pinfa A sector group of Cefic

MODERN HOMES, NEW FIRE RISKS

What Safety Needs to Keep Up

TUESDAY 17 NOVEMBER 2026
14.00 - 15.15 CET



EUROPEAN FIRE SAFETY WEEK 2026

Welcome & introduction

Modern homes, new fire risks

What safety needs to keep up

European Fire Safety Week 2026
17 November 2026 | 14.00-15.15 CET

Agenda

1.	Welcome & Introduction to pinfa	Esther Agyeman-Budu pinfa
2.	Opening remarks	Krzysztof Biskup European Fire Safety Alliance
3.	Evolving Fire Risk: From Evidence to Safer Buildings	Martina MANES University of Liverpool
4.	Fire Safety in Europe's Building Transition: Testing, Materials and Protection Objectives	Iben Hansen-Bruhn Danish Institute of Fire and Security Technology (DBI).
5.	Sustainability and Fire Safety in Modern Homes: Contradiction or Opportunity?	Thomas Futterer Pinfa & Chemische Fabrik Budenheim
6.	Questions and discussion	All
7.	Wrap-up & conclusion	Esther Agyeman-Budu pinfa

Webinar housekeeping

01 Microphones off

All participant microphones are muted. Please keep them switched off.

02 Questions in the chat

Type your questions directly in the chat. The moderator will bring them into the discussion.

03 Technical difficulties

Please manage local connection, audio or device issues yourself, with your own IT support if needed.

COMPETITION LAW

CHECKLIST FOR MEETINGS

DO

Ensure strict performance in areas on:

Oversight / Supervision

- Have a Cefic/Sector Group Secretariat representative at each meeting
- Consult with appropriate counsel on all questions which might be related to competition law
- Limit meeting discussions to agenda topics
- Provide each attendee with a copy of this checklist, and have a copy available for reference at all meetings

Recordkeeping

- Have an agenda and minutes which accurately reflects the matters which occur
- Ensure the review of agendas, minutes and other important documents by appropriate staff or counsel, in advance of distribution
- Fully describe the purposes, structures and authorities of the groups

Vigilance

- Protest any discussion or meeting activities which appear to violate this checklist
- Ask for those activities to be stopped so that appropriate legal check can be made by counsel
- Dissociate yourself from any such discussion or activities and for the attendees, leave any meeting in which they continue (and have it minuted)

This checklist is for the conduct of Cefic-sponsored meetings. Prohibited discussion topics apply equally to social gatherings incidental to those meetings.
The checklist is not exhaustive.
Contact: Quentin Silvestre, Senior Legal Advisor at qsi@cefic.be

DON'T

in fact or appearance, discuss or exchange information not in conformity with competition law, including for example on:

Prices, including

- Individual company/industry prices changes, price differentials, discounts, allowances, credit terms, etc
- Individual company data on costs, production, capacity (other than nameplates capacities), inventories, sales, etc

Production, including

- Plans of individual companies concerning the design, production, distribution or marketing of particular products, including proposed territories or customers
- Changes in industry production capacity (other than nameplates capacities) or inventories, etc

Transportation rates

- Rates or rate policies for individual shipments, including basing point systems, zone prices, freight, etc

Market procedures, including

- Company bids on contracts for particular products; company procedures for responding to bid invitations
- Matters relating to actual or potential individual suppliers or customers that might have the effect of excluding them from any market or influencing the business conduct of firms towards them, etc
- Blacklist or boycott customers or suppliers



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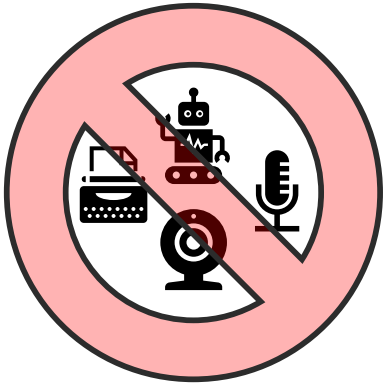
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A report of the meeting notes will be provided by Cefic after the meeting, in line with our practices and internal rules.

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See our privacy policy for further details.



Please check your settings now.

Phosphorus, Inorganic and Nitrogen Flame Retardants Association

pinfa members' shared vision



Vision: continuously improving the environmental and health profile of their flame-retardant products, offering innovative solutions for sustainable fire safety.



Commitment: to maintain high fire safety standards across the world, standards which minimize the risk of fire to the general public.

Pinfa members

Europe, China & North America

















































































Meet the pinfa Europe team





Thomas Futterer
Chair



Adrian Beard
Vice-Chair



Benjamin Wiekenberg
Vice-Chair



Sander Kroon
Vice-Chair



Esther Agyeman-budu
Sector Group Manager



Elena Leonardi
Sector Group Manager



Hannane Haddouch
Assistant



Myriam Goffin
Communications



Chris Thornton
Communications

How to reach us

www.pinfa.eu

www.linkedin.com/company/pinfa-sector-group-of-cefic/

Krzysztof Biskup

Chair

European Fire Safety Alliance

Fire Officer and former Vice Director of the Research Centre for Fire Protection.



MEET THE SPEAKER

Dr Martina Manes



Lecturer in Civil Engineering

University of Liverpool

Research in fire safety engineering, fire risk assessment, fire statistics and engineering resilience.

Leads activities in EU FireStat Phase 2 and co-leads eRisiko on electric vehicle fire risks.

Evolving Fire Risk: From Evidence to Safer Buildings

Evolving Fire Risk:
From Evidence to Safer Buildings

Dr M. Manes
Lecturer in Civil Engineering
School of Engineering, University of Liverpool

2026 EU Fire Safety Week
17th November 2026

UNIVERSITY OF LIVERPOOL

MODERN HOMES

- Decarbonisation
  - Renewable energy
  - Electrification of heating
  - Energy-efficient building retrofitting
- New Technologies
  - Lithium-ion batteries
  - Photovoltaic panels
  - Electric vehicles
- New materials
  - Engineered timber
  - Advanced thermal insulation
  - Composite façade and cladding system
  - Green walls
- Evolving building uses
  - Home becoming workspaces
  - EV charging hub
  - On-site energy generation
  - Ageing of population
  - Diverse occupancy patterns

