



Cooperative traffic management & information services

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VISION

Vehicles fully networked
with road infrastructure



Accident warning

Speed profile

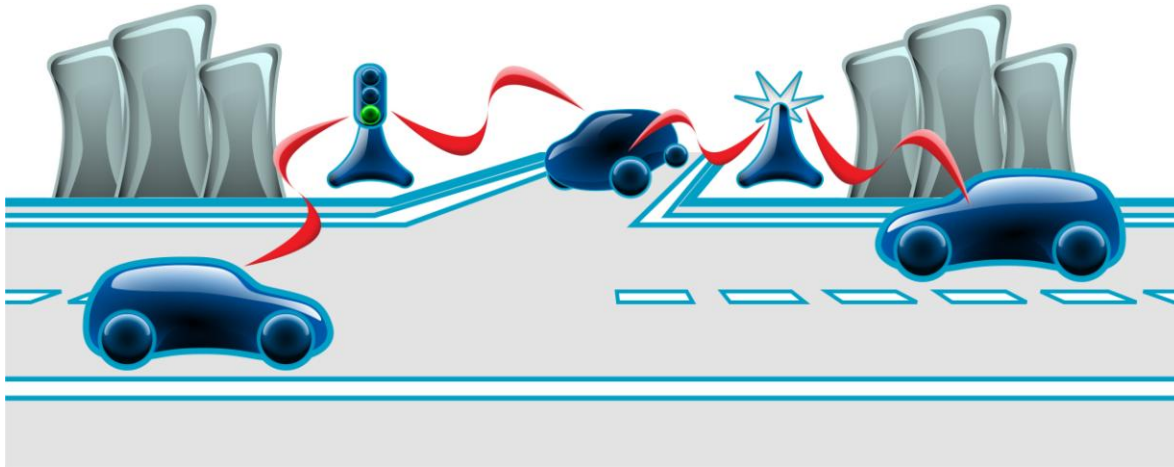
TWO POSSIBLE DEPLOYMENT SCENARIOS

- **Safety-critical applications:**
 - cooperative manouvering, automatic braking, ...
 - required: total reliability, very low latency, V2V communication
- **Real-time information and navigation:**
an evolution of applications already available today BUT
 - greater reliability
 - available ANYTIME and EVERYWHERE
 - alternative communication channels

ALWAYS CONNECTED

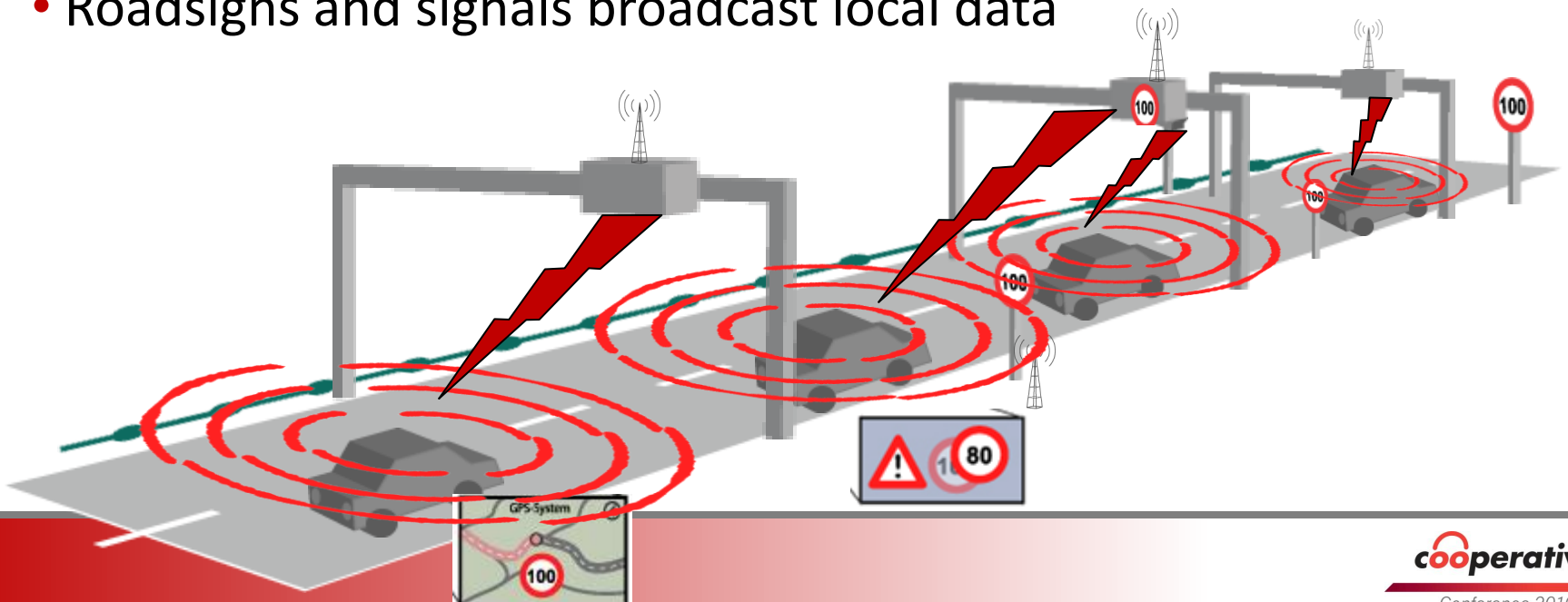
- Basis: cellular networks (3G, 4G, ...)
- Complemented by: short range communications for critical spots

