Research Project:
#1 – Fire Protection:

Importance to decision
makers & knowledge levels

Exec Summary

- Interviews were conducted with 226 project decision
  makers across UK, Germany and France.

- Despite having experts within the company who are construction professionals,
  the research was born out of a fundamental belief within our company that
  we should **always** keeping learning - whether it be about construction,
  aviation or any other industry that our technology can help.

- This piece purely focuses on construction - an industry that is so often just
  thought of 'as the way it is' and that is rarely given the ability to anonymously
  provide feedback. We have never been OK with 'that's just the way it is' - we wanted
  to know why and how it could be improved, for the better, for everyone.

- Zeroignition was not mentioned until the end of this survey. This was not a sales
  piece it was purely an educational piece to highlight any current or potential issues
  within the construction industry processes & to try and find solutions for them.

- Although the focus of this report was on fire protection,
  we also touched upon other topics such as approaches to build, training and responsibilities.

Key Insights

EDUCATION: THERE IS A HUGE NEED FOR EDUCATION ACROSS THE FOLLOWING AREAS:

1. **The basics** – knowledge of the 4 most common terms associated with fire protection in construction. Only 5% of respondents could adequately define all 4 terms.

2. **The flexibility and diversity of built-in fire protection** – there is confusion about materials that are inherently '**fireproof**' such as concrete and those which have fire protection built in – such as FR timber.

3. **The issues with post-manufacture treatments** such as sprays and paints. Over 50% disclose they do not know or don't think there are any issues.

WE WERE MOST SHOCKED BY THE FOLLOWING:

Over 30% of professionals interviewed highlighted the end-user as the key stake-holder to blame for fire in a building.

This **HAS** to change – if every industry kept to the same standards and systems because they blamed the end user for any human error that may occur when the product was sold the whole world would be in chaos.

Research Objectives

- We wished to conduct market research across three key markets to further understand the views of construction project stakeholders on a range of topics – specifically focussing on fire protection.

- The intention wasn't to educate stakeholders on fire protection technologies or to introduce the Zi proposition. Instead it was to obtain insight from those in decision-making roles on materials and solutions used in construction projects.

TOPICS OF PARTICULAR FOCUS WERE:

- Current fire protection knowledge and usage

- A 'system-led' approach to building

- Project decision making

- Importance of fire protection

- Impact of Grenfell

- Impact of additional fire protection

- Sourcing of fire protection

Research Approach

226 INTERVIEWS WERE CONDUCTED ON THIS PROJECT. BELOW IS THE BREAKDOWN OF QUOTAS AIMED FOR:

	UK	Germany	France	Total
Quantity surveyors	3	0	0	3
Architects	48	51	51	150
Specifiers	17	16	16	49
Commercial directors	8	8	8	24
Total	**76**	**75**	**75**	**226**

Target Audience

- **THE RESEARCH FOCUSSED ON SPEAKING TO FOUR DISTINCT TARGET AUDIENCES:**

  - Quantity surveyors
  - Architects
  - Specifiers
  - Commercial directors who sign off construction contracts

- Participants were screened to ensure they were suitable for the study, had the relevant decision-making responsibilities and could share the required amount of time (approx. 25 minutes) to discuss the required topics.

- Participants were **not** screened on their knowledge levels – as this was an important datapoint to explore

- **SCREENING CRITERIA WHICH NEEDS TO BE MET:**

  ✓ Involved in sourcing and/or specifying materials for use in building projects e.g. cladding, panels, timber, textiles, composites

  ✓ Personally have knowledge and influence on the products their organisation installs/requests/specifies for building projects

  ✓ Personally have knowledge and experience in sourcing/requesting products/materials which are affected by fire protection regulations

  ✓ Operate across a range of sectors (not just domestic construction and/or refurbishments)

RESPONDENT PROFILES

A range of roles were interviewed – but the project was skewed towards Architects

"WHAT IS YOUR JOB ROLE?"

Role	Percentage
Architect	55.8%
Commercial Director	10.6%
Project manager (Construction sector specifically)	7.5%
Specifier	5.8%
Managing Director	4.9%
Specification manager	2.7%
Architectural Technician	2.2%
Architectural Technologist	2.2%
Part I Architectural Assistant	1.8%
Quantity surveyor	1.3%
Associate	1.3%
Project Architect	1.3%
Technical Director	0.9%
Part II Architectural Assistant	0.9%
Interior Designer	0.4%
Architectural Designer	0.4%

CLASSIFICATION

- Architect 66.4%
- Specifier 21.7%
- Quality Surveyor 1.3%
- Commercial Director 10.6%

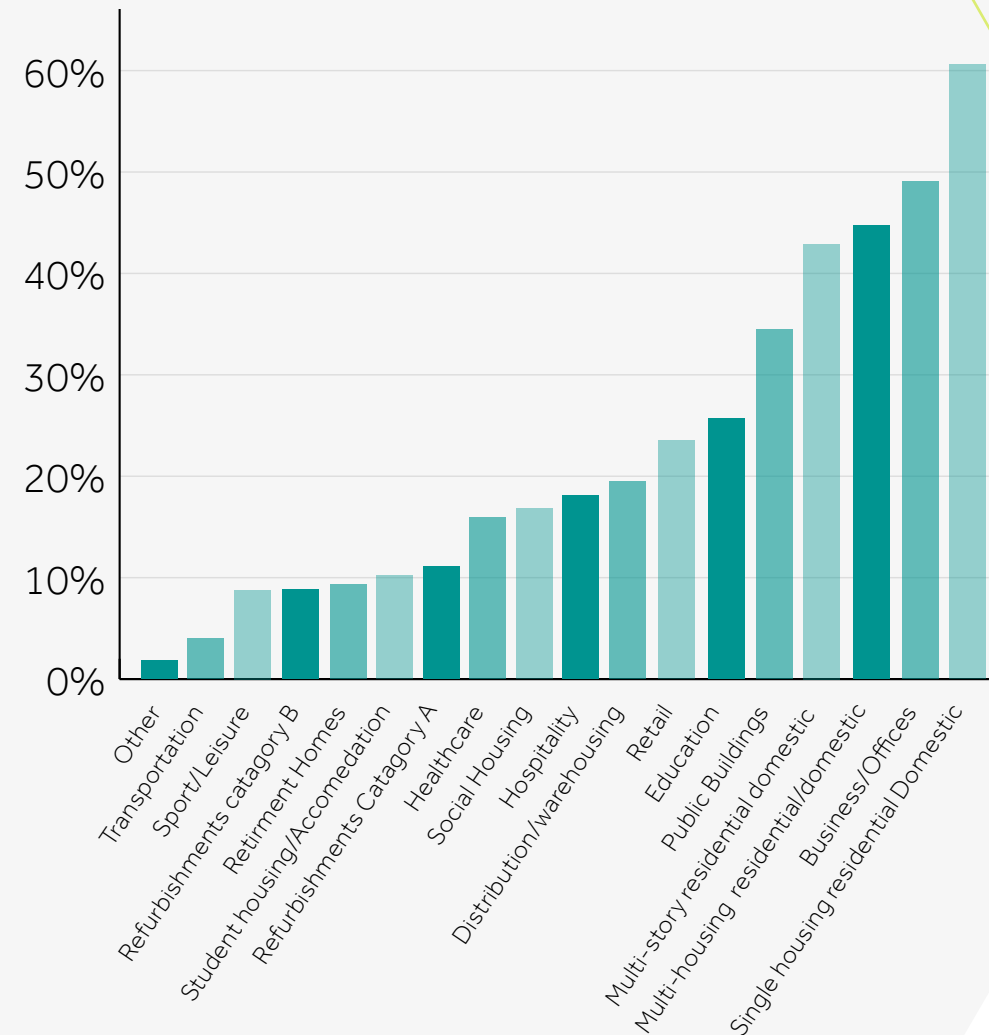# Participants work across a range of sectors, with residential forming a significant portion of their work
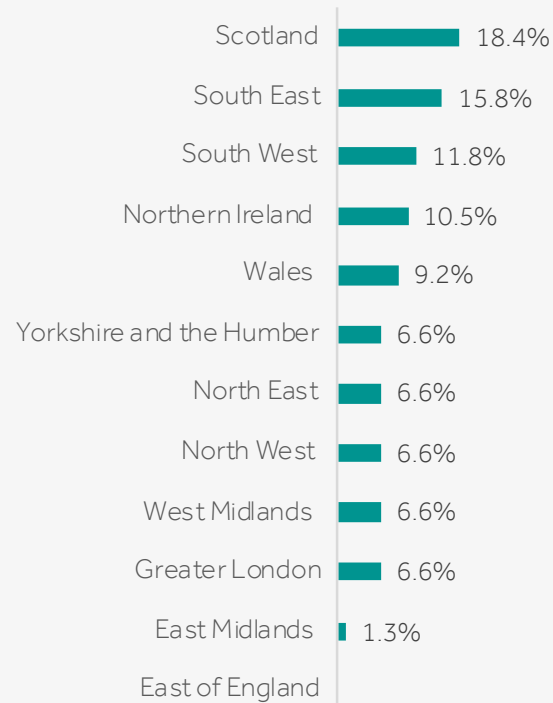
"Thinking of the projects and buildings which you have experience of working on and sourcing products for, what sectors are they mainly associated with?"
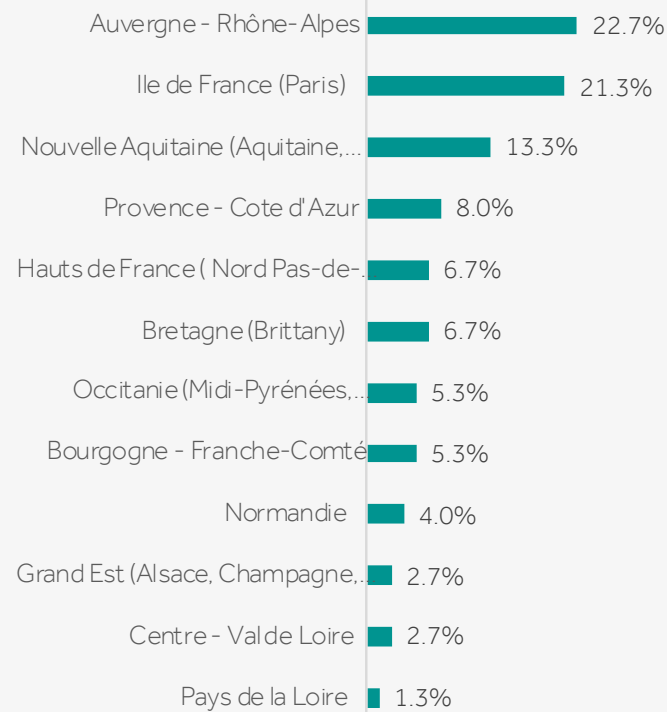

Additional: 18.6% work on projects involving modular builds and/or off-site construction (e.g. HUF houses)
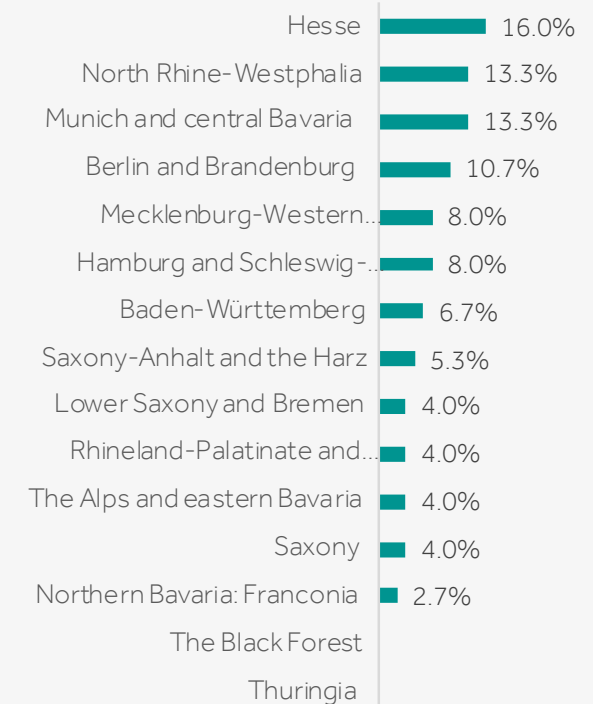
A good representation of each market was obtained

REGION - UK

Region	%
Scotland	18.4%
South East	15.8%
South West	11.8%
Northern Ireland	10.5%
Wales	9.2%
Yorkshire and the Humber	6.6%
North East	6.6%
North West	6.6%
West Midlands	6.6%
Greater London	6.6%
East Midlands	1.3%
East of England	

REGION - FRANCE

Region	%
Auvergne - Rhône-Alpes	22.7%
Ile de France (Paris)	21.3%
Nouvelle Aquitaine (Aquitaine,...	13.3%
Provence - Cote d'Azur	8.0%
Hauts de France (Nord Pas-de-...	6.7%
Bretagne (Brittany)	6.7%
Occitanie (Midi-Pyrénées,...	5.3%
Bourgogne - Franche-Comté	5.3%
Normandie	4.0%
Grand Est (Alsace, Champagne,...	2.7%
Centre - Val de Loire	2.7%
Pays de la Loire	1.3%

REGION - GERMANY

Region	%
Hesse	16.0%
North Rhine-Westphalia	13.3%
Munich and central Bavaria	13.3%
Berlin and Brandenburg	10.7%
Mecklenburg-Western...	8.0%
Hamburg and Schleswig-...	8.0%
Baden-Württemberg	6.7%
Saxony-Anhalt and the Harz	5.3%
Lower Saxony and Bremen	4.0%
Rhineland-Palatinate and...	4.0%
The Alps and eastern Bavaria	4.0%
Saxony	4.0%
Northern Bavaria: Franconia	2.7%
The Black Forest	
Thuringia	

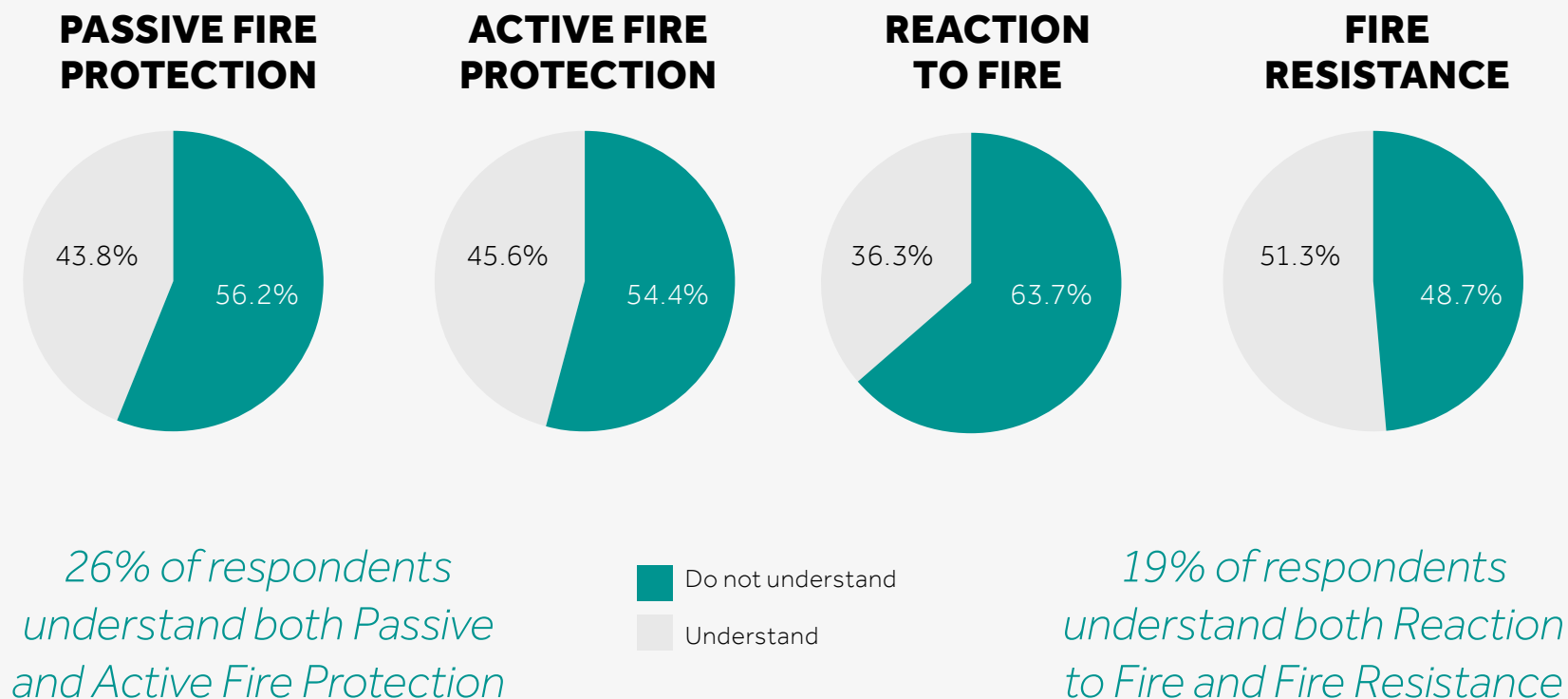# CURRENT FIRE PROTECTION KNOWLEDGE AND USAGE

Approach

- **PARTICIPANTS WERE ASKED TO EXPLAIN THEIR UNDERSTANDING OF A RANGE OF TERMS:**

  - "Passive fire safety"
  - "Active fire safety"
  - "Reaction to fire"/ "Flame spread"
  - "Fire resistance"

Note: "Flame spread" was not prompted to respondents unless it was absolutely clear they were of US-origin and did not have any understanding of "Reaction to fire"

Knowledge levels are fairly low, across the board – with there being a clear issue among professionals

