Modern Building Alliance

Webinar “EU Fire Safety Updates”

8 July 2025

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1/ Introduction and opening remarks

(A. Duvielguerbigny, President of the Modern Building Alliance)

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Meeting Etiquette

- It would be nice to see you, so feel free to turn on your camera.
- Please mute your microphone to avoid background noise.
- Participation is encouraged so:
  - Use Chat to ask questions
  - Raise hand to speak, and activate your video/microphone when you have the floor

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Anti-trust disclaimer

DO'S

- Interrupt the meeting if you feel it breaches competition rules
- Minute any objections made
- Remember the rules apply inside and outside the meeting (breaks, social functions)

DONT'S

- Exchange sensitive commercial information
- Raise improper subjects for discussion
- Avoid making ambiguous statements that could be misinterpreted by competitors

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Agenda

Indicative time	Item	Presenter
10:30-10:35	Introduction and opening remarks	Arnaud Duvielguerbigny (MBA President)
10:35-10:45	Overview of Modern Building Alliance (MBA) activities	Javier Garrido (MBA General Manager)
10:45-11:00	Fire safety and Construction Products: update from DG GROW	Heikki Väänänen (DG GROW, European Commission)
11:00-11:15	Fire safety in the built environment: insight from the Energy Performance of Buildings Directive	Marco Morini (DG ENER, European Commission)
11:15-11:30	Updates on the implementation of fire safety engineering in Europe	Francesca Sciarretta (JRC, European Commission)
11:30-11:50	Roundtable discussion and Q&A	All participants
11:50-12:00	Wrap-up	Arnaud Duvielguerbigny (MBA President)

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2/ Overview of Modern Building Alliance (MBA) activities

(J. Garrido, General Manager of the Modern Building Alliance)

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Safe and sustainable construction with plastics

- European alliance of trade associations and companies representing the **plastics industry** in the construction sector (thermoplastics and thermosets).
- An essential pillar of our cause is the ambition for **greater fire safety across the construction industry**. It is a key driver of our product design and manufacturing: improving the fire safety of buildings is a **joint responsibility of the whole value chain** involved in building and construction.
- That us why, by engaging with policymakers and stakeholders, we are committed to **supporting the EU in ensuring safe and sustainable construction** for people across Europe.

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About the Modern Building Alliance (MBA)

Modern Building Alliance Executive Board

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MBA Team

Javier Garrido
General Manager

Franklyn Okwara
Fire Expert

Laura Carre-Diaz
Administrative Assistant

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Some of our latest publications

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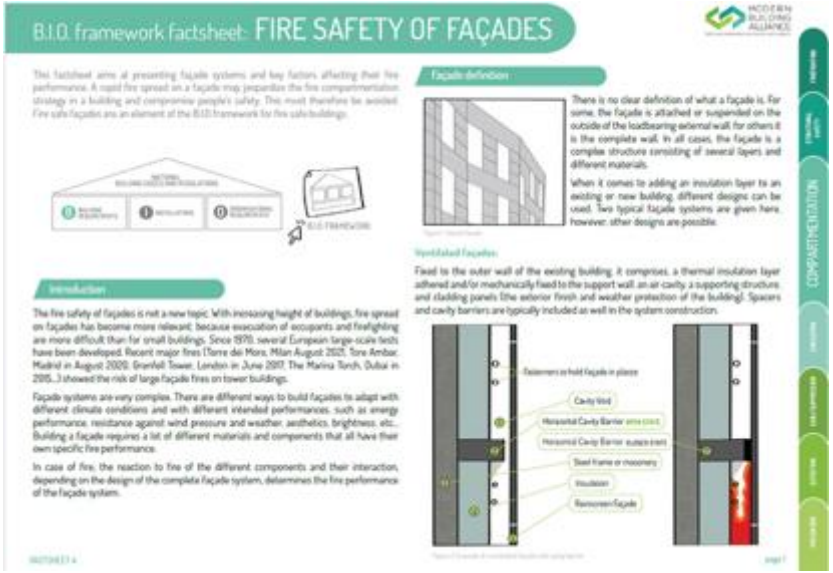
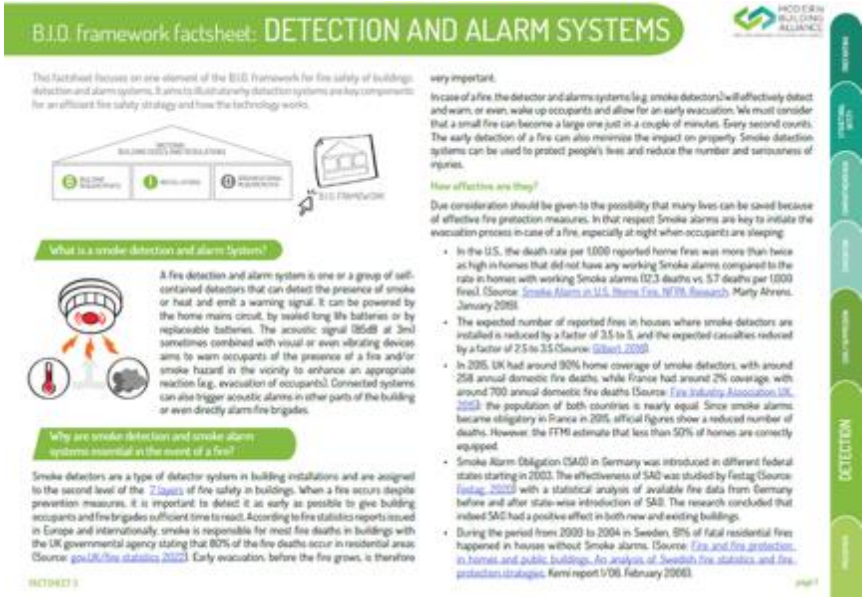
Factsheets on fire safety of Façades


