



WG Communications Final Report and Recommendations

[Overview

- WG Communications has been working on V2X communication to increase road safety since 2005
- Key areas are standardisation, spectrum allocation and harmonisation
- Seven recommendations have been developed and approved by the 7th eSafety Forum Plenary
- A final report has been prepared and is available on the web and today as a handout
www.esafetysupport.org/wgs/communications
- The groups' work will End 2007



[Introduction

The eSafety working group Communications

- was established in autumn 2005
- reports to the eSafety forum steering group and plenary
- focuses on:
 - standardisation
 - spectrum requirements
 - international cooperation
- has members from industry, public sector, road and infrastructure operators



[Why V2X communication?



most severe accidents occur because

- drivers misjudge the speed of oncoming traffic leading to left turn accidents (UK: right turn)
- drivers misjudge situations at intersections or don't yield right of way, leading to side crashes
- urban crossing traffic can only be noticed late due to buildings/obstacles

and could be avoided by vehicle to vehicle communication or infrastructure based systems



[Why V2X communication? (2)



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co-operative traffic using V2X communication
(including free to air traffic information broadcasts)

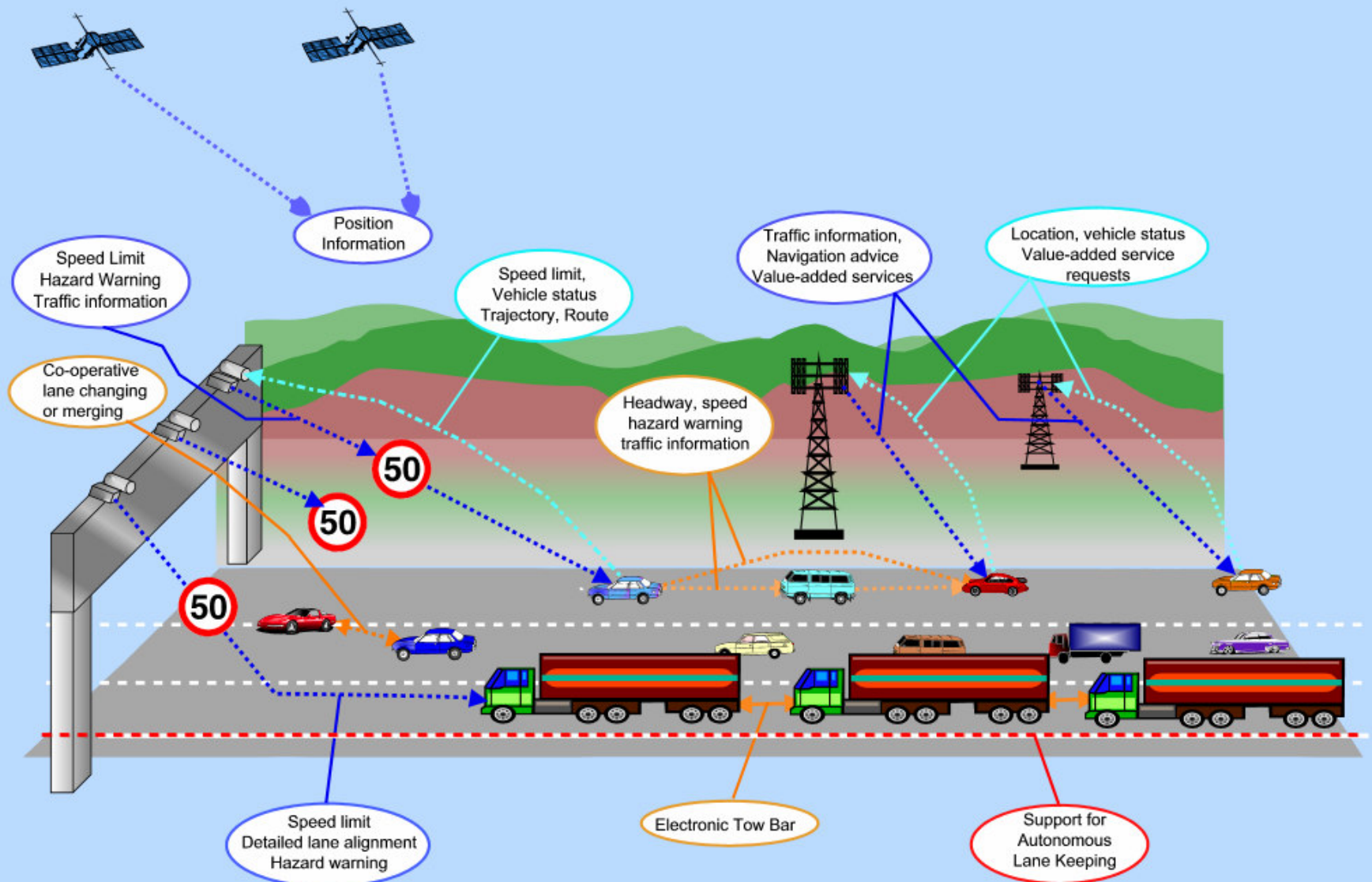
increases road capacity

- saves fuel
- saves time
- reduces emissions
- increases revenue of road operators

reduces the likelihood of congestions and accidents

- thereby reducing maintenance costs of road infrastructure





source: Neil Hoose



[Focus of Work

WG-C works in close co-operation with COMeSafety and other EU projects (CVIS, COOPERS, Safespot)

spectrum issues will be addressed by a report as response to a mandate given by the RSC to CEPT and an ECC decision; results are incorporated in the WG-C work

standardisation bases mainly on IEEE802.11p and the CALM set of standards, TF members of ISO and ETSI are members of WG-C

international aspects are promoted by personal contacts and information exchange



[Achievements (1)

WG-C provides a platform to reach consensus for the different groups working on V2X

Most progress has been made regarding spectrum needs for V2X communication

- ECC decision End 2007
- CEPT/ECC mandate report due End 2007

bandwidth justification, impact assessment:

30-50MHz for ITS in the 5.9GHz band (which is assigned in the US and JP in similar bands for ITS)



