



Fire Sprinkler  
International  
LONDON 2022

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The Park Plaza Riverbank

International Fire Suppression Alliance (IFSA):

# The “Road Map” Project

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# International Fire Suppression Alliance

A not-for-profit association created in 1999 "to globally promote the use of effective water-based fire protection systems."

IFSA's achieves this vision through:

- Fostering the development of national and regional organizations with similar objectives
- Development of information systems to protect product integrity and industry identity
- Leadership in training and education
- Enhancement of codes, standards and legislation
- Growth in visibility, membership and support



# International Fire Suppression Alliance

- BIG PICTURE: IFSA's goal is to change the dialog around fire protection around the world.
  - The 1st Decade (2000s) focus was Europe helping establishing EFSN and supporting a variety of actions and programs across Europe.
  - The 2<sup>nd</sup> Decade (2010s) shifted focus on Latin America, helping establish industry groups in Mexico, Brazil and Colombia with expanding discussion across the region
  - As IFSA enters its 3<sup>rd</sup> decade, we will continue to expand our reach.
- But our future success can only be achieved if we help others build on our experience.



# What and Why a “Roadmap”?

The IFSA Board of Directors envisioned a “Fire Suppression Advocacy Guide” to:

- Compile and summarize the key strategies that can (or have?) resulted in growth of the fire sprinkler industry
- Provide allied professionals, companies, and affiliated organizations with a reference they can use to help shape their efforts
- Aid the IFSA in evaluating potential opportunities and objectives in regions and markets around the world.
- Improve the focus of IFSA’s grant application, evaluation, and administration processes by which it supports allied groups
- Provide new and prospective IFSA members a clearer understanding of how IFSA intends to execute its mission and apply its resources



# The Development Process

Advocacy for fire sprinklers and other water-based fire suppression requires efforts tailored to the history, culture, and opportunities provided in each country or region.

To that end, the guide combines :

1. A list of 10 commonly cited strategies used to promote greater use of fire sprinkler systems with
2. Input from an international Advisory Committee of current fire sprinkler advocates as to the relative effectiveness of the 10 strategies, and
3. History, insights, and experience from the international advisory group members with institutional knowledge from the archives of the National Fire Sprinkler Association in the United States for each of these areas.



