

Fire Safety Reforms in Australia Since Grenfell

Fire Australia 2025

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Introduction

What we will cover

- Grenfell Tower Fire and Response
- Arup Change Framework
- The Response in Australia
- Questions

Grenfell Tower Fire and Response

Grenfell Fire Tragedy

Catalyst for change

- 24-storey residential tower block in West Kensington, London built in 1970's
- Reclad in 2015 / 2016 with combustible cladding and granted Building Regulations approval.
- 14 June 2017, a fire broke out on the Tower's fourth floor.
- 24 hours for firefighters to bring fire under control.
- 71 fatalities were confirmed by the coroner – and a further former resident passed away in January 2018.

It was the greatest loss of life in a residential fire since the Second World War.



Public Inquiry

The UK Response

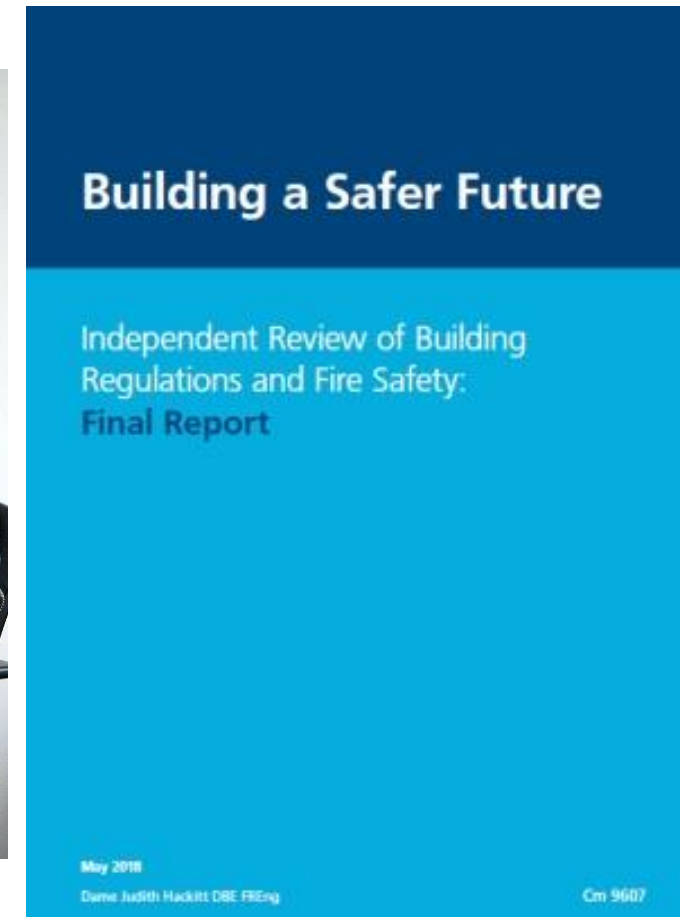
- Prime Minister established the Inquiry on the day following the fire (14th June 2017)
- Terms of reference were defined on 15th August 2017
- Expert witnesses are called to provide evidence to the Inquiry.
- Arup involved through the appointment of Dr Barbara Lane to provide reporting in the field of fire safety engineering. Assisted by circa 40 Arup staff over the course of the Inquiry.



Hackitt Report

Building a Safer Future

- The Hackitt Report, published in May 2018 following the Grenfell Tower fire, reviews building regulations and fire safety in high-rise residential buildings in the UK.
- The report recommends a new regulatory framework with clearer responsibilities, stricter oversight, and a focus on safety throughout a building's lifecycle.
- It emphasizes resident engagement and the need for competence among professionals.
- Urges fundamental reform to ensure safety.



Building Confidence Report (BCR)

What happened in Australia?

