



CEN TC 226 WG 12

Road interaction – ADAS / Autonomous vehicles (Automated vehicles)

Gérard SEGARRA TC 226 / WG12 Convenor

CEN TC 226: ROAD EQUIPMENT (Road equipment suppliers)

WG1: Road restraint systems,

WG2: Road horizontal marking,

WG3: Fixed, Vertical road traffic signs,

WG4: Traffic control equipment (traffic lights),

WG5: Street lighting,

WG6: Road traffic noise reducing devices,

WG7: Antiglare systems for road,

WG9: Clockwork parking meters & automatic car park ticket,

WG10: Passive safety of support structure,

WG11: Road Vertical Signs (VMS),

WG12: Road interaction – ADAS ~~Autonomous~~ Vehicles

Automated

WG12 GENERAL OBJECTIVES

- ❑ TC 226 members to fully understand the possible interactions between road equipment and automated vehicles (SAE level 1 to 5).
- ❑ Insure consistency between road infrastructure and vehicles standards enabling safe and interoperable ITS.
- ❑ **Not specifying directly standards (only TRs / Guides).**
- ❑ Appropriately inform TC 226 WGs about necessary standard evolutions preparing the introduction of automated vehicles in an hybrid vehicles' environment.

- ❑ This has to be achieved in strong cooperation with the vehicles industry and road management / operation.
- ❑ Focus on short term deployment (3 to 5 years) and on standards judged necessary for such deployment.

WG12 ORGANIZATION (4 Task Groups)

AUGMENTED PERCEPTION

STRATEGIC SURVEY

PRIORITY APPLICATIONS USE CASES

INFRASTRUCTURE DIGITAL TWIN

TG1

TG2

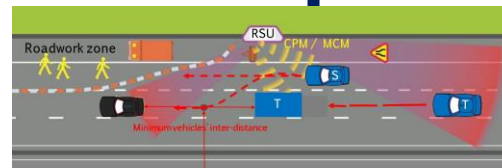
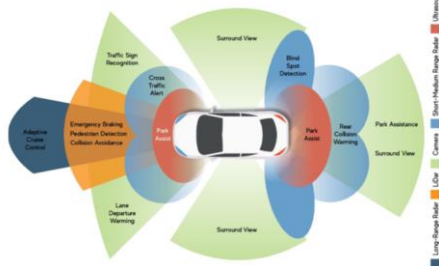
TG3

