IFSS INTERNATIONAL FIRE SAFETY STANDARDS

International Fire Safety Standards: Common Principles

Consultation feedback document

International Fire Safety Standards Coalition

1st edition

Contents

Introduction

The International Fire Safety Standards: Common Principles (IFSS-CP) consultation document was in consultation between Monday 20th January and Thursday 23rd April 2020. During this period there were over 300 downloads of the consultation document and 47 responses were received from the 39 organisations or individuals listed below, none of whom chose to remain anonymous. The IFSS-CP Standards Setting Committee has considered all the comments received before completing the final IFSS-CP document.

In order to encourage an open and transparent consultation process the International Fire Safety Standards Coalition (IFSSC) has asked the Standards Setting Committee to publish the comments received during the consultation process and to explain how these comments were taken into consideration post-consultation.

AESG
AFAC (National Council for Fire and Emergency Services in Australia)
ARUP
ASID (American Society of Interior Designers)
BRITISH COUNCIL
BRE (Building Research Establishment)
CFPA (Confederation of Fire Protection Associations – Asia)
CIAT (Chartered Institute of Architectural Technologists)
CNPP/ SFPE
EAST SUSSEX FIRE & RESCUE SERVICE
EXPERION DEVELOPERS
GCCA (Global Cement and Concrete Association)
GYPSUM ASSOCIATION
HKA
IFMA
IN TOUCH ADVISORY
INSTITUTION OF FIRE ENGINEERS (IFE)
INSTITUTE OF FIRE SAFETY MANAGERS
J-SQUARED CONSULTING
KAT PROJECT CONSULTANCY
L & T CONSTRUCTIONS
MATH PROPERTIES
NAMBA (American Chemistry Council's North American Modern Building Alliance)
NATIONAL RESEARCH COUNCIL CANADA
NFCC (National Fire Chiefs Council)
NHBC
NORATEK SOLUTIONS INC and NATIONAL FIRE CODE COMMITTEE
OBEROI REALTY LTD
PARIO
PERSONAL RESPONSE 1 (Darin Rose)
PERSONAL RESPONSE 2 (Javier Elorza)
PERSONAL RESPONSE 3 (Jenny Yeung)
PERSONAL RESPONSE 4 (Madhu Puli)
PERSONAL RESPONSE 5 (Mukesh Singh)
PERSONAL RESPONSE 6 (Paul Akhurst)
PERSONAL RESPONSE 7 (Ubaid Ansari)
PERSONAL RESPONSE 8 (Zack Farrar, CFM, AssocRICS)
RESOLVE IAQ LLP 1 (Donald Makin)
Resolve IAQ LLP 2 (Dr Ananta Singh Raghuvanshi)
RICS INDIA
ROYAL INSTITUTE OF BRITISH ARCHITECTS
RTPI (Royal Institute of Town Planning)
SHIMIZU CORPORATION INDIA PV.LTD
SPS ASSOCIATES LTD
UNDERWRITERS LABORATORIES INC.
UNIVERSITY OF LAY ADVENTIST OF KIGALI
UL STANDING COMMITTEE ON HAZARDOUS MATERIALS AND ACTIVITIES

We are aware that several responses such as those prepared by AFAC, ASID, BRE, CFPA, CIAT, CFNP/SFPE, GCCA, IFMA, IFE, IFSE, NRCC, NHBC, RIBA and RPTI were prepared by boards or working groups.

The overall objective of **IFSS-CP** is to prevent injury and death from fire in the built environment and minimise the impact on communities, society and the natural environment. We recognise that the past and current practices and application of fire safety standards across the globe would benefit significantly from consistency in terms of a set of **Common Principles**.

IFSS-CP will improve transparency and shared understanding and reduce risk caused by a fragmentation of processes that can lead to safety gaps. We believe that the public, society, economy and environment will all be better served by a set of **Common Principles** and a fire safety framework implemented worldwide that can be supported through and by public education.

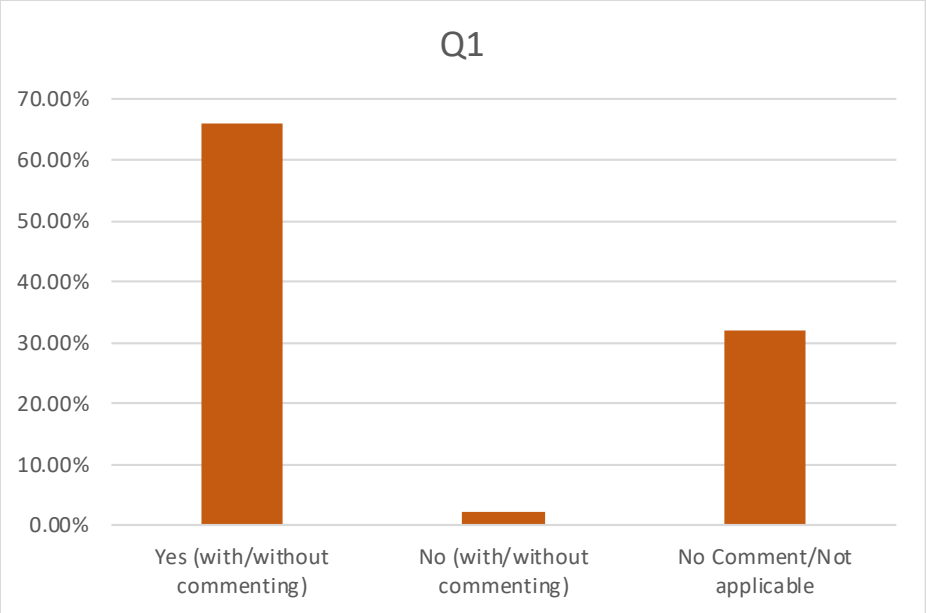
The **Coalition** accepts that standard setting is a never-ending process of continuous change and improvement. We will observe, assess and evaluate the use, application and impact of **IFSS-CP** and its **Common Principles** and revise them as needed.
The **Coalition** is continuing the important work of implementing **IFSS-CP** through engaging with governments, occupiers, owners and other important stakeholders. For further information on IFSS, please visit https://ifss-coalition.org/

Executive summary

In respect to the consultation document consultation process a consultation response form was issued and respondents were asked the following nine questions in relation to the consultation document. Please find here below the response summary and the IFSSC Standards Setting Committee's rationale in relation to the way these responses were treated.

Q1. Do you agree with the approach of establishing overarching principles rather than looking at prescriptive requirements? If so why and if not, please explain your thinking.

Response summary: There were 47 responses to this question and a range of different opinions as shown by the chart below.

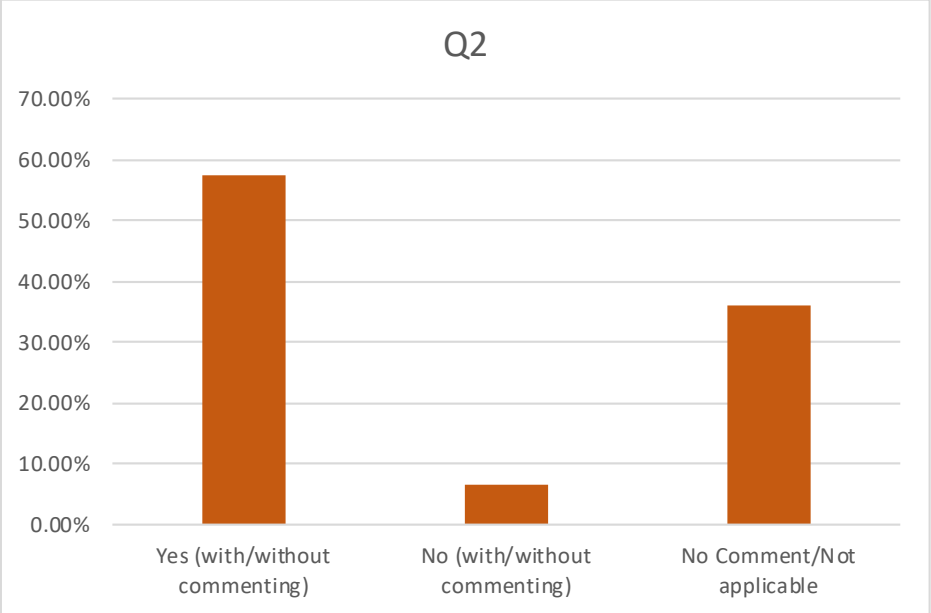


The majority of responses agreed with the approach of establishing overarching principles rather than looking at prescriptive requirements or had no further response in relation to the question.

SSC rationale: The SSC considered the responses received and revised *Part 1 Introduction* and *Part 2 Common Principles Overview* to provide additional information on the interrelation between IFSS-CP and existing guidance. The SSC also made significant revisions to *Part 3 Fire safety strategies and measures* to include the some of the recommended additions to the fire safety strategies and measures and to *Part 5 Accountability and verification* to provide further details on enforcement of IFSS-CP.

Q2. Do you believe that the International Fire Safety Standard Common Principles and Framework will be beneficial for your purposes? If yes, how and in what circumstances would you use it? If no, why not?

Response summary: There were 47 responses to this question and a range of different opinions as shown by the chart below.



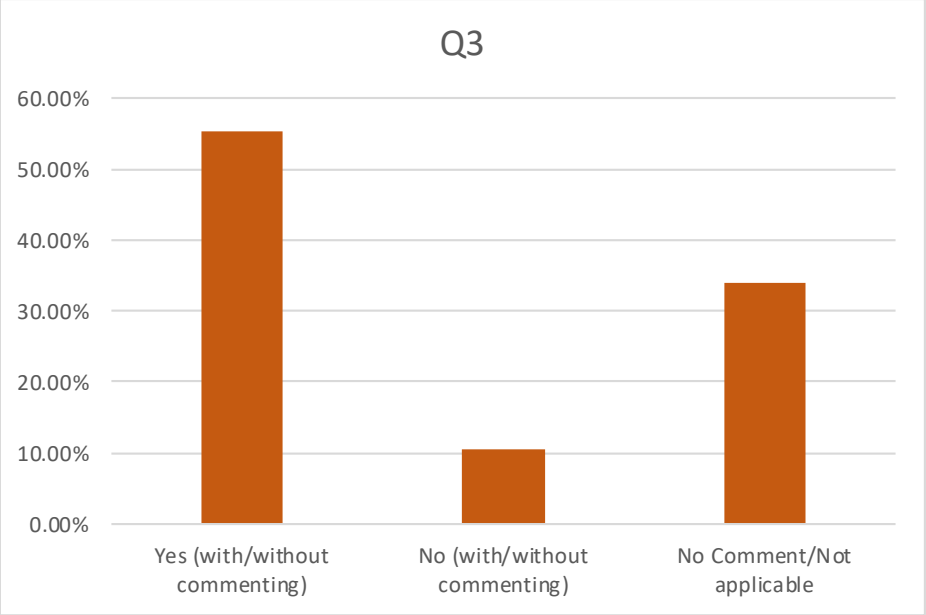
The SSC considered the responses and noted that the positive responses generally articulated an understanding of the purpose and intent of the common principles.

Concerns expressed in the non-positive responses were generally around applicability of the **IFSS-CP** to all buildings (or particular niche buildings) and the view that **IFSS-CP** were not required in strongly regulated/standardised environments.

SSC rationale: The SSC acknowledged the majority supportive response and introduced language articulating the scope of applicability of the **IFSS-CP** and their role in supporting and enhancing inchoate to advanced regulatory environments.

Q3. Does the draft IFSS-CP meet the aims and objectives from the Coalition as described on Section 1.2 of the attached consultation document? If not, why?

Response summary: There were 47 responses to this question and a range of different opinions as shown by the chart below.



The SSC noted that the majority of respondents considered that the draft contributes significantly to the aims and objectives of the Coalition and were in accordance with the proposed 'Common Principles,' and these principles will develop in future editions of the **IFSS-CP**.

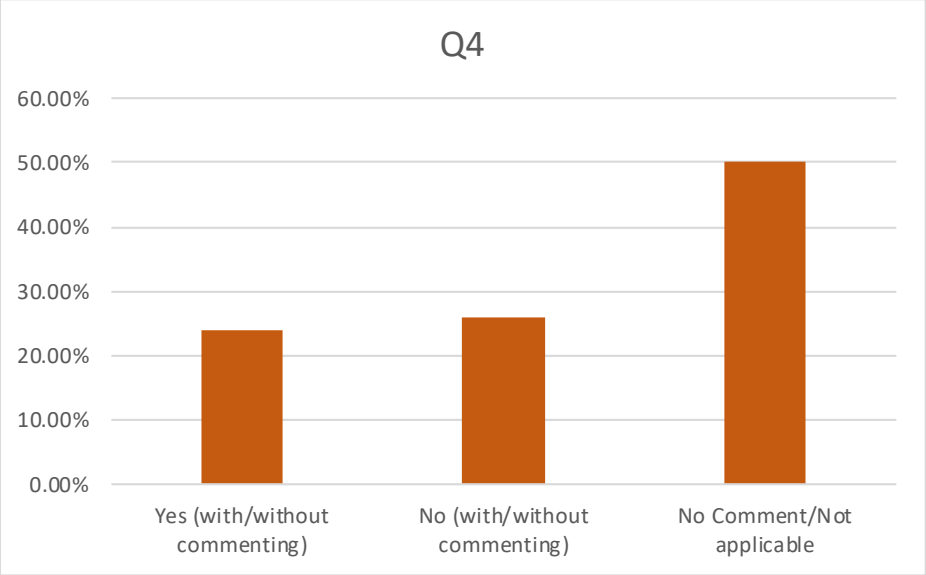
Some respondents felt that **IFSS-CP** should include links to existing standards and others commented that the focus was too much on life safety and should focus on property protection, operational fire risk assessment rather than fire strategy development or fire safety design.

The SSC acknowledged that the first edition of **IFSS-CP** is primarily concerned with life safety but intend to include further information on property protection (the whole of the built environment including heritage), community and societal impact, operations, and environmental impact in future editions of the standard.

SSC rationale: The SSC considered the responses received and made necessary revisions to ensure that the **IFSS-CP** was meeting its previously stated aims and objectives. The SSC have also included a new *Part 6 Next steps* to provide additional clarity on future editions of **IFSS-CP**. Future editions of **IFSS-CP** will address wider issues such as **Building** preservation for communally and societally important **Buildings** and critical infrastructure, land administration, land governance, land policy, land reform and land tenure, resilience and recovery. Furthermore, the **IFSS-CP** are looking to provide a directory of existing fire safety related codes, standards and regulatory instruments, and demonstrate how they fit within the framework by meeting and satisfying the **IFSS-CP**.

Q4. Do you believe that there are any other principles that need to be added? If yes, what are they and why should they be added?

Response summary: There were 47 responses to this question and a range of different opinions as shown by the chart below.

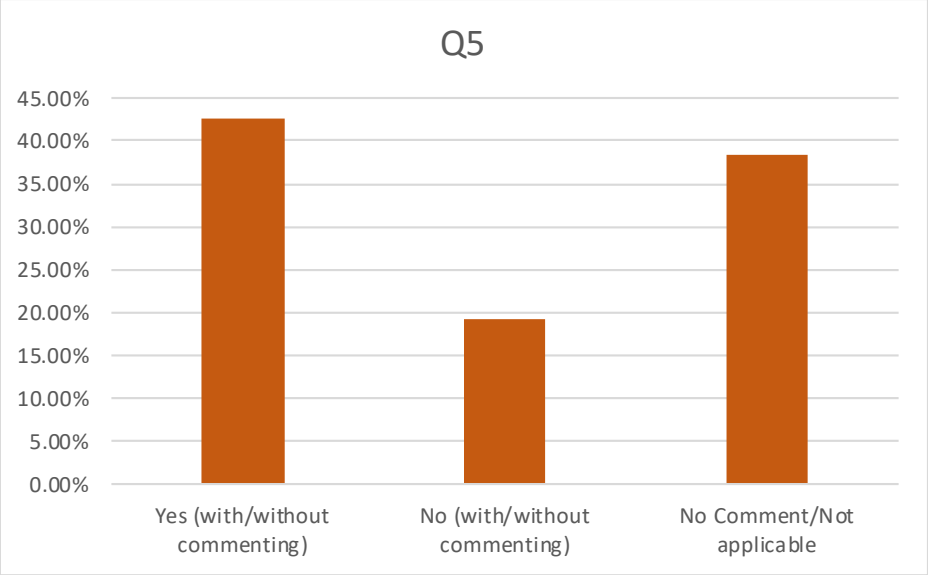


The majority of respondents felt that either no new principles needed to be added or had no further comment, whereas others felt that additional principles or fire safety strategies and measures should be added. Some respondents further commented that there may be some benefit in considering the relationship between stages. In addition to these responses some respondents also suggested the introduction of fire safety resilience to promote considerations of post fire recovery of individuals, a community, or city after a significant fire incident.

SSC rationale: The SSC have considered the comments in relation to fire safety and have extended the definitions (like resilience), included an additional Section *1.2 Fire safety and education* and have revised the fire safety measures and strategies to include further reference to fire fighting and fire safety training. The SSC have also revised *Part 2 Common Principles Overview* to provide further detail on the common principles and the interrelation of the common principles and have incorporated additional fire safety strategies and measures within Part 3. Finally, as suggested, a Section 5.3 concerning verification and enforcement has been added.

Q5. Are there any sub principles that you feel should be added to this list? Please provide the Principle (i.e. Prevention, Detection, Occupant Safety, Containment, Extinguishment) and Stage (i.e. 1,2,3,4,5) together with your reasoning behind any additions or removals.

Response summary: There were 47 responses to this question and a range of different opinions as shown by the chart below.



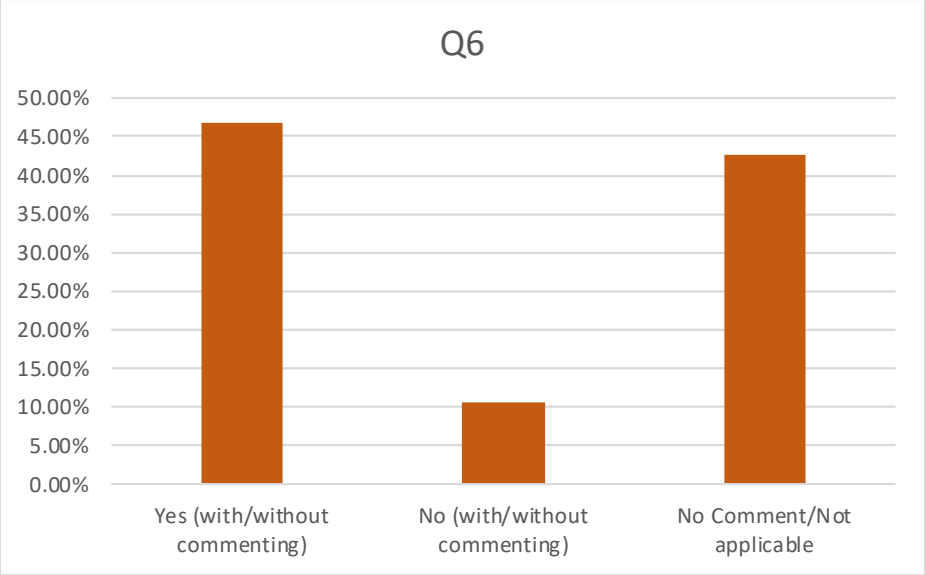
Some respondents commented that the phrase 'sub-principle' is not used within the document and therefore correctly presumed that this is referencing the 'fire safety strategies and measures' considered under each of the building life cycle stages, under each Common Principle. These respondents further commented that improvements could be made to better categorise and provide guidance on the relationship between the fire safety strategies and measures.

The SSC noted that the comments received with the affirmative responses shows that those respondents understood the role of the fire safety strategies and measures and believed this information was valuable to the overall document.

SSC rationale: The SSC considered the responses received and retitled 'sub principles' as 'fire safety strategies and measures' and reviewed the measures and strategies to incorporate, where applicable, the additional strategies and measures suggested. The SSC also revised *Part 3 Fire safety strategies and measures* to include a 5 by 5 matrix as suggested by a number of respondents. The SSC also revised **IFSS-CP** to provide greater reference to mitigation, education, prevention, occupant safety, and factors to prevent reoccurrence within the **IFSS-CP**.

Q6. Do you believe that the IFSS-CP reflect or would be able to enhance, support or advance the current market practices and regulatory framework within your market? If not, why not?

Response summary: There were 47 responses to this question and a range of different opinions as shown by the chart below.