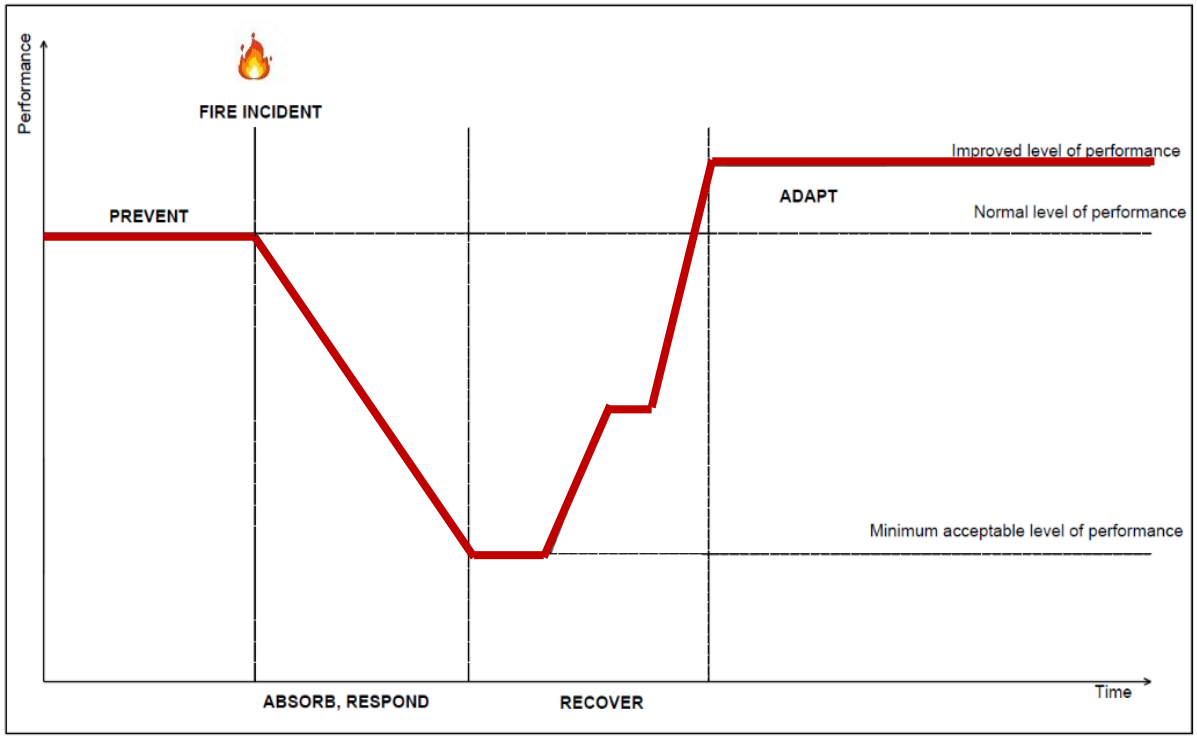


Are our fire safety strategies keeping pace with these transformations?

HOLISTIC APPROACH: FIRE RESILIENCE

MISSIONS

- Prevent
- Absorb
- Respond
- Recovery
- Adapt
- Learn



M. Manes, D. Lange, and D. Rush, “Resilience, fire and the UK Codes and Standards. Where are they and where could they go?” (2022) Indoor and Built Environment

EVIDENCE NEEDED TO EVALUATE FIRE RISK

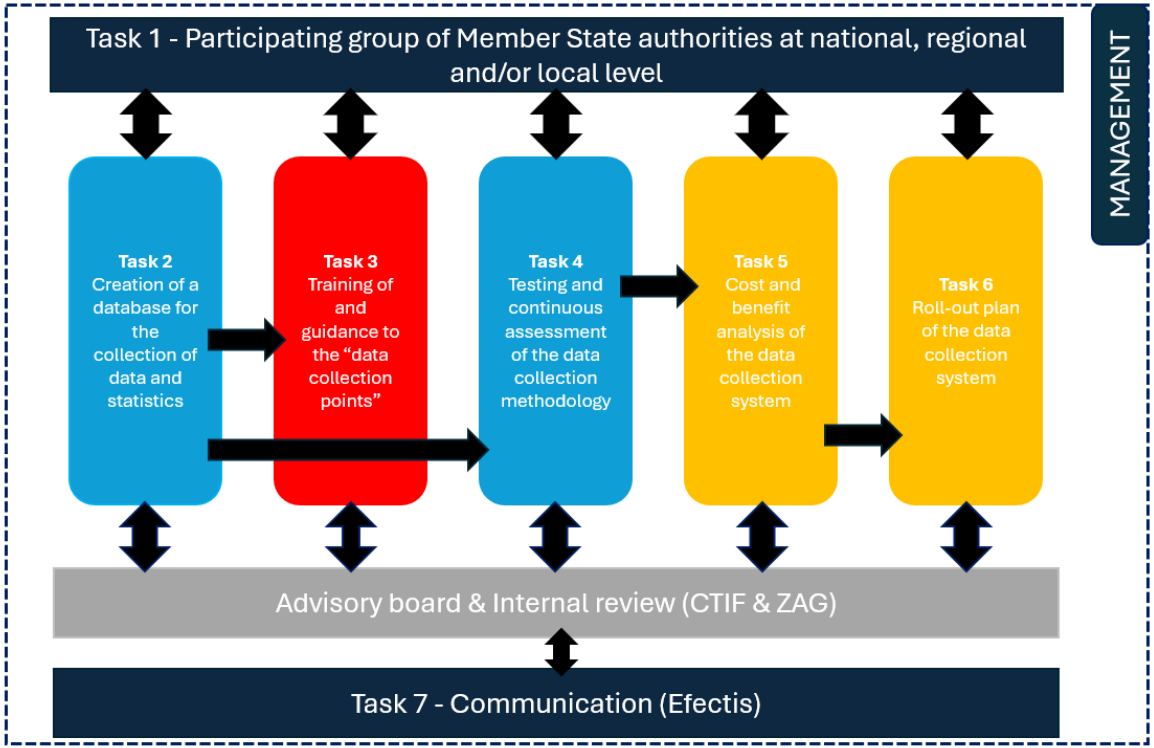
What can fire incidents teach us about the actual performance of our buildings?

