Using C-ITS & Digital Maps To Improve Road Safety

International Road Safety Conference Bucharest, 20 March 2019

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European Transport Safety Council

OUTLINE

Innovation and Digitalisation in Road Safety



Digital Maps



Cooperative ITS (C-ITS)



Intelligent Speed Assistance (ISA)

GENERAL SAFETY REGULATION

- Type-approval system before vehicle go on the road
- Exclusive competence of the EU
- Significantly improved vehicle safety and road safety
 International recognition
- Protection of occupants and vulnerable road users

Proposed Revision

- 17 Measures to improve vehicle safety
- Focus on 'advanced driver assist systems'
 - e.g. ISA, AEBS, Emergency Lane Keep Assist

EUROPEAN COMMISSION	Brussels, 17.5.2018 COM(2018) 286 final 2018/0145 (COD)	
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INTELLIGENT SPEED ASSISTANCE (ISA)



- Speed is a primary contributory factor in 1/3 of fatal collisions
- ISA actively helps the driver to keep to the speed limit
 - Overridable
- 20% reduction in road deaths, 30% reduction of collisions



With ISA, top speeds are curtailed. So:

- AEB will have more opportunity to prevent crashes
- When there are crashes, occupant protection systems will have a greater chance of preventing harm

INTELLIGENT SPEED ASSISTANCE (ISA)

How does the system know the speed limit?

Through:

- Speed sign recognition and/or
- Digital maps and/or
- Cooperative-ITS





Important that maps are up-to-date









Important that maps are up-to-date



- Fostering the exchange of related road data between the source, Member States' road authorities, and the data users, such as map makers and other parties
- Static map data such as speed limits









TN-ITS GO





1 MILLION

- Maintainance of TN-ITS Standard CFANTS F3268
- Expand TN-TS Service to 9 new EDEMemberStates
- Extend the TN-ITS Service in the 6 existing EU Member States
- Implementing a feedback loop
- Implementation Guidelines

INTELLIGENT SPEED ASSISTANCE (ISA)

How does the system know the speed limit?

Through:

- Speed sign recognition and/or
- Digital maps and/or
- Cooperative-ITS





Connectivity between:

- Vehicles
- Infrastructure
- Pedestrians
- Bicycles
- Everything



- Dynamic In-vehicle Speed Limits
- Weather conditions
- Emergency Electronic Braking Light
- Road works warning
- Intersection safety





C-ITS Platform concluded that C-ITS is capable of contributing substantially to road safety.

Specific safety enhancing services such as:

- In-vehicle speed limits
- Hazardous location warning
- Intersection safety

are expected to reduce fatalities as well as serious and minor injuries with 7%.



EUROPEAN COMMISSION		
Brussels, 13.3.2019 C(2019) 1789 final		
COMMISSION DELEGATED REGULATION (EU)/		
of 13.3.2019		
supplementing Directive 2010/40/EU of the European Parliament and of the Council with regard to the deployment and operational use of cooperative intelligent transport systems		
(Text with EEA relevance)		
{SEC(2019) 100 final} - {SWD(2019) 95 final} - {SWD(2019) 96 final}		
		Fle
EN	EN	

13 March 2019 Commission Delegated Regulation establishing specifications.

31 Priority Services

Vehicle to Vehicle

Infrastructure to Vehicle

Traffic Jam Warning Stationary Vehicle Warning Emergency Vehicle Warning ectronic Emergency Brake Light Adverse Weather Conditions Dynamic Speed Limit Information In-Vehicle Signage Hazardous Location Notifications Road Works Warnings (Signalised Intersections)



- Mandate safety enhancing C-ITS services
 - Day 1 Services:
 - In-vehicle speed limits, including dynamic speed limits
 - Emergency electronic braking light
 - Road works warning
 - Weather conditions, linked to dynamic in-vehicle speed limits
 - Intersection safety
 - Day 1.5 Services:
 - Vulnerable road user protection

Retrofitting older vehicles

E T S C

BRIEFING

Cooperative Intelligent Transport Systems (C-ITS) November 2017

CONCLUSION



Both digital maps and C-ITS will contribute – directly and indirectly – to improving road safety.

Therefore important that the necessary infrastructure is deployed all across Europe.

Moreover, they will pave the way for connected and automated mobility.



Mulțumesc!



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BRIEFING

Cooperative Intelligent Transport Systems (C-ITS)

November 2017

THANK YOU!

The following icons from the Noun Project have been used in this presentation:

- Camera by Ishanda
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- Map by Tinashe Mugayi [Edited]