- The Building Confidence Report made 24 recommendations to address systemic issues in the Australian building industry. These recommendations focused around:
 - Regulation and training
 - Regulatory oversight
 - Building surveyor integrity
 - Design construction and certification
 - Fire safety
 - Information sharing

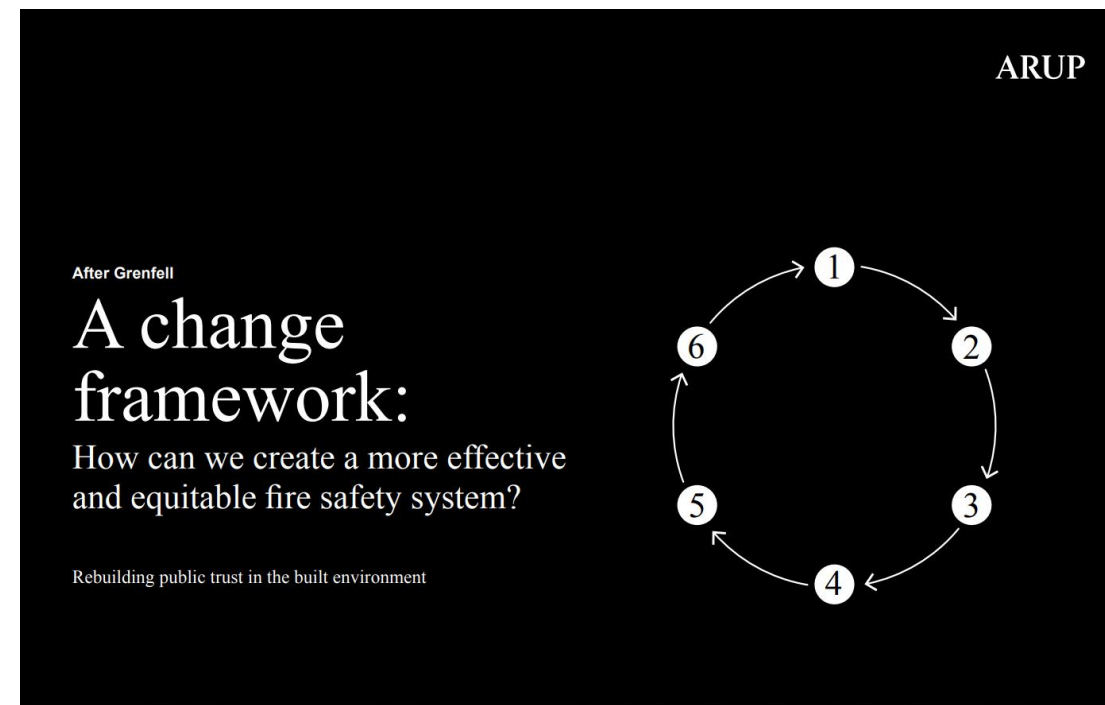


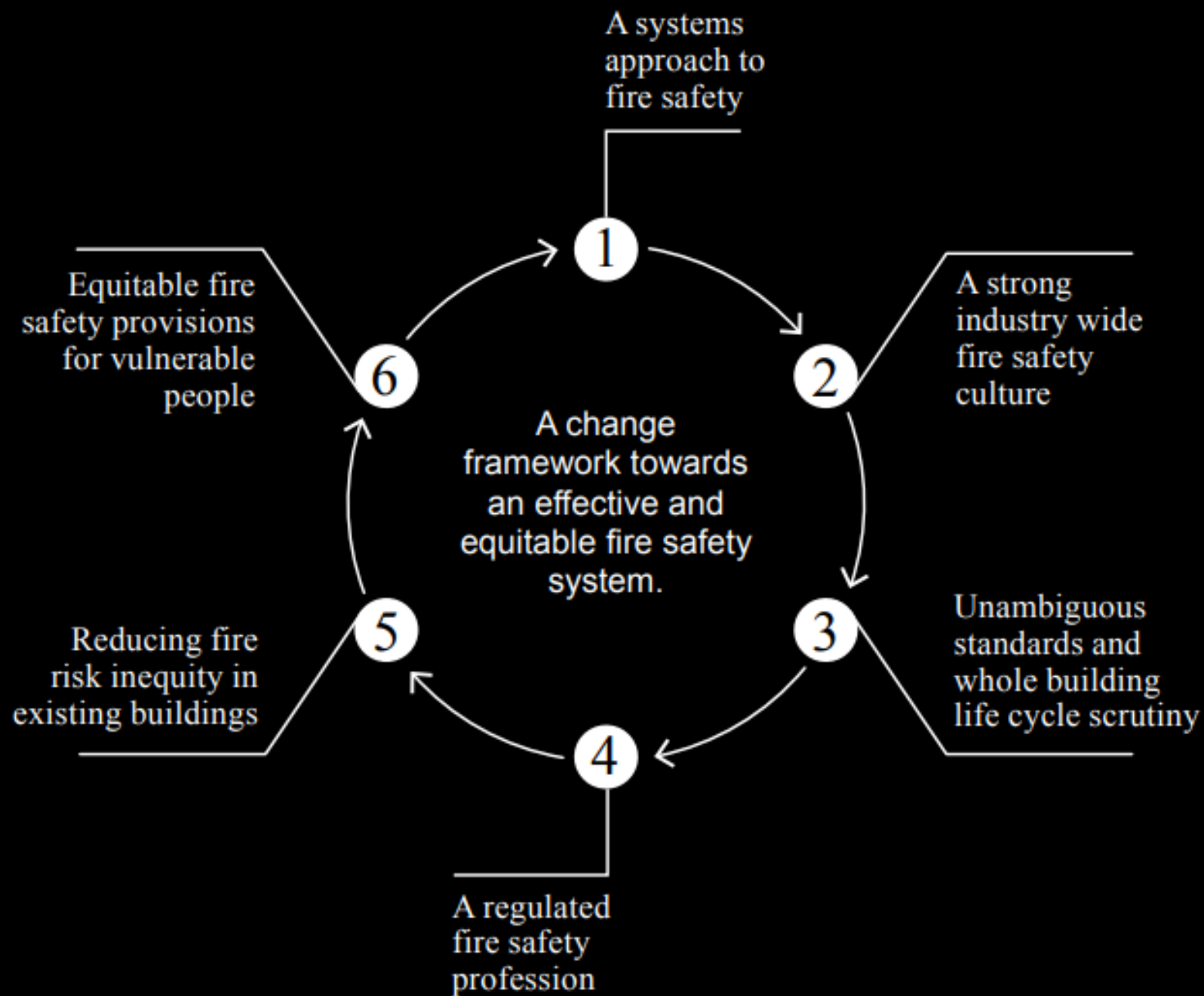
Arup Change Framework

Arup Change Framework

Overview

- Following Arup's involvement in the Grenfell Tower Inquiry Arup have published a Change Framework aiming for an effective and equitable fire safety system.
- The six-element change framework was developed to provide context and a change narrative for a suite of recommendations made to the Grenfell Tower Inquiry.





Arup Change Framework

1. A systems approach to fire safety

- Fire safety is a complex ecosystem.
- Needs to be regulated and managed through a totally integrated approach.
- Needs to extend from concept design through to building occupation and operation.



Arup Change Framework

2. A strong industry wide fire safety culture

- There is a lack of public trust following notable fire incidents. There is a need to regain this trust.
- A need to develop a strong fire safety culture with continuous improvements.
- Poor practices must not be tolerated and suitable sanctions imposed where required.
- Regular audits required to identify poor practices.



Arup Change Framework

3. Unambiguous standards and whole building life cycle scrutiny

- Prescriptive guidance should be clear, unambiguous and reliable.
- Where designers wish to deviate from prescriptive guidance through performance-based engineering approaches, a clear design framework should be in place which must be followed.
- There should be strict oversight and scrutiny of fire safety provisions throughout the life cycle of a building.
- Special attention needed to handover so building occupants understand the full fire safety strategy e.g. lifts for evacuation.