PASSIVE FIRE PROTECTION	ACTIVE FIRE PROTECTION	REACTION TO FIRE	FIRE RESISTANCE

43.8% 56.2%   45.6% 54.4%   36.3% 63.7%   51.3% 48.7%

26% of respondents understand both Passive and Active Fire Protection

■ Do not understand
■ Understand

19% of respondents understand both Reaction to Fire and Fire Resistance

ONLY 5% UNDERSTOOD ALL FOUR TERMS

UK has greatest understanding, particularly among CDs. French Specifiers are also more knowledgeable than others
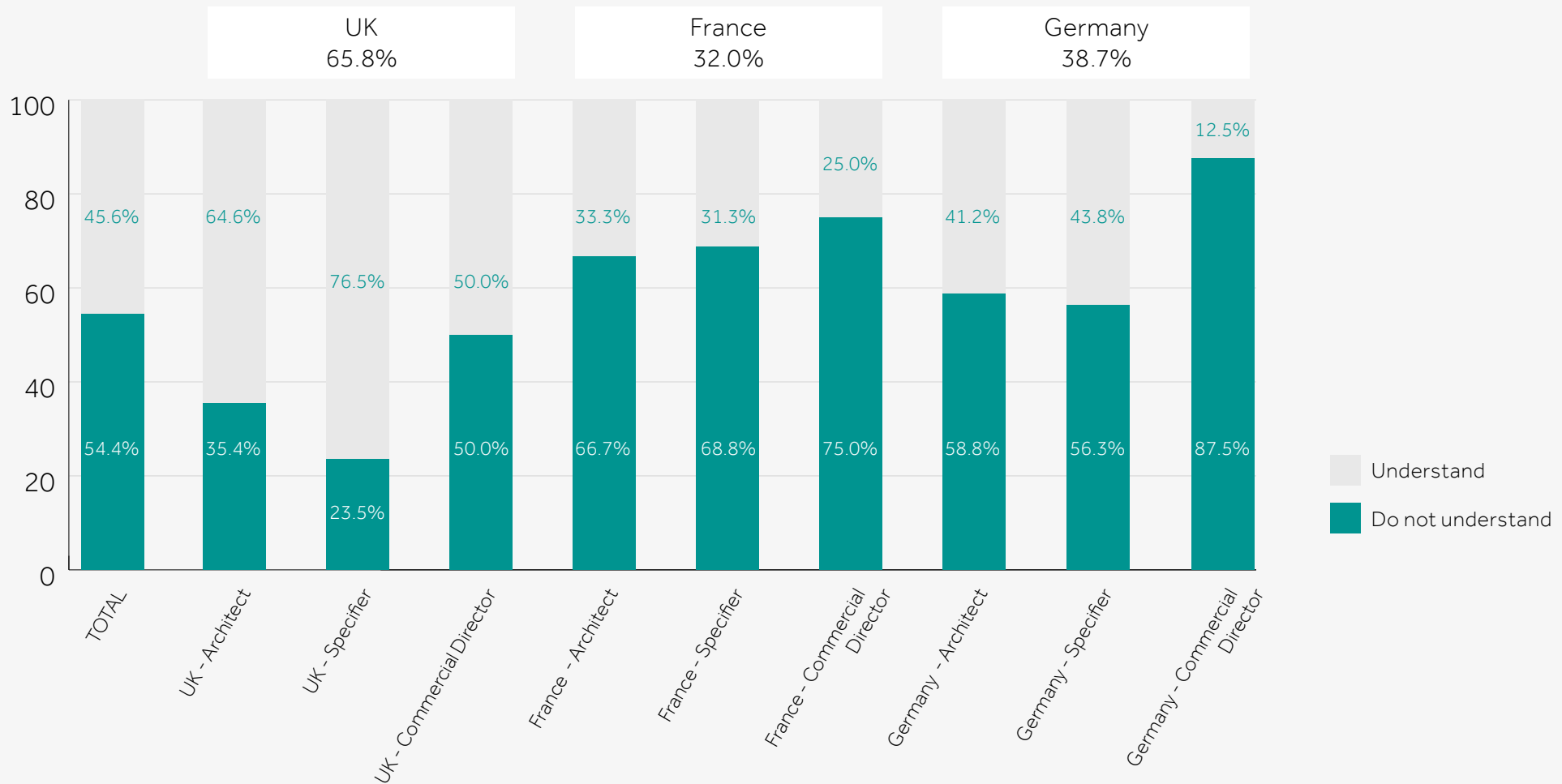
PASSIVE FIRE PROTECTION
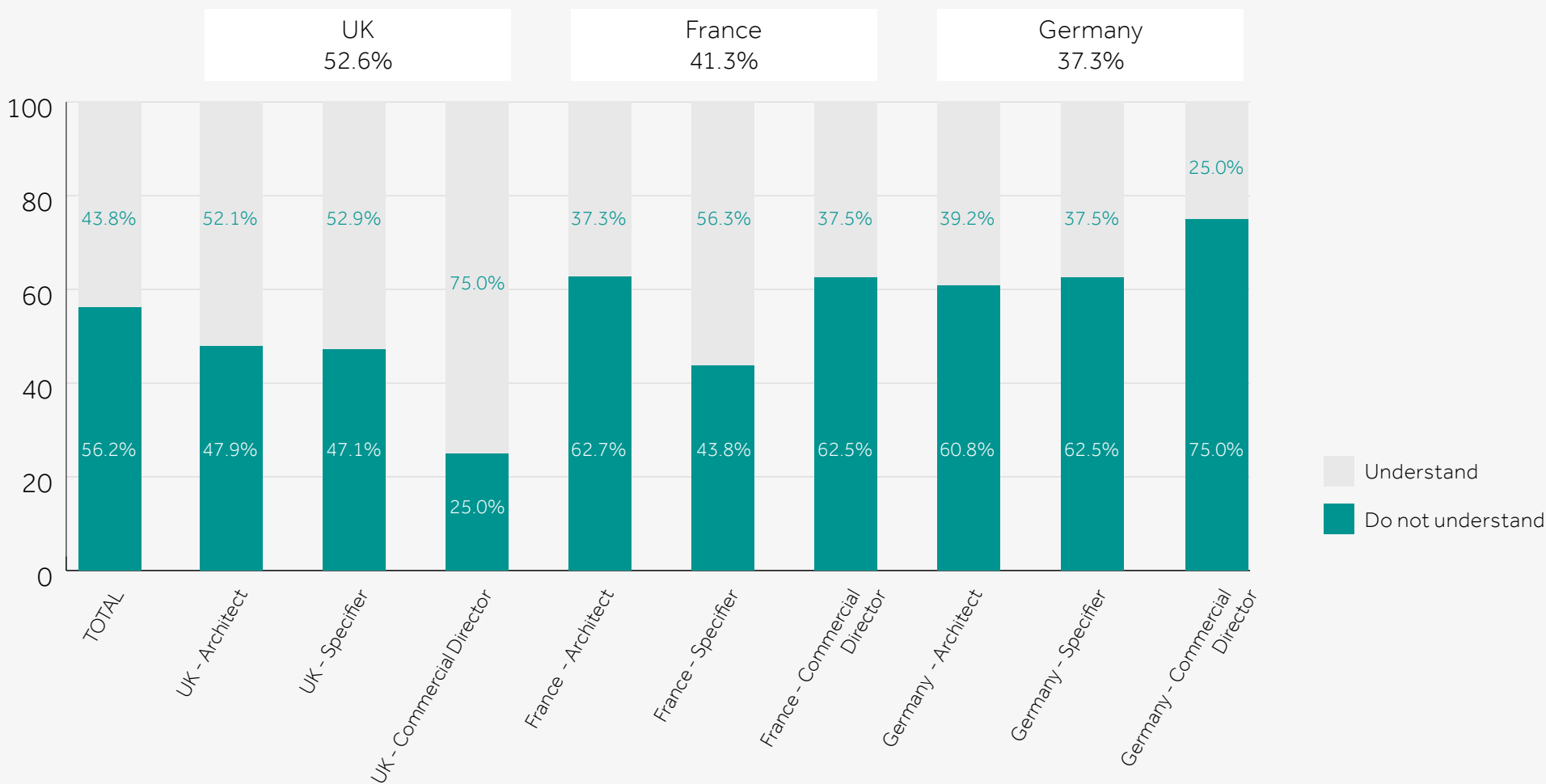
UK Quantity Surveyors are not shown due to low sample size (n=3)
Base: All respondents (n=226)

UK again has greatest understanding, however France is lower and CDs is also low

ACTIVE FIRE PROTECTION

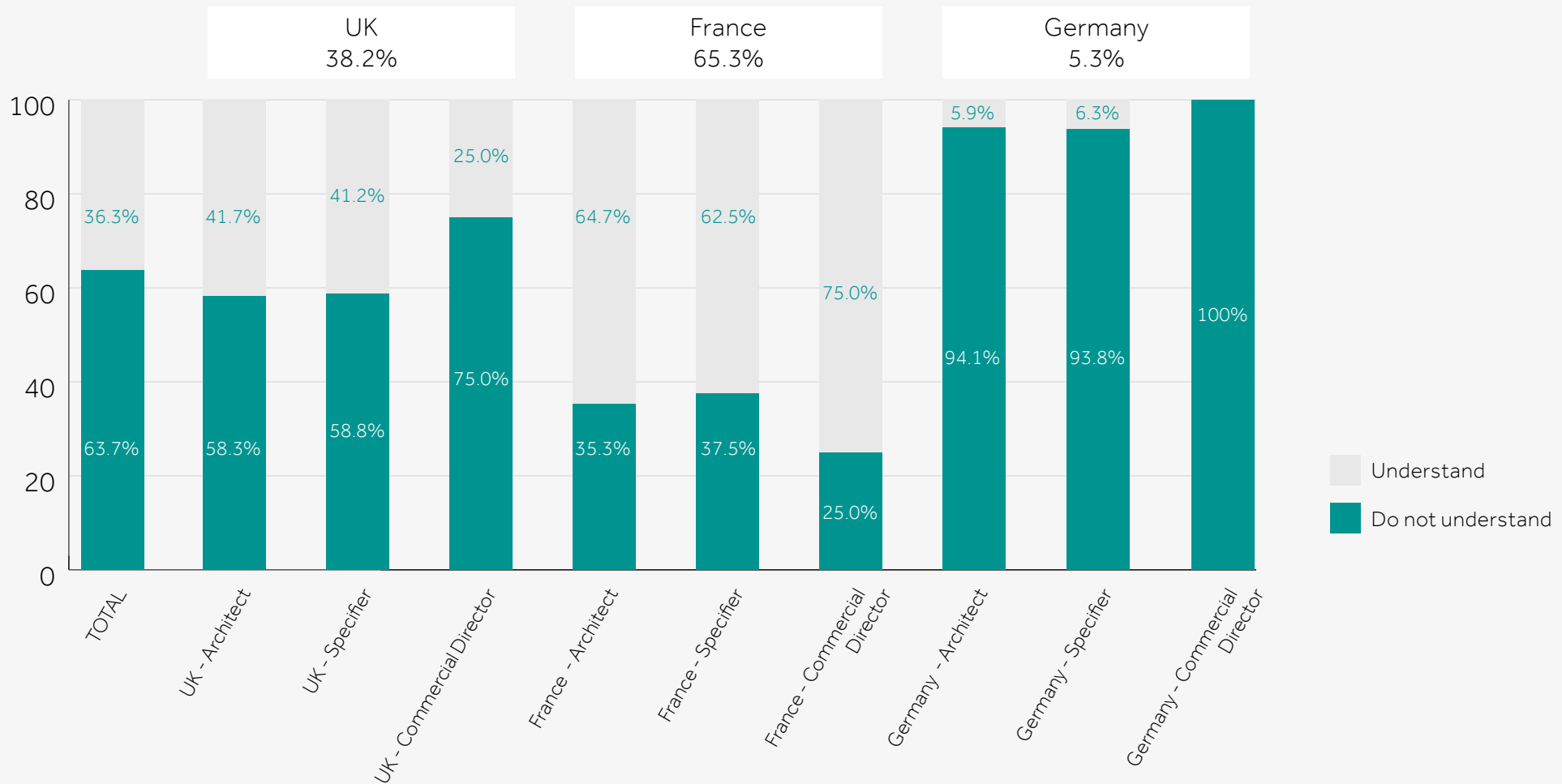		UK 65.8%			France 32.0%			Germany 38.7%		

UK Quantity Surveyors are not shown due to low sample size (n=3)
Base: All respondents (n=226)

France has significantly greater understanding, whereas Germany has none

REACTION TO FIRE

UK 38.2%	France 65.3%	Germany 5.3%

Legend:
- Understand (light grey)
- Do not understand (teal)

Chart data:

| Category	Understand	Do not understand
TOTAL	36.3%	63.7%
UK - Architect	41.7%	58.3%
UK - Specifier	41.2%	58.8%
UK - Commercial Director	25.0%	75.0%
France - Architect	64.7%	35.3%
France - Specifier	62.5%	37.5%
France - Commercial Director	75.0%	25.0%
Germany - Architect	5.9%	94.1%
Germany - Specifier	6.3%	93.8%
Germany - Commercial Director		100%

UK Quantity Surveyors are not shown due to low sample size (n=3)
Base: All respondents (n=226)

UK has lowest understand, particularly among Architects.

FIRE RESISTANCE

	UK 38.2%			France 57.3%			Germany 58.7%		
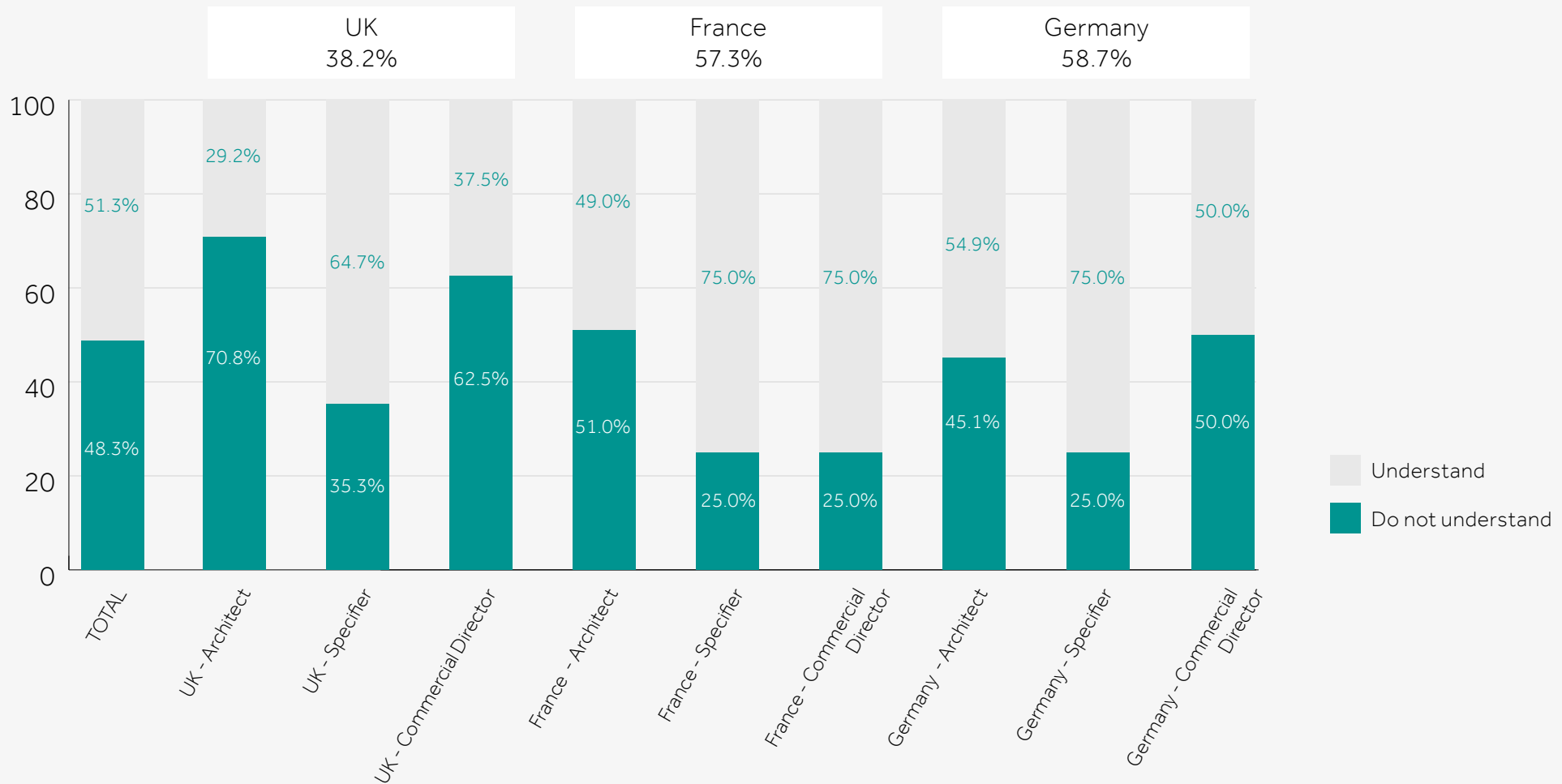
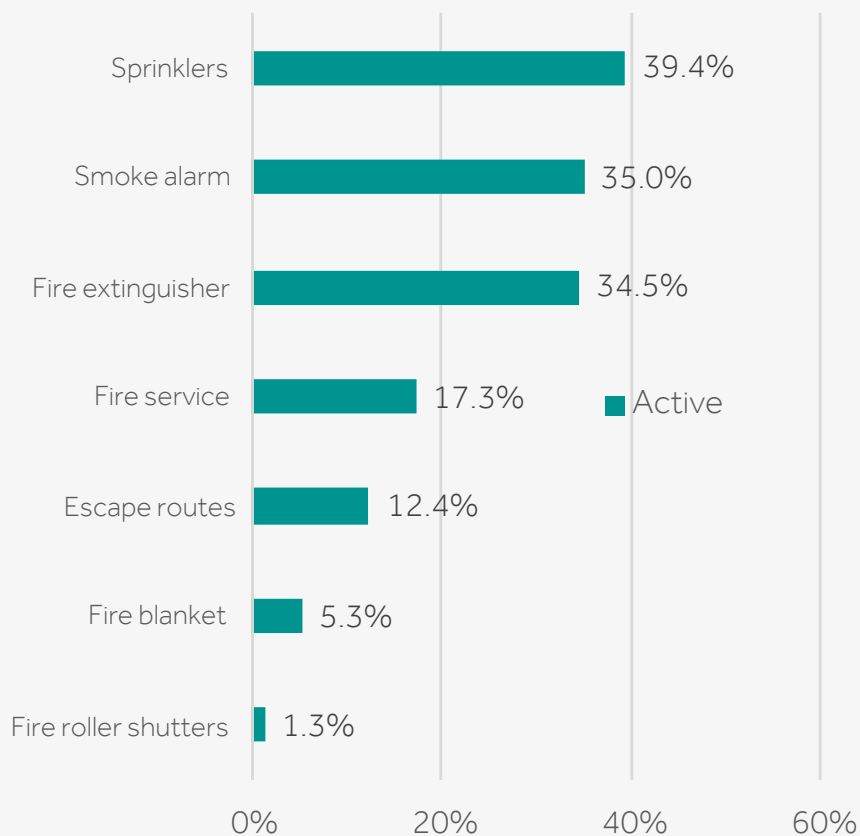UK Quantity Surveyors are not shown due to low sample size (n=3)
Base: All respondents (n=226)

With the exception of fire doors, active fire protection is more salient than passive
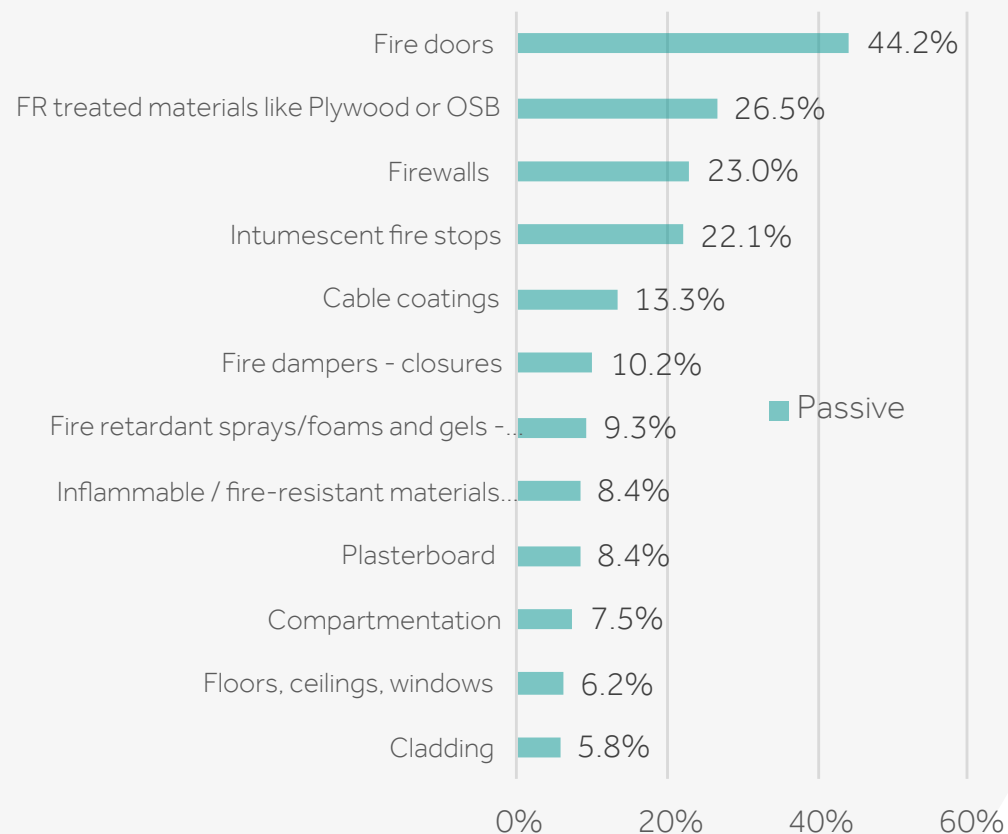
"What kind of fire protection do you actively consider when making decisions about a construction project?"

"What kind of fire protection do you actively consider when making decisions about a construction project?"

ACTIVE RESPONSES

Sprinklers	39.4%
Smoke alarm	35.0%
Fire extinguisher	34.5%
Fire service	17.3%
Escape routes	12.4%
Fire blanket	5.3%
Fire roller shutters	1.3%

■ Active

PASSIVE RESPONSES

Fire doors	44.2%
FR treated materials like Plywood or OSB	26.5%
Firewalls	23.0%
Intumescent fire stops	22.1%
Cable coatings	13.3%
Fire dampers - closures	10.2%
Fire retardant sprays/foams and gels -...	9.3%
Inflammable / fire-resistant materials...	8.4%
Plasterboard	8.4%
Compartmentation	7.5%
Floors, ceilings, windows	6.2%
Cladding	5.8%

■ Passive

Base: All respondents (n=226)

By market there are some significant differences...

ACTIVE

	Total	UK	France	Germany
Sprinklers	39.4%	32.9%	72.0%	13.3%
Smoke alarm	35.0%	38.2%	46.7%	20.0%
Fire extinguisher	34.5%	5.3%	86.7%	12.0%
Fire service	17.3%	10.5%	33.3%	8.0%
Escape routes	12.4%	25.0%	1.0%	5.3%
Fire blanket	5.3%	6.6%	4.0%	5.3%
Fire roller shutters	1.3%		4.0%	

- French responses are higher, indicating there is widespread consideration of certain solutions across the market e.g. sprinklers, extinguishers, FR treated materials, fire stops and smoke alarms.

