



Do cooperative systems meet users' needs

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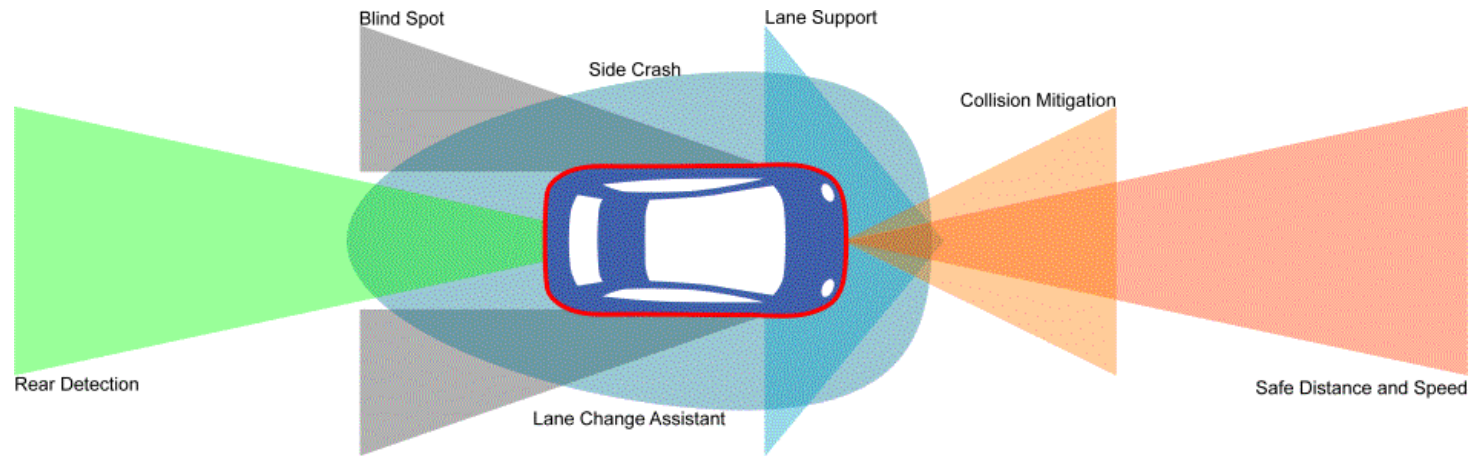
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OUTLINE

- Introduction to the SAFESPOT concept
- The “Intelligent Cooperative Intersection Safety” application (V2I)
 - presentation
 - principle
 - test results
- The “Frontal Collision Warning” application (V2V)
 - presentation
 - principle
 - test results
- Conclusion