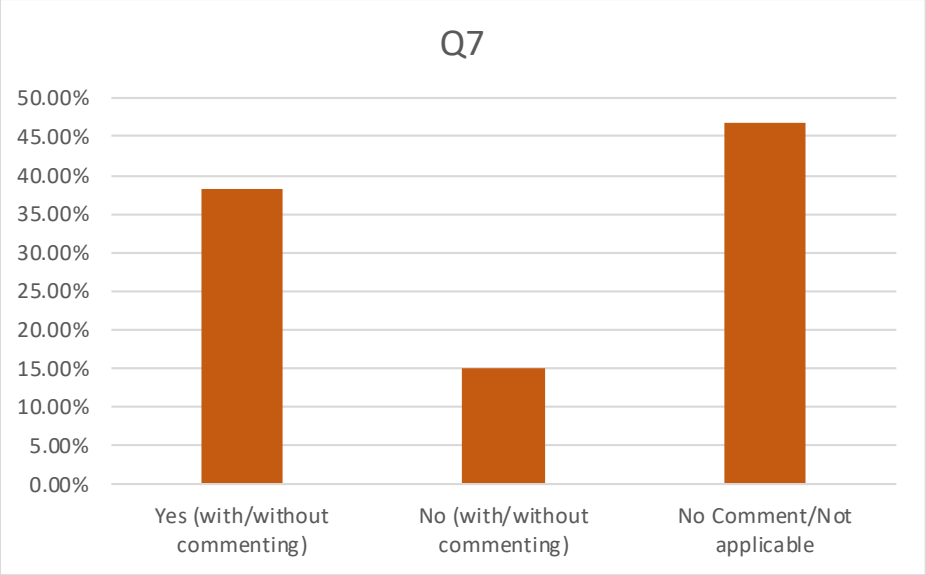


The SSC noted that the comments received with the affirmative responses shows that those respondents clearly understood the role of the overarching principles and found them useful in their work.

SSC rationale: The SSC recognised through the comments received that further clarification was needed in relation to the overarching principles and therefore revised Section *2.3 From the Common Principles to the IFSS-CP Framework* and *2.4 Building Life Cycle and IFSS-CP Framework*. The SSC also noted that a number of comments related to next steps and therefore included a new *Part 6 Next Steps* to provide further information on planned future additions/revisions to future editions of the **IFSS-CP**.

Q7. What additional information or requirements would you like to see included in future editions of IFSS-CP?

Response summary: There were 47 responses to this question and a range of different opinions as shown by the chart below.



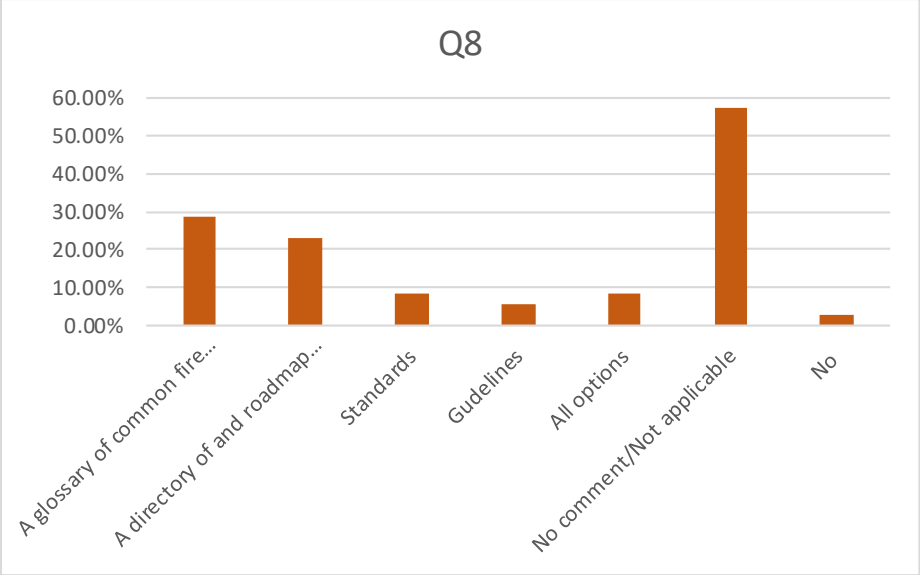
The SSC noted that the majority of respondents either had no comment or felt that no additional requirements or information was required at this stage.

SSC rationale: The SSC considered the responses received and felt that many of the responses received had already been dealt with in revisions made to the **IFSS-CP** in relation to the previous consultation responses. However, the SSC reviewed the document to provided further details and clarification on the practical implementation of **IFSS-CP**.

Q8. Which of the following would be helpful for the IFSS SSC to work on next? Please provide your reasoning for the option(s) chosen below. If there are other matters that you think the IFSS SSC should work on next, please provide the option(s) and your reasoning.

a) A glossary of common fire safety terms
b) A directory of and roadmap to existing regulatory codes
c) Standards
d) Guidelines.

Response summary: There were 47 responses to this question and a range of different opinions as shown by the chart below.

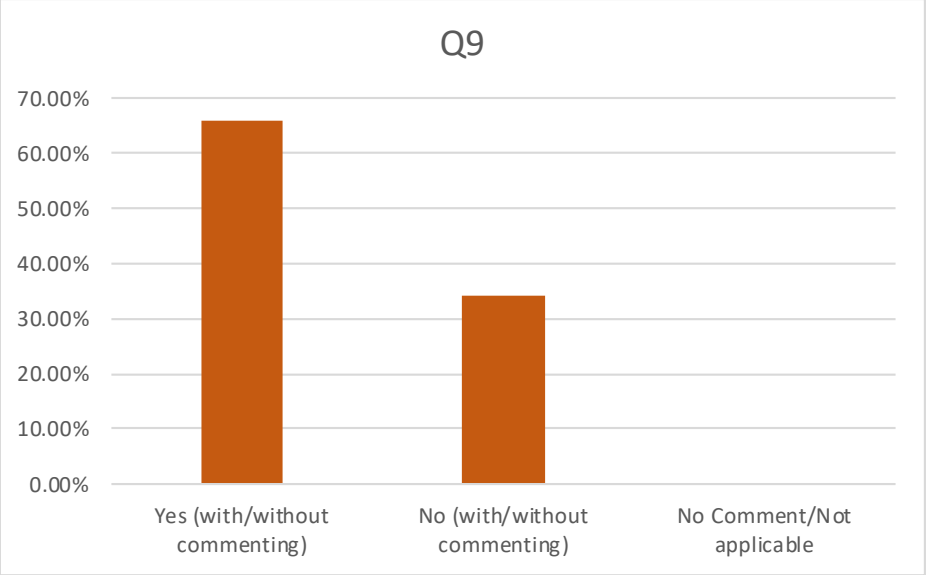


The majority of respondents favoured the creation of a glossary of common fire safety terms. A number of respondents also favoured the creation of a directory and roadmap to existing standards.

SSC rationale: The SSC considered the responses received and added a part to the **IFSS-CP** articulating its plan to develop both a global directory of existing regulatory codes as well as a comparative dictionary for fire safety terms used in the **IFSS-CP**. It is envisaged the former will assist with filling gaps in inchoate regulatory environments while illustrating how suites of existing regulatory documents fulfil the **IFSS-CP** in advanced regulatory environments and the latter will aid in harmonising fire safety terms and standards across markets.

Q9. Do you have any further comments?

Response summary: There were 47 responses to this question and a range of different opinions as shown by the chart below;



Many of the responses to this question had already been provided in responses to previous questions. There were however, also a number of proposals for improvements to the document such as suggesting items to be added to the goals and strategies contained within Part 3, pointing out that Section *2.1 Common Principles* and *3.1 The Common Principle* were repetitive and that further details were required in relation to *Part 5 Accountability and Verification*.

SSC rationale: The SSC considered the responses and in addition to changes made in response to previous questions chose to rewrite Part 3 and eliminating repetitions from Part 2. The SSC also made significant revisions to *Part 5 Accountability and Verification* as this was recognised as an integral part of the document.

Consultation responses

Q1. Do you agree with the approach of establishing overarching principles rather than looking at prescriptive requirements? If so why and if not, please explain your thinking.

Consultation responses:

AESG – Alex Manning, UAE: Yes. Prescriptive requirements may not work in all areas, however overarching principles could be better.

AFAC (National Council for Fire and Emergency Services in Australia) – Ivan West, Australia: No. Consider two separate documents/sections for the Strategy component and Detail component.

ARUP – R Judith Schulz, Global: We agree with this approach because it provides a common 'language' and platform for different stakeholders, especially those from different jurisdictions, to have meaningful and constructive discussion at a conceptual/high level. In particular, where performance-based design/fire engineered solutions are involved, this approach forms an internationally recognised set of objectives to build the solutions. This is especially useful in jurisdictions without their own building regulatory documents. These principles are simple to understand and set out a step-by-step method in approaching fire safety (following the chronology of fire development), before getting into the details of the prescriptive requirements. It provides the tools for those not familiar with fire safety concepts, to ask the right questions and to safeguard their interests. For fire safety practitioners, these principles encourage fire safety to be considered from the first principle at each stage of the property life cycle. For a document that is aimed at being accepted/adopted internationally, it is more realistic to be proposing high-level common principles rather than detailed prescriptive requirements. This is because of the large variations across the different standards/guidance internationally, making the task of uniting all those prescriptive requirements into a single document highly difficult.

ASID (American Society of Interior Designers) – Katherine Setser, USA: No comment.

BRITISH COUNCIL – Paul Graham, UK: Yes. More realistic/simplistic solution for those countries with a limited fire safety regulatory system.

BRE (Building Research Establishment) – Roger Harrison, Global: No comment.

CFPA (Confederation of Fire Protection Associations – Asia) – Rob Llewellyn, Asia: We believe the approach is reasonable to establish the overarching principles. This gives a basis to judge a buildings fire safety measures and strategies. However, an additional principle should be included as No 3 – Fire Safety Systems – Inspection, Commissioning, Testing and Maintenance.

CIAT (Chartered Institute of Architectural Technologists) – Francesca Berriman, UK: Agree. CIAT is a founder member of IFSS and has three Members involved and contributing to this important initiative. We agree and support the need to develop a common framework and a set of principles in an attempt to establish the characteristics of global fire safety across the spectrum of the life span of a building and the key stages and the various typologies, occupancy, use and location. Current approaches to fire safety standards, regulations and practice have a high propensity to be in response to disaster and highly prescriptive and locally focused. The solutions based approach needs to be challenged and this new fresh approach starts the thinking, the reflection, the conversations, the strategic dialogue that facilitates the discussion on the key principles and characteristics of fire safety and to test the assumptions for application , workability and robustness.

CNPP/ SFPE – Armelle Muller, France: I agree with establishing overarching principles. It is the only way of having a consensus at international level on fire requirements. Dealing with objectives and principles is a good way of gathering a lot of people.

EAST SUSSEX FIRE & RESCUE SERVICE- Andrew Gausden, UK: Whilst I agree with the ideal of delivering overarching principles, where there are gaps in the guidance/standards this should be highlighted, for example the industrial fire and risk created by waste & recycling, where there is a current absence of standards, codes and guidance.

EXPERION DEVELOPERS – Dr Ananta Singh Raghuvanshi, India: No comment.

GCCA (Global Cement and Concrete Association) – Andrew Minson, UK: Agreed.

GYPSUM ASSOCIATION – Michael Schmeida, USA: Yes. I believe going with principles allows more flexibility for countries to meet their own needs.

HKA – Al Brown, UK: In principle, yes, I agree.

IFMA – Laverne Deckert, Global: The overarching principles provide a framework for organizing a response and plan, however, the document does not go far enough to offer practical guidance to establishing fire safety measures and strategies. It does not identify primary players for each stage of the building life cycle, which might provide the beginning of a framework for a responsibility matrix. It does not consider communication with the media, local government or public in the event of a fire. It does not consider post event actions (lessons learned and the resumption of business functions).

IN TOUCH ADVISORY – Stephen Ballesty, Australia: Yes.

INSTITUTION OF FIRE ENGINEERS (IFE) – Jim Robson and Martin Shipp, Global: Yes, we support this approach.

INSTITUTE OF FIRE SAFETY MANAGERS – Dr Bob Docherty, UK: Yes, a framework can be universal where 'local' i.e. prescriptive details can be inserted into that framework in needed.

J-SQUARED CONSULTING – David Kubler, Australia: Yes – principles can guide best practice, whereas prescriptive requirements may overlook or not be supporting of best practice.

KAT PROJECT CONSULTANCY – Kunhappan Kuppadakath, India: Yes. Fire Safety is essentially required in all buildings as it affects the safety of human life.

L & T CONSTRUCTIONS – Vinothkumar A, India: Yes. Basic principle needs for better standardization.

MATH PROPERTIES – Theoli Makhele, South Africa: No comment.

NAMBA (American Chemistry Council's North American Modern Building Alliance) – Jeffrey H Greenwald, USA: The American Chemistry Council's North American Modern Building Alliance (NAMBA) supports the IFSS and its effort to establish overarching principles for fire safety. We are pleased that the common principles take a comprehensive view of fire safety and incorporates all stages of a building's life. This full lifecycle perspective on building safety is important and helps address the systems' nature of fire safety. For building materials, prescriptive requirements are already developed and set within the existing codes and standards framework. Overarching principles therefore are helpful to articulate the various elements of fire safety with each other and to highlight for regulators the many tools that can be deployed to make buildings safe.

NATIONAL RESEARCH COUNCIL CANADA – André Laroche, Canada: I fully support the approach of establishing overarching principles rather than setting prescriptive requirements. This leaves the opportunity for each jurisdictions to assess how the principles could be applied. The drawback is the high potential of having different level of performance of the safety measures put in place to achieve the objectives. But overall, I think the basic science of fire, as stated in the referenced document, is the same whether you are in a cold or warm climate or benefit from different construction materials.

NFCC (National Fire Chiefs Council) – Jake Houth, UK: NFCC supports the investigation of and development of a set of overarching principles and subject areas that can provide a framework and guidance in informing fire safety at the earliest possible stage in a premise's development process and throughout its lifecycle. To provide a fully informed, agreed and robust set of overarching fire safety principles identified from best practice and leading fire safety experts/stakeholders internationally would be considered as a positive step in informing the safety of people (premises occupants, the wider community and firefighters) in event of fire. The provision of prescriptive fire safety requirements and guidance and their value should, however, not be overlooked or disregarded. There are many international and local prescriptive guidance documents and frameworks across the globe that have been

developed over many years, informed by research and incident learning, that have proved themselves in event of fire. Where gaps exist in the provision of prescriptive guidance e.g. against a specific risk/premises type or the impact of human behaviour in fire, it is considered the provision of a set of overarching principles would be one way of informing the development of a safe premises and/or process alongside additional information e.g. a performance based design.

NHBC – Steve Evans, UK: Yes. Prescriptive requirements are not always appropriate and will vary across the world. Some may not be relevant.

NORATEK SOLUTIONS INC and NATIONAL FIRE CODE COMMITTEE – Alan Kavanaugh, Canada: My concern based on experience is that in the past we've had the standards, codes and regulations there. They just have not been utilised or enforced as required. We can see this in the London Apartment Fire a few years back, in Western Canada British Columbia we had a number of Sawmill Explosions resulting in Deaths and Many Injuries. There codes, standards and regulations were all there, they just were not enforced.

OBEROI REALTY LTD – Thomas Mathew, India: Yes. Will keep you abreast on what is and what is happening outside our own geographical domain.

PARIO – Mike Ball, UK: Yes. Harmonising Common Principles is key given the differing approaches around the globe.

PERSONAL RESPONSE 1 – Darin Rose, unspecified: No comment.

PERSONAL RESPONSE 2 – Javier Elorza, unspecified: No comment.

PERSONAL RESPONSE 3 – Jenny Yeung, unspecified: No comment.

PERSONAL RESPONSE 4 – Madhu Puli, unspecified: No comment.

PERSONAL RESPONSE 5 – Mukesh Singh, India: No comment.

PERSONAL RESPONSE 6 – Paul Akhurst, unspecified: Yes. But, principles need to be balanced with 'how to do' guidance and mandatory minimum standards.

PERSONAL RESPONSE 7 – Ubaid Ansari, India: No comment.

PERSONAL RESPONSE 8 – Zack Farrar, unspecified: No comment.

RESOLVE IAQ LLP 1 – Donald Makin, USA: No comment.

Resolve IAQ LLP 2 – Dr Ananta Singh Raghuvanshi, USA: No comment.

RICS INDIA – Ubaid Ansari, India: No comment.

ROYAL INSTITUTE OF BRITISH ARCHITECTS – Adrian Dobson, UK: Although the RIBA generally agrees with the proposed overarching principles, which aims to cover, at a broad level, the fundamental strategies in relation to fire safety, the RIBA believes that there should be core baseline prescriptive requirements for specific fire safety measures. The RIBA believes that these core fire safety measures, integrated into the design and construction of higher risk buildings, in order to prevent further tragic losses of life in the event of a fire, should include a requirement for:

- a restriction on the use of combustible materials on external walls (cladding).
- sprinklers/automatic fire suppression systems.
- alternative means of escape.
- centrally addressable fire alarm systems (integrating detection and alert).

The RIBA recommend that these core fire safety measures should not be mitigated, for example, through fire engineering principles or lack of territory requirements. This would set a standard for the requirement of specific key fire safety strategies, providing a baseline consistency of measures within the overarching framework. The Common Principles and its associated framework do not actively promote the integration of improved standards or set any baseline requirements, as the requirements are to justify adherence of each 'Common Principle', only where applicable. Where a territory has no code or supporting principles, those jurisdictions should look to adopt a standard or code that can provide the guidance and rigor required to design those fire safety measures. In the instance where codes or principles are not adopted, there are no requirements to implement the fire safety measures identified. Further consideration should be given to how the framework could be structured in a way to promote the integration of minimum guiding principles that will lead to safer buildings, where territories do not adopt these or alternative standards. Such principles will provide further rigor to the framework, to aid parties and their professional advisers in verifying the information presented. The RIBA have developed design-based research drawing from relevant industry and fire and rescue authority expertise and recommend the following layers of fire safety are brought together to enhance building and life safety. These include:

- Selection of materials to adequately resit the spread of fire,
- Fire detection systems,
- Centrally addressable fire alarm systems,
- Evacuation management systems,
- Sprinklers/automatic fire suppression systems,
- Wayfinding signage for occupants,
- Alternative means of escape.
- Ventilated corridors,
- Travel distances,
- Protected refuge/firefighting lobbies,
- Protected stairways,
- Fire break floors,
- Access and facilities for the fire service,
- Wayfinding signage for firefighting,
- Dry / wet risers' location,
- Management (evacuation) plans.

The International Fire Safety Standards – Common Principles (IFSS-CP) and its associated strategies cover many of these aspects, but there are no requirements to

ensure that any specific strategy is included, or that strategies should not be mitigated or compensated (made worse or omitted) using other routes to compliance or from the integration of other fire safety measures. The layers of fire safety should be considered as a cohesive and complementary package of features that promotes fire safety.

Royal Town Planning Institute – Board Response, UK: Following on from the Grenfell tragedy much attention has been focused on fire safety. The RTPI is a member of the International Fire Safety Standards Coalition (IFSSC) (supported by the United Nations and World Bank) which has recently published – 'the International Fire Safety Standards: Common Principles (IFSS-CP) consultation document'. The Coalition comprises organisations from around the world who have worked together positively, constructively and collaboratively to create a high-level overarching performance framework based on Common Principles for fire safety engineering design, construction, occupation and ongoing management relevant through the whole life cycle of buildings.
The overall objective of IFSS-CP is to prevent injury and death from fire in the built environment and minimise the impact on communities, society and the natural environment. We recognise that the past and current practices and application of fire safety standards across the globe would benefit significantly from consistency in terms of a set of Common Principles. Much is known about the phenomena and effects of fire, as well as what needs to be done to protect people, property and the environment from the destructive effects of fire. This knowledge, however, is not shared as effectively as it could be. A connected and more consistent approach will yield considerable benefits and improve our ability to:

- respond to events
- monitor ongoing developments
- anticipate future threats and opportunities and
- learn from past failures and successes.

At present, the many contrasting approaches and requirements across the world have resulted in significant variations in the design, approval, construction methods, products and operation of Buildings. This is due to local architecture and traditions and responses to local disasters. Hence a disaster experienced in one area has not necessarily impacted the codes and standards in other areas when relevant.
The development of a common understanding of Building design, construction and management and how the impact of fire affects these will help to build trust and confidence among the many and varied actors, including the public and banks, ultimately underpinning an improved quality of life and increased investment in line with UN sustainable development goals. In all stages of a Building's lifecycle, sufficient measures need to be taken to implement the following five Common Principles which are:

1. **Prevention** – Safeguarding against the outbreak of fire and/or limiting its effects.
2. **Detection and Communication** – Investigating and discovering of fire followed by informing occupants and the fire service.

3. **Occupant Protection** – Facilitating occupant avoidance of and escape from the effects of fire.
4. **Containment** – Limiting of fire and all of its consequences to as small an area as possible.
5. **Extinguishment** – Suppressing of fire and protecting of the surrounding environment.

IFSS-CP is intended to be flexible and non-prescriptive so that it can be adopted incrementally and will also advance good practice.

SHIMIZU CORPORATION INDIA PV.LTD – Shreedhar Bhat, India: Yes. Common understanding is the minimum requirement.

SPS ASSOCIATES LTD – Adam Forster, UK: Yes.

UNDERWRITERS LABORATORIES INC. – Diane Haithcock, USA: Yes, we agree with this approach. This group is not in a position to develop standards. Each country has their own established process for developing and maintaining standards. The IFSS approached described above is the appropriate path to achieve its goals.

UNIVERSITY OF LAY ADVENTIST OF KIGALI – Erneste Nsangabandi, Rwanda: No comment.

UL STANDING COMMITTEE ON HAZARDOUS MATERIALS AND ACTIVITIES – Shuo (Nick) Yu, Canada: Both of these approaches are necessary in Fire Safety. Overarching Principles are "high level" or "Synergic" principles that gives a "Overall Picture"/" Bottom-Up" analysis, that uses all "Tool" applicable for Public Safety. Then, "zero-on" or "develop" the specific requirement/prescriptive requirements to suit the situation at hand. Therefore, it is important that both principles are utilised.