B.I.O. framework factsheet: FIRE SAFETY OF FAÇADES

Factsheets on Smoke Detectors & Alarm Systems


B.I.O. framework factsheet: DETECTION AND ALARM SYSTEMS

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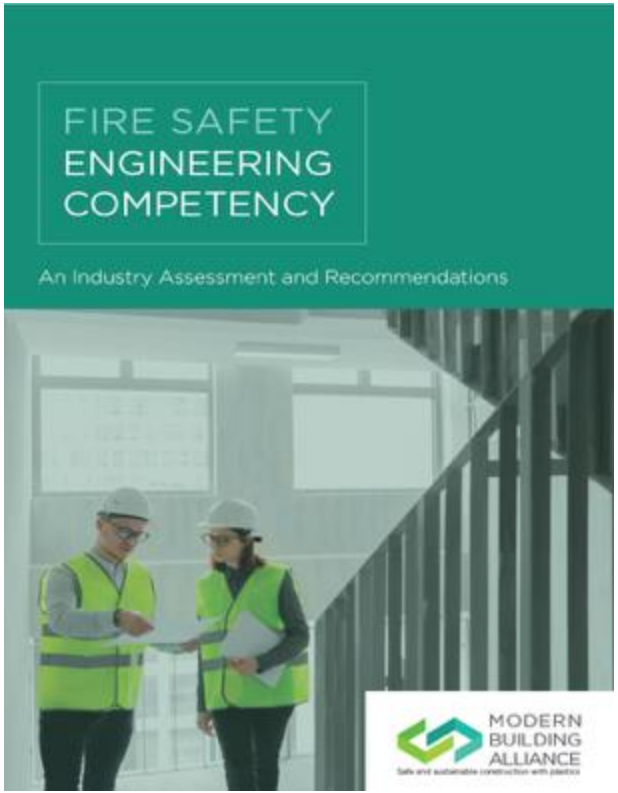
Some of our latest publications

Position papers

- Publication of Narratives on Fire Safety Engineering Competency
- Fire safety of PVs on large roofs position paper
- Plastics compatibility with fire safety
- Article on Performance Based Design (PBD)

Upcoming publication:

- Position paper on Sustainability



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Fire safety and Construction Products: Update from DG GROW

Modern Building Alliance Webinar 8.7.2025
Heikki Väänänen DG GROW.H.1 Construction

Fire Safety: Who does what in the EU?

- Under Treaty on European Union, the competence regarding the fire safety of buildings is with the Member States (and/or regions and/or local authorities).
  - ✓ This follows the subsidiarity principle, and
  - ✓ is logical given different building traditions, climatic and geographic conditions.
- EU level regulation is exercised through Construction Product Regulation (CPR) ensuring the Internal Market for Construction Products.
  - ✓ Common technical language i.e., harmonized European (product) Standards and European Assessment Documents
  - ✓ Related harmonised testing methods
- Commission can however facilitate improvements in fire safety through specific projects and activities

DG GROW activities “Big picture”

Regulatory

- ✓ Related to implementation of CPR
- ✓ Product standards
- ✓ Delegated acts

- ✓ “New CPR” and “CPR Acquis”

In between - Specific projects

- ✓ EU FireStat
- ✓ Façade fire performance testing
- ✓ Fire Safety Engineering

Non-regulatory

- ✓ Fire Information Exchange Platform (FIEP)

New CPR and fire safety - basics

- CPR continues to address fire safety as one of the “Basic Requirements for Construction Works” – No substantial change, text more descriptive/elaborated
- At level of construction products, current approach stays relevant
  - ✓ Reaction to fire
  - ✓ Glowing combustion
  - ✓ Resistance to fire
  - ✓ External fire exposure – roofs
  - ✓ External fire exposure – facades (in the making)
- As usual these will be implemented through harmonized product standards

New CPR and fire safety – transition (1)

- Current legal “tools” (e.g., classification decisions) based on “outgoing CPR” (Reg 305/2011) cannot be used with “incoming CPR” (Reg 2024/3110)

- Both sets of “tools” will be running in parallel until harmonized standards and EADs will be updated to “incoming CPR” (until 2040)

New CPR and fire safety – transition (2)

