Integrated Solutions for Noise and Vibration Control in Vehicles

Fact Sheet

Project information

CO2NTROL

Grant agreement ID: 233764
Status
Closed project
Start date 1 September 2009
End date 31 December 2012

Funded under:
FP7-TRANSPORT
Overall budget: € 4 726 792
EU contribution € 2 799 391

Coordinated by:
FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V.
Germany

Objective

Exploiting the potential of integrated solutions for the control of noise and vibration in vehicles to improve vehicle fuel efficiency and reduce their impact on the environment is the principal motivation behind this proposal.

Today’s cars represent a complex compromise between contradictory requirements with regard to safety, exhaust emissions, noise, performance and price. However, since the quality of life, particularly in the urban environment, is heavily influenced by air and noise pollution resulting from road traffic, one of the top priorities for car manufacturers is the reduction of noise and emissions from vehicles, with particular attention currently being focused on CO2. In this regards, the principal vehicle manufacturers in Europe have unanimously agreed to adopt an integrated approach which has as cornerstones the development of more fuel efficient powertrains and weight reduction of the vehicle body.

Today engine downsizing represents the most direct and cost effective approach to improving fuel efficiency in road vehicles in order to ensure significant reductions on the impact on the environment while still providing acceptable levels of performance and vehicle ‘fun-to-drive’. However this new generation of engines, while being ideally suited to city vehicle applications, can result in a perceivable degree of deterioration in terms of noise and vibration when compared with the vehicles currently on the market.
Improvement of vehicle noise and vibration without affecting other performances is proving to be extremely difficult if not impossible with state-of-the-art technology. Frequently, new technologies in the fields of smart materials and active control provide potential solutions but have only be proved in the laboratory. One aim of this project proposal would consequently be to integrate such advanced laboratory-level technologies with conventional solutions with direct application to next generation city-car.

Programme(s)

FP7-TRANSPORT - Specific Programme "Cooperation": Transport (including Aeronautics)

Topic(s)

SST.2008.1.1.3. - Holistic noise and vibration abatement

Call for proposal

FP7-SST-2008-RTD-1

See other projects for this call

Funding Scheme

CP-FP - Small or medium-scale focused research project

Coordinator

FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V.

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<td>Research Organisations</td>
<td>€ 543,277</td>
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Website

Contact the organisation

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Maximilian Steiert (Mr.)

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<td>BRUEL &amp; KJAER SOUND &amp; VIBRATION MEASUREMENT A/S</td>
<td>€ 166 600</td>
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<td>RIETER AUTOMOTIVE MANAGEMENT AG</td>
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Website

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