Q1 Response summary

There were 47 responses to this question and a range of different opinions as shown by the table below.

Q1 Responses	Number	Percentage
Yes	31	66%
No	1	2%
No comment	15	32%
Total	47	100%

The majority of responses agreed with the approach of establishing overarching principles rather than looking at prescriptive requirements or had no further response in relation to the question.

Some respondents raised concerns about the interrelation of **IFSS-CP** with existing guidance or questioned how the **IFSS-CP** could be enforced across different markets requesting further details in the **IFSS-CP**.

Other respondents raised concerns about performance of the standard across different markets or recommended some additions to the standard or the creation of prescriptive requirements.

SSC rationale: The SSC considered the responses received and revised *Part 1 Introduction* and *Part 2 Common Principles Overview* to provide additional information on the interrelation between IFSS-CP and existing guidance.

The SSC also reviewed *Part 3 Fire safety strategies and measures* to include the some of the recommended additions to the fire safety strategies and measures.

Furthermore *Part 5 Accountability and verification* has been significantly revised to provide further details on enforcement of **IFSS-CP**.

Q2. Do you believe that the International Fire Safety Standard Common Principles and Framework will be beneficial for your purposes? If yes, how and in what circumstances would you use it? If no, why not?

Consultation responses:

AESG – Alex Manning, UAE: Yes. These can be used to provide international coordination in our approach to fire safety design.

AFAC (National Council for Fire and Emergency Services in Australia) – Ivan West, Australia: Yes.

ARUP – R Judith Schulz, Global: From the Fire Engineering Consultants' perspective, the extent of the benefit will depend on the jurisdiction in which the building in question is located. For jurisdiction with their own building regulatory documents, these Common Principles and Framework will have limited use because the local regulations will be applicable. It is not expected for these Common Principles and Framework to be able to replace the local regulations. They can sit alongside the local regulations, but the benefits of that are currently not obvious. However, for jurisdiction without their own regulatory documents, these Common Principles and Framework will provide more benefits (refer to answer to Q1). Circumstances whereby these Common Principles and Framework may be useful are for organisations with international presence, who are interested in having a unified fire safety policy/approach for their property portfolio across the world. These organisations include hotel chains, major developers and employers responsible for their employees' H&S in different parts of the world. These Common Principles and Framework are a good basis for such an initiative, because it is 'neutral, internationally recognised and not biased towards the regulations and standards of a particular country. It is noted that the document appears to be developed for building fire safety, but this is not explicitly stated. References are made to community and city scale issues – e.g. spatial planning and community resilience, as well as large outdoor fires – wildfires. The IFSS-CP document does not address these areas holistically and could therefore lead to misinterpretation, confusion, inconsistent application and misuse of the document. An alternative approach could be to acknowledge the lack of guidance related to community and city scale fire challenges globally, to create a foothold for future work that properly addressed these gaps in a comprehensive and coordinated way. Furthermore, any buildings which are not considered in the scope of the document (e.g. buildings in informal settlements) should be clearly noted.

ASID (American Society of Interior Designers) – Katherine Setser, USA: No comment.

BRITISH COUNCIL – Paul Graham, UK: Yes. We are a global business with a presence in over 100 countries and safety is very important to us.

BRE (Building Research Establishment) – Roger Harrison, Global: No comment.

CFPA (Confederation of Fire Protection Associations – Asia) – Rob Llewellyn, Asia:

1.1 Context – second last paragraph IFSS-CP primarily focuses on the information required for life safety from fire;
Fire Safety and education.
1.3 Using Other international standards should give recognition to ISO, NFPA, ICC, IEC and FM for example. Also there is the International Fire Safety Engineering guidelines that should be included.

CIAT (Chartered Institute of Architectural Technologists) – Francesca Berriman, UK: Agree. This initiative is significantly important in that it provides the opportunity to understand and examine the knowledge and overarching perspective that helps develop a common framework and a set of principles in an attempt to establish the characteristics of fire safety across the spectrum of the life span of a building. It will help set the, parameters and rationale that is necessary that will provide give a text for the development of standards, regulations, practice and procedures based upon locality.

CNPP/ SFPE – Armelle Muller, France: At this stage I am not completely sure. I think that it would be good to share this with European commission who is currently thinking of a European overarching regulation, which you probably know.

EAST SUSSEX FIRE & RESCUE SERVICE- Andrew Gausden, UK: Subject to the common principles being sufficient in scope to cover industrial fire and risk presented by the waste & recycling industry.

EXPERION DEVELOPERS – Dr Ananta Singh Raghuvanshi, India: No comment.

GCCA (Global Cement and Concrete Association) – Andrew Minson, UK: Yes.

GYPSUM ASSOCIATION – Michael Schmeida, USA: No. Being focused on the US and Canada, I believe this will have minimal use due to our strong codes.

HKA – Al Brown, UK: If written in a suitable format and developed to contain relevant content, then yes, but not in its current form.

IFMA – Laverne Deckert, Global: The document provides a "good start" to when considering a fire safety plan. The checklists format in the appendix will be helpful.

IN TOUCH ADVISORY – Stephen Ballesty, Australia: Yes.

INSTITUTION OF FIRE ENGINEERS (IFE) – Jim Robson and Martin Shipp, Global: The need for clear descriptors that are relatable is very real. These concepts can be embraced across any language line and cultural need. Some additional but very brief information on fire safety in industrial and process industry premises might be appropriate. The Standard focusses on buildings. However, there seems to be little input parameters for bushfire (wildfire) protection, especially landscape protection measures such as design of gardens and abatement zones, maintenance of asset protection zones and provision of defendable spaces for the protection of attending

fire personnel. Bush fires can also impact on people in buildings. Review of regulatory control of bushfire planning practitioners is also necessary.

INSTITUTE OF FIRE SAFETY MANAGERS – Dr Bob Docherty, UK: Yes – because it is transferable to different countries and areas in the world – the IFSM is an international professional body so we could use the principles and framework to set up a recognisable system in any country or area. Global reach means we all can work in any area of the world and having a system that you recognise is important.

J-SQUARED CONSULTING – David Kubler, Australia: Unsure as yet. Australian Fire Safety Engineering culture is generally based on the IFEG series with the 6 fire life safety sub-systems.

KAT PROJECT CONSULTANCY – Kunhappan Kuppadakath, India: Yes. The requirement of Fire safety shall be included as one of the primary issues considered in Development.

L & T CONSTRUCTIONS – Vinothkumar A, India: Yes. For better implementation.

MATH PROPERTIES – Theoli Makhele, South Africa: No comment.

NAMBA (American Chemistry Council's North American Modern Building Alliance) – Jeffrey H Greenwald, USA: Yes, NAMBA supports a common global framework. The Common Principles and Framework are important to have simple clear messages that fire safety is a systems issue. NAMBA can use the principals and framework to help communicate to policy makers and the building and construction community.

NATIONAL RESEARCH COUNCIL CANADA – André Laroche, Canada: Definitely. In Canada, the code development system is driven by a governing body that include all aspects of the construction industry. Such governing body delegate their technical expertise to standing committees responsible to specific aspects of a building. Quite often, the standing committees focus more on trying to wordsmith the technical requirements rather than apply common sense in achieving the overall objective of improving, or maintaining, the safety for people and to some extent, property protection. Clear understanding of principles will help standing committees better assess their roles supporting the code development system for the benefit of the building occupant.

NFCC (National Fire Chiefs Council) – Jake Houth, UK: As discussed in our response to question 1 above, any sufficiently informed and robust framework and set of overarching fire safety principles that informs fire safety design at the earliest possible opportunity, enhancing safety in event of fire for premises occupants, the wider community and firefighters , would always be welcomed and considered beneficial. It is considered they could be used where gaps exist as previously discussed, as part of an overall process informed by multiple sources, where they are suitable and sufficient in scope in relation to the premises and the needs of the occupants being considered. One example where they may not be appropriate to use or are not considered

sufficient may be in relation to local law and/or legislation, it is however accepted, this may lessen as they are developed over a period and take account of legal restrictions.

NHBC – Steve Evans, UK: The UK already has fire safety framework in place based on a legal regulatory framework with defined roles, responsibilities, processes and enforcement. Relevant guidance documentation is authorised by government to support stakeholders in the process. This is currently being reviewed and strengthened as part of the governments Building a Safer Future programme. The principles outlined in the document provide a good practice framework and could assist all stakeholders whether they have an established regulatory regime or are looking to improve overall fire safety structure in their jurisdiction.

NORATEK SOLUTIONS INC and NATIONAL FIRE CODE COMMITTEE – Alan Kavanaugh, Canada: Yes, it should be viewed and described as a "Minimum" fire safety standard, not an all-inclusive this is "ALL" you have to do to meet potential hazards in a given situation. Don't change just for the benefit of change, change where there is a need.

OBEROI REALTY LTD – Thomas Mathew, India: Yes. Globalisation and Ease of adaptability at any location will be of a greater advantage.

PARIO – Mike Ball, UK: Yes. I see it being a very useful tool for international property investors to sign up to along with Bank

PERSONAL RESPONSE 1 – Darin Rose, unspecified: No comment.

PERSONAL RESPONSE 2 – Javier Elorza, unspecified: No comment.

PERSONAL RESPONSE 3 – Jenny Yeung, unspecified: No comment.

PERSONAL RESPONSE 4 – Madhu Puli, unspecified: No comment.

PERSONAL RESPONSE 5 – Mukesh Singh, India: No comment.

PERSONAL RESPONSE 6 – Paul Akhurst, unspecified: No. As a facility manager is does not give assurance that I will have access to essential information.

PERSONAL RESPONSE 7 – Ubaid Ansari, India: No comment.

PERSONAL RESPONSE 8 – Zack Farrar, unspecified: No comment.

RESOLVE IAQ LLP 1 – Donald Makin, USA: No comment.

Resolve IAQ LLP 2 – Dr Ananta Singh Raghuvanshi, USA: No comment.

RICS INDIA – Ubaid Ansari, India: No comment.

ROYAL INSTITUTE OF BRITISH ARCHITECTS – Adrian Dobson, UK: Yes. The IFSS-CP and Framework is a useful checklist for clients, designers, contractors and the owners/users. The RIBA believes that where there are no baseline prescriptive requirements or the requirement to integrate strategies where no codes or requirements exist, the outputs from the completion of the summary checklist will have not led to the design of an improved fire safe building, beyond that of permitted requirements (if any). The RIBA suggest that the IFSS-CP and Framework is used to promote the consideration of each strategy, not just those strategies that are applicable to a specific territory, including territories where there are no or limited requirements. This would ensure that each project is assessed against a set of internationally developed fire safety principles. The RIBA believe that further consideration is given to how this framework is completed, to ensure that the process of demonstrating compliance with relevant requirements are based upon regulations / guidance, to enhance the credibility and quality of information that is subsequently verified.

Royal Town Planning Institute – Board Response, UK: The development of a common understanding of Building design, construction and management and how the impact of fire affects these will help to build trust and confidence among the many and varied actors, including the public and banks, ultimately underpinning an improved quality of life and increased investment in line with UN sustainable development goals. In all stages of a Building's lifecycle, sufficient measures need to be taken to implement the following five Common Principles which are:
1. Prevention – Safeguarding against the outbreak of fire and/or limiting its effects.
2. Detection and Communication – Investigating and discovering of fire followed by informing occupants and the fire service.
3. Occupant Protection – Facilitating occupant avoidance of and escape from the effects of fire.
4. Containment – Limiting of fire and all of its consequences to as small an area as possible.
5. Extinguishment – Suppressing of fire and protecting of the surrounding environment.
IFSS-CP is intended to be flexible and non-prescriptive so that it can be adopted incrementally and will also advance good practice.

SHIMIZU CORPORATION INDIA PV.LTD – Shreedhar Bhat, India: Yes. Will be helpful while working with overseas Client.

SPS ASSOCIATES LTD – Adam Forster, UK: Yes.

UNDERWRITERS LABORATORIES INC. – Diane Haithcock, USA: Yes, it will be beneficial to share this information around the world. From a standards developer standpoint, we have shared it with some of our committees so that they can take it into consideration as they make revisions to our standards. This may not be as new or innovative for the U.S., but it will be for other countries.

UNIVERSITY OF LAY ADVENTIST OF KIGALI – Erneste Nsangabandi, Rwanda: No comment.

UL STANDING COMMITTEE ON HAZARDOUS MATERIALS AND ACTIVITIES – Shuo (Nick) Yu, Canada: Definitely, IFSS Common Principles and Framework will be beneficial, in addition, prescriptive principles would enhance Public Safety, if added on, for the reasons given in Q1.

Q2 Response summary

There were 47 responses to this question and a range of different opinions as shown by the table below.

Q2 Responses	Number	Percentage
Yes	27	57%
No	3	6%
No comment	17	36%
Total	47	100%

The SSC considered the responses and noted that the affirmative responses that included commentary generally articulated an understanding that the Common Principles were just that, and that existing instruments having the nature of codes or standards or statutes would fit beneath the principles and moreover that the principles could guide revisions to those instruments as well as the development of new ones.

The non-committal responses generally demonstrated support for the concept but concern about its articulation. The concerns fall into 2 broad categories: scope and existing instruments.

In terms of scope, Arup and IFE felt the focus was on buildings and IFE and East Sussex Fire & Rescue were concerned the scope would not encompass industrial risks. Arup also read into the document that it did not apply to some buildings (citing informal settlements). IFE felt that wildfire issues were not adequately addressed or considered while Arup noted they were addressed but not holistically.

In respect of concerns about interaction with existing regulatory instruments Arup felt that the usefulness of the Common Principles would be jurisdiction dependant. They would have limited use in highly regulated environments and greater utility in jurisdictions without local regulations and felt that in regulated jurisdictions they would 'sit alongside' existing codes. CNPP/SFPE was concerned about a proposed EC overarching regulation and wanted Section 1.3 to list/recognise all of the rest of the world's standards.

The two negative responses from the Gypsum Association and NHBC were based on the view that the principles had no applicability in their two jurisdictions (US/Canada and UK) respectively because of their existing strong codes/regulatory framework. NHBC did, however, go on to recognise that the principles outlined 'provide a good practice framework' and could assist all stakeholders regardless of existing regulations, which is one of the primary intents of the IFSS-CP. The second half of that negative response was therefore a positive one.

The other negative response was from Al Brown of a firm called HKA and he added that his answer would be 'Yes' if the document was 'written in a suitable format and developed to contain relevant content'.

SSC rationale: The SSC reviewed the responses and noted that approximately 91% of the respondents either felt that **IFSS-CP** would be beneficial for their purposes or had no comment (37%) in relation to this question.

The SSC also noted that several respondents raised concerns in relation to the interaction of IFSS-CP with existing regulatory instruments. SCC have reviewed the existing standards and included the following paragraph within IFSS-CP Introduction to provide additional clarification on this matter:

'The **IFSS-CP** is not intended or structured to supplant or replace existing fire safety related codes, standards and regulatory instruments ('codes'). Rather, it is designed to provide a framework to contextualise and guide codification within each jurisdiction. Existing codes within a given jurisdiction may therefore be shown to meet and satisfy one or more of the **IFSS-CP.** Conversely any 'gaps' created by unmet **IFSS-CP** may be identified. The **IFSS-CP** will therefore aid jurisdictions both in ensuring that their regulatory framework provides a comprehensive web of fire safety and in guiding future code development towards achieving that goal.'

Q3. Does the draft IFSS-CP meet the aims and objectives from the Coalition as described on Section 1.2 of the attached Consultation Document? If not, why?

Consultation responses:

AESG – Alex Manning, UAE: Yes.

AFAC (National Council for Fire and Emergency Services in Australia) – Ivan West, Australia: Yes.

ARUP – R Judith Schulz, Global: The structure could be improved by establishing the aims and objectives prior to introducing the Common Principles – the document would then show how the Common Principles achieve these aims and objectives. The aims outlined in Section 2.2 are very high level, to the point that it is difficult to see how the aims are directly addressed by the Common Principles. Some of the aims, such as "Provide safe access and egress for firefighters" are very appropriate, but the document gives no further advice on how this aim is achieved. There is no categorisation of the aims, and no deliverable or timeframe against those aims. For example, harmonisation is not covered in this document, so its inclusion in the aims / objectives has little relevance without a deliverable set against it. The document needs to make clear what its aspirations are and be consistent in its use of key words such as "framework". It is noted that this document is the first in a line of material, but it is not overtly clear whether the "framework" produced is intended to extend beyond the document in its current form, which is namely a checklist. It is also unclear how this document is intended to be used, and by whom. The checklists imply this is a practical document ready for application to a specific project, but this is far from the case – the document needs to be more specific with what it is trying to achieve, e.g.:

- Is this document the first step in an effort to standardize approaches across all countries (incl. between US and UK for example)?
- Or more specifically, to transfer knowledge/standardize approaches from High Income Countries (HIC) to Low- and Middle-Income Countries (LMIC)?
- For either of the above, how are stakeholders from LMIC involved with the development process?

In the introduction of the IFSS-CP, it states the Standards Setting Committee is comprised of representatives from 18 countries – however only 6 countries are noted (US, UK, Australia, Slovenia, France, UAE) which are all HIC. Ultimately, the aims are not clear, and it is not apparent how this document or future documents would be able to meet some of the expectations set out.

ASID (American Society of Interior Designers) – Katherine Setser, USA: No comment.

BRITISH COUNCIL – Paul Graham, UK: Yes.

BRE (Building Research Establishment) – Roger Harrison, Global: No comment.

CFPA (Confederation of Fire Protection Associations – Asia) – Rob Llewellyn, Asia: CFPA-Asia does not believe the draft meets the aims and objectives listed above. We

thought and expected the research of existing relevant fire safety Principles and Fire Codes for Buildings that was carried out (Page 4 Dot point 1), should be reported in the IFSS-CP draft. We note also, the link to International Ethical Standards, the UN sustainable development goals and other relevant International Standards that exist. Our comments in Q2 above made reference to ISO, NFPA, ICC, IEC, FM and the International Fire Safety Engineering Guidelines. These should be considered and included.

CIAT (Chartered Institute of Architectural Technologists) – Francesca Berriman, UK: Agree. The aims and objectives are set at the correct level for this international project and the breadth and depth of worldwide representation, the collegiate approach and common purpose. allows for the coming together to establish the landscape and topography of this complex subject and create and develop by challenging convention and attempting to change the thinking and approach to be more holistic and proactive. It essential that the industry does not go straight to the how, become solution based and fail to understand that this initiative is about challenging convention and attempting to change the thinking and approach to be more holistic and proactive.

CNPP/ SFPE – Armelle Muller, France: Yes. I think so.

EAST SUSSEX FIRE & RESCUE SERVICE- Andrew Gausden, UK: Whilst the draft meets aims & objectives of the coalition, it appears to be very life safety focused in the built environment, without sufficient reference to the wider impact of fire and the protection of people, property and contents and the environment from the destructive effects of fire.

EXPERION DEVELOPERS – Dr Ananta Singh Raghuvanshi, India: No comment.

GCCA (Global Cement and Concrete Association) – Andrew Minson, UK: Yes.

GYPSUM ASSOCIATION – Michael Schmeida, USA: Yes.

HKA – Al Brown, UK: The document does not. The document appears to have ignored previous work in other standards and guides including BS 7974 and the associated PDs, and the many other excellent documents that have been developed over many years. The approach is confused, mixing up operational issues with conceptual and design issues. The language employed often suggests an understanding from one particular viewpoint, fire life safety rather than property protection, operational fire risk assessment rather than fire strategy development or fire safety design. The document seems to ignore the BS EN ISO 13943 2017 Fire Safety – Vocabulary; a document which sets out in precise terms the usage of a wide range of vocabulary and which as an ISO document should be incorporated and not ignored. The Property Life Cycle is contrived. Frequently buildings are conceived, designed, constructed operated and demolished and that is the end of the process. There is no cycle. If they are demolished, then it becomes a new project, perhaps with different owners and designers, it is not part of a cycle. The process is therefore linear, with a cyclical element once the building is in operation. Prevention as a common principle, is inherently one that is based in the

operational realm, preventing fires from occurring. While in design this can be applicable to an extent, it is usually approach from a different angle, hazard identification and risk assessment and the elimination of hazards which are considered unacceptable or intolerable. For example, eliminating hazardous processes, or construction materials which could result in extensive fire spread. A common mnemonic used in the property insurance sector is COPE: Construction, Occupancy/Operations, Protection and Exposure. As can be seen in the Sub-principles, there is no logical flow to the way that these have been present.

IFMA – Laverne Deckert, Global: There is not enough information to respond to #1. Regarding #2, this is a good start from which other guidance and education might be developed.

IN TOUCH ADVISORY – Stephen Ballesty, Australia: Yes.

INSTITUTION OF FIRE ENGINEERS (IFE) – Jim Robson and Martin Shipp, Global: We believe it seems to. That said the real measure is the acceptance by the current industry leaders to implement. History tells us that Builders/ Developers cut corners to maximise profits. Any threat (perceived or other) generates an inertia that stymies change. That will be the real test.

