Development and harmonisation of creep crack growth testing for industrial specimens-a route to a european code of practice

Fact Sheet

Project Information

CRETE

Grant agreement ID: G6RD-CT-2001-00527

Project closed

Start date
1 September 2001

End date
31 August 2004

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

Total cost
€ 980 186,00

EU contribution
€ 593 429,00

Coordinated by
CESI - CENTRO ELETTROTECNICO SPERIMENTALE ITALIANO GIACINTO MOTTA SPA
Italy

Objective

Crack growth material properties data are used in high temperature integrity

assessments procedures. In this project it is planned to develop novel methods for Creep Crack Growth (CCG) material data generation and analysis. Present CCG testing standards only allow tests on the Compact Tension (CT) specimen geometry. CT has been found to be unsuitable for sampling from many engineering components and therefore other geometries have had to be tested in laboratories in order to better match the size, crack position, shape and crack-tip constraint in the industrial components. Industry requires that a testing standard should cater for alternative geometries and material properties. Therefore in addition to developing the test and data analysis techniques for these novel specimens a priority for this project is to draft a CCG testing Code of Practice to address these issues. The recommendations from this work will be input for use by industrial users and into the various standardization committees, such as CEN and VAMAS TW A25 who are working towards standardizing CCG testing methods. There is substantial industrial backing for this project and the interested industry is invited to take active part in exploitation together with the project consortium. Thus formed "Exploitation Committee" will be involved in the validation and verification of the new proposed methods.

Fields of science (EuroSciVoc)

natural sciences > computer and information sciences > **data science**

natural sciences > mathematics > pure mathematics > **geometry**

Programme(s)

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

Topic(s)

1.1.3.-6. - RTD Activities of a Generic Nature : Measurements and Testing

Call for proposal

Data not available

Funding Scheme

CSC - Cost-sharing contracts

Coordinator

CESI - CENTRO ELETTROTECNICO SPERIMENTALE ITALIANO GIACINTO MOTTA SPA

EU contribution

No data

Total cost

No data

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EU contribution

No data

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Total cost

No data

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EU contribution

No data

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Total cost

No data

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EU contribution

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EU contribution

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No data

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TECHNICAL RESEARCH CENTRE OF FINLAND

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Total cost

No data

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