



Creating Safety through Intelligent Cooperative Systems

Safe Highways of the Future Conference
Brussels, 12 February 2008



Outline

- Introduction to CVIS
- What problems are we solving?
- CVIS technical platform
- CVIS applications
- Cooperative safety impacts

CVIS in Brief

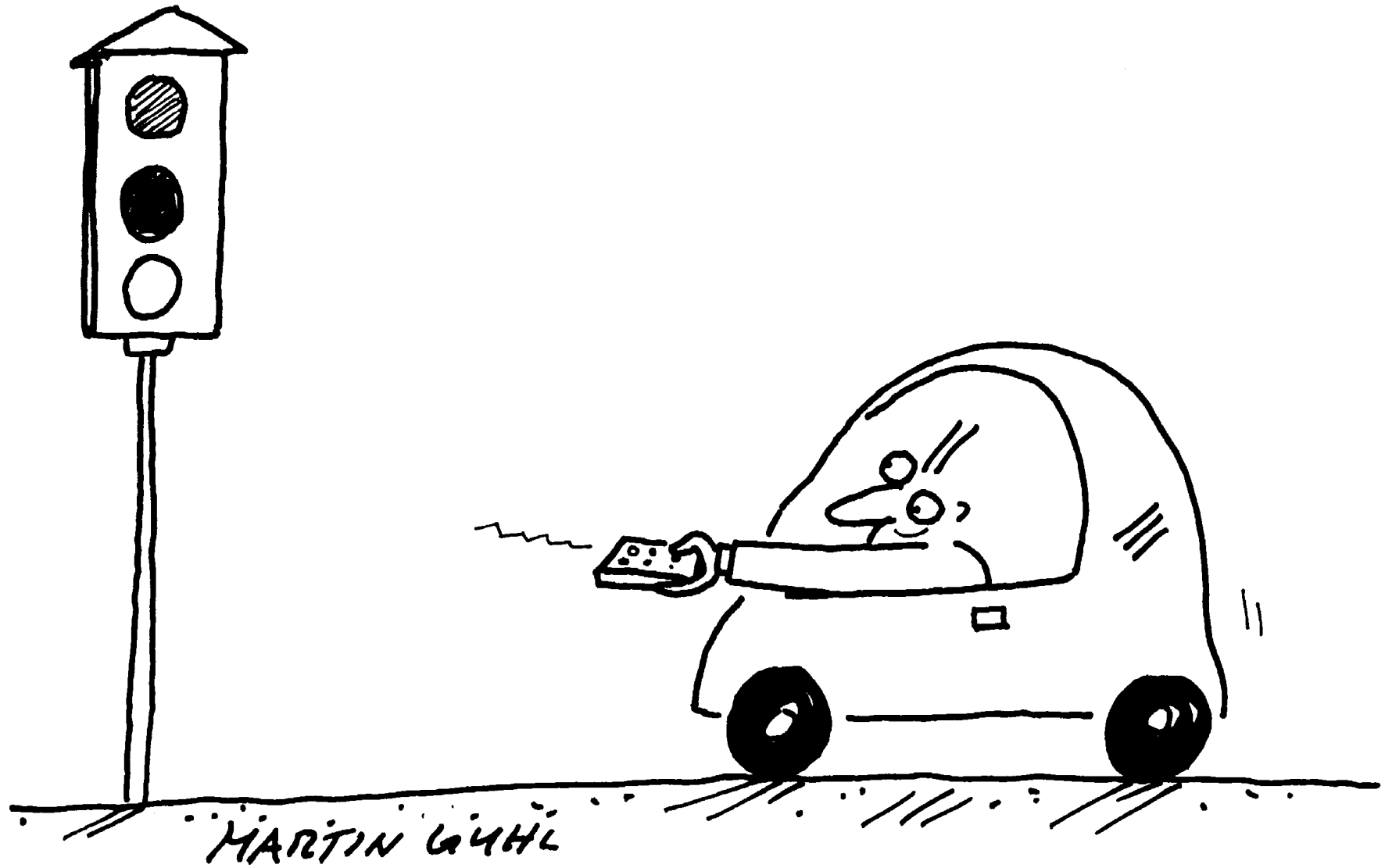
- Coordinator:
ERTICO
- Duration:
to 31 Jan 10
- Total budget:
€ 41 Million
- EC contribution:
€ 22 Million
- Consortium:
61 partners
12 countries