INSTITUTE OF FIRE SAFETY MANAGERS – Dr Bob Docherty, UK: Yes, I think it does. It is a work in progress and will need developing and tweaking as it is 'implemented' accepted and worked on but at present it's a firm base for 'starters'.

J-SQUARED CONSULTING – David Kubler, Australia: I believe so.

KAT PROJECT CONSULTANCY – Kunhappan Kuppadakath, India: Yes.

L & T CONSTRUCTIONS – Vinothkumar A, India: Yes.

MATH PROPERTIES – Theoli Makhele, South Africa: No comment.

NAMBA (American Chemistry Council's North American Modern Building Alliance) – Jeffrey H Greenwald, USA: Not applicable.

NATIONAL RESEARCH COUNCIL CANADA – André Laroche, Canada: Yes.

NFCC (National Fire Chiefs Council) – Jake Houth, UK: It is considered the draft contributes significantly to the aims and objectives of the coalition in accordance with the proposed 'Common Principles' and these will develop in time. It is acknowledged this will primarily be concerned with life safety. The plans to develop this to property protection (the whole of the built environment including Heritage), community and societal impact, operations and environmental impact is welcomed.

NHBC – Steve Evans, UK: Yes. Although a complete, catalogued and maintained set of codes would be useful. Similar libraries exist for UK relevant information. The

conceptual framework provides a sound basis on which each country can, if they choose, use as a basis for development of their own legislation.

NORATEK SOLUTIONS INC and NATIONAL FIRE CODE COMMITTEE – Alan Kavanaugh, Canada: I like this idea, there is a lot of information out there from various Code and Standards based organizations, FM, Insurance Companies and Risk management companies. Recommended Practices, Best Loss Control Procedures & Practices, etc.

OBEROI REALTY LTD – Thomas Mathew, India: Yes.

PARIO – Mike Ball, UK: Yes. I think the IFSS has suitably captured a common framework as set out in the CP's.

PERSONAL RESPONSE 1 – Darin Rose, unspecified: No comment.

PERSONAL RESPONSE 2 – Javier Elorza, unspecified: No comment.

PERSONAL RESPONSE 3 – Jenny Yeung, unspecified: No comment.

PERSONAL RESPONSE 4 – Madhu Puli, unspecified: No comment.0

PERSONAL RESPONSE 5 – Mukesh Singh, India: No comment.

PERSONAL RESPONSE 6 – Paul Akhurst, unspecified: No. It is not apparent what best practice is.

PERSONAL RESPONSE 7 – Ubaid Ansari, India: No comment.

PERSONAL RESPONSE 8 – Zack Farrar, unspecified: No comment.

RESOLVE IAQ LLP 1 – Donald Makin, USA: No comment.

Resolve IAQ LLP 2 – Dr Ananta Singh Raghuvanshi, USA: No comment.

RICS INDIA – Ubaid Ansari, India: No comment.

ROYAL INSTITUTE OF BRITISH ARCHITECTS – Adrian Dobson, UK: Yes. The RIBA believes that the draft of the IFSS-CP has met the aims and objectives from the Coalition, to; • research existing relevant fire safety principles and fire codes for buildings to identify current good practice and to evaluate deficiencies in markets, and thereby establish different market needs • produce a conceptual framework to guide the drafting and understanding of IFSS-CP in the future. The RIBA believe that further work by the Standards Setting Committee (SSC) in future editions of IFSS-CP as identified in the aims and objectives would be welcomed (See RIBA Response to Question 8), including; • addressing property protection and the impact on communities and the environment and societal loss of a building (e.g. environmental impact, existential loss, contents, heritage, operations) and; • the creation of a

framework that will allow comparisons to be made on a like-for-like basis across countries globally and within the EU.

Royal Town Planning Institute – Board Response, UK: No comment.

SHIMIZU CORPORATION INDIA PV.LTD – Shreedhar Bhat, India: Yes.

SPS ASSOCIATES LTD – Adam Forster, UK: Yes.

UNDERWRITERS LABORATORIES INC. – Diane Haithcock, USA: Yes.

UNIVERSITY OF LAY ADVENTIST OF KIGALI – Erneste Nsangabandi, Rwanda: No comment.

UL STANDING COMMITTEE ON HAZARDOUS MATERIALS AND ACTIVITIES – Shuo (Nick) Yu, Canada: Yes.

Q3 Response summary

There were 47 responses to this question and a range of different opinions as shown by the table below;

Q3 Responses	Number	Percentage
Yes	26	55%
No	5	11%
No comment	16	34%
Total	47	100%

The SSC noted that the majority of respondents considered that the draft contributes significantly to the aims and objectives of the coalition and were in accordance with the proposed 'Common Principles,' and these principles will develop in future editions of the **IFSS-CP**.

The SSC acknowledged that the first edition of **IFSS-CP** is primarily concerned with life safety but intend to include further information on property protection (the whole of the built environment including Heritage), community and societal impact, operations, and environmental impact in future editions of the standard.

Several respondents such as the CIAT (Chartered Institute of Architectural Technologists) responded that the aims and objectives are set at the correct level for this international project and the breadth and depth of worldwide representation, the collegiate approach and common purpose. CIAT added that it is essential that the industry does not go straight to the how, become solution based and fail to understand that this initiative is about challenging convention and attempting to change the thinking and approach to be more holistic and proactive.

The NFCC (National Fire Chiefs Council) also that the draft contributes significantly to the aims and objectives of the coalition in accordance with the proposed 'Common Principles' which will further develop in time.

There were four negative responses from ARUP, CFPA (CFPA – Asia), HKA, and one from an individual response.

According to HKA, the document appears to have ignored previous work in other standards and guides, including BS 7974 and the associated PDs, and the many other excellent documents that have been developed over many years. They further felt that approach is confusing, mixing up operational issues with conceptual and design issues. The language employed often suggests an understanding from one particular viewpoint, fire life safety rather than property protection, operational fire risk assessment rather than fire strategy development or fire safety design.

HKA also believed that the document seems to ignore the BS EN ISO 13943 2017 Fire Safety – Vocabulary, a document which sets out in precise terms the usage of a wide

range of vocabulary. HKA felt that the ISO document should be incorporated and not ignored.

CFPA – Asia thought and expected the research of existing relevant fire safety Principles and Fire Codes for Buildings that were carried out (Page 4 Dot point 1), should be reported in the IFSS-CP draft. CFPA also felt that the document should cite and link the International Ethical Standards, the UN sustainable development goals, and other relevant International Standards that exist.

Furthermore, a detailed comment was provided by ARUP, who felt that the structure of the document could be improved by establishing the aims and objectives prior to introducing the Common Principles as this would help illustrate how the Common Principles achieve these aims and objectives. ARUP stated that the aims outlined in Section 2.2 are very high level, to the point that it is difficult to see how the aims are directly addressed by the Common Principles. Some of the aims, such as 'Provide safe access and egress for firefighters' are very appropriate, but the document gives no further advice on how this aim is achieved.

ARUP also commented that there is no categorization of the aims, and no deliverable or timeframe against those aims. For example, harmonisation is not covered in this document and therefore felt that its inclusion in the aims/objectives has little relevance without a deliverable set against it. ARUP felt that the needed to provide further clarification on the aspirations of IFSS and noted that though this document was the first edition it was not overtly clear whether the framework produced is intended to extend beyond the document in its current form, which they saw as providing a checklist for fire safety.

SSC rationale: The SSC reviewed the following aims and objectives to ensure that the **IFSS-CP** was in line with these aims and objectives:

- to research existing relevant fire safety principles and fire codes for Buildings to identify current good practice and to evaluate deficiencies in markets, and thereby establish different market needs
- to produce a conceptual framework to guide the drafting and understanding of IFSS-CP in the future. The conceptual framework will have the following key aims:
  - to establish a common set of internationally accepted Common Principles for fire safety aspects of engineering design, construction, occupation and ongoing management. It will be relevant to all real estate classes and all regions and nations regardless of the differing political, economic, social, technological, legal and environmental (PESTLE) differences between jurisdictions
  - to address the primary concern of life safety from fire, though future editions of IFSS-CP may also deal with Building protection, the impact on communities and the environment and societal loss of a Building (e.g. environmental impact, existential loss, contents, heritage, operations) and
  - to create a framework that will allow comparisons to be made on a like-for-like basis across countries globally and within the EU.

- to link IFSS-CP to the International Ethical Standards, the UN sustainable development goals and other relevant International Standards that exist.

The SSC also reviewed all the definitions contained in the IFSS-CP and have added the clarification that 'the definitions are only applicable to the **IFSS-CP**. This section does not attempt to define basic fire safety terms as users are assumed to have an understanding of such terms.'

Further to the comments received the SSC have also included a new *Part 6 Next Steps* and have added the following text on next steps within the introduction to provide further clarity. As suggested, next steps in relation to the development of future editions of the standard are:

o A global directory of and roadmap to existing regulatory codes.
o A comparative dictionary for existing fire safety terms used in the **IFSS-CP**.

"Future editions of **IFSS-CP** shall address wider issues such as **Building** preservation for communally and societally important **Buildings** and critical infrastructure, land administration, land governance, land policy, land reform and land tenure, resilience and recovery.

Furthermore, the **IFSS-CP** are looking to provide a directory of existing fire safety related codes, standards and regulatory instruments, and demonstrate how they fit within the framework by meeting and satisfying the **IFSS-CP**."

In respect of the ARUP responses the SSC have also reviewed IFSS-CP to provide further clarification in relation to the aims and objectives of the IFSS-CP and have revised the chapters accordingly. The changes include the following;

- New Section *1.2 Fire safety and education*.
- Revised *Part 2 Common Principles Framework* to provide further details on the common principles and the relation of the common principles to the IFSS-CP Framework.
- Revisions to Part 3 to provide a matrix for the fire safety principles.
- Removal of sub-principles, which have now been recategorised as fire safety strategies and measures.
- Review of all the fire safety strategy and measures for each principle.
- Review of *Part 4 IFSS-CP Framework* to provide additional details on the use of the framework.
- Revisions to *Part 5 Accountability and verification* to provide additional information on regulation and verification across all markets.
- Creation of new *Part 6 Next steps.*
- Revisions to all the tables contained in the Appendices.

Q4. Do you believe that there are any other principles that need to be added? If yes, what are they and why should they be added?

Consultation responses:

AESG – Alex Manning, UAE: No.

AFAC (National Council for Fire and Emergency Services in Australia) – Ivan West, Australia: No.

ARUP – R Judith Schulz, Global: It is suggested to add 'Mitigation', 'Firefighting' and 'Recovery' to the Common Principles. The explicit reference in the principles of these will drive further consideration of these factors in fire safety engineering 'Firefighting' – fire service is usually one of the stakeholders in the approval process and appropriate to have a common principle that safeguard their interest. It is also in line with the functional requirements in many current regulatory documents. 'Mitigation' – it promotes the concept of mitigating risks after the failure of the preventative measures. This would include choice of materials that have better fire performance (design stage), management procedures for works with high fire risk (construction and in use) etc. 'Recovery' – this represents how those affected by fire, directly and indirectly, as a person or business, post fire incident, can resume normal activities. The consideration of this principle is essential when looking to embed fire safety better into resilience frameworks, particularly beyond the individual building scale, into larger scales at community / city / country level; as many impacts of a fire are currently not well enough measured and understood beyond fatalities and injuries, which does not result in resilient environments. If a new framework is developed, it should be set up in a way that supports fire safety resilience, and to do that it needs to promote considerations of post fire recovery of individuals, a community, or city after a significant fire incident. There are numerous examples of recent fires that cause significant disruption to a community or country, without having caused fatalities. E.g.: – Sky City fire in Central Auckland, which impacted people being able to go to work in the city centre; – Fires in informal settlements that have been reported to damage up to 20,000 homes; – Recent very severe wildfires in Australia. Whilst a limited number of Common Principles is useful for document structure, certain areas such as 'Containment' covers a wide range of fire safety features. Using the UK Building Regulations as one example, the Common Principe of 'Containment' includes Part B2 to B4 of the Regulation. It may be sufficient at the framework level, but if the Common Principles were to be built upon, it would appear to dilute these very important areas. The naming of 'containment' would not seem to fit all of the areas which it currently encompasses. For example, protection to elements of structure does not fit within the definition of containment. As an aside, a flowchart could be a useful way to how the information should be used / documenting chronology of fire.

ASID (American Society of Interior Designers) – Katherine Setser, USA: No comment.

BRITISH COUNCIL – Paul Graham, UK: Yes. Fire Safety Training – across all Stages, to varying degrees.

BRE (Building Research Establishment) – Roger Harrison, Global: No comment.

CFPA (Confederation of Fire Protection Associations – Asia) – Rob Llewellyn, Asia: Proper commissioning is essential if the fire safety of the building and Occupant safety realised. It also sets a sound foundation set for subsequent maintenance. During commissioning live interface testing should be carried out to ensure all fire and life safety systems operate as required. We also believe Occupant Safety should be retitled Occupant Protection.

CIAT (Chartered Institute of Architectural Technologists) – Francesca Berriman, UK: It would be useful to revisit the principles and set them with a matrix framework as follows. The rationale is that some aspects are cross cutting in all the domains relating to fire safety and also communication and management are also cross cutting.

	Prevention	Detection	Rescue	Containment	Extinguish
Occupant safety					
Building safety					
Communication					
Management					

CNPP/ SFPE – Armelle Muller, France: I think most issues are covered. Other principles may deal with environment protection such as extinguishing water.

EAST SUSSEX FIRE & RESCUE SERVICE- Andrew Gausden, UK: I would like to see more emphasis on principle 4 & 5 to minimise the wider impact of fire and the protection of people, property and contents and the environment from the destructive effects of fire.

EXPERION DEVELOPERS – Dr Ananta Singh Raghuvanshi, India: No comment.

GCCA (Global Cement and Concrete Association) – Andrew Minson, UK: The 5 Principles are clear and cover all aspects.

GYPSUM ASSOCIATION – Michael Schmeida, USA: No.

HKA – Al Brown, UK: The principles need to be reconsidered for the reasons set out in my previous answer concerning the Property Life Cycle and the principles themselves. It is not a matter of tweaking or adding, but a re-evaluation of the document as a whole. It is too repetitious and needs to be more strategic.

IFMA – Laverne Deckert, Global: As noted previously, Post event (lessons learned/resuming business functions). Additionally, continuous improvement, developing a safety culture.

IN TOUCH ADVISORY – Stephen Ballesty, Australia: Yes. "Property" can equate to Land, referencing Asset or Facility would be helpful in linkage to AM/FM.

INSTITUTION OF FIRE ENGINEERS (IFE) – Jim Robson and Martin Shipp, Global: We would like to add aftercare in the meaning of:

- Restoring to the normal situation after the fire Is extinguished.
- Evaluation of the incident (origin, cause, reasons for outcomes, building/systems performance, human behaviour).
- Arson (crime) investigation.
- Aftercare care providers.
- Lessons learned. Dissemination of learning points.

Note that in many countries' "arson" is the term for a crime. We prefer "deliberate fires" which makes no assumptions regarding motivation.

INSTITUTE OF FIRE SAFETY MANAGERS – Dr Bob Docherty, UK: Maybe add the principle of 'Recovery' important to remember after a fire /disaster there needs to be a period of where a building/business/ people return back to 'normal' status quo ante!

J-SQUARED CONSULTING – David Kubler, Australia: No additional comments.

KAT PROJECT CONSULTANCY – Kunhappan Kuppadakath, India: No.

L & T CONSTRUCTIONS – Vinothkumar A, India: No.

MATH PROPERTIES – Theoli Makhele, South Africa: No comment.

NAMBA (American Chemistry Council's North American Modern Building Alliance) – Jeffrey H Greenwald, USA: Not applicable.

NATIONAL RESEARCH COUNCIL CANADA – André Laroche, Canada: I think you have covered all important aspects for the safety of people over the property life of a building.

NFCC (National Fire Chiefs Council) – Jake Houth, UK: We appreciate the Common Principles will be viewed differently by all stakeholders and this could become an extensive list, however, we are of the opinion they are generally commensurate with common thinking around Common Principles/Layers of Protection in relation to Fire Safety. Areas we consider further emphasis should be applied to are: Structural Resilience. Whilst this may be encompassed within 'containment' and come under the auspices of compartmentation, we consider the need to acknowledge structural resilience as potentially a category on its own. This is especially true when considering innovative/sustainable design and modern methods of construction which impact not only on occupant safety, but also the safety of firefighters and those in adjacent/surrounding premises.

Extinguishment. The importance of suitable and sufficient access, facilities and water supplies for firefighters cannot be underestimated, and we consider this needs to be highlighted within in any set of common principles. A general observation is to consider the information that informs and comes under each of the Common Principles to ensure they are sufficiently robust and all encompassing. After this has occurred there may be scope to add other subject headings to ensure the wealth of required information within each Common Principle is not lost. It is expected this is

one subject area that will continue to develop and will always be open for review to account for advances in technology and availability of information e.g. research. It is further considered some subjects under each Common Principle are repeated e.g. suppression systems, lobbies etc. It is acknowledged there will be crossover, every effort should be made to keep this to a minimum to ensure information is not lost, again, this may be informed by additional Common Principles.

NHBC – Steve Evans, UK: Nothing to add.

NORATEK SOLUTIONS INC and NATIONAL FIRE CODE COMMITTEE – Alan Kavanaugh, Canada: Enforcement and Inspections – Especially by Authorities having Jurisdiction (AHJ). There has been a downturn on acceptance and Life Safety Inspections by AHJ's over the last 10-15 years, maybe more. These need to re-inforced to help prevent potential fire losses and subsequent injuries. Only Relying on Architect and Engineering stamps for approved plans does not cut it. We have experienced many problems in the past where local communities are just accepting plans as submitted with no layer of Overall Compliance Inspection being provided.

OBEROI REALTY LTD – Thomas Mathew, India: Yes. Re occurrence factors.

PARIO – Mike Ball, UK: No.

PERSONAL RESPONSE 1 – Darin Rose, unspecified: No comment.

PERSONAL RESPONSE 2 – Javier Elorza, unspecified: No comment.

PERSONAL RESPONSE 3 – Jenny Yeung, unspecified: No comment.

PERSONAL RESPONSE 4 – Madhu Puli, unspecified: No comment.

PERSONAL RESPONSE 5 – Mukesh Singh, India: No comment.

PERSONAL RESPONSE 6 – Paul Akhurst, unspecified: Yes. Alignment with other emergency scenarios.

PERSONAL RESPONSE 7 – Ubaid Ansari, India: No comment.

PERSONAL RESPONSE 8 – Zack Farrar, unspecified: No comment.

RESOLVE IAQ LLP 1 – Donald Makin, USA: No comment.

Resolve IAQ LLP 2 – Dr Ananta Singh Raghuvanshi, USA: No comment.

RICS INDIA – Ubaid Ansari, India: No comment.

ROYAL INSTITUTE OF BRITISH ARCHITECTS – Adrian Dobson, UK: The RIBA believes that the overarching Common Principle' categories identified (Prevention, Detection & Communication, Occupant Safety, Containment and Extinguishment) are

sufficient to encompass the broad range of fire safety measures that should be considered at each stage of the property life cycle. The RIBA believe that further consideration is given to the process of addressing these principles at each stage of the property life cycle, as it is noted that the next stage cannot start until the prior stage has been completed. There may be some benefit in considering the relationship between stages, for example, the design and construction stage. These stages are inextricably linked, and the process and methodology of construction can inform the design process and requirements. The RIBA also draw attention to different procurement routes, such as Design and Build. This route, for example, will conflict with the strategy proposed as the process involves both stages being developed simultaneously.

Royal Town Planning Institute – Board Response, UK: On the face of it, and reading the whole document there are significant elements which seem to have little if any relevance to Planning practice. However, spatial planning is specifically referenced in a list on page 12 of the document where "IFSS-CP is relevant to individuals and communities and may be used by any person with influence over the Building's fire safety arrangements." As far as the UK is concerned much of the regulatory relevance is to Building Regulations, nevertheless Spatial Planning has a limited but important role for example, in dealing with:

1. layout to allow for emergency access and means of escape;
2. hard and soft landscaping design relevant to 1;
3. relationship between buildings and uses;
4. the interaction between Building Control (BC) and material Planning matters, most notably the use and appearance of materials (where BC will be concerned with the performance and safety of materials and Planning the appearance).

The aspects of the IFSS-CP which will be most relevant to Planning practice are likely to be in terms of the design phase but also any subsequent changes of use or alteration that require planning permission.

SHIMIZU CORPORATION INDIA PV.LTD – Shreedhar Bhat, India: No.

SPS ASSOCIATES LTD – Adam Forster, UK: No.

UNDERWRITERS LABORATORIES INC. – Diane Haithcock, USA: Not applicable.

UNIVERSITY OF LAY ADVENTIST OF KIGALI – Erneste Nsangabandi, Rwanda: No comment.

UL STANDING COMMITTEE ON HAZARDOUS MATERIALS AND ACTIVITIES – Shuo (Nick) Yu, Canada: Yes, "Fire Safety Education for the Occupants". This will enhance/enable "Mitigation by Occupants".

Q4 Response summary

There were 47 responses to this question and a range of different opinions as shown by the table below.

Q4 Responses	Number	Percentage
Yes	12	26%
No	12	26%
No comment	23	49%
Total	47	100%

The majority of respondents felt that either no new principles needed to be added or had no further comment.

