



The GRENFELL Tower Fire - What happened?

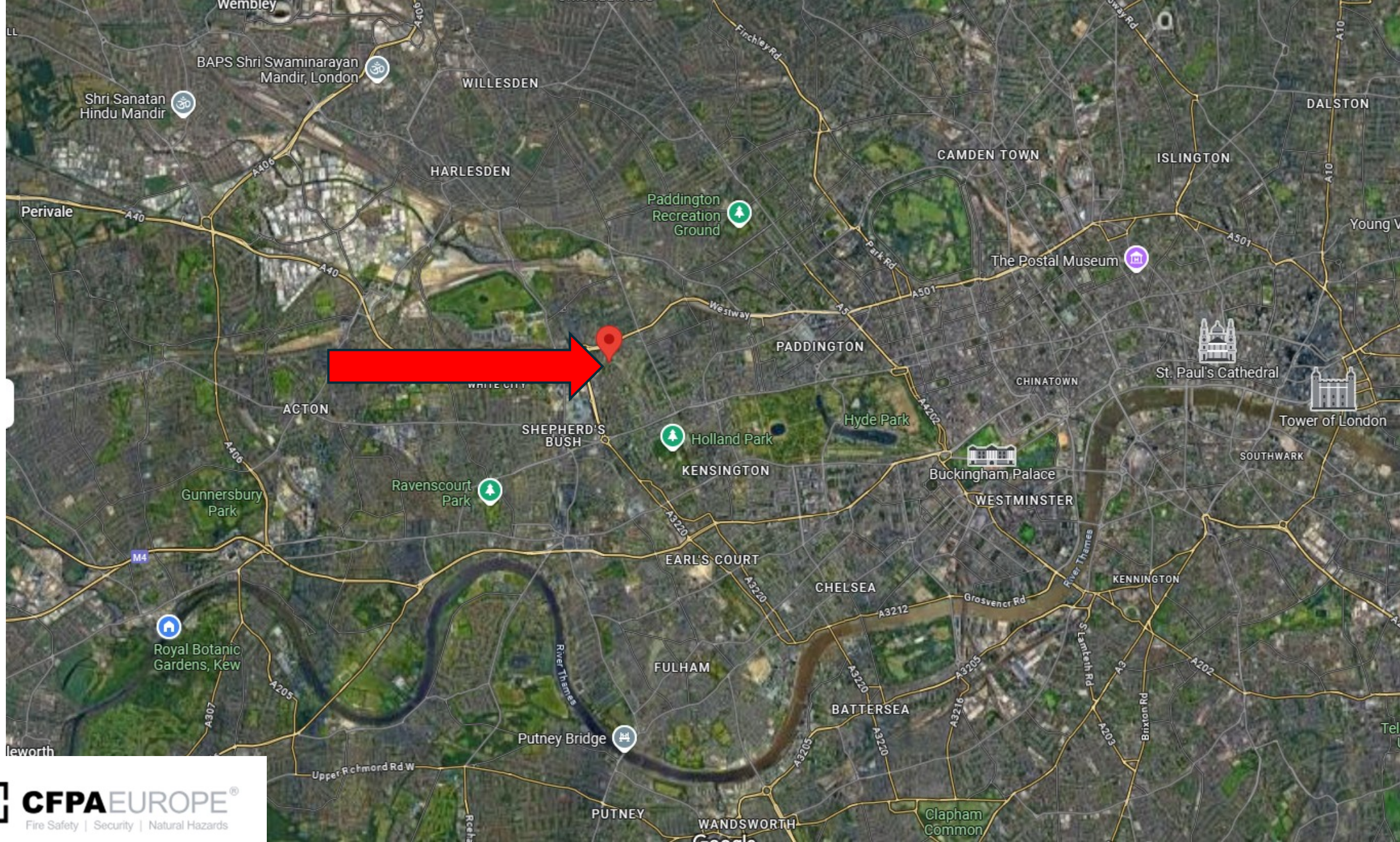


Presentation by JOHN BRIGGS BSc MBA
DIRECTOR CFPA-Europe

At the time of Grenfell
was the Commercial
Director of FPA







Grenfell Tower, May 2017



14 June 04:00 BST



05:27 BST

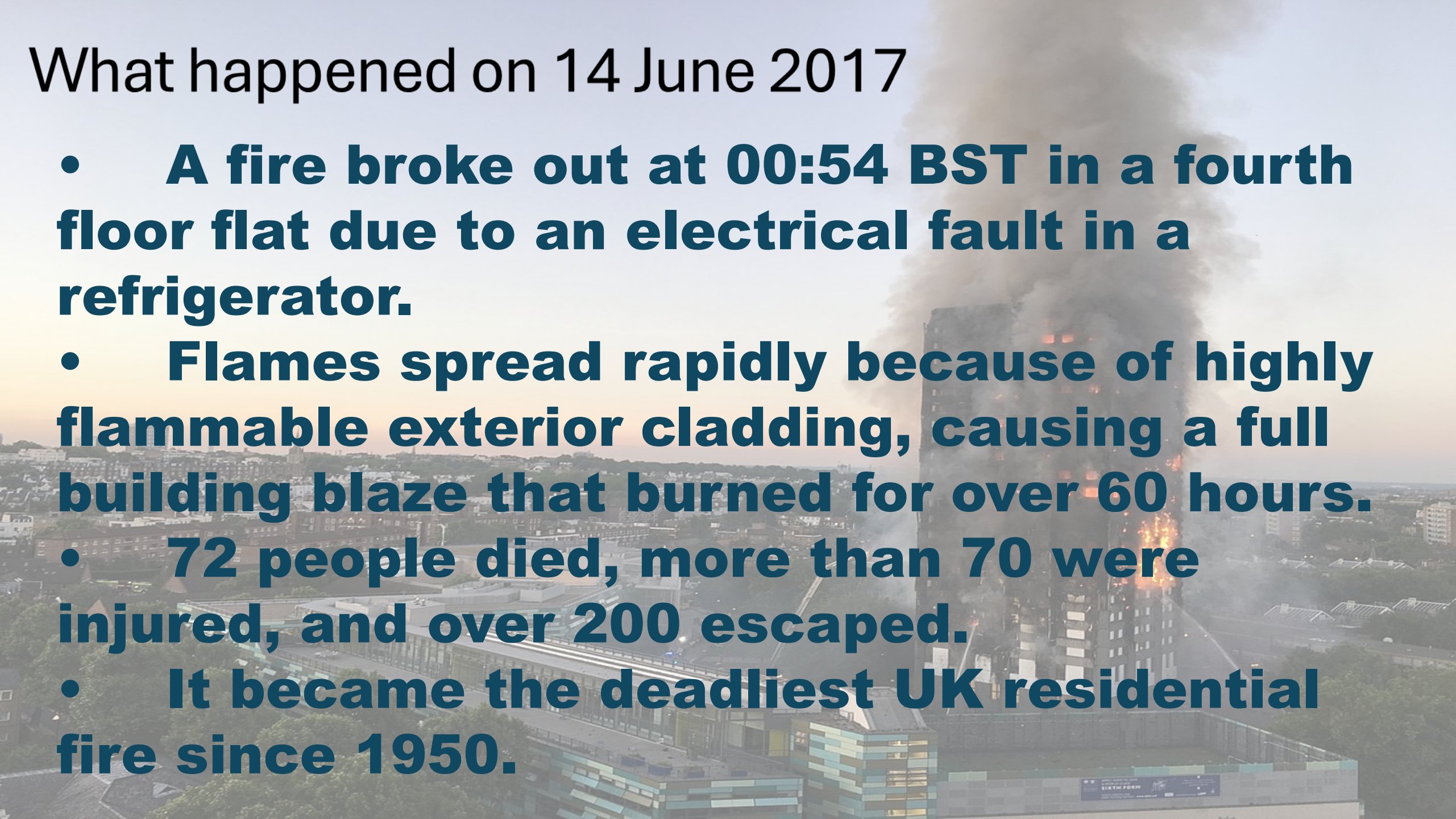


06:12 BST

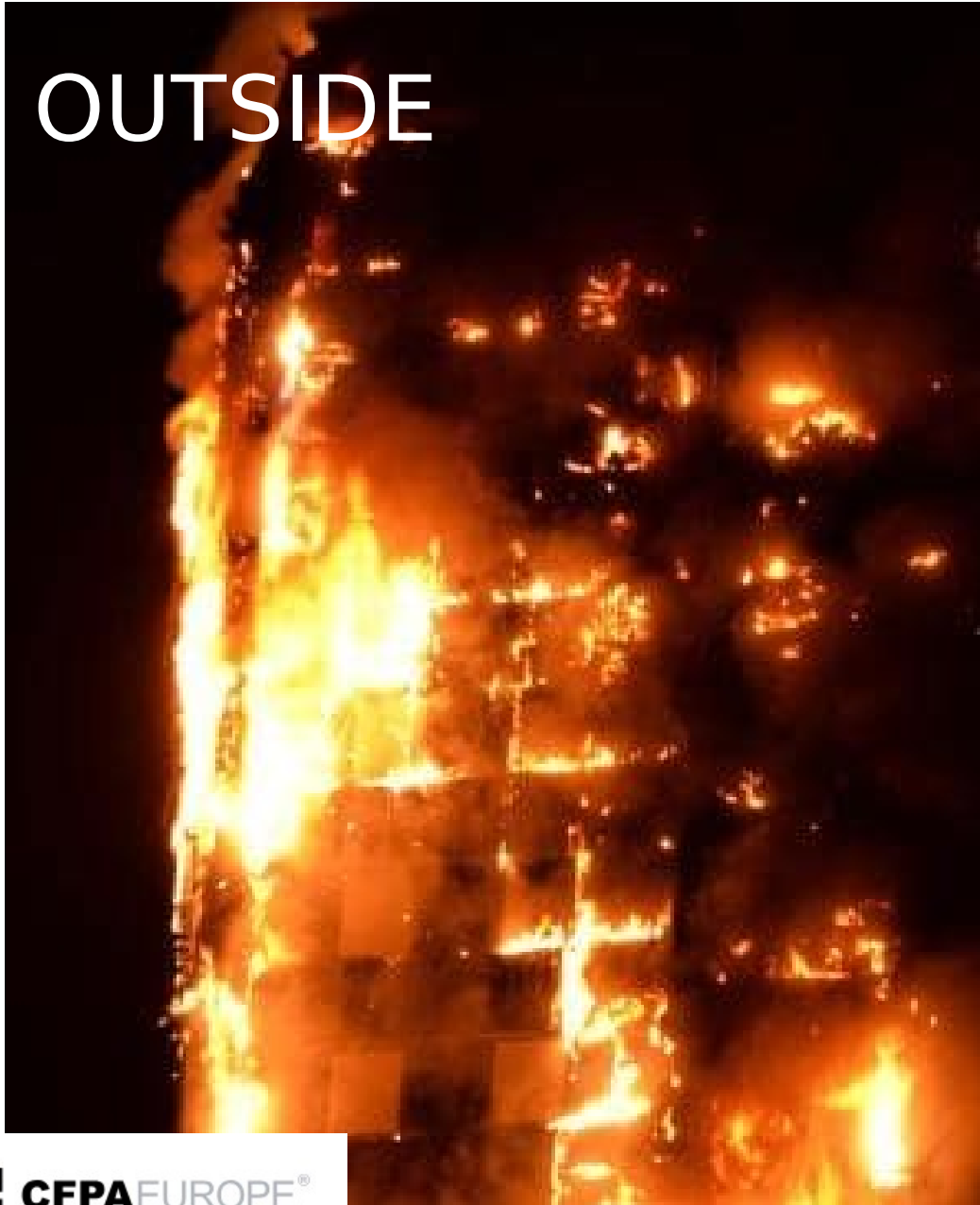


What happened on 14 June 2017

- **A fire broke out at 00:54 BST in a fourth floor flat due to an electrical fault in a refrigerator.**
- **Flames spread rapidly because of highly flammable exterior cladding, causing a full building blaze that burned for over 60 hours.**
- **72 people died, more than 70 were injured, and over 200 escaped.**
- **It became the deadliest UK residential fire since 1950.**



OUTSIDE



INSIDE





Emergency response



- Over **250 firefighters** and **70 fire engines** responded.
- The London Fire Brigade later acknowledged systemic failures, including communication issues and the controversial “stay put” policy, Former LFB commissioner Lord Andy Roe has recently spoken about the “**granular horror**” of the night **and the courage of firefighters who entered the building** despite failing systems.

STAY PUT Policy from Grenfell

Fire Action - GRENFELL TOWER



There is a "stay put" policy for residents unless the fire is in or affecting your flat

IF YOU DISCOVER A FIRE IN YOUR FLAT/BLOCK



1. Leave at once shutting the doors behind you.
2. Use the staircase and exit the building.



3. Telephone the Fire Brigade by dialling "999" or "112" and advise -
" Fire at Grenfell Tower, Lancaster West Estate, W11 1TQ"
Wait for the Fire Brigade to arrive. Do not re-enter the building

IF YOU ARE SAFELY WITHIN YOUR FLAT & THERE IS A FIRE ELSEWHERE IN THE BLOCK



You should initially be safe to stay in your flat keeping the doors and windows closed.