- First step for fire safety will be “readoption” of current tools without any technical change
- “Readoption” shall however address the issue of “standard references” in delegated acts
- Draft implementing regulations for classification of
  - Reaction to fire
  - Resistance to fire, and
  - External fire exposure for roofs and roof coverings

  was presented to Member States for possible comments until 31/5/25

New CPR and fire safety – standard references

- Legal framework (CPR and others) expects dated references to standards
- Having dated references to standards in legal acts would create problems
  - When a standard is updated, the legal act referring to it would need to be updated and once done the legal act would apply to everything in one go
  - E.g. legal act refers to STD:2023 but some harmonized standards and MSs' regulations are still referring to STD: 2018
- Kicking out standard references altogether was tested with resistance to fire classification (under "outgoing" CPR i.e., Reg. 2024/1681)
  - Seems to be working???
  - Decision will be transferred to "incoming CPR" as it is
- Same approach will be implemented to reaction to fire and roofs and roof coverings classifications

New CPR and fire safety – Reaction to fire

- Instead of having

Table 1

Classes of reaction to fire performance for construction products excluding floorings, linear pipe thermal insulation products, and electric cables

Class	Test method(s)	Classification criteria	Additional classification
A1	EN ISO 1182 (1); *and*	$\Delta T \leq 30$ °C; *and* $\Delta m \leq 50$ %; *and* $t_f = 0$ (i.e. no sustained flaming)	
	EN ISO 1716	PCS ≤ 2,0 MJkg^{-1} (1); *and* PCS ≤ 2,0 MJkg^{-1} (2) (2a); *and* PCS ≤ 1,4 MJm^{-2} (3); *and* PCS ≤ 2,0 MJkg^{-1} (4)	

- Proposal is

GENERAL

The relevant definitions, tests and performance criteria are fully described or referenced in the harmonised technical specifications, European assessment documents, European reaction to fire classification standards and European testing standards.

1. PRODUCTS EXCLUDING FLOORINGS, LINEAR PIPE THERMAL INSULATION PRODUCTS, AND ELECTRIC CABLES

Table 1

Class	Test method(s)	Classification criteria	Additional classification
A1	Non-combustibility test (1); *and*	$\Delta T \leq 30$ °C; *and* $\Delta m \leq 50$ %; *and* $t_f = 0$ (i.e. no sustained flaming)	
	Heat of combustion test	PCS ≤ 2.0 MJkg^{-1} (1); *and* PCS ≤ 2.0 MJkg^{-1} (2) (3); *and* PCS ≤ 1.4 MJm^{-2} (4); *and* PCS ≤ 2.0 MJkg^{-1} (5)	

DRAFT

New CPR and fire safety – Roofs and roof coverings

- The content has been organized in four essential characteristics according to applicable fire scenario / test
  - External fire performance – Roofs and roof coverings – Burning brands
  - External fire performance – Roofs and roof coverings – Burning brands and wind
  - External fire performance – Roofs and roof coverings – Burning brands, wind and supplementary radiant heat
  - External fire performance – Roofs and roof coverings – Two stages, burning brands, wind and supplementary radiant heat
- Classification will stay the same (except F_{ROOF} has been clarified)

CPR Acquis – fire aspects

- Horizontal group for fire issues launched / in process of being launched – continuously open call for interest up-and-running (https://ec.europa.eu/transparency/expert-groups-register/screen/calls-application?lang=en)
  - Façade fire test standardization (test and classification)
  - Classified without testing proposals/projects?

Upcoming CPR Acquis fire related product groups

- Product group 10 – Fixed fire-fighting equipment (to be started end 25 / beginning 26)
- Product group 35 – Fire stopping, fire sealing and fire protective products, fire retardant products (at the end of priority list)

EU FireStat project continuation

- Pilot project on harmonising fire safety data and statistics has been finalised and the documentation is available on project website EU FireStat (eufirestat-efectis.com)
- European Parliament wanted to continue the development with a Preparatory Action
  - Test the proposed system
  - Lessons learnt during data collection test
- Will be executed through an open call for tender (to be launched before summer break)

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Fire Information Exchange Platform (FIEP)

- Enhance co-operation and the exchange of information between Member States and relevant stakeholders on best practices and lessons learned in the area of fire safety
- Some general observations from webinars:
  - Participation to webinars went from 80 to 340 participants
  - Participants are eager to share experience – knowledge
  - Strong interest on “hot topics” (eVs, timber, photovoltaics, façades,…)
- Areas for improvement:
  - More active participation from Member State authorities
  - General availability of FIEP information

Fire Information Exchange Platform (FIEP)

- No “formal” role – platform for exchange and learning

FIEP webinars 2021-25	
Batteries in fire	Timber
Developing fire safety knowledge and awareness	eVehicles and carparks
EU projects on Fire Safety	Fire investigation
Development and risk of smoke in fires	Fire safety of vulnerable communities
Electrical fire safety	Prevention and intervention
Fire statistics	Training and education
Women involvement in “fire world”	Installation and maintenance
Photovoltaic panels	Fire safety and Circularity and sustainability
Facades	

- More information heikki.vaananen@ec.europa.eu, fiep@efectis.com

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Thank you

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Delivering on the European Green Deal and Fit for 55

Fire safety in the built environment: insight from the Energy Performance of Buildings Directive

Marco Morini, Policy Officer
European Commission – DG ENERGY
Unit B3 - Buildings and Products

The EU Building Stock

EU building sector is one of the **largest energy consumers** (aprox 42%) in Europe, responsible for **more than one third of the energy-related emissions**.

