location; Information Unit 3–Advice; Information Unit 4–Cause of the Event” (p. 17).

5. We think that we should return to the previous definition and recover the word “messages” instead of “inscriptions and symbols”. VMS are complex road signs and “message” is a better word. We indicated this in our document and we prefer this

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¹ Arbaiza, A., Lucas, A. (Coord.). Variable Message Signs Harmonisation. Principles of VMS messages design. Supporting guideline. VMS-DG01. VERSION 02-00-00. DECEMBER 2012. ew-dg-2012_vms-dg01_principlesofvmsdesign_02-00-00


definition:
“A Variable Message Sign (VMS) is a sign for the purpose of displaying one of a number of messages that may be changed or switched on or off as required.”

In fact, this one:

A Variable Message Sign (VMS) is a sign for the purpose of displaying one of a number of inscriptions and symbols that may be changed or switched on or off as required.

Is not actually correct because a VMS is not “a sign for the purpose of displaying one of a number of inscription and symbols...”. So we better stay with the version in the RE.2. Message is a good generic term.

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<th>C. Fixed and variable signs</th>
<th>6. We agree, the term fixed/permanent deserves definition</th>
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<td>D. The double function of crosses and arrows as lights and VMS</td>
<td>7. We disagree with this sentence “This allows crosses and arrows to be used on a long term basis, like signs.” Note that there is nothing within article 23, point 11 (a) and (b) that allows for such a deduction. In fact there is an issue here, because an additional category (“long term basis signs”) is created. We have then a) permanent/fixed signs (i.e., posted), b) temporary/variable signs (i.e., VMS) and c) long term basis signs (i.e., lights). From our point of view, category (c) is a spurious one. There is no need for category (c) at all. In addition, the crosses and arrows use of traffic lights feet perfectly in the definition of what a VMS is. Message is sufficiently comprehensive. Seen traffic lights showing crosses and arrows as an archaic category of VMS is quite reasonable, purposely, structurally, functionally.</td>
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<td>8.</td>
<td>8. We totally disagree with these sentences:</td>
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<td>“It appears that there is no real value added with such a modification, as article 23 already provides the possibility of the use of crosses and arrows on a long term basis – even under the title of lights”.</td>
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<td>In our view, in our read, that is clearly a free inference beyond words of article 23, point 11 (a) and (b). Inserting crosses and arrows into Annexes 1 and 3 hardly needs an explanation. First and foremost, crosses and arrows are signs. People read signs lighted by traffic lights, not traffic lights per se. They understand a green arrow pointing downward (“you can drive on this lane”) or a red cross (“this lane is closed”). The fact of a bulb behind a sign, a rotatory prism or a grouping of LED is not the point. Crosses and arrows pointing down can be used in displays other than traffic lights. Different VMS devices (e.g., full matrix ones) can act “as traffic lights” if needed. Even some VMS may display an integration of the crosses and arrows similar to the one proposed in RE.2 (see Annex X). In addition, traffic lights colors are also placed in annex 3 (signs A-17a, b, c) as road signs.</td>
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<td>“Having crosses and arrows both as signs and as lights will likely be a confusing development. If the Working Party wishes to convert crosses and arrows into a sign, it may be that they should be removed from article 23 as lights.”.</td>
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<td>We consider this a free statement without any basis. Where are the arguments explaining</td>
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and justifying this likely confusion? We have tried to give a form to our proposals avoiding too much or unnecessary noise (changes). The possibility exists of removing it from the Convention. If the crosses and arrows signs were placed in Annex 1 and 3—so, they are considered proper road signs—what is wrong with using them in traffic lights too?

9. Why cannot crosses and arrows be used as VMS if needed at any point? Clearly, crosses and arrows change over lanes; otherwise they would be fixed (posted) signs above lanes. Why should this temporary use of crosses and arrows be different to temporary functions of VMS?

10. We are puzzled by this statement altogether. We expect signs in R.E.2 to enter the 1968 Convention. This is a very important point in our work for year. Such signs are there since 2008. We proposed signs in the RE.2 because these signs are not official and are useful (and used) on VMS. We ratify the adequacy of Annex X and it was so considered in the past by WP.1. Why are such signs left apart?

Finally, we expect to be able to gather several more pictograms in the next months and present them in the WP.1 in the 67th or 68th session, if we are allowed to by the WP.1.

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<th>E. Numbering and location of pictograms</th>
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<td>11. The proposed pictograms for crosses and arrows are numbered E, 22 (a), (b) and (c), because they follow the numbers of the last pictogram proposed in Annex II of R.E.2.: E, 21.</td>
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<td>We understand now that there is some mismatch between the way we have followed this issue since our proposal formally entered the R.E.2, back in 2008, and this point of our work now with regards to WP.1 Secretariat.</td>
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12. We think there is a wrong assumption here. The origin is the issue of crosses and arrows, but the Secretariat comments shows a different, more global issue:

"The location proposed presents some further noteworthy complications. If these pictograms are to be considered signs and placed alongside other signs in the Annexes, then they will not be considered VMS. As mentioned above, then they will be intended for permanent use, unlike other VMS that are intended for temporary use".

As expressed in our document, Annex I of ECE/TRANS/WP.1/2012/1/Add.1:

"3. This definition [of VMS] is based on the following rationale. Contrary to the past, in our days the category of what we call “road sign” is not adequately represented just by fixed signs. Variable Message Signs are also road signs.”

We (Dutch, English, French, German, Italian, Spanish, Swedish, and Czech public officers) considered the possibility of making two road signs catalogues: one for fixed and the other one for variable signs, or perhaps two different Annex 3. But we discarded it as inefficient and unnecessary:

- Article 8. 1(bis) of the Convention indicates that color inversion may be used with variable message signs. Our addenda 1.ter add a further clarification for the use of road signs as variable displays.
- Road signs are defined in Annex 1 of the convention, and shown in Annex 3. The Convention already uses signs that can be used both in fixed or variable format (e.g., congestion). The simple but sufficient elements for taking reasonable decisions with respect to sign use will then be in the Convention: definitions (w), Article 8.1 (bis) and 1 (ter), and the rules in part E of our proposal.

The clear definition of specific road signs (content, function) is what road authorities need to use them well. Road signs have utilities, they can be used in posted signs, VMS, in-car or internet devices. The point is making clear the simple aspects that need to be considered for a functional use of signs within different road contexts. Our document is an effort to determine this information for VMS use.