# Advisory Committee

**Alan Brinson**, *European Fire Sprinkler Association (EFSN), UK*

**Bo Hjorth**, *AlbaCon AB, Sweden*

**John van Lierop**, *Federation Safe Netherlands (VSI)/ EFSN*

**Keith MacGillivray**, *British Automatic Fire Sprinkler Association (BAFSA), UK*





# Advisory Committee

**John Galt**, *Canadian Automatic Sprinkler Association (CASA), Canada*

**Jeffrey Hugo**, *CBO, National Fire Sprinkler Association (NFSA), USA*

**Kenneth E. Isman, P.E.**, *University of Maryland, USA*



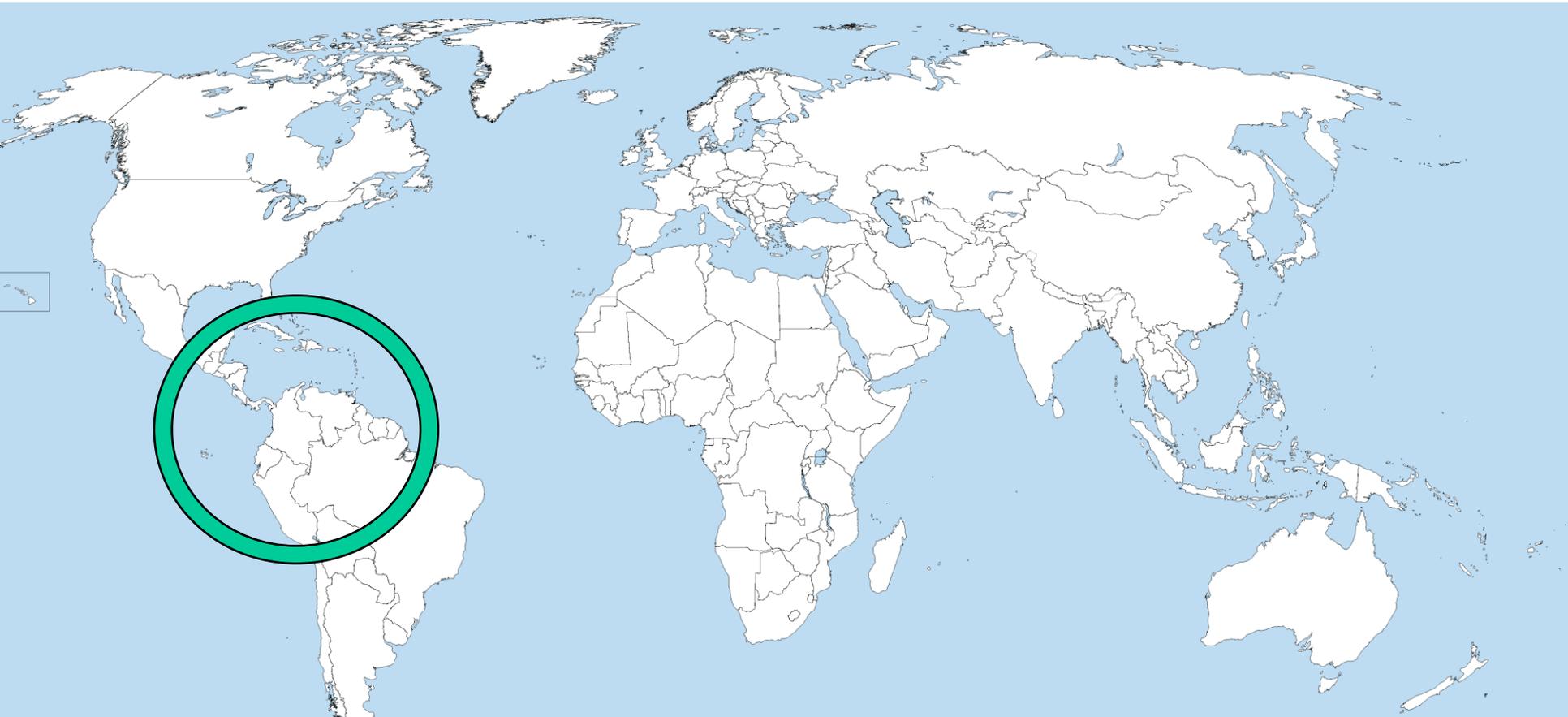


# Advisory Committee

**Victor Espinola**, *Asociación Mexicana de Rociadores Contra Incendios (AMRACI), México*

**Marcelo Lima**, *FM Global, Brazil*

**Jaime A. Moncada**, *International Fire Safety Consulting (IFSC), Latin America*





# Advisory Committee

**Chris Mak**, *Aon Fire Protection, New Zealand*

**Mark Whybro**, *Home Fire Sprinkler Coalition Australia*





# The 10 Most Commonly Cited Strategies

- Educating the public as to how fire sprinkler systems work
- Informing public opinion as to the effectiveness of fire sprinklers
- Encouraging fire authorities to promote fire sprinklers
- Creating economic incentives in building codes for sprinkler systems
- Encouraging property insurance discounts for sprinklers
- Advancing installation standards that lower sprinkler installation costs
- Urging recognition for fire protection engineering
- Promoting tax incentives for property owners to install sprinklers
- Proposing legislation to enact fire sprinkler requirements
- Convincing code writers to require sprinkler systems for specific occupancies



# The 10 Strategies Ranked by the Advisory Committee

- 7.3 - Convincing code writers to require sprinkler systems for specific occupancies
- 7.0 - Encouraging fire authorities to promote fire sprinklers
- 6.9 - Creating economic incentives in building codes for sprinkler systems
- 6.5 - Proposing legislation to enact fire sprinkler requirements
- 5.5 - Advancing installation standards that lower sprinkler installation costs
- 5.1 - Encouraging property insurance discounts for sprinklers
- 4.7 - Informing public opinion as to the effectiveness of fire sprinklers
- 4.2 - Promoting tax incentives for property owners to install sprinklers
- 4.0 - Urging recognition for fire protection engineering
- 3.8 - Educating the public as to how fire sprinkler systems work



# The Finished Product

- The “*Guide to Promoting Automatic Fire Sprinkler Systems*” is being published by IFSA in the Summer of 2022
- The Guide contains 13 chapters plus annex material containing articles and other items of interest, such as:
  - Sample bylaws of national and regional sprinkler organizations,
  - Instructions for constructing and conducting side-by-side sprinkler demonstrations
  - Discussion on why regulatory trade-offs work.



# The Thirteen Chapters

1. Is There a “Best Way” to Promote Sprinklers?
2. Forming an Advocacy Group
3. Limitations of Insurance Incentives
4. Fire Codes and Fire Sprinklers
5. Pursuing Changes in a Code Environment
6. Developing a Fire Code Where None Exists
7. Dealing with Performance-Based Codes
8. Mandates and Incentives Through Legislation
9. Lowering System Costs with Installation Standards
10. Educating and Informing the Public
11. Fire Sprinklers and Sustainability
12. Responding to Tragic Fires
13. Available Resources



# Summary

The Guide addresses the promotion of fire sprinkler systems through different means, each with some history of success.