CVIS Vision

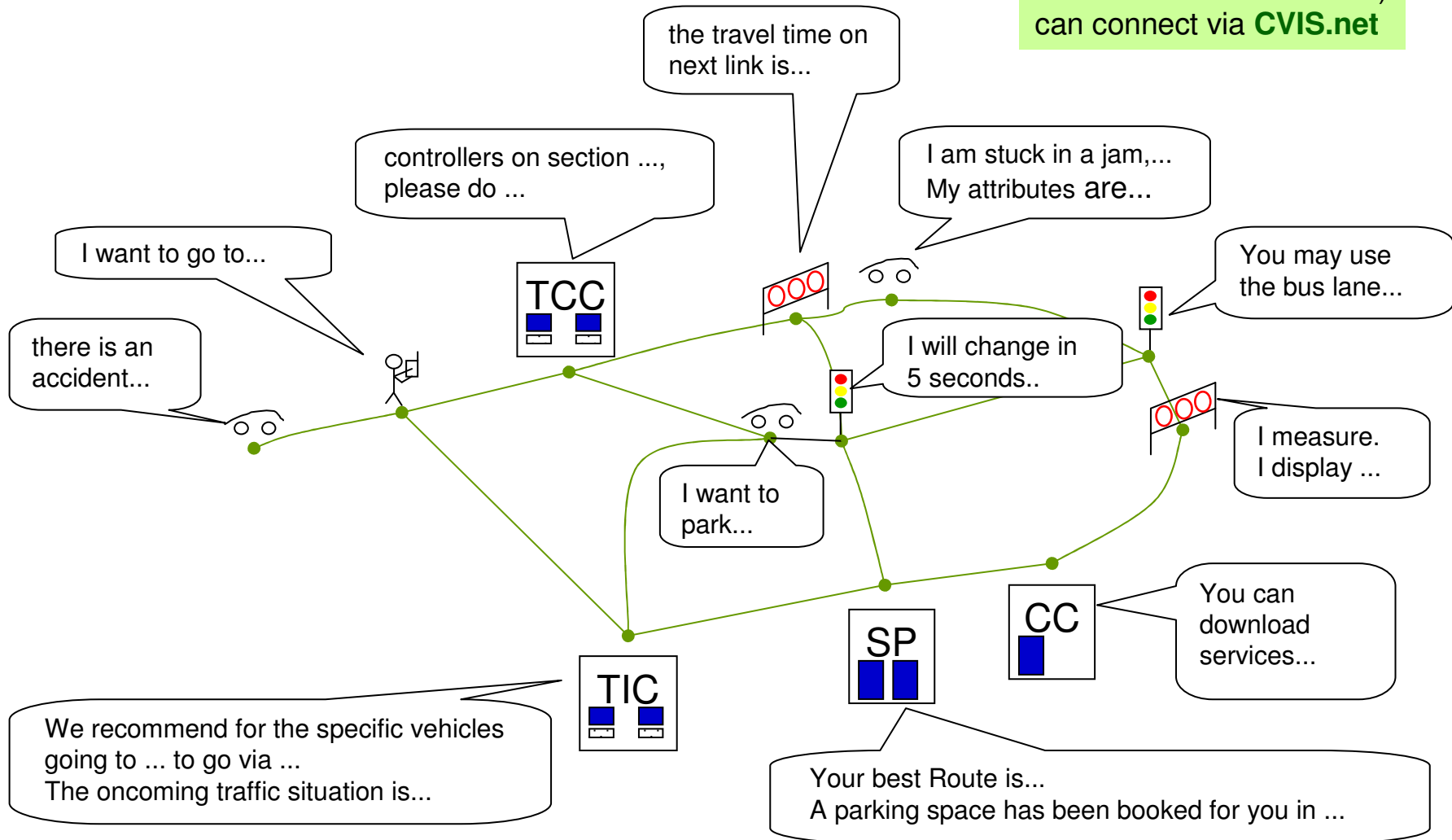
“Create a **wireless network** between vehicles & infrastructure”

“Increase efficiency & safety through **vehicle-infrastructure cooperation**”



