European Architectural Barometer Q1 2024

Trends in Material Usage

May 2024

ARCHVISION a product by USP Marketing Consultancy

About European Architectural Barometer

THE GOAL

The objective of the European Architectural Barometer of USP Marketing Consultancy is to offer profound insight into the current economic situation and trends among architectural firms in the Netherlands, Germany, the UK, France, Spain, Italy, Belgium and Poland. The European Architectural Barometer provides knowledge about the future building volumes and the way in which these building volumes will be realised (trends).

THE RESEARCH TOPICS

Recurring topic: Economic developments of architectural companies in Europe (order book and turnover development)

Quarterly theme topics in 2024:
Q1: Trends in Material Usage
Q2: Future in Construction
Q3: Decision Making Process
Q4: Smart Materials and Buildings

COUNTRY SCOPE

(number of interviews conducted)

Background characteristics of the interviewed respondents can be found in the country-specific profiling, the architect chapter, and in the appendix as a European overview.

THE TIMELINE

Report Q1	Report Q2	Report Q3	Report Q4
April	July	November	February

PROJECT TEAM

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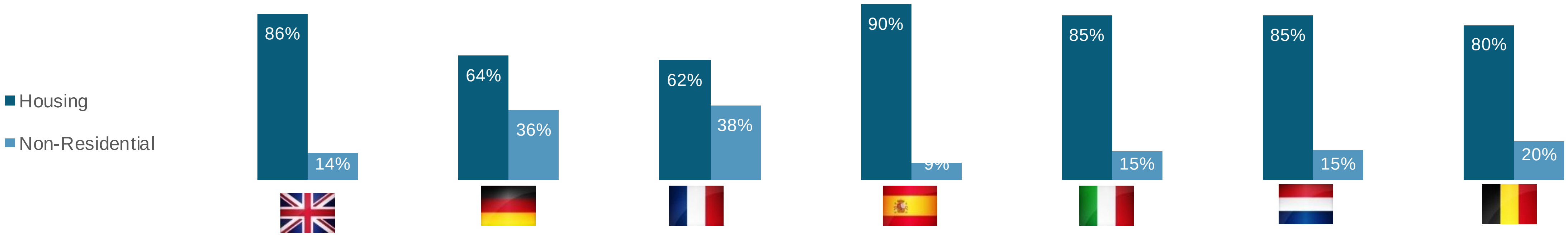
Background of the architects

The table below shows the average number of employees of the architectural firms within the current quarter of this research, divided by country. The architectural firms with one employee were excluded from this research. The second table shows the segments in which architects within this research are mostly active.

Number of FTE

Average	**7.7**	**10.4**	**6.0**	**4.0**	**3.8**	**6.8**	**5.5**
2 – 4 FTE	36%	35%	48%	76%	77%	22%	59%
5 – 9 FTE	40%	32%	35%	18%	18%	19%	16%
10 – 19 FTE	19%	20%	14%	6%	5%	17%	14%
20 – 39 FTE	5%	8%	2%	1%	1%	4%	4%
> 40 FTE	1%	5%	1%	0%	0%	2%	0%

Segment mostly active



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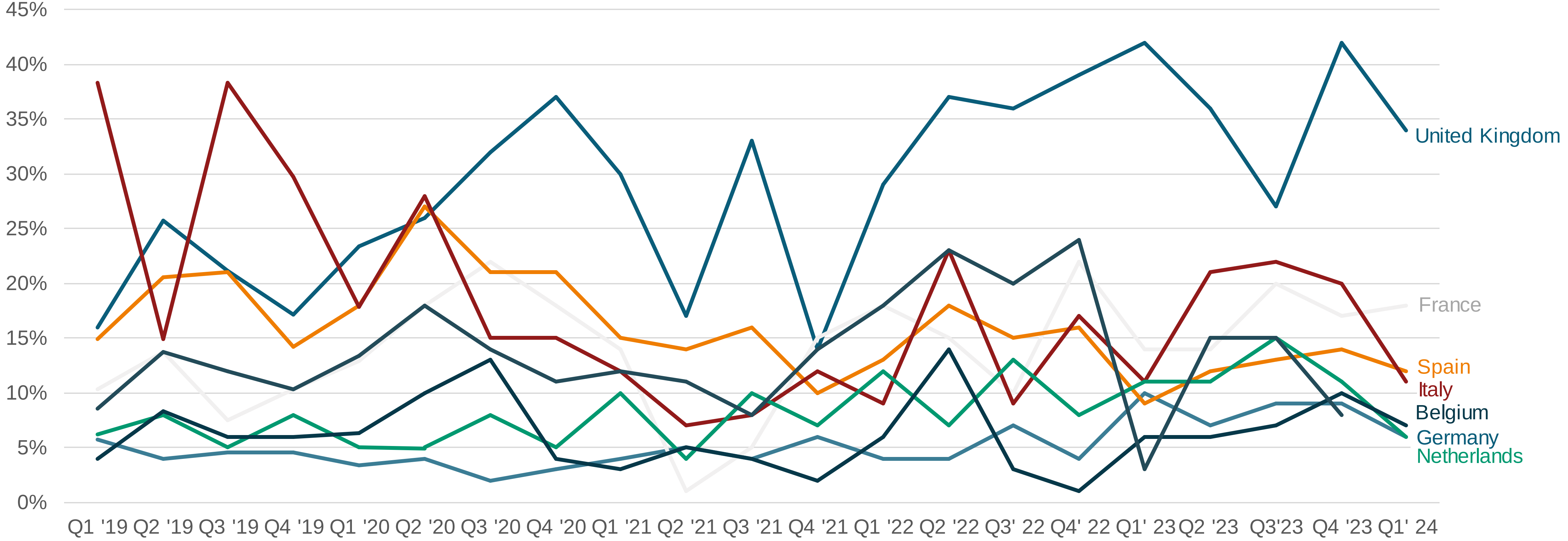
% of architects expecting empty order book in the coming 12 months

Q: Do you expect your order book will be empty in the coming 12 months?



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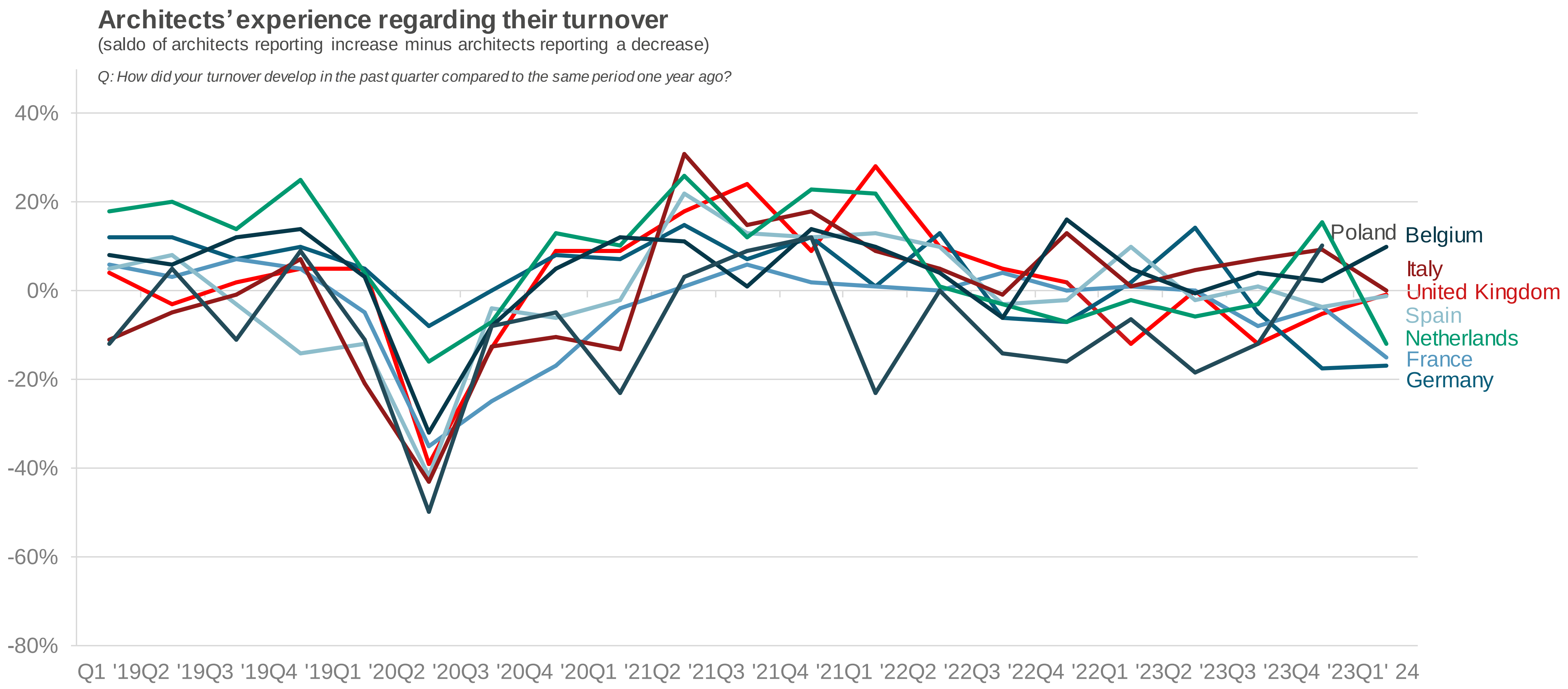
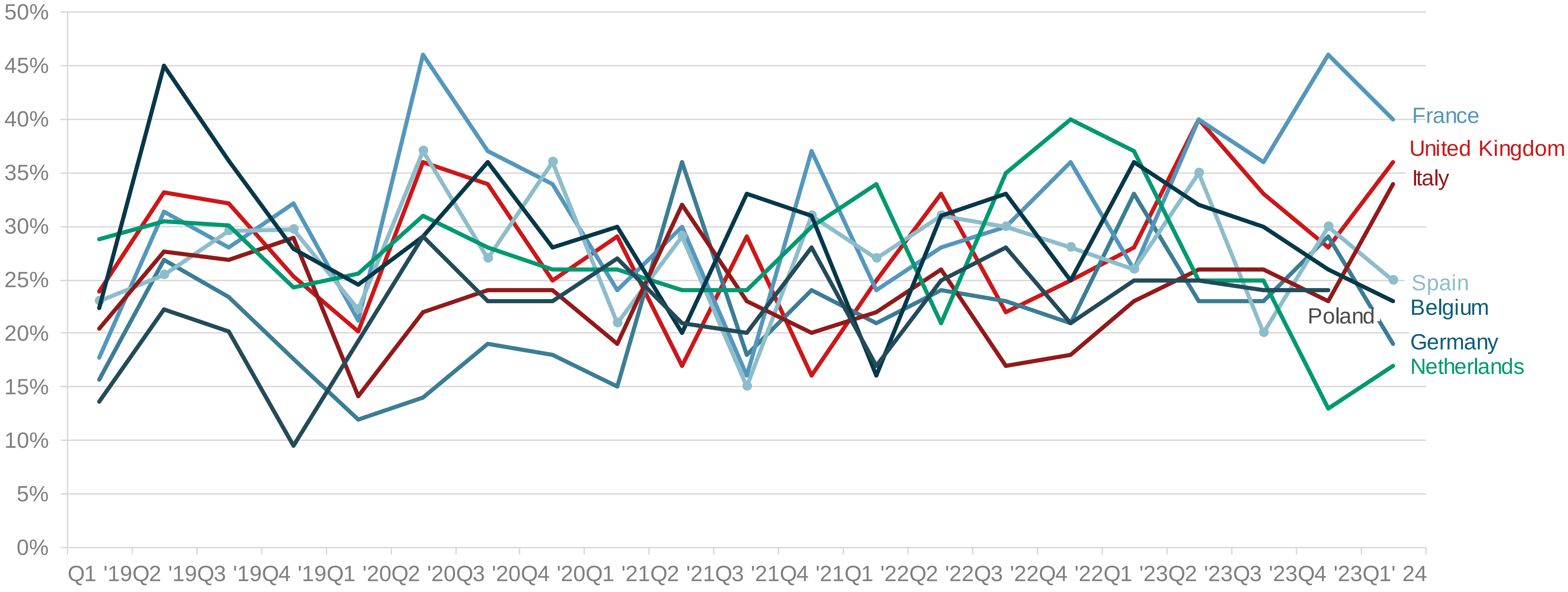

Architects' experience regarding their turnover
(saldo of architects reporting increase minus architects reporting a decrease)
Q: How did your turnover develop in the past quarter compared to the same period one year ago?
40%
20%
0%
-20%
-40%
-60%
-80%
Q1 '19
Q2 '19
Q3 '19
Q4 '19
Q1 '20
Q2 '20
Q3 '20
Q4 '20
Q1 '21
Q2 '21
Q3 '21
Q4 '21
Q1 '22
Q2 '22
Q3 '22
Q4 '22
Q1 '23
Q2 '23
Q3 '23
Q4 '23
Q1' 24
Poland
Belgium
Italy
United Kingdom
Spain
Netherlands
France
Germany

Conclusion

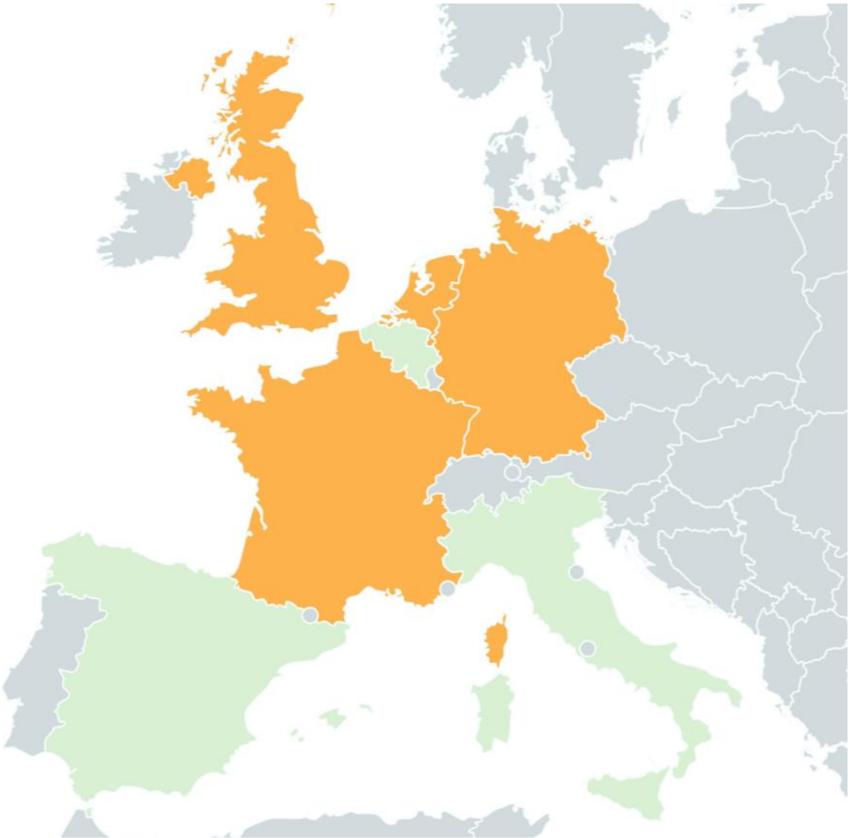
% of architects experiencing cancelled projects

Q: How many projects have been cancelled in the past quarter?



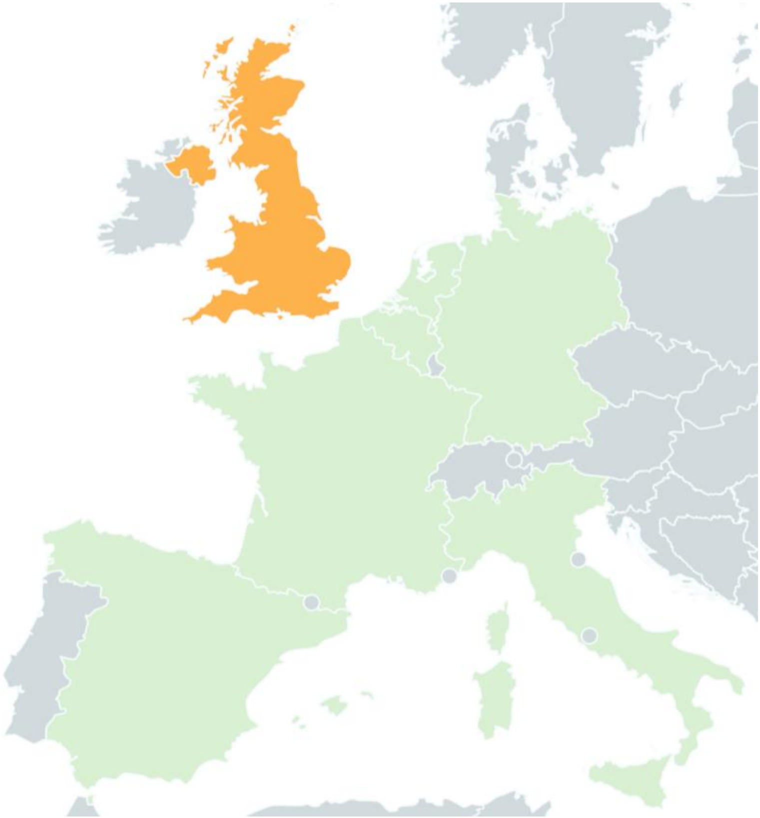
Construction volumes 2024 European overview

