Environmental noise associated with turbulent boudary layer excitation

Fact Sheet

Project Information

ENABLE

Grant agreement ID: G4RD-CT-2000-00223

Project closed

Start date
1 April 2000

End date
31 March 2003

Funded under
Programme for research technological development and demonstration on "Competitive and sustainable growth 1998-2002"

Total cost
€ 3 358 440,00

EU contribution
€ 1 996 514,00

Coordinated by
DASSAULT AVIATION S.A.
France

Objective

The ENABLE proposal will address the interior noise generated by the turbulent boundary layer around an aircraft which usually constitutes the most important source of cabin noise during cruise. The random character of the pressure distribution induced by the boundary layer has a major effect on the noise transmitted through the fuselage and its cross-spectral density plays a major role in determining the effective force causing motion to the structure. This project will provide the designer with predictive tools for the boundary layer induced noise The enable

project will thus deliver enhanced models for the pressure fluctuations beneath a turbulent boundary layer (the effect of pressure gradients and skin surface roughness will be addressed), couple this models to structural transmission codes and validate the overall methodology against experiment undertaken during the project. Guidelines for the industrial use will be derived;

Fields of science (EuroSciVoc)

engineering and technology > mechanical engineering > vehicle engineering > aerospace engineering > **aircraft**

Programme(s)

FP5-GROWTH - Programme for research technological development and demonstration on "Competitive and sustainable growth 1998-2002"

Topic(s)

1.1.3.-4. - Key Action New Perspectives in Aeronautics

Call for proposal

Data not available

Funding Scheme

CSC - Cost-sharing contracts

Coordinator

DASSAULT AVIATION S.A.

EU contribution

No data

Total cost

No data

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EU contribution

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Total cost

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EU contribution

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Links

Contact the organisation Website
HORIZON collaboration network

Total cost

No data

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Total cost

No data

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