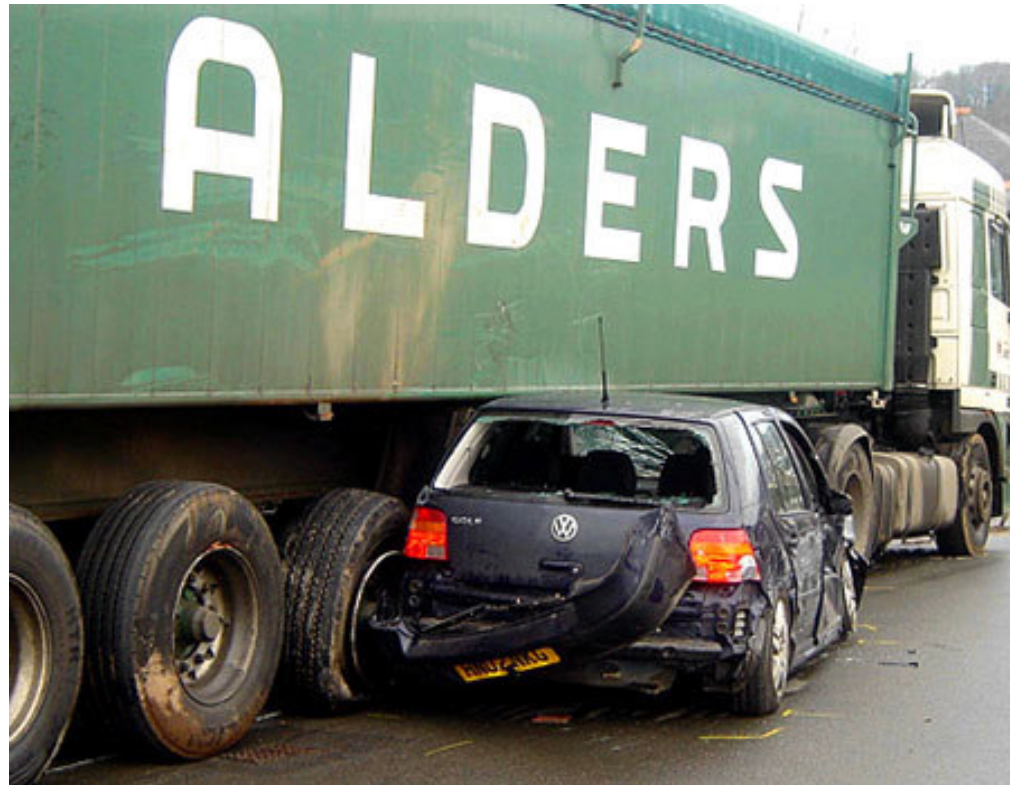
CVIS concept

Any clients (e.g. vehicles, infrastructure and centres) can connect via **CVIS.net**



What problems are we solving?

Wrong-way driver



