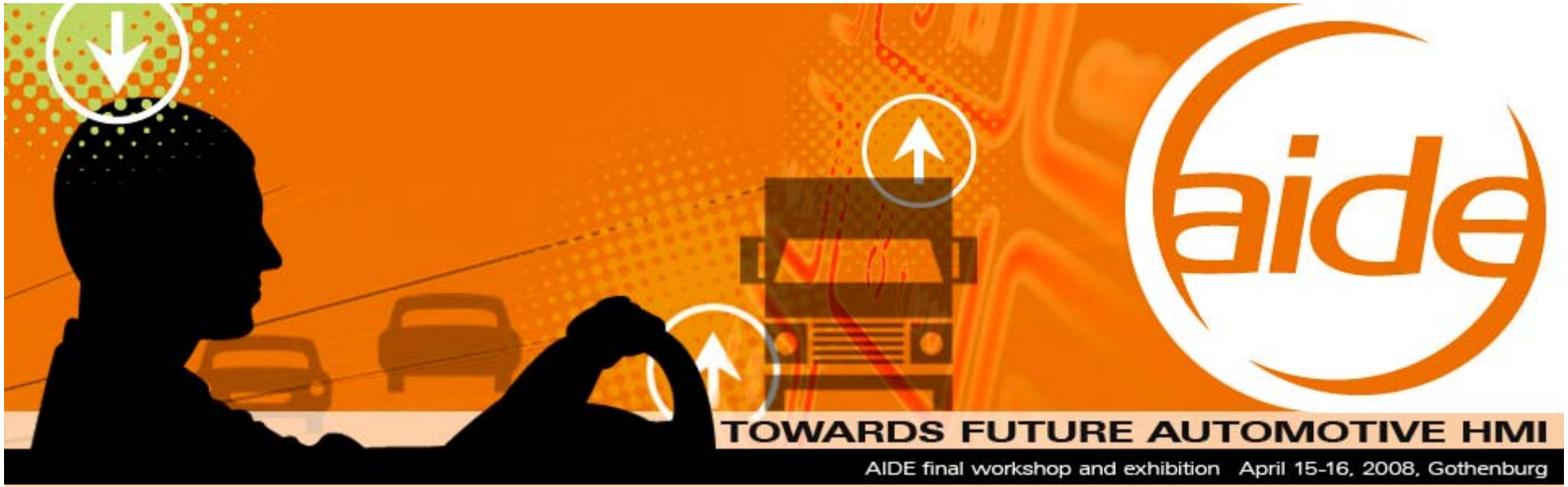


AIDE and EUCAR HMI working group perspectives on future research needs

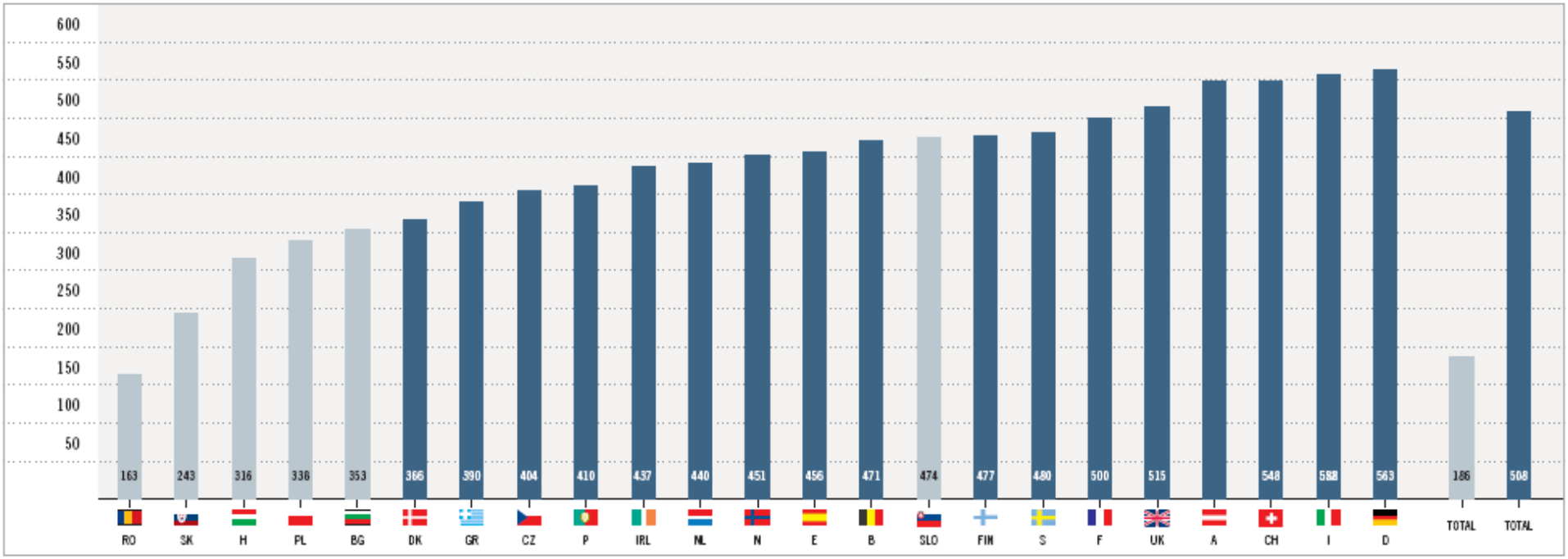
L. Andreone FIAT Research Centre

AIDE Core Group Member

EUCAR Working Group Leader Human Machine Interface

