Objective

The objective of this proposal is the development of an open architecture for future autonomous vehicles to become a standard platform shared by car makers in the design of next generation intelligent vehicles. It is based on 360 degrees sensorial suite which includes perceptual and decision making modules, with the ultimate goal of providing the vehicle with autonomous driving capabilities and/or supervise the driver's behavior. The perception module also includes vehicle-to-vehicle and vehicle-to-infrastructure subsystems, to increment the vehicle's sensing capabilities. The research is based on the extended know-how and experience of the Principal Investigator's group at the Univ of Parma, which already marked fundamental milestones worldwide in the field of vehicular robotics. Car manufacturers and automotive suppliers are extremely interested in this research stream, but at the same time are very cautious in investing in long term and risky research like this.
Besides providing clear advantages on safety for road users, the availability of an open architecture will encourage and make possible the sharing of knowledge between public and private research communities (academic and automotive industry) and thus speed up the design of a standard platform for future vehicles. Further research steps will be eased - and therefore made more effective - thanks to the common and open architectural layer proposed by this project.

Field of science

/engineering and technology/mechanical engineering/vehicle engineering/automotive engineering/autonomous vehicle

Programme(s)

Topic(s)

Call for proposal

ERC-2008-AdG

Funding Scheme

ERC-AG - ERC Advanced Grant

Host institution

UNIVERSITA DEGLI STUDI DI PARMA

Address

Via Universita 12
43100 Parma
Italy

Activity type

Higher or Secondary Education Establishments

EU contribution

€ 1 751 066,54

Website

Contact the organisation

Principal investigator

Alberto Broggi (Prof.)

Administrative Contact

Paola Magri (Ms.)

Beneficiaries (1)
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<td>Via Universita 12 43100 Parma</td>
<td>Higher or Secondary Education Establishments</td>
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**Website**: [Link](https://cordis.europa.eu/project/id/228045)

**Principal investigator**: Alberto Broggi (Prof.)

**Administrative Contact**: Paola Magri (Ms.)

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