Arup Change Framework

4. A regulated fire safety profession

- Regulating the fire safety profession with entry requirements, regular audits of competence, and consequences for malpractice.
- A regulated profession is one where there are legal minimum competency requirements, ongoing accreditation, and registration with professional institutions or the government.
- Professional accountability and a commitment to fire safe buildings drives purposeful collaboration and outcomes.



Arup Change Framework

5. Reducing fire risk inequity in existing buildings

- The current culture of relying on the “grandfathering principle” causes a lower standard of fire safety in existing buildings.
- In an equitable system the common goal would be to proactively improve fire safety in the existing building stock over time - based on a holistic view of fire safety risks and vulnerabilities.
- In the UK this is being done through building safety cases for existing high-rise residential buildings.



Arup Change Framework

6. Equitable fire safety provisions for vulnerable people

- Inequitable risk levels for the vulnerable in buildings should not be overlooked or tolerated.
- Equitable fire safety solutions for vulnerable occupants for access and egress should be incorporated in statutory guidance documents.



Building Confidence Report (BCR)

Generally aligns well with the recommendations of the Change Framework

- Require the registration of several categories of building practitioners involved in design, construction and maintenance of buildings, including the building surveyor (or certifier), the engineer and the fire safety practitioner.
- The need for a proactive audit regime to detect inadequate practices in addition to the current high level of self- certification of the design and construction.
- Mandatory on-site inspections of building work at identified stages of the construction works.
- Genuine independent third-party review for specified components of designs and/or certain types of buildings.
- Provision of Building Manuals at handover stage.
- Approval of documentation and amended documentation throughout the construction process.

The Response in Australia

How Does Australia Measure Up?

Some positive steps but shortcomings remain

- When compared against this framework, it becomes apparent that useful measures have been adopted across parts of Australia.
- However, significant shortcomings remain.



How Does Australia Measure Up?