24 billion m²
of occupied floor area
> 70 % are residential

75 % of buildings
with poor energy performance

Approx. 11 % / yr
of existing buildings under renovation
Only 1 % / yr benefit from deep renovation

85 % of existing dwellings built before 2000
> 85 % of current stock will still be in place in 2050

Focus Areas of the recast EPBD

RENOVATION

- Minimum Energy Performance Standards for non-residential buildings
- National trajectories for the progressive renovation of the residential building stock
- National Building Renovation Plans

DECARBONISATION

- Introduction of zero-emission buildings
- Solar deployment in buildings
- Calculation of whole life cycle carbon
- Phasing out incentives for fossil fuels and new legal basis for national bans

Focus areas of the recast EPBD

ENABLING FRAMEWORK

- Strengthened Energy Performance Certificates
- Renovation passports
- Sustainable finance & energy poverty
- One-stop-shops
- Deep renovation standard
- National energy performance databases

MODERNISATION & SYSTEM INTEGRATION

- Infrastructure for sustainable mobility
- Smart Readiness Indicator
- Indoor air quality: ventilation and other technical building systems
- Digitization, data access and exchange

Fire Safety in the recast EPBD

i. **New buildings**: address fire safety

ii. **Existing buildings**: address fire safety in major renovations
   - A deep renovation for energy performance purposes is a prime opportunity to address other aspects including fire safety

iii. **Guidance and training** for those responsible to implement the EPBD: may address fire safety

iv. **Template for building renovation plans** (Annex II): policies and measures for the increase of fire safety

v. **By December 2025**, the Commission shall publish **guidance for fire safety in car parks**.

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EPBD guidance: overview

- DG ENER has developed guidance on **all new and substantially modified provisions** of the recast EPBD:
  - Phasing out financial incentives for stand-alone boilers powered by fossil fuels
  - Guidance on the recast Directive and its 13 Annexes, published on 30 June on webpage of the Energy Performance of Buildings Directive
  - Fire safety in buildings (planned adoption Q2 2026)
- To support the development of the **national building renovation plans**, an annotated template and spreadsheet for data collection were published

Main guidance package: Cover Notice + 13 topic-specific Annexes






1. Minimum energy performance standards for non-residential buildings and trajectories for progressive renovation of residential building
2. Financing and one-stop shops
3. Energy performance certificates and independent control system
4. Renovation passports
5. Energy performance databases
6. Data exchange







7. Zero-emission buildings
8. Solar energy in buildings
9. Sustainable mobility
10. Technical building systems, indoor environmental quality and inspections
11. Fossil fuel boilers
12. Energy performance calculation methodology
13. Global warming potential

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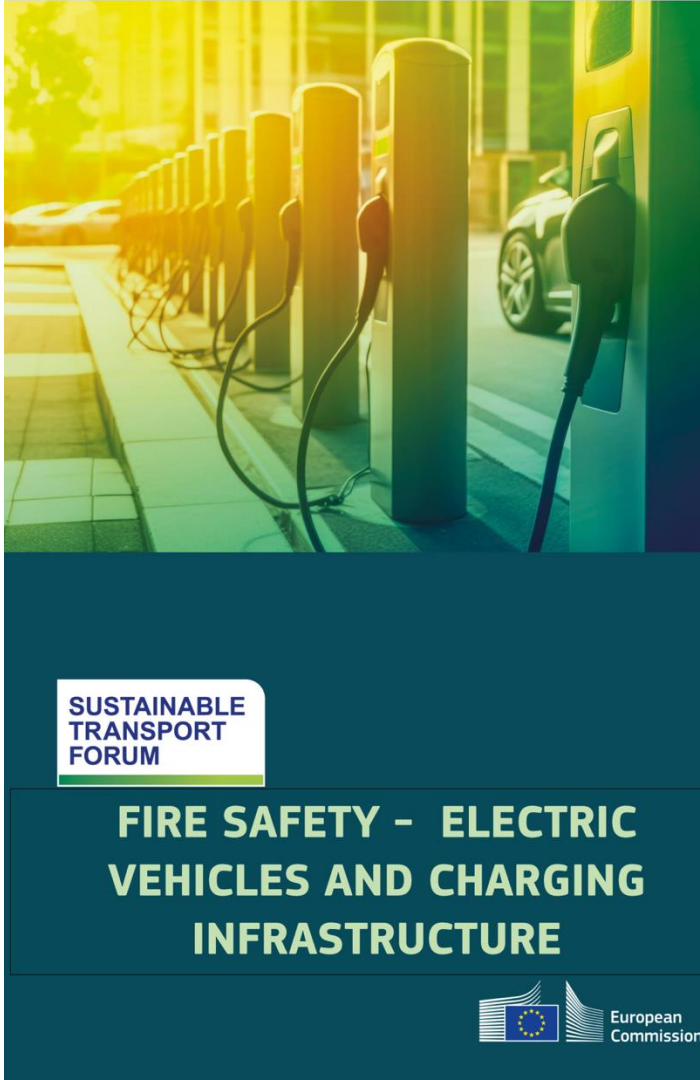
Fire safety in car parks