There were 12 affirmative responses that said yes with additional common principles and some included some additional comments.

From the 12 affirmative answers the following additional principles have been proposed to add to the 5 ones identified in the **IFSS-CP**:

- Aftercare
- Alignment with other emergency scenarios
- Containment
- Enforcement and inspection
- Effective management
- Environmental protection
- Firefighting
- Fire safety training
- Mitigation
- Occurrence factors
- Property protection
- Resilience
- Recovery
- Safety culture

The SSC have reviewed these comments and incorporated these suggestions, where applicable, within *Part 3 Fire safety strategies and measures*.

Some respondents also suggested the introduction of fire safety resilience to promote considerations of post fire recovery of individuals, a community, or city after a significant fire incident.

Other respondents commented that there may be some benefit in considering the relationship between stages, for example, the design and construction stage, as the stages are inextricably linked.

SSC rationale: The SSC have considered the comments in relation to fire safety and have extended the definitions (like resilience), included an additional *Section 1.2 fire safety and education* and have revised the fire safety measures and strategies to include further reference to fire fighting and fire safety training. The SSC have also revised *Part 2 Common Principles Overview* to provide further detail on the common principles and the interrelation of the common principles and have included building protection and resilience in Section 2.2.

The SSC have included a new *Section 2.3 From the Common Principles to the IFSS-CP Framework* to provide additional details on the link between the common principles and the IFSS-CP Framework. In particular, the objectives are reinforced by the implementation of the diagram in Section 2.3.

The SSC discussed the inclusion of additional fire safety principles and did not feel that additional principles were needed but revised *Part 3 Fire strategies and measures* to ensure that the suggested additional principles were contained within the fire strategies and measures.

Finally, as suggested, Section 5.3 concerning verification and enforcement has been added.

Q5. Are there any sub principles that you feel should be added to this list? Please provide the Principle (i.e. Prevention, Detection, Occupant Safety, Containment, Extinguishment) and Stage (i.e. 1,2,3,4,5) together with your reasoning behind any additions or removals.

Consultation responses:

AESG – Alex Manning, UAE: No.

AFAC (National Council for Fire and Emergency Services in Australia) – Ivan West, Australia: None.

ARUP – R Judith Schulz, Global: Are there any sub principles that you feel should be added to this list? Please provide the Principle (i.e. Prevention, Detection, Occupant Safety, Containment, Extinguishment) and Stage (i.e. 1,2,3,4,5) together with your reasoning behind any additions or removals. [Comments: Notably, the phrase "Sub-principle" is not used within the document. It is therefore assumed that this is referencing the "fire safety measures and strategies" considered under each of the property life cycle stages, under each Common Principle. It was observed that there is a lack of categorization and guidance on how to consider the relationship between sub-principles, which is critical for risk assessment – this is mentioned later in the document.
It is inevitable that there will be overlap between sections, and there should therefore be consistency in the terms used. This would create a master list of "fire safety measures and strategies" across all five common principles. It is suggested that this section can be more effectively presented in a 5 x 5 matrix, with the Common Principles on the first column and the property life cycle stages on the first row, or vice versa. Our comments below are divided into each "Sub-principle" and are by no means exhaustive:

Prevention-Design:

- Replace "installation" with "selection" of materials and content,
- Set appropriate performance requirements for materials (including elements of structure, internal lining, external envelope etc.),
- Arson is not a typical design fire scenario for a building unless explicitly stated as part of the fire safety goals by the client (It is however considered in rolling stock design).

Prevention-In Use:

- Fire safety management plan with key fire safety roles and responsibilities i.e. who is responsible for maintaining a fire safety in order to mitigate fire risk,
- House-keeping, to maintain clear escape routes at all times,
- Maintenance frequency and regime, minimising the risk of fire in equipment.

Detection-Design:

- End-user specific fire safety management procedures taking into consideration staff number and means of communication,
- Visual alarm system,
- Cause and effect matrix to guide the correct interfaces between systems.

Detection-Construct:

- Cause and effect testing to confirm that detection and alarm systems respond appropriately with respect to the fire scenario Detection-In Use,
- Periodic fire evacuation drill, with proper reporting of findings and required improvements Detection-Change,
- Gap assessment between the existing system and the requirements in the current standards. Occupant Safety-Design,
- Provision of protected lobby, which is important to space planning and affects NLA.,
- Criteria under which egress routes are considered alternative Occupant Safety-In Use,
- Consideration to be given to partial/phased occupation, which may temporarily affect the escape routes.

Occupant Safety -Change:

- Gap assessment between the existing provisions and the requirements in the current standards. Containment-Design,
- Fire stopping systems should be considered at this stage so that standard tested solutions can be allowed for.

Containment-Construct:

- Frequency and extent of inspections, to allow sign-off by the relevant parties,
- Documentation of as-builts conditions.

Containment-In Use:

- Gap assessment between the existing provisions and the requirements in the current standards. Extinguishment-Design,
- Protection to the firefighting access routes,
- Proximity to the nearest fire department and fire brigade arrival time Extinguishment-Change,
- Gap assessment between the existing provisions and the requirements in the current standards.

ASID (American Society of Interior Designers) – Katherine Setser, USA: No comment.

BRITISH COUNCIL – Paul Graham, UK: No.

BRE (Building Research Establishment) – Roger Harrison, Global: No comment.

CFPA (Confederation of Fire Protection Associations – Asia) – Rob Llewellyn, Asia:
Prevention principle (3.3.1) – Add Storage – We are seeing fires start in waste resource recovery facilities and also residential properties due to hoarding. Add Impact – could be aircraft, public transport and vehicles. Stage 1 Design – Add internal hazards and building impact. Add Occupant use (use of balconies). Stage 3 In use – Second dot point – which should be carried throughout the document – Developing Evacuation Procedures and briefing occupants and visitors.
Detection and Communication (3.3.2)
Stage 1 Design –Add automatic sprinkler systems. Add Evacuation Procedures Add Emergency Exit Signage and Lighting Add internal hazards and building impact. Add Occupant use (use of balconies).
Stage 2 Construct – Add temporary Evacuation Procedures.

Stage 3 In Use – Add testing and maintenance of all fire safety systems. Amend – staff training/continual education – particularly where manual alarms are present to – Occupant training. Add Staff continual education NOTE: Staff are only one category of occupant -
Stage 4 – A definition is recommended for Occupant which could be: An occupant is: a staff member, contractor, employee, tradesperson and service provider working on a permanent, part-time or casual basis at the building; or, a resident; or a person using the car park on a permanent, part-time basis or casual basis; and, a visitor (relative, friend, customer, client) who is invited by, or is visiting an owner, occupier, resident, tenant or sub-tenant. Change – Add testing and maintenance of all fire safety systems.
Detection and Communication principle (3.3.3)
Stage 1 Design – Add automatic sprinkler systems. Add automatic sprinkler systems. Add Evacuation Procedures Add Emergency Exit Signage and Lighting.
Stage 2 Construct – Add temporary Evacuation Procedures.
Containment principle 3.3.4
Stage 3 In use – Last dot point – Refer to Occupant comments above. Using Occupants/Residents/Staff could be expanded
Extinguishment principle 3.3.5
Stage 1 Design – Needs to consider Fire Brigade Intervention.
Stage 2 Construct – Add Fire Brigade operations. Add Fire Brigade communications
Stage 3 In Use. Dot Point 1 – Change to all Fire Safety Systems. Dot Point 2 – See previous comments on Occupant definition Add – Fire Brigade Intervention.
Stage 4 Change – Apply Stage 3 comments.

CIAT (Chartered Institute of Architectural Technologists) – Francesca Berriman, UK: It would be useful to revisit the principles and set them with a matrix framework as follows. The rationale is that some aspects are cross cutting in all the domains relating to fire safety and also communication and management are also cross cutting.

	Prevention	Detection	Rescue	Containment	Extinguish
Occupant safety					
Building safety					
Communication					
Management					

CNPP/ SFPE – Armelle Muller, France: No comment.

EAST SUSSEX FIRE & RESCUE SERVICE- Andrew Gausden, UK: Principle 4 "Containment" doesn't provide sufficient emphasis on the wider impact of fire and therefore a sixth principle detailing "Mitigation" minimise the wider impact of fire and the protection of people, property and contents and the environment from the destructive effects of fire, should be considered.

EXPERION DEVELOPERS – Dr Ananta Singh Raghuvanshi, India: No comment.

GCCA (Global Cement and Concrete Association) – Andrew Minson, UK: We have two proposed amends in Section 3.3.4. Stage 3: Use, and these should be reflected in Table D2

1. Proposal is to

Replace

- "training and preparation of occupants/residents/staff for Containment and good housekeeping related to Containment"

With

- training and preparation of occupants/residents/staff for Containment
- good housekeeping related to Containment

Reason

The two points apply at different times: training and preparation in the event that there is a fire AND actions prior to the event of a fire should be separate.

2. Proposal is to add a further bullet point

Add:

- Training of occupants/residents/staff of how to avoid minor works (e.g. DIY) compromising compartmentation (e.g. fire protection of combustible walls/floors, firestopping, etc.)

Reason:

During stage 3: IN USE Compartmentation is often compromised (many anecdotes from other sites came to light following Grenfell). This fact is correctly in the checklist for stage 4: CHANGE but also should be in stage 3:IN USE because compromised compartmentation occurs during minor works that would be perceived as during Stage 3 IN USE. For example: In a multi occupancy apartment building, re-wiring or changing a light fitting in one residence would not be perceived as Stage 4 CHANGE for the building. It would not even normally come to the attention of any entity responsible for the building, and yet if incorrectly undertaken it can compromise compartmentation and hence containment.

GYPSUM ASSOCIATION – Michael Schmeida, USA: No.

HKA – Al Brown, UK: The sub-principles appear as if they have originated from a brainstorming session, with little or no structure: Below is my quick analysis of Stage 1 Design in 3.3.1 with my comments in square brackets.

- arson Prevention
- electrical safety
- product safety
- [Building Layout]
- [Operational fire risk]
- installation of materials and contents (fire/ignition resistance) [Fire Strategy]
- smoking [Operational Issue, but not a factor in many countries which have banned
- smoking indoors]
- fuel and oxygen (flammable materials, etc.) [Process Design]
- natural and man-made disasters such as wildfires, terrorism and war [Site location/selection] • process accidents (e.g. chemical spills), etc. [Operational risk assessment]
- adjacent hazards. [Site location/selection]

IFMA – Laverne Deckert, Global: No comment.

IN TOUCH ADVISORY – Stephen Ballesty, Australia: Yes. These 5 principles deal well with the 'fire event' itself, however what is missing is the broader asset / facilities management (AM/FM) context. Specifically the 5 principles should be extended to recognise the 'planning' aspect of Prevention and the what happens post Extinguishment in the 'clean-up' and 'recovery' phase.

INSTITUTION OF FIRE ENGINEERS (IFE) – Jim Robson and Martin Shipp, Global: One suggestion that we believe sits across all the Principles is Education. Part of that is about Context and consequence. From the initial developer through to end user Occupants and Body Corporate members all levels need to be educated on the requirements of Occupant safety. Having that level of engagement improves the ability of Building Maintenance therefore extending the life span of the very systems that are in place.

INSTITUTE OF FIRE SAFETY MANAGERS – Dr Bob Docherty, UK: All ok.

J-SQUARED CONSULTING – David Kubler, Australia: No additional comments.

KAT PROJECT CONSULTANCY – Kunhappan Kuppadakath, India: Yes. I think that the IFSS recommendation should also cover the Existing high-rise buildings, where such requirements were not addressed previously.

L & T CONSTRUCTIONS – Vinothkumar A, India: Yes.

MATH PROPERTIES – Theoli Makhele, South Africa: No comment.

NAMBA (American Chemistry Council's North American Modern Building Alliance) – Jeffrey H Greenwald, USA: Not applicable.

NATIONAL RESEARCH COUNCIL CANADA – André Laroche, Canada: There will always a missing piece here and there. But, from what I understood from my reading, the main ones were identified. To my knowledge, they all cover the basics of risk assessment I used to do in a previous life when assessing fire risks and potential consequences to the people, the operations and the properties of a company.

NFCC (National Fire Chiefs Council) – Jake Houth, UK: NFCC considers our response to question 4 to address this in principle as these will develop over time and we have provided some examples. One of the most accepted principles of fire safety in any premises is that of effective management, which would run throughout and oversee each of the proposed and potentially future Common Principles and subprinciples. As complexity of design increases along with fire safety measures and systems, the requirements, importance and competence to effectively manage those measures and systems also increases. There needs to be an acknowledgement of this within the proposed document and its importance stated. Additional overlapping threads to many of the Common Principles and sub-principles are:

• Incident Mitigation/Contingency

It is considered this should be highlighted and inherent throughout the Common Principles e.g. mitigation from the effects of suppressant.

• Occupant/Resident engagement
The Common Principles are linked, especially principles 1 – 3, to occupants, but there appears to be little emphasis on these important (and integral) participants when considering fire safety. We appreciate these principles are generic, but it is important to recognise occupants play an integral role and by not making it explicit promotes occupants do not have responsibility e.g. Prevention Principle makes reference to briefing and education measures to prevent a fire from occurring with the example of 'Hot Works'. It is considered actions by occupants that could prevent a fire from within their own space/dwelling should also be identified. This is prevalent again with Detection and Communication – linking directly with lessons learnt from the Grenfell Tower tragedy and the inquiry Phase 1 recommendations of provision of information to residents to understand what and why the fire safety measures that are in place.

NHBC – Steve Evans, UK: Robustness of the type of building construction should be added. Some MMC systems have unproven track records compared to more traditional build types. Applies to Stages 1, 2 & 3 and Occupant Safety and Containment.

NORATEK SOLUTIONS INC and NATIONAL FIRE CODE COMMITTEE – Alan Kavanaugh, Canada: An ounce of Prevention is worth a pound of cure. I believe all principles are important but Prevention, simple ideas, utilising the old Fire Triangle, Fuel, Ignition Source and Oxygen. How do you minimize or mitigate exposure of ignitions sources to fuels, or fuels to ignition sources? Education, Housekeeping practices, building inspections for fire safety, means of egress, non-standard storage. Availability of fire protection equipment, operational status of Alarm systems, Fire suppression systems, fire pumps, etc. Advances fire plans, emergency response planning. All listed are important and all can be addresses under Inspections/ prevention.

OBEROI REALTY LTD – Thomas Mathew, India: Factors for reoccurrence.

PARIO – Mike Ball, UK: No.

PERSONAL RESPONSE 1 – Darin Rose, unspecified: No comment.

PERSONAL RESPONSE 2 – Javier Elorza, unspecified: No comment.

PERSONAL RESPONSE 3 – Jenny Yeung, unspecified: No comment.

PERSONAL RESPONSE 4 – Madhu Puli, unspecified: No comment.

PERSONAL RESPONSE 5 – Mukesh Singh, India: No comment.

PERSONAL RESPONSE 6 – Paul Akhurst, unspecified: No.

PERSONAL RESPONSE 7 – Ubaid Ansari, India: No comment.

PERSONAL RESPONSE 8 – Zack Farrar, unspecified: No comment.

RESOLVE IAQ LLP 1 – Donald Makin, USA: No comment.

Resolve IAQ LLP 2 – Dr Ananta Singh Raghuvanshi, USA: No comment.

RICS INDIA – Ubaid Ansari, India: No comment.

ROYAL INSTITUTE OF BRITISH ARCHITECTS – Adrian Dobson, UK: The RIBA recommends that the IFSS-CP should include additional fire safety measures and strategies, to further enhance the set of principles that have been identified. These should include the following RIBA layers of fire safety (See RIBA Response to Question 1) and the following principles which should be listed specifically, and not merged into other overarching terms. These include:
Occupant Protection

- Alternative means of escape
- Containment
- Fire break floors

Royal Town Planning Institute – Board Response, UK: Section 3 of the consultation document sets out how the Common Principles are applied by reviewing each one in terms of each element of the property life cycle. A summary checklist is provided on page 26 and relevant issues are set out in each section with sample
checklists starting on page 29 in the appendices.
As Planners our job in the consultation is to assess if the ways we can contribute to fire safety through Planning practice and regulation is appropriately acknowledged and identified in order to drive good practice. We can also use this process as an Institute to develop our competency in playing our part in reducing risk through our work.
Page 12 – The inclusion of Spatial planning in the International Fire Safety Standards Coalition Common Principles is welcomed however it should be made clearer that is not just about layout and design but crucially land use and relationships between uses and buildings.
Stage 3 in use (page 17) – Bullet point 5 under identification of *potential of hazards* as well as the examples given, this might usefully include landscaping and streetscape features which will tend to change over time well after the initial permissions are given. This point also applies to stages 4 and stages 5 on pages 17 and 18.
3.3.2 stage 1 design page 18 – the list of bullet points include spatial planning / wayfinding and spatial planning / geometry. This is relevant, for example for the design of routes for emergency vehicles, but useful reference could be made to features as well as layout (for example elements of landscaping and street scape which may result in unnecessary barriers.
3.3.3 stage 1 design page 19 / 20 - bullet point list – part 4 first bullet refers to potential restrictions and again this might usefully refer to landscape and streetscape features at the moment it really deals with the building itself rather than the outside surrounding area.

SHIMIZU CORPORATION INDIA PV.LTD – Shreedhar Bhat, India: Yes.

SPS ASSOCIATES LTD – Adam Forster, UK: Yes.

UNDERWRITERS LABORATORIES INC. – Diane Haithcock, USA: Not applicable.

UNIVERSITY OF LAY ADVENTIST OF KIGALI – Erneste Nsangabandi, Rwanda: No comment.

UL STANDING COMMITTEE ON HAZARDOUS MATERIALS AND ACTIVITIES – Shuo (Nick) Yu, Canada: The Sub Principle for all the above Principles, would be "Education", as mentioned in Q4.

Q5 Response summary

There were 47 responses to this question and a range of different opinions as shown by the table below.

Q5 Responses	Number	Percentage
Yes	20	43%
No	9	19%
No comment	18	38%
Total	47	100%

Some respondents commented that the phrase 'Sub-principle' is not used within the document and therefore assumed that this is referencing the fire safety strategies and measures considered under each of the building life cycle stages, under each Common Principle. These respondents further commented that there is a lack of categorisation and guidance on how to consider the relationship between the fire safety strategies and measures, which is critical for risk assessment mentioned later in the document.

Respondents also suggested that *Part 3 Fire safety strategies and measures* can be more effectively presented in a 5 x 5 matrix, with the Common Principles on the first column and the building life cycle stages on the first row, or vice versa.

Many respondents also suggested additional fire strategies and measures be included within Part 3 with many respondents feeling that mitigation, resilience, education and occupant safety should have greater reference within the **IFSS-CP**.

SSC rationale: The SSC considered the responses received and retitled 'sub principles' as 'fire safety strategies and measures' and reviewed the measures and strategies to incorporate, where applicable, the additional strategies and measures suggested. The SSC also revised *Part 3 Fire safety strategies and measures* to include a 5 by 5 matrix as suggested by a number of respondents. The SSC also revised **IFSS-CP** to provide greater reference to mitigation, education, prevention, occupant safety, and factors to prevent repetition within the **IFSS-CP**.

Q6. Do you believe that the IFSS-CP reflect or would be able to enhance, support or advance the current market practices and regulatory framework within your market? If not, why not?

Consultation responses:

AESG – Alex Manning, UAE: Yes.

AFAC (National Council for Fire and Emergency Services in Australia) – Ivan West, Australia: Yes.

ARUP – R Judith Schulz, Global: The development of the IFSS-CP creates a common language to continue the global discussion. It is currently a framework and therefore, not expected to provide a methodology (i.e. standards and guidance) for implementation. However, such methodology is required in order for the framework to have a tangible influence in the property life cycle. Therefore, once a methodology is clearly developed, it will take early adopters for the "common principles" to become common. However, much of the content is not new but rather brought together in a unifying way, albeit in slightly different order, to enable consistency. In summary, we do not believe that the IFSS-CP is practical within our current market because:

- Many countries already have defined governance over fire safety;
- For the IFSS-CP to complement the existing governance, it needs to be made clear what gaps in fire safety it is addressing, i.e. how are various stakeholders incentivised to use this, what is the tangible impact, what are the benefits specific to that governance etc.;
- Big change would be required to existing regulatory process and documents, to implement the structure of the IFSS-CP; However:
- There could be an opportunity to partially map the IFSS-CP alongside the Construction (Design and Management) Regulations 2015, and
- The IFSS-CP can be used as a "best practice" reference framework in considering fire safety holistically rather than just at the design stage.

ASID (American Society of Interior Designers) – Katherine Setser, USA: No comment.

BRITISH COUNCIL – Paul Graham, UK: Yes.

BRE (Building Research Establishment) – Roger Harrison, Global: No comment.

CFPA (Confederation of Fire Protection Associations – Asia) – Rob Llewellyn, Asia: CFPA-Asia has membership in a number of countries in the region who will need to reflect on this question to properly answer it. Our initial thoughts are the IFSS-CP will provide an opportunity to advance current practices but for many, this document will confuse them as it seems to be more of an audit framework, rather than a document regulators can apply. More detailed procedure and criteria would be required in the document for regulatory adoption.

