



Education and Culture DG

Lifelong Learning Programme
LEONARDO DA VINCI



General Introduction

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Content of presentation



- **Background of the project**
- **Partnership**
- **Acknowledgement**
- **Programme of the seminar**
 - **Technical background of simple design method**
 - **Application of simple design method (design guide)**
 - **User-friendly design tools**



Background of the project



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the project

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the project

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Programme of
the seminar

- **New simple design method (1)**
 - Full scale fire tests have revealed that the fire performance of global composite floor systems could be much higher than that obtained in standard fire tests with isolated structural members
 - **A new innovative simple design method was developed in UK on the basis of natural fire tests**
 - More experimental evidences have been obtained about such good behaviour in long duration ISO fire condition
 - **It provides economic and robust fire resistance solutions for various steel framed buildings**



Background of the project



- **Project FRACOF (ArcelorMittal & CTICM)**

1. **Background Technical Report**

To provide in-depth information on the development and verification of the simple design method

2. **Design Guide**

The design guide provides the fundamental principles of the design process using the simple design method as well as necessary construction details

3. **Design Software**

The design software is made available free of charge via the website of ArcelorMittal

4. **Dissemination over French market**

Introduction of the simple design concept in French fire regulation

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Background of the project



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- **New simple design method (2)**
 - However, because of the innovative nature of this new design concept, it remains still very unfamiliar for most of engineers and authorities in Europe
 - **Clear explanations need to be given for its scientific basis as well as important construction details**
 - Its application through user-friendly design tool is necessary to be demonstrated
- **Set-up of current dissemination project in various European countries**
 - It is to allow all engineers in Europe to get plenty of benefit from the application of this design concept



Partnership of the project



Background of
the project

**Partnership of
the project**

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Programme of
the seminar

- **Consortium of the project composed of:**
 - **ArcelorMittal (Luxembourg)**
 - **CTICM (France)**
 - **LABEIN (Spain)**
 - **CTU - Ceske vysoke uceni technicke v Praze (Czech Republic)**
 - **ITB (Poland)**
 - **Politehnica University Timisoara (Romania)**
 - **University of Ljubljana (Slovenia)**



Acknowledgment



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 - **European Commission through the programme:**
Leonardo da Vinci - Transfer of Innovation

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Programme of the seminar



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Programme of the seminar

- **Technical background of simple design method**
 - Fire performance of steel and concrete composite floor systems in real fires (full scale fire tests and accidental fires)
 - **Technical fundamentals of simple design method**
 - New experimental evidences derived from long duration standard fire furnace tests
 - Numerical investigation of simple design method
- **Application recommendations of the simple design method (Design Guide)**
- **User-friendly software and working examples**