- By 31 December 2025, the Commission shall publish guidance for fire safety in car parks (Article 14(10).
- Recommendations have been developed by the Sustainable Transport Forum (STF).
- The EPBD guidance includes the main recommendations from the Sustainable Transport Forum.



Guidance on fire safety linked to the electrification and renovation of buildings

- **Support study soon to be launched**
  - Not an interpretative guidance, but rather a technical document to support MS authorities that will transpose and implement EPBD.
- **Four main topics** + possible ad hoc guidance:
  a. solar installations
  b. insulation and other parts of the building envelope
  c. storage systems
  d. other technical building elements such as heating appliances.
- **Tasks:** Literature review; analysis of existing legislation and identification of best practices; stakeholder engagement (incl. through FIEP and this network); guidance drafting + wider reports.
- **Objective:** guidance on fire safety ready in Q2 2026

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Some consideration on Fire Safety

- In line with the subsidiarity principle, safety is a **regulatory competence of Member States** and addressed in national/regional building codes
- Safety is not the primary objective of the EPBD and not within its direct scope, but the EPBD recast took an opportunity to **give visibility** to the issues of safety in buildings
- It is important to address fire safety related to the green transition, the role of the Commission is to work with Member States on **skills and competences** and the **exchange of best practices**
- The goal of this Guidance will be to **provide resources and references** to Member States to ensure that fire safety aspects are duly considered when implementing the EPBD

Updates on the implementation of fire safety engineering in Europe

Francesca Sciarretta, Adamantia Athanasopoulou, Georgios Tsionis

Modern Building Alliance (MBA) Webinar "EU fire safety updates"

Online, 8 July 2025

JRC: Science for policy

Our purpose

The **European Commission Joint Research Centre** provides independent, evidence-based knowledge and science, supporting EU policies to positively impact society.

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JRC work in support of FSE harmonisation and implementation in Europe

- **Administrative Arrangements between DG JRC and DG GROW** 2022-2025
- Facilitation for incorporating FSE approach in fire safety regulations of the EU Member States
- Work in line with the scope of **Fire Information Exchange Platform (FIEP)**, managed by DG GROW

Expert Network (2019-) including:

- DG JRC, DG GROW, DG ENER; European Parliament
- CEN/TC 250, CEN/TC 127, ISO/TC 92
- European stakeholders in the field of FSE

Objectives:

1. Assessing **standardization needs for incorporation of fire safety engineering in the regulatory frameworks** of the EU MS

2. Definition of **needs for guidance and training** for professionals

SURVEY (questionnaire to EU MS fire regulators) → *JRC Technical Report 'The status and needs for implementation of Fire Safety Engineering approach in Europe', January 2023*

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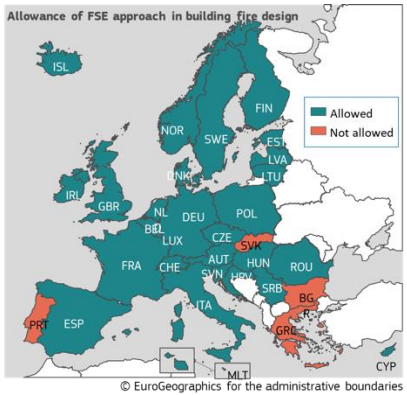
The status and needs for implementation of Fire Safety Engineering approach in Europe (2023)



- FSE approach is **not yet fully implemented** in EU/EFTA countries
- **Prescriptive methods** are largely prevalent in practice, even where FSE approach is allowed
- The prospects appear positive, because FSE is practically applicable in **all or many technical areas / building types**
- The availability of assessment methods mainly depends on **national regulations and standards**

Aim: Make proposals for the harmonisation of FSE application on European level.

Focus on the built environment (no infrastructure, industrial buildings and related installations)

Target audience: fire regulatory authorities in EU/EFTA MS.

