



Why fire safety merits action in the EU

Zagreb, 28th May 2014



Fire Safe Europe

- ➔ Our focus is on working closely at the highest level with the European Parliament and the European Commission
- ➔ Our goal is to influence and persuade policy makers and legislators alike, to put action on improving fire safety levels high on their priority list for the next few years, in order to improve and harmonise the regulatory environment for the protection of all our citizens and visitors right across the EU.



Why is a safe built environment vital?

- ➔ We spend around 90% of our lives in buildings
- ➔ Large numbers of people regularly gather in offices, factories, hotels, and shopping malls.
- ➔ Many live in high rise apartment blocks
- ➔ The need for safe schools and hospitals and retirement homes for our families welfare is clearly a must
- ➔ However, as our buildings become increasingly complex, their ability to resist the spread of fire depends on the coherent planning, professional installation, and regular maintenance of modern fire protection systems

A balancing Act

Architects, designers and builders face competing demands:

- ✓ Aesthetics & Innovation
- ✓ Environmental performance & resource efficiency
- ✓ Energy efficiency
- ✓ Sustainability
- ✓ Rapid construction & Cost containment

Fire safety is not the predominant consideration

A reality check

Over 2 million incidents are reported in Europe pa.*

➔ Yet the European Commission does not collect, or analyse any data on fires in the EU, so trends are not assessed or acted on

➔ Member States cannot easily learn from best practice

* Source – GANN, GA

Fire Kills

- ➔ There are more than 4,000 deaths from fire pa*
- ➔ Most deaths are from smoke & toxic combustion gases*
- ➔ 70,000 severe victims are hospitalised pa*
- ➔ Up to 500,000 suffer fire related injuries pa*

* Sources - CTIF, NIBRA, GA

Fire costs

- ➔ Fire is estimated to eat up €126 billion each year in related costs – that's the equivalent to 1% of European GDP
- ➔ Often the spread of fire is so fast that the whole building is now destroyed

* Sources – ABI, GA, CTIF

Fire destroys our environment

- ➔ Severe local damage from heavy water run – off
- ➔ Severe local pollution from soot, smoke & ash
- ➔ Replacing materials means extra resource depletion & added carbon emissions, both causing negative impacts on our society's sustainability
- ➔ **Unburnt particulate from building fires in Sweden = total emissions from commercial transport that year ***

* Source - SP

External façade insulation systems (ETICS)

**Combustibles
in insulation
applications
will
contribute to
fire spread**



Additional fuel load from renovation

Case study: apartments in DK and NL



Different insulation materials will react differently to fire

The additional fuel load

- ➔ can be **5 to 9 times higher** for a combustible insulation **layer** compared to non-combustible insulation
- ➔ the structural fire load may **increase by up to 13%** if combustible insulation is used, **but only by 2%** if non-combustibles are used



A word of caution

- The behaviour of some modern construction materials, systems, and composite components in fully developed fires is not entirely predictable
- EU test methods for construction product fire safety have not been revised since 2002, based on data from the 90's, and lag well behind current construction practices
- **There is still no testing for smoke toxicity**
- **There is no harmonised EU test for facade fire safety**

Moving with the times

- ➔ The Commission has to start collecting, analysing and acting on fire data from all 28 Member States
- ➔ An EU action plan for Fire Safety, led by the Commission but tailored & implemented individually by the Member States needs to be urgently developed and put in place
- ➔ Test methods for construction product fire safety must be proactively updated to reflect changes in our built environment and offer better protection across the EU
- ➔ Societal responsibility merits a strong regulatory framework

Let's not play with fire!



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