Across Europe, fire incident statistics are collected using different definitions and methodologies



Valencia Fire (2024)

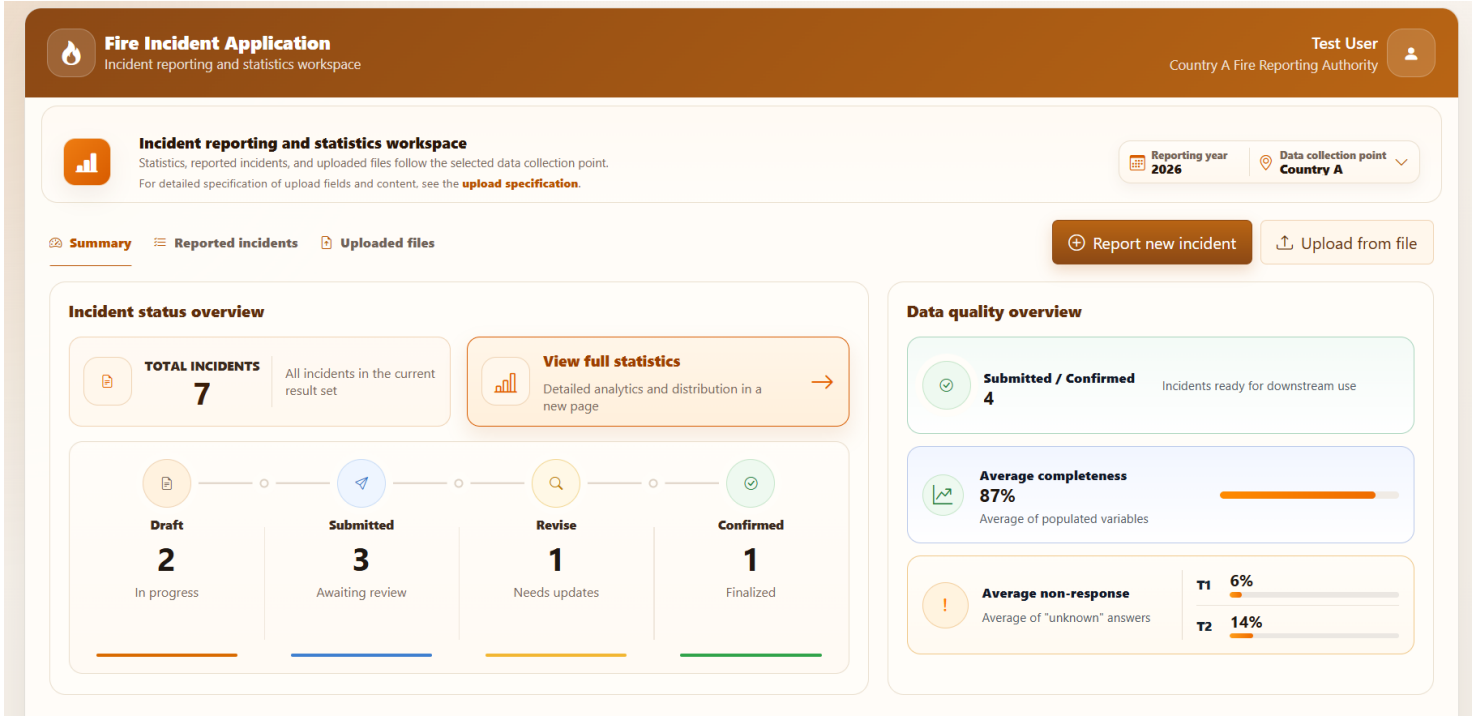
EU FIRESTAT 2: BUILDING FIRES INCIDENT DATA



Financed by the European Parliament
Commissioned by the European Commission under the Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs (DG GROW)

EU FIRESTAT 2: BUILDING FIRE INCIDENT PLATFORM

- Web-based database and supporting software solution for access to the database, which will collect and store fire safety incidents and data from EU Member States



Example of the EU FireStat platform (EU FireStat)

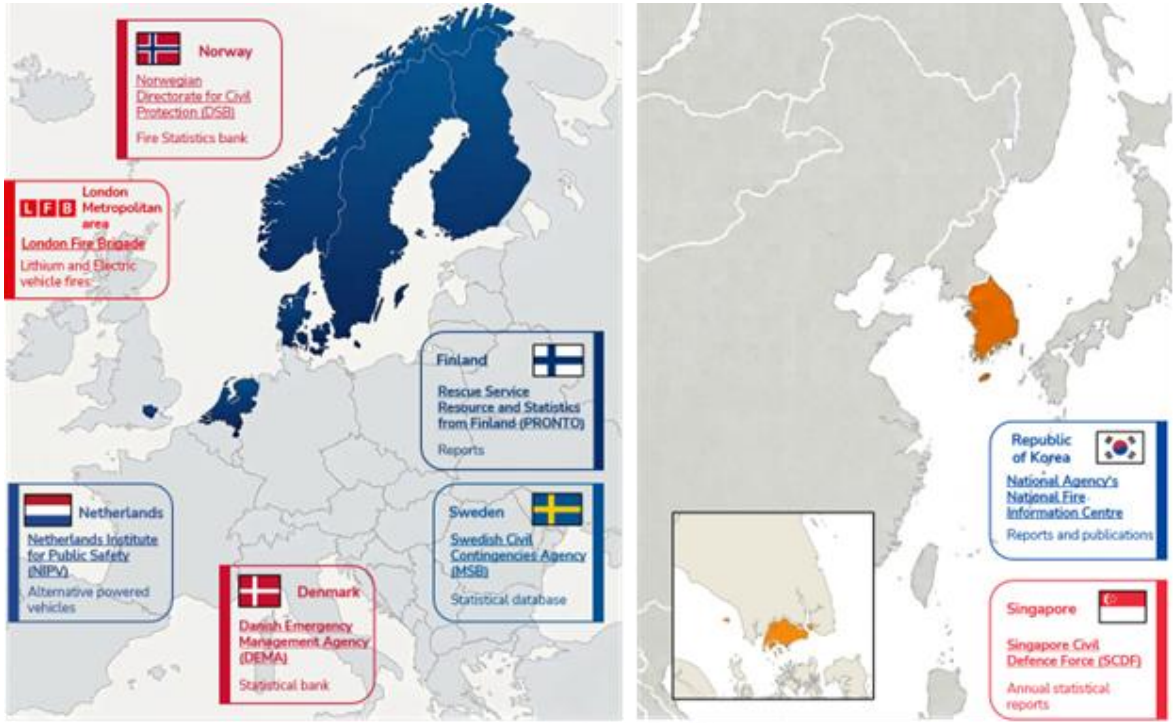
EMERGING TECHNOLOGIES: ELECTRIC VEHICLE (EV) FIRE



BBC News (2024)

