WP.1’s VMS Unit: on the move

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*The VMS Unit* – UNECE’s WP.1 ad hoc group on VMS
INTRODUCTION

WAY FORWARD

REASONS FOR 3 AXIS

CONCLUSION

Road markings
Posted signs...

P vs. VMS: comprehension
P vs. VMS: visual
P vs. VMS: design
P vs. VMS: parameters
Full matrix
VMS transfer
P vs. VMS: harmonisation

Work Plan sketch

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INTRODUCTION – WP.1 and VMS background

UNECE WP.1 (2003-2008) and VMS Unit (2009-...)

Small Group on VMS (2007-2011)

R.E.2 & VMS

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THE PERSPECTIVE

ROAD INFORMATION: NEW DEVICES, MORE PLACES

Number of cars in the world

- 1900
- 1950
- 2000

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FRAMING THE PROBLEM:
TRENDS ON ROAD SIGNS DESIGN

FROM A WORD DEPENDENT ...

... TO A WORD INDEPENDENT ROAD SIGNING PHILOSOPHY
VMS Unit: THE PERSPECTIVE

ROAD INFORMATION: A BROADER VIEW THAT CONSOLIDATES

Making road networks safer and more efficient public spaces worldwide

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VMS Unit: THE PERSPECTIVE

ROAD INFORMATION:

CLASSICAL, AGE OF CONVENTIONS (1909-1968)
VMS Unit: THE PERSPECTIVE

ROAD INFORMATION: TELEMATIC AGE, FIRST APPLICATIONS

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New devices exist that allow for ubiquitous access to information.

CAN WE IGNORE THEM?

AT WHAT PRICE?
WAY FORWARD: STRUCTURAL AXIS

Where can we place the information?

THE 1968 CONVENTION ON ROAD SIGNS AND SIGNALS

ROAD MARKINGS

ROAD SIGNS

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WAY FORWARD: STEP 1

Where can we place the information?

RE-ESTRUCTURE THE 1968 CONVENTION ON ROAD SIGNS AND SIGNALS

ROAD MARKINGS

ROAD SIGNS

FIXED

VARIABLE

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REASONS FOR IT

FIXED AND VARIABLE SIGNS:
SAME SIGNS, DIFFERING COMPREHENSION

Warning: You approach a swing bridge

Warning: swing bridge opened

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REASONS FOR IT

NEED TO ADMINISTER DIFFERING VISUAL PARAMETERS

RESPECT “INDIVIDUAL” DIFFERENCES
REASONS FOR IT
CONTEXT, REFERENTS AND DESIGN PARAMETERS

BOTH ROAD SIGNS, BUT DIFFERING REFERENTS

Posted signs: domain of (fixed) road conditions

Electronic signs: domain of (changing) traffic situations

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WAY FORWARD: STEP 1

RE-ESTRUCTURE 1968 CONVENTION ON ROAD SIGNS AND SIGNALS

ROAD MARKINGS

ROAD SIGNS

FIXED

VARIABLE

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VMS Unit: THE PERSPECTIVE

ROAD INFORMATION: NEW DEVICES, MORE PLACES

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VMS Unit: THE PERSPECTIVE

ROAD INFORMATION: NEW DEVICES, MORE PLACES

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ROAD INFORMATION: NEW DEVICES, MORE PLACES

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ROAD INFORMATION: A CHANGING LANDSCAPE

from permanent static one-dimensional passive
to temporary Variable, ubiquitous multidimensional proactive

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# USE OF INFORMATION: WHY

<table>
<thead>
<tr>
<th>ROAD MARKINGS</th>
<th>POSTED SIGNS</th>
<th>POSTED VMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TO FACILITATE POSITION, TRACKING AND LOCATION ON THE ROAD</td>
<td>TO POINT TO DANGEROUS OR STRUCTURAL STABLE CONDITIONS OF THE ROAD ON SITE</td>
<td>TO WARN / INFORM ABOUT DIFFERENT CHANGING ROAD / TRAFFIC EVENTS ON AND OFF SITE</td>
</tr>
</tbody>
</table>
USE OF INFORMATION: **ONCOMING**

**IN-VEHICLE**

- TO WARN / INFORM ABOUT WHATEVER TRAFFIC INFORMATION, AT WHATEVER POINT OR MOMENT

**INTERNET**

- TO ACTIVELY SEEK INFORMATION ABOUT WHATEVER TRAFFIC RELATED ISSUE, AT WHATEVER PLACE OR MOMENT
WAY FORWARD: STEP 2

Where can we place the information?

FUTURE (?) 1968 CONVENTION ON ROAD SIGNS AND SIGNALS

ROAD MARKINGS

ROAD SIGNS

IN-VEHICLE SIGNS

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PRESENT: INTELLIGENT TRUCK PARKING
AVAILABLE ANYWHERE AND FOR EVERYBODY

EXAMPLE I: CHALLENGES ALREADY HERE

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NEAR FUTURE: GHOST DRIVERS

BEWARE OF THEM - ALSO IN-CAR!

EXAMPLE II: FORTHCOMING CHALLENGES

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NEAR FUTURE? PLATOONING

SOCIAL DIVISION OF LABOUR, ON ROAD

EXAMPLE III: COMING CHALLENGES

"FRONT CAR LEAVING ROW IN 2 MIN"

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REASONS FOR 3 AXIS

MAKING THE
MOST OF FULL
MATRIX VMS:

AN EASY
TRANSFER
PLATFORM OF
“CORRECT”
WP.1 DESIGN
STYLE

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REASONS FOR 3 AXIS

MAKING THE MOST OF FULL MATRIX VMS:

NEED TO HARMONISE SIGNS THEMSELVES

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HOWEVER...

THE “LEGAL PROBLEM”

THE “ERGONOMIC PROBLEM”

THE “PUBLIC-PRIVATE” PROBLEM

WHERE ARE THE (NEW) LIMITS?

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THANKS FOR YOUR ATTENTION!
(ANY QUESTION?)

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