- 2024 is expected to be…
- This is mostly due to…



Construction volumes 2025 European overview

- 2025 is expected to be…
- The long-term indicators…



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United Kingdom

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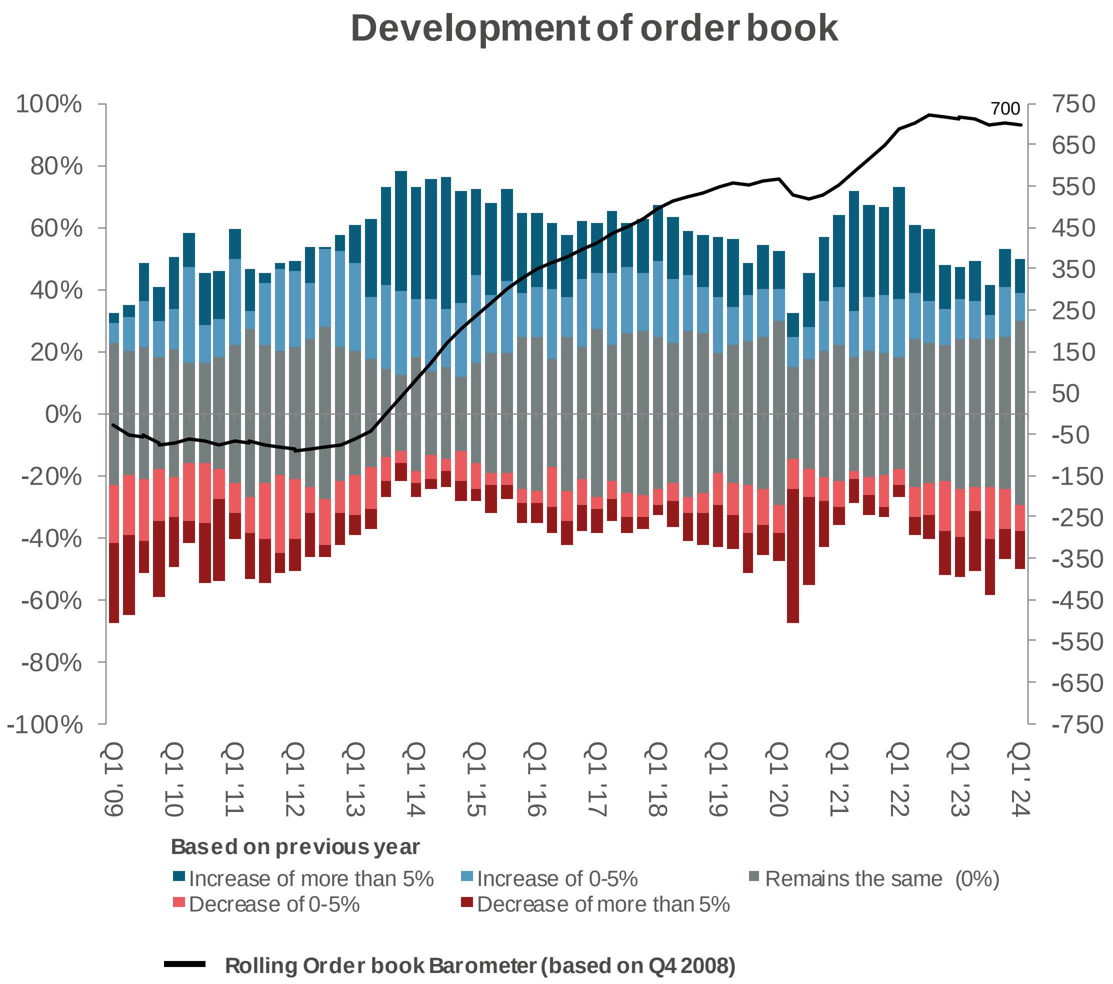
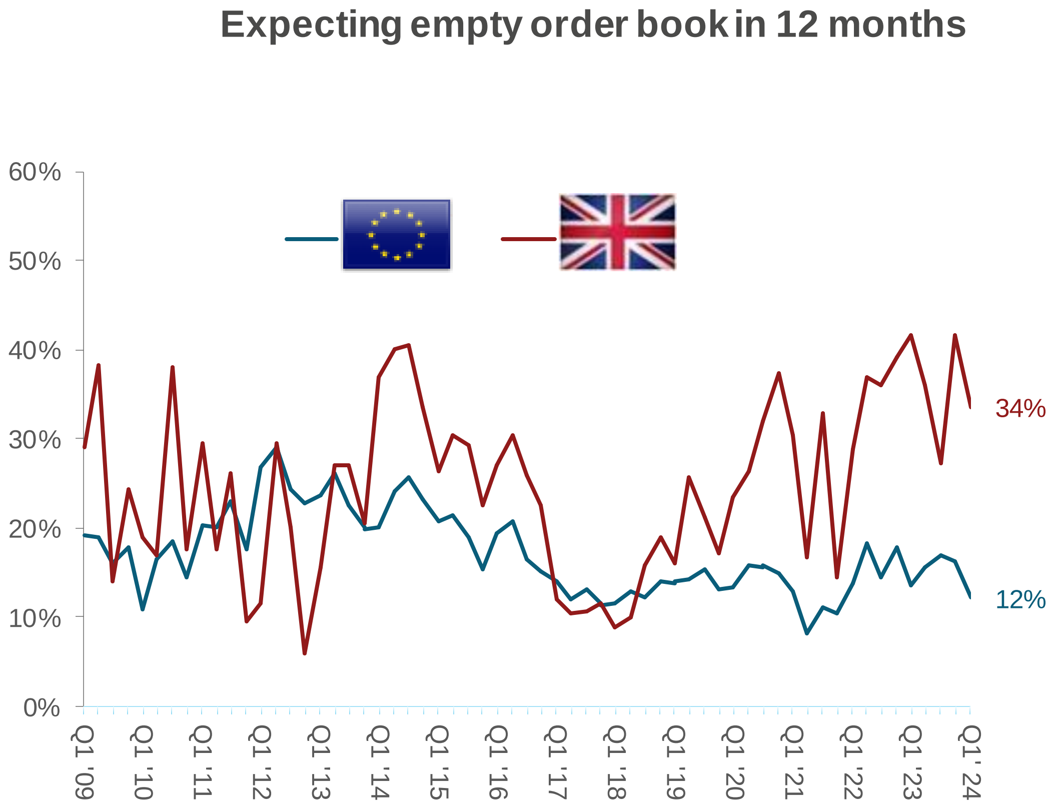
The United Kingdom maintains a notably high share of architects expecting an empty order book in the coming 12 months.





Since COVID-19, British institutions stopped publishing many indicators. A large share of architects experience postponed and cancelled projects, which hints towards difficult times in the construction industry.

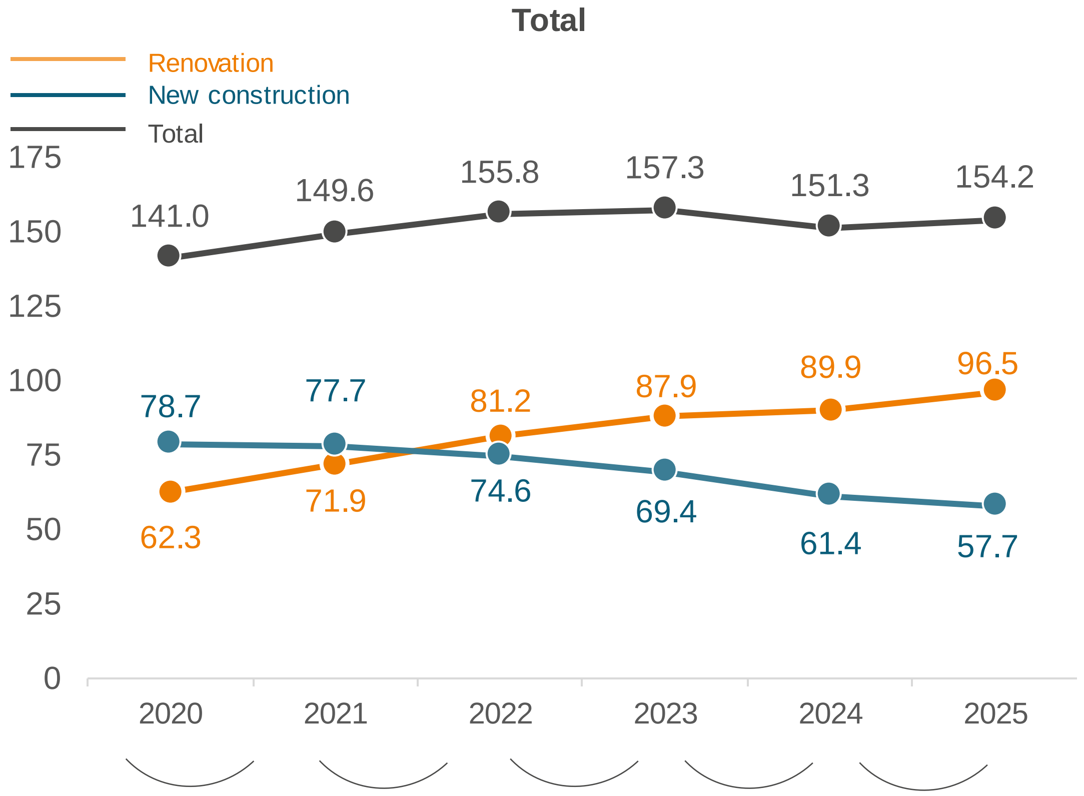
Economic and construction related indicators	Value Q1 2023	Value Q4 2023	Value Q1 2024	Q-2-Q development
GDP (quarterly growth rate) (%)*	0.1	-0.3	-0.3	Neutral
Consumer confidence indicator**	n/a	n/a	n/a	
Industrial confidence indicator**	n/a	n/a	n/a	
Construction confidence indicator**	n/a	n/a	n/a	
Production value buildings (index 2015=100)**	n/a	n/a	n/a	
Architects with postponed projects (%)***	50	45	47	Neutral
Architects with cancelled projects (%)***	28	28	36	Negative
Building permits residential (index 2015=100)**	n/a	n/a	n/a	
Building permits non-residential (index 2015=100)**	n/a	n/a	n/a	

*Source: * Country statistical office; ** Eurostat, *** Arch-Vision*

*Since the end of 2020 UK data has not been published anymore. The data previously provided to Eurostat was an amalgamation of several administrative data sources used as a proxy. The series was discontinued in 2020 when most of the data sources used to produce the estimate were discontinued due to the COVID-19 pandemic and resources were diverted elsewhere.

Forecast of building volumes in billion euros

(% change year over year)



% change in total output **6.1%** **4.1%** **1.0%** **-3.8%** **1.9%**

Data of the economic developments are available per country

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Key insights and recommendations

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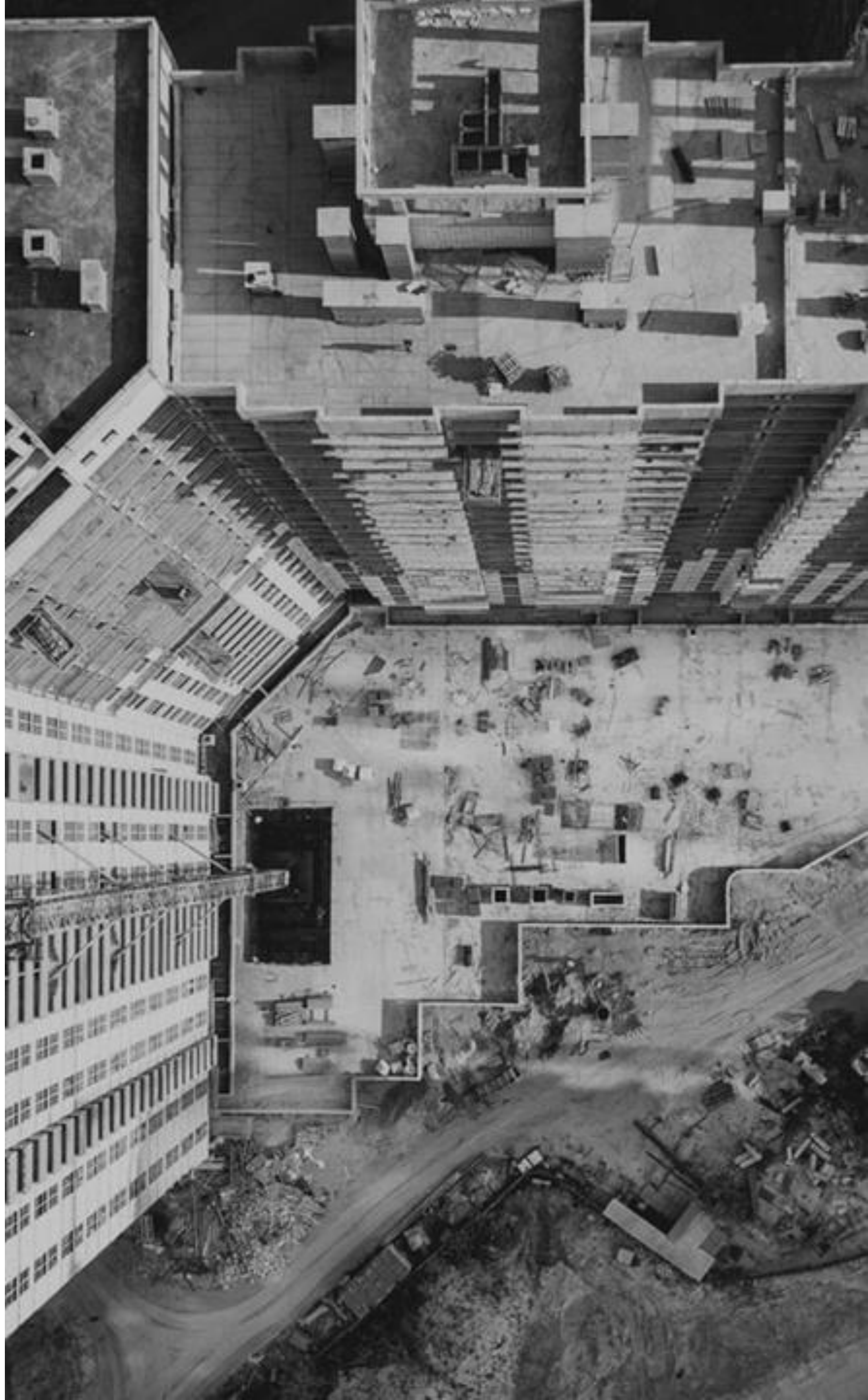
Summary - Trends in Material Usage

The expected usage of materials in the upcoming five years…

In the upcoming five years, architects expect the usage of the following materials to **increase**:



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- Pitched roofs
- Flat roofs
- Insulation materials
- Bathrooms
- Flooring
- Installation and (climate) control
- Control and smart home solutions
- Finishing materials and products

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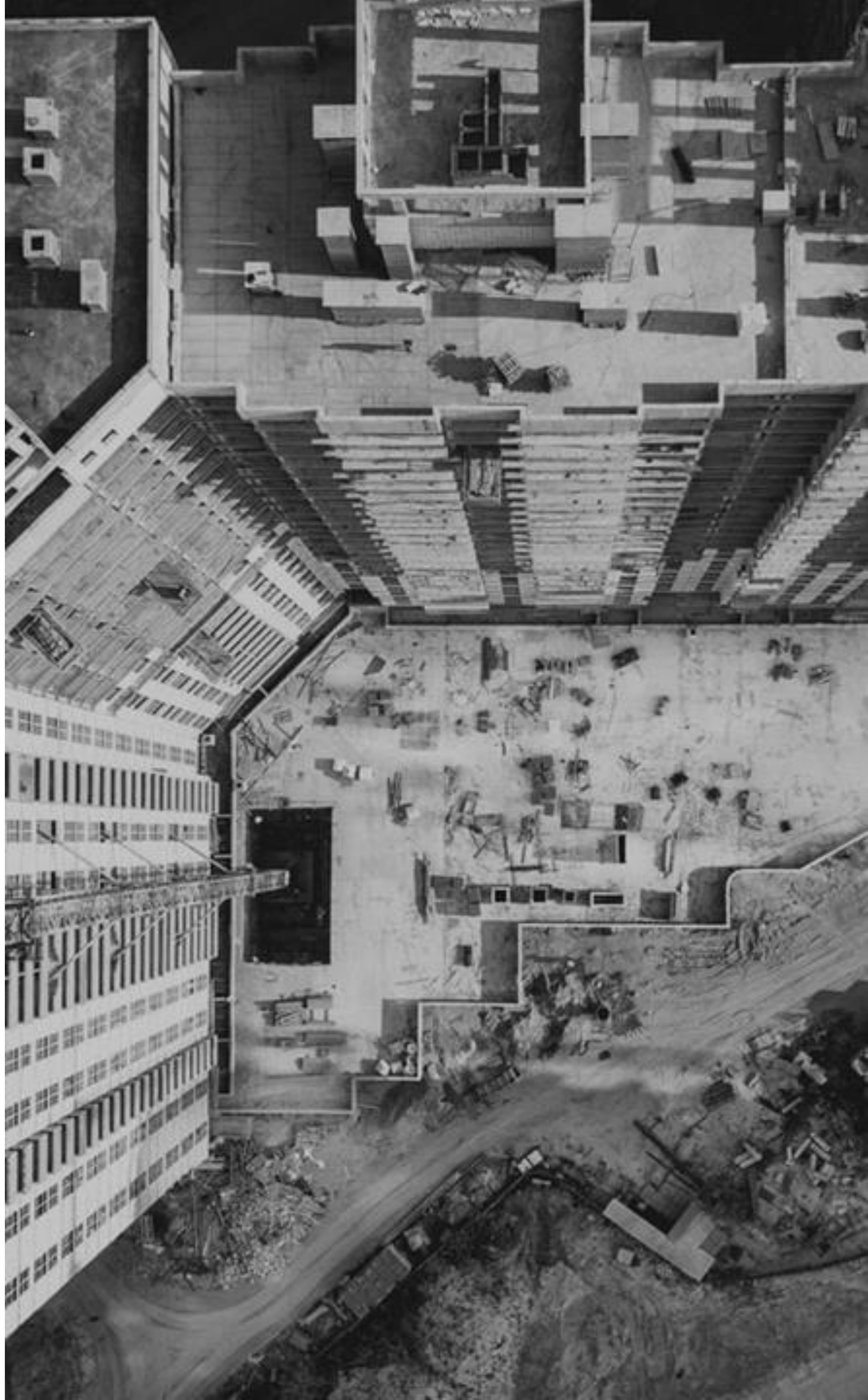