Red-light violation



Motorway pile-up

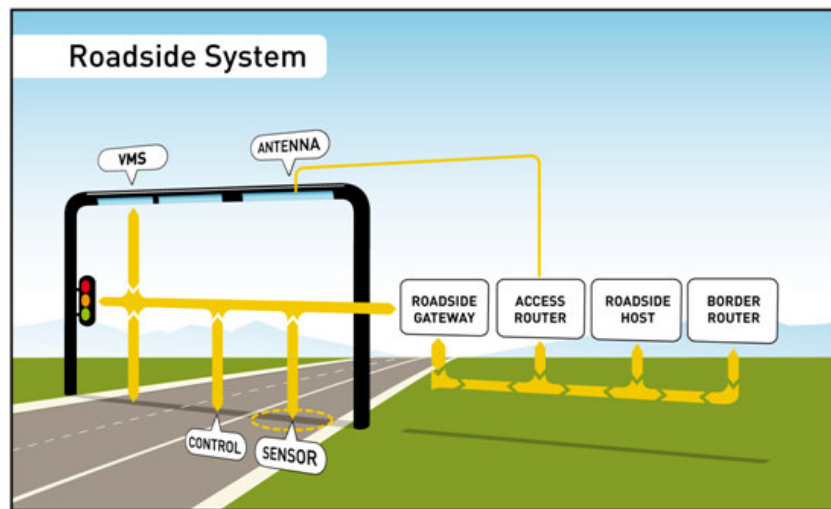
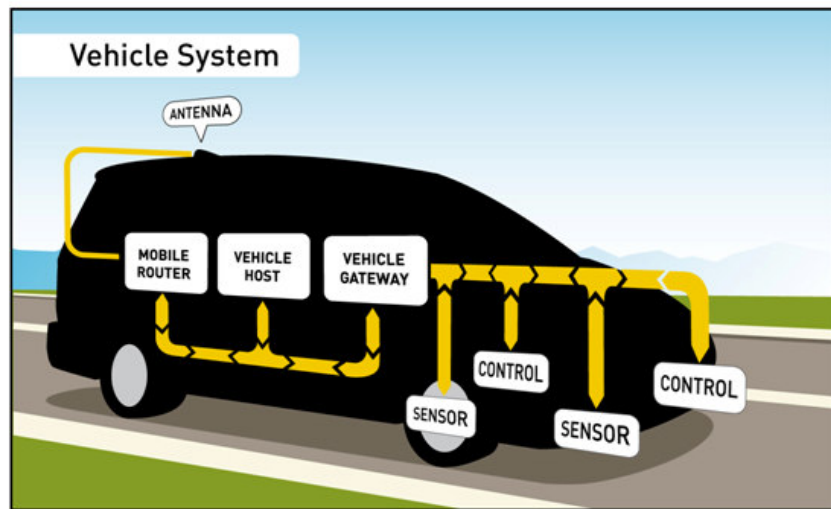
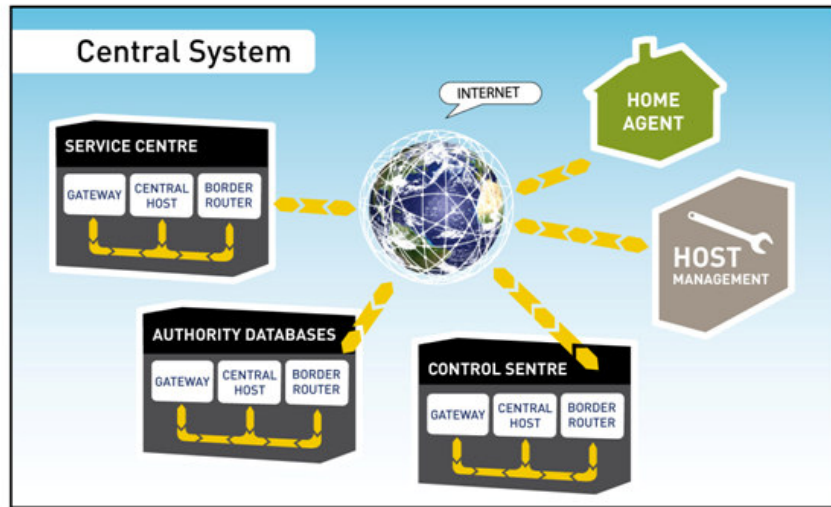
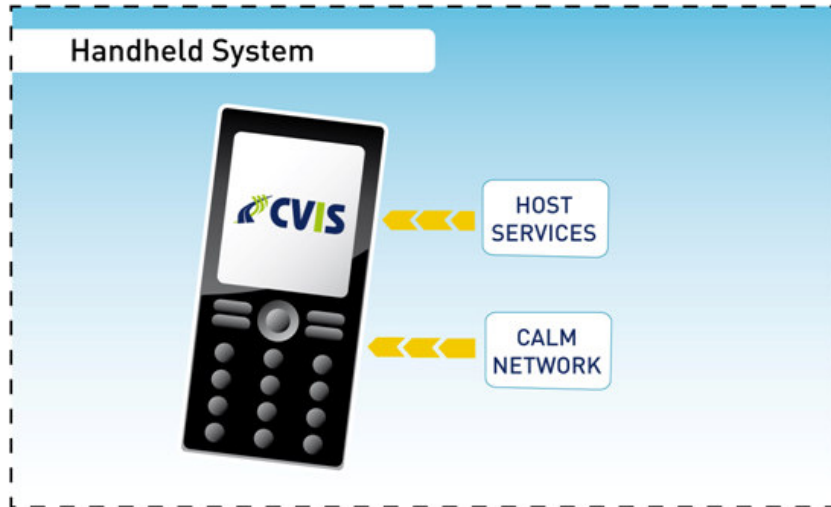