EV FIRE INCIDENT DATASETS





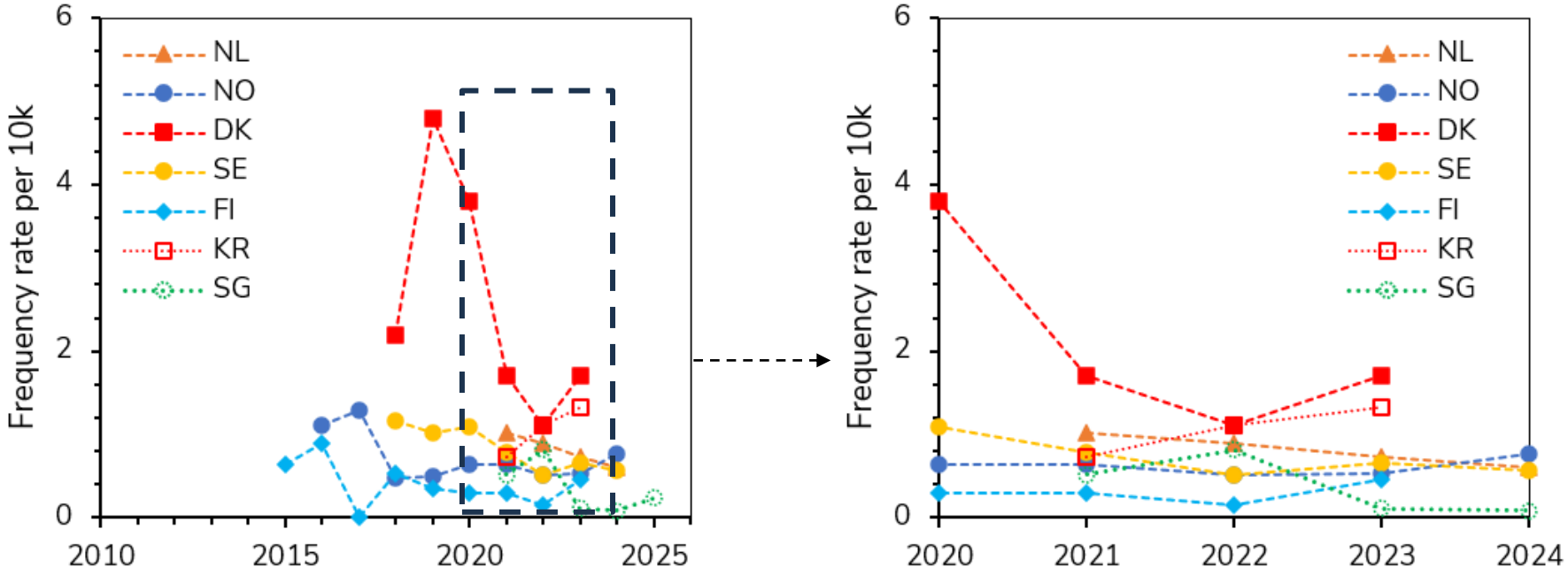
GLOBAL DATASETS

UL Solutions
Lithium-ion battery incident reporting

EV Fire Safe
Passenger EV LIB Fire Incidents - Global as of 30th June 2024 (report)

U. Rojas-Alva, S. Povall, M. Manes "A Statistical Investigation of International Incident Datasets on Electric Vehicle Fires" (2026) – under review, Fire Technology Journal

EV FIRE FREQUENCY



Estimated frequency rates for EV from various regions (London Fire Brigade – LFB), countries (Netherlands NL, Norway NO, Denmark DK, Sweden SE, Finland FI, Singapore SF, and the Republic of Korea KR)

PRIORITIES AND ADVANCEMENTS

- ❑ Anticipate emerging fire risks
- ❑ Strengthen data-driven and risk-informed evidence
- ❑ Connect research, industry and policy



Acknowledgment:
EU FireStat 2: Financed by the European Parliament. Commissioned by the European Commission under the Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs (DG GROW)
eRisiko: MSCA Staff Exchange Project eRisiko project (no. 101236710) funded by the European Commission in 2025



Thank you

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MEET THE SPEAKER

Iben Hansen-Bruhn



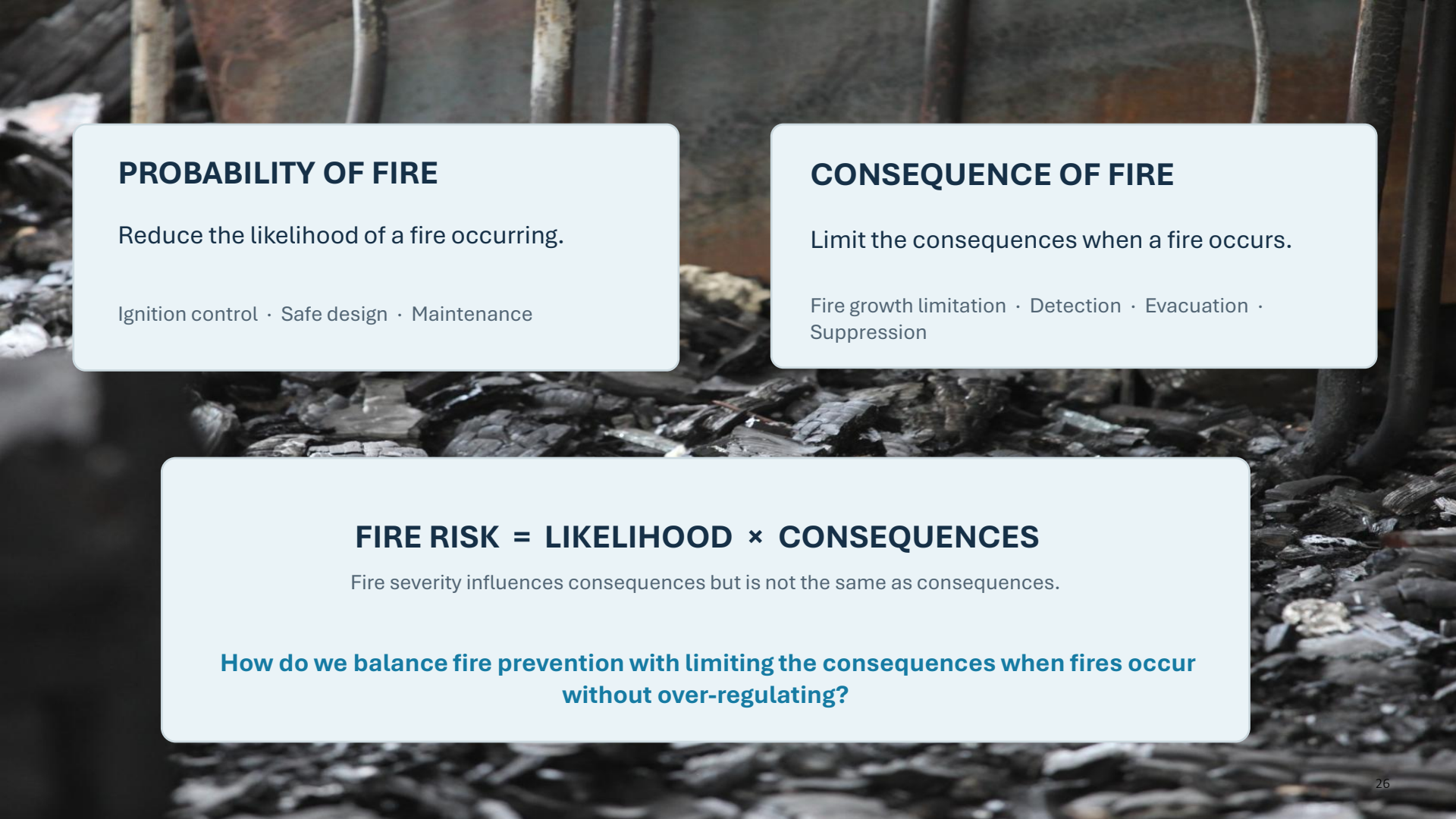
R&D Specialist

Danish Institute of Fire and Security Technology (DBI)