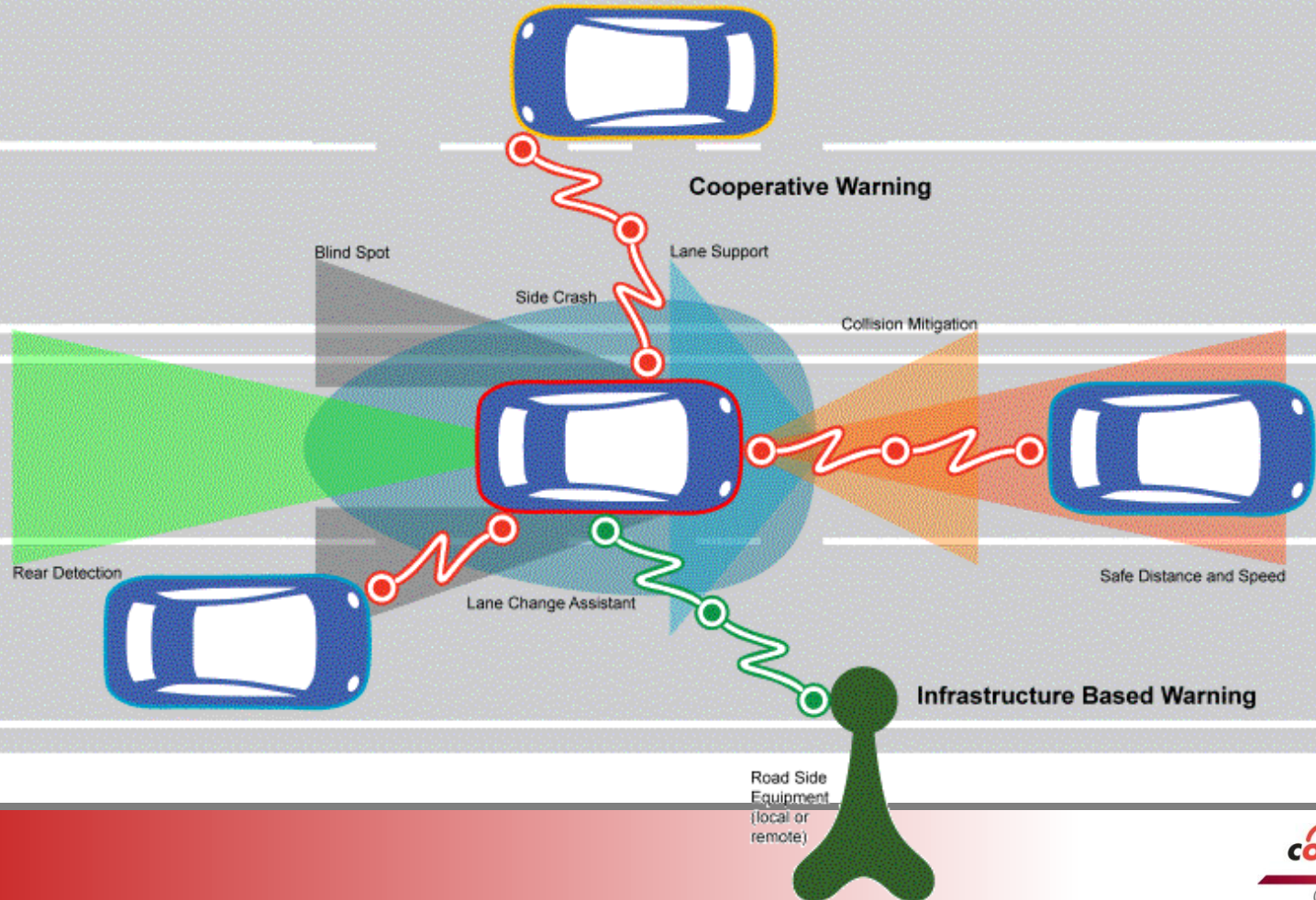
THE SAFESPOT CONCEPT

from the autonomous intelligent vehicle...