- However, UK respondents have a wider range of solutions, particularly passive solutions e.g. use of FR materials (non-wood), compartmentation, cladding, FR sprays.

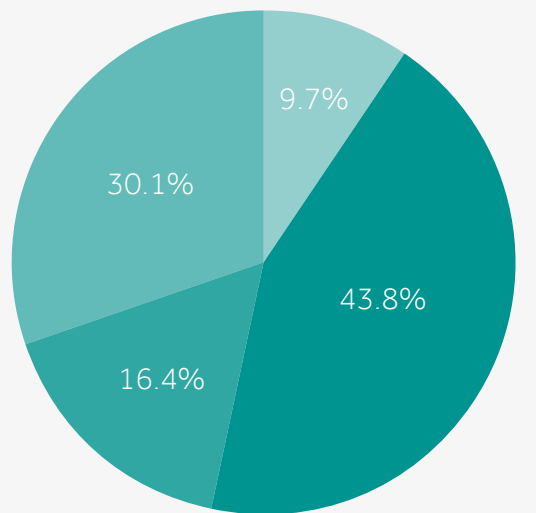- Germany respondents have significantly low consideration than France or UK.

PASSIVE

	Total	UK	France	Germany
Fire doors	44.2%	53.9%	45.3%	33.3%
FR treated material like plywood or OSB	26.5%	7.9%	65.3%	6.7%
Firewalls	23.0%	28.9%	12.0%	28.0%
Intumescent fire stops	22.1%	14.5%	45.3%	6.7%
Cable coatings	13.3%	13.2%	22.7%	4.0%
Fire dampers - closures	10.2%	7.9%	8.0%	14.7%
Fire retardant sprays/foams and gels - addedpost manufacture during construction	9.3%	14.5%	10.7%	2.7%
Plasterboard	8.4%	21.1%	2.7%	1.3%
Inflammable/fire-resistant materials (steel concrete, fire-resistant glass	8.4%	17.1%		8.0%
Compartmentation	7.5%	18.4%	2.7%	1.3%
Floors, ceilings, windows	6.2%	14.5%	4.0%	
Cladding	5.8%	11.8%		5.3%

NOTE: By role, there is a similar story with the solutions considered – however, Specifiers gave higher responses for each solution (indicating they are considered widely across the industry), compared to Architects and CDs.

Base: All respondents (n=226)

Most think they generally know how fire protection is added to construction materials

	Total	UK	France	Germany	Architect	Specifier	Commercial Director
Yes, I have comprehensive knowledge	9.7%	9.2%		20.0%	8.0%	12.2%	16.7%
Yes, I have some degree knowledge	43.8%	68.4%	6.7%	56.0%	44.0%	42.9%	41.7%
Yes, but I have very little knowledge	16.4%	18.4%	9.3%	21.3%	18.7%	12.2%	8.3%
I have no knowledge	30.1%	3.9%	84.0%	2.7%	29.3%	32.7	33.3%

- French respondents have significantly lower knowledge levels with 84% claiming to have no knowledge.

- Germans are more confident in their knowledge than UK

- CDs are more confident in their knowledge, with Architects least confident – however a third of each role still have no knowledge.
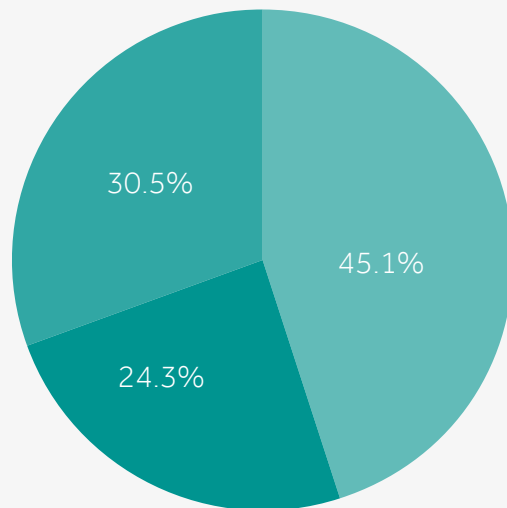
Pie chart legend:
- Yes, I have a comprehensive knowledge
- Yes, I have some degree of knowledge
- Yes, but I have very little knowledge
- I have no knowledge

"Are you aware of how fire protection is added to construction materials, post-manufacture? What would you say your knowledge level is?"

Most think they generally know how fire protection is added to construction materials

	Total	UK	France	Germany	Architect	Specifier	Commercial Director
I can provide a detailed explanation	24.3%	43.4%	2.7%	26.7%	20.7%	32.7%	33.3%
I can provide a basic explanation, with limited detail	45.1%	53.9%	20.0%	61.3%	50.7%	32.7%	29.2%
I can't give an explanation	30.5%	2.6%	77.3%	12.0%	28.7%	34.7%	37.5%

- A similar proportion of respondents have no knowledge and cannot give an explanation on how fire protection can be built into materials.

- French respondents again have little knowledge with 77% unable to give an explanation

- UK respondents are more confident than German, however.

- 71% of Architects can give an explanation (highest of all roles) however, most can only give a basic explanation.

30.5%

45.1%

24.3%

■ I can provide a detailed explanation

■ I can provide a basic explanation, with limited detail

■ I can't give an explanation

"How well do you think you could explain to a colleague how fire-protection can be built into construction materials? To what level of detail could you explain it?"

However, in reality most do not know of the potential of built-in fire retardation; there is confusion between materials that are inherently 'fireproof' and those which have FR built in.

"What materials do you believe can be made with fire-retardant built-in?"
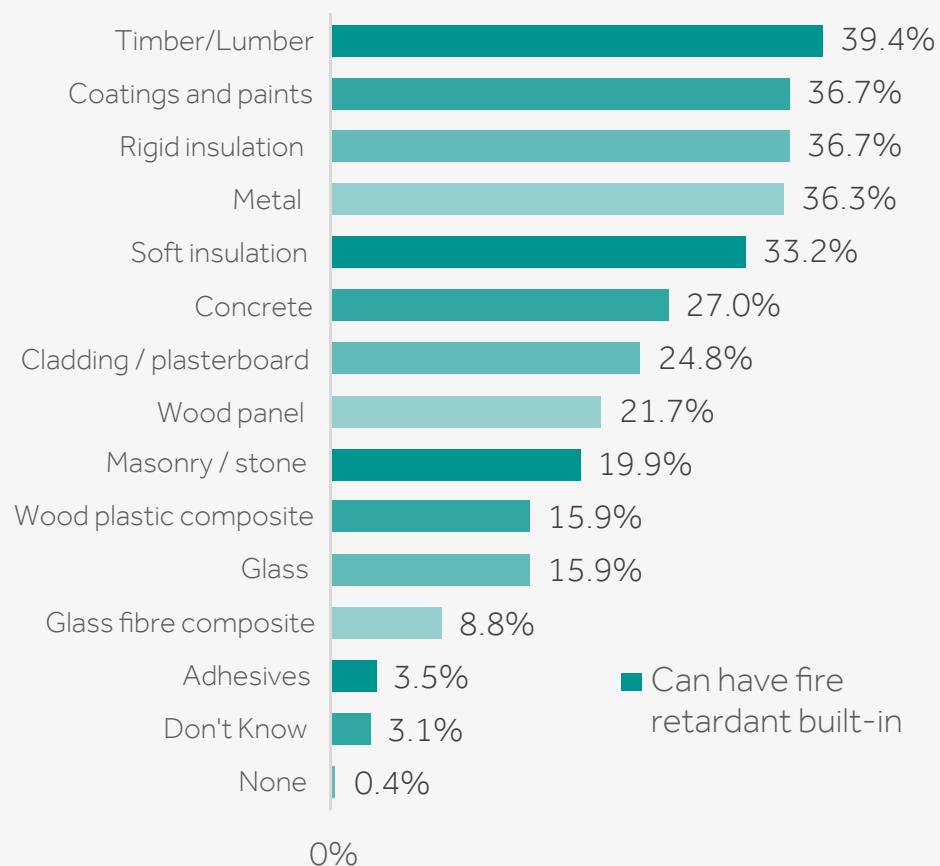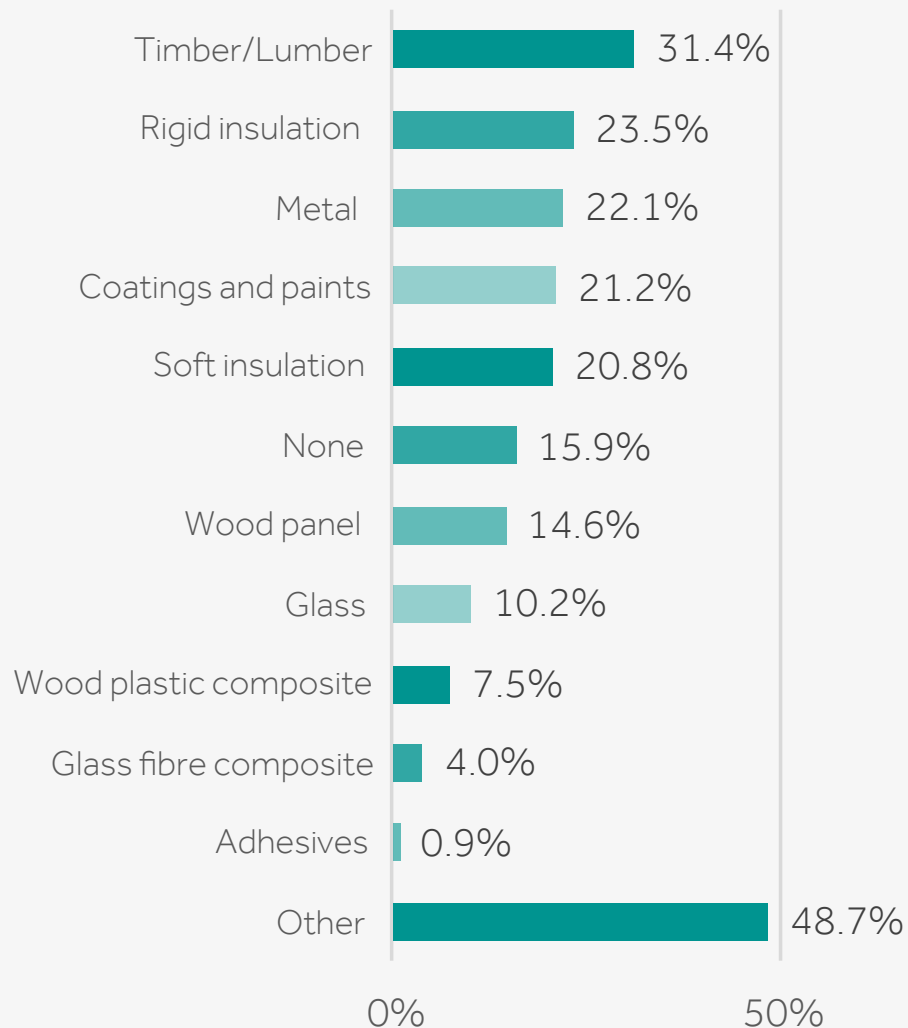

	Total	UK	France	Germany	Architect	Specifier	Commercial Director
Timber / Lumber	39.4%	35.5%	65.3%	17.3%	35.3%	42.9%	54.2%
Rigid insulation	36.7%	25.0%	58.7%	26.7%	33.3%	44.9%	41.7%
Coatings and paints	36.7%	36.8%	53.3%	20.0%	32.0%	40.8%	62.5%
Metal	36.3%	17.1%	56.0%	36.0%	34.7%	38.8%	37.5%
Soft insulation	33.2%	21.1%	46.7%	32.0%	32.7%	32.7%	33.3%
Concrete	27.0%	42.1%	8.0%	30.7%	27.3%	22.4%	29.2%
Cladding / plasterboard	24.8%	48.7%	4.0%	21.3%	24.0%	22.4%	29.2%
Wood panel	21.7%	10.5%	38.7%	16.0%	20.7%	26.5%	20.8%
Masonry / stone	19.9%	23.7%	5.3%	30.7%	20.7%	14.3%	29.2%
Glass	15.9%	9.2%	12.0%	26.7%	17.3%	8.2%	20.8%
Wood fiber composite	15.9%	7.9%	22.7%	17.3%	14.7%	20.4%	16.7%
Glass fiber composite	8.8%	3.9%	18.7%	40.0%	7.3%	12.2%	12.5%
Adhesives	3.5%	2.6%	8.0%		3.3%	4.1%	4.2%
None	0.4%		1.3%		0.7%		

- French respondents, CDs and Specifiers appear to be most knowledgeable of what materials can have FR built-in.

- There may be terminology differences by market, as France had very few responses for manufactured wood e.g. plasterboard but higher responses for timber/lumber

And there has been little 'known' adoption of known FR-built-in materials

*"And which of these materials have you specified in the past year?"*

Timber/Lumber — 31.4%
Rigid insulation — 23.5%
Metal — 22.1%
Coatings and paints — 21.2%
Soft insulation — 20.8%
None — 15.9%
Wood panel — 14.6%
Glass — 10.2%
Wood plastic composite — 7.5%
Glass fibre composite — 4.0%
Adhesives — 0.9%
Other — 48.7%

	Total	UK	France	Germany	Architect	Specifier	Commercial Director
Timber / Lumber	31.4%	30.3%	49.3%	14.7%	27.3%	38.8%	41.7%
Rigid insulation	23.5%	15.8%	37.3%	17.3%	22.0%	28.6%	20.8%
Metal	22.1%	5.3%	33.3%	28.0%	22.7%	22.4%	20.8%
Coatings and paints	21.2%	28.9%	26.7%	8.0%	17.3%	26.5%	37.5%
Soft insulation	20.8%	17.1%	22.7%	22.7%	19.3%	22.4%	25.0%
None	15.9%	9.2%	22.7%	16.0%	16.7%	12.2%	16.7%
Wood panel	14.6%	6.6%	25.3%	12.0%	12.7%	22.4%	12.5%
Glass	10.2%	6.6%	2.7%	21.3%	10.7%	6.1%	12.5%
Wood plastic composite	7.5%		8.0%	14.7%	5.3%	12.2%	12.5%
Glass fiber composite	4.0%	1.3%	6.7%	4.0%	4.0%	4.1%	4.2%
Adhesives	0.9%		2.7%		1.3%		
Other	48.7%	73.7%	16.0%	56.0%	49.3%	40.8%	58.3%

- There has been higher usage of these materials in France than elsewhere, and they have been specified to a greater extent by CDs and Specifiers, than Architects.

And there has been little 'known' adoption of known FR-built-in materials

"Are there any issues or limitations when it comes to materials being treated with fire-retardants, after manufacture? If so, what are they?"
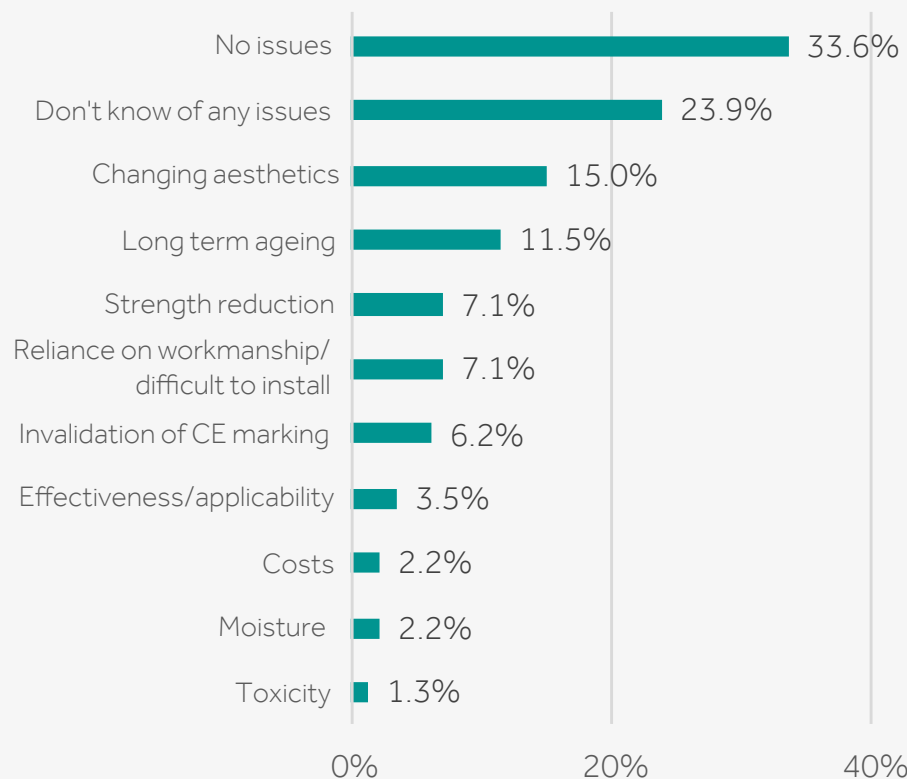
	Total	UK	France	Germany	Architect	Specifier	Commercial Director
No issues	33.6%	15.8%	57.3%	28.0%	35.3%	28.6%	37.5%
Don't know of any issues	23.9%	18.4%	10.7%	42.7%	22.0%	24.5%	29.2%
Changing aesthetics	15.0%	11.8%	21.3%	12.0%	17.3%	14.3%	4.2%
Long term ageing	11.5%	14.5%	8.0%	12.0%	9.3%	20.4%	4.2%
Strength reduction	7.1%	7.9%	4.0%	9.3%	7.3%	8.2%	4.2%
Reliance on workmanship / difficult to install	7.1%	19.7%	1.3%		6.0%	12.2%	4.2%
Invalidation of CE marking	6.2%	15.8%	1.3%	1.3%	4.0%	12.2%	8.3%
Effectiveness / applicability	3.5%	9.2%	1.3%		3.3%	2.0%	8.3%
Costs	2.2%	6.6%			1.3%	4.1%	4.2%
Moisture	2.2%	2.6%		4.0%	1.3%	6.1%	
Toxicity	1.3%	2.6%	1.3%		2.0%		
Other	48.7%	73.7%	16.0%	56.0%	49.3%	40.8%	58.3%

Chart data:
- No issues: 33.6%
- Don't know of any issues: 23.9%
- Changing aesthetics: 15.0%
- Long term ageing: 11.5%
- Strength reduction: 7.1%
- Reliance on workmanship/ difficult to install: 7.1%
- Invalidation of CE marking: 6.2%
- Effectiveness/applicability: 3.5%
- Costs: 2.2%
- Moisture: 2.2%
- Toxicity: 1.3%

- French respondents are happier with post-manufacturer treatment with 57% seeing no issues or limitations. Germans are less knowledgeable with 42% not knowing the possible issues

- UK respondents are most concerned by difficult of installations, invalidation of CE marking and long term ageing; French are most worried about changing aesthetics; and Germans worry about strength reduction

- CDs are the least knowledgeable, or worried.

A 'SYSTEM-LED' APPROACH TO BUILDING

A system-led approach to fire protection is used in over half of projects
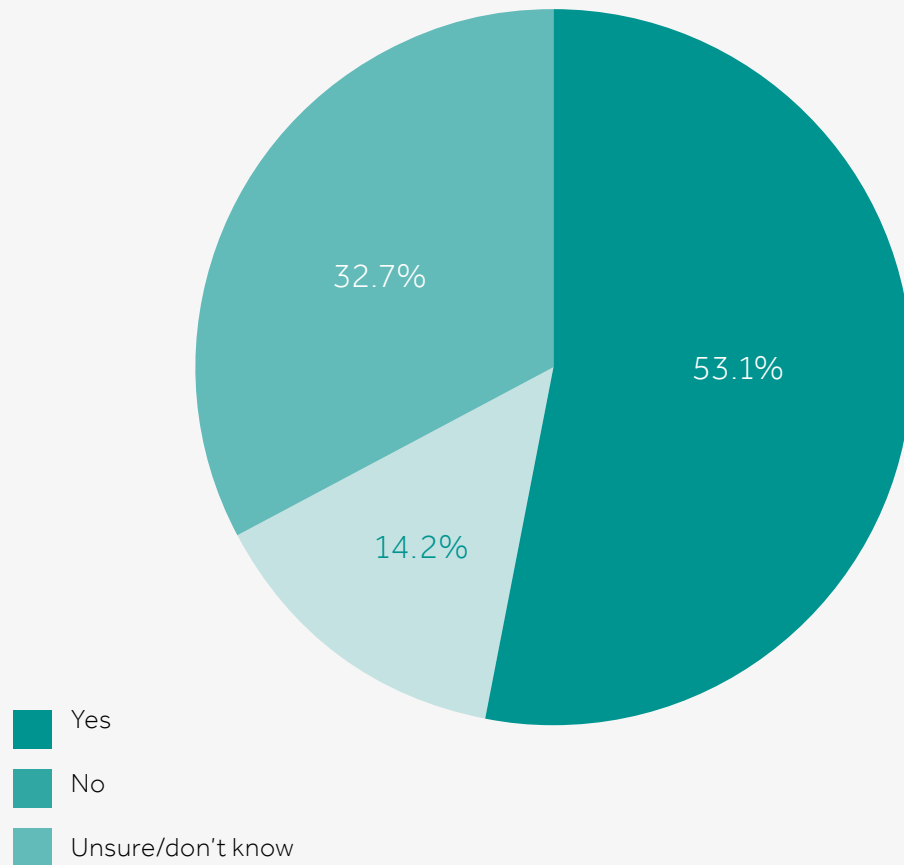

"On projects you have been involved with in the last 12 months, has there been a 'system-led' approach to fire protecting buildings?"