[Achievements (2)

- during the work of WG-C a more common view on communication systems needs for V2X for road safety has been reached
- a COMeSafety led task force to define a common architecture for ITS communication has been founded last year
- recommendations and a final report have been produced and agreed on



[Recommendations (1)

- an allocation of protected spectrum in the range of 5.875GHz to 5.925GHz for safety and efficiency related messages between vehicles, other vehicles and/or infrastructure units so that communication can be maintained without delay or interference, including 20MHz for safety critical messages
- each vehicle or infrastructure device offering safety and efficiency applications must perform within a minimum set of mandatory parameters so that communication can be maintained with minimal delay or interference

[Recommendations (2)

- an EU wide harmonised deployment plan, including infrastructure and vehicle systems, to ensure market development by providing certainty for investment through a sustainable and feasible business model
- standardised interfaces for all system components are recommended to allow future functions or commercial applications offering additional revenue streams to leverage system investments
- a legal framework for seamless exchange of traffic relevant data in and between MS in an unified way in line with privacy and data protection regulations



[Recommendations (3)

- a recommendation to the MS to provide safety relevant traffic data in a standard format free of charge to all road users (in the spirit of COMMISSION RECOMMENDATION 2001/551/EC)
- a recommendation to the MS to support the development and adopt common European ITS architecture elements to allow for interoperability in ITS (systems, communication, data, services and functions/applications)

[Conclusions

The WG would like to ask the eSafety Forum

- to support our recommendations towards the EC, member states, public and private stakeholders of eSafety
- to foster international cooperation so that international harmonisation can be reached
- to support the implementation of the ECC decision on ITS spectrum in the member states according to the WGs Final Report
- to ask standardisation organisations to continue their work on common standards according to the WGs Final Report



[Conclusions



Thank you for your attention

and many thanks to all the people and organisations who contributed to the WG work!

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