WHY? To guarantee continuity and coverage



MUTUAL BEACONING

- Step-by-step approach to infrastructure upgrade enhancing existing investment for road operators
 - Vehicles broadcast own data (anonymously)
 - Roadsigns and signals broadcast local data



FOR THE FINAL USER

- Personal device: a key element when in-vehicle
- Short-range communications: part of the vehicle
- “Application store” architecture approach



INTEGRATED IN THE VEHICLE

- Applications can run on personal device
- Driver interaction through in-vehicle commands



VEHICLE AS SENSOR

- Data is provided by the vehicle
- Traditional sensors less essential

Benefits:

- Information more precise
- Alerts given only when needed
- Lower operational costs



NEW GENERATION OF TRAFFIC MANAGEMENT

- Expected impacts are encouraging:
26% energy saving, -8% fatalities, -27% emissions (smart logistics),
congestion costs reduced (now 2% EU GDP)
(Source: eSafety Forum, Working Group)
- Reduced costs for operators in long term
- Technologies and technical solutions are here already!

Safety Area

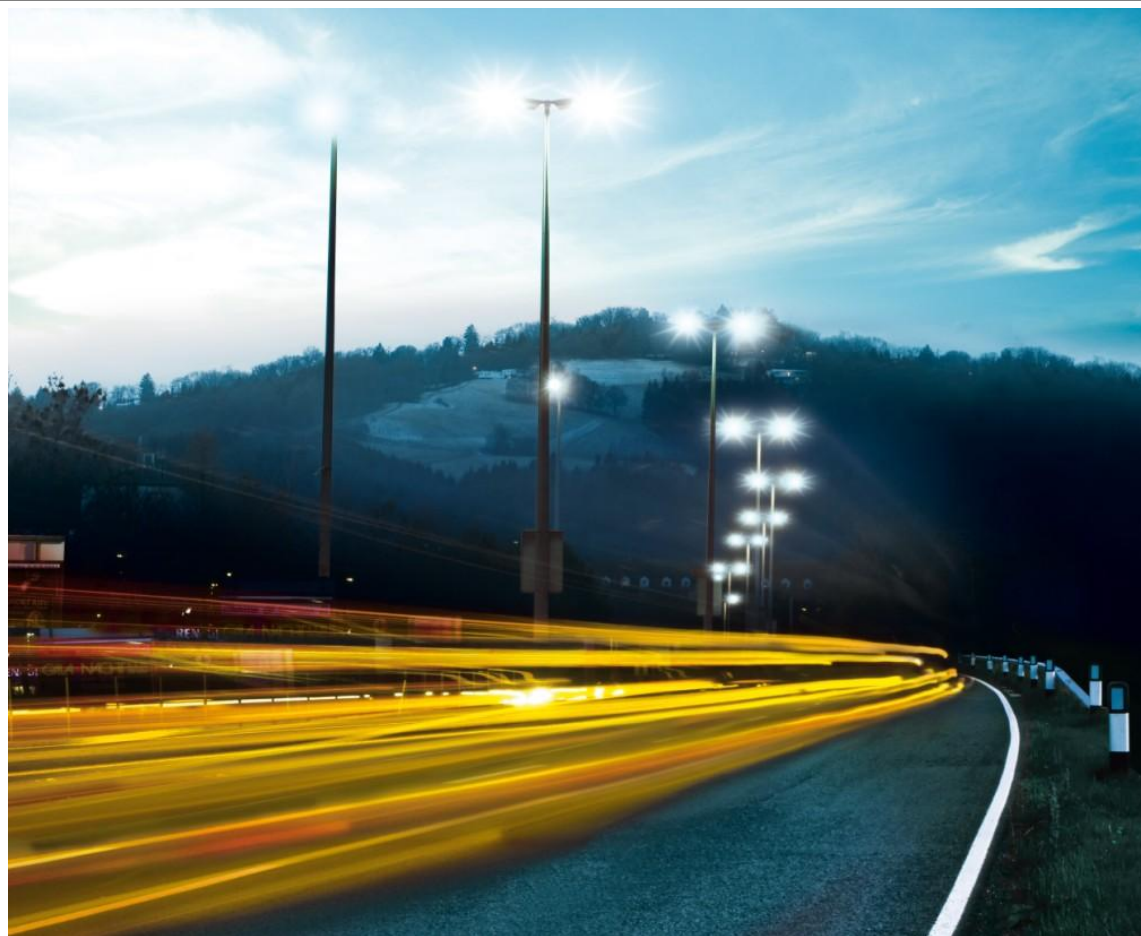
Cooperative Mobility Showcase



EXPLOIT EXISTING INFRASTRUCTURE

Existing roadside equipment will play a crucial role in smooth deployment of cooperative systems, e.g.

- Street lighting
- Road barriers
-



NOT A GAME FOR SINGLE ACTORS!

- Data sharing is the first step
 - each single actor is independent (beaconing)
- Final aim: deliver applications to final users
Requires cooperation among players:
road operators, vehicle manufacturers, system suppliers,
telecom operators, service providers
- ALLIANCE of key players needed
to kick-off deployment

The logo for 'cooperative' features the word in a bold, lowercase sans-serif font. The 'oo' is highlighted in red, with a red arch above it that resembles a stylized 'c' or a signal icon.

cooperative

The text 'Conference 2010' is centered between two thick, red, double-headed arrows that point towards each other, creating a frame for the text.

Conference 2010

mobility