PhD in Chemistry, with a background in industrial research and development.

Focuses on fire chemistry, material behaviour in fire, and the evaluation of fire safety technologies.

Fire Safety in Europe's Building Transition: Testing, Materials and Protection Objectives



PROBABILITY OF FIRE

Reduce the likelihood of a fire occurring.

Ignition control · Safe design · Maintenance

CONSEQUENCE OF FIRE

Limit the consequences when a fire occurs.

Fire growth limitation · Detection · Evacuation · Suppression

FIRE RISK = LIKELIHOOD × CONSEQUENCES

Fire severity influences consequences but is not the same as consequences.

How do we balance fire prevention with limiting the consequences when fires occur without over-regulating?

RENOVATION OVER NEW BUILD



Trend no. 1: Renovation and repurposing of existing buildings introduce new materials, functions and patterns of use into constructions originally designed for different conditions.

FIRE-TESTING CHALLENGE

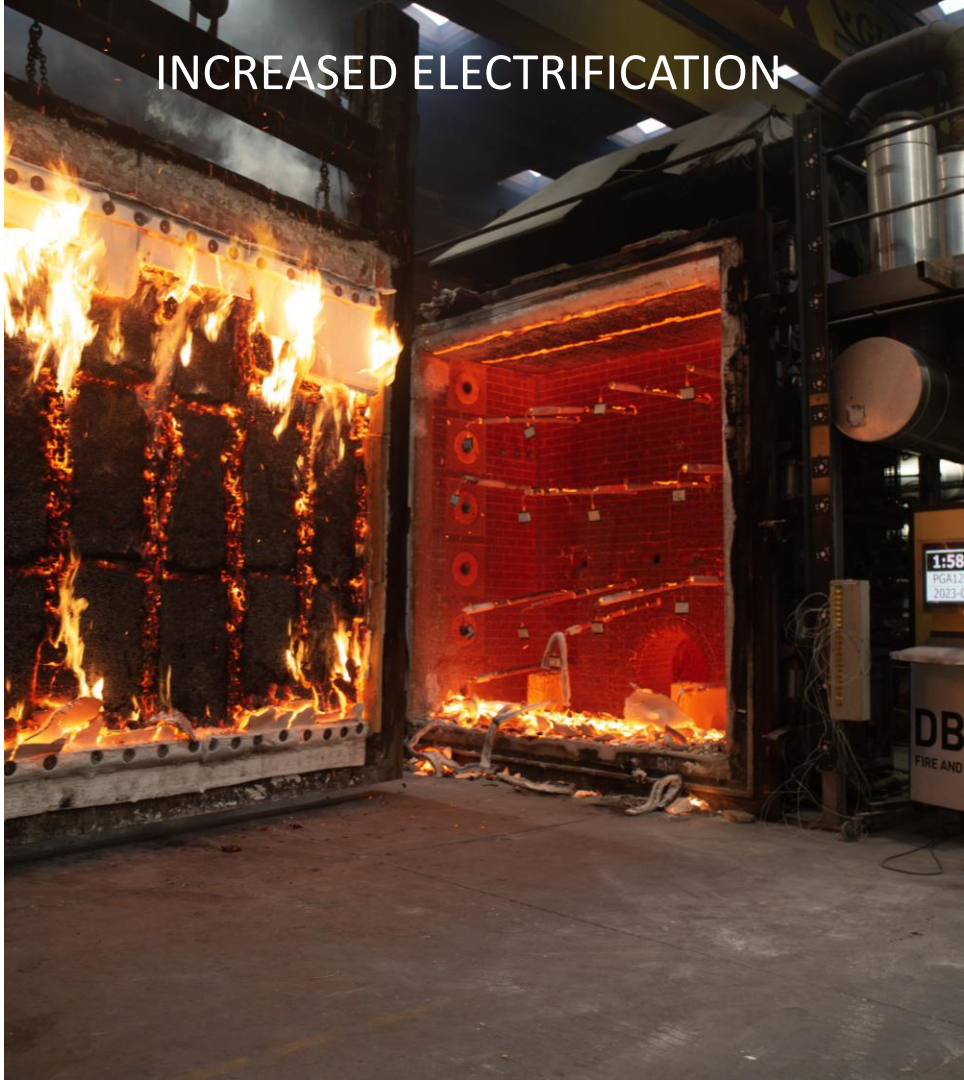
How do we demonstrate adequate fire safety in existing buildings where prescriptive design requirements may not fully reflect the actual construction?

European Green Deal, Renovation Wave Strategy, Energy Performance of Buildings Directive, Fit for 55

Trend no. 2: Battery energy storage systems (BESS), photovoltaics (PV), electric vehicles (EV), charging infrastructure, changing ignition mechanisms and potential fire scenarios.

FIRE-TESTING CHALLENGE

How do fire testing methods address emerging ignition mechanisms and fire scenarios associated with increased electrification? Are we fire testing the right scenarios or just introducing constrains to the green transition?