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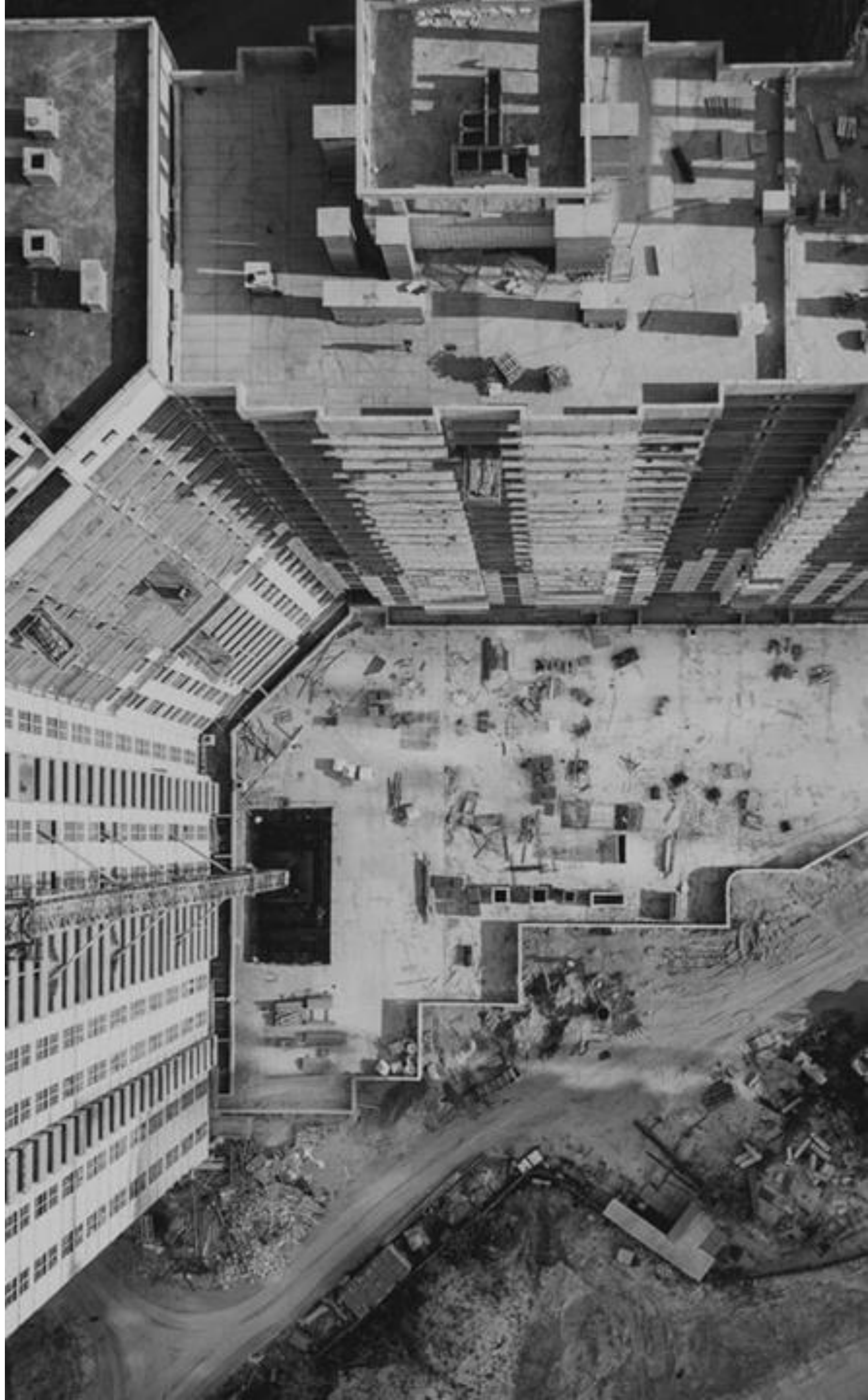
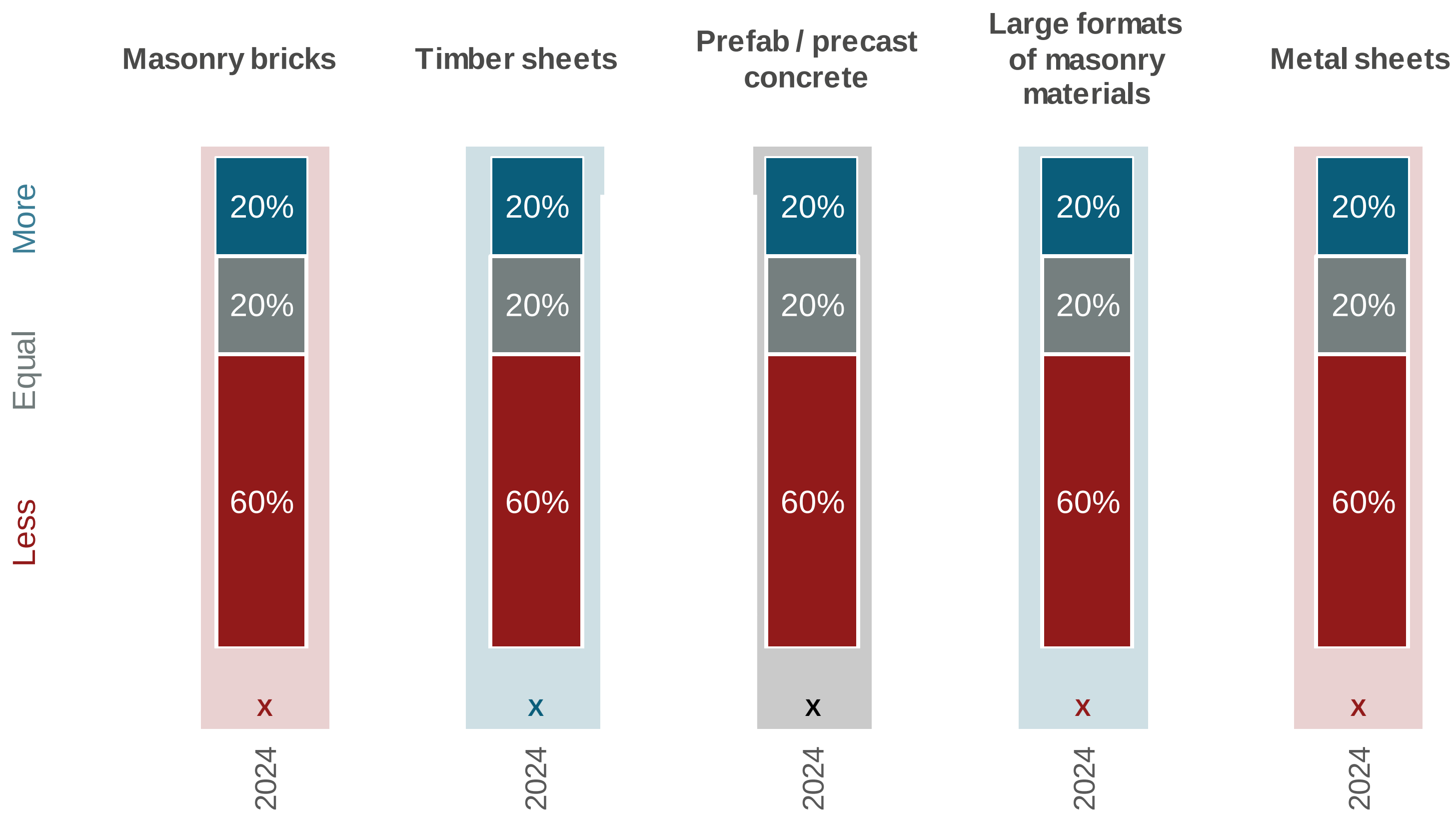


Trendline 2024 – 2029: expected usage of building envelope materials

*Do you expect to use the following **building envelope** materials more, equally, or less in projects over the next five years?*



Conclusion done

Conclusion

Do you expect to use the following ***building envelope*** *materials more, equally, or less in projects over the next five years?*

							
	n=41	n=42	n=41	n=45	n=41	n=31	n=33
Masonry bricks	20%	20%	20%	20%	20%	20%	20%
Timber sheets	20%	20%	20%	20%	20%	20%	20%
Prefab / precast concrete	20%	20%	20%	20%	20%	20%	20%
Large formats of masonry materials	20%	20%	20%	20%	20%	20%	20%
Metal sheets	20%	20%	20%	20%	20%	20%	20%

% **more** minus % **less**

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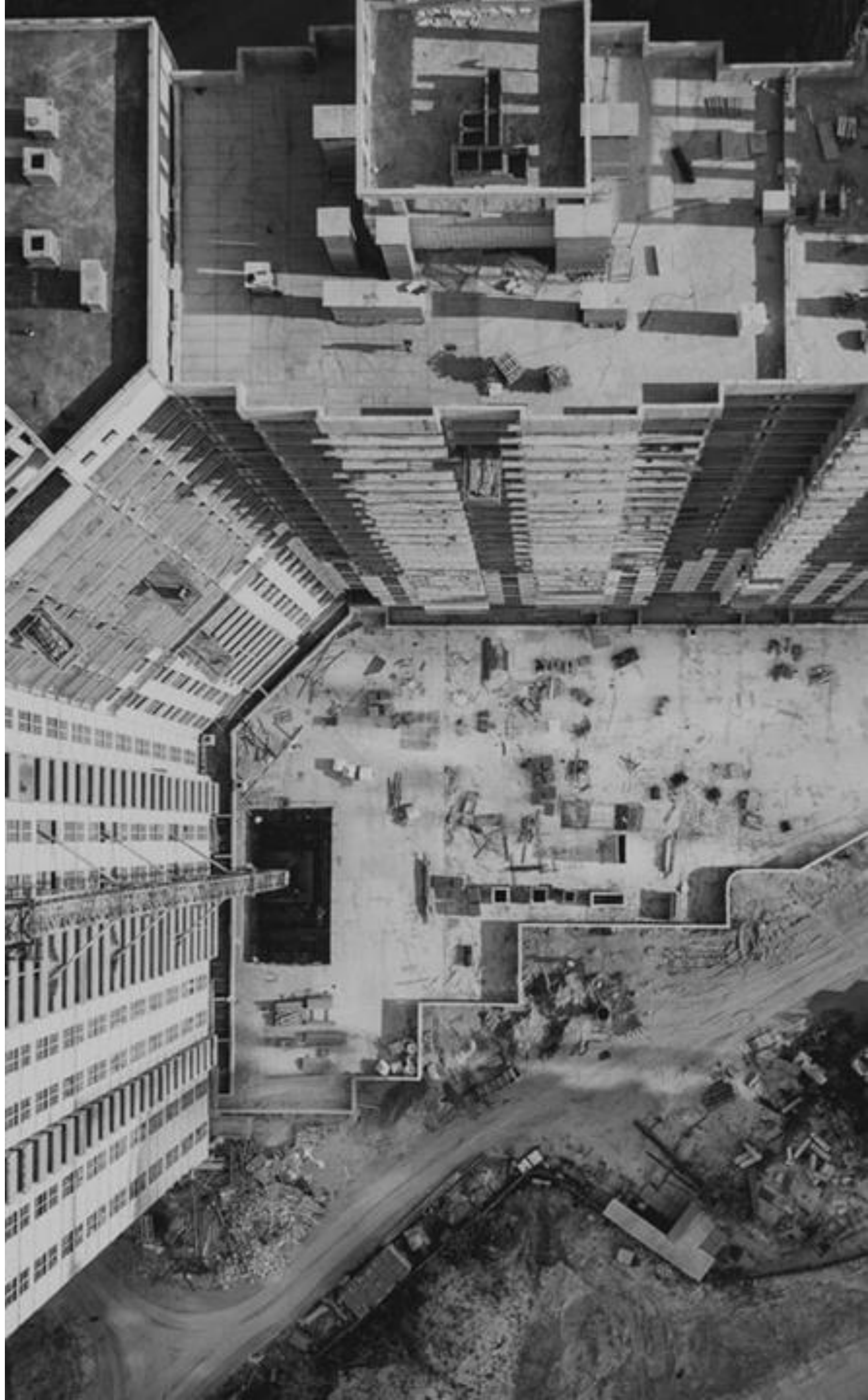
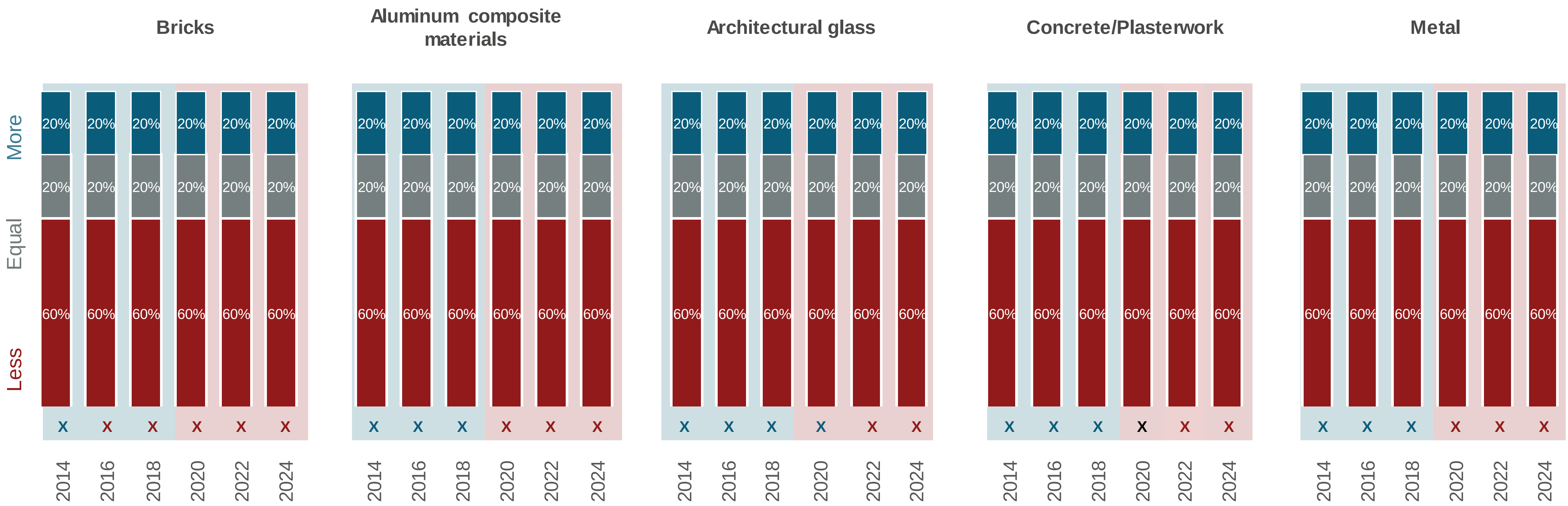


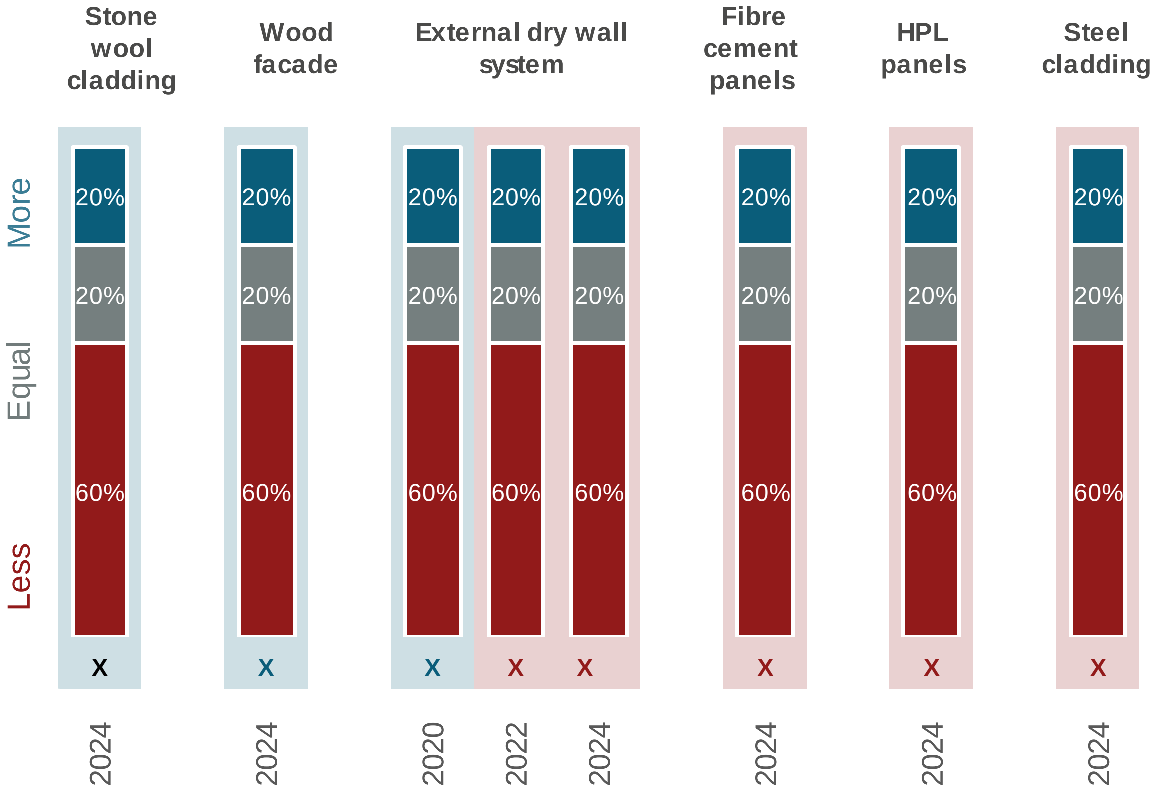
Trendline 2024 – 2029: expected usage of façade materials

*Do you expect to use the following **façade** materials more, equally, or less in projects over the next five years?*



Trendline 2024 – 2029: expected usage of façade materials

*Do you expect to use the following **façade** materials more, equally, or less in projects over the next five years?*



Usage expectations façade materials: country overview

*Do you expect to use the following **façade** materials more, equally, or less in projects over the next five years?*

							
	n=42	n=41	n=34	n=38	n=43	n=34	n=34
Bricks	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%
Fibre cement panels	20%	20%	20%	20%	20%	20%	20%
n/a							
Aluminium Composite materials	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%
Architectural glass	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%
Concrete / Plasterwork	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%
Metal	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%
External drywall system	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%
Stone wool cladding	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%
Wood facades	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%
HPL panels	20%	20%	20%	20%	20%	20%	20%
n/a							
Steel cladding	20%	20%	20%	20%	20%	20%	20%
n/a							

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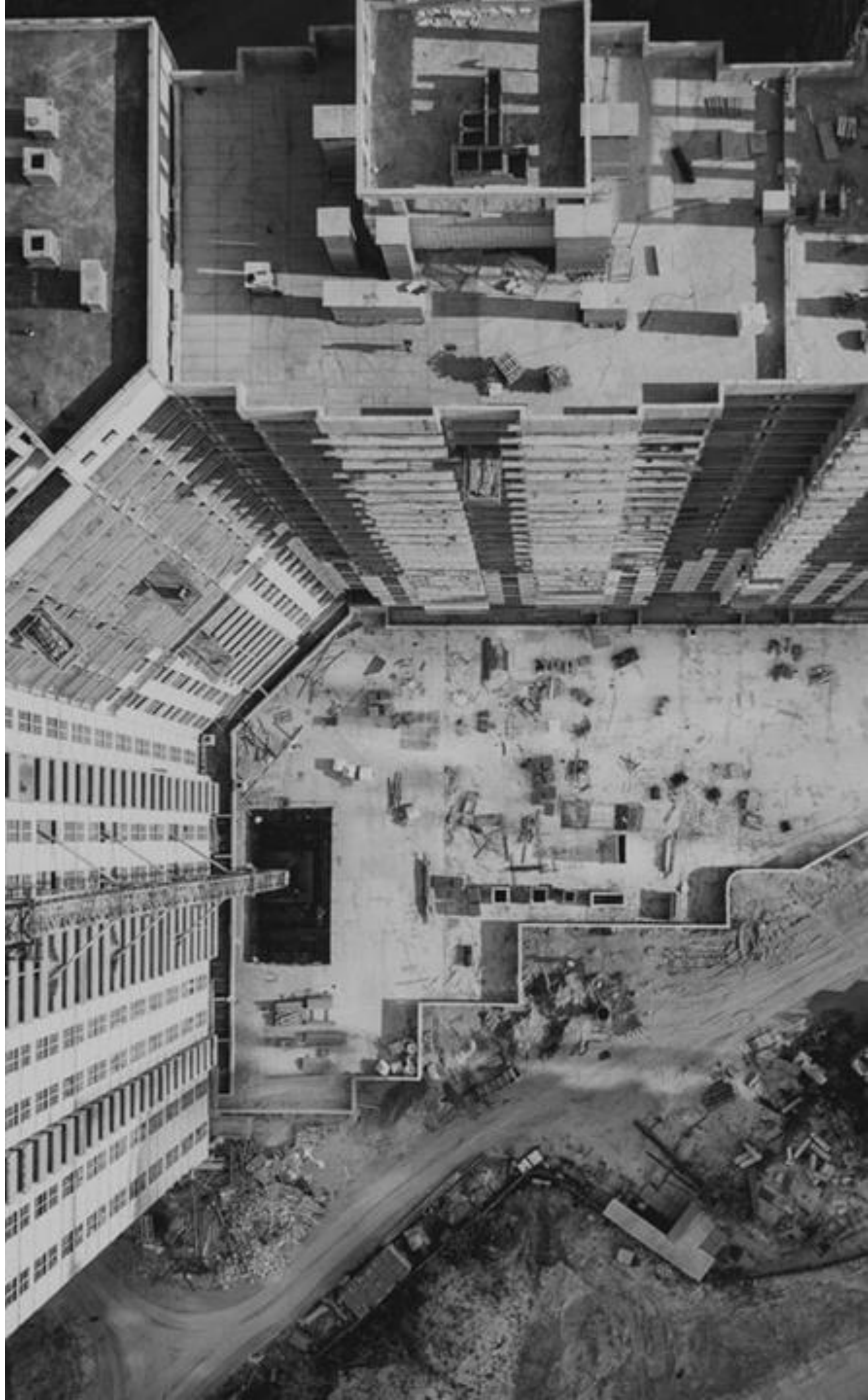
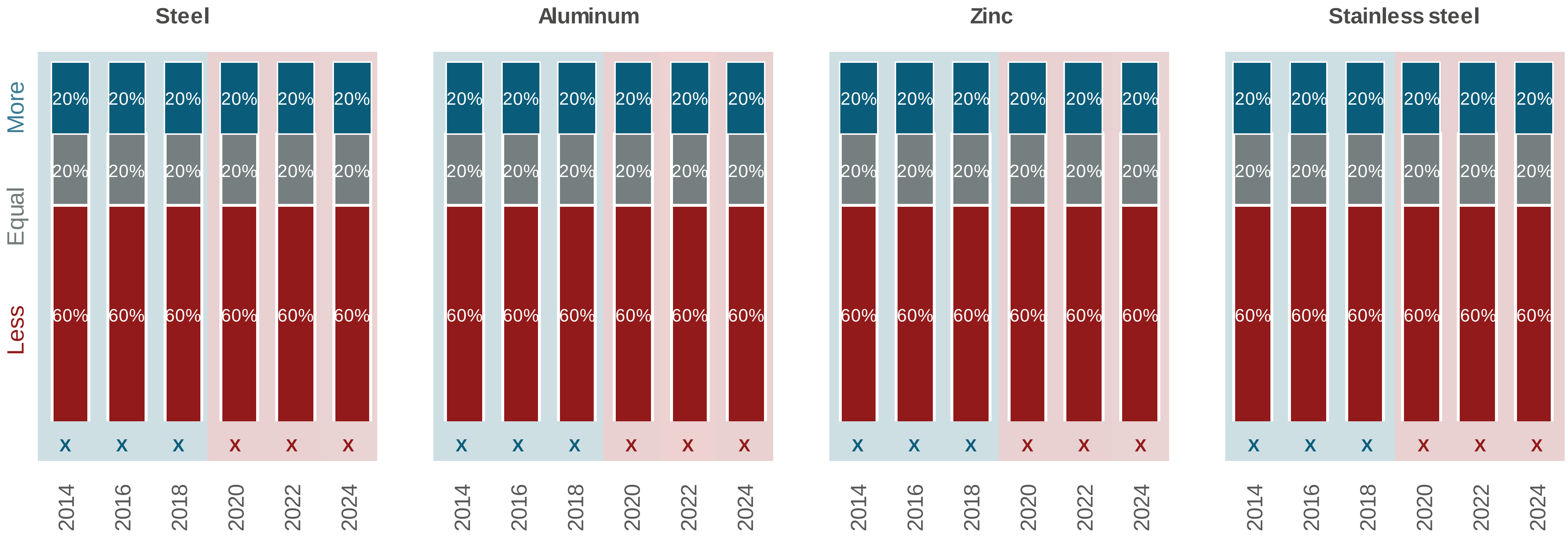