TG4

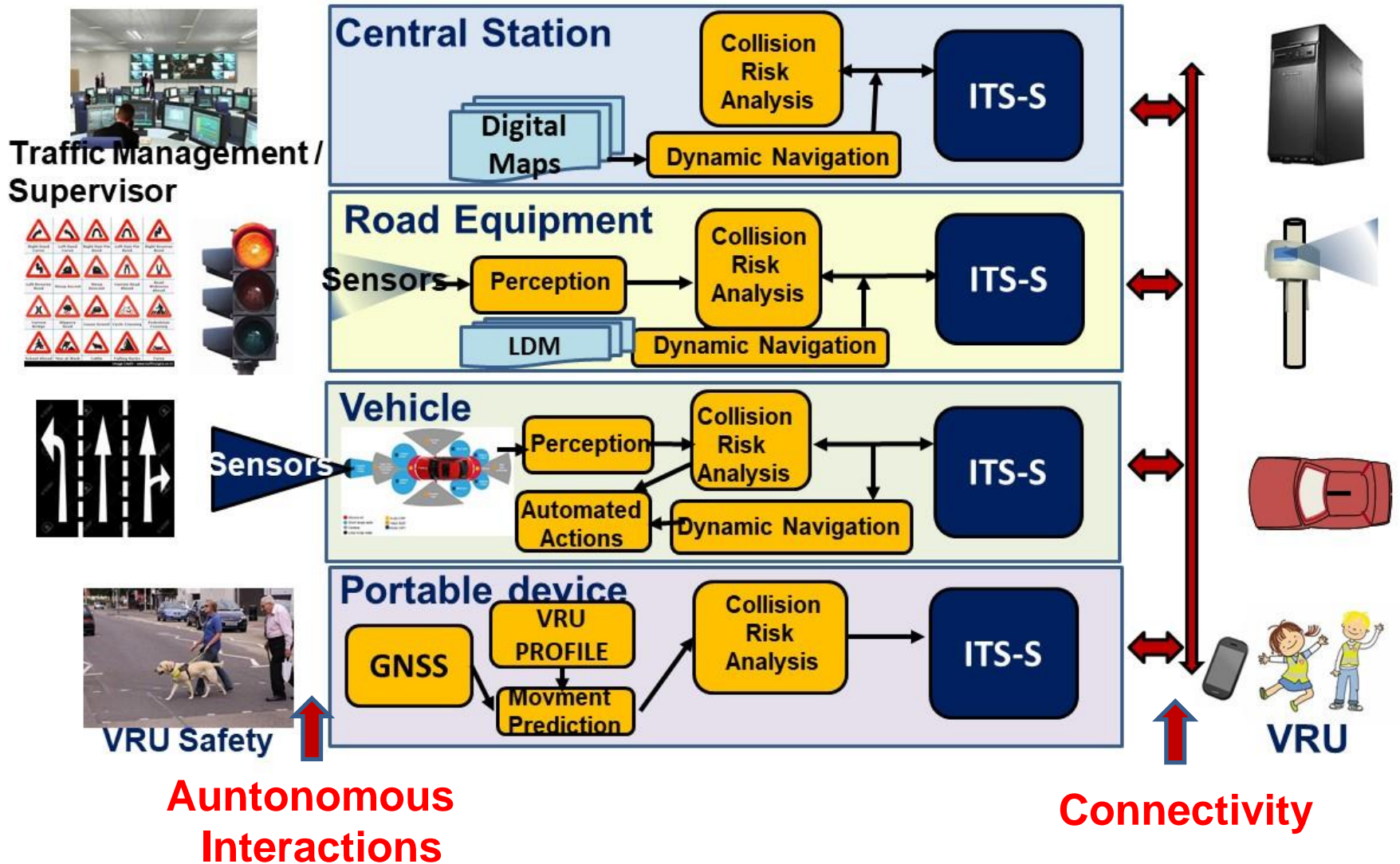
WG12

PWI

TR00226260



WG12 ITS ARCHITECTURE OVERVIEW



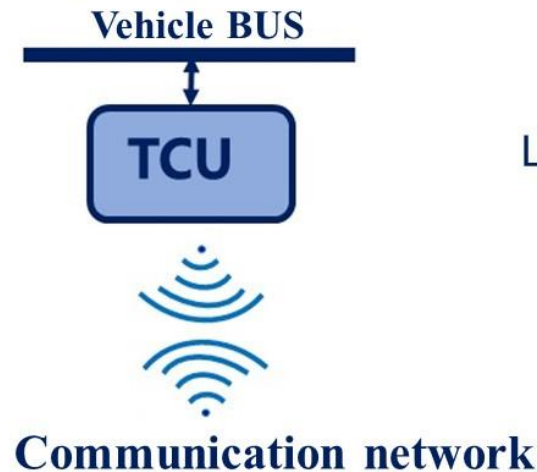
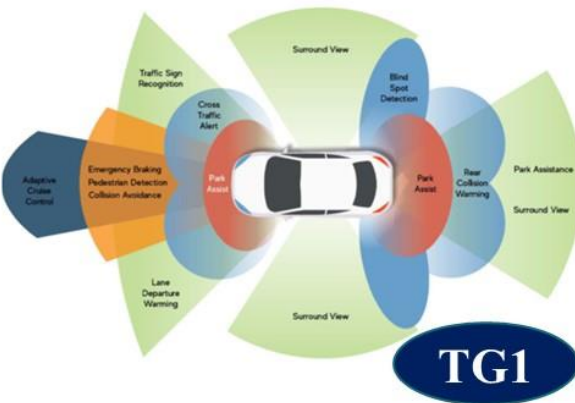
WG12 INTERACTIONS MODEL

Redundant system (consistency issue)