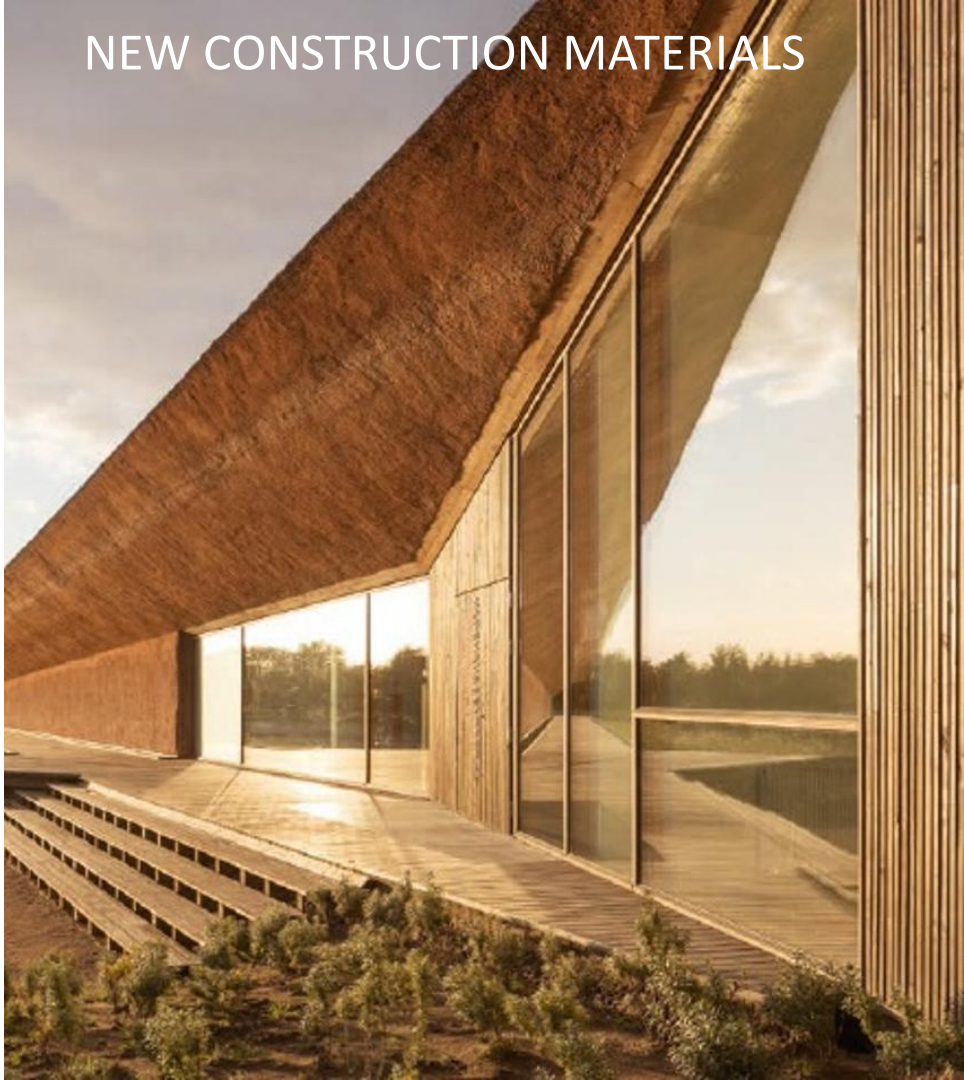


Trend no. 3: The transition towards bio-based, reused and recycled construction materials is changing material compositions, construction practices and the combinations of materials used in buildings

FIRE-TESTING CHALLENGE

How representative are standardized fire test of new materials and their intended applications in construction systems?

DBI



WHAT IS AN ADEQUATE FIRE SAFETY LEVEL?

Fire testing provides measurable data about fire behaviour and performance, but determining an adequate level of fire safety requires clearly defined protection objectives.

WHAT DO WE AIM TO PROTECT?

Is protecting human life sufficient, or should fire safety also protect buildings, assets and communities?

Life safety · Property protection · Community resilience · Environmental protection



MEET THE SPEAKER

Thomas Futterer



Chairman of pinfa Europe

Market Regulation and Advocacy, Chemische Fabrik Budenheim

Responsible for Market Regulation and Advocacy in Budenheim's Material Sciences division.

Expertise in flame-retardant technologies, regulatory compliance, sustainability and the circular economy.

Sustainability and Fire Safety in Modern Homes: Contradiction or Opportunity?

Fire Safety and Sustainability in Modern Homes: Contradiction or Opportunity?

Thomas Futterer
Chair, pinfa / Head of Market Regulatory & Advocacy, Material Science, Chemische Fabrik Budenheim

EFSW, 17 November 2026



Cefic sector group

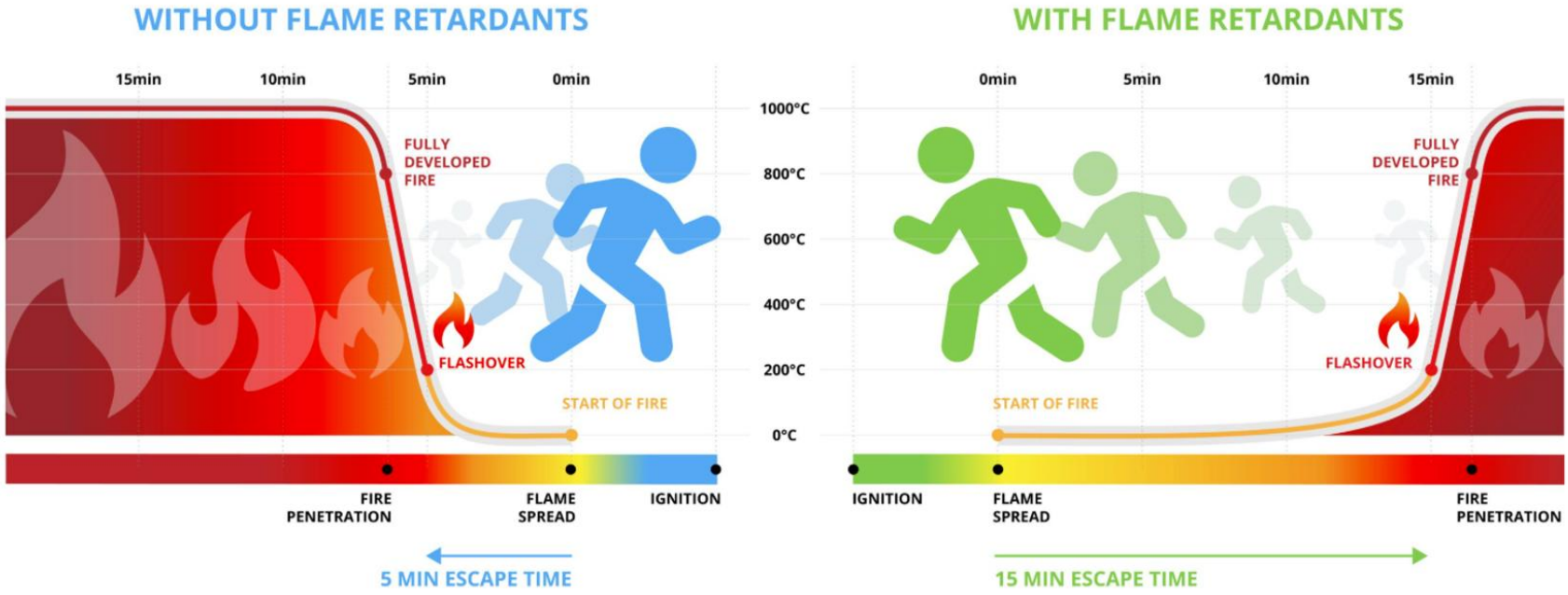
The European Chemical Industry Council, AISBL – Rue Belliard, 40 - 1040 Brussels – Belgium
Transparency Register n°64879142323-90