Firefighters arrived around 1am, and put out the fire in the flat within minutes.

When the crew were leaving the building, they spotted flames rising up the outside of



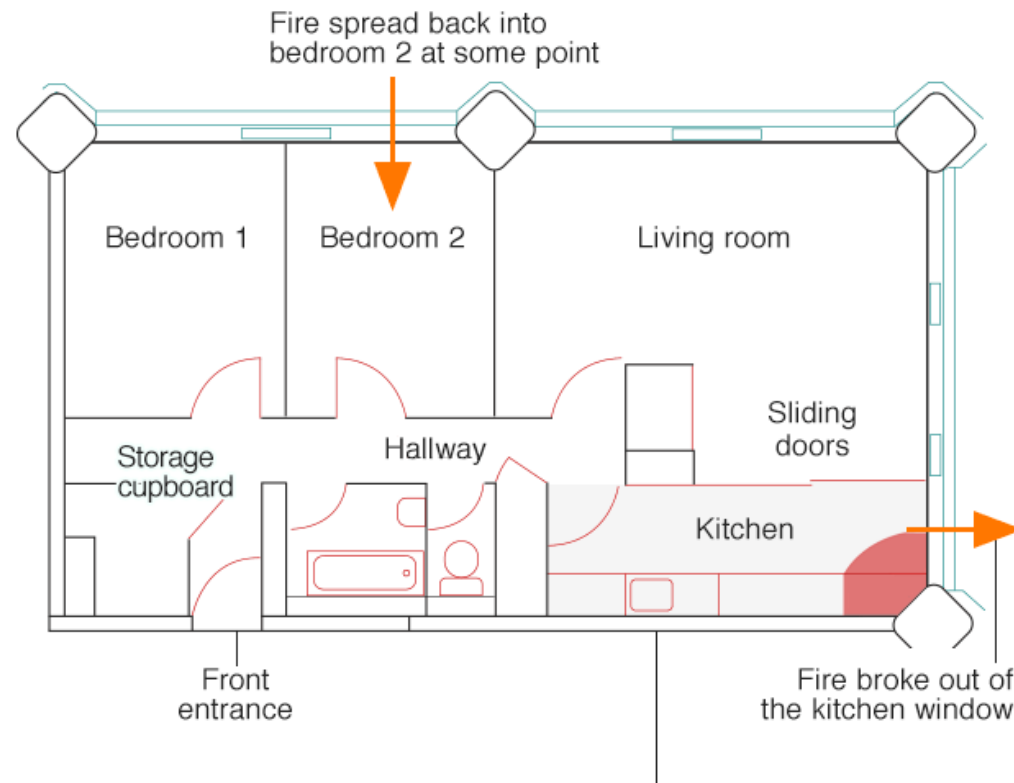
the building. Images later presented to the Grenfell Tower Inquiry suggested that the fire may have reached the outside cladding before the firefighters had begun to tackle