Trendline 2024 – 2029: expected usage of metal materials

*Do you expect to use the following **metal** materials more, equally, or less in projects over the next five years?*



USP

Usage expectations metal materials: country overview

*Do you expect to use the following **metal** materials more, equally, or less in projects over the next five years?*

	n=42	n=41	n=43	n=38	n=43	n=34	n=34
Steel	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%
Aluminium	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%
Zinc	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%
Stainless steel	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%

% **more** minus % **less**

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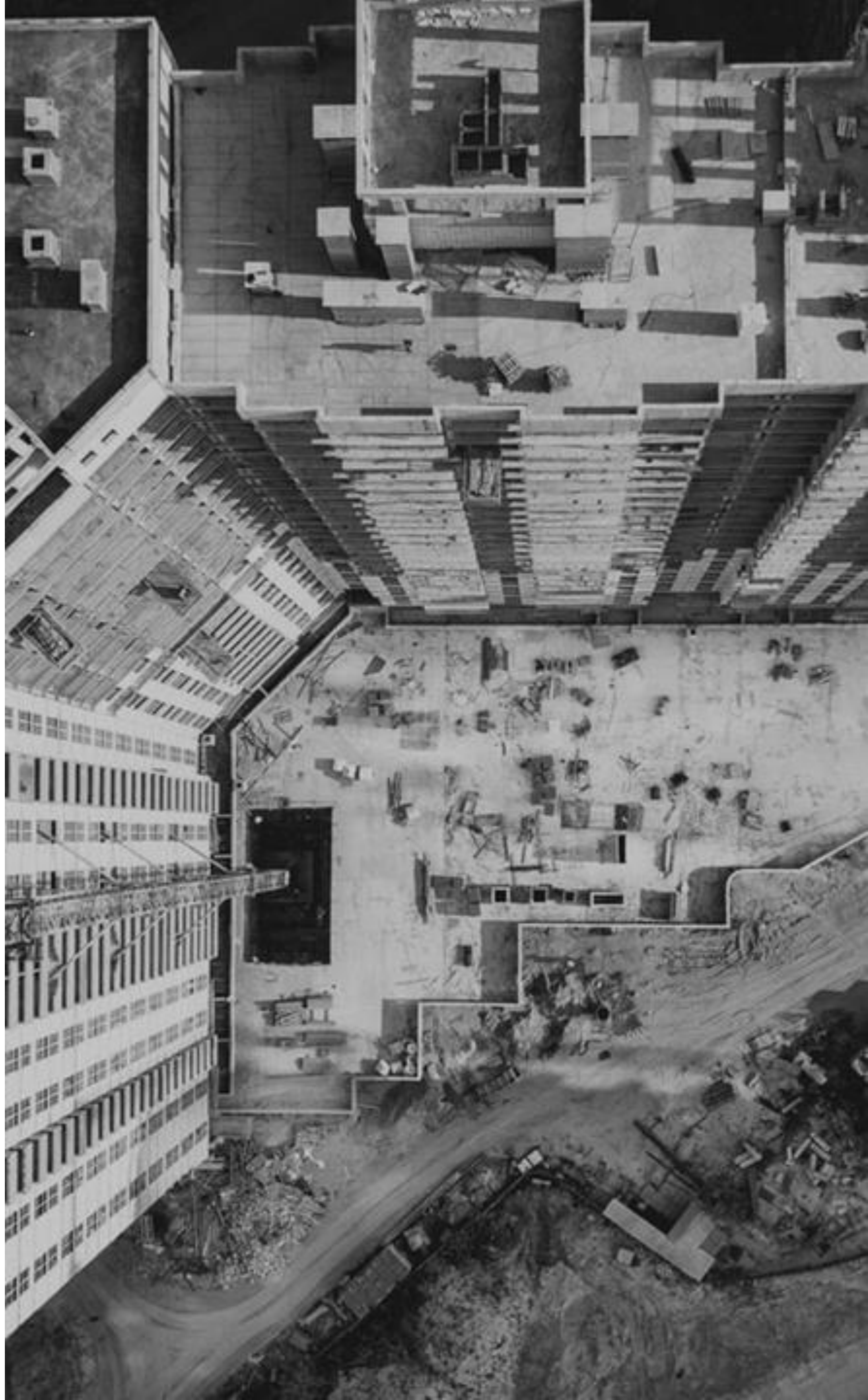
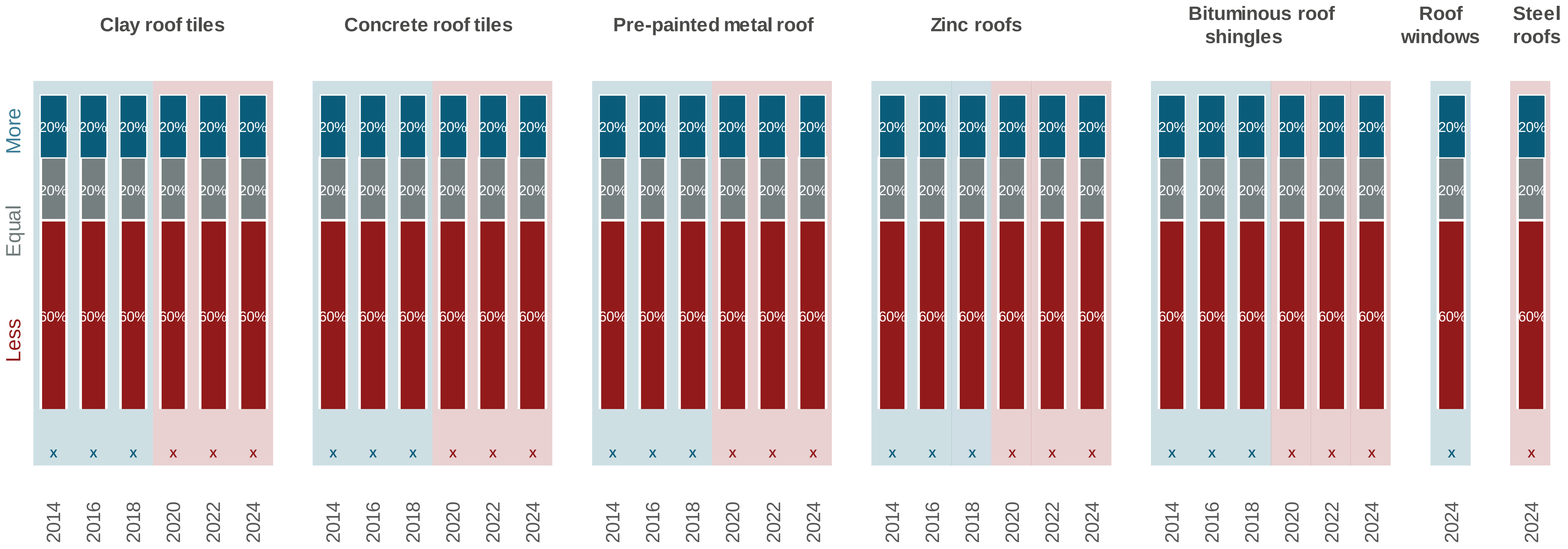


Trendline 2024 – 2029: expected usage of pitched roof materials

*Do you expect to use the following **pitched roof** materials more, equally, or less in projects over the next five years?*



Usage expectations pitched roof materials: country overview

*Do you expect to use the following **pitched roof** materials more, equally, or less in projects over the next five years?*

	n=41	n=42	n=41	n=45	n=41	n=31	n=33
Clay roof tiles	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%
Concrete roof tiles	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%
Pre-painted metal roof	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%
Zinc roofs	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%
Bitumenous roof shingles	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%
Roof windows	20%	20%	20%	20%	20%	20%	20%
n/a							
Steel roofs	20%	20%	20%	20%	20%	20%	20%
n/a							

% **more** minus % **less**

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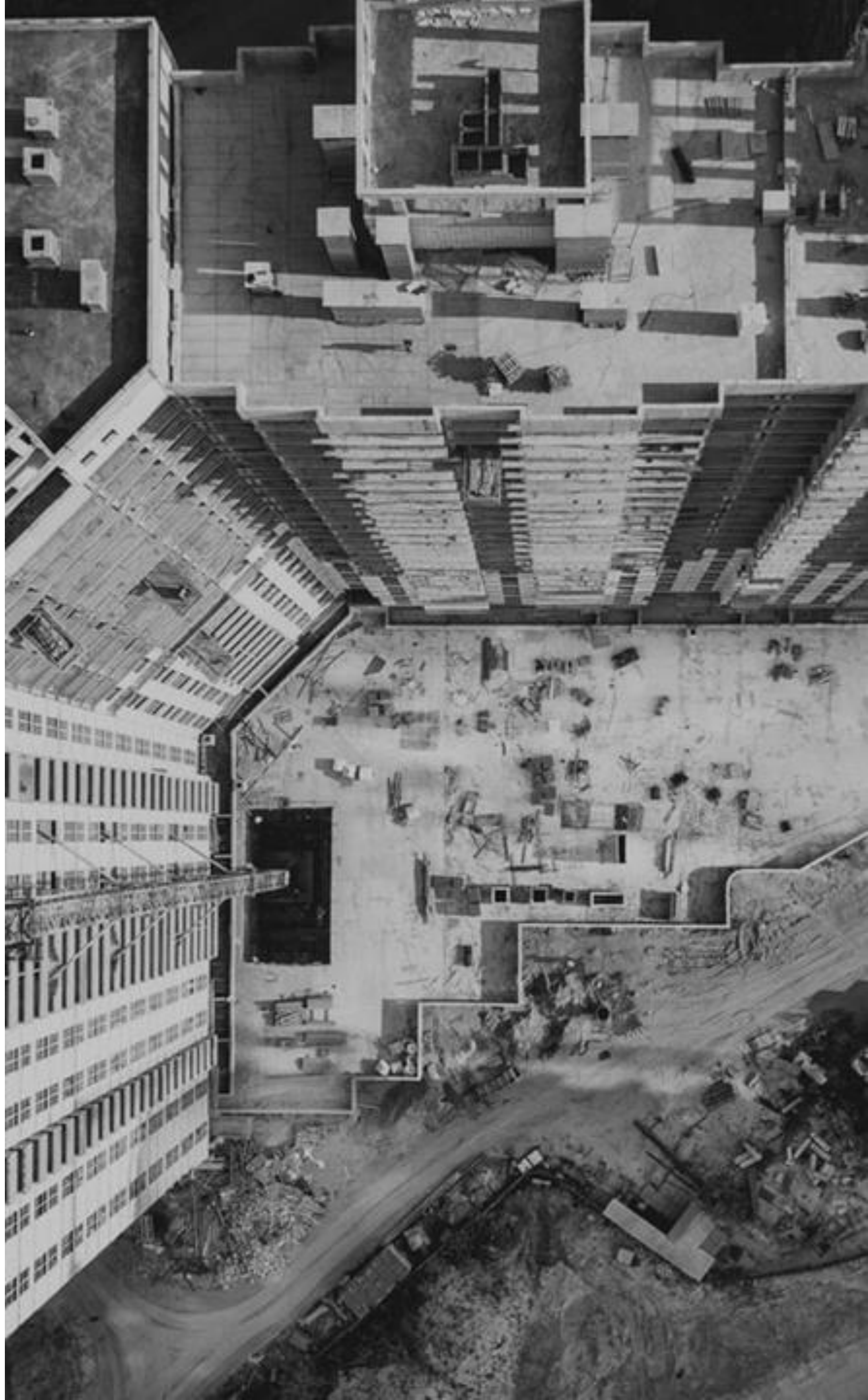

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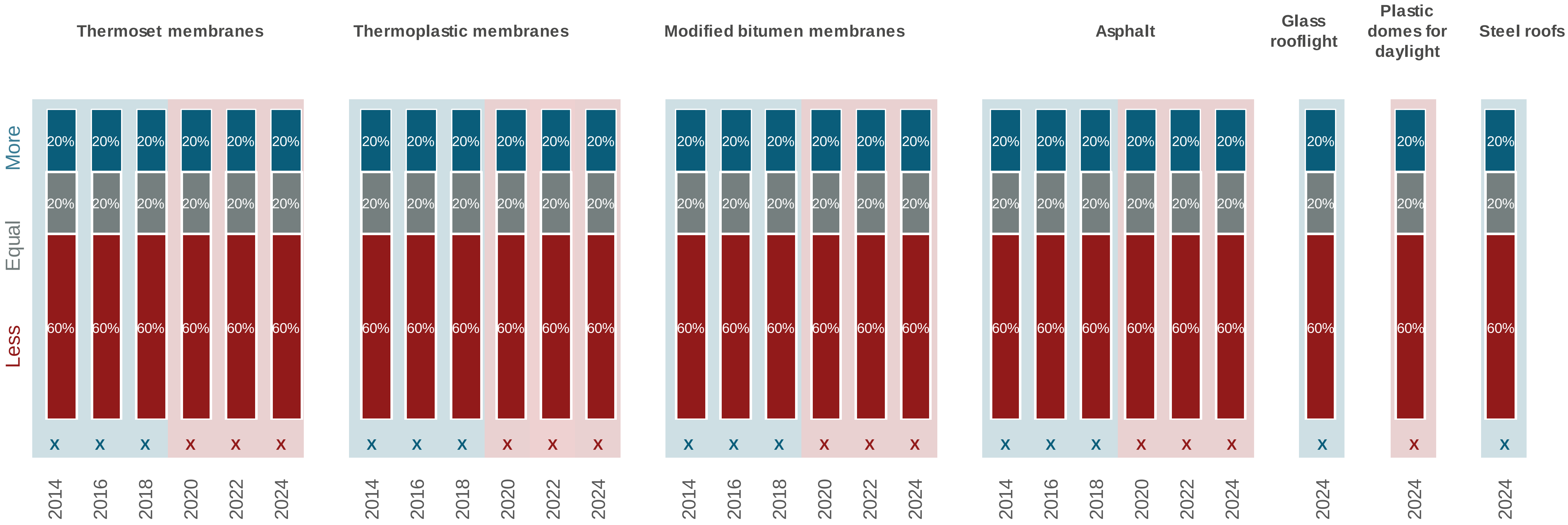
Trendline 2024 – 2029: expected usage of flat roof materials

*Do you expect to use the following **flat roofs** materials more, equally, or less in projects over the next five years?*



Usage expectations flat roof materials: country overview

*Do you expect to use the following **flat roofs** materials more, equally, or less in projects over the next five years?*

	n=42	n=42	n=41	n=42	n=41	n=35	n=33
Thermoset membranes	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%
Thermoplastic membranes	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%
Modified bitumen membranes	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%
Asphalt	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%
Glass rooflight	20%	20%	20%	20%	20%	20%	20%
n/a							
Plastic domes for daylight	20%	20%	20%	20%	20%	20%	20%
n/a							
Steel roofs	20%	20%	20%	20%	20%	20%	20%
n/a							

