



# **How does Water Mist fit into the Water-Based Fire-Fighting World?**

Istanbul, 22 October 2014

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# European Fire Sprinkler Network

- Members from 17 countries
  - Fire Authorities, FPAs, insurers, consultancies, laboratories, sprinkler industry and others
- 1 employee and 3 consultants
- Working to see the wide-spread use of properly designed and installed sprinkler (and water mist) systems in Europe

# Agenda



## European Sprinkler Market

# Agenda



European Sprinkler Market



Water Mist Markets

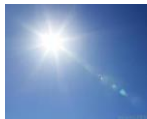
# Agenda



European Sprinkler Market



Water Mist Markets



The Future



EUROPEAN FIRE  
SPRINKLER NETWORK





# European Sprinkler Market



EUROPEAN FIRE  
SPRINKLER NETWORK

# Sprinklers/Thousand Inhabitants

US	125	Belgium	35
Norway	120	UK	28
Sweden	48	France	24
Germany	40	Spain	17
Netherlands	35	Italy	10

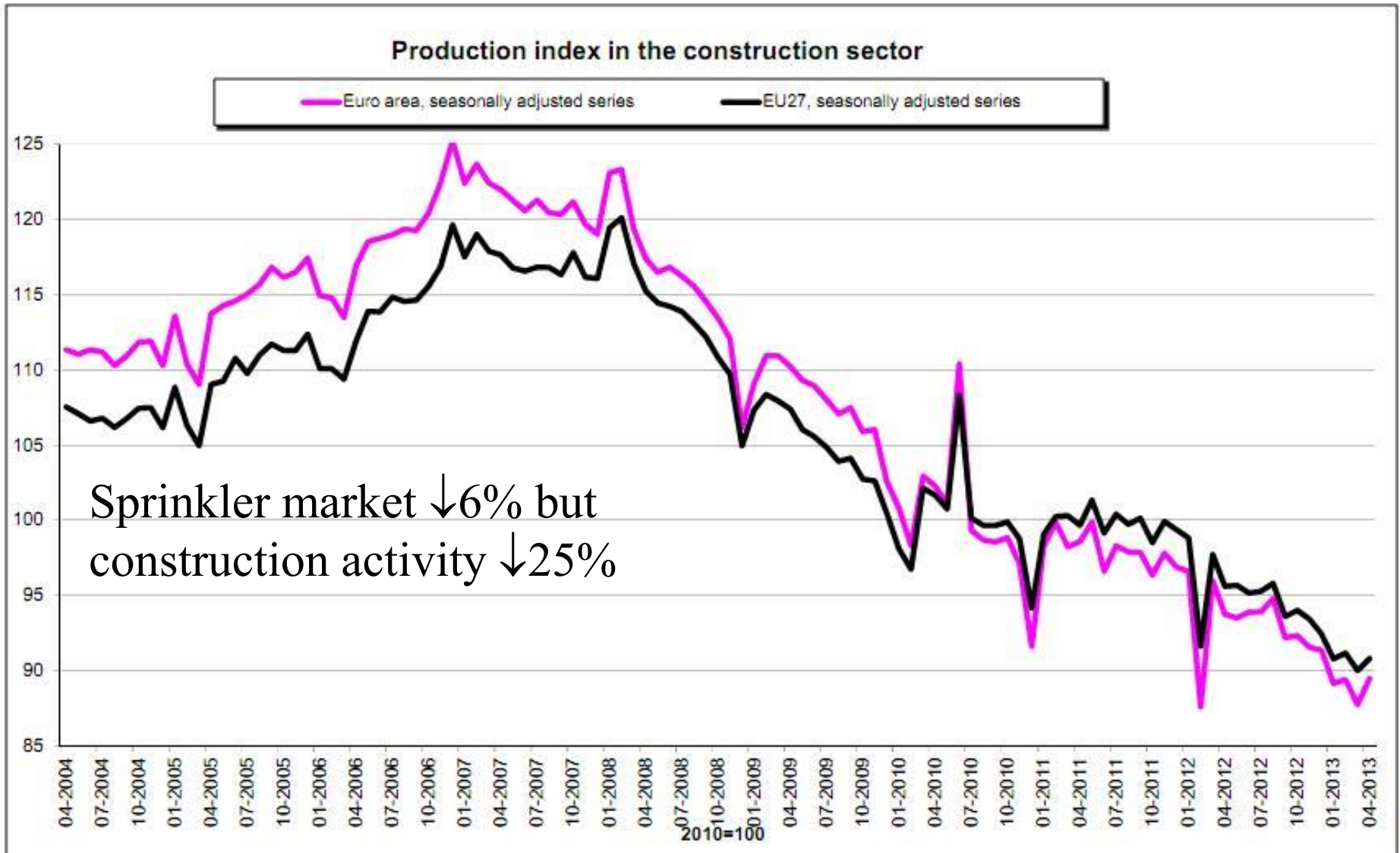
*We have a lot to do!*

# European Sprinkler Market

Country	Sprinklers in millions	
	IFSA 2007	EFSN 2013
Germany	2.8	3.3
Russia & Eastern Europe	2.5	2.5
United Kingdom & Ireland	2.2	1.7
France	1.6	1.5
Nordic	1.4	1.4
Benelux	1.3	1.0
Spain & Portugal	1.2	0.8
Italy	0.9	0.6
Austria & Switzerland	0.7	0.9
<b>TOTAL</b>	<b>14.6</b>	<b>13.7</b>



# European Construction Activity

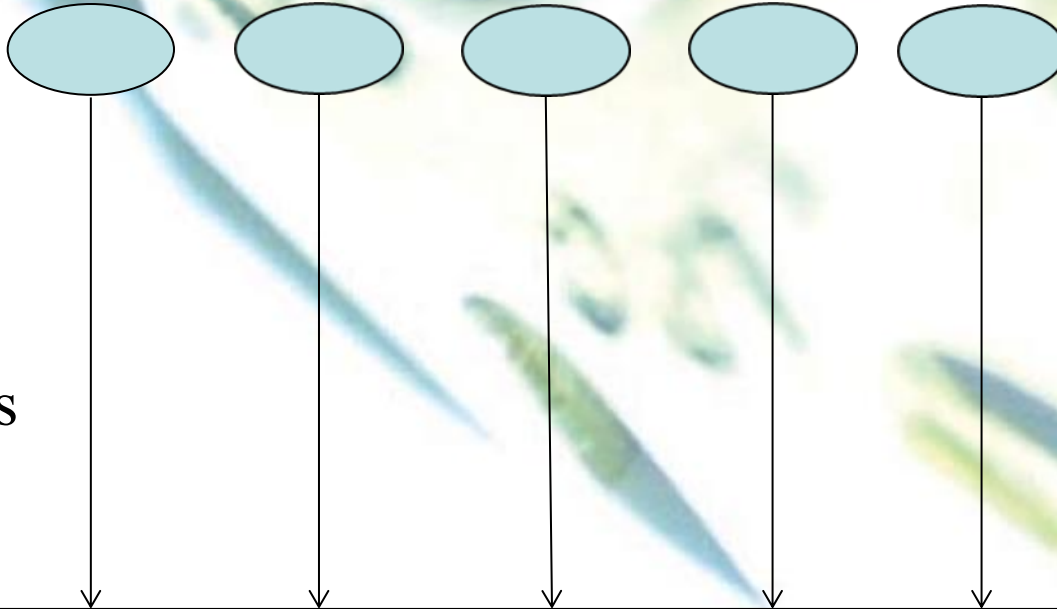


# European Sprinkler Market

- Set to grow as construction picks up
- More new code requirements for sprinklers expected in next few years and will produce further growth
- Residential market showing very strong growth now but from a small base
- Water mist should take a share of this market growth