Why FSE is allowed:

- ✓ **New fire safety technologies**
- ✓ **Innovative spaces**
- ✓ **Prescriptive regulations cannot apply** to structures of certain types / beyond certain limits

Why FSE is NOT allowed:

- ✓ **Insufficient infrastructure** components (legal, insurance, professional certification, education etc.)
- ✓ Lack of **professional expertise**

https://publications.jrc.ec.europa.eu/repository/handle/JRC131689

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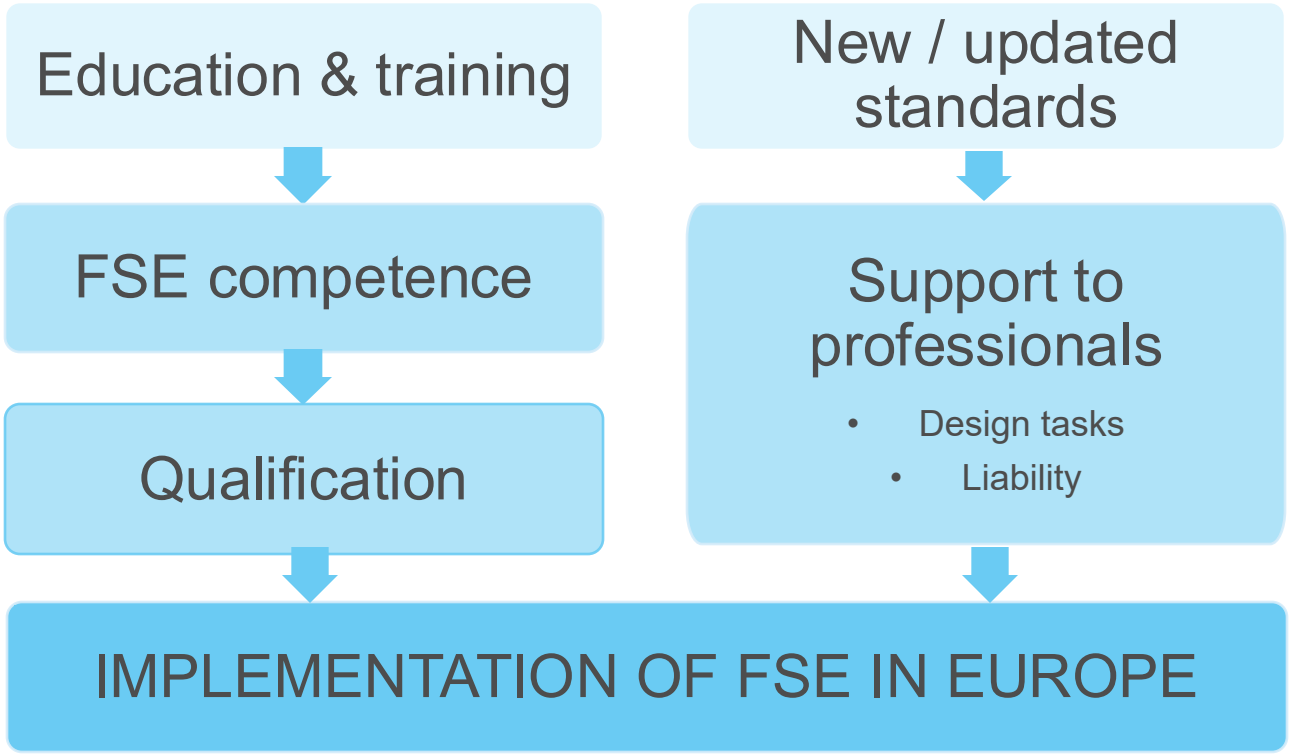
Conclusions of 2023 report



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In progress

- **Updates to FSE implementation status** through new data for a selected group of countries (SFPE enquiry, 2024)
- Exploration of **ongoing standardisation work & new fields** related to FSE implementation, to fulfil & anticipate needs
- **Education mapping + further analysis** of JRC enquiry results to better understand the expressed needs for education / training and connect them to the qualification frameworks, tasks and liability for fire designers with FSE approach