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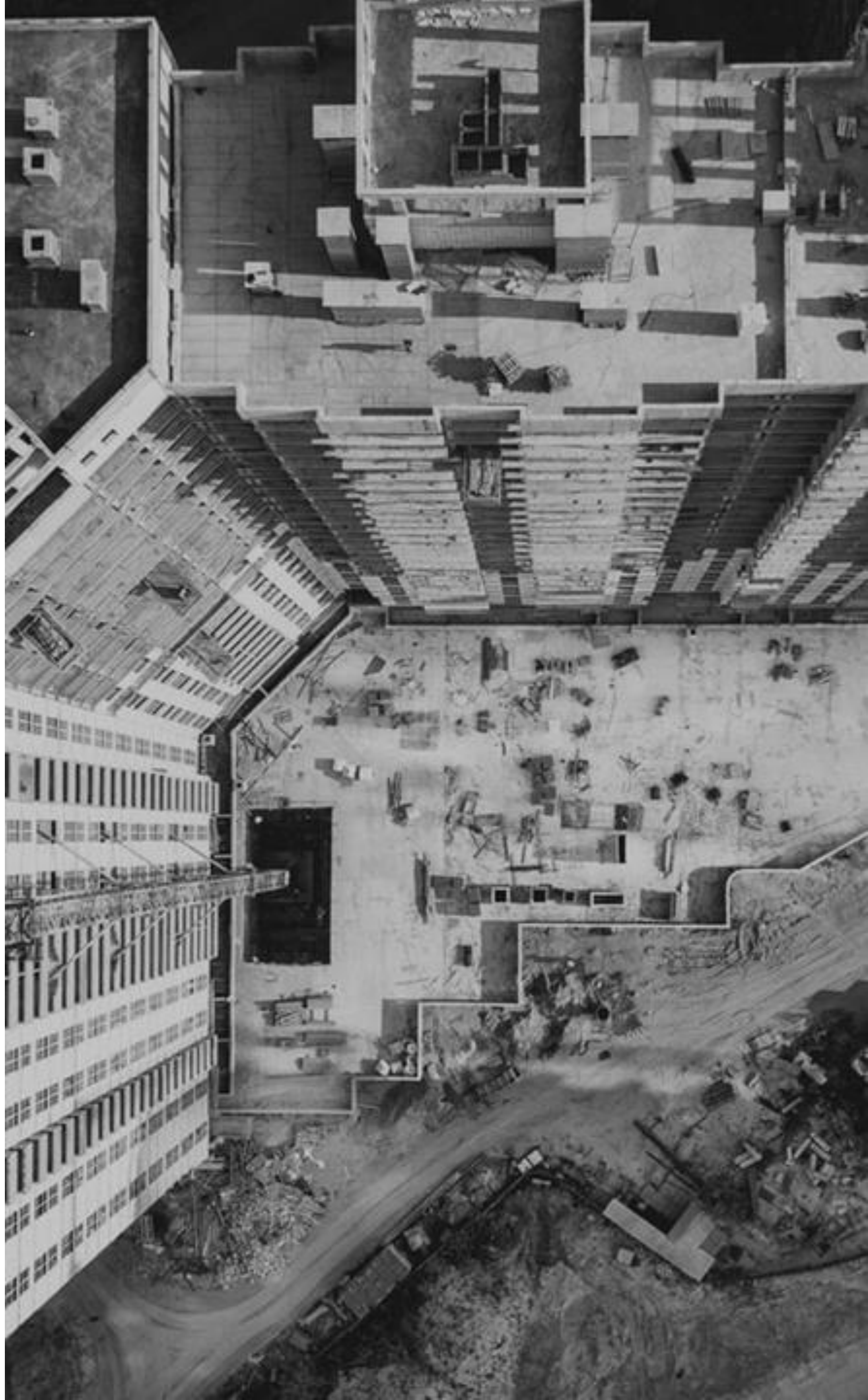
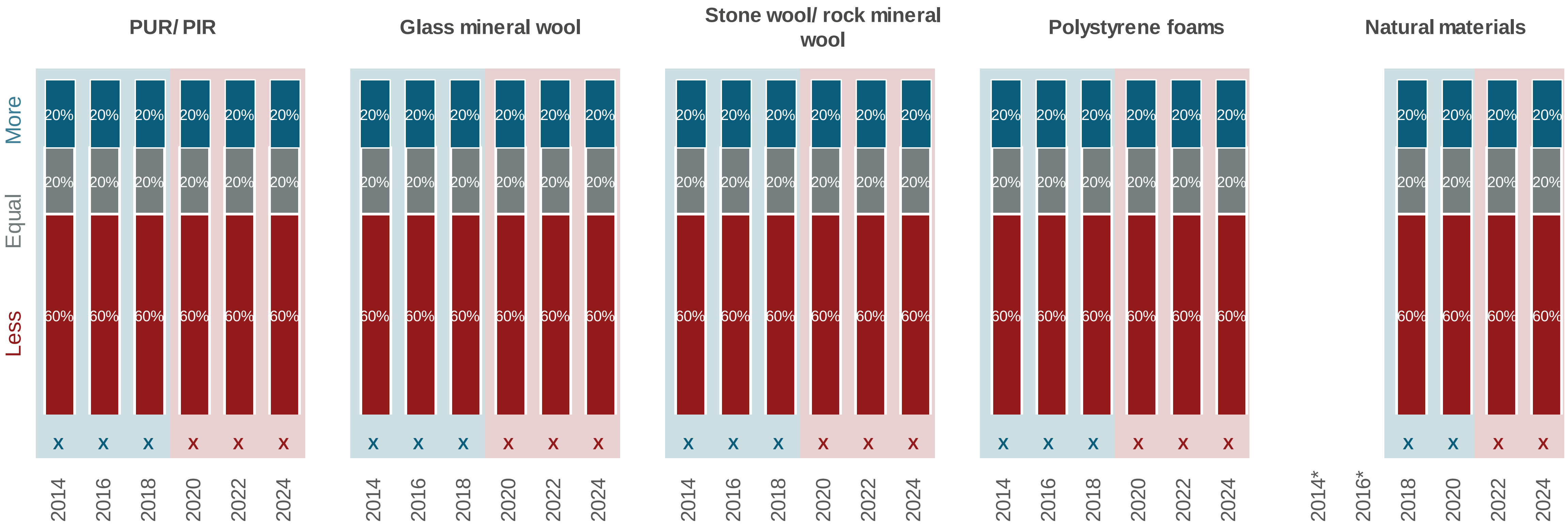


Trendline 2024 – 2029: expected usage of insulation materials

*Do you expect to use the following **insulation** materials more, equally, or less in projects over the next five years?*



* Data not available.

Usage expectations insulation materials: country overview

Do you expect to use the following ***insulation*** *materials more, equally, or less in projects over the next five years?*

	n=42	n=42	n=41	n=42	n=41	n=35	n=33
PUR/PIR insulation materials 2022	20%	20%	20%	20%	20%	20%	20%
	20%	20%	20%	20%	20%	20%	20%
Glass mineral wool 2022	20%	20%	20%	20%	20%	20%	20%
	20%	20%	20%	20%	20%	20%	20%
Stone wool / rock mineral wool 2022	20%	20%	20%	20%	20%	20%	20%
	20%	20%	20%	20%	20%	20%	20%
Polystyrene foams 2022	20%	20%	20%	20%	20%	20%	20%
	20%	20%	20%	20%	20%	20%	20%
Natural materials 2022	20%	20%	20%	20%	20%	20%	20%

% **more** minus % **less**

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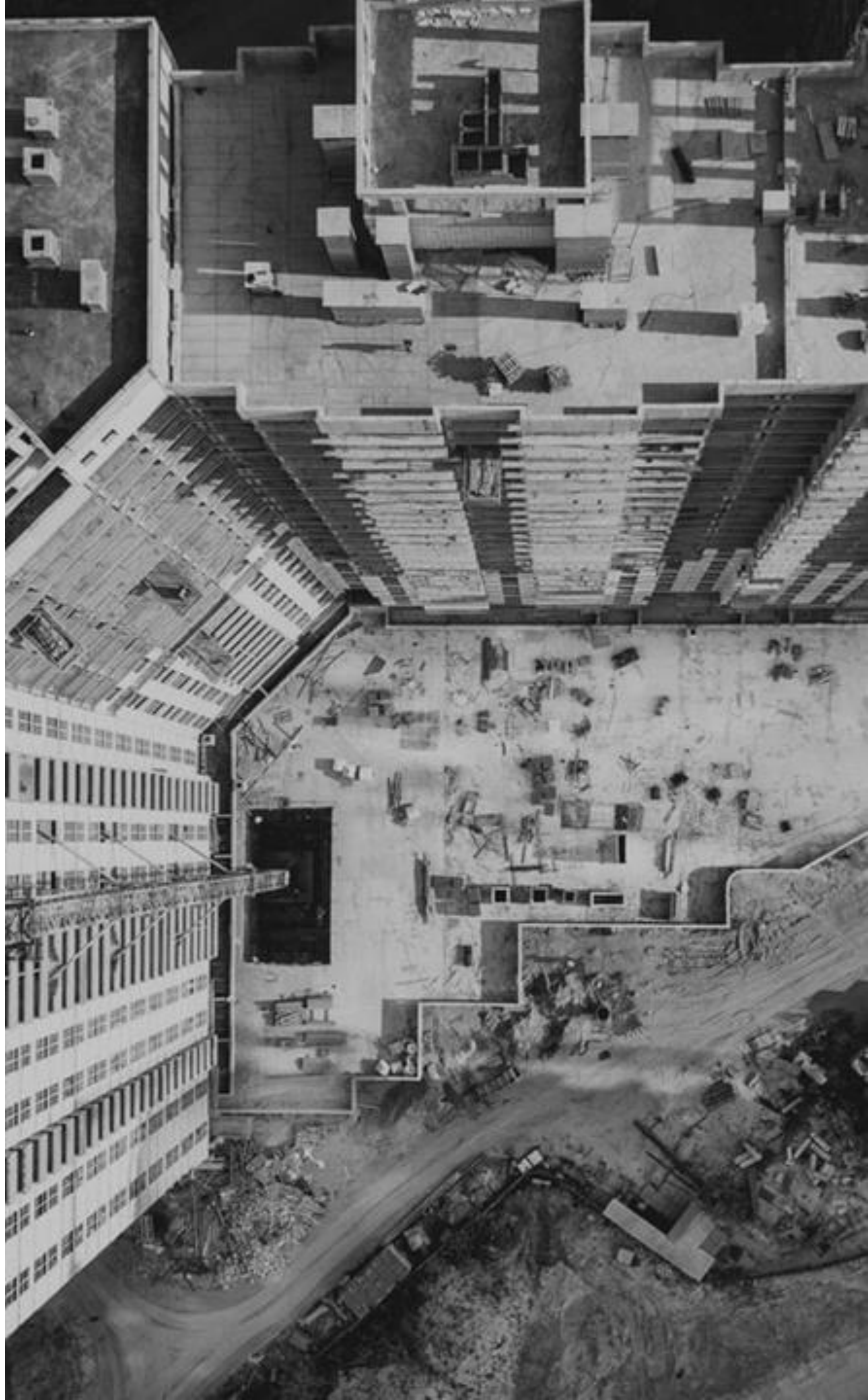
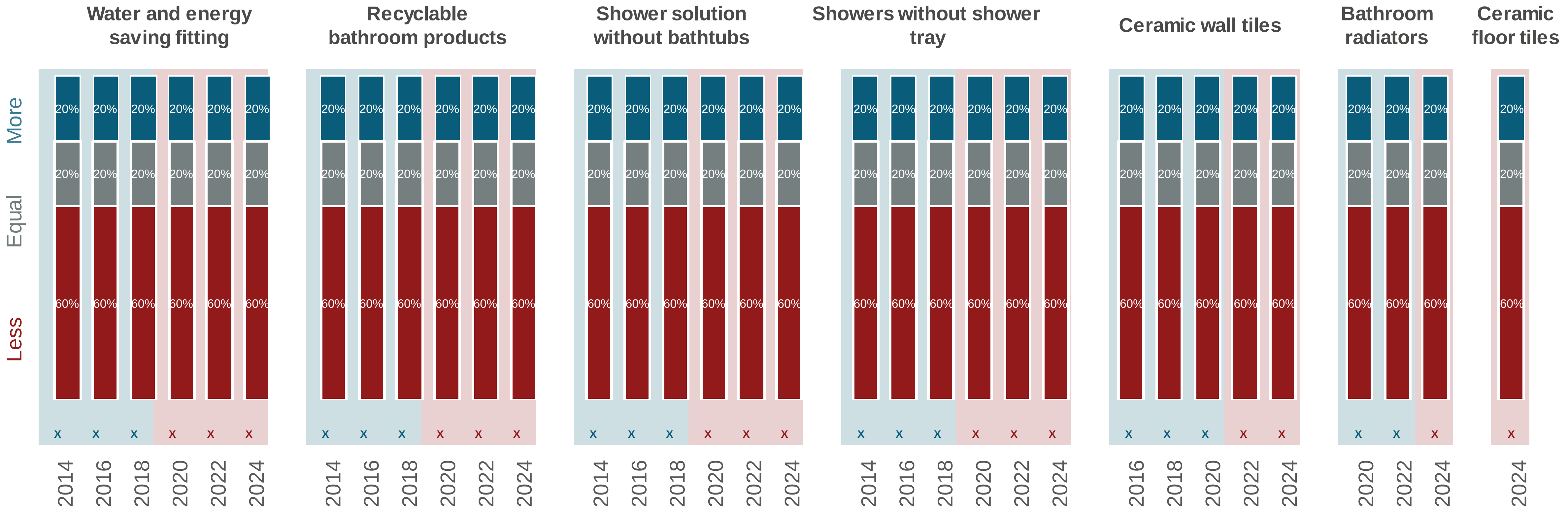


Trendline 2024 – 2029: expected usage of bathroom materials

*Do you expect to use the following **bathroom** materials more, equally, or less in projects over the next five years?*



Usage expectations bathroom materials: country overview

*Do you expect to use the following **bathroom** materials more, equally, or less in projects over the next five years?*

	n=42	n=42	n=41	n=42	n=41	n=35	n=33
Water & energy saving fittings	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%
Bathroom radiators	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%
Recyclable bathroom products	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%
Shower solutions without bathtubs	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%
Showers without shower tray	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%
Ceramic wall tiles	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%
Ceramic floor tiles	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%

% **more** minus % **less**

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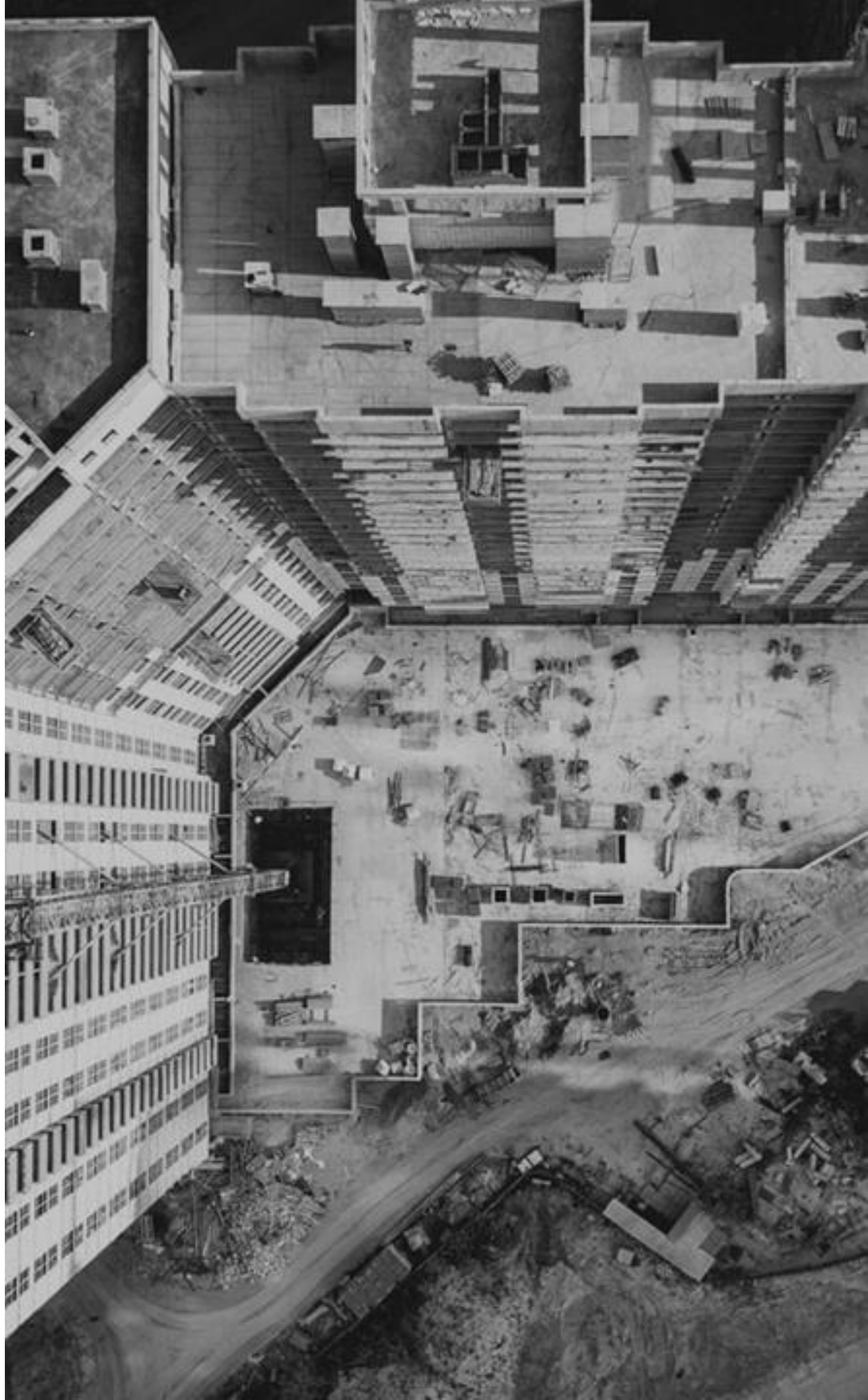
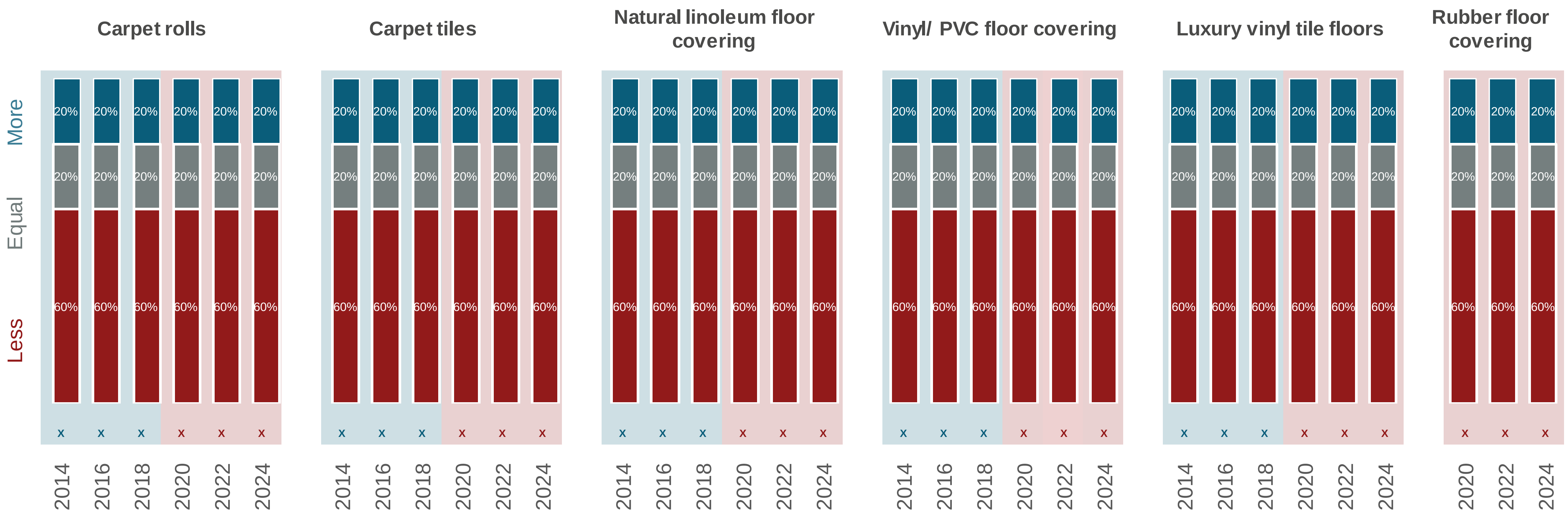


Trendline 2024 – 2029: expected usage of flooring materials

*Do you expect to use the following **flooring** materials more, equally, or less in projects over the next five years?*



Usage expectations flooring materials: country overview

*Do you expect to use the following **flooring** materials more, equally, or less in projects over the next five years?*

	n=42	n=42	n=41	n=42	n=41	n=35	n=33
Carpet rolls	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%
Carpet tiles	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%
Natural linoleum floor covering	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%
Vinyl / PVC floor covering	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%
Luxury Vinyl Tile floors (LVT)	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%
Rubber floor covering	20%	20%	20%	20%	20%	20%	20%
2022	20%	20%	20%	20%	20%	20%	20%