fire in flat 16

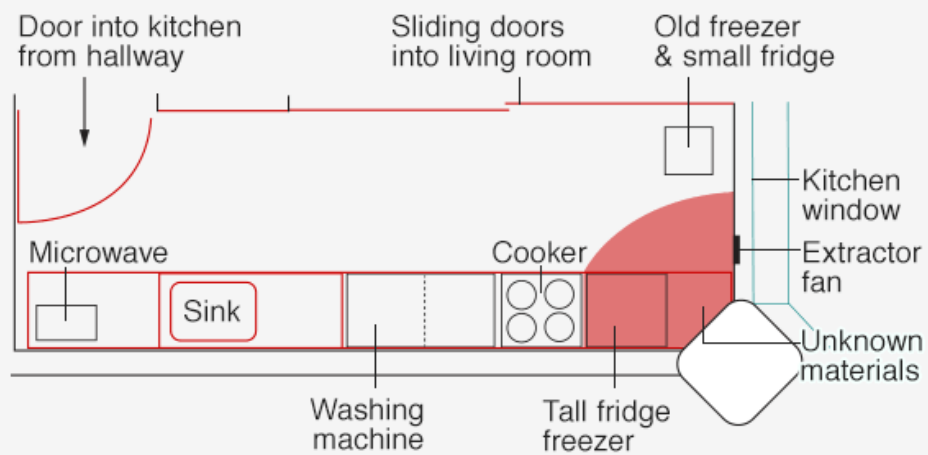
TYPICAL RESIDENTIAL FLOOR



Flat 16



Possible kitchen layout



■ Area where fire began



Investigations & Inquiry

- A public inquiry began in September 2017.
- **Phase 1 report** (2019) focused on what happened during the fire.
- **Phase 2 report** (2024) examined responsibility, regulatory failures, and the role of the council and contractors.
- The Royal Borough of Kensington and Chelsea [Owners] has publicly apologised and committed to implementing the inquiry's recommendations.

The tower today

- Grenfell Tower is being carefully dismantled, with work expected to continue until 2027.
- The UK government publishes regular community updates on air quality, dust, noise, and site safety during reconstruction process.



Memorial plans

- Parliament has approved funding for a **permanent memorial** on the site.
- Architecture firm **Freehaus** is leading the design, guided by survivors and bereaved families.
- The memorial will honour the 72 victims and is part of a broader push for justice and accountability



Policy changes since Grenfell

The disaster reshaped UK fire safety law:

- **Nationwide testing and removal of unsafe cladding.**
- **Billions in government funding for remediation.**
- **New Personal Emergency Evacuation Plan (PEEP) requirements for vulnerable residents in high rise buildings (as of April 2026).**

Grenfell Tower Inquiry

Key Findings of the Grenfell Tower Inquiry

The final report (published September 2024) concluded that the Grenfell fire was entirely avoidable and resulted from failures at every level of the building safety system.

1. Systematic dishonesty by cladding and insulation manufacturers

- Companies including Arconic, Celotex, and Kingspan engaged in deliberate and sustained strategies to manipulate fire safety tests, misrepresent data, and mislead the market.
- Arconic concealed the dangers of its Reynobond 55 PE panels; Celotex misled customers about its RS5000 insulation.

DIRECT QUOTES FROM THE INQUIRY

Anatomy of the cladding

50mm ventilation
cavity

Reynobond
cladding

3mm thick
aluminium
sheet

Core
Made either of polyethylene
or fire retardant material

250mm
thick
existing
concrete
wall

Celotex
FR5000
insulation

Sub-
structure

Fixing
bracket

Airflow



On 23 December 2021, the Secretary of State, acting through the Office for Product Safety and Standards (OPSS) in its role as the National Regulator for Construction Products, served **Prohibition Notices on Kingspan Insulation Ltd (Kingspan)** under the Construction Products Regulations 2013 and equivalent regulations in Northern Ireland in relation to certain Kooltherm K15 insulation (rainscreen) board.



For some months and then KINGSPAN proved the chemical make up and the prohibition notice was lifted

There were also issues with Cavity Barriers, not with the product, but with the way they were installed, and the use of Vertical barriers being used Horizontally and vice-versa

Poor installation of cavity barriers are not thought to have been a definitive factor in the fire at Grenfell Tower, as the materials used in the cladding were so combustible that they ignited and burned on their own steam.

Cavity barriers are designed to stop hidden fire spread in the gap between cladding panels and the insulation, but cannot prevent a fire tearing through a combustible cladding system.

The cavity barriers used on Grenfell Tower, as in all rainscreen systems, were 'open state' barriers which left a small gap to allow moisture to drain and evaporate but were supposed to close in the event of a fire.

This meant they could not be tested according to normal British Standards

2. Regulatory system was “seriously defective”

- Government oversight of building regulations was weak, fragmented, and failed to respond to known risks.
- Approved inspectors had conflicts of interest, prioritising commercial relationships over public safety.

3. Failures by central and local government

- The fire was the “culmination of decades of failure” by central government and other responsible bodies in the construction sector.

4. Failures in testing, certification, and enforcement

- Certification bodies and testing organisations lacked independence and robustness.
- The Building Research Establishment's [BRE] systems were not strong enough to ensure impartiality.

Grenfell was owned by the Royal Borough of Kensington & Chelsea



Local Authority Building
Control



The Royal Borough of
Kensington and Chelsea

The building inspectors were LABC and these inspectors worked for RBKC

Both of whom were trying to make the renovation as cheaply as possible

The Grenfell Tower Inquiry's final report (September 2024) identified a small group of companies as the most heavily criticised for their role in creating the conditions that made the fire possible. These firms were singled out for systematic dishonesty, manipulated safety tests, misleading regulators, and putting profit ahead of

MAIN FINDINGS



From 2005 until after Grenfell fire had deliberately concealed from the market the true extent of the danger of using REYNOBOND 55PE in cassette form, particularly on high-rise buildings.