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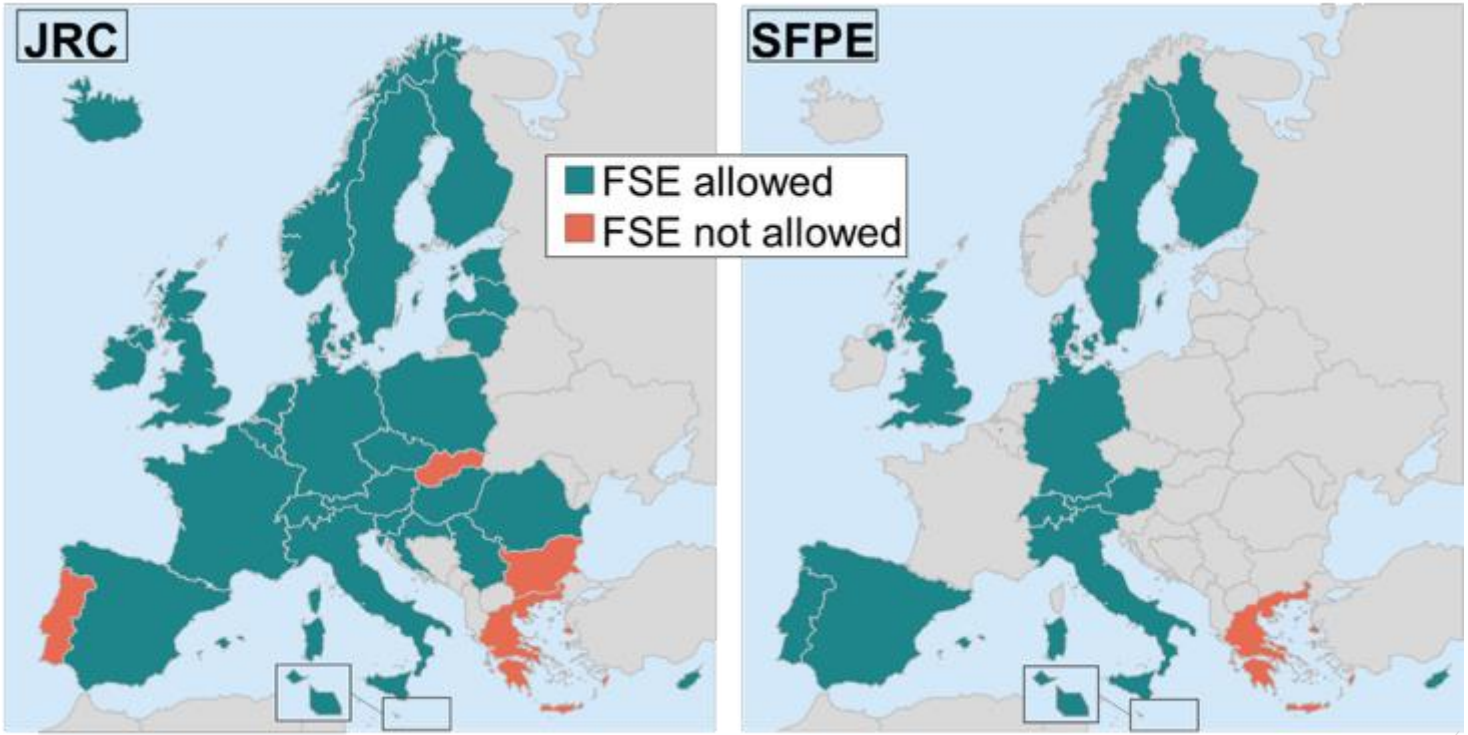
FSE allowance



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Technical Areas (TAs)

TAs are the technical details of a project (Fire detection, Suppression systems, Evacuation routes, Smoke control systems, Structural fire safety etc.). 12 TAs are considered in the survey

P = prescriptive approach, PB = performance-based, DTS = deemed-to-satisfy

In the group of 13 countries (both in GROW-JRC and SFPE enquiries)**:**

- For the same TA:
  - 40-50% of **fire regulators** declared P approach available, 25-35% PB, 20-30% DTS; at least one approach available for each TA
  - Fire **professionals** confirm the prevalence of P; however, some professionals declare that for specific TAs there is no approach
- TAs where PB approach applies in most countries:
  - **Regulators**: StructFS, SmokComp
  - **Professionals**: StructFS, SmokCoSys

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Types of buildings / civil engineering works

In the group of 13 countries (both in GROW-JRC and SFPE enquiries)**, FSE applies to:**

- **Most indicated**: High-rise buildings; super-high-rise buildings (h>200m); airport terminals
- **Least indicated**: Residential buildings / houses
- Disagreement on Train stations & subway stations, Tunnels (among the least indicated by regulators, among the most indicated by professionals)

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Assessment methods

- Designated by building/fire regulations
- Described in standards referenced in the building/fire regulations

indicated by 30-50% of regulators and 40% of professionals across TAs

- Described in the documents issued by academic/professional society
- Described in peer-reviewed papers in journals/conference proceedings

indicated by 25-30% of both regulators and professionals across TAs

- Approved by government
- Accepted by building/fire officials

indicated by 15-25% of regulators and 20-25% of professionals across TAs

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Standardisation activities

Some of the most urgent topics indicated by both enquiries:

- Selection of design fires and design fire scenarios
- Fire safety performance and acceptance criteria
- Standardised assessment methods for FSE
- Data from standard tests

ISO/TC 92/SC 4

- Selection of design fire scenarios

CEN/TC 127/WG 8

- European guidelines for PB codes
- Survey on FSE control process
- New targets: input data, criteria, models for FSE and their relationship with prescriptive data.

CEN/TC 250/HG 'Fire'

- Harmonised design rules of the Eurocode fire parts, to facilitate FSE
- New assessment methods