Dangerous road conditions

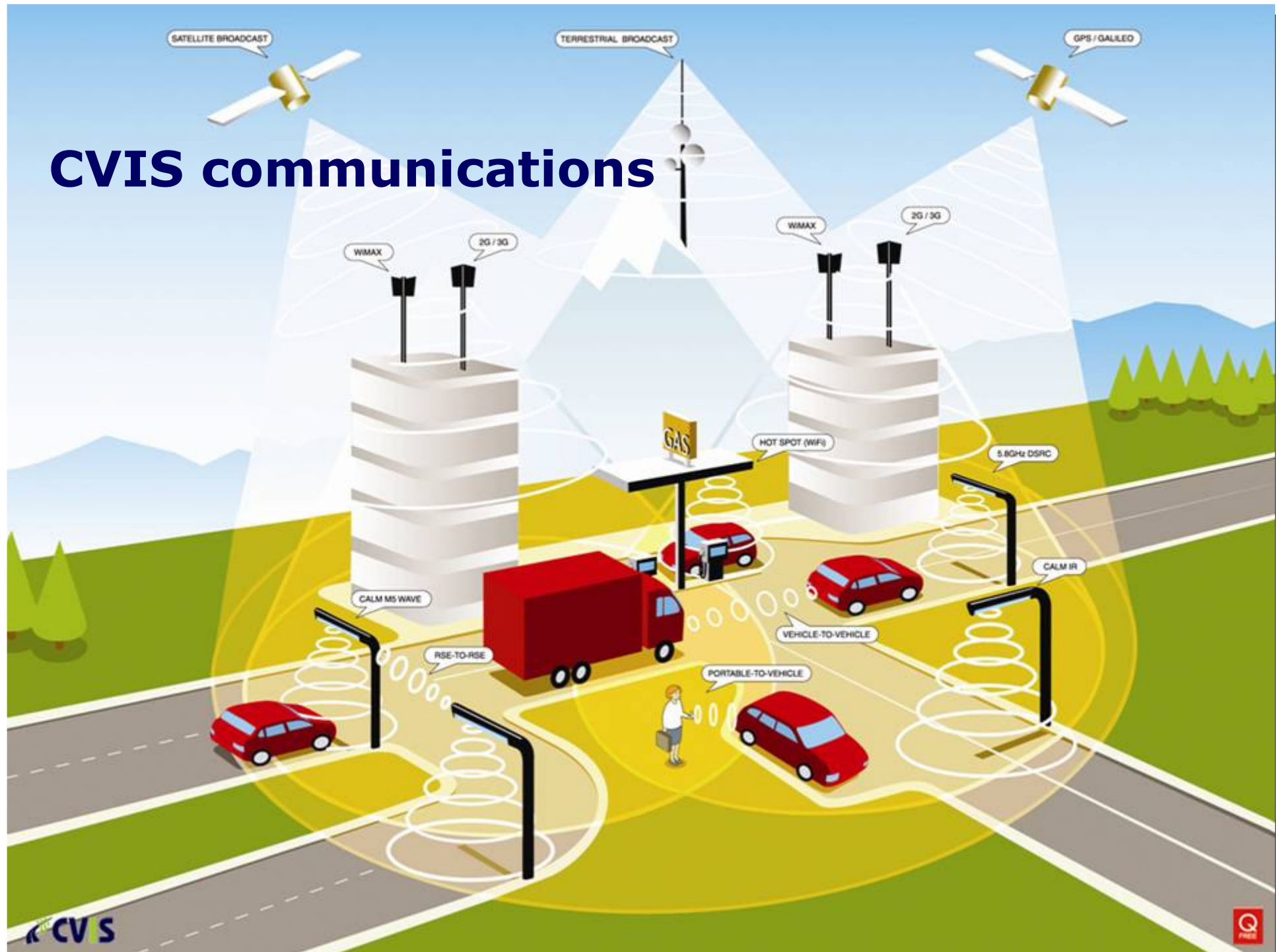


CVIS Technical Platform

CVIS elements



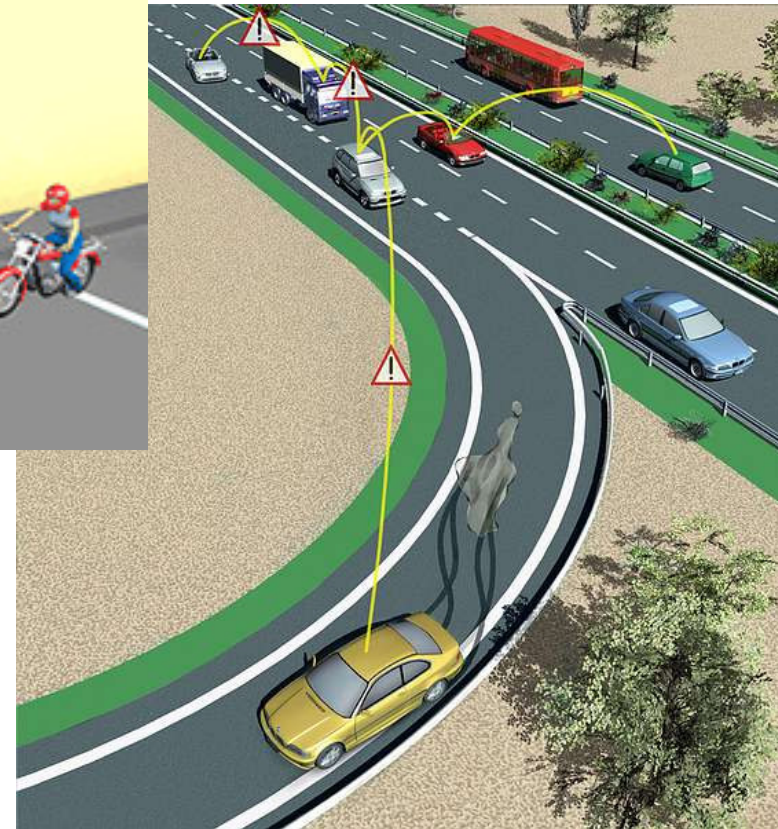
CVIS communications



A universal platform for cooperative safety systems?