- 1/3 haven't worked on a project with a system-led approach; and this is significantly more common in the UK, with 51% not involved in a project like that > 26% have been involved.

- There is no significantly difference by role, other than Specifiers appearing to be more knowledgeable and clear on their understanding of 'system-led approach'.

	Total	UK	France	Germany	Architect	Specifier	Commercial Director
Yes	53,1%	26.3%	62.7%	70.7%	52.0%	55.1%	58.3%
No	32.7%	51.3%	25.3%	21.3%	30.0%	42.9%	29.2%
Don't know /unsure	14.2%	22.4%	12.0%	8.0%	18.0%	2.0%	12.5%

Although most see the benefits of a system led approach to fire protection, they don't quite see it appropriate for all building types

"To what extent do you agree with the following statements?"
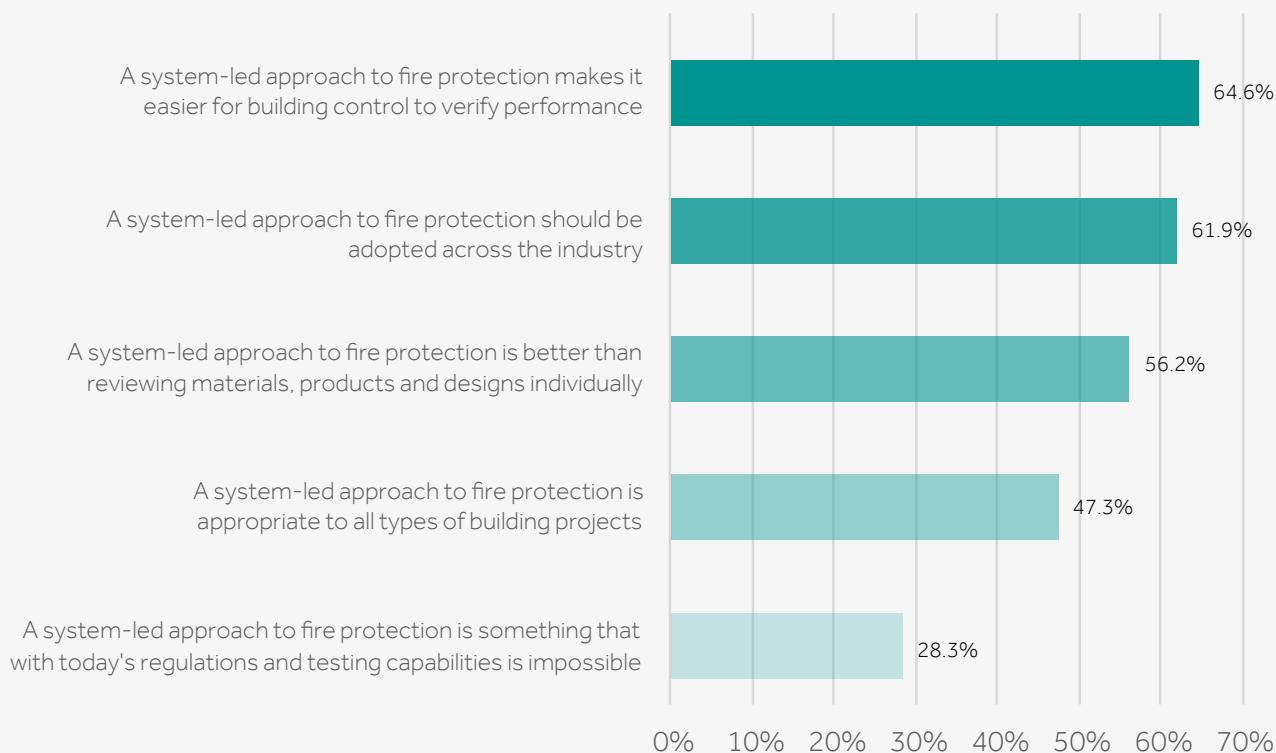
THIS CHART SHOWS THE PROPORTION OF RESPONDENTS 'AGREEING' WITH EACH STATEMENT. AGREEMENT = SCORE OF 4 OR 5 ON A 1-5 SCALE.

Statement	Agreement
A system-led approach to fire protection makes it easier for building control to verify performance	64.6%
A system-led approach to fire protection should be adopted across the industry	61.9%
A system-led approach to fire protection is better than reviewing materials, products and designs individually	56.2%
A system-led approach to fire protection is appropriate to all types of building projects	47.3%
A system-led approach to fire protection is something that with today's regulations and testing capabilities is impossible	28.3%

- Respondents agree that a SLA helps building control verify performance and they believe it should be adopted across the industry.

- They also recognise it is better than individual reviews of materials, products and designs.

- They also believe that a SLA is possible in the current climate

- However, it isn't quite suitable for all building types/projects.

French respondents and specifiers are less convinced by a system-led approach, however the overall view is still positive across each profile

	Total	UK	France	Germany	Architect	Specifier	Commercial Director
A system-led approach to fire protection makes it easier for building control to verify performance	64.6%	73.7%	48.0%	72.0%	62.7%	67.3%	70.8%
A system-led approach to fire protection should be adopted across the industry	61.9%	56.6%	61.3%	68.0%	63.3%	53.1%	66.7%
A system-led approach to fire protection is better than reviewing materials, products and designs individually	56.2%	50.0%	54.7%	64.0%	54.7%	61.2%	50.0%
A system-led approach to fire protection is appropriate to all types of building projects	47.3%	36.8%	42.7%	62.7%	50.0%	34.7%	58.3%
A system-led approach to fire protection is something that with today's regulations and testing capabilities is impossible	28.3%	19.7%	37.3%	28.0%	28.0%	34.7%	20.8%

- The French are less convinced that a SLA will help building control verify performance and they are also less convinced that it is possible in the current climate – they are most sceptical; along with specifiers.

- Germans are significantly more positive about an SLA and see many benefits compared to UK and France.

- Specifiers, as mentioned, are more sceptical than others and they also don't' see SLAs suitable for all building projects.
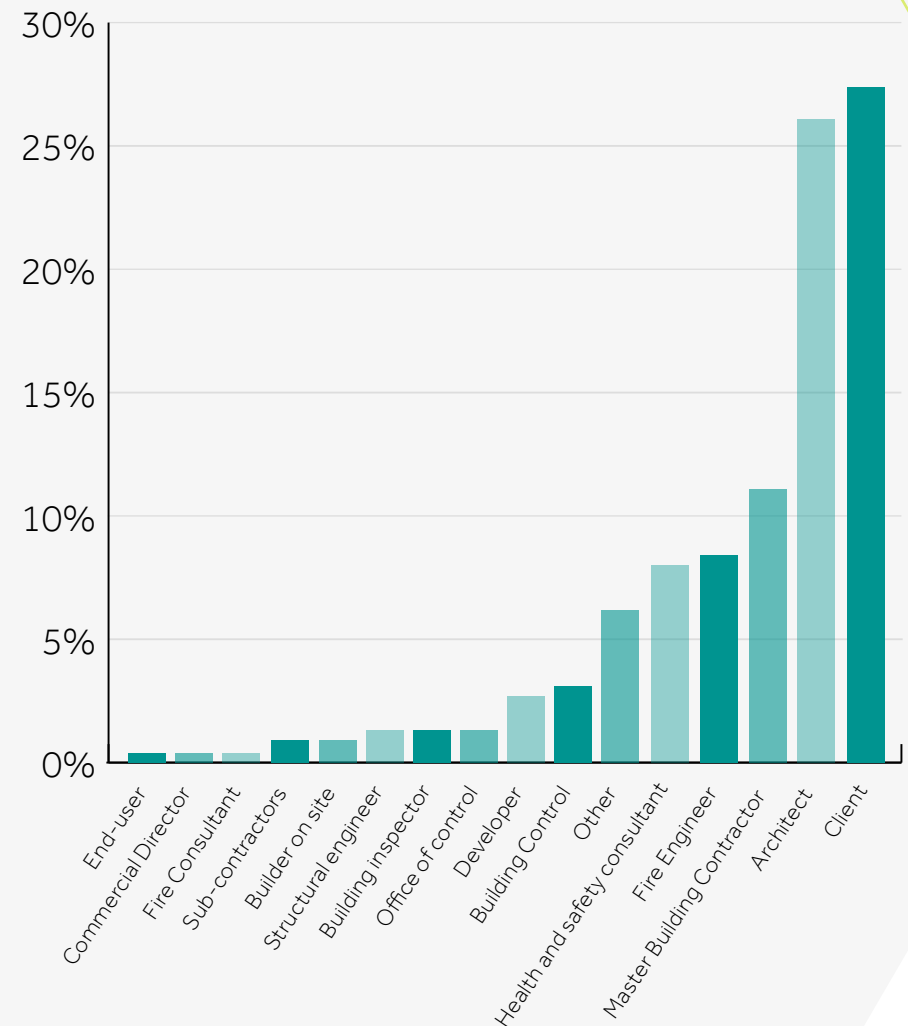
PROJECT DECISION MAKING

Architects are seen to be the most influential players in deciding on materials and products – but Client may have final say

"Who are the key people involved in deciding which specific products and materials are used in construction projects?"
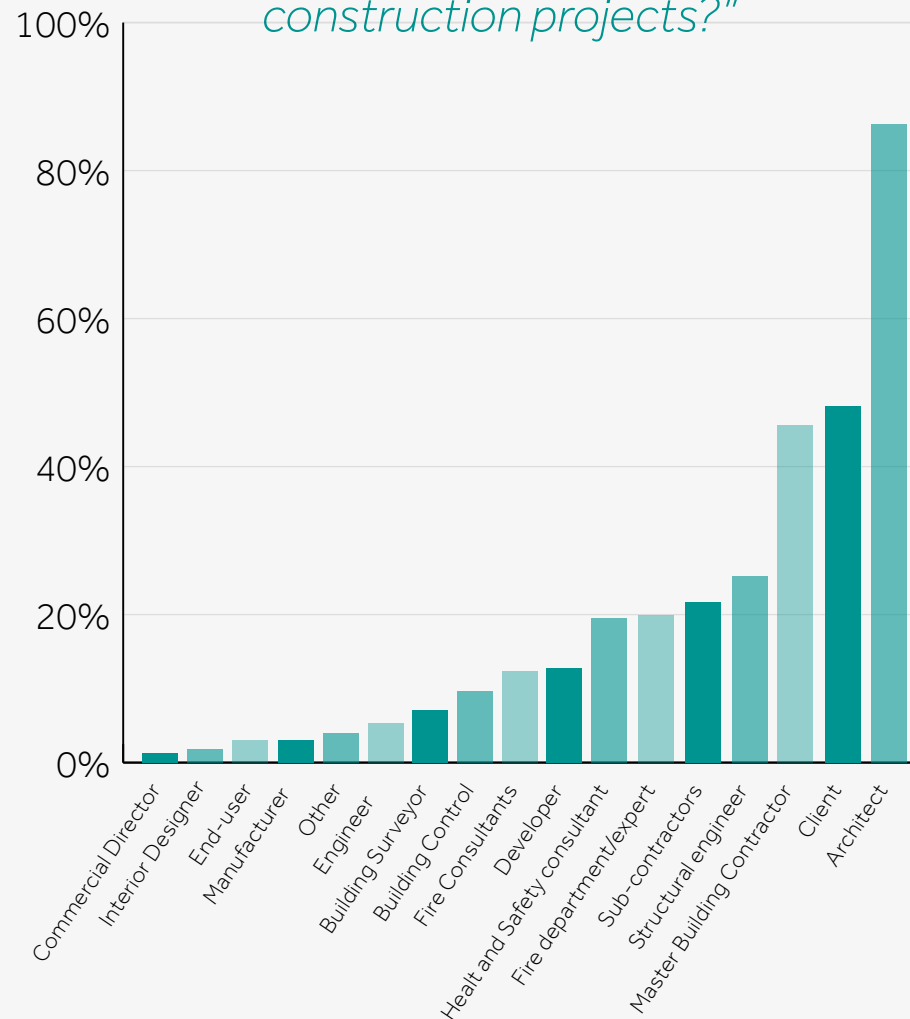
"Who has the final say on products and materials used in projects?"

Architects have consistent involvement; Master Building Contractors and H&S have more involvement in France; Fewer parties involved in Germany, more in UK

KEY PEOPLE INVOLVED:

	Total	UK	France	Germany	Architect	Specifier	Commercial Director
Architect	86.3%	86.8%	85.3%	86.7%	91.3%	75.5%	75.0%
Client	48.2%	50.0%	56.0%	38.7%	47.3%	51.0%	50.0%
Master Building Contractor	45.6%	40.8%	72.0%	24.0%	42.7%	49.0%	62.5%
Structural engineer	25.2%	30.3%	4.0%	41.3%	28.0%	16.3%	16.7%
Sub-contractors	21.7%	14.5%	42.7%	8.0%	17.3%	26.5%	41.7%
Fire department/expert	19.9%	34.2%	18.7%	6.7%	20.7%	20.4%	16.7%
Health and safety consultant	19.5%	2.6&	56.0%		18.7%	24.5%	12.5%
Developer	12.8%	10.5%	4.0%	24.0%	13.3%	8.2%	20.8%
Fire Consultants	12.4%	5.3%	24.0%	8.0%	16.0%	8.2%	
Building Control	9.7%	15.8%	2.7%	10.7%	10.7%	6.1%	12.5%
Building Surveyor	7.1%	21.1%			4.0%	12.2%	12.5%
Engineer	5.3%	10.5%		5.3%	4.0%	6.1%	8.3%
Other	4.0%	1.3%	8.0%	2.7%	5.3%	2.0%	
Manufacturer	3.1%	6.6%	1.3%	1.3%	4.7%		
End-user	3.1%	1.3%	5.3%	2.7%	2.0%	2.0%	12.5%
Interior Designer	1.8%	2.6%	1.3%	1.3%	2.7%		
Commercial Director	1.3%	1.3%	1.3%	1.3%	0.7%		8.3%

- The fire department/experts have more involvement in the UK; whilst Master Building Contractor has major involvement in France and from the view of CDs.

- H&S consultants also have involvement in France, but nowhere else. But structural engineers have little involvement.

- In Germany there are fewer people involved. UK has the widest range of people involved, including builder surveyors and Engineers

Specialists have more involvement in the final say in France and Germany, whilst the UK is predominantly Clients and Architects

WHO HAS FINAL SAY:

	Total	UK	France	Germany	Architect	Specifier	Commercial Director
Client	27.4%	34.2%	24.0%	24.0%	26.7%	28.6%	29.2%
Architect	26.1%	39.5%	17.3%	21.3%	28.7%	20.4%	20.8%
Master Building Contractor	11.1%	2.6%	20.0%	10.7%	9.3%	14.3%	16.7%
Fire Engineer	8.4%		1.3%	24.0%	8.7%	6.1%	12.5%
Health and safety consultant	8.0%		24.0%		8.7%	6.1%	12.5%
Other	6.2%	14.5%		4.0%	5.3%	8.2%	4.2%
Building Control	3.1%	2.6%	5.3%	1.3%	3.3%	2.0%	4.2%
Developer	2.7%			8.0%	3.3%	2.0%	
Structural engineer	1.3%	1.3%		2.7%	2.0%		
Building inspector	1.3%	1.3%		2.7%	1.3%	2.0%	
Office of control	1.3%		4.0%		2.0%		
Sub-contractors	0.9%		2.7%			2.0%	4.2%
Builder on site	0.9%	2.6%			1.3%		
End-user	0.4%		1.3%			2.0%	
Commercial Director	0.4%	1.3%					4.2%
Fire Consultant	0.4%			1.3%			4.2%

- The final say changes by market. The UK is heavily in agreement that Architects and Clients have the final say.

- Whereas in France a H&S Consultant has as much say as a client, as do Master Building Contractors.

- In Germany, Fire Engineers have say along with Architects and Clients

- NB: The 'other' response consisted of respondents saying that it depends on who is leading the project e.g. whether it was PM-led or Architect-led

Architects are seen as the party with ultimate responsibility for materials used in a fire fail

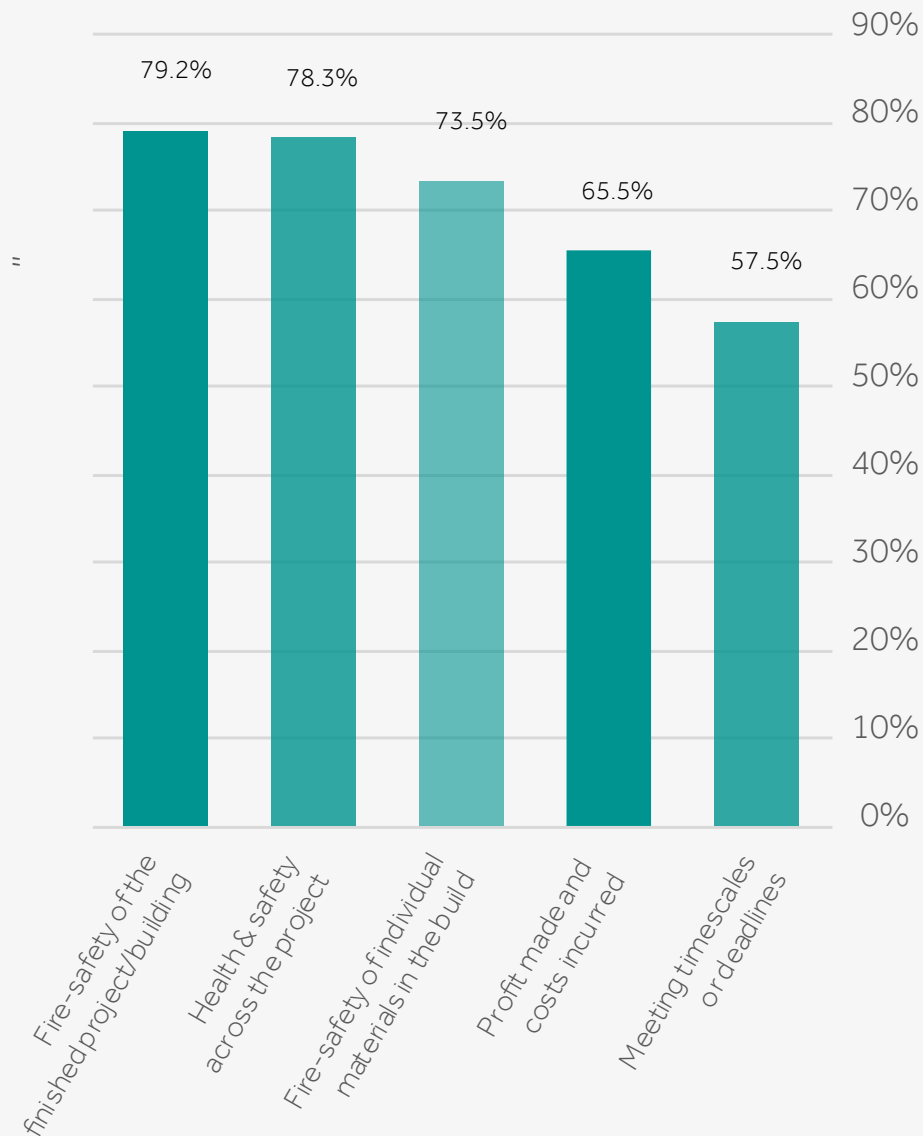|	Total	UK	France	Germany	Architect	Specifier	Commercial Director
Architect	38.9%	36.8%	45.3%	34.7%	44.0%	32.7%	20.8%
Master Building Contractor	9.7%	1.3%	21.3%	6.7%	4.0%	22.4%	20.8%
Fire Engineer	8.8%	1.3%		25.3%	10.7%	6.1%	4.2%
Client	6.6%	11.8%	4.0%	4.0%	6.0%	10.2%	4.2%
Manufacturer (of the product)	3.5%	6.6%		4.0%	4.0%	4.1%	
Sub-contractors	3.1%		9.3%		0.7%	6.1%	12.5%
Health and safety consultant	3.1%		9.3%		4.0%	2.0%	
Structural engineer	2.7%	1.3%		6.7%	3.3%		4.2%
Don't know/can't answer	2.7%	6.6%	1.3%		3.3%		4.2%
Specifier	2.2%	6.6%			3.3%		
Building Inspector	1.8%	3.9%		1.3%	1.3%	2.0%	4.2%
Designer/design team	1.8%	5.3%			2.7%		
Fire Consultant	1.3%	1.3%		2.7%	1.3%	2.0%	
Building control	1.3%	1.3%	2.7%		1.3%	2.0%	
Depends on the project	1.3%	1.3%	1.3%	1.3%	2.0%		
Developer	0.9%			2.7%		4.1%	
Commercial Director	0.9%	1.3%		1.3%			8.3%
Office of control	0.9%		2.7%		1.3%		
End-user	0.4%		1.3%		0.7%		
Other	8.0%	13.2%	1.3%	9.3%	6.0%	6.1%	16.7%

- Master Building Contractors (France) and Fire Engineers (Germany) also have ultimate responsibility.