Celotex embarked on a dishonest scheme to mislead its customers and the wider market



From 2005 until after this inquiry had begun, Kingspan knowingly created a false market in insulation for use on buildings over 18 meters in height.



BRE had sacrificed rigorous application of principle to its commercial interests



Persistent indifference to fire safety, particularly the safety of vulnerable people



1. Arconic (Arconic Architectural Products SAS)

Role: Manufacturer of the Reynobond 55 PE aluminium composite cladding panels used on Grenfell. Why criticised:

- Inquiry found “systematic dishonesty” in how Arconic manipulated fire safety tests.
- The PE cored panels were highly flammable, and Arconic knew this from internal testing.
- Warning signs about the product’s dangers dated back to the early 1990s.

1. Arconic (Reynobond 55 PE cladding manufacturer)

What they did:

Possessed internal test data from 2005 showing their ACM cladding behaved “very dangerously” in cassette form — the form used on Grenfell.

Continued to market the product as Class B-s2, d0, even though this rating only applied to the riveted version, not the cassette version.

After 2013 tests showed the product should be rated Class E (a far lower fire-safety rating), Arconic did not inform UK customers or the BBA, which the inquiry described as a “deliberate strategy.” BBA (Building Product Certification)

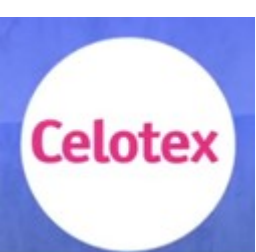
Failed to disclose 2014 French test results showing the cassette panels were Class E and unsafe for high-rise use.

Inquiry conclusion: Arconic “deliberately concealed from the market the true

BS EN 13501-1 A – F Ratings

Clasification	Definition	Description
A1	Non-combustible	No contribution to fire
A2	Limited combustibility	Very limited contribution to fire
 B	Combustible	Limited contribution to fire
C		Minor contribution to fire
D		Medium contribution to fire
 E		High contribution to fire
F		Easily flammable

A building insulation product may focus on a Class 0 or Class 1 rating. However, these classifications do not indicate the combustibility of the product, referring only to limited surface fire performance characteristics.



2. Celotex (owned at the time by Saint-Gobain)

Role: Manufacturer of the RS5000 insulation used behind the cladding. **Why criticised:**

- Engaged in **deceptive testing practices** to make the insulation appear compliant.
- Manipulated test rigs and omitted unfavourable results.
- Government has since launched investigations into Saint-Gobain for potential sanctions.

2. Celotex (RS5000 insulation manufacturer)

What they did:

Ran a rigged BS 8414 fire test in 2014 by secretly adding two sets of fire-resistant magnesium oxide boards in key locations to help the system pass.

Obtained a BRE test report that omitted any reference to the magnesium oxide boards, making the report “materially incomplete and misleading.”

Marketed RS5000 as the “first PIR board to successfully test to BS 8414” and suitable for buildings over 18m, despite knowing the test had been manipulated.

Inquiry found Celotex “embarked on a dishonest scheme to mislead its customers and the wider market” to break into the high-rise insulation sector.

Inquiry conclusion: Celotex’s actions were a “dishonest scheme” that put profit ahead of safety.





3. Kingspan

Role: Supplied K15 insulation boards (around 5% of the insulation on the tower). Why criticised:

- Inquiry found historical failings in its UK insulation business.
- Kingspan had previously used manipulated fire tests to market K15.
- Although only a small portion of the insulation was Kingspan's, the inquiry still censured the company for misconduct.

3. Kingspan (K15 insulation manufacturer)

What they did:

From 2005 onwards, Kingspan “knowingly created a false market” for its K15 insulation on buildings over 18m.

Inquiry found Kingspan had used manipulated fire-test data to promote K15 as suitable for high-rise use.

Continued to defend the product’s safety even after the inquiry began, despite evidence of misleading claims.

Inquiry conclusion: Kingspan’s conduct contributed to a false perception of safety in the insulation market.