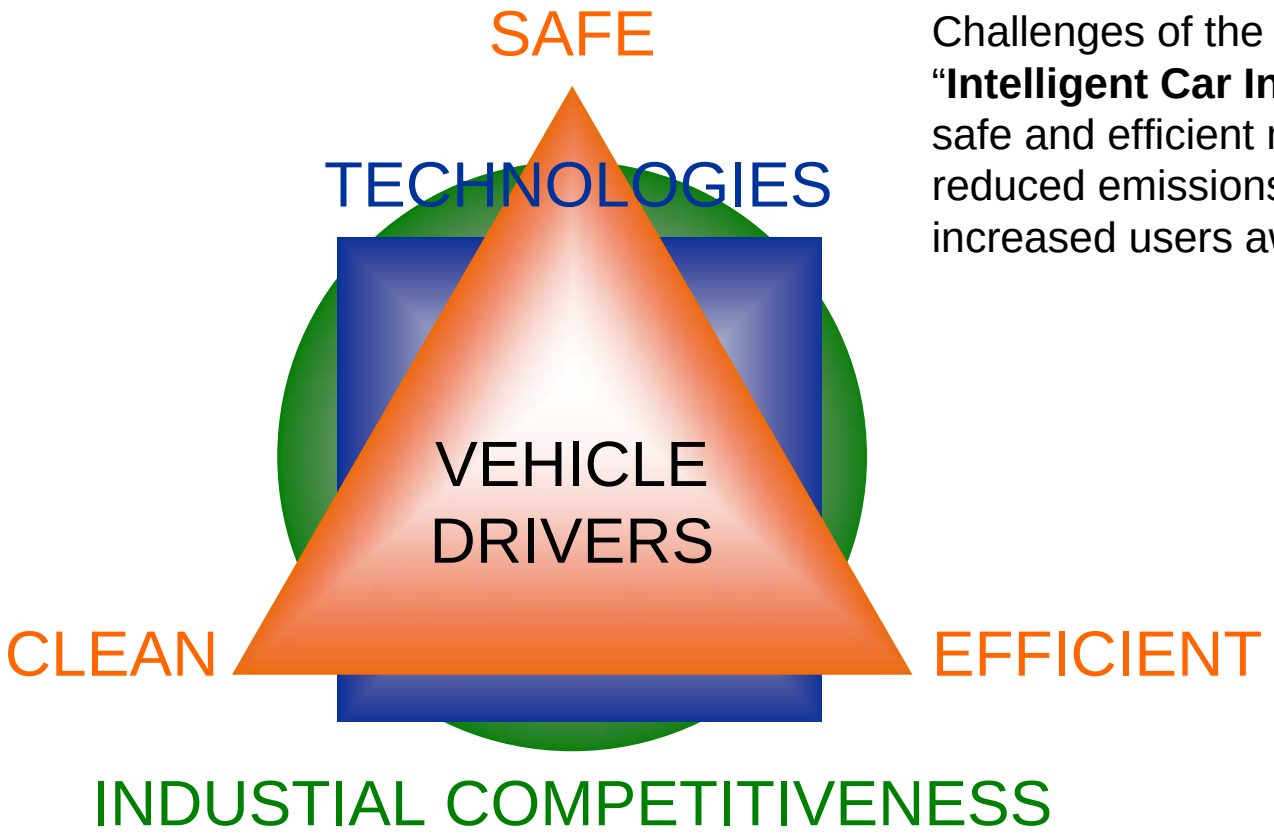
Car density in 2006 (per 1000 population)

- Car density per 1000 inhabitants in Western Europe in 2006 was 508, in the new EU Members 186
- The average annual distance traveled by a car in the EU is about 15 000 km/year.