- Architects take responsibility, whilst Specifiers and CDs share it among Architects and Master Building Contractors.

"Who is ultimately responsible when materials used in construction play a central role in failing to protect from fire?"

HAS ULTIMATE SAY

Architect 38.9%
Master Building Contractor 9.7%
Fire Engineer 8.8%
Manufacturer (of the product) 3.5%
Health and safety consultant 3.1%
Sub-contractors 3.1%
Don't know / can't answer 2.7%
Structural engineer 2.7%
Specifier 2.2%
Designer / design team 1.8%
Building inspector 1.8%
Depends on the project 1.3%
Building control 1.3%
Fire Consultant 1.3%
Office of control 0.9%
Commercial Director 0.9%
Developer 0.9%
End-user 0.4%
Other 8.0%

IMPORTANCE OF FIRE PROTECTION

Respondents claim overall project safety has more influence over decisions than time or cost

Chart data:
- Fire-safety of the finished project/building: 79.2%
- Health & safety across the project: 78.3%
- Fire-safety of individual materials in the build: 73.5%
- Profit made and costs incurred: 65.5%
- Meeting timescales or deadlines: 57.5%

"In reality, how do you think other business decision makers across the industry prioritise their decisions. I will list a number of factors and I'll like you to rate them in terms of their relevance to the final decision?"

This chart shows the proportion of respondents believing the aspect is 'relevant' to decision making.
Agreement = score of 4 or 5 on a 1-5 scale.

- Respondents believe the most relevant factors to decision making are the fire-safety of the finished project and the H&S across the project.

- This is followed by the fire-safety of individual materials.

- Costs and timescales are relevant, however to a less extent.

The question was posed in a non-personal way, to encourage honest responses.

France is most profit/cost focussed and less fire-safety focussed; Specifiers are fire-safety focussed compared to Architects

	Total	UK	France	Germany	Architect	Specifier	Commercial Director
Fire-safety of the finished project/building	79.2%	85.5%	64.0%	88.0%	78.0%	79.6%	83.3%
Health & safety across the project	78.3%	84.2%	72.0%	78.7%	78.7%	73.5%	83.3%
Fire-safety of individual materials in the build	73.5%	80.3%	61.3%	78.7%	69.3%	79.6%	83.3%
Profit made and costs incurred	65.5%	50.0%	77.3%	69.3%	67.3%	71.4%	45.8%
Meeting timescales or deadlines	57.5%	53.9%	57.3%	61.3%	54.7%	73.5%	45.8%

- Profits made and costs incurred are of more relevance to decision making in France and Germany. Particularly France where it is the top factor considered.

- In Germany it is still 4th out of 5 factors, but of significantly higher relevance than in the UK.

- Fire safety is of significantly less relevance in France than UK or Germany.

- Specifiers believe the fire-safety of individual materials hold more sway in decision making , as do costs and timescales.

- CDs are totally focussed on safety and do not think profits or timings are relevant to decision making.

They believe passive fire protection is well-served by the industry
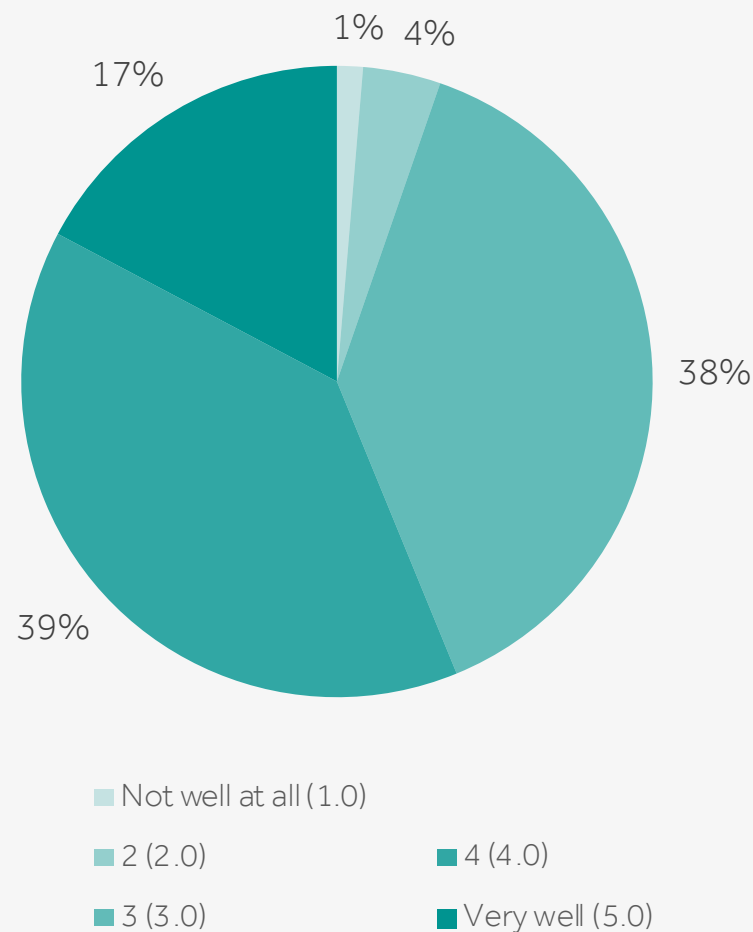
1% 4%

17%

38%

39%

Not well at all (1.0)
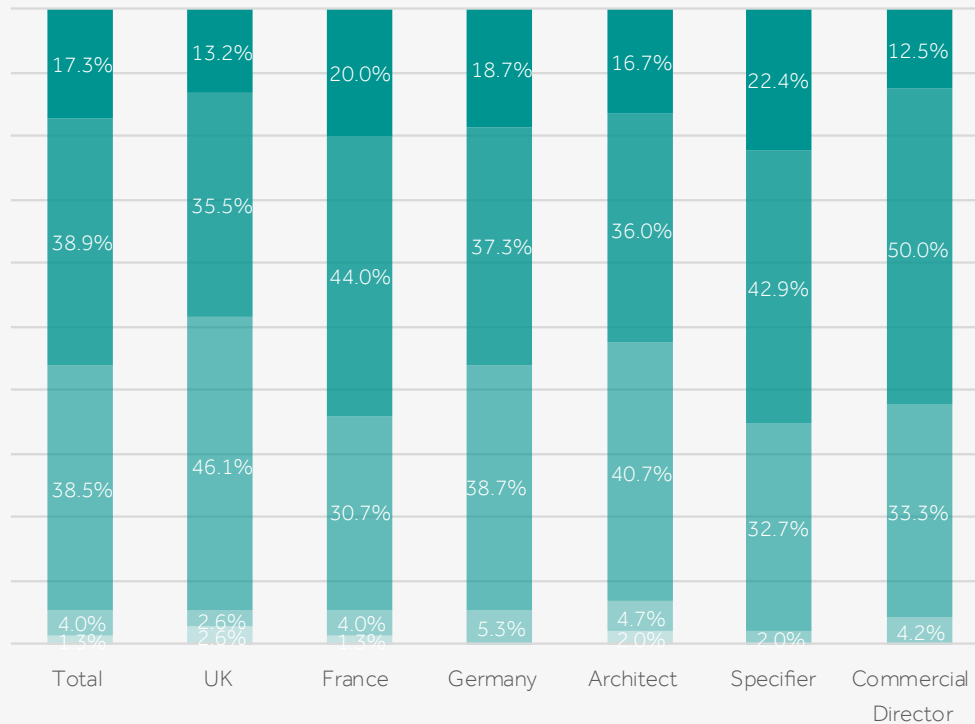
2 (2.0)

3 (3.0)

4 (4.0)

Very well (5.0)

"When it comes to passive fire protection, please state on a 5-point scale how well served you feel the industry is by current suppliers?"

- 56% gave a positive score (4+5) indicating they feel the industry is well-served by current suppliers – in terms of 'passive' fire protection

- Only 5% gave a negative score (1+2).

- NB: We also supplied our definition of passive fire protection at this point if necessary:

"Passive Fire Protection (PFP) contains fires or slows the spread, through use of fire-resistant walls, floors, and doors (amongst other examples). This class of protection requires no human or computer-based intervention – it is designed-in."
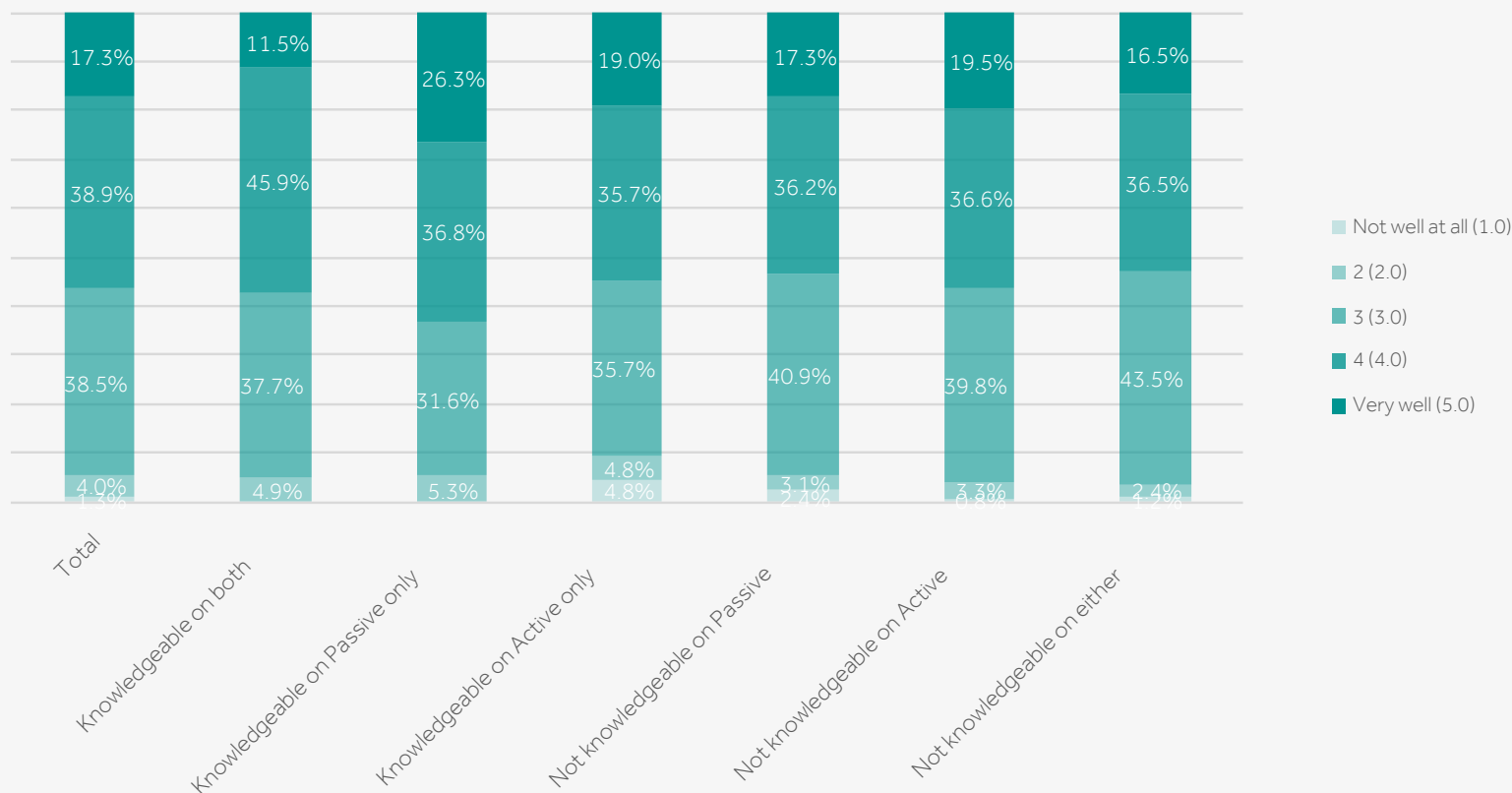
UK and Architects are least positive, whereas France and Specifiers is most positive

	Total	UK	France	Germany	Architect	Specifier	Commercial Director
Very well (5.0)	17.3%	13.2%	20.0%	18.7%	16.7%	22.4%	12.5%
4 (4.0)	38.9%	35.5%	44.0%	37.3%	36.0%	42.9%	50.0%
3 (3.0)	38.5%	46.1%	30.7%	38.7%	40.7%	32.7%	33.3%
2 (2.0)	4.0%	2.6%	4.0%	5.3%	4.7%	2.0%	4.2%
Not well at all (1.0)	1.3%	2.6%	1.3%		2.0%		

"When it comes to passive fire protection, please state on a 5-point scale how well served you feel the industry is by current suppliers?"

- French respondents feel the industry is well served compared to UK and Germany.

- Specifiers also feel this, with Architects least positive.

- There were very few negative scores, however, indicating it isn't a problem area.

Legend:
- Not well at all (1.0)
- 2 (2.0)
- 3 (3.0)
- 4 (4.0)
- Very well (5.0)

Knowledge of passive fire safety solutions doesn't inform their views of how well the industry is served by current suppliers – knowledge helps, but not significantly.

Legend:
- Not well at all (1.0)
- 2 (2.0)
- 3 (3.0)
- 4 (4.0)
- Very well (5.0)

Categories (x-axis):
- Total
- Knowledgeable on both
- Knowledgeable on Passive only
- Knowledgeable on Active only
- Not knowledgeable on Passive
- Not knowledgeable on Active
- Not knowledgeable on either

	Total	Knowledgeable on both	Knowledgeable on Passive only	Knowledgeable on Active only	Not knowledgeable on Passive	Not knowledgeable on Active	Not knowledgeable on either
Very well (5.0)	17.3%	11.5%	26.3%	19.0%	17.3%	19.5%	16.5%
4 (4.0)	38.9%	45.9%	36.8%	35.7%	36.2%	36.6%	36.5%
3 (3.0)	38.5%	37.7%	31.6%	35.7%	40.9%	39.8%	43.5%
2 (2.0)	4.0%	4.9%	5.3%	4.8%	3.1%	3.3%	2.4%
Not well at all (1.0)	1.3%			4.8%	2.4%	0.8%	1.2%

- There are mixed views on how well the industry is served; when assessing by their knowledge levels.

- Those with knowledge on **both** passive and active fire solutions have the same views as those **without full knowledge** – there are no notable differences.

- The only notable difference is that those without knowledge on **either** term have a more pessimistic view and don't feel the industry is served as well

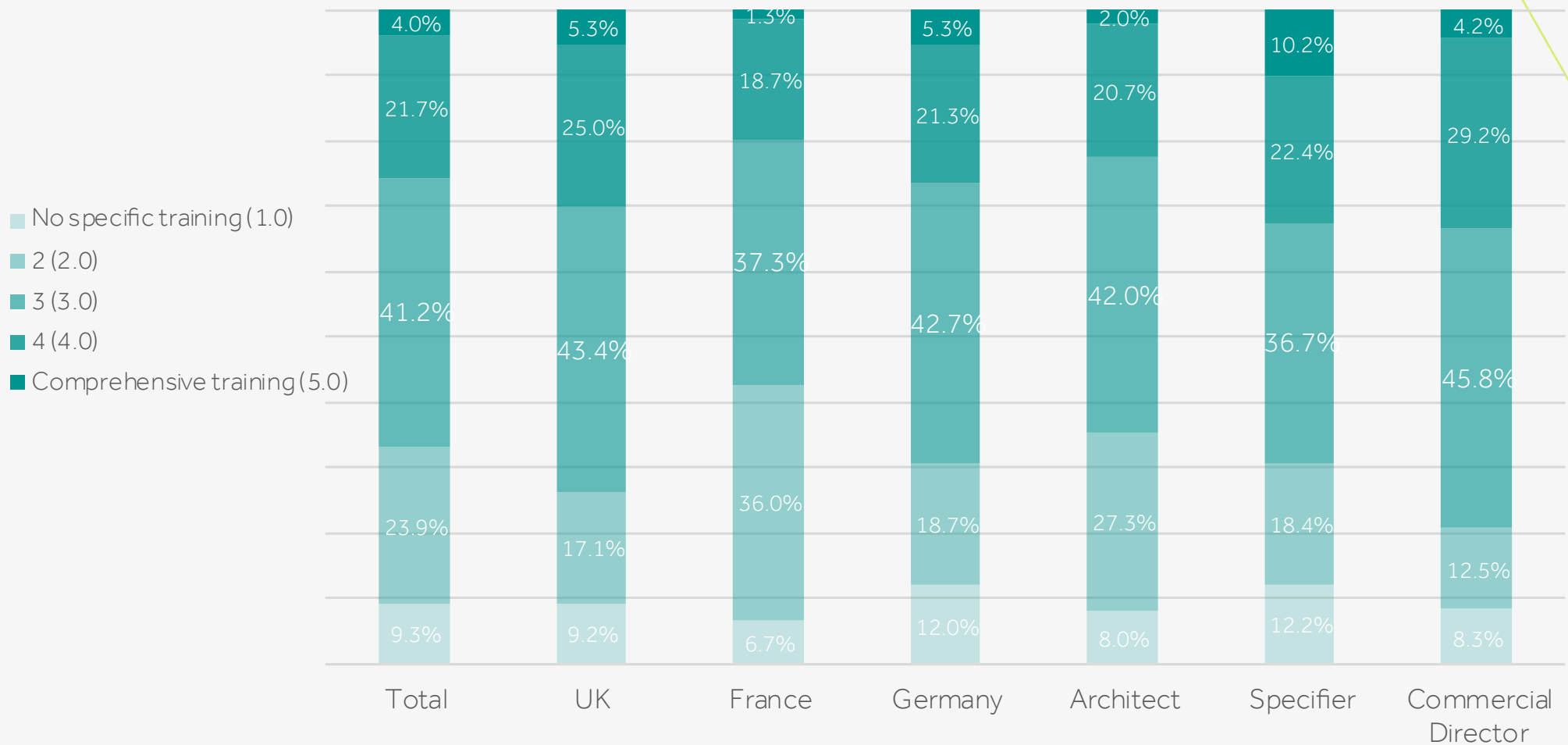# Training on offer is not sufficient

"Do you believe that you have received sufficient training and education on fire protection?"
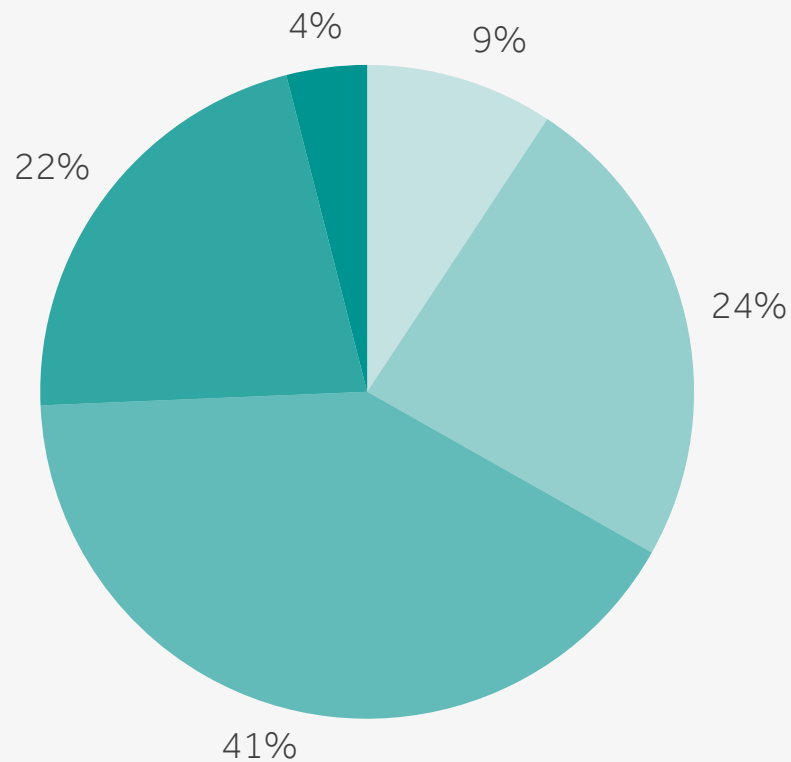
- 26% gave a positive score (4+5) indicating they have received sufficient training and education.