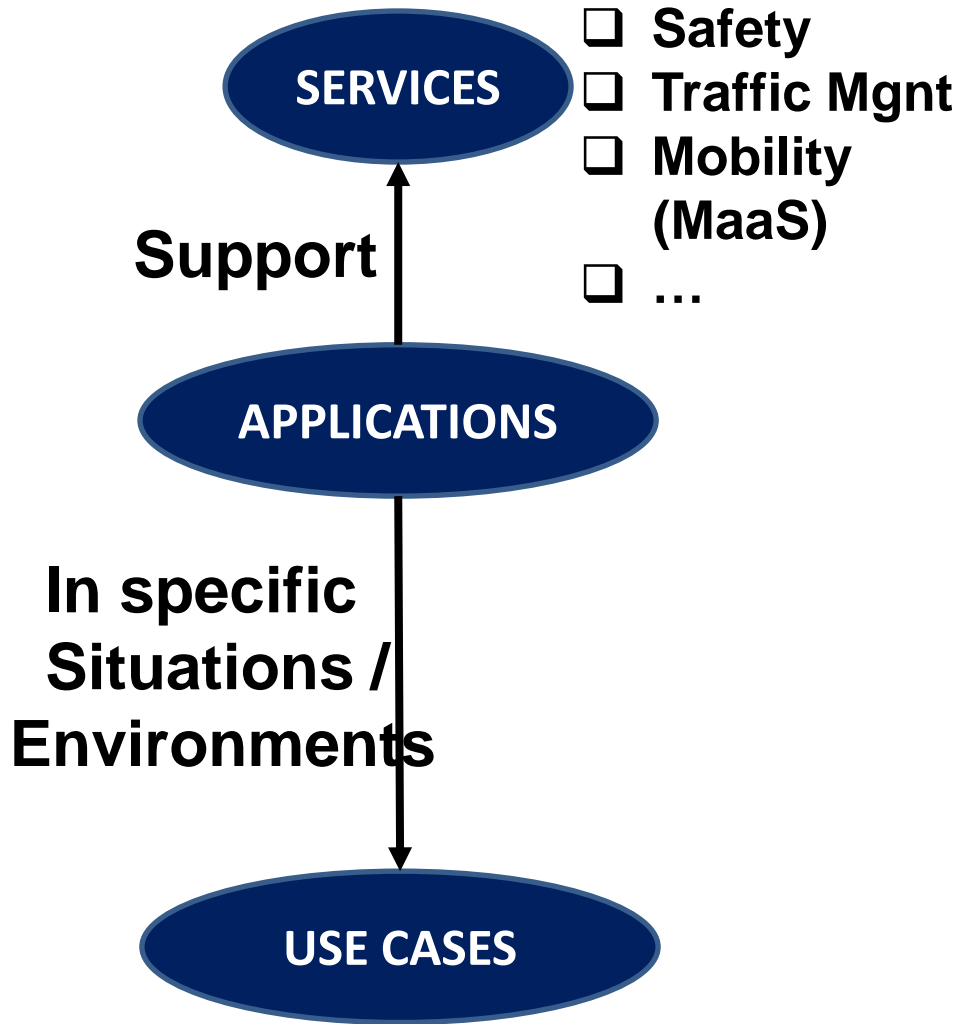
Autonomous Interactions:
(Sensors + ADAS)

Cooperative interactions:
(Connectivity)

Model based Interactions:
(Digital map)



WG12 APPROACH & MAIN QUESTIONS



DISTRIBUTION OF:

- Processing Intelligence
- Data

For example:



WG12 PRIORITIES (Applications / Use cases) – from TR 00226260

Applications / Use cases:

- Contextual, dedicated corridors Mgnt
- Road infrastructure support to VRUs safety
- Parking management
- Approaching a tolling barrier**
- Accurate road map (digital twin)
- Dynamic navigation
- Intersection crossing assist
- Platooning**

- All environments
- Urban & Inter-urban environments
- Highway environment**

HIGHWAY



URBAN



INTER-URBAN



STANDARDIZATION PRIORITIES

**Related to identified priority applications /
Use Cases short-term deployment**

- Use of existing standards (CEN, ISO, ETSI),**
- Overlapping of existing standards (for choice, harmonization),**
- Analysis / Contributions to developing new standards**
- Needs of new standards.**

Via the development of relevant TRs