AIDE and EUCAR HMI Working Group perspectives on future research needs

MOBILITY



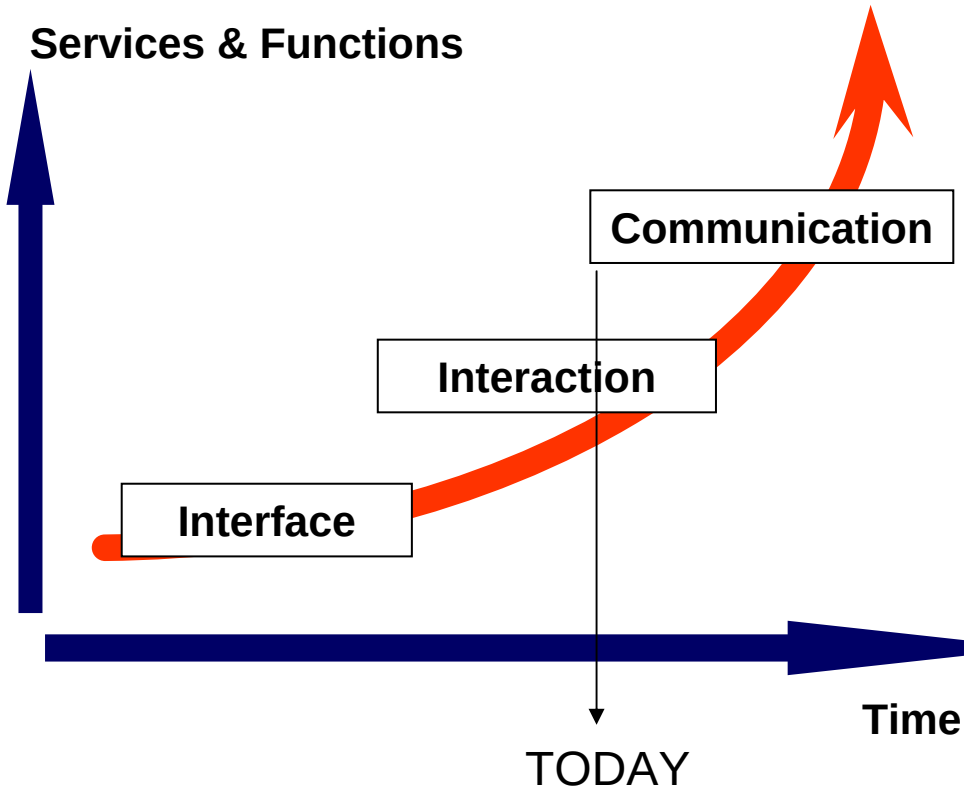
Challenges of the EC "**Intelligent Car Initiative**" are:
safe and efficient mobility
reduced emissions
increased users awareness

AIDE Recommendations on future work

- Optimization of the next generation of ADAS improving usability: definition of a harmonised warning system
- Consumer electronics integration in vehicles (flexibility, configurability, plug in of new functions e.g. cooperative systems, safe use of nomadic devices)
- DVE (Driver Vehicle Environment) simulators for a priori analysis of drivers' behavior in different contexts.
- ....

AIDE and EUCAR HMI Working Group perspectives on future research needs

How to meet target objectives?



INTERFACE PHASE

ADDING new systems and services in vehicles

INTERACTION PHASE

INTEGRATING more functions in one display

ADAPTING functions to driving task demand

COMMUNICATION PHASE

INDIVIDUALISATION to different drivers also via new MULTIMODAL technologies

providing INTUITIVENESS of functions

SEAMLESSNESS fruition of functions

COACHING drivers

TRAINING drivers

REFERENCES

AIDE Core Group

Volvo Technologies, BMW, CRF, PSA, Bosch, ICCS, TNO, Uni. Modena

EUCAR Working Group Human Machine Interface SGI

CRF, BMW, Daimler, Scania, Volvo Technology, Volvo Cars,
VW, PSA, Renault, Opel, Ford, Jaguar, SAAB