- 33% gave a negative score (1+2).

- 41% gave a neutral score.

- Overall, it appears that respondents feel they are not prepared enough for what is required.

Pie chart values: 9%, 24%, 41%, 22%, 4%

Legend:
- No specific training (1.0)
- 2 (2.0)
- 3 (3.0)
- 4 (4.0)
- Comprehensive training (5.0)

Negative views on training are present in France and with Architects

Legend:
- No specific training (1.0)
- 2 (2.0)
- 3 (3.0)
- 4 (4.0)
- Comprehensive training (5.0)

|	Total	UK	France	Germany	Architect	Specifier	Commercial Director
Comprehensive training (5.0)	4.0%	5.3%	1.3%	5.3%	2.0%	10.2%	4.2%
4 (4.0)	21.7%	25.0%	18.7%	21.3%	20.7%	22.4%	29.2%
3 (3.0)	41.2%	43.4%	37.3%	42.7%	42.0%	36.7%	45.8%
2 (2.0)	23.9%	17.1%	36.0%	18.7%	27.3%	18.4%	12.5%
No specific training (1.0)	9.3%	9.2%	6.7%	12.0%	8.0%	12.2%	8.3%

- French respondents in particular do not feel the training offered is sufficient, with only 20% happy with the level provided.
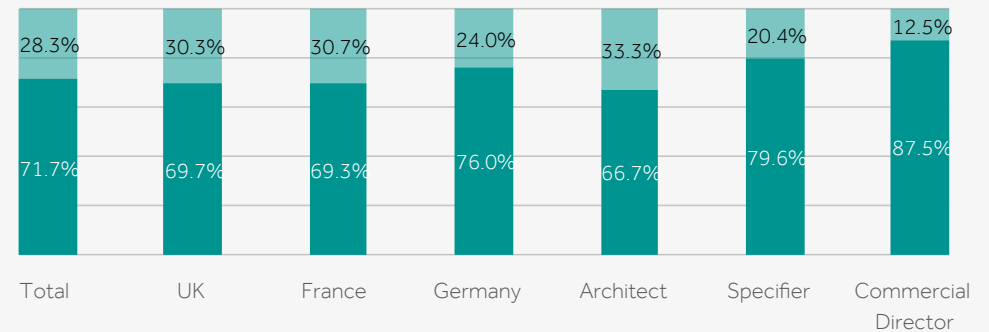
- Architects are also unhappy with the training, with only 23% giving a positive score.

Over ¼ of respondents believe their employer doesn't invest in enough passive fire protection training; particularly Architects

*"Do you believe that your employer invests enough in passive fire protection design training?"*
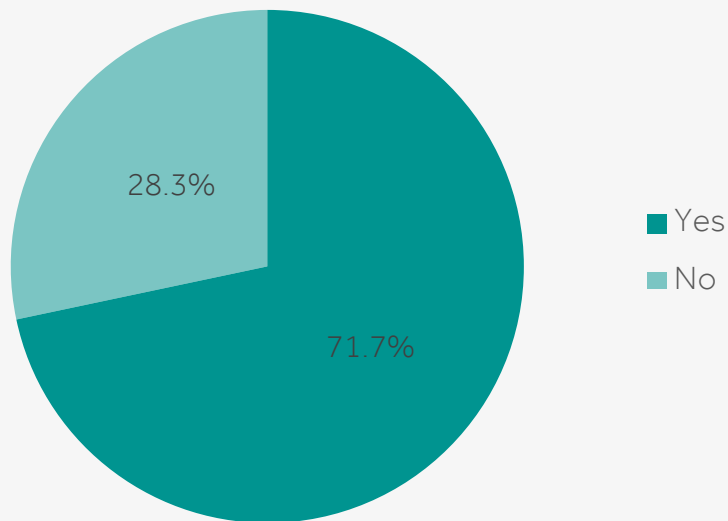
- Architects are less happy with eh investment employers make; whilst specifiers are less concerned and CDs are least concerned.

- Germans are least concerned, whilst the UK and France are equal.

28.3%
71.7%

- ■ Yes
- ■ No

	Total	UK	France	Germany	Architect	Specifier	Commercial Director
No	28.3%	30.3%	30.7%	24.0%	33.3%	20.4%	12.5%
Yes	71.7%	69.7%	69.3%	76.0%	66.7%	79.6%	87.5%

IMPACT OF GRENFELL

The system itself is the main reason given for the Grenfell fire turning into the major disaster that it was – however a large proportion have no idea of the cause
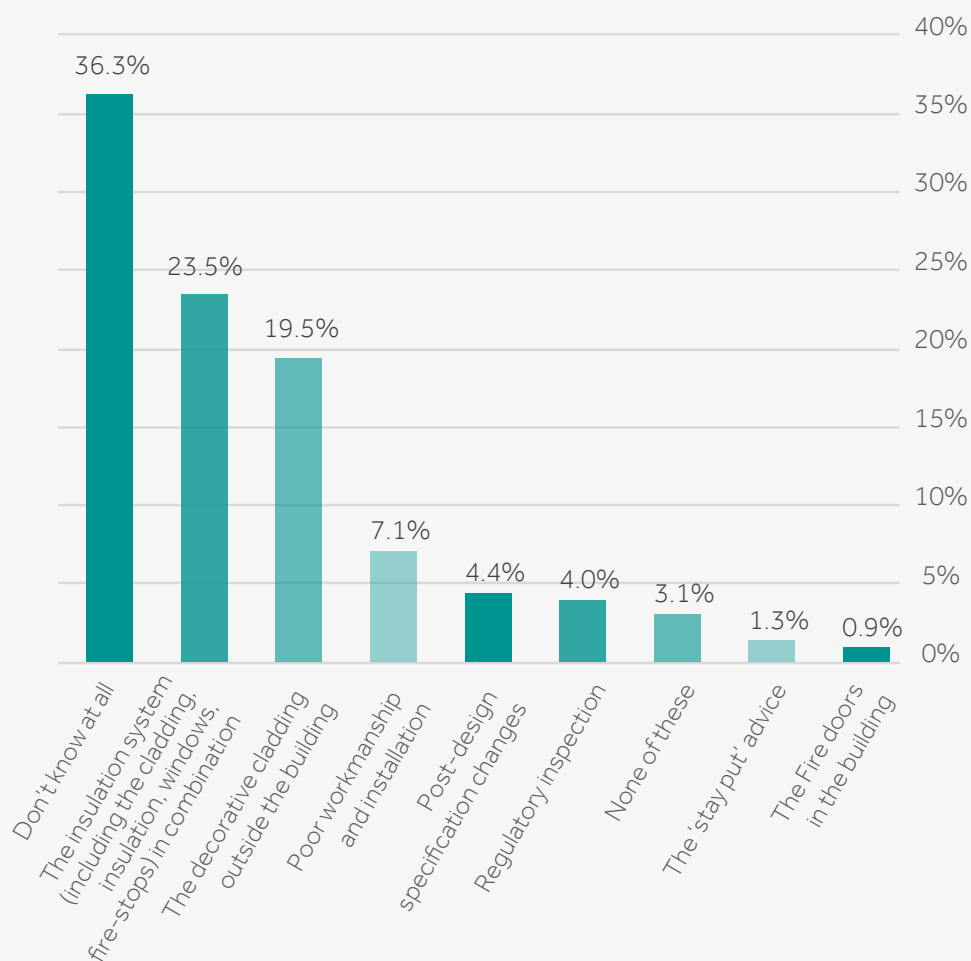
"As you understand it, which of the following best describes what was the principal cause of the Grenfell fire turning out to be the catastrophe that it was?"

- Over 1/3 of respondents have no understanding or knowledge on why/how the Grenfell disaster happened.

- Just under 1/4 believe it was the insulation system in combination; and 1/5 believe it was due to the cladding.

- A range of other reasons were given

NOTE: Respondents could only give 1 response.

Chart values:
- Don't know at all: 36.3%
- The insulation system (including the cladding, insulation, windows, fire-stops) in combination: 23.5%
- The decorative cladding outside the building: 19.5%
- Poor workmanship and installation: 7.1%
- Post-design specification changes: 4.4%
- Regulatory inspection: 4.0%
- None of these: 3.1%
- The 'stay put' advice: 1.3%
- The Fire doors in the building: 0.9%

Those with knowledge appear to focus on the insulation system as a whole; rather than the decorative cladding

	Total	UK	France	Germany	Architect	Specifier	Commercial Director
Don't know at all	36.28%	17.11%	62.67%	29.33%	32.00%	46.94%	41.67%
The insulation system (including the cladding, insulation, windows, fire-stops) in combination	23.45%	22.37%	14.67%	33.33%	27.33%	12.24%	25.00%
The decorative cladding outside the building	19.47%	30.26%	9.33%	18.67%	19.33%	20.41%	16.67%
Poor workmanship and installation	7.08%	7.89%	5.33%	8.00%	7.33%	8.16%	4.17%
Post-design specification changes	4.42%	10.53%	1.33%	1.33%	4.67%	2.04%	4.17%
Regulatory inspection	3.98%	2.63%	2.67%	6.67%	4.00%	4.08%	4.17%
None of these	3.10%	3.95%	2.67%	2.67%	2.67%	4.08%	4.17%
The 'stay put' advice	1.33%	2.63%	1.33$		2.00%		
The Fire doors in the building	0.88%	2.63%			0.67%	2.04%	

- French respondents are the least knowledgeable of the reasons, and provide little insight.

- The UK believe it is predominantly a cladding issue; whilst Germans believe it is the insulation system in combination.

- Specifiers believe it was a cladding issue, but they also have little knowledge.

- Architects believe it was a insulation system problem, but also a cladding issue; they are also most knowledgeable.

- CDs believe it was a systems issue, like Architects.

1/3 are already operating differently because of Grenfell, although 15% will need regulatory change to make them do things differently

"Thinking of the impact of the Grenfell fire - Are you already doing things different in your day-to-day processes? or - Do you expect your processes to change in the future? or - Will there need to be a regulatory change to make you do anything differently?
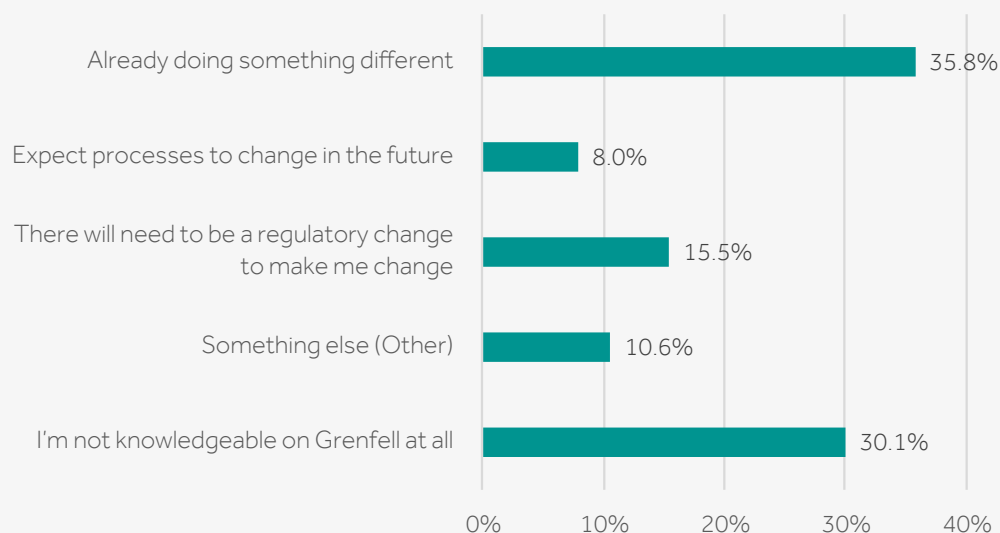
- Over 1/3 of respondents (35.8%) have already hanged their day-to-day processes due to Grenfell.

- 8% are expecting their processes to change in the future – but they haven't changed yet.

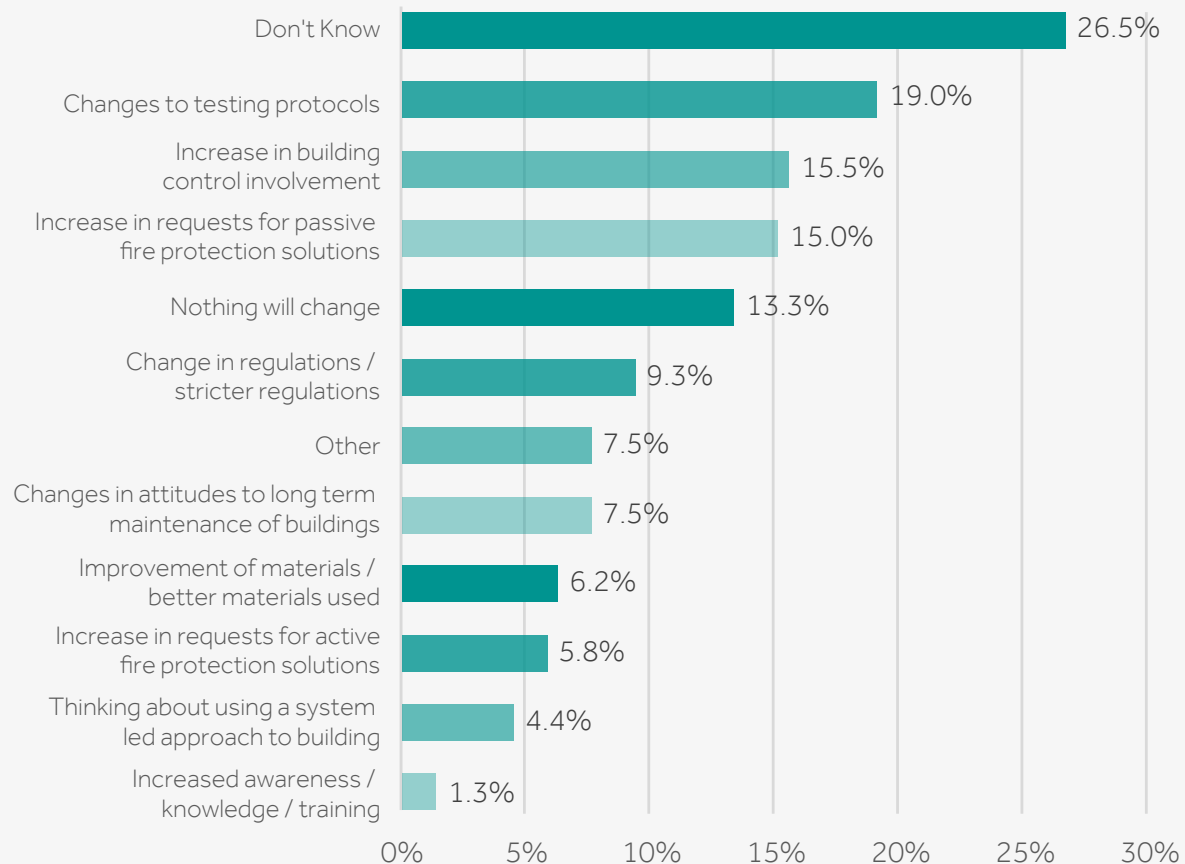- 15.5% will only change when there are regulatory changes implemented.

NOTE: The majority of those who said 'Something else' stated they wouldn't change as they feel they are already complying and doing things correctly.

Germany and UK are proactively changing their processes and have done so already – CDs are also proactive, but less knowledgeable and perhaps want to 'tick boxes' prior to enforced change.

	Total	UK	France	Germany	Architect	Specifier	Commercial Director
Now	35.8%	47.4%	9.3%	50.7%	35.3%	40.8%	29.2%
Future	8.0%	10.5%	8.0%	5.3%	8.7%	2.0%	16.7%
Regulatory change	15.5%	17.1%	10.7%	18.7%	18.0%	14.3%	4.2%
Something else	10.6%	22.4%	2.7%	6.7%	10.7%	8.2%	12.5%
I'm not knowledgeable on Grenfell at all	30.1%	2.6%	69.3%	18.7%	27.3%	34.7%	37.5%

- French respondents have low knowledge levels and therefore there has been little immediate change. With <20% either making a change already or planning a change.

- The UK and Germany have made immediate changes to their processes, with the UK significantly more knowledgeable.

- Architects and Specifiers have made changes already, but are also inclined to wait for regulatory change – whereas CDs are perhaps more proactive – but less knowledgeable.

Only 15% expect there to be more requests for passive fire protection post-Grenfell

Don't Know — 26.5%
Changes to testing protocols — 19.0%
Increase in building control involvement — 15.5%
Increase in requests for passive fire protection solutions — 15.0%
Nothing will change — 13.3%
Change in regulations / stricter regulations — 9.3%
Other — 7.5%
Changes in attitudes to long term maintenance of buildings — 7.5%
Improvement of materials / better materials used — 6.2%
Increase in requests for active fire protection solutions — 5.8%
Thinking about using a system led approach to building — 4.4%
Increased awareness / knowledge / training — 1.3%

"Thinking about products and materials used in projects, what - if anything - do you expect to change due to the Grenfell fire and the subsequent enquiry?"

NOTE: The 26.5% who stated 'Don't know are predominantly from France, but also from Germany – see next slide

- The expected changes are to testing protocols, increase of building control involvement and an increase in request for passive fire protection solutions.

- A range of changes are expected, but there is nothing which dominates.

UK expects increased requests for passive fire protection; whilst Germany are pessimistic

	Total	UK	France	Germany	Architect	Specifier	Commercial Director
Don't know	26.5%		68.0%	12.0%	23.3%	34.7%	33.3%
Changes to testing protocols	19.0%	35.5%	6.7%	14.7%	21.3%	12.2%	20.8%
Increase in building control involvement	15.5%	21.1%	8.0%	17.3%	14.7%	16.3%	16.7%
Increase in requests for passive fire protection solutions	15.0%	25.0%	8.0%	12.0%	13.3%	14.3%	25.0%
Nothing will change	13.3%	5.3%	5.3%	29.3%	14.7%	10.2%	12.5%
Change in regulations / stricter regulations	9.3%	19.7%	4.0%	4.0%	6.7%	20.4%	
Changes in attaitudes to long term maintenance of buildings	7.5%	15.8%	4.0%	2.7%	8.7%	4.1%	
Other	7.5%	18.4%		4.0%	6.7%	6.1%	12.5%
Inprovement of materials / better materials used	6.2%	5.3%	1.3%	12.0%	6.7%	6.1%	4.2%
Increase in requests for active fire protection solutions	5.8%	10.5%	2.7%	4.0%	6.0%	4.1%	8.3%
Thinking about using a system lead approach to building	4.4%	7.9%	1.3%	4.0%	4.0%	2.0%	8.3%
Increase awareness / knowledge / training	1.3%	2.6%		1.3%	1.3%	2.0%	

- Most French respondents don't know what will change due to Grenfell and offer little insight.

- Germans do not feel much will changes.

- The UK believe testing protocols will be the main change and 1/4 believe there will be increased demand for passive fire protection solutions.

- Specifiers and CDs don't know the impact of Grenfell. However, CDs expect an increase in passive fire protection request; whilst Specifiers believe there will be stricter regulations imposed.

- Architects follow the average.