# Sprinkler Market Structure

Four or five  
Manufacturers



Intellectual  
Property

Limited  
distributor sales

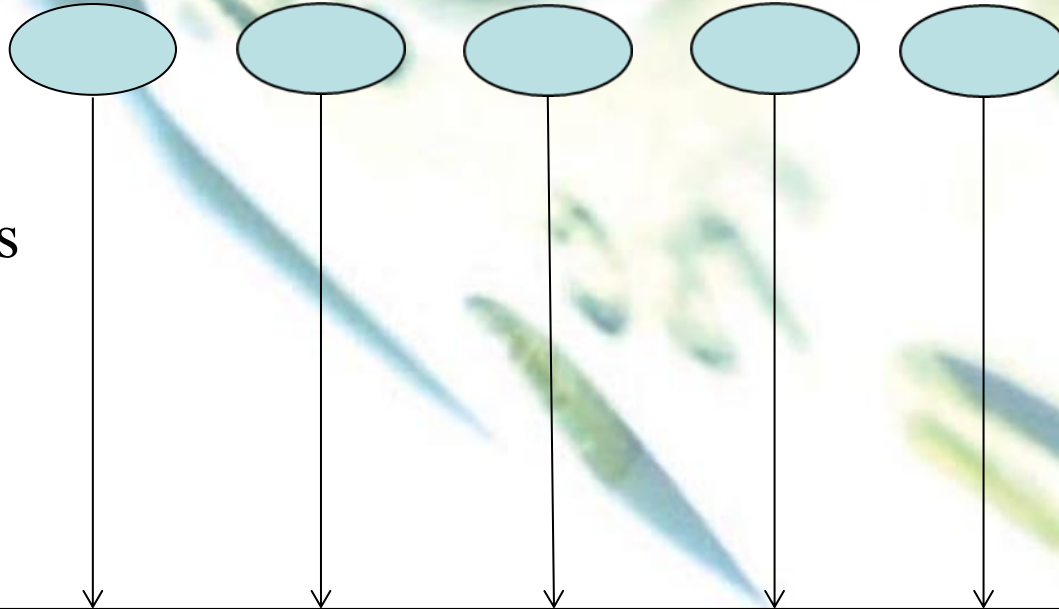
Hundreds of installers

# European Sprinkler Market Value

Components  
€250M

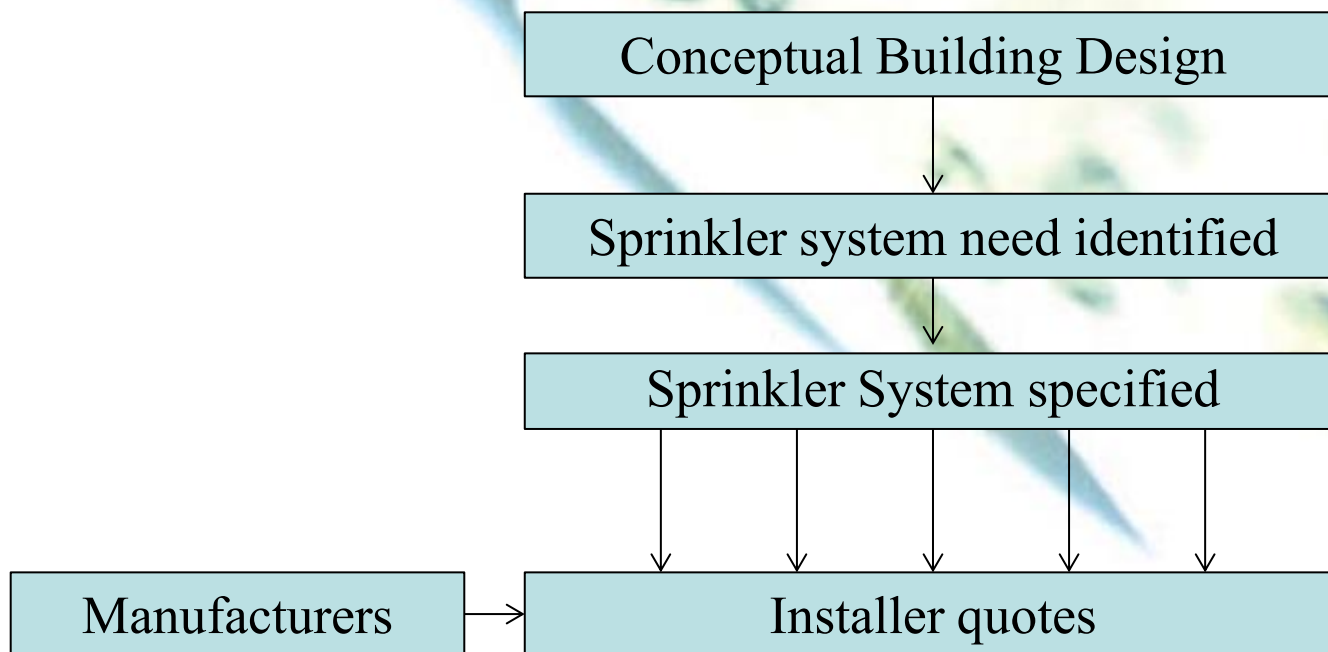
Pumps & tanks  
€150M

Pipe €400M



Installations €3B

# A Sprinkler Project



EN 12845  
CEA 4001  
NFPA 13 / FM





# Water Mist Markets

# Water Mist Markets - Marine

- Standard throughout passenger vessels and in cargo ship machinery spaces
- Has displaced sprinklers and carbon dioxide
- Less weight, space and free water than sprinklers
- Faster action on fire, safer and cheaper than CO<sub>2</sub>

# Water Mist Markets - Gas

- Applications such as IT suites, telecoms, archives
- Water mist is competitive with gas
- No issue with “leaky” rooms – more robust solution
- Great for local application
- But cannot penetrate cabinets like gas
- And some customers still concerned about water
- Probably not much more market growth here

# Water Mist Markets – Sprinkler

- Applications are industrial, commercial buildings, schools, hospitals, housing... => the largest market
- Sprinkler systems are required by codes or insurers but some codes and insurers do not recognise water mist
- Acceptance in codes and by insurers will grow as CEN standards are developed – but this will still take years
- Water mist cannot compete with mains-fed sprinklers nor usually with sprinklers + pump + tank
- No water mist solution for warehouses



# Water Mist Markets – Sprinkler

- For each project water mist has to be explained and sold to end users, officials and insurers
  - Water mist has an advantage where there is:
    - ❖ A lack of space for pumps and tanks
    - ❖ Concern about water damage
  - Vertical integration of water mist suppliers and their differentiated technology hinders competitive tendering
- ⇒ Water mist has perhaps 3% of sprinkler market