% **more** minus % **less**

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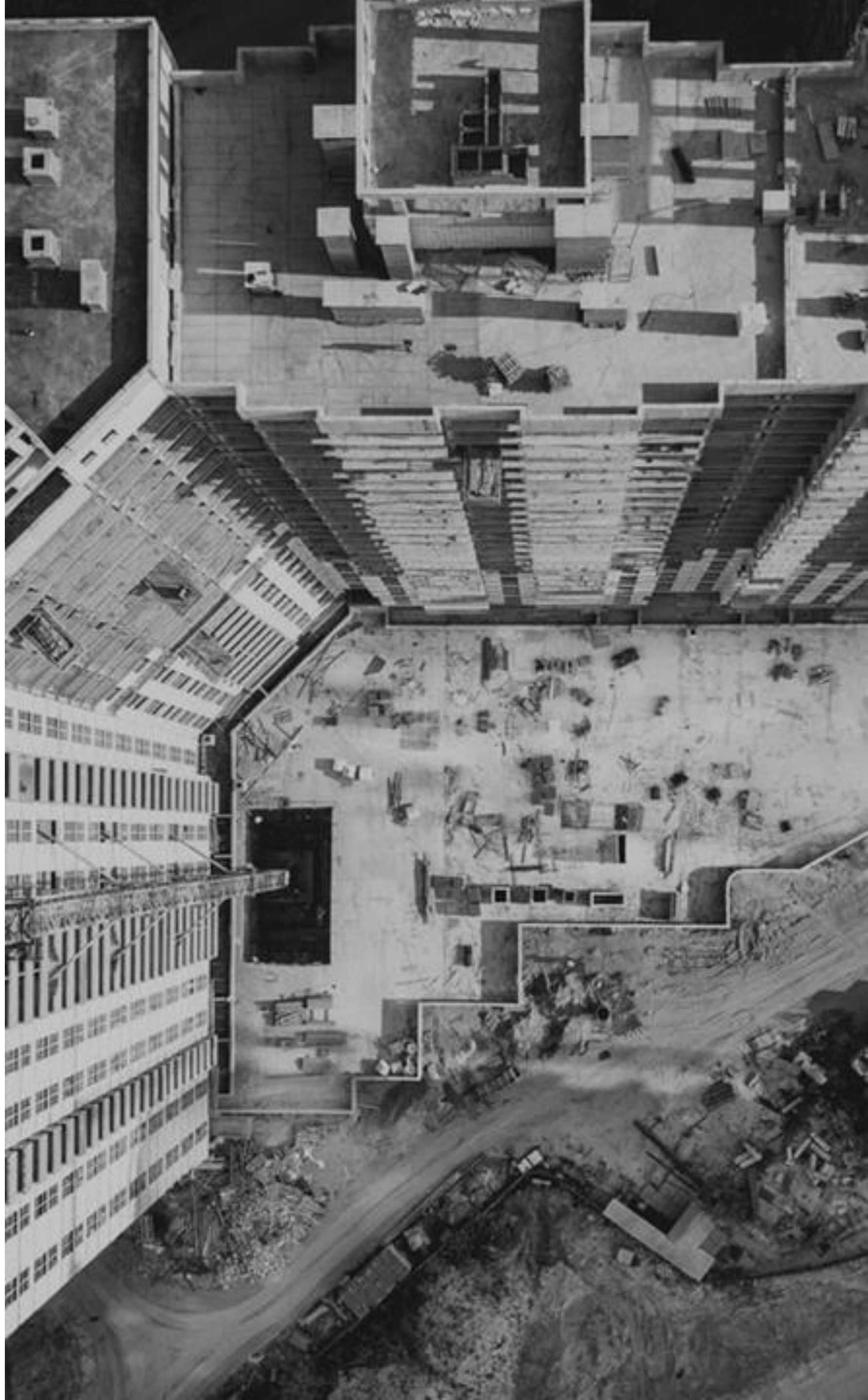
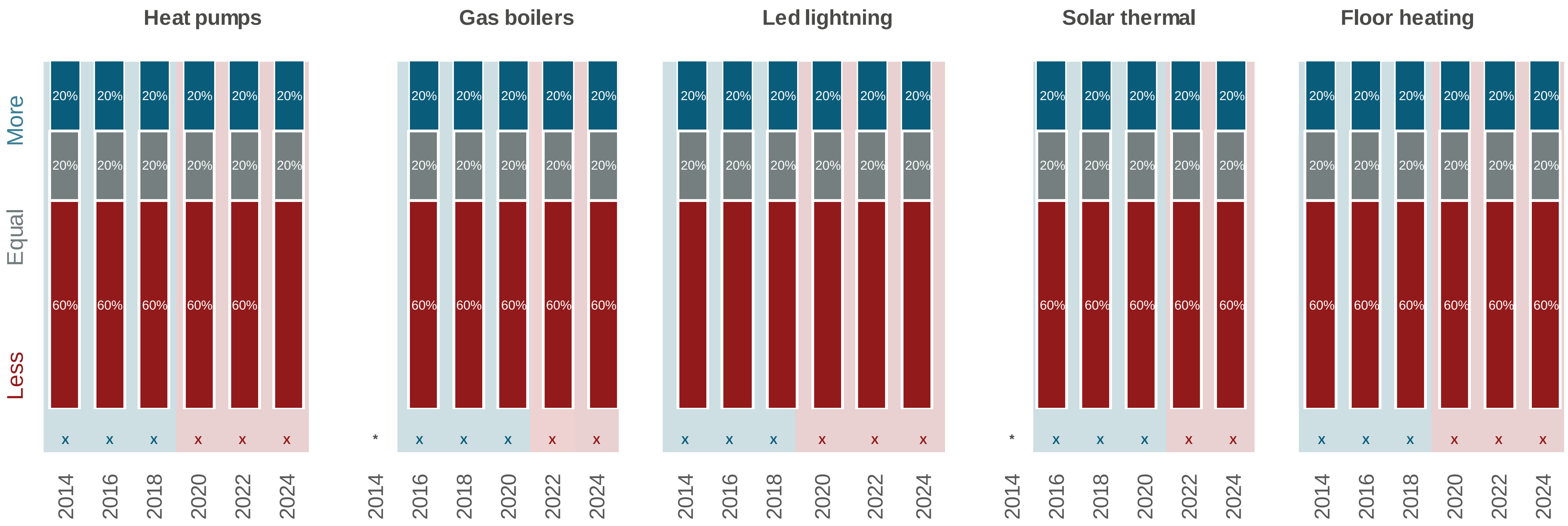


Trendline 2024 – 2029: expected usage of installation and climate control materials

USP

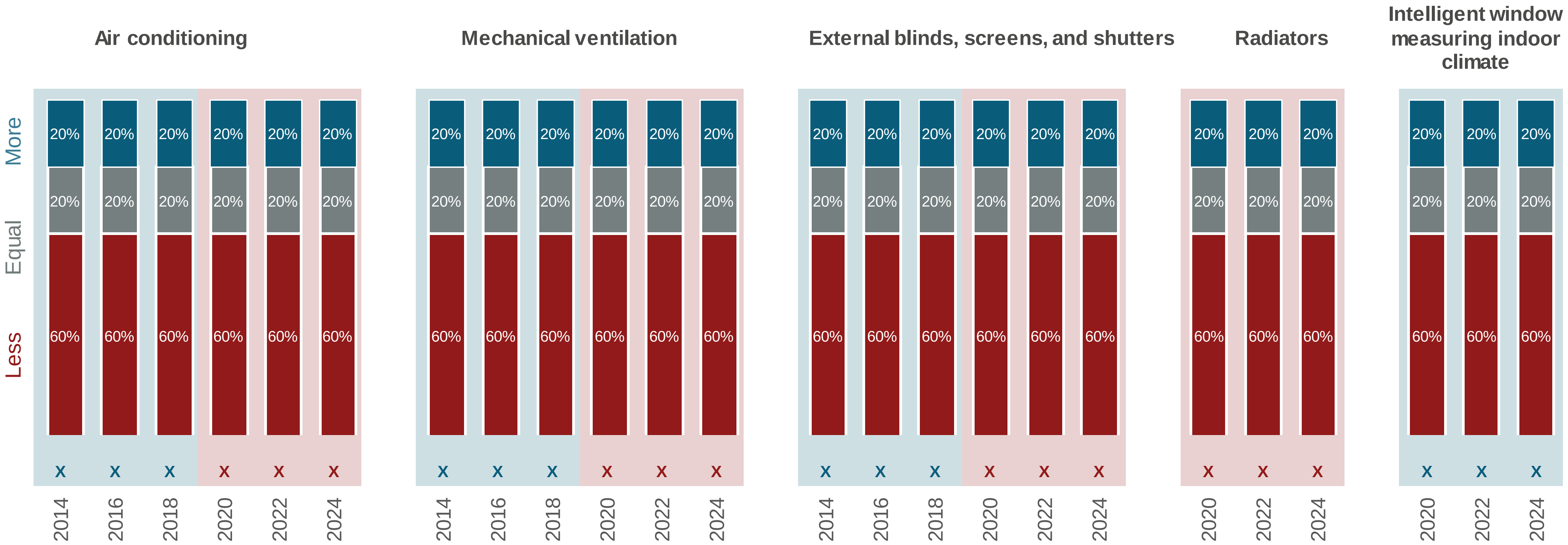
*Do you expect to use the following **installation and climate control** materials more, equally, or less in projects over the next five years?*



* Data not available.

Trendline 2024 – 2029: expected usage of installation and climate control materials

*Do you expect to use the following **installation and climate control** materials more, equally, or less in projects over the next five years?*



USP

Usage expectations installation and climate control materials: country overview

*Do you expect to use the following **installation and climate control** materials more, equally, or less in projects over the next five years?*

	n=42	n=41	n=43	n=38	n=43	n=34	n=34
Heat Pumps 2022	20%	20%	20%	20%	20%	20%	20%
	20%	20%	20%	20%	20%	20%	20%
Gas boilers 2022	20%	20%	20%	20%	20%	20%	20%
	20%	20%	20%	20%	20%	20%	20%
LED Lighting 2022	20%	20%	20%	20%	20%	20%	20%
	20%	20%	20%	20%	20%	20%	20%
Solar thermal 2022	20%	20%	20%	20%	20%	20%	20%
	20%	20%	20%	20%	20%	20%	20%
Floor heating 2022	20%	20%	20%	20%	20%	20%	20%
	20%	20%	20%	20%	20%	20%	20%
Air conditioning 2022	20%	20%	20%	20%	20%	20%	20%
	20%	20%	20%	20%	20%	20%	20%
Mechanical ventilation 2022	20%	20%	20%	20%	20%	20%	20%
	20%	20%	20%	20%	20%	20%	20%
External Blinds 2022	20%	20%	20%	20%	20%	20%	20%
	20%	20%	20%	20%	20%	20%	20%
Radiators 2022	20%	20%	20%	20%	20%	20%	20%
	20%	20%	20%	20%	20%	20%	20%
Intelligent windows measuring indoor climate 2022	20%	20%	20%	20%	20%	20%	20%
	20%	20%	20%	20%	20%	20%	20%

% **more** minus % **less**

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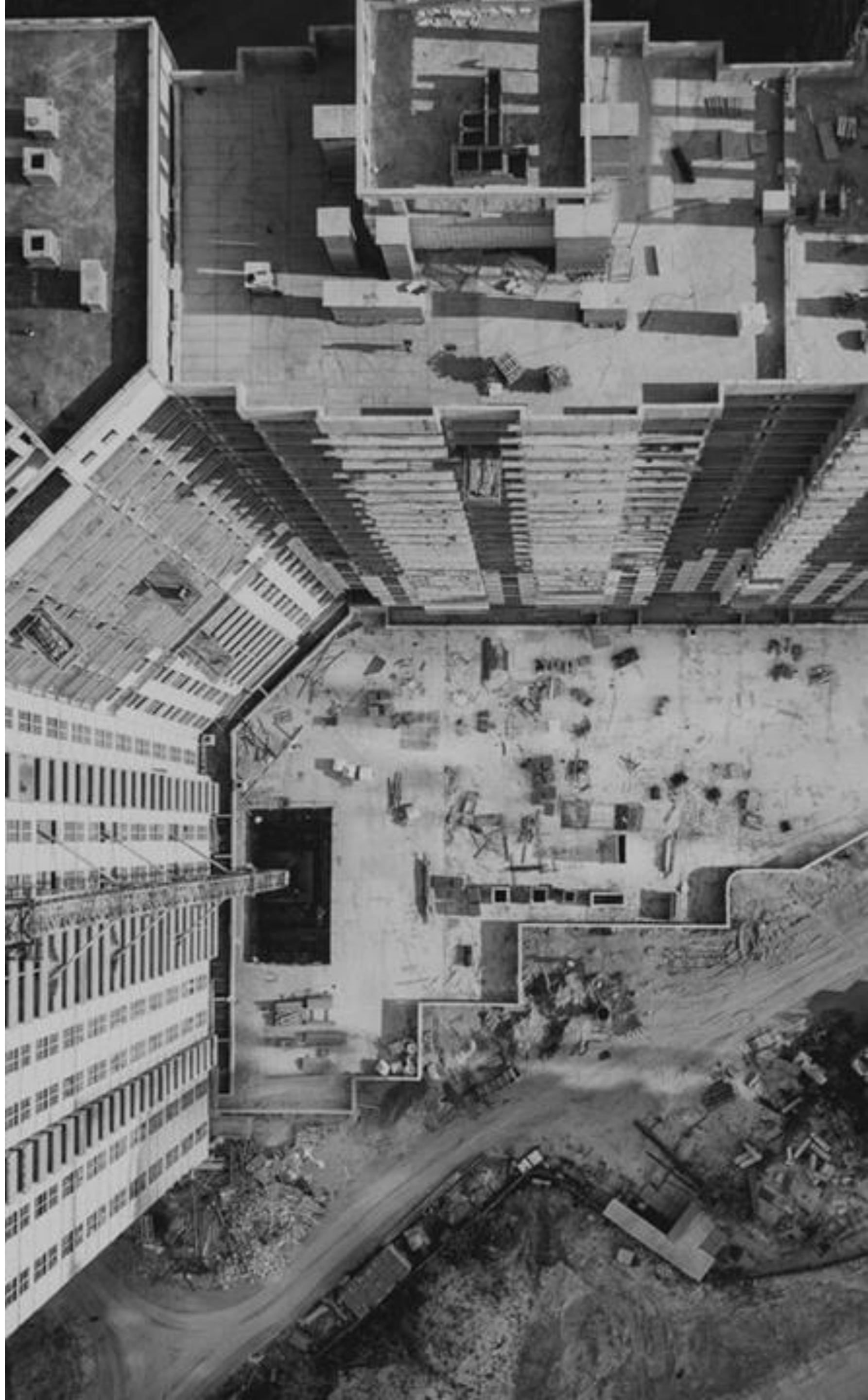
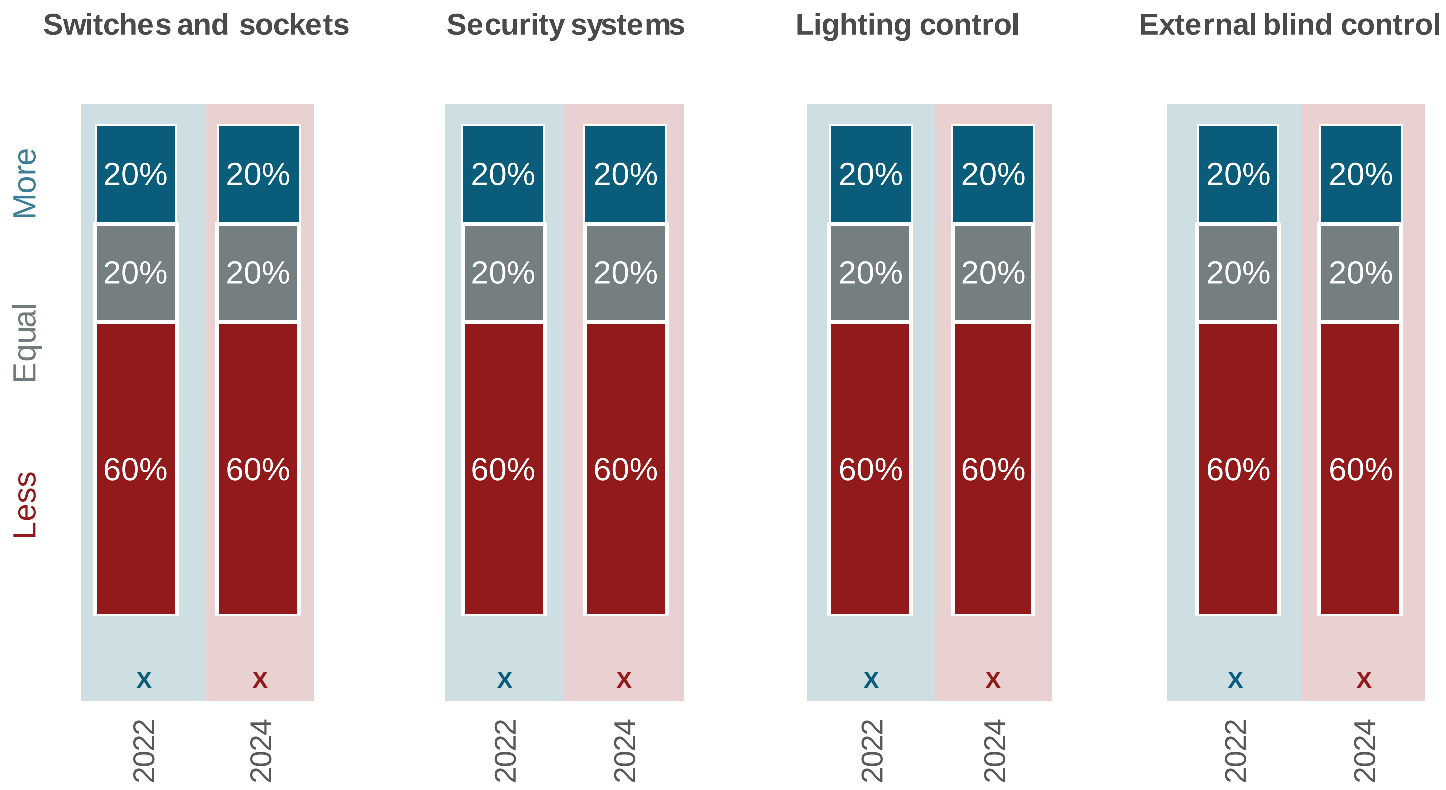


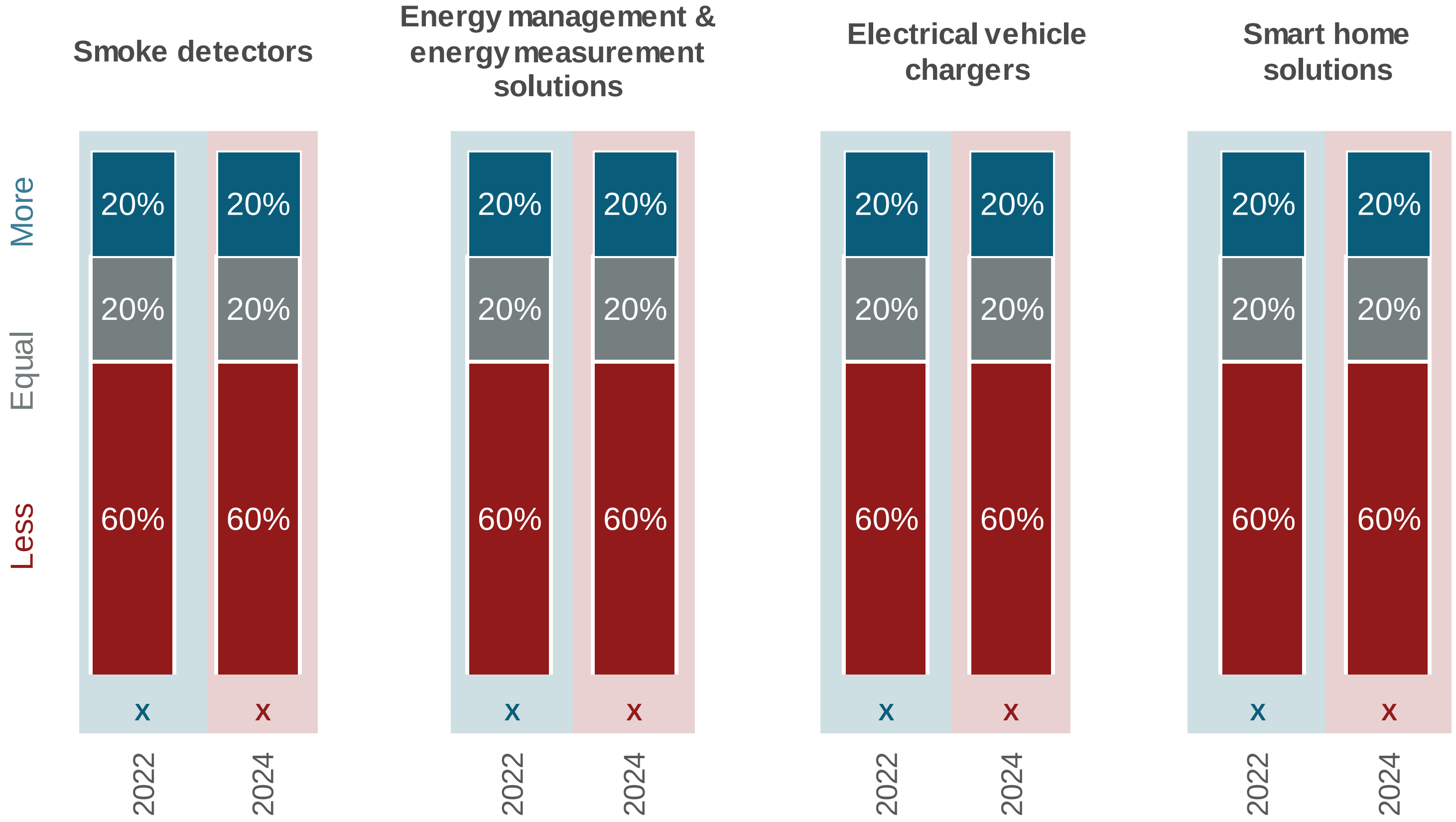
Trendline 2024 – 2029: expected usage of installation and control materials

Do you expect to use the following Control and smart home solutions more, equally, or less in projects over the next five years?