IMPACT OF ADDITIONAL FIRE PROTECTION

The majority believe there would be an impact if there was a requirement for designed-in fire protection

13.3%

23.9%

■ No impact

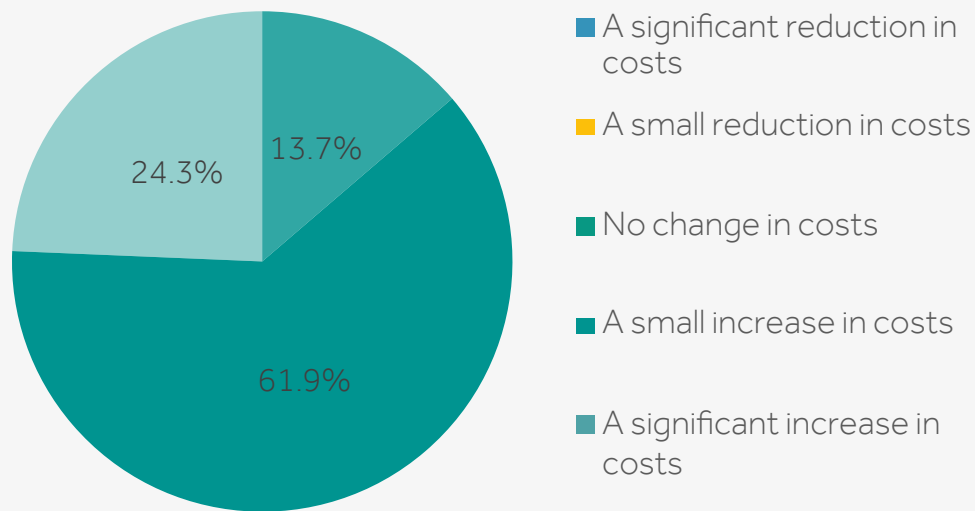■ Minor impact

■ Major impact

62.8%
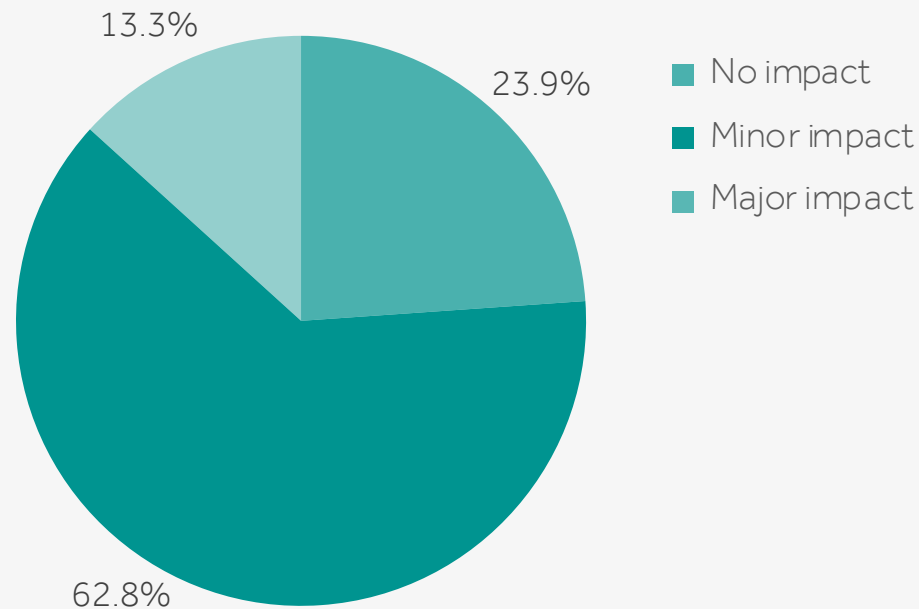
"What challenge would an increasing requirement for more 'designed-in' fire protection have on you and your organisation?"

- 13% believe it would be a major impact on them and their organisation.

- This is more prevalent in France, Germany and with CDs.

- The UK believes there will be less of an impact on them, as do Architects.

	Total	UK	France	Germany	Architect	Specifier	Commercial Director
No impact	23.9%	14.5%	29.3%	28.0%	20.0%	28.6%	37.5%
Minor impact	62.8%	77.6%	54.7%	56.0%	66.0%	61.2%	45.8%
Major impact	13.3%	7.9%	16.0%	16.0%	14.0%	10.2%	16.7%

¼ believe there will be a significant increase in costs if there was a requirement for more designed-in fire protection. No-one believes there will be a reduction in costs
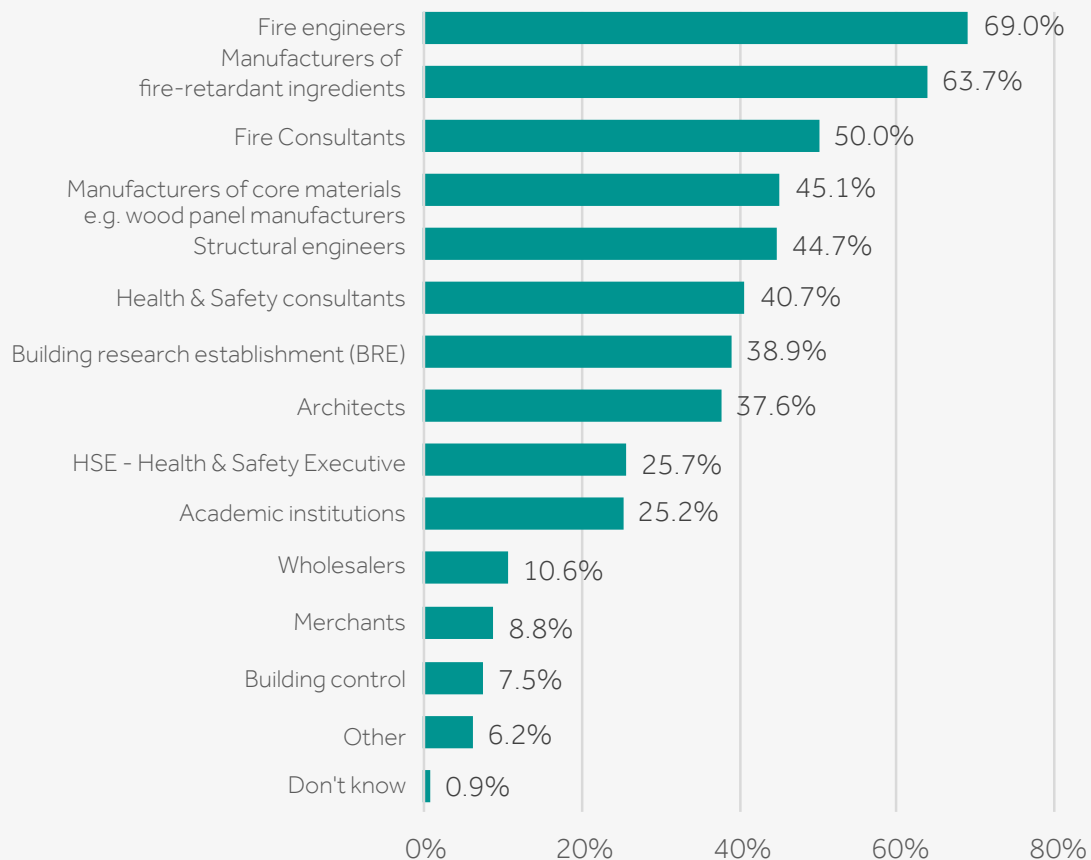

24.3%

13.7%

61.9%

- A significant reduction in costs
- A small reduction in costs
- No change in costs
- A small increase in costs
- A significant increase in costs

"What do you perceive the cost implications to the overall design to be when using more fire-resistant products?"

- 13.7% believe costs will remain the same, whereas all other believe there will be an increase due to changes.

- Major changes in cost are expected in Germany and among Specifiers.

	Total	UK	France	Germany	Architect	Specifier	Commercial Director
A significant increase in costs	24.3%	15.8%	21.3%	36.0%	23.3%	30.6%	20.8%
A small increase in costs	61.9%	71.1%	65.3%	49.3%	61.3%	61.2%	66.7%
No change in costs	13.7%	13.2%	13.3%	14.7%	15.3%	8.2%	12.5%
A small reduction in costs							
A significant reduction in costs							

SOURCING OF FIRE PROTECTION

Informed specialists would be the top independent sources of information and advice; H&S would be secondary, as well as those involved in specifications.

Source	Percentage
Fire engineers	69.0%
Manufacturers of fire-retardant ingredients	63.7%
Fire Consultants	50.0%
Manufacturers of core materials e.g. wood panel manufacturers	45.1%
Structural engineers	44.7%
Health & Safety consultants	40.7%
Building research establishment (BRE)	38.9%
Architects	37.6%
HSE - Health & Safety Executive	25.7%
Academic institutions	25.2%
Wholesalers	10.6%
Merchants	8.8%
Building control	7.5%
Other	6.2%
Don't know	0.9%

"Where would you go for independent advice on passive fire-protection options?"

- Fire Engineers, Fire consultants, and manufacturers of fire-retardant ingredients are seen as the top independent sources of information.

- Manufacturers of materials, engineers, H&S consultants, BRE and Architects are other sources they would consult.

BRE is a top source in UK alongside fire engineers and fire-retardant ingredient manufacturers. All roles would seek out ingredient manufacturers

	Total	UK	France	Germany	Architect	Specifier	Commercial Director
Fire engineers	69.0%	88.2%	30.7%	88.0%	72.0%	63.3%	62.5%
Manufacturers of fire-retardant ingredients	63.7%	77.6%	61.3%	52.0%	61.3%	69.4%	66.7%
Fire consultants	50.0%	51.3%	33.3%	65.3%	50.0%	46.9%	54.2%
Manufacturers of core materials e.g wood panel manufacturers	45.1%	73.7%	12.0%	49.3%	45.3%	51.0%	29.2%
Structural engineers	44.7%	63.2%	13.3%	57.3%	47.3%	38.8%	33.3%
Health & Safety consultants	40.7%	53.9%	32.0%	36.0%	44.0%	36.7%	29.2%
Building research establishment (BRE)	38.9%	89.5%	24.0%	2.7%	36.0%	38.8%	50.0%
Architects	37.6%	69.7%	12.0%	30.7%	38.7%	28.6%	41.7%
HSE - Health & Safety Executive	25.7%	36.8%	13.3%	26.7%	28.7%	16.3%	16.7%
Academic institutions	25.2%	38.2%	9.3%	28.0%	26.0%	22.4%	29.2%
Wholesalers	10.6%	17.1%	2.7%	12.0%	9.3%	12.2%	16.7%
Merchants	8.8%	10.5%	4.0%	12.0%	9.3%	8.2%	8.3%
Building control	7.5%	21.1%		1.3%	9.3%	6.1%	
Other	6.2%	7.9%	5.3%	5.3%	6.7%	2.0%	12.5%
Don't know	0.9%		2.7%		1.3%		

- The UK would consultant a wider range of sources, with BRE topping the list (which has little representation elsewhere) along with Fire Engineers, Manufacturers (ingredients and materials) and Architects.

- France would focus on the fire-retardant ingredient manufacturers e.g. Zi.

- Germany would reference fire engineers and consultants as well as Structural engineers.

# Over 70% could not name a company leading the way in Passive Fire Protection.

"Can you name any particular organisation/s leading the way in the area of passive fire safety?"

22.1%

4.4%

73.5%

■ Yes I can (see list)

■ Yes I know they exist but I can't name them

■ No I can't
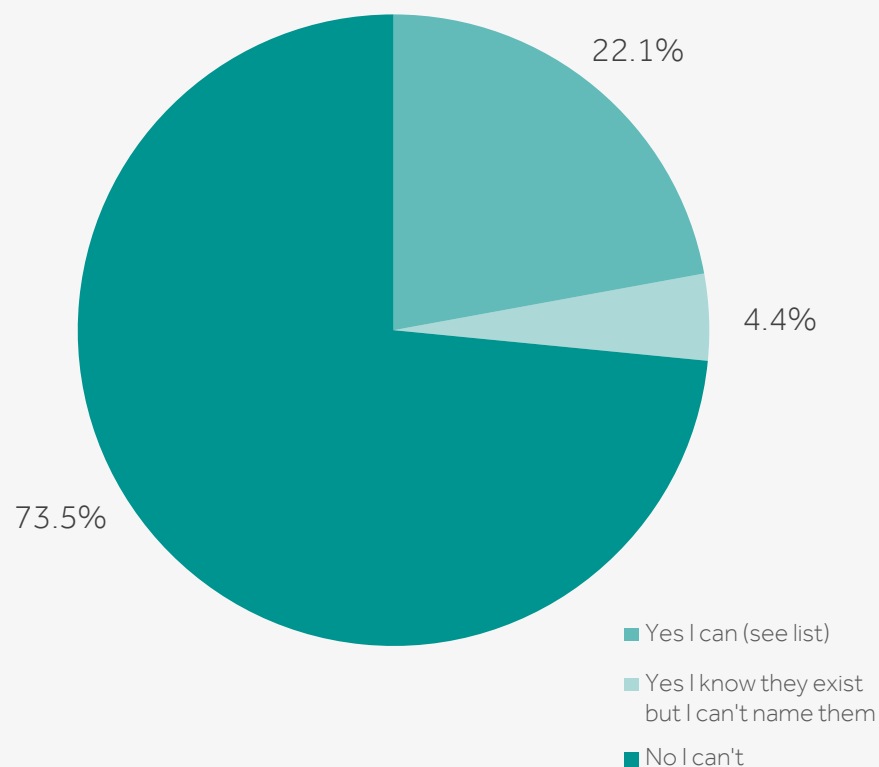
● 3/4 of respondents couldn't name a leader in the industry

	Total	UK	France	Germany
Base	50	13	9	28
Promat	18	1		17
Knauf	13			13
Building Research Establishment (BRE)	8	8		
Other	5	1	1	3
Rockwool	4		1	3
British Gypsum	3	3		
Saint-Gobain	2	1		1
Lafarge	2	1	1	
Hoermann	2			2
Envirograf	2	2		
Trox	1			1
Svt	1			1
Stoebich Brandshutz GmbH	1			1
SSI	1		1	
Sicli	1		1	
PPG	1		1	
Pilkington	1			1
MSA	1		1	
MARK Feuerschutz	1			1
Hagebau	1			1
G + H Group	1			1
Flachgas AG	1			1
FeuerTrutz	1			1
Fermacell	1			1
Exova	1	1		
CSTB	1		1	
CNPP	1		1	

>50% do not face any problems sourcing fire protected products; top issues relate to products being too expensive and impacting lead times
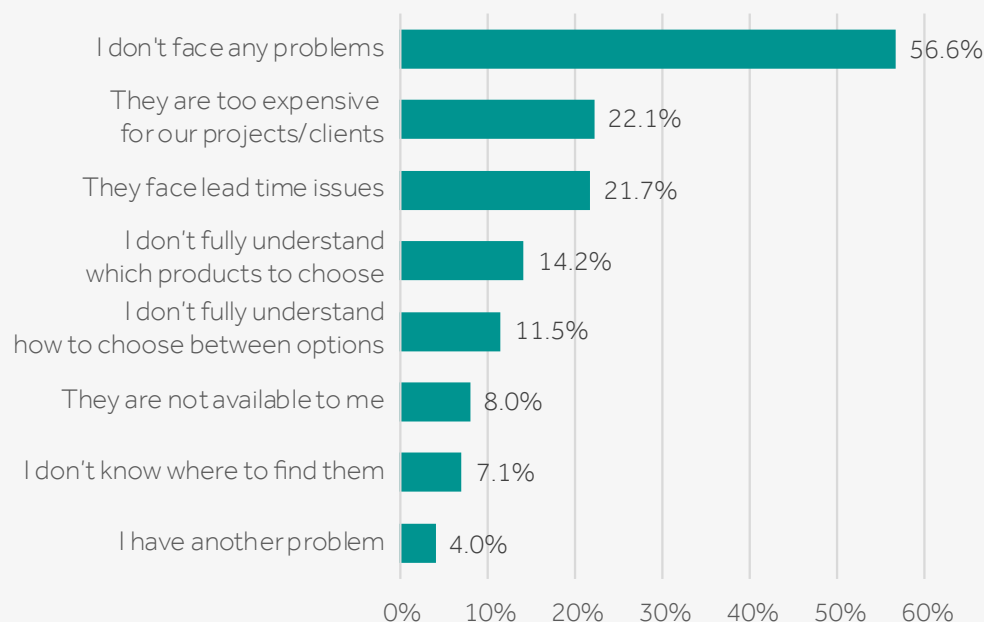
"Which of the following problems do you typically face when sourcing fire-protected products?"

- Most respondents claim not to face any problems sourcing fire-protected products when they need them.

- Issues relate to the expense and impact on timings; but other issues mentioned relate to a lack of understanding, knowledge or sources of purchase.

>50% do not face any problems sourcing fire protected products; top issues relate to products being too expensive and impacting lead times

	Total	UK	France	Germany	Architect	Specifier	v
I don't face any problems	56.6%	34.2%	65.3%	70.7%	58.0%	55.1%	58.3%
They are too expensive for our projects / clients	22.1%	28.9%	21.3%	16.0%	22.7%	26.5%	8.3%
They face lead time issues	21.7%	34.2%	16.0%	14.7%	20.7%	24.5%	25.0%
I don't fully understand which products to choose	14.2%	26.3%	8.0%	8.0%	14.0%	12.2%	16.7%
I don't fully understand how to choose between options	11.5%	25.0%	4.0%	5.3%	11.3%	8.2%	16.7%
They are not available to me	8.0%	10.5%	8.0%	5.3%	8.7%	10.2%	
I don't know where to find them	7.1%	10.5%	4.0%	6.7%	8.0%	4.1%	4.2%
I have another problem	4.0%	6.6%	2.7%	2.7%	0.7%	6.1%	12.5%

- UK faces the most problems, typically the impact on lead times, but also the expense, understanding of products to use and how to pick between solutions.

- Architects and Specifiers have similar responses, whilst CDs claim that the expenses are not an issue, nor the availability. The issues instead are the impact on project lead times.
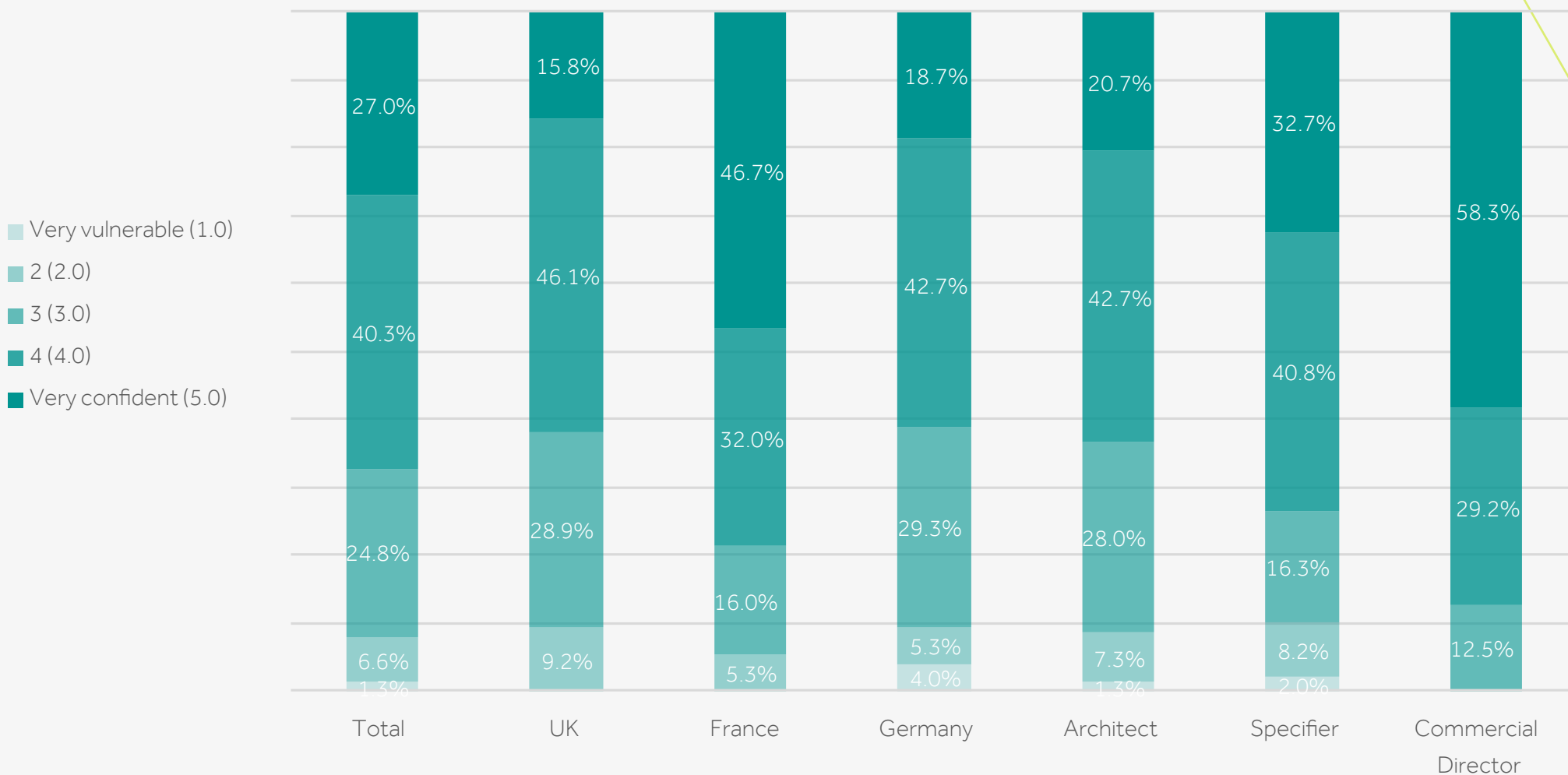
Very few feel vulnerable when it comes to getting passive fire protection right

1.3% 6.6%

27.0%

24.8%

40.3%

- Very vulnerable (1.0)
- 2 (2.0)
- 3 (3.0)
- 4 (4.0)
- Very confident (5.0)
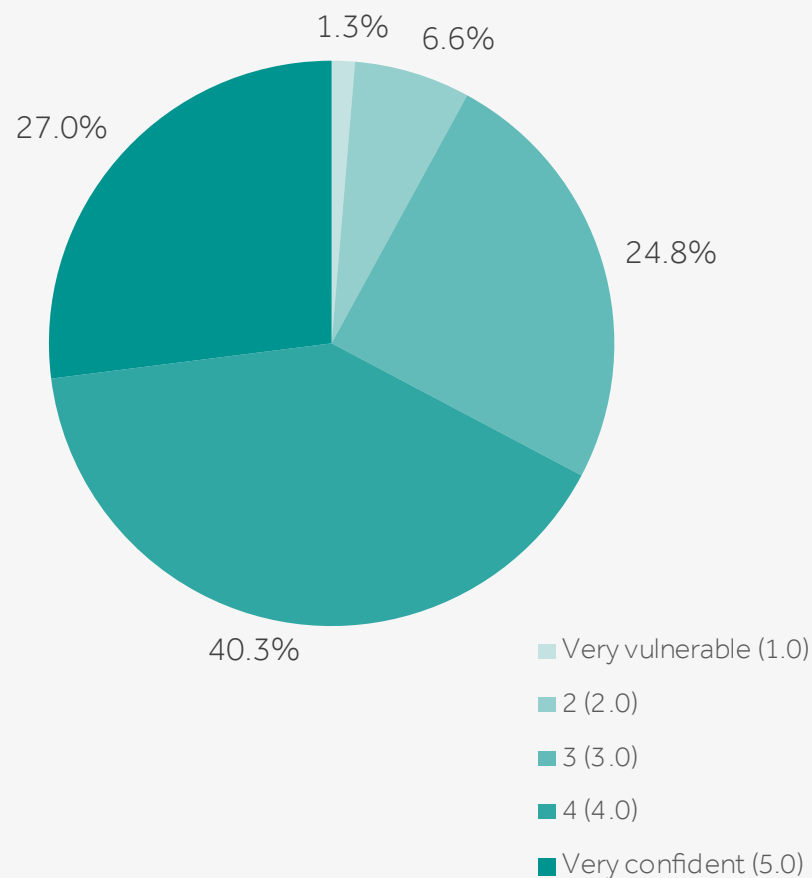
"How vulnerable or confident do you feel in your role, in terms of getting passive fire protection materials right?"