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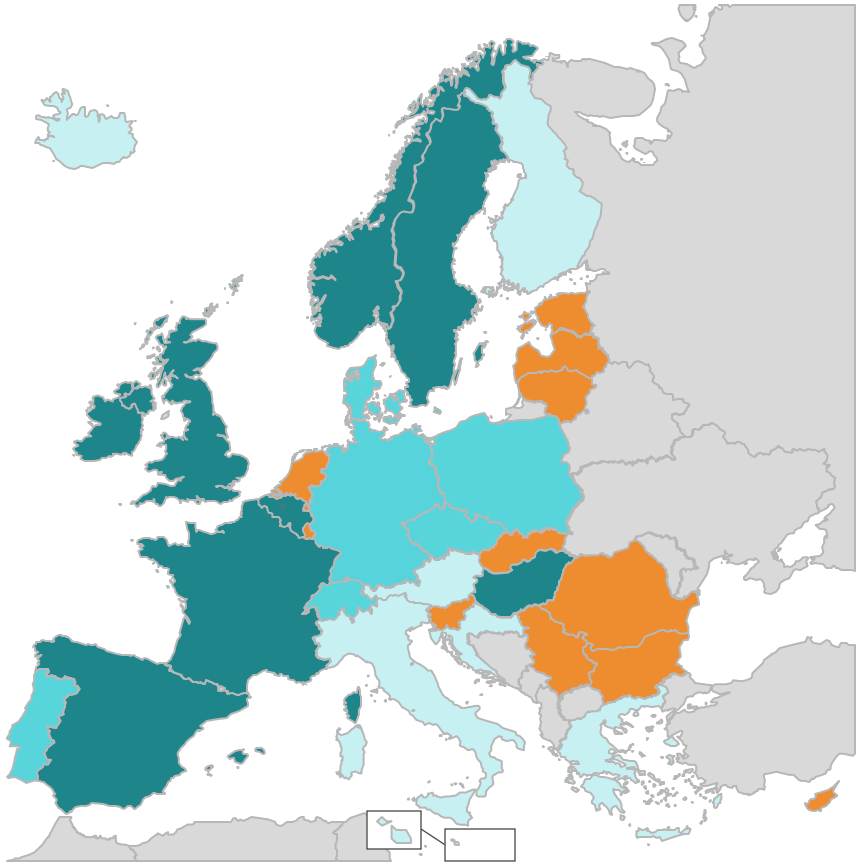
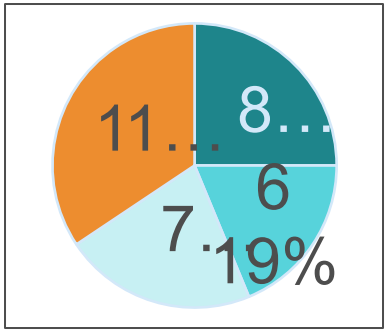
Education mapping

- 33 courses mapped (including IMFSE)





- Full BSc, MSc ≥ 3 y
- Vocational courses (Master, PhD, lifelong learning) ≤ 2 y
- Vocational courses (max 1 y) and/or modules in BSc/MSc courses
- No FSE education / training

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Education, qualification and practice

- In 13 out of 28 countries **qualification** is not explicitly defined – either for practitioners, or for reviewers, or both – or the framework is not harmonised, i.e. the bodies issuing qualification certificates can differ from reviewers to practitioners.
- The fire regulators provided information on the **role of the fire engineer** (generally meaning the specialist responsible for fire design) in specifying fire scenarios, design fires and safety criteria.
- In most of the responding countries the fire engineer can be **liable for building fire design**

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Education, qualification and practice

Country		Qualification framework fully defined	Role of the fire engineer	
			Specifier of (*):	Liability
Full FSE courses (at least 3 years duration)	IRL	Yes	FS, DF and SC	Yes
	HUN	Yes	FS and DF	Yes
	FRA	Yes	DF and SC	No
	BEL	No	FS, DF and SC	Yes
	ESP	No	FS, DF and SC	Yes
	GBR	No	FS, DF and SC	Yes
	NOR	No	FS, DF and SC	Yes
	SWE	No	FS	No

(*) FS = fire scenario, DF = design fire, SC = safety criteria

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Education, qualification and practice

15 countries have defined qualification frameworks:

- 5 provide FSE courses of at least 2 years duration
- 3 provide only short vocational training
- 7 no FSE education / training at all.

19 countries provide university level education in FSE:

- 11 have no fully defined qualification framework; in 9 of these the fire engineer can be liable for fire design and specifies all the main parameters of fire design (FS, DF and SC).

9 countries do not provide FSE education / training:

- only 2 have no fully defined qualification framework; in these 2 countries, the fire engineer specifies all the main parameters but takes no liability for fire design.

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Conclusions

- **Professionals** see a wider applicability of FSE;
- **Complex and large** construction projects are the main target;
- Professionals also appear to be aware of **available assessment methods** for FSE application across different sources
- **Standardisation committees** take into account the needs of fire safety regulators and professionals especially by working at standards to practically support FSE application in the professional practice

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Conclusions

- **Dialogue among stakeholders** – especially universities and authorities having jurisdiction on building regulations – to harmonise educational offer and qualification frameworks would allow to fully exploit and/or increase the potential of FSE education in place.
- In many countries, **an increase in educational offer will support fire engineers** in specifying the main parameters of fire design and undertaking liability.

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Thank you

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6/ Roundtable discussion and Q&A

(All participants)

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Safe and sustainable construction with plastics

7/ Wrap-up

(A. Duvielguerbigny, President of the Modern Building Alliance)

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Thank you!

Engage with us!

LinkedIn www.modernbuildingalliance.eu