Trendline 2024 – 2029: expected usage of installation and control materials

Do you expect to use the following control and smart home solutions more, equally, or less in projects over the next five years?



Usage Control and smart home solutions: country overview

Do you expect to use the following control and smart home solutions more, equally, or less in projects over the next five years?

							
	n=41	n=42	n=41	n=45	n=41	n=31	n=33
Switches and sockets 2022	20%	20%	20%	20%	20%	20%	20%
	20%	20%	20%	20%	20%	20%	20%
Security systems 2022	20%	20%	20%	20%	20%	20%	20%
	20%	20%	20%	20%	20%	20%	20%
Lighting control 2022	20%	20%	20%	20%	20%	20%	20%
	20%	20%	20%	20%	20%	20%	20%
External blind control 2022	20%	20%	20%	20%	20%	20%	20%
	20%	20%	20%	20%	20%	20%	20%
Smoke detectors 2022	20%	20%	20%	20%	20%	20%	20%
	20%	20%	20%	20%	20%	20%	20%
Energy management & energy measurement solutions 2022	20%	20%	20%	20%	20%	20%	20%
	20%	20%	20%	20%	20%	20%	20%
Electrical vehicle chargers 2022	20%	20%	20%	20%	20%	20%	20%
	20%	20%	20%	20%	20%	20%	20%
Smart home solutions 2022	20%	20%	20%	20%	20%	20%	20%
	20%	20%	20%	20%	20%	20%	20%

% **more** minus % **less**

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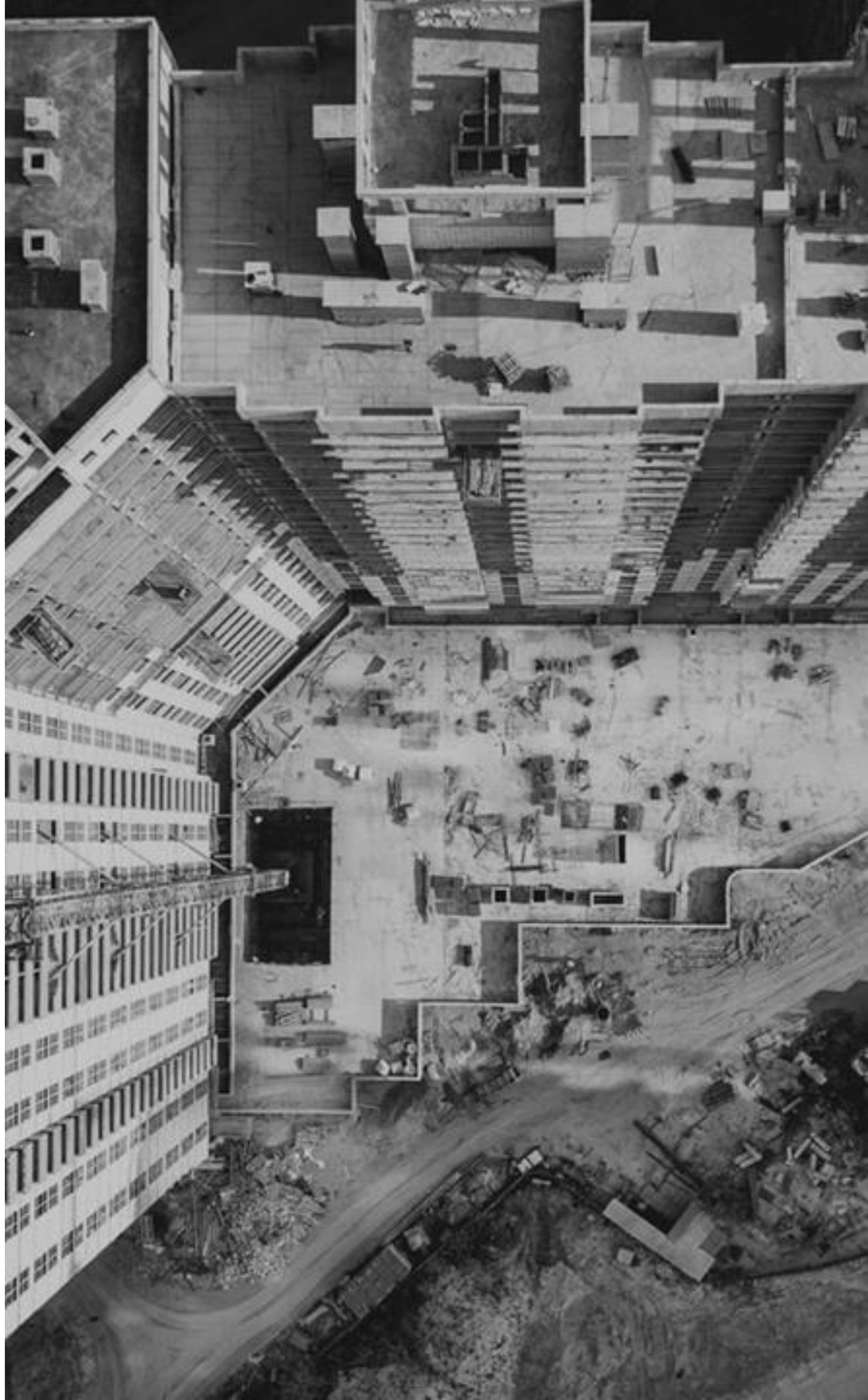
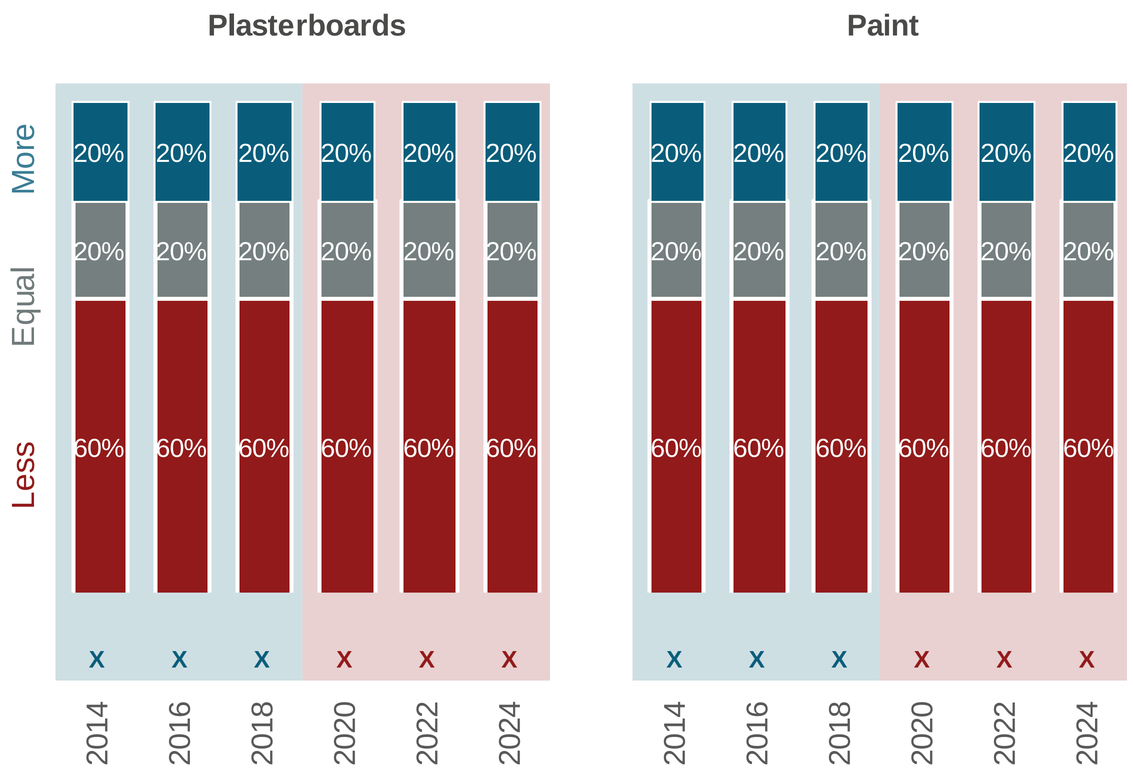


USP

Trendline 2024 – 2029: expected usage of finishing materials

*Do you expect to use the following **finishing materials and products** more, equally, or less in projects over the next five years?*



USP

Usage expectations finishing materials: country overview

*Do you expect to use the following **finishing materials and products** materials more, equally, or less in projects over the next five years?*

	n=41	n=42	n=41	n=45	n=41	n=31	n=33
Plasterboards	20%	20%	20%	20%	20%	20%	20%
2020	20%	20%	20%	20%	20%	20%	20%
Paint	20%	20%	20%	20%	20%	20%	20%
2020	20%	20%	20%	20%	20%	20%	20%

% **more** minus % **less**

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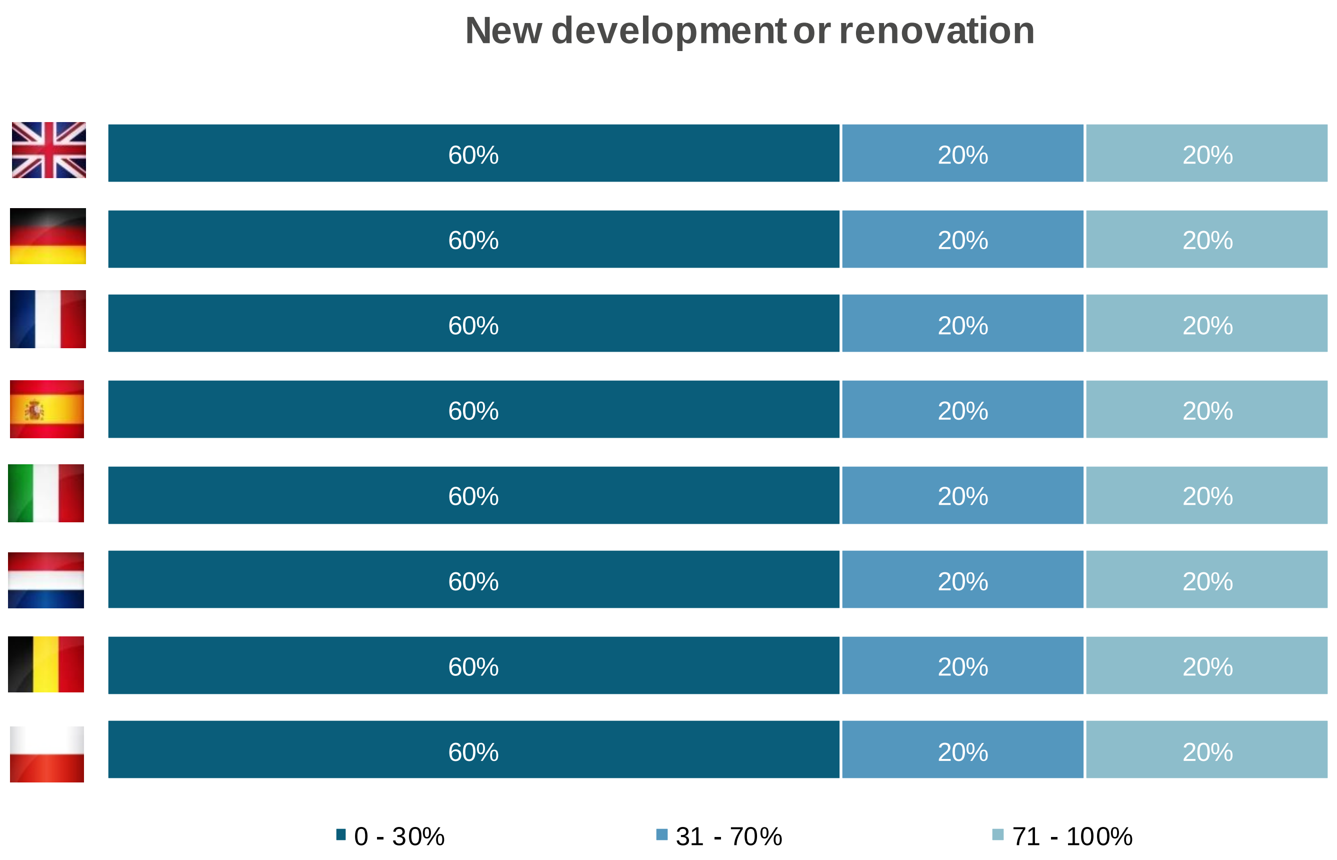


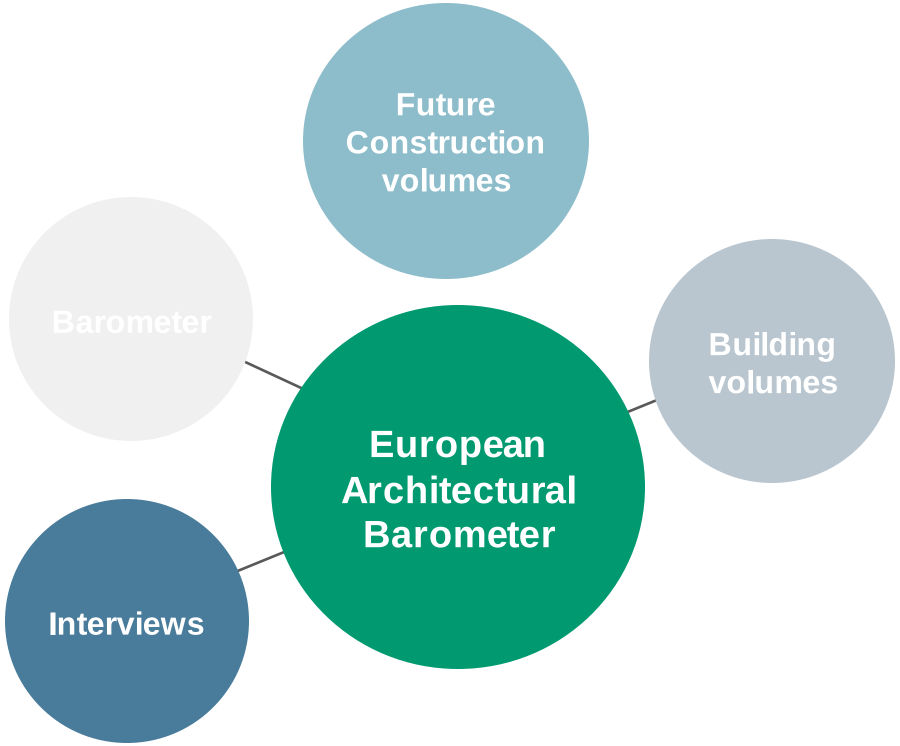
About European Architectural Barometer

European Architectural Barometer

Architects have already been monitored by several institutes in quite diverging ways in the different countries. USP launched this European Architectural Barometer for a more cohesive view. The European Architectural Barometer is extremely useful for organisations with a focus on Europe that also want to compare the activities of architects in different countries.

Interviews

All interviews are conducted by native speakers. From the third measurement onwards, two hundred interviews per country have been completed per measurement. The first two measurements were based on one hundred interviews per country. Later, for the Netherlands and Belgium, the measurements returned to one hundred interviews.



Future construction volumes

For decision makers charged with considerations of company resources, staffing and marketing strategy, a clear insight into future construction volumes is essential. However, economic indicators seldom provide an adequate picture of these volumes.