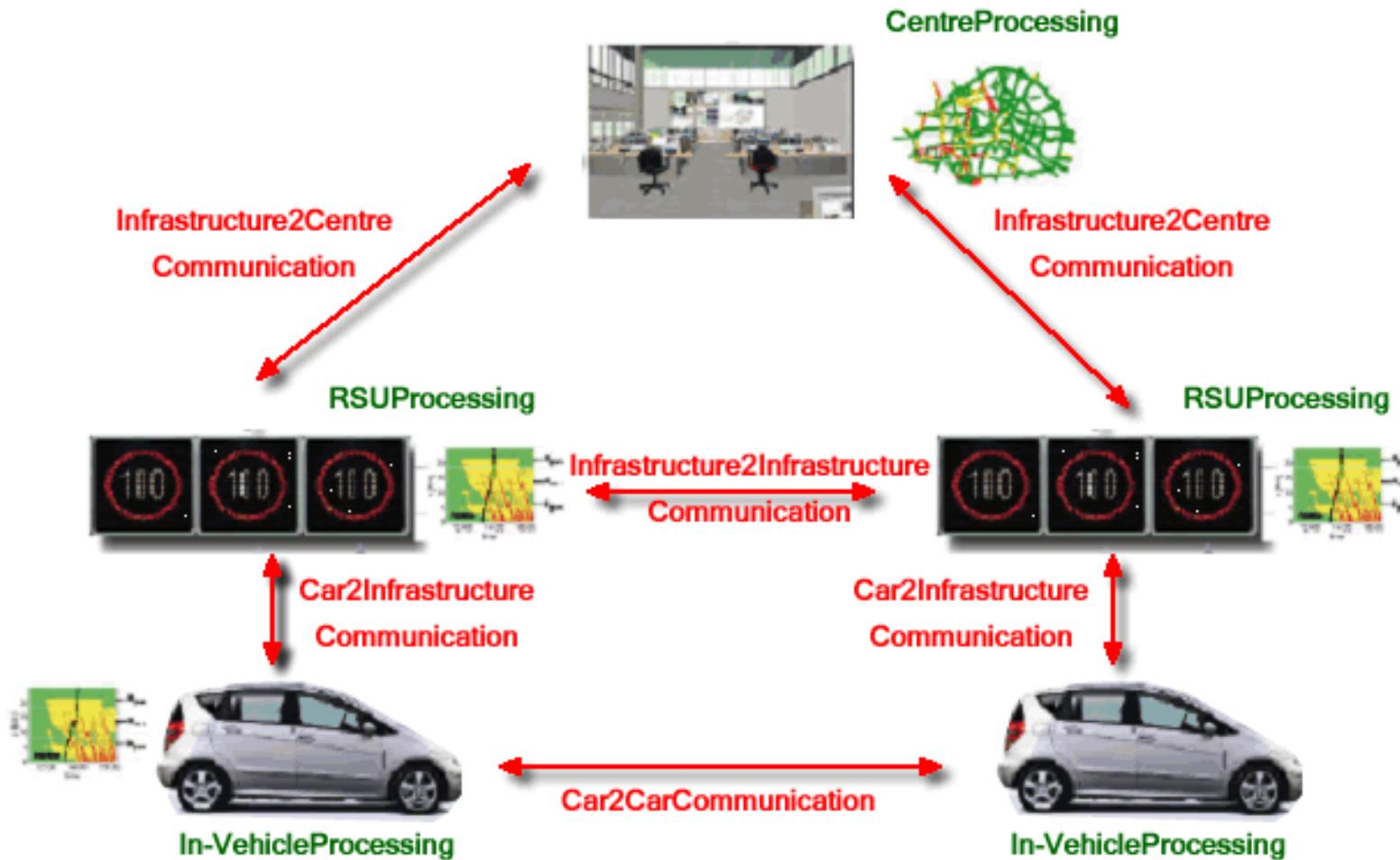
WATCH-OVER Project



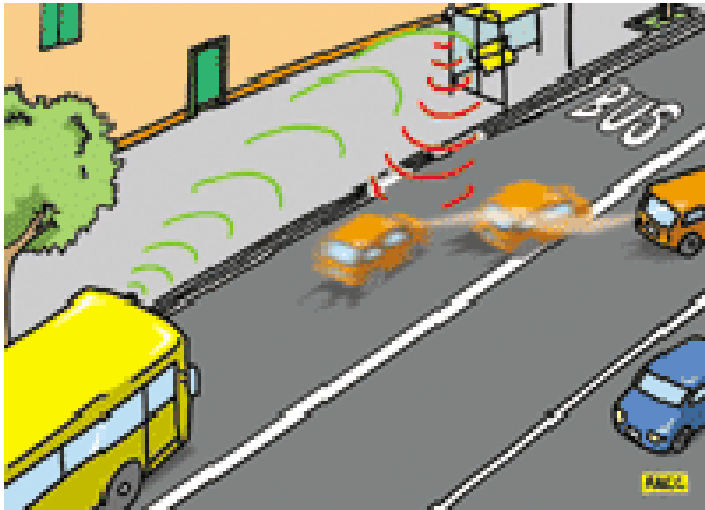
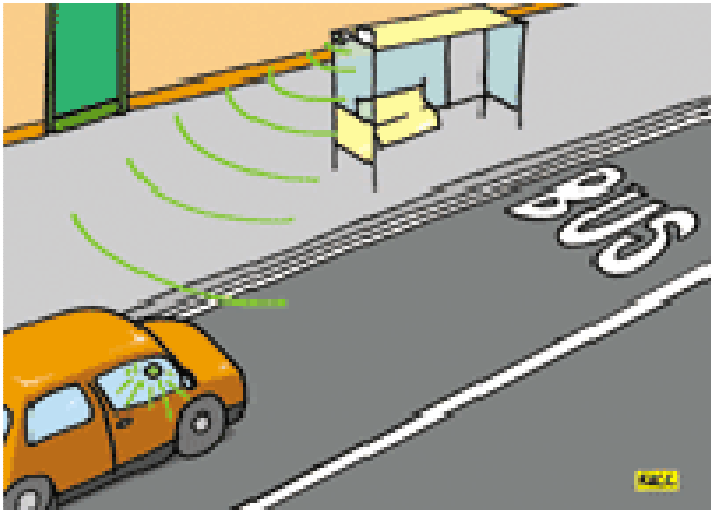
Car-to-Car Communication Consortium