CIAT (Chartered Institute of Architectural Technologists) – Francesca Berriman, UK: Agree. It is useful and helps reduce silos and silo thinking. At this stage one cannot be over deterministic or authoritarian and helps challenge existing practices and regulatory frameworks and allows professional users a reference framework that ensures that T profile competence is maintained. It will ensure that professional standards reflect a holistic approach and avoid one size fits all and a solution in a box approach to a complex subject. It will be useful in education and educating new and existing professionals and although their application may be localised it will help them take a global perspective.

CNPP/ SFPE – Armelle Muller, France: I don't know.

EAST SUSSEX FIRE & RESCUE SERVICE – Andrew Gausden, UK: The current stakeholder group fails to include representation from the Waste & Recycling industry and appears very life safety focused without sufficient recognition of the industrial fire risk.

EXPERION DEVELOPERS – Dr Ananta Singh Raghuvanshi, India: No comment.

GCCA (Global Cement and Concrete Association) – Andrew Minson, UK: It will support market practices where regulatory framework is wanting.

GYPSUM ASSOCIATION – Michael Schmeida, USA: No. I see this as minimally beneficial to the US and Canada given our strong codes already in place.

HKA – Al Brown, UK: Not in the current form. They are nothing different to low level guidance notes issued by various organisations including insurers, consultants and governments. Needs a much more conceptual high-level approach and less focus on low level detail which appears in the checklists. The framework needs to consider who should be capable of developing fire engineering strategies and in reviewing/approving them on behalf of regulators. This should consider the use of Professionally Registered Engineers and any additional qualifications or demonstration of competency that is required to allow them to sign off on complex fire safety engineering designs.

IFMA – Laverne Deckert, Global: With some modification, the document could be complementary to standards such as ISO 41001 and ISO 22301. As stated before, the document provides a "good start" to when considering a fire safety plan and should be compatible with local regulatory requirements and codes.

IN TOUCH ADVISORY – Stephen Ballesty, Australia: Yes.

INSTITUTION OF FIRE ENGINEERS (IFE) – Jim Robson and Martin Shipp, Global: No, emphasis on building construction measures and extinguishment concentrate on the built environment and detract from the broader principles of Planning for Bush Fire Protection and the combination of bushfire protection measures applied in some industries. However, we do believe because more and more organizations are using risk based FSE instead of rule based, the principles are useful in developing a risk-based approach.

INSTITUTE OF FIRE SAFETY MANAGERS – Dr Bob Docherty, UK: Our market in the UK is reasonable well defined although it needs this kind of framework to hang all its 'stuff' on, even if it just acts as a cross check to see that all have been covered.

J-SQUARED CONSULTING – David Kubler, Australia: I expect that this document would be considered as a supporting reference for best practice principles, however IFEG is still likely to be the preferred guidance document.

KAT PROJECT CONSULTANCY – Kunhappan Kuppadakath, India: Yes.

L & T CONSTRUCTIONS – Vinothkumar A, India: No comment.

MATH PROPERTIES – Theoli Makhele, South Africa: No comment.

NAMBA (American Chemistry Council's North American Modern Building Alliance) – Jeffrey H Greenwald, USA: We are hopeful the common principles will be supportive of the existing regulatory framework in North America. There is already a robust system in place. However, ensuring a clear understanding of the codes and then subsequent enforcement requires continuous effort and is a challenge. The IFSS common principles should be another useful tool to highlight the importance of systems-level assessments of fire safety practices and make this education effort easier.

NATIONAL RESEARCH COUNCIL CANADA – André Laroche, Canada: I think so. It will also help better define the minimum level of performance construction requirements should achieve and help move away from a more rigid prescriptive approach of technical requirements. In doing so, new products introduced in the market will have an easier way to be applied as they will have clear objectives and performance targets to comply with. Thus, reducing the burden to the authorities having jurisdiction to go over a tedious process of peer-review and third parties' analysis and reports.

NFCC (National Fire Chiefs Council) – Jake Houth, UK: As stated previously, we support the investigation of and development of a set of overarching principles and subject areas that can provide a framework and guidance in informing fire safety at the earliest possible stage in a premise's development process. When fully informed, agreed and robust, this set of overarching fire safety principles identified from best practice and leading fire safety experts/stakeholders internationally would be considered as a positive step in informing the safety of people (premises occupants, the wider community and firefighters) in event of fire. It is considered they will inform current market practices if they are developed sufficiently and achieve their aims and objectives in identifying areas of the sector where guidance is lacking. The current UK regulatory framework is undergoing extensive development and change with new fire safety/building safety Bills planned to be introduced through government this year. Until the IFSS-CP have developed and the nature of the new legislation is known it is difficult to comment further at this time.

NHBC – Steve Evans, UK: The current UK regulatory framework broadly reflects the contents of the IFSS-CP. This is currently being reviewed and strengthened as part of the governments Building a Safer Future programme.

NORATEK SOLUTIONS INC and NATIONAL FIRE CODE COMMITTEE – Alan Kavanaugh, Canada: Utilising what we have already, I believe support and Education would be the best. As discussed previously more "Acceptance Inspections", "Code Enforcement" should be provided. Utilise best Loss Control Practices. Adhere to a process of designating what is or potentially can become a hazard and providing ways to mitigate it, control it, prevent it before it happens.

OBEROI REALTY LTD – Thomas Mathew, India: Yes.

PARIO – Mike Ball, UK: Yes.

PERSONAL RESPONSE 1 – Darin Rose, unspecified: No comment.

PERSONAL RESPONSE 2 – Javier Elorza, unspecified: No comment.

PERSONAL RESPONSE 3 – Jenny Yeung, unspecified: No comment.

PERSONAL RESPONSE 4 – Madhu Puli, unspecified: No comment.

PERSONAL RESPONSE 5 – Mukesh Singh, India: No comment.

PERSONAL RESPONSE 6 – Paul Akhurst, unspecified: No. The document takes an out-of-date tick-box approach and provides insufficient guidance.

PERSONAL RESPONSE 7 – Ubaid Ansari, India: No comment.

PERSONAL RESPONSE 8 – Zack Farrar, unspecified: No comment.

RESOLVE IAQ LLP 1 – Donald Makin, USA: No comment.

Resolve IAQ LLP 2 – Dr Ananta Singh Raghuvanshi, USA: No comment.

RICS INDIA – Ubaid Ansari, India: No comment.

ROYAL INSTITUTE OF BRITISH ARCHITECTS – Adrian Dobson, UK: Yes. The RIBA believes that this overarching framework, developed to establish a set of internationally accepted Common Principles for fire safety, would provide a useful checklist for clients, designers, contractors and owners/users, to assess how these high-level principles within a building project have been addressed. This can supplement current information handover strategies, to ensure that the design philosophy, which is not usually communicated in drawings, can be recorded and transferred to different parties, which informs the subsequent stages of the 'Property Life Cycle'.

Royal Town Planning Institute – Board Response, UK: As Planners our job in the consultation is to assess if the ways we can contribute to fire safety through Planning practice and regulation is appropriately acknowledged and identified in order to drive good practice. We can also use this process as an Institute to develop our competency in playing our part in reducing risk through our work.

SHIMIZU CORPORATION INDIA PV.LTD – Shreedhar Bhat, India: Yes. It is based on the recent study. Hence will fulfil all the latest guidelines as well.

SPS ASSOCIATES LTD – Adam Forster, UK: Yes.

UNDERWRITERS LABORATORIES INC. – Diane Haithcock, USA: Not applicable

UNIVERSITY OF LAY ADVENTIST OF KIGALI – Erneste Nsangabandi, Rwanda: No comment.

UL STANDING COMMITTEE ON HAZARDOUS MATERIALS AND ACTIVITIES – Shuo (Nick) Yu, Canada: Yes.

Q6 Response summary

There were 47 responses to this question and a range of different opinions as shown by the table below.

Q6 Responses	Number	Percentage
Yes	22	47%
No	5	11%
No comment	20	43%
Total	47	100%

The SSC noted that the comments received with an affirmative response shows that those respondents clearly understood the role of the overarching principles and found them useful in their work.

SSC rationale: The SSC considered the comments received in relation to this question and noted that none of the comments provide any compelling argument for specific changes to the document.

The SSC did note that some of the comments showed that further clarification was needed in relation to the overarching principles. The SSC therefore revised the text contained within *Section 2.3 From the Common Principles to the IFSS-CP Framework* and *2.4 Building Life Cycle and IFSS-CP Framework* and included additional diagrams to provide further clarification on the use of the common principles and the documentation and information requirements.

Some respondents required a level of detail within the document which the SSC felt was better placed within best practice guidance issued by IFFSC member organisations.

The SSC also noted that a number of comments related to next steps and therefore included a new *Part 6 Next Steps* to provide further information on planned future additions/revisions to future editions of the **IFSS-CP**.

Q7. What additional information or requirements would you like to see included in future editions of IFSS-CP.

Consultation responses:

AESG – Alex Manning, UAE: What would be useful is a common approach to the more advanced fire engineering techniques in use in the industry, such as Computational Fluid Dynamic (CFD) smoke analyses, as many companies use different approaches. Also, a common integrated database of fire test data that can be used/reviewed/updated with results from across the globe.

AFAC (National Council for Fire and Emergency Services in Australia) – Ivan West, Australia: None.

ARUP – R Judith Schulz, Global: The document would benefit from more clearly defining the specific problems in which it is intended to address and quantify the benefit of using the document to encourage use. The current justification (aims and objectives) for the document appears high-level, a little vague, and theoretical in nature. The document focuses on 'what' should be considered and overarching aims for fire safety, but not the methodology on how to do it. Indeed, the Common Principles and wider document are quite high level in places rather than give tangible guidance which can actually inform building design. This could give rise to the potential for misinterpretation, confusion, inconsistent application, and misuse of the document. To help address this, further clarity regarding how the document is intended to be used would be of use. This may include a worked example for a hypothetical building, which could be provided in the Appendix to give an indication of what is expected for each part and demonstrate how the document is to be used. The current document breaks down the requirement according to the Common Principle and then the Property Life Cycle stages. This is very much a fire engineer centric way of presenting information based on the chronology of a fire incident, which may not necessarily be very accessible to other stakeholders e.g. electrical engineers, architect, mechanical engineers, etc. To facilitate other stakeholders finding information, which is relevant to them, it is suggested to perhaps classify information in the tables provided according to which stakeholders the information might be directly relevant to. For example, information about 'alarm/detection' would be classified as relating to 'Electrical engineers'. Further to this point, fire engineers can't tackle global fire safety on our own – we need to work collaboratively with other disciplines such as social scientists, economists and policy specialists, and stakeholders, such as the fire services, disaster management agencies and city planners. However, this document seems to be targeted to fire engineers only. If this is not the intent, perhaps people from other disciplines / carrying out relevant roles could be asked to review this document in order to identify any gaps associated with language/vocabulary as well as technical content. It is stated in Part 2 that 'IFSS-CP establishes overarching, performance-based Common Principles for fire safety engineering'. But there is no mention in the document of any performance acceptance criteria or guidance regarding the use of performance-based tools such as evacuation/CFD modelling. It is suggested to add a section about the use of such tools and the acceptance criteria for performance based

design approach. Part 4 of the IFSS-CP document outlines steps to apply the framework. However:

- There is insufficient guidance on how to implement this process, especially with regards to the fire safety assurance workshop and risk assessment. No methodology is presented for either of these processes.
- The checklists are based on sub-principles which are inconsistent, so it is unclear what insights the checklists will enable.
- Among other factors, the local regulatory environment and local design, construction and maintenance practices need to inform development of codes and standards, as well as building specific fire strategies and it is unclear how this local context is taken into consideration in this section on application of the framework. Other suggestions for additional information are:
- PDF pp20, Prevention Stage 1: design,
  a. 'regular checking/maintenance of electrical/mechanical equipment' (to mitigate against ignition through ignition),
  b. 'regular checking/maintenance of fire protection systems.'
- PDF pp21, Detection and Communication Principle, Stage 1: design,
  a. 'demonstrate measures to mitigate the likelihood of false alarms' e.g. double knock, manual call point covers, etc.

ASID (American Society of Interior Designers) – Katherine Setser, USA: No comment.

BRITISH COUNCIL – Paul Graham, UK: To ease the burden on those countries with no / a limited fire safety legislative system I think it would be preferable to 'phase in' the Principles and Stages with initially a limited criteria before going on to introduce further criteria once the first phase are established.

BRE (Building Research Establishment) – Roger Harrison, Global: No comment.

CFPA (Confederation of Fire Protection Associations – Asia) – Rob Llewellyn, Asia: The Definitions need to be expanded in the document as many countries use different terms to mean the same thing. So an expanded definitions section is a must – see my example for occupants. The early parts of the document are confusing – particularly given a number of countries in the Asian will need to translate this document into their local language. With this in mind for example – how would the Common Principles become actionable through the IFSS-CP Framework. To provide evidence-based assessment to achieve fire safety engineering design, construction, occupation and ongoing management on a Building level in for example, Bangladesh. I don't think it will be applicable.

CIAT (Chartered Institute of Architectural Technologists) – Francesca Berriman, UK: At this stage one cannot be overly deterministic or authoritarian but recognise that eventually this will move towards an outcomes-based framework with measures that are impact based. The necessary inputs to achieve the outputs can be prescriptive and or performance based and may also be generic but can be specific and customised to particular locations and jurisdictions. Exiting models and systems eg ALARP set in context their use, value, limitations etc. and tested against the framework and also a

range of world ide locations and building typologies used to assess the workability, use and robustness. For example, ALARP and cost-benefit analysis is variation in different countries and does not work well and stretches far beyond what the concept intends. Contextualised to COVID, the world is taking a big financial hit, whilst it was reported yesterday that self-isolation is killing more people than usual. So, we have a situation to protect life well beyond ALARP and yet unintended consequences off-set the benefit. ALARP tends to create socio-economic disparity so we need a new system for international fire safety.

CNPP/ SFPE – Armelle Muller, France: No comment.

EAST SUSSEX FIRE & RESCUE SERVICE- Andrew Gausden, UK: Greater focus on the industrial fire risk and the associated standards or in the case of the Waste & Recycling industry the lack of international standards.

EXPERION DEVELOPERS – Dr Ananta Singh Raghuvanshi, India: No comment.

GCCA (Global Cement and Concrete Association) – Andrew Minson, UK: More on impact of minor works during IN USE phase compromising fire safety. Specifically, more on designer responsibility to respond to this. Designers should not assume that building will be in perfect designed state as intended for whole life time, but that it is likely that the measures in place to deliver the Common Principles (Prevention, Detection and Communication, Occupant Protection, Containment and Extinguishment) WILL NOT be in perfect order for the whole life of the building – there will be a level to which they are compromised. Designers should consider risks associated with measures being compromised and amend their designs accordingly.

GYPSUM ASSOCIATION – Michael Schmeida, USA: A list of regulations and standards would be beneficial to any user.

HKA – Al Brown, UK: None at this stage.

IFMA – Laverne Deckert, Global: The absence of any reference to standards (ISO or national standards) specific to fire safety or emergency preparedness/ business continuity is noted. At a minimum, there should be recognition of these other standards as a resource (e.g., ISO 22301:2019 Societal security — Business continuity management systems — Requirements, ISO 22320:2018(en) Security and resilience — Emergency management — Guidelines for incident management and others referenced in the Definitions).

IN TOUCH ADVISORY – Stephen Ballesty, Australia: Placing fire safety in the broader asset / facilities management (AM/FM) context with linkages to ISO 41000 and/or ISO 55000.

INSTITUTION OF FIRE ENGINEERS (IFE) – Jim Robson and Martin Shipp, Global: Prevention Principles, Design should include limiting fire spread to adjoining or nearby properties.

Prevention Principles, In Use should include/add Identification of potential hazards such as hoardings or easily ignited materials and introduction of mitigation measures. Evacuation lifts and Firefighting lifts can be different. This should be made clear. Some other provisions for firefighters (other than people and vehicles) should be included (e.g. smoke ventilation controls).
Occupant Protection principle Design should include Awareness of [internal] assistance requirements (for disabled people, children, and other groups of persons unable to evacuate unaided)
Extinguishment Principle Design Environmental Protection should include limiting (contaminated) water runoff.
Prevention Principles regarding Wildfire
Stage 2 construction
Wildfire – landscape protection measures – design
Wildfire – external access design for fire firefighters undertaking property protection from wildfires
Wildfire – services provision and design
Stage 3 In use
Wildfire – landscape protection measures – maintenance
Wildfire – bushfire emergency management planning emphasis
Some brief further guidance on Prevention Principles for industrial and process industry premises.
A bibliography, or sources of further Information might be helpful, for example for who may wish to obtain well-established performance criteria. Alternatively, put such information (as can be agreed by the coalition) on the IFSS website, with a single link. "A directory of and roadmap to existing regulatory codes" available in next stage would allow various professional bodies or stakeholders reviewing their role to play in the event of widely adoption of the IFSS-CP.

INSTITUTE OF FIRE SAFETY MANAGERS – Dr Bob Docherty, UK: It might be an idea, post Grenfell and DJH, that the processes in the document can be added to or cross matched to the findings of the various working groups. These groups have done an intense job on most if not all of the principles in the draft CP so it would be sensible to capture those that contribute directly to the CP as essential additions.

J-SQUARED CONSULTING – David Kubler, Australia: Keep it holistic and simple.

KAT PROJECT CONSULTANCY – Kunhappan Kuppadakath, India: As stated under q 5, it is essential to have a proper IFSS-CP in place for the existing structures as well, employing the latest practice, materials and systems.

L & T CONSTRUCTIONS – Vinothkumar A, India: No comment.

MATH PROPERTIES – Theoli Makhele, South Africa: No comment.

NAMBA (American Chemistry Council's North American Modern Building Alliance) – Jeffrey H Greenwald, USA: Not applicable.

NATIONAL RESEARCH COUNCIL CANADA – André Laroche, Canada: No comment.

NFCC (National Fire Chiefs Council) – Jake Houth, UK: One particular area NFCC considers should be covered is that of competence of all those sector stakeholders who will have a role to play across any of the Common Principles and subprinciples. We are of the opinion this should be at the heart of the document with a clear expectation, and possible framework/route map, that any individual and/or organisation who participates in any facet of fire safety can demonstrate competence via appropriate and sufficient evidence e.g. registration with a professional body supported by validated evidence of CPD. It is considered additional information and requirements will be identified through the development of the IFSS-CP and these will be clearer to comment on once this initial consultation has occurred and comment from across the sector and consolidated.

NHBC – Steve Evans, UK: A literature survey of international guidance and taking best practice from these for presentation within the guide for basic building types. This could be useful for a territory looking to further develop a suitable legislative framework based on the core IFSS-CP.

NORATEK SOLUTIONS INC and NATIONAL FIRE CODE COMMITTEE – Alan Kavanaugh, Canada: No comments required at this time.

OBEROI REALTY LTD – Thomas Mathew, India: Re occurrence factors.

PARIO – Mike Ball, UK: Building logs and record keeping is implied but not expressly stated and I would like to see a common principle here too. In use compliance including training records should be retained for numerous reasons including acquisition and sales purposes. This will assist any dialogue with the lending institutions.

PERSONAL RESPONSE 1 – Darin Rose, unspecified: No comment.

PERSONAL RESPONSE 2 – Javier Elorza, unspecified: No comment.

PERSONAL RESPONSE 3 – Jenny Yeung, unspecified: No comment.

PERSONAL RESPONSE 4 – Madhu Puli, unspecified: No comment.

PERSONAL RESPONSE 5 – Mukesh Singh, India: No comment.

PERSONAL RESPONSE 6 – Paul Akhurst, unspecified: Practical guidance on best practice fire safety measures at each asset life cycle guide.

PERSONAL RESPONSE 7 – Ubaid Ansari, India: No comment.

PERSONAL RESPONSE 8 – Zack Farrar, unspecified: No comment.

RESOLVE IAQ LLP 1 – Donald Makin, USA: No comment.

Resolve IAQ LLP 2 – Dr Ananta Singh Raghuvanshi, USA: No comment.

RICS INDIA – Ubaid Ansari, India: No comment.

ROYAL INSTITUTE OF BRITISH ARCHITECTS – Adrian Dobson, UK: The RIBA recommends that the IFSS-CP should encompass core baseline prescriptive requirements for specific fire safety measures, integrated into the design and construction of higher risk buildings, in order to prevent further tragic losses of life in the event of a fire. These should include a requirement for:

- a restriction on the use of combustible materials on external walls (cladding).
- sprinklers/automatic fire suppression systems.
- alternative means of escape.
- centrally addressable fire alarm systems (integrating detection and alert).

The RIBA believe that in addition to these baseline prescriptive requirements, there are other supporting layers of fire safety (See RIBA Response to Question 1 and Question 5) which together form a cohesive and complementary set of fire safety principles. The RIBA believe that these layers of fire safety should be identified as essential core principles, so it is clear at each stage what overarching principles can be brought together as a minimum to create a fire safe building. This will identify a strategy of fire safe principles that should not be mitigated, as these are deemed fundamental baseline requirements.

Royal Town Planning Institute – Board Response, UK: The role of planning in design and layout of the areas surrounding a building could be more clearly acknowledged as it applies to fire safety. These proposals should also be wider than fire safety and resilience is not only about a first world approach, it sits within sustainability goals and appropriate standards should factor this in.

SHIMIZU CORPORATION INDIA PV.LTD – Shreedhar Bhat, India: No comments.