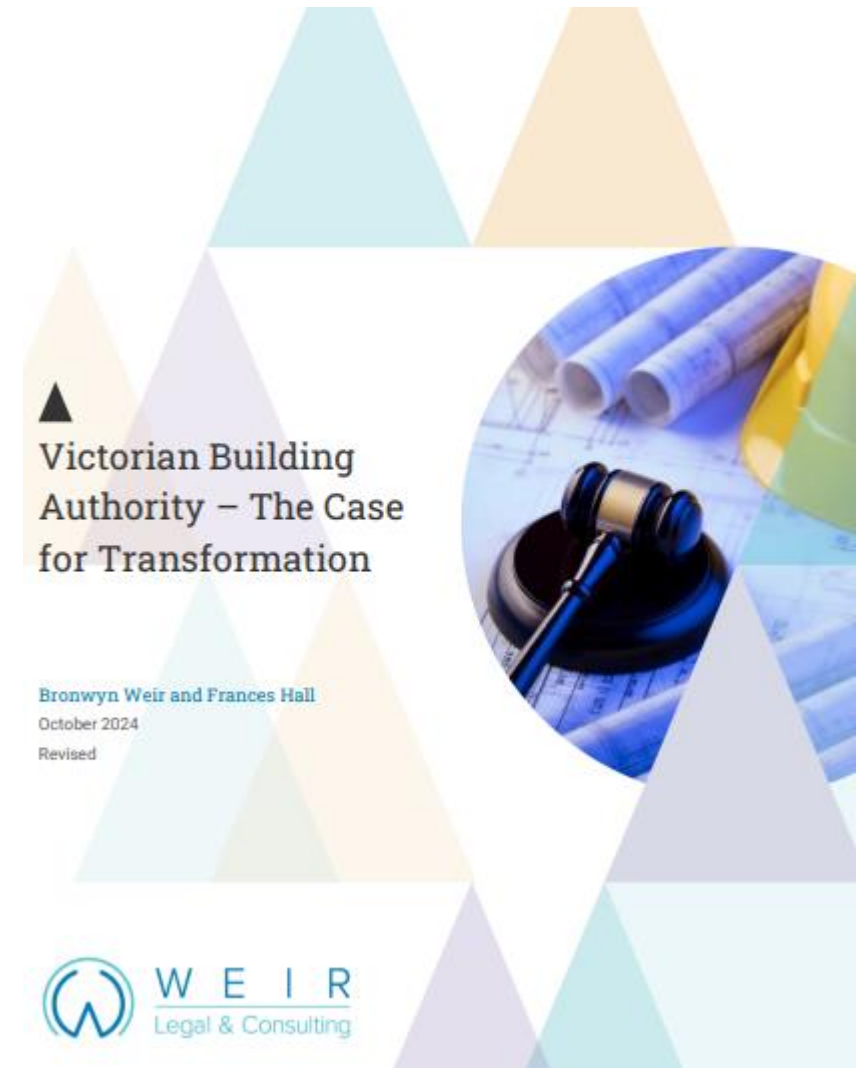
Systems approach to fire safety

- Across many building projects in Australia, examples of holistic systems approach to fire safety from early design to handover and operation are rare.
- Typically, the building surveyor or certifier provides advice on the prescriptive elements for fire safety, with the fire safety engineer only considering some aspects of fire safety if requested to develop Performance Solutions.
- Moving forward it is hoped that more holistic approaches will be adopted in legislation and/or good practice in this area. A Holistic design guide is being drafted by the Society of Fire Safety and is soon to be published.

How Does Australia Measure Up?

A strong industry wide fire safety culture

- There appears to be little evidence of any systematic culture of fire safety awareness and commitment which extends across the nation.
- NSW have taken some positive steps to improve the culture (registered practitioners, building audits, ratings of building developers/contractors)
- Victoria is further behind with an independent review of the VBA highlighting the existence of poor practices and a wide range of defects. Widespread unethical conduct and failure to hold builders to account was also identified.



How Does Australia Measure Up?

Lack of clear standards and whole building life cycle scrutiny

- Current ambiguity surrounding codes, standards and certification in relation to cladding and other materials used in Australian buildings.
- In an attempt to improve selection and performance of materials and products (including those related to fire safety) the Australian Building Codes Board (ABCB) is looking to develop a new Building Product Registration Scheme. This aims to improve confidence in material selection.
- Weaknesses remain in the handover of fire safety information to building owners and managers at practical completion. Victoria, ACT and NSW each now have legislation to require provision of building manuals including fire safety requirements. However, this is not a regulatory requirement yet.

How Does Australia Measure Up?

Regulation of fire safety practitioners

- Some states (Victoria, NSW, Qld and Tasmania) now have registration of fire safety engineers in their building regulations. Registration is based on qualifications, experience, continuing professional development requirements and professional body accreditation.
- However, only three states (NSW, Qld and Tasmania) require fire system practitioners who design, install and maintain fire protection systems to be licensed or registered.
- Regular auditing by regulators or professional bodies of all fire safety engineers and other fire safety practitioners is not happening. As a result, examples of malpractice are not being identified.
- Importance of EA/SFS NER and FPAA FPAS schemes need to be recognised and adopted nationally (consistent approach required).



ENGINEERS
AUSTRALIA

How Does Australia Measure Up?

Action to reduce fire risk inequity in existing buildings is limited

- As things stand, existing buildings across Australia do not generally need to be retrospectively upgraded to current codes and standards.
- There have been some mandatory upgrades for residential buildings. This includes mandatory requirements for smoke alarms and replacement of combustible cladding in some jurisdictions.



How Does Australia Measure Up?

Equitable fire safety provisions for vulnerable people are limited.

- While there is a Performance Requirement for access for people with a disability (D1P1) and prescriptive Deemed-to-Satisfy Provisions (D4D1) there are no similar provisions for egress.
- It is hard to argue that inclusive and dignified egress is being provided for all vulnerable people in Australian buildings.
- There should be DtS provisions for disabled egress.



What next?

Summary

What next?

- Grenfell Tower Fire triggered a widespread review of practices in the industry.
- Positive steps taken internationally and globally.
- However more can be done in line with the Arup Change Framework strategy.



Any Questions?



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