

SFE 2016 DUBLIN

29 & 30 September 2016

www.sfe-fire.eu



Organized by FireOx International (Ireland, Italy & Turkey), in joint collaboration with Glasgow Caledonian University's School of Engineering & Built Environment (Scotland) ... and having a widely multi-disciplinary attendance from the U.S.A., Hong Kong SAR (China), Spain, Finland, Scotland, Norway, Germany, England, The Netherlands and Ireland ... **SFE 2016 DUBLIN** was a unique, and very successful, two-day gathering within the International Fire Engineering and Fire Service Communities.

The organizers are very grateful to our Supporters: CIB, FIDIC, iiSD, and the UNEP's Sustainable Buildings and Climate Initiative ... and our Sponsor: Rockwool International.

DAY 1 - Fire Safety for All & ISO 21542 Revision

No More Tragic Tales of Vulnerable People Left Behind !

International Standard ISO 21542: 'Building Construction – Accessibility & Usability of the Built Environment' provides fire safety related guidance which is practical and easy to understand. This standard does no more than outline general principles, give initial direction, and set out a broad, common framework for the future international development of Fire Safety for All, i.e. fire safety which mainstreams the full and active involvement of people with activity limitations ... a very important aspect of fire engineering design generally, and a priority theme of Sustainable Fire Engineering.

During the long development of International Standard ISO 21542 - eventually published in 2011 - the primary challenge was to achieve a consensus on the equal importance of 'fire safety, protection and evacuation for all' within the Accessibility for All Concept ... and the necessity of incorporating fire safety texts, as appropriate and without any fuss or special attention, throughout the main body of the Standard.

In an informal setting, on Day 1 of SFE 2016 DUBLIN ... filling the 'fire safety' gaps and correcting the errors (mostly editorial) in the first edition of ISO 21542 were discussed. But, we also took this valuable opportunity to examine the larger issues, the policies, and the fire engineering strategies which will drive Fire Safety for All onto a higher level ... so that it is examined properly in its own right, and more fully elaborated in the Revised ISO 21542.

Effective 'Fire Safety for All' is dependent upon - all together and at the same time - proper building design, reliable building management, and fully aware fire services ... underpinned by competent individuals at all levels in those different areas.

More detailed information about Fire Safety for All and the ISO 21542 Revision can be found at: <http://www.fire-safety-for-all.sustainable-design.ie/iso-21542/>

DAY 2 - Sustainable Fire Engineering

Towards Zero Preventable Fires in the Built Environment !

In complete contrast, Day 2 of SFE 2016 DUBLIN consisted of many formal presentations and an interaction between participants which was vibrant and intensely interesting throughout the day ... something not usually experienced at international meetings ! The presentations, and much more information about Sustainable Fire Engineering, can be found at: <http://www.sustainable-fireengineering.ie/sfe2016dublin/>

The following is a summary of the rugged terrain traversed on Day 2 ...

The 21st Century has had a complicated and violent birth ... severe man-made and natural events, hybrid disasters, complex humanitarian emergencies, with accelerating climate change and variability. The old certainties are crumbling before our eyes.

And in response to impinging pressures from energy resource instability, environmental degradation and our planet's limited capacity to meet the needs of future generations ... Sustainable Buildings are presenting society with an innovative and exciting re-interpretation of how a building functions ... an approach leaving the International Fire Engineering and Fire Service Communities far behind in its wake, struggling to keep up.

Realizing a Safe, Resilient and Sustainable Built Environment for ALL will require a change in focus for design philosophy, new sets of performance targets, enhanced professional discipline and, most importantly, a deliberate transformation from within the International Fire Engineering and Fire Service Communities.

For those in the burgeoning International Sustainability, Climate Change & Urban Resilience Communities ... the conscious and collaborative elaboration of Project-Specific Fire Engineering Design Objectives, prior to the commencement of design, is the key to successful implementation of 'sustainability without compromise'.

SFE: The creative, person-centred and ethical Fire Engineering response, in resilient built form and smart systems, to the concept of Sustainable Human and Social Development ... the many aspects of which must receive balanced and synchronous consideration.

SFE's Mission: To ensure that there is an effective level of Fire Safety for ALL - not just for SOME - in the Built Environment ... to dramatically reduce all direct and indirect fire losses in the Human Environment ... and to protect the Natural Environment.

SFE's 4 Key Concepts: Reality – Reliability – Redundancy – Resilience !

SFE Design Solutions: Are ...

- Adapted to Local Context & Heritage ;
- Reliability-Based ;
- Person-Centred ; and
- Resilient.

SUBSIDIARY OBJECTIVES:

1. To transform Conventional Fire Engineering, as practiced today, into an ethical and fully professional Sustainable Design Discipline which is fit for purpose in the 21st Century ... meaning ... that fire engineers can participate actively and collaboratively in

the sustainable design process, and can respond creatively with sustainable fire engineering design solutions which result in Effective Fire Safety for All in a Safe, Resilient and Sustainable Built Environment.

2. To bring together today's disparate sectors within the International Fire Engineering (and Science) Community ... to encourage better communication between each, and trans-disciplinary collaboration between all.

3. To initiate discussion and foster mutual understanding between the International Sustainable Development, Climate Change and Urban Resilience Communities ... and the International Fire Engineering and Fire Service Communities.

SFE Deliverables:

1. 2016 Dublin Code of Ethics: Design, Engineering, Construction & Operation of a Safe, Resilient & Sustainable Built Environment for All. Download it from:
http://www.sustainable-fireengineering.ie/sfe2016dublin/wp-content/uploads/2016/09/2016_Dublin-Code-of-Ethics.pdf

The realization of a Safe, Inclusive, Resilient & Sustainable Built Environment demands a concerted, collaborative, very creative and widely trans-disciplinary effort at national, local, regional and international levels across the whole planet - Our Common Home. The informed operation of appropriate legislation, administrative procedures, performance monitoring and targeting, and incentives/disincentives, at all of these levels, will facilitate initial progress towards this objective ... but not the quantity, quality or speed of progress necessary. Our time is running out !

This Code of Ethics applies ... for those who subscribe to its values ... to policy and decision makers, and the many different individuals and organizations directly and indirectly involved in the design, engineering, construction, and operation (management and maintenance) of a Safe, Resilient & Sustainable Built Environment for All.

The Purpose of this Code of Ethics is to guide the work of competent individuals and organizations in a context where incomplete or inadequate legislation, administrative procedures and incentives/disincentives exist ... but, more importantly, where they do not exist at all ... and, amid much confusion and obfuscation of the terms, to ensure that implementation is authentically 'sustainable', and reliably 'safe' and 'resilient' for every person in the receiving community, society or culture ... before it is too late !

2. Sustainable Fire Engineering Network. Join the LinkedIn SFE Group at <https://www.linkedin.com/groups/8390667>. Interested Individuals and Organizations will be very welcome.
3. New CIB W14: 'Fire Safety' Research Working Group VI Reflection Document: 'Sustainable Fire Engineering Design, Construction & Operation', which will establish a framework for the future development of Sustainable Fire Engineering.

Preparation of this Document will soon begin, and the following issues will be explored:

- a) Conceptual Framework for Sustainable Fire Engineering (SFE), with a necessary accompanying Generic SFE Terminology ;
- b) Strategy for Future SFE Development ;
- c) Implementation of 2005 & 2008 NIST WTC 9-11 Recommendations ;
- d) Fresh, New SFE Research Agenda ;
- e) Resilient Implementation of SFE Research Agenda.