CVIS Applications

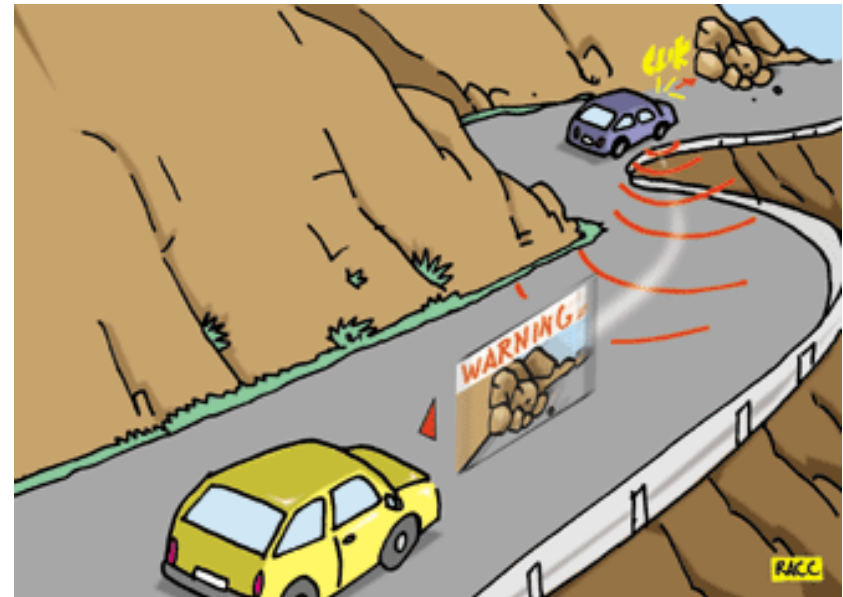
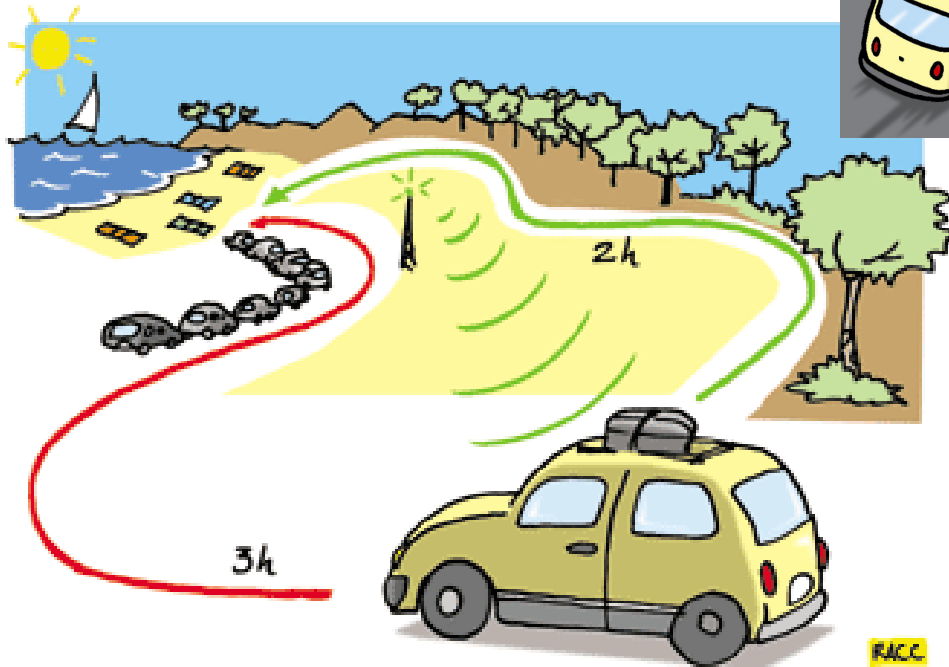
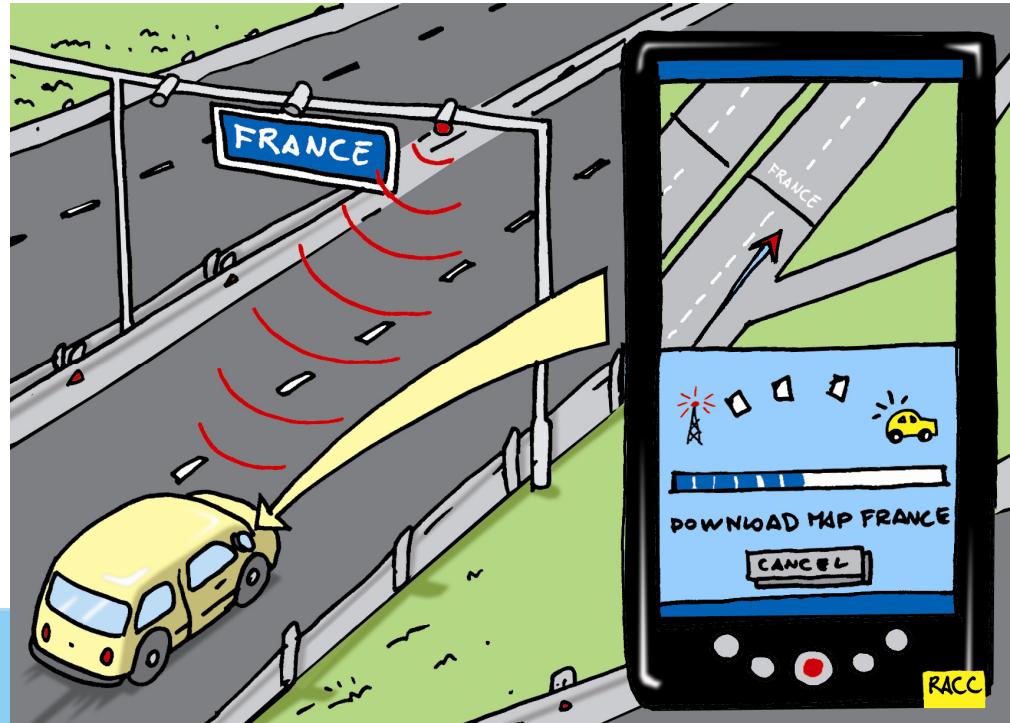
Cooperative monitoring