SPS ASSOCIATES LTD – Adam Forster, UK: Training for firefighters who should be aware of the types of building solutions, practices and methodologies and a possible database of types of building systems and full availability to the firefighters so when they get to a site, they know exactly what to expect.

UNDERWRITERS LABORATORIES INC. – Diane Haithcock, USA: Not applicable.

UNIVERSITY OF LAY ADVENTIST OF KIGALI – Erneste Nsangabandi, Rwanda: No comment.

UL STANDING COMMITTEE ON HAZARDOUS MATERIALS AND ACTIVITIES – Shuo (Nick) Yu, Canada: None.

Q7 Response summary

There were 47 responses to this question and a range of different opinions as shown by the table below.

Q7 Responses	Number	Percentage
Additional requirements	18	38%
No additional requirements	22	47%
No comment	7	15%
Total	47	100%

The SSC noted that the majority of respondents either had no comment or felt that no additional requirements or information was required at this stage.

Other respondents suggested varying additional information and requirements the majority of which related to additional information to be included in the **IFSS-CP**. These comments ranged from the creation of an integrated database of fire test data to classification of information within the framework according to stakeholder relevance.

Further comments included the inclusion of section on competence, building logs and a biography providing further sources of information and a directory of and roadmap to existing regulatory codes.

SSC Rationale: The SSC considered the responses received and felt that many of the responses received had already been dealt with in revisions made to the **IFSS-CP** in relation to the previous consultation responses

Further to the comments received the SSC also reviewed **IFSS-CP** to ensure sufficient reference to occupiers and facility managers highlighting their responsibility to ensure there are no added fire risks (e.g. open fire doors and waste and facility management).

The SSC discussed the inclusion of core baseline prescriptive requirements but felt that as many markets were at different stages of development in relation to fire safety and fire safety standards it was not possible to provide prescriptive requirements at this stage, particularly as the IFSS Coalition has no regulatory powers. However, the SSC hopes that in future **IFSS-CP** will be adopted by governments who have the power to make some of the requirements contained within **IFSS-CP** more prescriptive.

Furthermore, in order to provide further detail on the practical implementation of **IFSS-CP** the SSC made further revisions to Part 2, Part 3 and Part 4 to provide additional clarification.

The SSC also reviewed *Section 2.6 Information requirements* to ensure sufficient empahsis on the importance of record keeping and the need to keep building logs.

Q8. Which of the following would be helpful for the IFSS SSC to work on next? Please provide your reasoning for the option(s) chosen below. If there are other matters that you think the IFSS SSC should work on next, please provide the option(s) and your reasoning.

a) A glossary of common fire safety terms.
b) A directory of and roadmap to existing regulatory codes.
c) Standards.
d) Guidelines.

Consultation responses:

AESG – Alex Manning, UAE: a). To ensure that a fire engineer is saying/meaning the same thing across the globe.

AFAC (National Council for Fire and Emergency Services in Australia) – Ivan West, Australia: a) A glossary of common fire safety terms.

ARUP – R Judith Schulz, Global: A glossary of common fire safety terms has already been developed by the ISO 13943 which could be referenced or used as a basis for creating a new version in the IFSS document. It is suggested this could be done in parallel with listing of existing core building codes in each region along with a description of the approval process (including how deviations from code should be demonstrated and handled in the approvals process) to contextualise the work of the IFSS document. This is useful for designers, building owners/operators who deals with buildings in different part of the world.

ASID (American Society of Interior Designers) – Katherine Setser, USA: No comment.

BRITISH COUNCIL – Paul Graham, UK: c). As part of the overall Framework, otherwise the meaning may be lost.

BRE (Building Research Establishment) – Roger Harrison, Global: No comment.

CFPA (Confederation of Fire Protection Associations – Asia) – Rob Llewellyn, Asia: The Definitions need to be expanded in the document as many countries use different terms to mean the same thing. So an expanded definitions section is a must – see my example for occupants. The early parts of the document are confusing – particularly given a number of countries in the Asian will need to translate this document into their local language. With this in mind for example – how would the Common Principles become actionable through the IFSS-CP Framework, To provide evidence-based assessment to achieve fire safety engineering design, construction, occupation and ongoing management on a Building level in for example, Bangladesh. I don't think it will be applicable.

CIAT (Chartered Institute of Architectural Technologists) – Francesca Berriman, UK: Road /route maps may be useful to test the orienteering across this landscape and topography of this framework that may help rationalise, reduce, expand, identify to

help optimise routes, pathways etc. Across the world, standards, regulations and practices have a high propensity to be in response to disaster and highly prescriptive and locally focused. What IFSS HAS achieved is highly commendable and starts the thinking, the reflection, the conversations in that we all need to step back and discuss and agree the key principles and characteristics of fire safety and then test the assumptions for application, workability and robustness. We do get to a break-even point on fire safety investment and this varies. Our regulations have evolved responding to actual fire events, whilst we need to get to a pro-active place where we help to guide fire safety development in developing countries and improve in the developed nations.

CNPP/ SFPE – Armelle Muller, France: a) First see also work done at ISO level.

EAST SUSSEX FIRE & RESCUE SERVICE- Andrew Gausden, UK: A directory/road map of existing regulatory codes would be helpful in identifying areas such as the waste industry where there is currently a lack of codes/guidance.

EXPERION DEVELOPERS – Dr Ananta Singh Raghuvanshi, India: No comment.

GCCA (Global Cement and Concrete Association) – Andrew Minson, UK: No comment.

GYPSUM ASSOCIATION – Michael Schmeida, USA: b) and c).

HKA – Al Brown, UK: This should have been the starting point not an add on at stage 2. Recognise the valuable work done elsewhere and reference that work, e.g. BS EN ISO 13943 2017 Fire Safety – Vocabulary, BS 7974 and PDs, SFPE documents, etc. I also feel that to be of real value the process needs to be opened up to a much wider range of fire engineers across the world. Look at NFPA processes and other organisation such as SEMI.org who manage to develop standards and codes with input across the world and do not rely upon, consultations such as these which were not properly distributed. Even as an IFE member, I only heard about this by chance last Friday, four days before the consultation deadline. The process and its organisation is flawed.

IFMA – Laverne Deckert, Global: Standards currently exist with fire safety terms, as well as other standards/guidelines. A roadmap to existing regulatory codes/standards/guidelines would be more beneficial.

IN TOUCH ADVISORY – Stephen Ballesty, Australia: a), c) and d).

INSTITUTION OF FIRE ENGINEERS (IFE) – Jim Robson and Martin Shipp, Global: a) A glossary of common fire safety terms and d) Guidelines.

INSTITUTE OF FIRE SAFETY MANAGERS – Dr Bob Docherty, UK: b) is most important in the next step – I think we can cross match the other three and understand them in some meaningful way or interpretation. But regulatory codes, if we can crack that one excellent!

J-SQUARED CONSULTING – David Kubler, Australia: Expand standards and guideline references to include IBC, Life Safety 101, IFEG.

KAT PROJECT CONSULTANCY – Kunhappan Kuppadakath, India: It is suggested to have a Gap analysis of the existing standards with that of proposed IFSS-CP;

a) A directory of and roadmap to existing regulatory codes,
b) Standards,
c) Guidelines

L & T CONSTRUCTIONS – Vinothkumar A, India: No comment.

MATH PROPERTIES – Theoli Makhele, South Africa: No comment.

NAMBA (American Chemistry Council's North American Modern Building Alliance) – Jeffrey H Greenwald, USA:

a) glossary of common fire safety terms
b) A directory of and roadmap to existing regulatory codes

These two activities will help create a clear, consistent conversation across regulators and stakeholders.

Activity c) Standards is unnecessary given the numerous other standard setting bodies active in this space.

Activity d) guidelines may be helpful in the future but is not defined enough to provide further input.

NATIONAL RESEARCH COUNCIL CANADA – André Laroche, Canada: Using common language would help refer to the same topics and potential consequences. In other words, a clear communication is the key to a good understanding of the message that is send out.

NFCC (National Fire Chiefs Council) – Jake Houth, UK: It is considered all 4 of the areas identified above will have to be addressed to achieve the aims and objectives. To fully inform and develop guidelines and standards it is considered the glossary of terms and a directory would need to be carried out initially, with these under constant review and updated due to the expected changes and updates within each of the subjects. It is considered the glossary would be relatively straightforward as there are already a number of national and international codes that encompass common fire safety terms, a collation of like terms where there are multiple terms for a single subject would prove beneficial to aid understanding and communication. A directory/road map of existing international regulatory codes would be extremely helpful in identifying areas where current prescriptive guidance is lacking or is present in 1 country but not in another e.g. prescriptive guidance in Singapore on enclosed automated car parks where there is none in the UK. Whilst this guidance cannot just be applied in different countries it will assist in informing fire safety and there exists the possibility of carrying out a gap analysis to assess its suitability.

NHBC – Steve Evans, UK: Standards – these are critical in giving a design basis.

NORATEK SOLUTIONS INC and NATIONAL FIRE CODE COMMITTEE – Alan Kavanaugh, Canada: Codes, Standards and Enforcement!! All important.

OBEROI REALTY LTD – Thomas Mathew, India: All.

PARIO – Mike Ball, UK: b). Ongoing certification and validation of any change works post occupation and subsequent record keep.

PERSONAL RESPONSE 1 – Darin Rose, unspecified: No comment.

PERSONAL RESPONSE 2 – Javier Elorza, unspecified: No comment.

PERSONAL RESPONSE 3 – Jenny Yeung, unspecified: No comment.

PERSONAL RESPONSE 4 – Madhu Puli, unspecified: No comment.

PERSONAL RESPONSE 5 – Mukesh Singh, India: No comment.

PERSONAL RESPONSE 6 – Paul Akhurst, unspecified: d).

PERSONAL RESPONSE 7 – Ubaid Ansari, India: No comment.

PERSONAL RESPONSE 8 – Zack Farrar, unspecified: No comment.

RESOLVE IAQ LLP 1 – Donald Makin, USA: No comment.

Resolve IAQ LLP 2 – Dr Ananta Singh Raghuvanshi, USA: No comment.

RICS INDIA – Ubaid Ansari, India: No comment.

ROYAL INSTITUTE OF BRITISH ARCHITECTS – Adrian Dobson, UK: A compilation of existing regulatory codes, including material testing regimes. The RIBA recommend that the IFSS SSC should begin a comparatory compilation and comparative analysis of international regulations and codes, including material testing regimes, to identify their interrelationships and differences. The RIBA believe that this information can inform future benchmark standards, together with its associated reasoning for its methodology, design and implementation, so that other jurisdictions may consider adopting higher fire safety standards. The RIBA suggest that the IFSS-CP could also integrate such data as a further layer of detail to demonstrate what is internationally accepted, to highlight in detail international best practice.

Royal Town Planning Institute – Board Response, UK: No comment.

SHIMIZU CORPORATION INDIA PV.LTD – Shreedhar Bhat, India: c). Standardisation is very important.

SPS ASSOCIATES LTD – Adam Forster, UK: Guidelines.

UNDERWRITERS LABORATORIES INC. – Diane Haithcock, USA: Not applicable.

UNIVERSITY OF LAY ADVENTIST OF KIGALI – Erneste Nsangabandi, Rwanda: No comment.

UL STANDING COMMITTEE ON HAZARDOUS MATERIALS AND ACTIVITIES – Shuo (Nick) Yu, Canada: All would be necessary, to enhance, Public Safety.

Q8 Response summary

There were 47 responses to this question and a range of different opinions as shown by the table below.

Q8 Responses	Number	Percentage
a) A glossary of common fire safety terms	10	21%
b) A directory of and roadmap to existing regulatory codes	8	17%
c) Standards	3	6%
d) Guidelines	2	4%
All	3	6%
None of the above	1	2%
No comment	20	43%
Total	47	100%

The largest percentage of respondents had no comment in relation to this question. However, the second largest percentage of respondents favoured the creation of a glossary of common fire safety terms. An example of some of the comments received include ARUP who commented that a glossary has already been developed in ISO 13943 and could be used as a basis in parallel with existing building codes along with a description of the approvals process in each jurisdiction (including how departures from codes are handled in the approvals process.

CFPA also commented that the definitions need to be expanded in the document as many countries use different terms to mean the same thing.

A number of respondents also favoured the creation of a directory and roadmap to existing standards. Examples of theses responses include IFMA who felt that this option was more important as there were already a number of existing glossaries for fire safety terms. RIBA also provided a useful commentary about how and why a roadmap would be useful as a layer to demonstrate how existing well-regulated jurisdictions (already) fulfil the **IFSS-CP** as 'best practice'.

SSC rationale: The SSC considered the responses received and further to the publication of the **IFSS-CP**, the **IFSSC SSC** are planning the following next steps in relation to the development of future editions of the standard:

- A global directory of and roadmap to existing regulatory codes.
- A comparative dictionary for existing fire safety terms used in the **IFSS-CP**.

The SSC also created a new Part 6 outlining the next steps in relation to the development of the **IFSS SSC** where the following further detail in relation to a roadmap of existing regulatory codes and a comparative dictionary is contained:

'The global directory will not only provide a roadmap to existing fire safety codes around the world for those operating in other markets but will also act as a useful information tool to identify where there are either strong standards or gaps where further standards need to be developed. The roadmap can also be useful for emerging

markets to study existing standards and where appropriate adopt them as part of a harmonisation process.

The **IFSS SSC** have also noted that many similarly defined fire safety terms have different nomenclature, which can lead to confusion when discussing or implementing fire safety standards within markets or across different markets. In order to provide additional clarity and transparency the **SSC** is planning to provide a comparative dictionary of fire safety terms to enable comparison of fire safety terms used in different markets and to act as a vital first step in the harmonisation of fire safety terms and standards across all markets.'

Q9. Do you have any further comments?

Consultation responses:

AESG – Alex Manning, UAE: As well as focusing on establishing overarching principles, focus also needs to be on keeping local authorities well-informed so that they understand there are multiple ways of satisfying a functional requirement, and that prescriptive recommendations are just one way of doing this.

AFAC (National Council for Fire and Emergency Services in Australia) – Ivan West, Australia: Feedback on Parts 1 -5

Part 1: Introduction

- No substantial issues.

Part 2: Common Principles 2.1

- Potential for the Common Principles to improve the current framework, e.g. consideration of disabled / ambulant egress provisions.
- Statement 'limiting its effects' shouldn't be in Prevention (rationale: if it is effecting something, it's happened and hasn't been prevented).
- Supportive of Common Principles.

2.2 & 2.3

- Group was supportive.

2.4

- Include 'Engagement' at each stage

ARUP – R Judith Schulz, Global: While it is acknowledged that local context (e.g. political, economic, social, technological, legal, environmental) is important, it is not a central theme in the IFSS-CP. One of, if not the biggest challenge with transfer of knowledge, codes, standards, etc. from one location to another is a lack of understanding of local context. This challenge should be explored further by reviewing past success/failures; there are many examples with previously colonized countries. Opportunities to couple current global fire engineering knowledge/approaches with local context should also be explored. True partnerships between international and local stakeholders are needed as well as tools to enable fire professionals to carry out context analysis. One area that the IFSS SSC could consider reviewing is the means of escape provisions for mobility impaired persons. This is an area where the regulations vary widely from one country to another. It will be useful for the IFSS document to provide design guidance (e.g. provision of refuge, evacuation chair, evacuation lift etc.) and evacuation management procedures to guide end-users on how to properly manage such evacuation. As buildings have to cater to a diverse society, it is important that the fire safety features and the management of the buildings support that diversity. This can be achieved by encouraging the adoption of international best practice, rather than just meeting the minimum requirements of the local regulations. There is also the opportunity to frame the wider impacts of fire to society in this document and to outline the benefits of resilience-based approaches. By developing fire strategies and policies that minimise the disruption that fire causes (to people, property, business, communities, cities, infrastructure, society etc.), in addition to life safety and property protection, the document could help play a more active role in sustainable development and enabling safer outcomes.

ASID (American Society of Interior Designers) – Katherine Setser, USA: Preface: Last paragraph: suggest adding "design partners" to list at end of sentence that includes "governments, occupiers, owners, and other important stakeholders." Part 2 Common Principles overview – 2.3 From the Common Principles to the IFSS-CP Framework;

* 5th paragraph, 4th bullet, "asset protection": consider rephrasing parenthetical remarks to remove "vs." in each instance. Term 'versus' appears to pit building, contents, and people people against one another. Rather consider "(life, property (building, contents))"
* 5th paragraph, 9th bullet, structural fire safety …": recommend removal of "cities" in parenthetical remarks. Special danger exists in high-rise structures which occur in a variety of circumstances, not only in "high-rise cities".

2.5 Documentation requirements:

* 1st 2nd, and 3rd bullets: Use of word "instruction" appears to be a typographical error. "Construction" appears to be more appropriate
* 1st bullet, "purpose of the instruction": in addition to correction noted above, recommend expansion of "construction" to "construction materials and methods" for clarification.

Part 3 Fire safety measures and strategies – 3.3 Achieving the Common Principles – 3.3.1 Prevention principle;

* 3.3.1 Prevention principle, Stage 4: change: recommend inclusion of examples to further of describe soft changes and physical Building changes. Consider: * "This includes soft changes (e.g. staffing reconfiguration, finish modifications) and physical Building changes such as wall/ partition reconfiguration, significant interior modifications, as well as structural additions, car parks, waste processing plants, and plant and equipment upgrades."

3.3.3 Occupant Protection principle:

* Stage 1: design: recommend addition of bullet to include: "selection of fire and smoke resistant materials and contents".
* Stage 3: in use: recommend addition of bullet to include "monitoring of fire and smoke resistant materials and contents".
* Stage 4: change: recommend inclusion of change in occupancy to concept. For example: "An increase in the number of occupants, a change in occupancy type, or a change in the ability of occupants to Escape …"

Appendix A Example Prevention checklists:

* Table A4: Prevention principle – stage 4: change: recommend addition of parenthetical descriptive examples for soft changes, "(e.g. staffing reconfiguration, finish modifications)".
* Table A4: Prevention Principle – stage 4: change: recommend separation of physical building changes into two categories to include 'interior change" and "exterior changes".

Appendix C Example Occupant Protection checklists:

* Table C1: Occupant Protection principle – stage 1: design: recommend addition of row to include: "selection of fire and smoke resistant materials and contents".
* Table C3: Occupant Protection principle – stage 3: in use: recommend addition of row to include "monitoring of fire and smoke resistant materials and contents."

BRITISH COUNCIL – Paul Graham, UK: No, thank you.

BRE (Building Research Establishment) – Roger Harrison, Global: This is a useful document that considers fire safety design and management holistically, and supportive of general concepts, principles and strategies to be considered. It is also useful to specifically address the various stages identified from design to demolition. A couple of specific additional comments are:* Part 3 – Proposed fire safety measures and strategies – The list of proposed strategies / measures for consideration in this section are described as 'indicative' and not definitive. Yet the immediate text above the proposed lists of measures uses the words 'must be considered'. If each list is only indicative, would the use of the 'should' rather than 'must' be more appropriate? As current text suggests that the proposed measures must all be considered as a minimum, yet any other additional measures identified may not have the same priority.* Part 3.3.3 – Page 20, 5th bullet point – travel distances – Add more detail on definition of where travel distances are measured to (i.e. place or relative safety, final escape, etc.). * Part 5 – Accountability and verification – This section should include text on the use of third-party accredited schemes for approved products and installers of fire safety systems, to add robustness to the verification process.

CFPA (Confederation of Fire Protection Associations – Asia) – Rob Llewellyn, Asia: REFER ALSO TO CFPA-Asia suggestions inserted (in Red Text) in the International Fire Safety Standards: Common Principles Consultation document attached. Further comments inclde; 3.3.1 Prevention principle: Stage 1: safe separation distance to prevent potential fire spread, preventing fire water damage during fire response, storage arrangement and design for maintainability. Stage 2: Material and Installation approval, Impairment procedures, Fire risk assessment & Audit and Inspection, Field Testing and Commissioning for handover. Stage 3: Fire life safety policy & procedures, Impairment procedures, Inspection, testing & commissioning and maintenance and Fire risk assessment. Stage 4: Impairment procedures, Fire risk assessment and Inspection, Testing and Maintenance. 3.3.2 Detection and Communication principle. Stage 1: Manual Alarm means Alarm level and intelligibility and Integrated fire alarm system with building services and smart systems. Stage 2; Material and Installation approval, Impairment procedures, Fire risk assessment & Audit, Inspection, Field Testing and Commissioning for handover, Preventing dust entering into sensitive devices and Inspection and Field Testing. Stage 3; Fire life safety policy & procedures, Emergency plans and evacuation sequence, Impairment procedures, Inspection and testing & commissioning and maintenance and Fire risk assessment. Stage 4: Material and Installation approval, Impairment procedures, Fire risk assessment & Audit, Inspection and Field Testing and Commissioning for handover. Stage 5 3.3.5 Extinguishment principle. Stage 1: Integrated fire extinguishing systems to building fire alarm system, fire water drainage during fire response, Chemical fire suppression precaution and awareness including warning signs. Stage 2:- Integrated fire extinguishing systems to building fire alarm system, fire water drainage during fire response and Chemical fire suppression precaution and awareness including warning signs. Stage 3: Material and Installation approval, Impairment procedures, Fire risk assessment & Audit and Inspection, Field Testing and Commissioning for handover. Part 4 IFSS-CP Framework; RYG traffic light should be defined in term of qualitative or

quantitative methods. High-Medium-Low Risk should be defined in term of qualitative or quantitative methods.