- 2/3 or respondents (67.3%) gave a positive score (4+5) indicating they are confident in their role when getting passive fire protection materials right.

- 7.9% gave a negative score (1+2) indicating they are not confident and therefore vulnerable

- Overall, it appears that respondents feel they are confident in themselves

- They may not wish to admit any vulnerability, however.

French respondents and CDs are confident in their abilities, whilst the UK, Germany and Architects confirm to the average

Legend:
- Very vulnerable (1.0)
- 2 (2.0)
- 3 (3.0)
- 4 (4.0)
- Very confident (5.0)

	Total	UK	France	Germany	Architect	Specifier	Commercial Director
Very confident (5.0)	27.0%	15.8%	46.7%	18.7%	20.7%	32.7%	58.3%
4 (4.0)	40.3%	46.1%	32.0%	42.7%	42.7%	40.8%	29.2%
3 (3.0)	24.8%	28.9%	16.0%	29.3%	28.0%	16.3%	12.5%
2 (2.0)	6.6%	9.2%	5.3%	5.3%	7.3%	8.2%	
Very vulnerable (1.0)	1.3%			4.0%	1.3%	2.0%	

- Specifiers are more confident than Architects and conference appears to increase as the roles move further away from the Architect and their role of proposing products and solutions.

Respondents are passionate and are interested in advancing their knowledge in this area
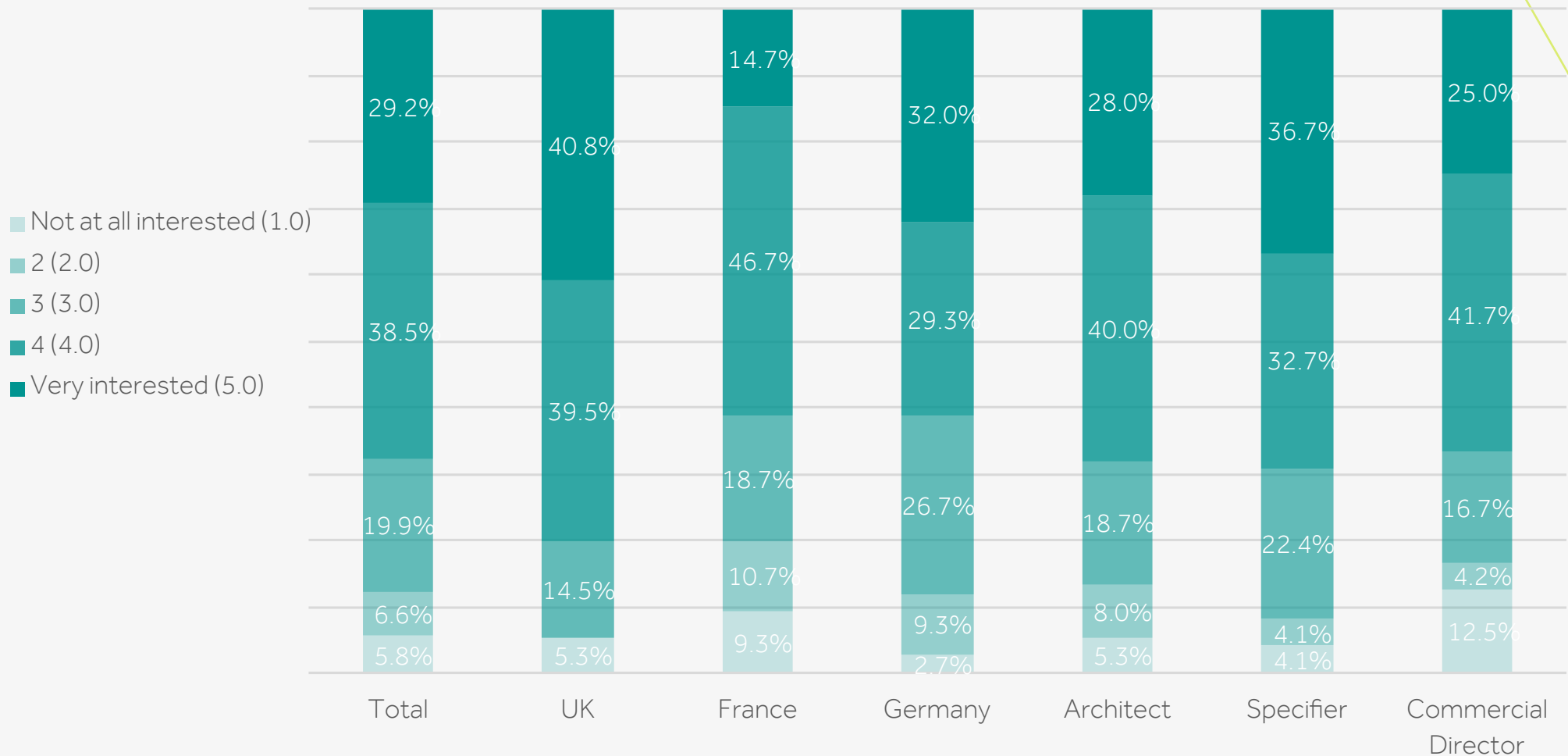

5.8%

6.6%

29.2%

19.9%

38.5%
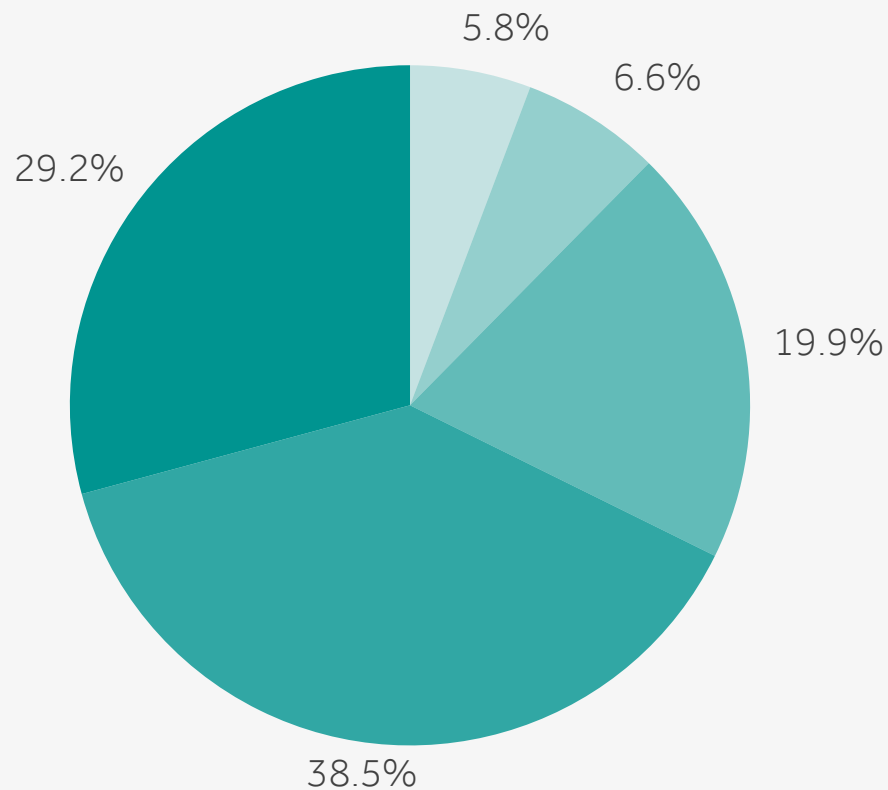
"How interested are you in learning more about new technologies in the area of fire-protection?"

- 68.7% are interesting in learning about the new technologies in their area.

- 12.4% are not interested.

▪ Not at all interested (1.0)

▪ 2 (2.0)

▪ 3 (3.0)

▪ 4 (4.0)

▪ Very interested (5.0)

The UK is significantly more interested than other markets; little difference by role


Legend:
- Not at all interested (1.0)
- 2 (2.0)
- 3 (3.0)
- 4 (4.0)
- Very interested (5.0)

	Total	UK	France	Germany	Architect	Specifier	Commercial Director
Very interested (5.0)	29.2%	40.8%	14.7%	32.0%	28.0%	36.7%	25.0%
4 (4.0)	38.5%	39.5%	46.7%	29.3%	40.0%	32.7%	41.7%
3 (3.0)	19.9%	14.5%	18.7%	26.7%	18.7%	22.4%	16.7%
2 (2.0)	6.6%	5.3%	10.7%	9.3%	8.0%	4.1%	4.2%
Not at all interested (1.0)	5.8%	5.3%	9.3%	2.7%	5.3%	4.1%	12.5%

● The lack of interest is present among the French, and CDs.

Most are conscious of environmental issues and account for them

- No, never
- Not usually
- Occasionally
- Always

10.2%

10.2%

42.0%

37.6%

"When selecting a material for a project, do you take into account factors such as ecological toxicity and other environmental factors?"

- 1/5 of respondent do not consider environmental factors when selecting materials on projects – but the rest do, to some extent.

- Architects are more conscious of the environment than other profiles; Specifiers less so.
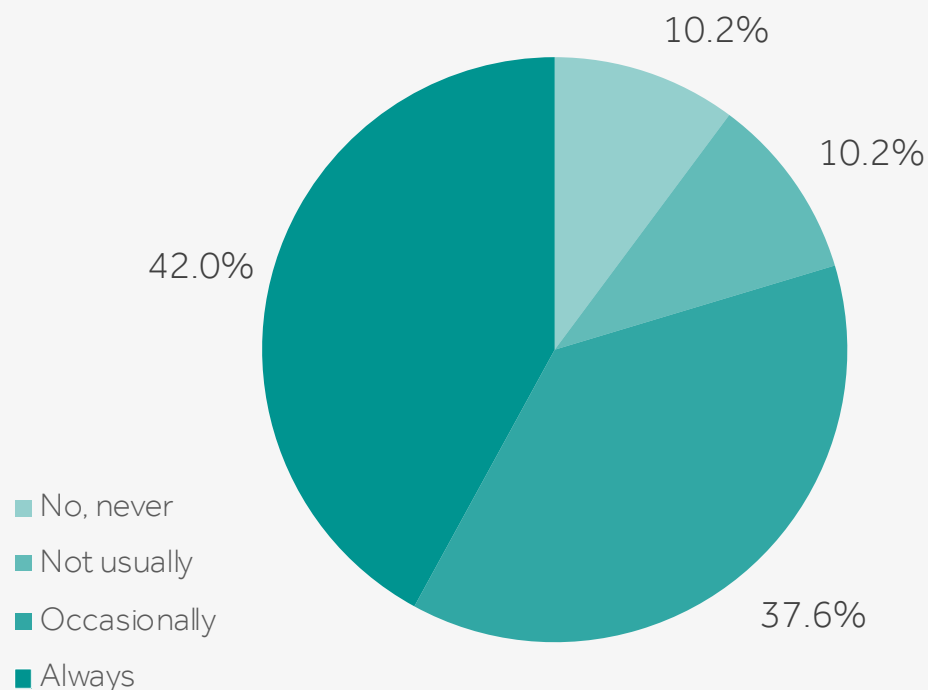
	Total	UK	France	Germany	Architect	Specifier	Commercial Director
Always	42.0%	44.7%	32.0%	49.3%	46.0%	28.6%	41.7%
Occasionally	37.6%	34.2%	45.3%	33.3%	36.7%	42.9%	37.5%
Not usually	10.2%	13.2%	6.7%	10.7%	11.3%	8.2%	8.3%
No, never	10.2%	7.9%	16.0%	6.7%	6.0%	20.4%	12.5%

Despite Grenfell, most defend the industry in terms of fire protection
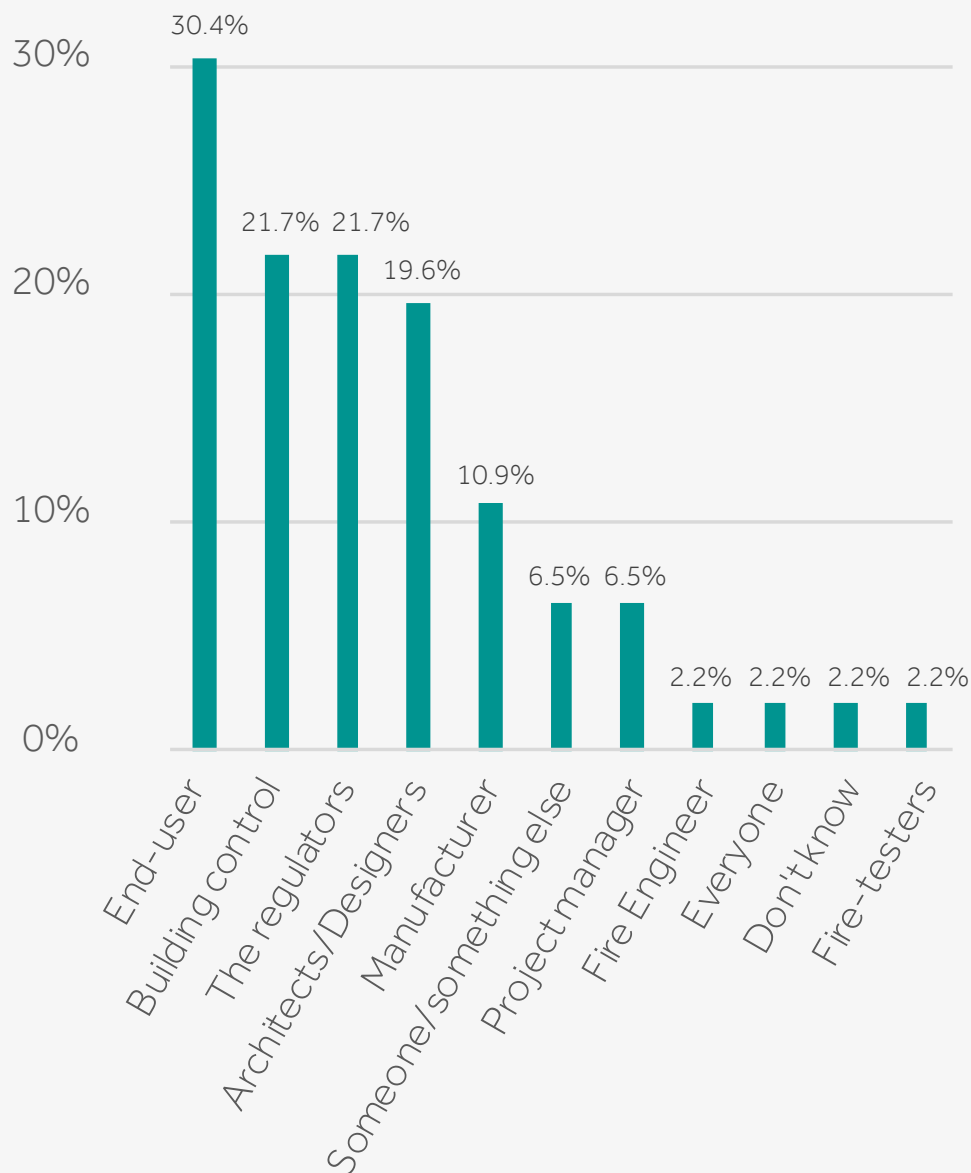

20.4%

79.6%

■ Yes
■ No
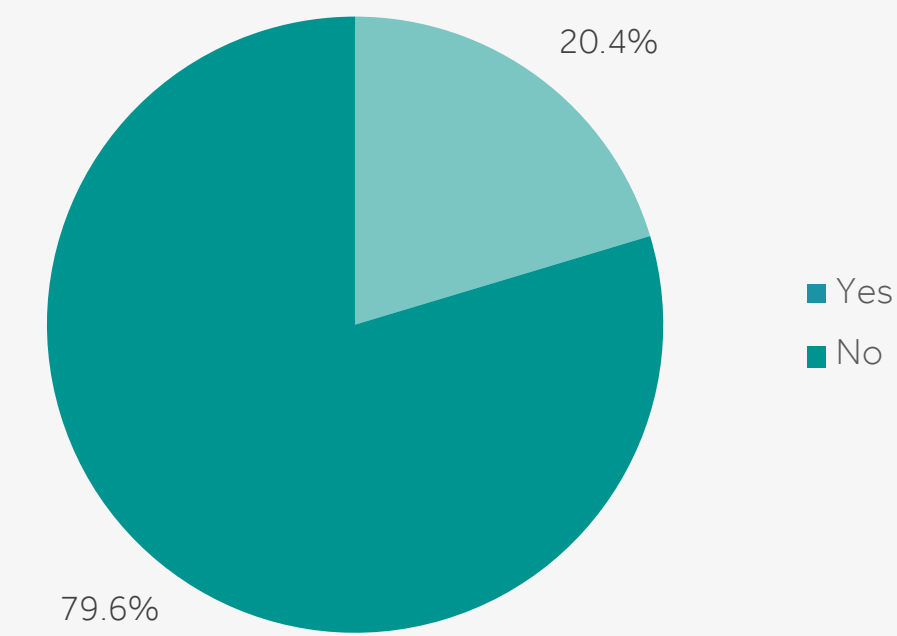
"Do you think the building and construction industry is failing when it comes to passive fire protection?"

- The UK and Specifier roles are more damning of the industry than others

	Total	UK	France	Germany	Architect	Specifier	Commercial Director
Yes	20.4%	43.4%	8.0%	9.3%	16.7%	30.6%	16.7%
No	79.6%	56.6%	92.0%	90.7%	83.3%	69.4%	83.3%

End-users are seen as the root of problems – as well as Building control, regulators and the architects

Bar chart values:
- End-user: 30.4%
- Building control: 21.7%
- The regulators: 21.7%
- Architects/Designers: 19.6%
- Manufacturer: 10.9%
- Someone/something else: 6.5%
- Project manager: 6.5%
- Fire Engineer: 2.2%
- Everyone: 2.2%
- Don't know: 2.2%
- Fire-testers: 2.2%

"Where do you think the building and construction system is currently failing with respect to fire protection - in particular, which stakeholder would you say is the root cause of the problems?"

- The root of the problems are to be with those outside of the project itself, either those using the buildings or those inspecting and approving them.

- 'Someone/Something else' responses tended to be digs at the end-user/client or the respondent stated how other parties focus too strongly on cost-cutting and this leads to a lack of investment in fire protection.

- NB: Specifiers were the main profile blaming Architects.