THE SAFESPOT CONCEPT

... to intelligent Cooperative Systems

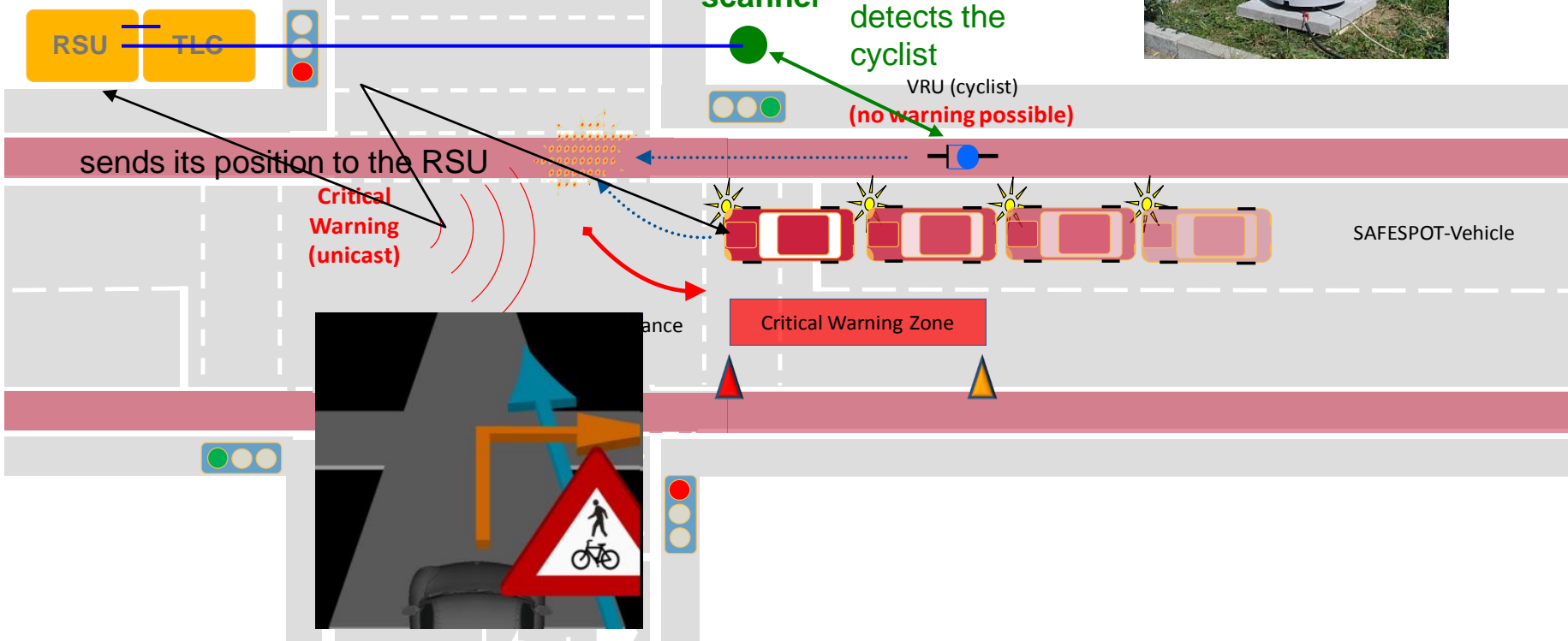


THE INTELLIGENT COOPERATIVE INTERSECTION SAFETY: example of “right-turn cyclist” use case



THE INTELLIGENT COOPERATIVE INTERSECTION SAFETY (IRIS) APPLICATION: principle

merges all the data on the Local Dynamic Map, anticipates the collision and sends a warning to the vehicle