Wake-Up Call for Increased Fire Safety and Sustainable Fire-Resistant Construction

Date	Location	Building	Material	Fire origin / contributing factors
14 June 2017	**London, UK (Grenfell Tower)**	High-rise residential tower	Exterior ACM cladding & polyethylene insulation	Electrical fault ignited fridge; cladding fuelled spread [en.wikipedia.org]
22 Feb 2024	**Valencia, Spain**	High-rise residential building	ACM cladding with polyethylene core	Flammable ACM cladding fuelled rapid spread [reuters.com]
26 Nov 2025	**Tai Po, Hong Kong (Wang Fuk Court)**	High-rise residential complex	Bamboo scaffolding, safety netting, EPS foam insulation	Scaffolding net caught fire and spread rapidly [en.wikipedia.org]
1 Jan 2026	**Crans-Montana, Switzerland (Le Constellation Bar)**	Bar/nightclub	Sparklers, ceiling materials, open-cell polyurethane (PU) acoustic	Sparklers ignited ceiling materials [theguardian.com]



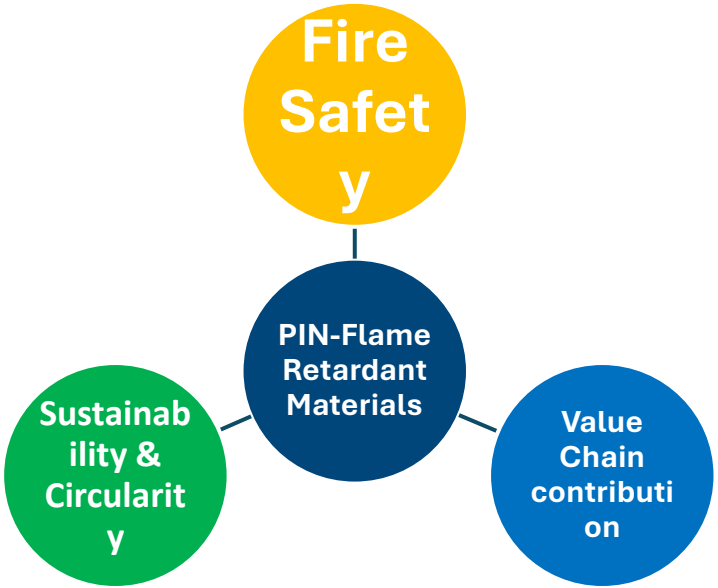
Flame retardants can increase escape time in fires



- **Flame retardant materials can make the difference by increasing escape time up to 15 minutes instead of 5 min**
- **Critical life saver especially for homes using modern materials (e.g., bio-based)**

Fire Safety and Sustainability: Contradiction or Opportunity?

Future materials need to fulfil fire safety, sustainability and circular economy goals at the same time.





The challenge is not choosing between fire safety, sustainability and circularity. It is delivering all three.

Fire Safety and Sustainability: Contradiction or Opportunity?

Future materials need to fulfil Fire safety, Sustainability and circular economy goals **at the same time.**

Opportunities & Innovation	Challenges
• **Energy transition** (EVs, batteries, renewable energy systems)	• Increasing **chemical regulation** and compliance requirements
• Renovation and **modernisation of buildings** and infrastructure	• Growing dependence on **critical raw materials**
• Higher performance requirements for **modern materials** (also bio-based)	• Geopolitical and resource **security challenges**
• Advancing **recycling techniques**	• **Climate change** and increasing extreme weather events
• **Collaboration** across the value chain and fire safety community	• **Legacy substances limiting recycling streams**

Sustainable Flame Retardants

Contributing to the development of lower-hazard solutions for future applications.



"Thus, based on the current information, groups of low or unlikely hazards can be identified such as:

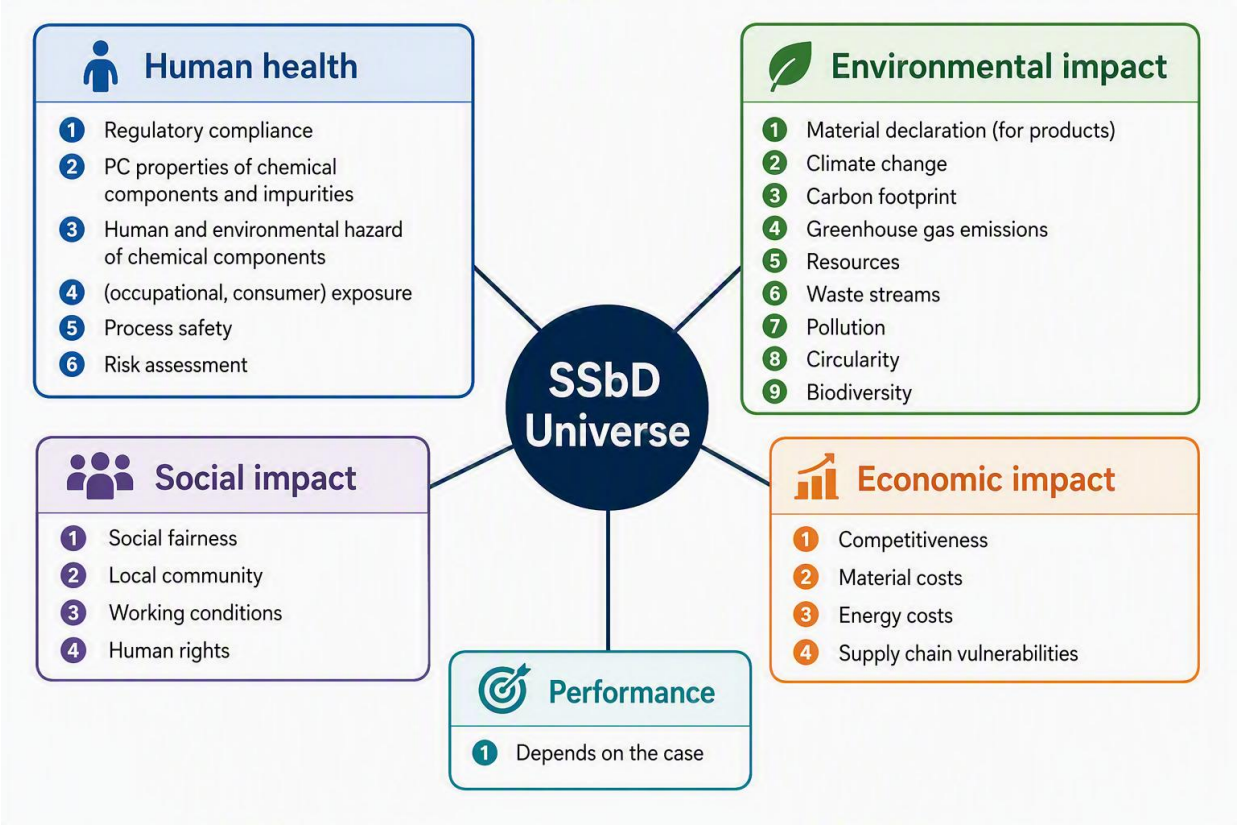
- *Non-cyclic alkyl aryl esters of phosphoric acid,*
- *Other hydrogenphosphonates and alkyl phosphonates, their salts and esters, and*
- *Dibenzo oxaphosphorine oxide derivatives (DOPO derivatives)*
- *Hydrocarbyl phosphinates"*