But is there a best way?

And more importantly, is there a best single practice or main point to be understood for a successful campaign?



# Chapter 4

## Fire Codes and Fire Sprinklers

- 4.1 The Obligation of Governments to Provide Protection from Fire
- 4.2 A Brief History of Building and Fire Codes
- 4.3 Active vs. Passive Protection
- 4.4 The Proven Effectiveness of Automatic Fire Sprinkler Systems
  - 4.4.1 Studies of System Effectiveness
  - 4.4.2 Ensuring Effectiveness – Certification of Products
  - 4.4.3 Ensuring Effectiveness – Certification for System Technicians
  - 4.4.4 Ensuring Effectiveness – Systems Inspection and Testing
- 4.5 The Importance of Fire Sprinkler incentives in Building Codes
  - 4.5.1 Incentives Case Study – U.S. High Rise
  - 4.5.2 Incentives Case Study – Cost Benefit Analysis





# Section 4.5.1

## Incentives Case Study – U.S. High Rise

Deadly high-rise fires on successive days in 1972 resulted in bills introduced in 7 states calling for mandatory fire sprinklers. Not a single one was successful, and NFSA blamed the lack of including a strategy for relaxing the “compartmentation” required for high rise through provision of fire resistive barriers:

*“To pursue the legislative course of mandating automatic sprinklers without providing for the mitigation of those passive fire protectives adds needlessly to the cost of both new and existing construction. It imposes severe design limitations upon architects. It can result in the imposition of space limitations by building tenants. Realistically, restrictive compartmentalization and automatic sprinklers in combination are unduly restrictive.”*





# Section 4.5.1

## Incentives Case Study – U.S. High Rise

At the same time those 7 states failed to enact legislation; two other states successfully adopted model building codes that included compartmentation only as an alternate to fire sprinkler protection.

*“Regulations providing for the free exercise of alternate options have been met with less resistance on the part of owner groups, because the owner or his agent have had a choice. The free exercise of that choice tends to reduce enforcement problems and encourages greater cooperation on the part of the public.”*

The allowance of less fire resistive construction and other incentives quickly led to wider acceptance of fire sprinklers, such that within 3 years the Council of American Building officials was able to call for mandatory sprinklers in all high-rise with relatively little objection from the building community





# Code Incentives for Sprinklers Often Pave the Way for Requirements

This lesson has also been learned in many other parts of the world, including with the application of performance-based codes<sup>1,2, 3, 4</sup>

1. Nystedt, Fredrik, *Verifying Design Alternatives in Buildings with Fire Sprinkler Systems*, Report 31650 Lund University, 2010.
2. *Valuation of residential sprinkler installations*, United Residential Sprinkler Installers VWI, Netherlands, September 2021.
3. *SFPE Engineering Guide to Performance-Based Fire Protection*, Society of Fire Protection Engineers, 2007.
4. *Fire Safety Engineering Principles for the Design of Buildings*, British Standards Institution, 2001.

# The Main Takeaway



“A spoonful of sugar  
helps the medicine  
go down”

- Mary Poppins

Sherman Brothers, 1964



# International Fire Suppression Alliance

- Where are we doing now?
  - IFSA is providing grant funding to:
    - EFSN
      - Direct Support for a Program Leader in Spain
    - Home Fire Sprinkler Coalition – Australia
      - Initiatives to protect Social Housing
      - Creation of a Virtual Reality Video for AHJs and the public
    - LATAM PCI
      - Funding the formation of a new Fire Protection Industry Group
      - Current members include Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, Mexico, Panama, Paraguay, Peru, Ecuador, and DR.



# International Fire Suppression Alliance

- Where are we doing now?
  - IFSA is providing grant funding to:
    - ANRACI (Colombia)
      - Funding to reserve and plan for an Andean Fire Conference
      - Direct Support for updating
        - Building Codes
        - National Tech Standards
        - Labor Standards/Qualification
        - Technical Specifications
- Grants Applications for FY2023-24 will be available in September.



# International Fire Suppression Alliance

We could do so much more!!!

- Preparing for building code changes in India that make better use of the new sprinkler product and installation standards that were recently adopted
- Working with other groups to encourage a single building code across the Caribbean, which would standardize building construction in what is effectively the 3<sup>rd</sup> largest economy in Latin America.
- More efforts in the Middle East, Central and East Asia.

But to Grow our Reach,

We need to Grow our Membership!



Thank You!

Come and visit us on the Exhibit Floor  
to learn more about how  
the IFSA can help you!

[www.ifsa.global](http://www.ifsa.global)