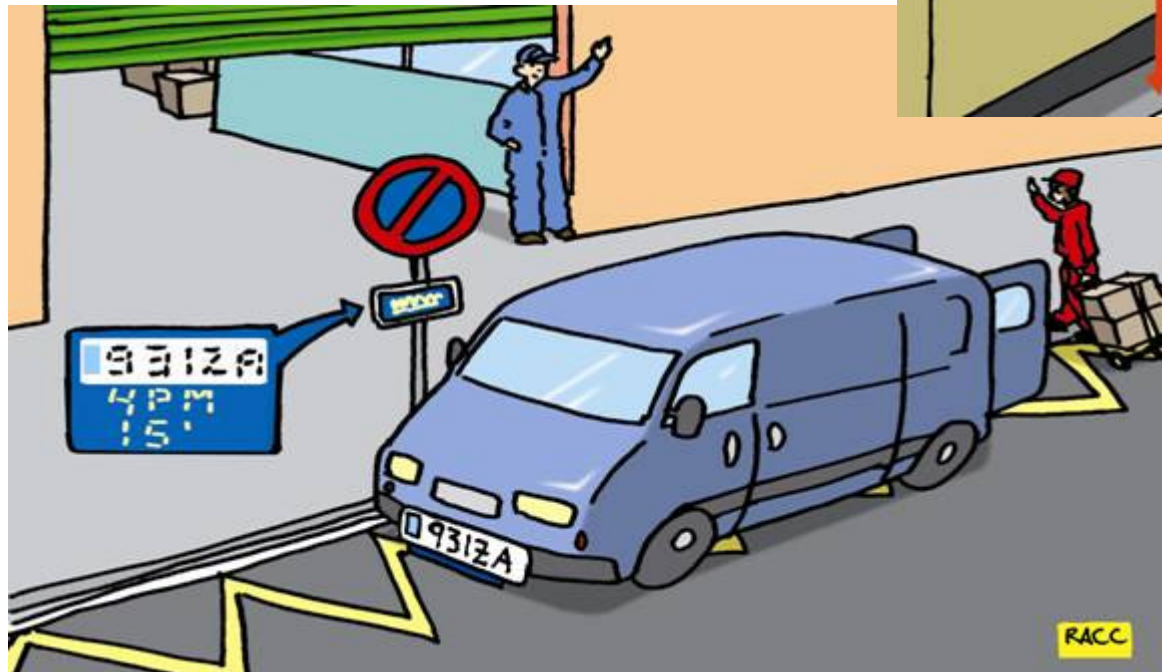
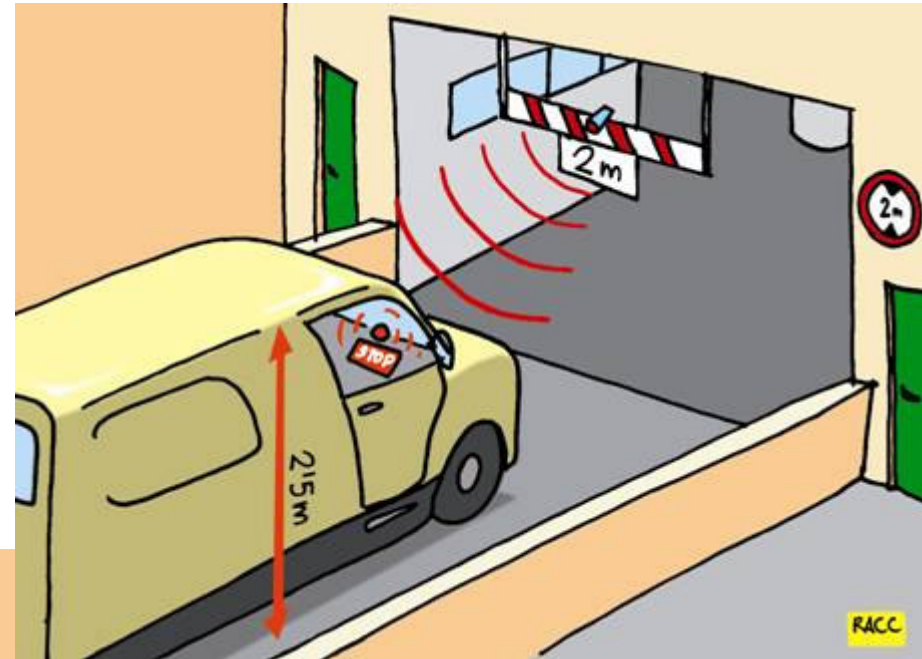
Urban applications



Interurban applications



Fleet & freight



Cooperative Safety Impacts

How does CVIS address safety?

- Detect hazards – over whole network, in real time
- Incident detection & response by operators
- Immediate alert to nearby drivers...advance alert to approaching cars
- Incident management by cooperative traffic control – re-routing advice, priority for emergency vehicles
- Wrong-way driver alert & management
- Cooperative speed management – smoother traffic flow, fewer stops, vehicle clusters
- Hazardous goods vehicle management

Cooperative safety features

- Safety messages directly into the car
- Immediate sharing of hazard info
- Individualised advice to specific drivers
- Road network (and individual vehicles?) under surveillance
- Better speed management
- Enables next-generation (online) network management
- Potential for vulnerable user protection

Value for highway authorities

- Extensive & high quality network & traffic monitoring at lower cost
- Incident detection and management
- Direct communication with drivers – broadcast or one-to-one
- Toolkit for real-time traffic flow management
- Shared public+commercial business case

Thank you...

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