4. Exova (UK) Ltd

Role: Fire safety consultant for the refurbishment. Why criticised:

- Provided inadequate fire safety advice.
- Failed to properly assess the risks of the cladding system.
- Government has opened investigations into potential debarment.

4. Exova (fire-safety consultants)

What they did:

Provided inadequate and outdated fire-safety advice during the refurbishment.

Failed to properly assess the risks of the cladding system.

Inquiry found Exova's assessments were superficial and did not reflect the real dangers of ACM cladding.

5. Harley Facades

Role: Specialist cladding subcontractor that installed the façade. Why criticised:

- Failed to ensure the cladding system met fire safety requirements.
- Did not challenge the use of dangerous materials.



6. Rydon Maintenance Ltd

Role: Main contractor for the refurbishment.

Why criticised:

- Oversaw the project that installed the unsafe cladding system.
- Inquiry found failures in oversight, quality control, and safety assurance.



7. Studio E Architects

Role: Lead architect for the refurbishment. **Why criticised:**

- Failed to ensure the design met fire-safety standards.
- Did not adequately consider the risks of the cladding system.

1) Who may face criminal charges?

Criminal charges will not be decided before late 2026, with trials unlikely before 2027.

Who is under investigation

- 19 companies/organisations and 58 individuals are being treated as suspects.
- Police have conducted 300+ hours of suspect interviews, reviewed 27,000+ lines of inquiry, and collected 152 million documents.

Possible offences

- **Corporate manslaughter**
- **Gross negligence manslaughter**
- **Fraud**
- **Health and Safety Act offences**
- **Misconduct in public office** (for individuals in authority)

Timeline

- Police expect to finish preparing files for prosecutors by **end of 2025**.
- CPS expects to make charging decisions by **end of 2026**.
- Any trials would begin **in 2027**, the 10-year anniversary of the fire.

Cladding Reforms Since Grenfell

The UK has undertaken the most extensive building-safety reforms in its history. Government reports from 2026 outline the progress.

1. Construction product system reform

- Stronger oversight of construction products, including new testing standards and enforcement powers.
- Action against manufacturers who misled regulators or the market.

2. Clearer building-safety standards

- Updated **Approved Document B** (fire-safety guidance).
- A new definition of **higher-risk buildings** to ensure stricter regulation.
- Clearer standards for social housing and private rented sector properties.

3. Competence requirements for professionals

- Licensing of principal contractors and principal designers.

Improved training for fire engineers, fire-risk assessors, and cladding workers

4. A single national construction regulator

- The inquiry recommended a new regulator overseen by a Cabinet-level minister.
- Government accepted this and is implementing a unified regulatory structure.

5. Faster remediation of unsafe buildings

- Government reports highlight accelerated removal of dangerous cladding across the UK.
- Stronger enforcement to ensure building owners complete remediation.

6. Residents at the centre of the system

- Reforms to ensure tenants' voices are heard and respected.
- Stronger social-housing regulation and clearer accountability for landlords.

How many buildings still have unsafe cladding?

The numbers vary depending on the dataset, but all sources agree the scale remains very large.

Government (January 2026 data)

- **4,191 buildings (11m+) identified with unsafe cladding and being monitored.**
- **2,195 buildings (52%) have started or completed remediation.**
- **1,500 buildings (36%) have fully completed remediation.**

National Audit Office (2024–2025 findings)

- Estimated 9,000–12,000 buildings (11m+) in England will ultimately need remediation.
- Only 4,771 had been identified by mid 2024, meaning up to 60% of unsafe buildings may still be unidentified.

Fire Brigades Union (2024 report)

- Confirms 9,000–12,000 buildings still require remediation.
- Only 1,392 had completed works by August 2024.
- 514 buildings had ACM cladding similar to Grenfell; 471 have had it removed.

Takeaway: Even nine years after Grenfell, thousands of buildings remain unsafe, and many have not even been formally identified.







On 21 May 2025, the Supreme Court dismissed an appeal made by URS Corporation Ltd against BDW Trading (Barratt Redrow) in relation to remediation work on two sets of multiple high-rise residential building developments. URS, which is now part of AECOM, had provided engineering consultancy services for the Capital East and Freemans Meadow developments, located in London and Leicester.

Find out more: <https://lnkd.in/eypHnCed> ✓

#FireSafety #FireProtection #FPA



SUPREME COURT JUDGMENT CONFIRMS DEVELOPERS CAN PURSUE HISTORIC REMEDATION COSTS





72 Lives Lost