THE INTELLIGENT COOPERATIVE INTERSECTION SAFETY (IRIS) APPLICATION: test results

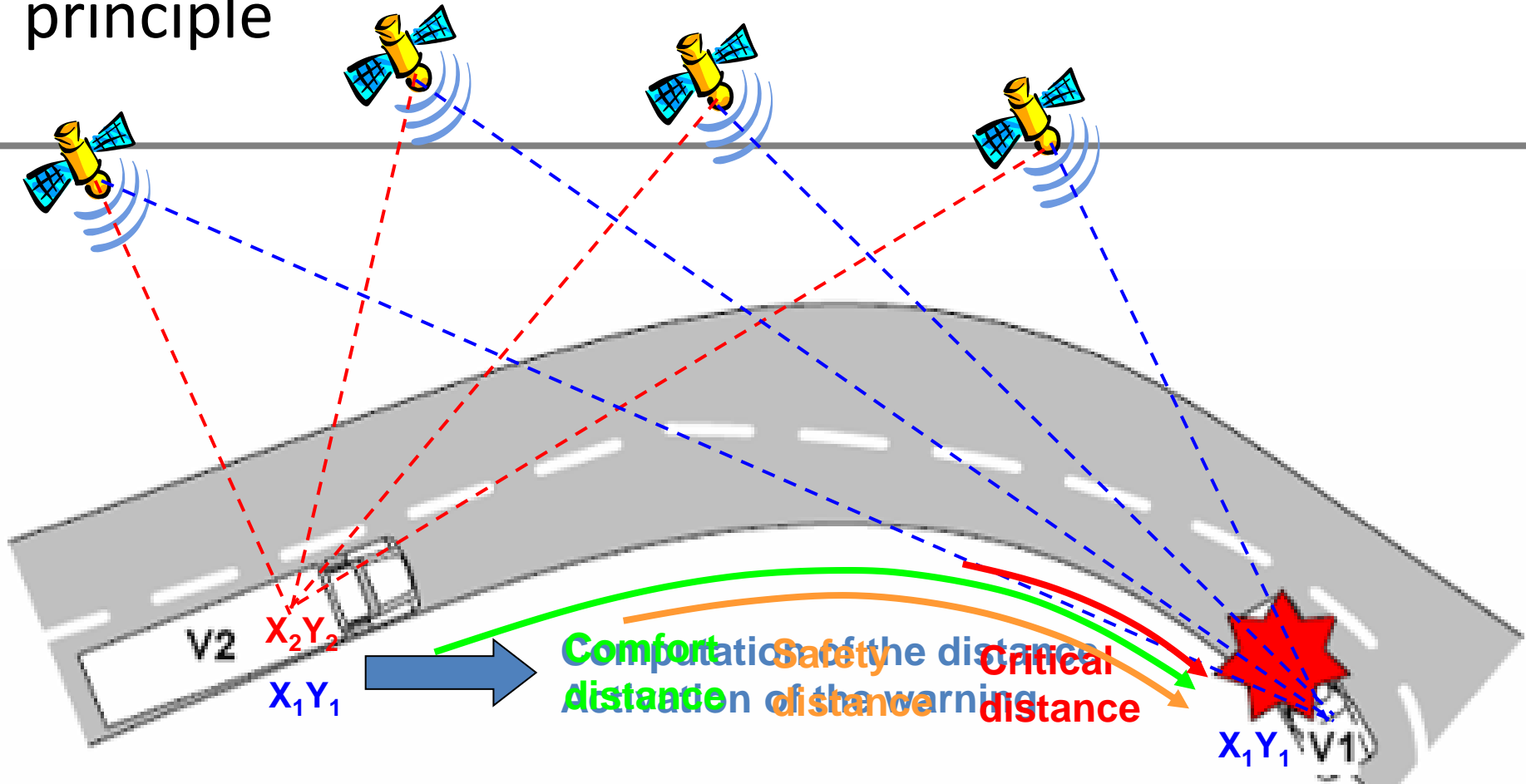
- The application was successfully tested several times in Dortmund in August 09 and in February 10:
 - the cyclists (and pedestrians) were always correctly detected by the laser scanner
 - the relevant warning messages were displayed in time on the dashboard of the vehicle
- Impact on traffic safety: clearly demonstrated
- User acceptance: still to be studied more extensively...

THE FRONTAL COLLISION WARNING APPLICATION: example of “static obstacle in front” use case



Volvo premises at La Valbonne (Lyon – France)

THE FRONTAL COLLISION WARNING APPLICATION: principle



THE FRONTAL COLLISION WARNING APPLICATION: test results

- The application was successfully tested several times in Lyon (on Volvo test track) in February 10:
 - the different messages came always in time
 - the truck drivers were asked to give their opinion through a questionnaire and looked satisfied
- Impact on traffic safety: clearly demonstrated
- User acceptance and user-friendliness: demonstrated on a limited panel of drivers, to be studied on a larger panel (FOT)

CONCLUSION

Do cooperative systems meet users' needs ???

Difficult today to give a unique answer to that question, from what we have learnt...

- SAFESPOT project has demonstrated the technical feasibility of numerous cooperative applications devoted to users' safety improvement
- Among these applications, some are likely to be implemented in the next future, because of their relative simplicity and cost-effectiveness
- Others, more complex and still involving some costly equipment, will need some more years for the technology cost to decrease...

THANK YOU FOR YOUR ATTENTION !

- SAFESPOT project: <http://www.safespot-eu.org/>
- Speaker: francois.peyret@lcpc.fr

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 outwards to the left and right.

Conference 2010

mobility