CIAT (Chartered Institute of Architectural Technologists) – Francesca Berriman, UK: No comment.

CNPP/ SFPE – Armelle Muller, France: No comment.

EAST SUSSEX FIRE & RESCUE SERVICE- Andrew Gausden, UK: I would like to see the stakeholder group include representation from the Waste & Recycling industry.

- Chartered Institute of Waste Management (CIWM)
- Environmental Services Association (ESA)
- Waste Industry Safety & Health forum (WISH)

EXPERION DEVELOPERS – Dr Ananta Singh Raghuvanshi, India: Realty Safety is the single most important factor of design and construction. People safety and property safety are directly related to the integrity of the builders and commitment of authorities. Refuge areas, smoke alarms, sprinklers, fire resistant material, safe exits in case of mishap, regular drill, volunteers etc. The list is endless and needs to keep evolving. "Say No, to Towering inferno. "

GCCA (Global Cement and Concrete Association) – Andrew Minson, UK: None.

GYPSUM ASSOCIATION – Michael Schmeida, USA: No comment.

HKA – Al Brown, UK: Very disappointed at the way in which this consultation was issued in the UK such that many professional fire engineers were unaware of its existence or that the consultation was ongoing. The overall quality of the document prepared for the consultation is poor and reads more like something written as a presentation, or low-level discussion document, rather than the high level strategic document that it purports to be. Terminology such as "Responsible Person", which have specific meanings in England, should have been avoided as their use would simply cause confusion in England. I apologise if my comment seem abrupt or lacking finesse, but they were pulled together at very short notice due to the poor organisation of the consultation and the obviously challenging circumstances that we all find ourselves in at the moment. If I can be of any assistance going forward, either individually, or as a conduit to seek input from Fire Engineers in Scotland in my role in the Council of the Scottish Branch of the IFE please feel free to contact me.

IFMA – Laverne Deckert, Global: Please note, accompanying this is the consultation document with specific comments by section. Definitions: ISO 21542 and 13943 have definitions that are related to fire safety. Consider using these where appropriate (a few are listed below) e.g., ISO 21542 fire engineering strategy coherent and purposeful arrangement of fire prevention, fire protection and fire management measures which is developed in order to attain specified fire engineering design objectives Note 1 to entry: Some "fire safety objectives" may be required by legislation. Fire compartment, Fire compartmentation, Fire prevention, Fire protection. ISO 13943 – Active fire protection, Evacuation behaviour, Evacuation time. Exit. Escape: Definiton from ISO

13943 effective action taken to reach a safe refuge or place of safety is simple, clear English and more complete. Evacuation – ISO 21542:2011 Building construction — Accessibility and usability of the built environment. Evacuation from a building on fire to withdraw, or cause to withdraw, all users from a fire building in planned and orderly phased movements to a place of safety remote from the building. Property Lifecycle: 1) Throughout the document, Building and Property appear to be used interchangeably. The cycle below is more commonly referred to as the Building Life Cycle. 2) The definition of Building is not reflective of the complexity of the Built Environment. Consider adoption of facility management terminology where appropriate. Also, consider using existing references for building life cycle – note alternatives for stages 3-5. Section 1.3: The relevance of these standards to the proposed document is unclear as the document makes no reference to them beyond this section. Additionally, the standards listed here are narrow in scope and provide no practical guidance related to the Common Principles, while the absence of any reference to standards (ISO or national standards) specific to fire safety or emergency preparedness/ business continuity is noted. At a minimum, there should be recognition of these other standards as a resource (e.g., ISO 22301:2019 Societal security — Business continuity management systems — Requirements and others referenced in the definitions). 2.1: These are purely about the fire event and does not take into account recovery after the event. Section 3.1: Repetitive of 2.1 – this entire section could be added to 2.1. 3.2 would be the new 3.1. 3.2: Repetitive of 2.4. Can reference be made to the previous section instead? 3.3.1: Consider grouping under broader categories: – building systems (e.g., gas, electrical, HVAC, etc.), – activities/behaviors of occupants and facility users (smoking, cooking, chemical spills). P16 Challenge Culture; Important to identify all stakeholder input in this activity, i.e., the facility manager input should be sought not just at the "in use" state but also at the design and construction phase as they might have practical insight into how design/construction materials might add to risk. – malicious causes (e.g., arson, terrorism, etc.) – natural causes (e.g., lighting strikes, wildfires, etc.) See IFMA document.

IN TOUCH ADVISORY – Stephen Ballesty, Australia: Thank you for the IFSSC's work to date. Additional comments on the IFSS-CP; Preface: "... based on Common Principles for the fire safety engineering design, construction, occupation and ongoing management." … of the Asset / Facility? This context and vocabulary need to be carefully crafted and consistent throughout the document. Admin note: "... experts from 18 countries" this doesn't match the SSC members list. Definitions: "Person Responsible" could include the Facility / Building Manager, and could be more fully explained in the document. "Property Life Cycle" could be clearer if established Asset / Facility Life Cycle models and language was used, perhaps: 1. Design; 2. Construction; 3. Operation & Maintenance; 4. Renewal / Refurbishment; 5. End of Life / Recycle. Also refer ICMS, 2019. Part 1 Introduction 1.2: The 'fire safety education' should be given more focus. Only mention of 'facility managers'? refer previous comments on AM / FM terminology. Part 1 Introduction 1.3: Reference should be made to a range relevant industry standards / guides including the ISO 41000 and ISO 55000 series. Part 2 Common Principles overview 2.1 The Common Principles :These five principles deal comprehensively with the treatment of the 'fire event' itself. However, this treatment could be improved by considering the broader asset / facilities management (AM/FM)

context. Specifically these five principles could be extended to recognise the 'planning' aspects of Prevention and wat happens post Extinguishment in the 'clean-up' and 'recovery' phase. 2.2 Aims of the Common Principles: What's the difference between "robust comparison" and "global comparison and benchmarking"? 2.3 From the Common Principles to the IFSS-CP Framework: Consider the sequence / grouping of this list. For example "Community Expectations" and "Public Education" are somewhat related. Also simplified language may assist translations / interpretations across markets. For example the meaning "Mission Continuity" and "...community resilience" may not be immediately apparent.2.5 Documentation requirements: Is the "Person Responsible" compiling or co-ordinating "the type of information to be retained"? Perhaps this requirement could be clarified? Part 3 Fire safety measures and strategies – 3.1 The Common Principles; Seems repetitious re section 2.1, consider integration of Parts 2 and 3?The term "facilities" is not defined by IFSS. Further "facilities" as used with reference to 'services / equipment for firefighting'. Consideration should be given to providing a "facilities" definition or using alternative terminology. 3.2 Applying Common Principles to the Property Life Cycle: Seems repetitious re section 2.4, but not consistent, consider integration of Parts 2 and 3? 3.3 Achieving the Common Principles – 3.3.2 Detection and Communication principle: Some of these lists, and the inclusions, would benefit from grouping / focus. For example, similarities between "arson" and terrorism", and the difficulty of provision for "war". Also "Stage 3: Use" should consider a range of fire risks related to 'Occupant activities' and 'Renovation works'. Part 4 IFSS-CP Framework: The Part 3 bullet lists by CP and Life Cycle stage should be fully reviewed for groupings / focus / terminology. Thereafter the Part 4 chaecklistsa should be aligned. This task is beyond the capacity of this iconsult comments format and would likely require a task group / editorial review. Please advise if you require more details – stephen.ballesty@in-touchadvisory.com. Part 5 Accountability and verification – 5.2 Verification process:Part 5 would benefit from reference to Audit procedures and/or a flowchart. Also the role of the "Responsible Person" and relationship to other accountable parties would be a valuable contribution.

INSTITUTION OF FIRE ENGINEERS (IFE) – Jim Robson and Martin Shipp, Global: The needs of some disabled people, children, and other groups of persons unable to evacuate unaided, may need greater emphasis.

INSTITUTE OF FIRE SAFETY MANAGERS – Dr Bob Docherty, UK: None for now.

J-SQUARED CONSULTING – David Kubler, Australia: No comment.

KAT PROJECT CONSULTANCY – Kunhappan Kuppadakath, India: Not at this stage.

L & T CONSTRUCTIONS – Vinothkumar A, India: No.

MATH PROPERTIES – Theoli Makhele, South Africa: There must be a drawing or a plan that shows all escape routes and safe assemble areas in case of fire.

NAMBA (American Chemistry Council's North American Modern Building Alliance) – Jeffrey H Greenwald, USA: No other comments.

NATIONAL RESEARCH COUNCIL CANADA – André Laroche, Canada: No comment.

NFCC (National Fire Chiefs Council) – Jake Houth, UK: NFCC recognises the overall objective of IFSS-CP is to prevent injury and death from fire in the built environment and minimise the impact on communities, society and the natural environment. We look forward to viewing future iterations of the document.

NHBC – Steve Evans, UK: None.

NORATEK SOLUTIONS INC and NATIONAL FIRE CODE COMMITTEE – Alan Kavanaugh, Canada: Please keep me informed. I have been involved in the Loss Control, Fire Prevention Industry for well over 34 years. I have seen a "slipping" of adherence to codes and standards in the last 20 years. Allowing for flexibility in meeting codes, standards, emergency procedures. Thanks.

OBEROI REALTY LTD – Thomas Mathew, India: No.

PARIO – Mike Ball, UK: Keep up the good work, this is a great initiative – thank you.

PERSONAL RESPONSE 1 – Darin Rose, unspecified: Preface: We believe that the public, (delete "that" from paragraph 3). IFSS Standards Setting Committee : remove periods of these statements
* to create a framework that will allow comparisons to be made on a like-for-like basis across countries globally and within the EU.
* to link IFSS-CP to the International Ethical Standards, the UN sustainable development goals and other relevant International Standards that exist.

PERSONAL RESPONSE 2 – Javier Elorza, unspecified: I miss a wider representation of Fire Brigades. In my opinion the Federation of the European Union Fire Officers Associations F-E-U should be part of this coalition. Part 5 Accountability and verification – 5.2 Verification process: The Federation of the European Union Fire Officers Associations, as an independent organization representing the fire officers in Europe may be a good verifier organization.

PERSONAL RESPONSE 3 – Jenny Yeung, unspecified: Part 2 Common Principles overview – 2.6 Information requirements; When the information should be re-validated. Appendix D Example Containment checklists: Include "pressurized staircase" as a means of Containment. Appendix E Example Extinguishment Checklists; include "gas suppression system" as Extinguishment.

PERSONAL RESPONSE 4 – Madhu Puli, unspecified: IFSS-CP is towards built and natural environment, I suggest ASHRAE and ISHRAE to be included in coalition. As the standards for Heating and Air conditioning for built environment has significant influence in Fire Containment, (e.g. prevents spread of smoke by disconnecting the Air con based fire detection systems). IFSS-CP developments are global in nature, hence can we include representations from APAC in SSC.

PERSONAL RESPONSE 5 – Mukesh Singh, India: Thank you very much for your valuable submission. Mr Alexander is the concern re sharing response on this consultation.
"Comments are as follows:
At Serial number 2.1(Common principles), amongst the five common principles, normalcy can be clubbed along with extinguishment.
At Sr no 3.3.1(Prevention principle) amongst the prevention principles which has four goals, additionally goals may be looked for, like: (Protection of environment , avoiding adverse community reactions/image of the organisation).
In the stage 2 of prevention principle (construct), additionally we may add (housekeeping practices, equipment conditions, training and awareness and work instructions).
In the stage 4 of prevention principle (construct), Management of change can also be added.
In stage 1(design) of detection and communication principle (warning for disabled people and ambient noise level) can also be considered.
In stage 2(construct) of detection and communication principle (audibility of warning devices) can also be considered.
In stage 3(in use) of detection and communication principle (Trained staff for testing and maintenance) to be considered.
In stage 4(change)of detection and communication principle (MOC-Management of change) can be considered.
In stage 1 (design)of occupant protection principle (auto glow signage, strategic location of firefighting systems, availability of helipads, gas bank locations, pressurisation system of staircases, fire dampers, integration of firefighting systems with building management system etc) can be considered.
In stage 2(construct) of occupant protection principle firefighting and rescue arrangements to be considered.
In stage 3 (in use) of occupant protection principle the availability of temporary by-pass procedures can be looked for
At stage 1(design) of extinguishment principle, fire water requirement calculations and fire pump capacities can be considered."

PERSONAL RESPONSE 6 – Paul Akhurst, unspecified: The consultation is welcome, but the tool is cumbersome with poor instructions. Further comments on IFSS are as follows; page 13 2.5 Documentation requirements The importance of keeping documents up-to-date must be stressed.
page 13/14 2.5/2.6
Documentation/Information Requirements: These sections are vital for facility management and demonstration
of CP application but totally inadequate. A much more comprehensive and specific list of information required is needed complete with accountability and responsibilities for providing and maintaining the information.
page 15 onwards Part 3
(1) The Principles are noble but to be effective should include guidance on consultation with all parties during each stage (particularly building owner, operator facility manager). Without this design and construction become isolated from use, thus increasing fire risk during use.

(2) A Process of acceptance at the end of each stage is critical to ensuring the CP's are followed throughout and should be included.
(3) Accountable Person(s) and Person Responsible Person(s) should be identified in each Stage to establish clear lines of culpability.
(4) Some discussion is required on the use of risk management principles that will inform decisions.
(5) The full breadth of emergency management preparedness should be acknowledged. Many systems and installations are applicable to multiple emergency situations. Fire should not be seen to stand apart from these as this is likely to reduce total emergency capacity. (See appropriate ISO standards).
page 20 time to egress
The time to start to move and movement time should be separate dot points because each requires distinct treatment.
Page 23
The availability and accessibility and currency of digital and non-digital information should be considered at each stage.
page 25/16 Part 4 Framework
The process seems overly tick-box driven with insufficiency guidance on improving fire safety in the built environment. Some thought should be given as to how the ultimate goal of fire safety can achieved and measured, and how the IFSS: CP can enable this. There seems to be considerable resistance to giving advice, which again suggests a tick-box compliance approach. Consideration should be given to referencing relevant ISO standards that should be used in addition to local regulatory frameworks or in-lieu to these were they are not adequately established.

PERSONAL RESPONSE 7 – Ubaid Ansari, India: Part 3 Fire safety measures and strategies – 3.2 Applying the Common Principles to the Property Life Cycle; I would like to draw your attention to stalled projects and unused/abandoned properties which are equally prone to fire accidents. I wonder if references to such properties must also be made in the consultation document to cover the "Property Life Cycle" holistically by including possible circumstances which are applicable in developing countries – such as India. While protecting a stalled project from a fire incident can save incurred cost, resource, labour and time; keeping a check on fire can open rejuvenation possibilities for the unused/abandoned properties. The fire safety standards for the unused/abandoned properties can also help in saving misuse of legal loopholes which are widely observed in defunct mills and industries. By way of a fire accident, often the owner of such mill property files for bankruptcy while escaping their obligations and any payments towards labourers. At the end of such incidents, the owner is always left with a property which is ready to be sold in the market. With reference to the above, I believe there can be more intermediaries between Stage 2 & 3, and between Stage 3 & 5 respectively. True to the purpose of International Fire Safety Standards; by incorporating the above two externalities one can prevent injury and death from fire in the built environment and minimise the impact on communities, society and the natural environment. I hope the above explains well. Please, feel free to let me know if you require any further clarification.

PERSONAL RESPONSE 8 – Zack Farrar, unspecified: Under Common Principals, strike "and" from "Containment and". Under Property Life Cycle strike "and" from "4. stage 4 – change and".

RESOLVE IAQ LLP 1 – Donald Makin, USA: In relation to Part 3 Fire safety measures and strategies, 3.3 Achieving the Common Principles and 3.3.1 Prevention principle: 3.3.1 Prevention principle: Common Causes of AC Fires and How to Prevent Them. Regular Air Conditioning Maintenance to Prevent Fires.

Resolve IAQ LLP 2 – Dr Ananta Singh Raghuvanshi, USA: Realty Safety is the single most important factor of design and construction. People safety and property safety are directly related to the integrity of the builders and commitment of authorities. Refuge areas, smoke alarms, sprinklers, fire resistant material, safe exits in case of mishap, regular drill , volunteers etc . The list is endless and needs to keep evolving. "Say No , to Towering inferno.

RICS INDIA – Ubaid Ansari, India: I have read the "International Fire Safety Standards: Common Principles – Consultation document" and would like to share my observation pertaining to the five stages of Property Life Cycle which include:
Stage 1 – design
Stage 2 – construct
Stage 3 – in use
Stage 4 – change and
Stage 5 – demolish
Through this email, I would like to draw your attention to stalled projects and unused/abandoned properties which are equally prone to fire accidents. I wonder if references to such properties must also be made in the consultation document to cover the "Property Life Cycle" holistically by including possible circumstances which are applicable in developing countries – such as India. While protecting a stalled projects from a fire incident can save incurred cost, resource, labour and time; keeping a check on fire can open rejuvenation possibilities for the unused/abandoned properties. The fire safety standards for the unused/abandoned properties can also help in saving misuse of legal loopholes which are widely observed in defunct mills and industries. By way of a fire accident, often the owner of such mill property files for bankruptcy while escaping their obligations and any payments towards labourers. At the end of such incidents, the owner is always left with a property which is ready to be sold in the market. With reference to the above, I believe there can be more intermediaries between Stage 2 & 3, and between Stage 3 & 5 respectively. True to the purpose of International Fire Safety Standards; by incorporating the above two externalities one can prevent injury and death from fire in the built environment and minimise the impact on communities, society and the natural environment.

ROYAL INSTITUTE OF BRITISH ARCHITECTS – Adrian Dobson, UK: The RIBA suggests that 'Design' (listed as a 'Property Life Cycle' stage) should omit the reference to 'planning stage'. This can lead to confusion if applied in the UK. For example, in the UK project design stages are usually split across different milestones, interrelated to statutory approvals. This term would relate to a project stage, but not the full 'design' of the building project, which this framework is attempting to capture. This change

would ensure that all design, irrelevant of any project design stage structures or processes in any jurisdiction, is captured and avoids any confusion that the framework may only apply to a specific stage of the 'design' process.The RIBA would like to assist the further development of the IFSS-CP Framework and Common Principles, to guide its trajectory and application. There are some areas of cross over with information that is required to be provided at handover of a project (UK regulatory requirements). The application of the framework is crucial to ensure that any duplication of information is avoided, in order to form a cohesive, accessible and effective building information package.

Royal Town Planning Institute – Board Response, UK: No comment.

SHIMIZU CORPORATION INDIA PV.LTD – Shreedhar Bhat, India: No.

SPS ASSOCIATES LTD – Adam Forster, UK: The costs for asset holders will be key in driving the implementation of these new regulations. Stakeholder engagement to ensure viability of costs will be key to keep market dynamics moving.

UNDERWRITERS LABORATORIES INC. – Diane Haithcock, USA: Due to the corona virus affecting so many people around the world, the comment period for this should be extended. Please understand that the priority for many has shifted due to this pandemic. The Coalition should be more involved. General Comment on IFSS Coalition Introduction; Due to the corona virus affecting so many people around the world, the comment period for this should be extended. Please understand that the priority for many has shifted due to this pandemic. The Coalition should be more involved. Definitions – Common Principles: A universal set of rules, which consider Building fire safety including engineering design, construction, ongoing management and occupant and nearby general public protection; and are relevant to all Building real estate classes and all regions and nations regardless of the differing political, economic, social, technological, legal or environmental differences between jurisdictions.

UNIVERSITY OF LAY ADVENTIST OF KIGALI – Erneste Nsangabandi, Rwanda: The headquarter office of IFSS should be inserted into this preface. What are the ways of calling the new stakeholders to be the Coalition members? This should be mentioned. In the stages stated there is one important stage of dumping that seems to be missed in the life cycle of a Building as the final stage in terms of safety.

UL STANDING COMMITTEE ON HAZARDOUS MATERIALS AND ACTIVITIES – Shuo (Nick) Yu, Canada: I have expertise/experience in these areas, and would be glad to forward my Resume, and would be glad to share my expertise with the IFSS.

Q9 Response summary

There were 47 responses to this question and a range of different opinions as shown by the table below.

Q9 Responses	Number	Percentage
Further comments	31	66%
No further comments	16	34%
Total	47	100%

Many of the responses to this question tended to repeat the responses previously made. However, there were a number of responses suggesting items to be added to the goals and strategies contained within Part 3. Some responses suggested that *Section 2.1 Common Principles* and *3.1 The Common Principle* are repetitive and should be merged into one section.

There were several comments around missing guidance, links to other standards and how to adapt to local context and suggestions that further details were required in relation to *Part 5 Accountability and Verification.*

SSC rationale: The SSC considered the responses received and felt that many of the responses received had already been dealt with in revisions made to the **IFSS-CP** in relation to the previous consultation responses. However, in relation to the element of repetition contained within section 2.1 and section 3.1 this was dealt with by rewriting Part 3 and eliminating repetitions from Part 2. The SSC also made significant revisions to *Part 5 Accountability and Verification* as this was recognised as an integral part of the standard.