***Inorganic phosphates, polyphosphates, phosphinates, phosphonates and phosphorus and its inorganic salts** have been assessed with **low hazard and no further EU regulatory risk management need**."*

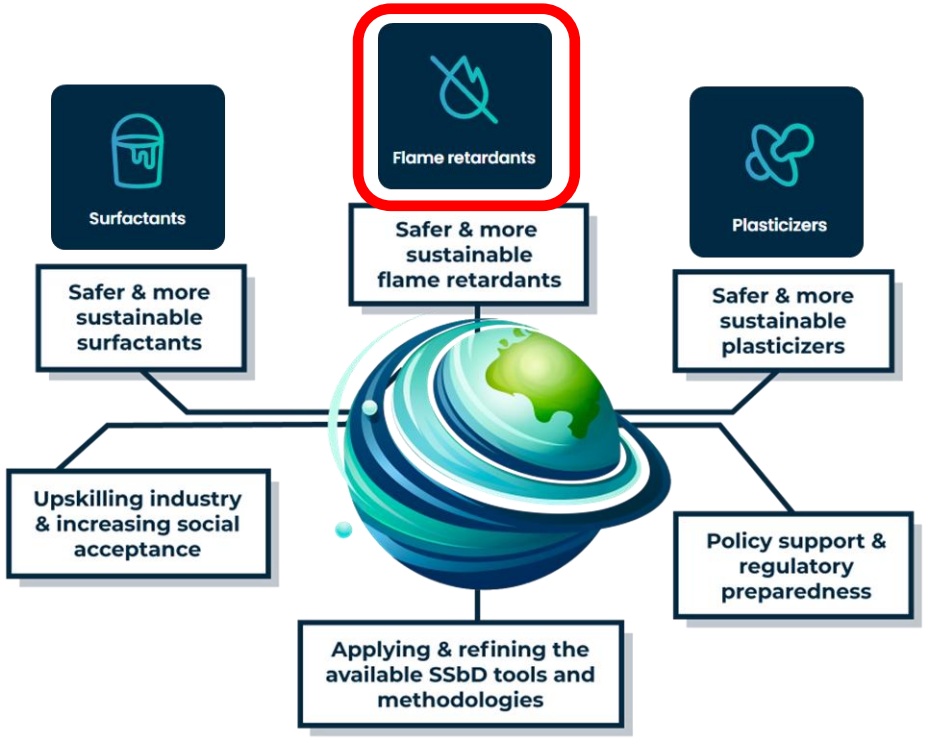
ECHA Flame Retardants Strategy 2023-03

Safe and Sustainable by Design Framework (SSbD)

Indicators and criteria for modern building materials:



PLANETS example: Applying Safe and Sustainable by Design (SSbD) to flame retardants



PLANETS

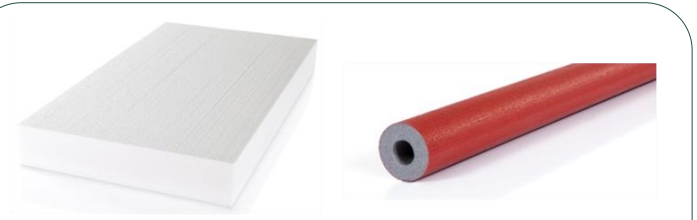
Funded by the European Union

This project received funding from the European Union's Horizon Europe research and innovation programme under grant agreement n° 101177608. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

Safe and Sustainable by Design (SSbD)
PLANETS: Flame Retardants (FRs) Case Study

48 Months duration | **18** International partners | **7** Countries involved | **14.5** Mio. € budget

- **WHAT**: FRs are chemicals designed to prevent materials from igniting or to slow down the burning process
- **CHALLENGE**: General health and safety concerns regarding low molecular-weight halogenated flame retardants for foam application e.g., SR130, FR720, and TCPP
- **PLANETS APPROACH**: Flame-retardant thermoplastic and thermoset foams containing new flame retardants developed using the Safe-and-Sustainable-by-Design approach, integrating human-health, environmental and per



Materials used in buildings and construction

Integration of fire safety in Sustainable Building and Energy Transition

- European **Green Deal's push towards decarbonizing** buildings with **innovative** technologies.
- Managing fire **risks associated with new technologies and energy transition,** such as PV panels, EV charging points and E-Mobility, battery storage systems and more.
- Innovative **fire safety solutions are needed for sustainable materials**, for example **bio-based and recyclable** construction products.
- Aligning innovation with **EU and global safety and sustainability** standards.



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Thank you.

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Specialty Chemicals
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About Cefic

Cefic, the European Chemical Industry Council, is the forum of large, medium and small chemical companies across Europe, accounting for 1.2 million jobs and 13% of world chemicals production.

On behalf of its members, Cefic's experts share industry insights and trends, and offer views and input to the EU agenda. Cefic also provides members with services, like guidance and trainings on regulatory and technical matters, while also contributing to the advancement of scientific knowledge.

Cefic sector group

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Questions & discussion

What should fire safety keep pace with?

Please type your questions in the chat.
The moderator will invite speakers to respond.

Wrap-up & conclusion

Thank you for joining us

Modern homes, new fire risks
What safety needs to keep up

www.pinfa.eu | pinfa@cefic.be

Thank you.

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