

Main Objective

Improve fire safety design
of structures in Europe

Specific Objective 1

Survey and data collection of existing structures

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- recently developed high-rise buildings and large-scale bridges

Specific Objective 2

Evaluate and design fire resilient connections via finite element tools

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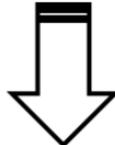
- coupling of continuum and shell elements
- weld cohesive elements
- concrete cracking material model
- advanced surface-based contact interactions

Specific Objective 3

Fire tests of composite structural frames

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- thermal imaging of deformations
- fiber optic sensors in concrete deck
- high-temperature strain gauges
- evaluation of axial force distribution between the concrete deck and steel frame



Specific Objective 4 / Outcomes

Seminars, conference presentations and structural engineering curriculum