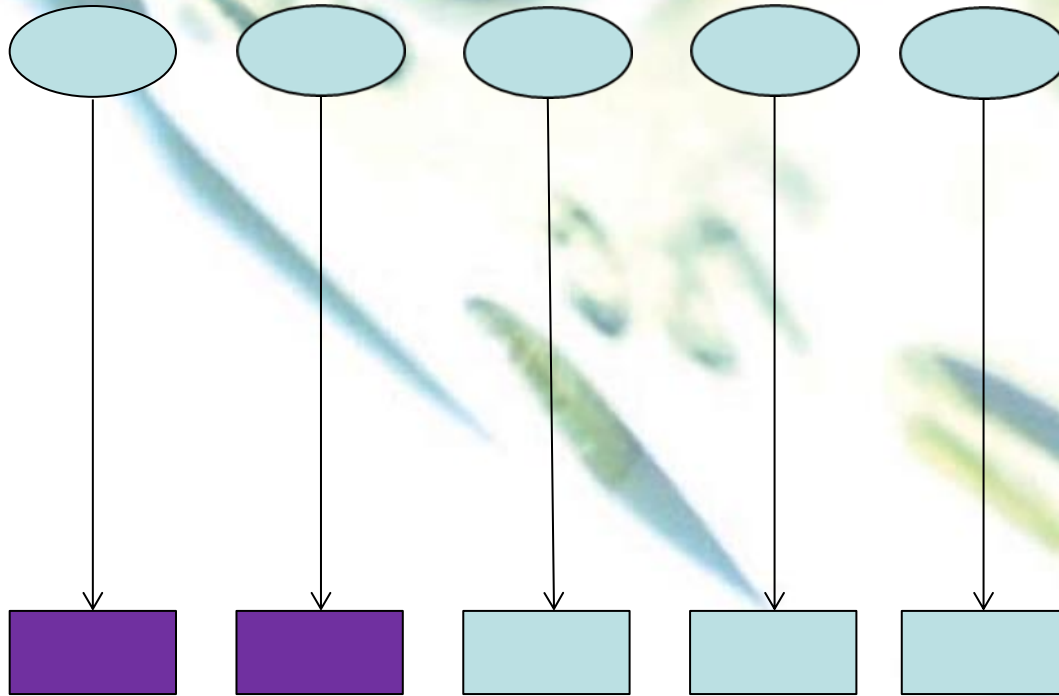
# Water Mist Markets – Foam

Applications such as oil, chemical, petrochemical pharmaceutical and airports

- Negligible impact – water mist rarely used

# Water Mist Market Structure

Four or five  
Manufacturers



Intellectual  
Property

Distributor = installer

Manufacturer = installer

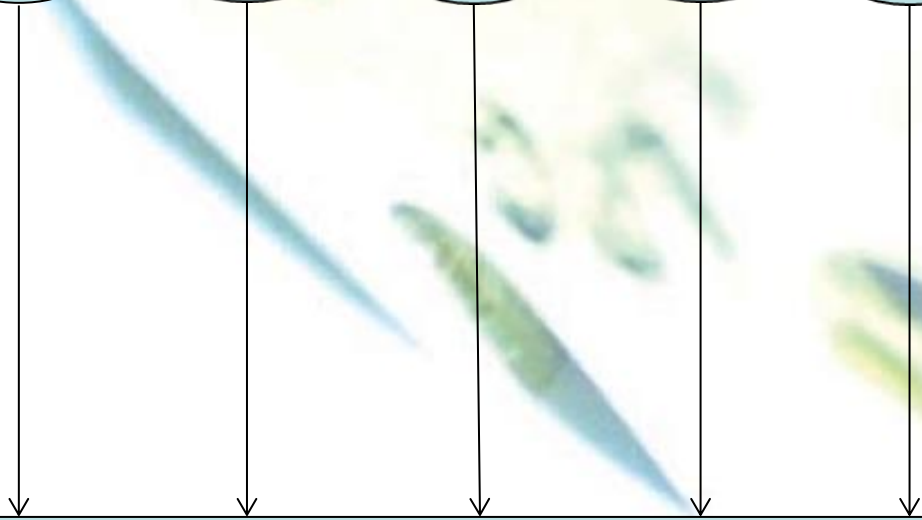
Relatively few suppliers

# European Water Mist Market Value

Components,  
pumps €20M



Pipe €15M



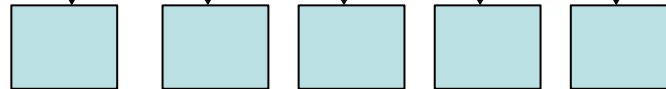
Land-Based Installations €80M

# A Water Mist Project

Conceptual Building Design

Sprinkler system need identified

Water Mist specified as alternative

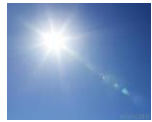


Manufacturer  
is also installer

Relatively few possible quotes

Systems cannot  
be designed  
from standards

Each quote  
based on a  
different design



# The Future



EUROPEAN FIRE  
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# The Future

- Complete the work on standards to ease specification
  - Widen access to technology – license more installers
  - Cost is the deciding factor for most projects
- ⇒ Identify and pursue applications where water mist can compete on cost with sprinklers
- ⇒ Water mist can take more than 3% of sprinkler market!

Thank you for your attention

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