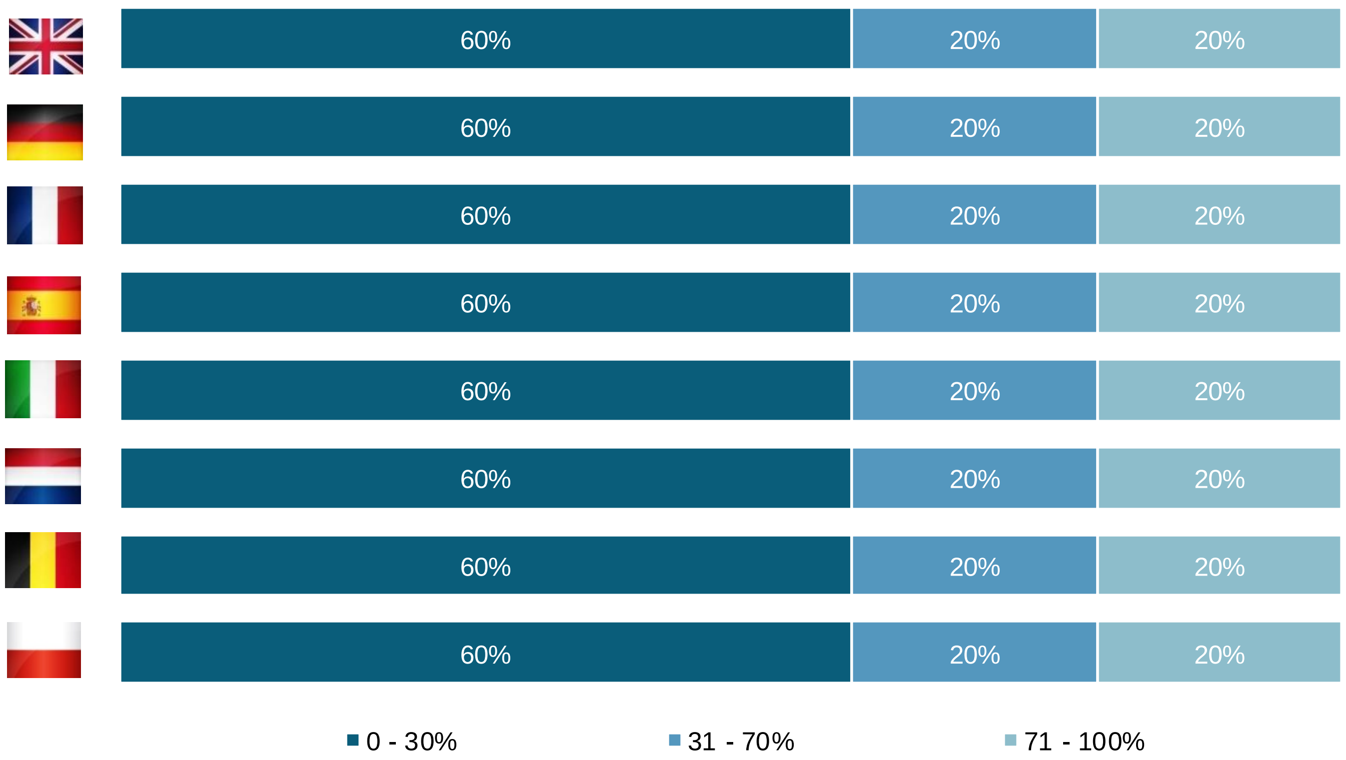
Building volumes

The construction industry operates in a delayed cyclical market, which means that buildings designed today will not be ready until at least two years from now. The economic activities of architectural firms provide a strong indication of the direction in which the construction sector will develop in terms of both building volumes and the way in which building volumes will be realised.

Results per segment

For three key questions from the current measurement of the European Architectural Barometer, the results are divided by architects that realise most of their sales in the residential segment (0% – 30% non-residential), by architects that realise sales in both segments (31% - 70% non-residential), and by architects that realise most of their sales in the non-residential segment (71% - 100% non-residential).

Segment most active



The tables on the following pages show the abovementioned split with regard to the following questions:

- **How did the turnover develop in this quarter compared to the previous quarter?**
- **How did your order book develop in this quarter compared to the same quarter last year?**
- **Do you expect that your order book might be empty these coming 12 months?**

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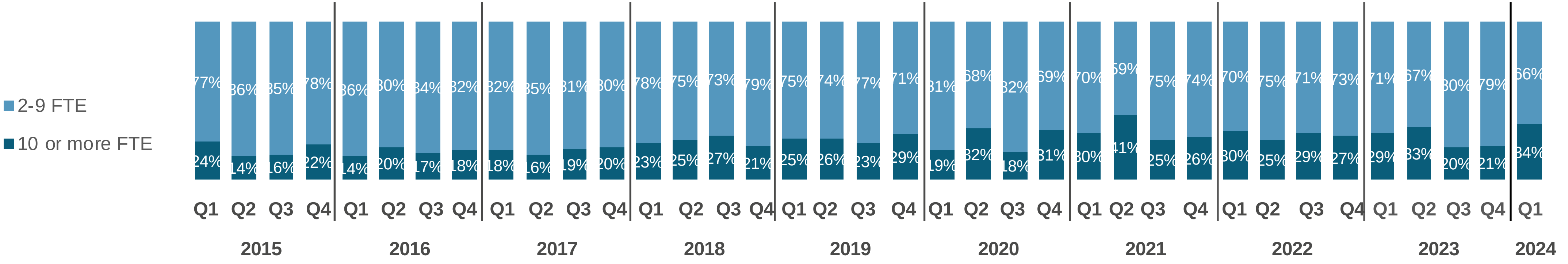
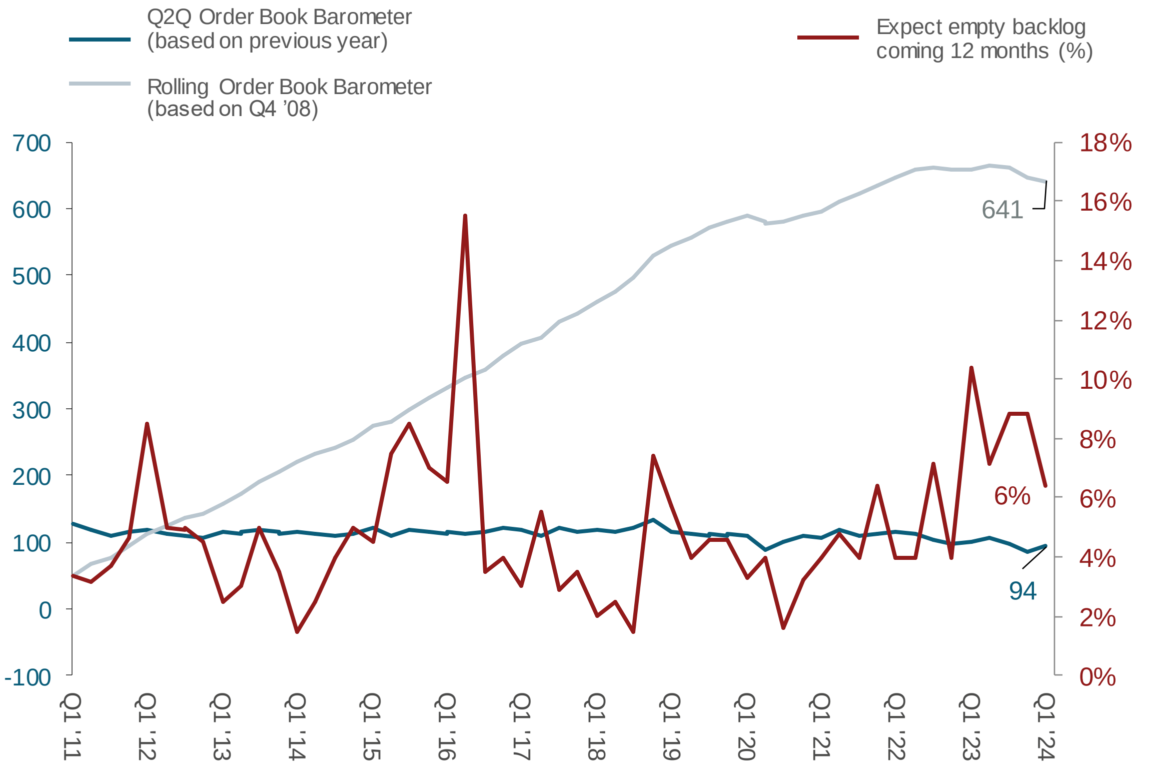
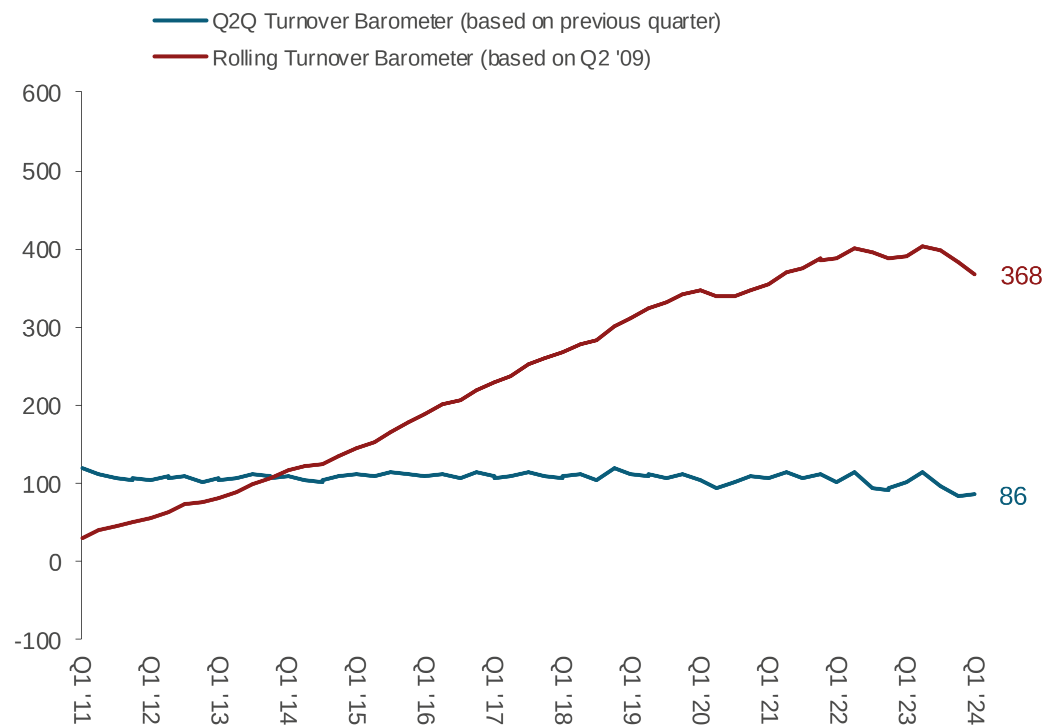
Short-term outlook among German architects







Data of the short-term outlook is available per country

USP

Development turnover and order book

Development turnover
(based on previous quarter)

% sales in non-residential	0 - 30	31 - 70	71 - 100	0 - 30	31 - 70	71 - 100	0 - 30	31 - 70	71 - 100	0 - 30	31 - 70	71 - 100	0 - 30	31 - 70	71 - 100	0 - 30	31 - 70	71 - 100	0 - 30	31 - 70	71 - 100
Strongly increased (>5%)	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%
Slightly increased (0-5%)	x%	x%	x%	x%	x%	x%	x%	x%	x%	x%	x%	x%	x%	x%	x%	x%	x%	x%	x%	x%	x%
Stayed the same (0%)	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%
Slightly decreased (0-5%)	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%
Strongly decreased (>5%)	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%
Barometer turnover	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx

Development order book
(based on previous year)

% sales in non-residential	0 - 30	31 - 70	71 - 100	0 - 30	31 - 70	71 - 100	0 - 30	31 - 70	71 - 100	0 - 30	31 - 70	71 - 100	0 - 30	31 - 70	71 - 100	0 - 30	31 - 70	71 - 100	0 - 30	31 - 70	71 - 100
Strongly increased (>5%)	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%
Slightly increased (0-5%)	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%
Stayed the same (0%)	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%
Slightly decreased (0-5%)	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%
Strongly decreased (>5%)	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%
Barometer order book	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx

Expectation empty order book in the next 12 months

Expectation empty order book in the next 12 months

% sales in non-residential	0 - 30	31 - 70	71 - 100	0 - 30	31 - 70	71 - 100	0 - 30	31 - 70	71 - 100	0 - 30	31 - 70	71 - 100	0 - 30	31 - 70	71 - 100	0 - 30	31 - 70	71 - 100	0 - 30	31 - 70	71 - 100
Yes	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%
No	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%
Do not know	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%	xx%

Sample and methodology of the research

Most architectural firms have less than two FTE. Nevertheless, the focus of the European Architectural Barometer is on the larger firms. Therefore, the research is only conducted among architectural firms with two FTE and more. As the study is focused on architects active in construction, architects that are solely active in interior or landscaping are excluded from the research.

The table below shows the number of successful interviews in each country. The difference between the gross sample of respondents that were reached (all reached numbers) and the net sample of respondents that were reached, was caused by those architects who could not be contacted or had an incorrect phone number, and those who did not meet the selection criteria (mostly due to the fact that the architectural firms had less than two FTE). The difference between the net sample of respondents reached and the response are the number of architects who refused to participate.

Response							
Gross sample (all attempts to approach respondents)	414	1071	739	1962	644	901	755
Net sample (all approached respondents)	231	194	356	278	242	351	283
Completed interviews	125	125	125	125	125	100	100
Response percentage (interviews/ net sample)	54%	64%	35%	45%	52%	28%	35%

Methodology calculation of the Q2Q Saldo and Barometer

The European Architectural Barometer for the order book development and turnover development is calculated in the following way:

1. Respondents with a strong increase (>5%) are multiplied by 100
2. Respondents with a slight increase are multiplied by 50
3. Respondents that remained the same are multiplied by 0
4. Respondents with a slight decrease are multiplied by –50
5. Respondents with a strong decrease (>5%) are multiplied by –100
6. The sum of these values divided by 100, results in the Q2Q saldo.
7. Adding 100 to this saldo results in the Barometer figures, where 0 is the strongest possible decrease, 100 is stabilisation and 200 is the strongest possible increase.

The Barometer values calculated this way are presented in the report as Quarter to Quarter Turnover and Order book Barometer.

Example of calculation Q2Q Barometer value:

Development Turnover Spain	Q2 ’15		Calculated Values
Increased by more than 5%	25%	x 100	2500
Slightly increased (0-5%)	28%	x 50	1400
Stayed the same (0%)	36%	x 0	0
Slightly decreased (0-5%)	3%	x -50	-150
Decreased by more than 5%	8%	x -100	-800

Q2Q Saldo = (2500 + 1400 – 150 – 800) / 100 = 30

Q2Q Barometer value = 100 + 30 = **130**

Methodology calculation of the Q2Q Saldo and Barometer

To calculate the developments in the turnover and the order book with regard to the first measurement in 2009, USP has developed the so-called Rolling Barometer. The Rolling Barometer is calculated as the cumulative sum of the Q2Q saldos of every quarter. The Rolling Barometer can drop or rise by 100 points per quarter at maximum.

Example: The Rolling Order Book Barometer is -66 after twelve quarters. In the worst case (all architects reporting a decrease of over 5% every quarter) the Rolling Barometer would be -1200. In the best case it would be 1200. Therefore, a score of -66 in Q4 2011 means a slightly worse situation than in Q4 2008.

	Barometer order book											
	Q1'09	**Q2'09**	**Q3'09**	**Q4'09**	**Q1'10**	**Q2'10**	**Q3'10**	**Q4 '10**	**Q1 '11**	**Q2 '11**	**Q3 '11**	**Q4 '11**
Q2Q Barometer values	71	75	100	85	100	110	94	94	111	102	94	99
Saldo Q2Q Values	-29	-25	0	-15	0	10	-6	-6	11	2	-6	-1
		+ (-25)	+ (0)	+ (-15)	+ etc.							
Rolling Barometer Values	-29	-54	-54	-69	-69	-59	-65	-71	-60	-59	-65	**-66**

Future building volumes: building a model for prediction

Building volumes

Architects are at the front of the construction sector. They are the first to perceive positive and negative changes. The current developments of architectural firms have a strong predictive impact on the total market. USP publishes its predictions for the building volumes based on the developments experienced by architects.

The model

USP uses a model based on eleven market indicators and USPs own results. The model combines information about the economy, like construction requests and confidence figures, with data about the developments within architects' experience, such as changes in the turnover and the number of active architects. Only information that proved to have a strong correlative value on the building volume is used. Subsequently, every kind of data is weighed based on the predictive value.

High predictive value

To ensure the correctness of the predictive value, the model has been – with retroactive effects – compared to the actual growth and shrinkage of the construction volume since 2003 for the Dutch* market and since Q3 2009 for the remaining countries. The model turns out to possess a very high predictive value. Nevertheless, the forecast has to be interpreted with caution, as it remains a calculation. As with all predictions, the margin of error can be larger, comparable to the weather forecast: sometimes the USP model can be inaccurate.

Calculation predictive value

The predictive value is calculated based on the consistency of the market indicators with construction volumes, for the renovation, maintenance and the new build markets. The correlation is determined by a regression analysis, i.e. a statistical technique for analysing data in which there is a (possible) specific connection, known as regression.

** Since 2003, the developments of architects in the Netherlands have been monitored by USP's sister organisation BouwKennis. Therefore, it is possible for the Netherlands to calculate the connection between the architects and the building volume based on 10 years of data.*

Future building volumes: Calculation

The Dutch market has been taken as a basis. The correlation between market volume regarding new build, maintenance and renovation on the one hand, and possible explanatory factors on the other hand, serves as a starting point.

The correlation with building volumes is tested for a total of eleven market indicators together with two outcomes of the European Architectural Barometer. The correlation of the following four indicators appeared to be strongest:

- Building permits – m² of useful floor area in non-residential buildings
- Building permits, number of dwellings
- Development of Turnover Barometer (European Architectural Barometer figures)
- Number of FTE working at architectural companies (European Architectural Barometer figures)

The predicting value of these indicators is between 54% and 91%. Because a longer history of data was not available for most countries, the development of these four indicators in the last four quarters and the four quarters before served as a guidance for this measurement. The used range of five indicators is not static and can be adjusted for future calculations. With the database becoming more complete, more reliable correlations can adjust the mix of indicators. A longer range of regression measurements shall replace the comparison of the last four quarters with the four quarters before.

The forecast is based on the market knowledge of USP Marketing Consultancy together with the market figures available, such as building permits and the developments among architects who are mainly active in renovation or new build as well as mainly active in residential or non-residential. Due to the limited number of quarters, a forecast based on a statistical model is not possible for now. The model that was used has a lower prediction value for this period. However, USP Marketing Consultancy aims at clarifying the general direction of the construction market development by publishing these data and the predictions will be updated in the coming reports.

Questionnaire – Standard

These questions are asked every measurement

1. How many employees (in FTE) does your company currently have, including yourself? [if less than 2 FTE, end of research]
2. As an architectural firm, are you mostly active in the segment housing, non-residential building, interior, or landscaping? [If interior or landscaping, end of research]
3. What is your position?
4. How many employees in FTE did your company have at the end of 2021?
5. How many employees in FTE did your company have at the end of 2020?
6. How many employees in FTE did your company have at the end of 2019?
7. If your turnover should relate to housing and non-housing, what percentage of your revenue do you get from housing-related jobs?
8. Are you mostly active in new build or renovation?
9. How did the turnover develop this quarter compared to the previous quarter? Decreased by more than 5%; slightly decreased (0-5%); stayed the same (0%); slightly increased (0-5%); strongly increased (more than 5%)
10. What are your expectations for the development of your turnover in the fourth quarter of 2022 in comparison to the turnover in the fourth quarter of 2021? Decreased by more than 5%; slightly decreased (0-5%); stayed the same (0%); slightly increased (0-5%); strongly increased (more than 5%)
11. How did your order book develop in this quarter compared to the same quarter previous year? Decreased by more than 5%; slightly decreased (0-5%); stayed the same (0%); slightly increased (0-5%); strongly increased (more than 5%)
12. How many new projects has your company scored/been commissioned in the past two months?
13. How many projects have been postponed in this quarter?
14. How many projects were not started and cancelled in this quarter?
15. Do you expect that your order book might be empty these coming 12 months?

Questionnaire – Theme questions

For the following materials I would like to know whether you expect to use these more, equally or less in projects in the next five years.

1. Building Envelope
2. Façade materials
3. Metals
4. Pitched roofs
5. Flat roofs
6. Insulation
7. Bathrooms
8. Flooring solutions
9. Installation and climate control materials
10. Control and smart home solutions
11. Finishing materials and products

USP

What we do

Examples

Segmentation

Customer journey

Branding

Concept/ product research

Customer satisfaction

Trends

Distribution research

Market exploration

Pricing

Market size

Dedicated market research

- Tailor made
- Driven by your information needs
- Advice & consultancy based on facts and over 25 years of experience in the industry
- Worldwide coverage
- B2B, B2C, qualitative and quantitive research or a combination of both
- Within our market specialism, all types of researches can be conducted
- Targeting the right audience, with the right questions at the right time.

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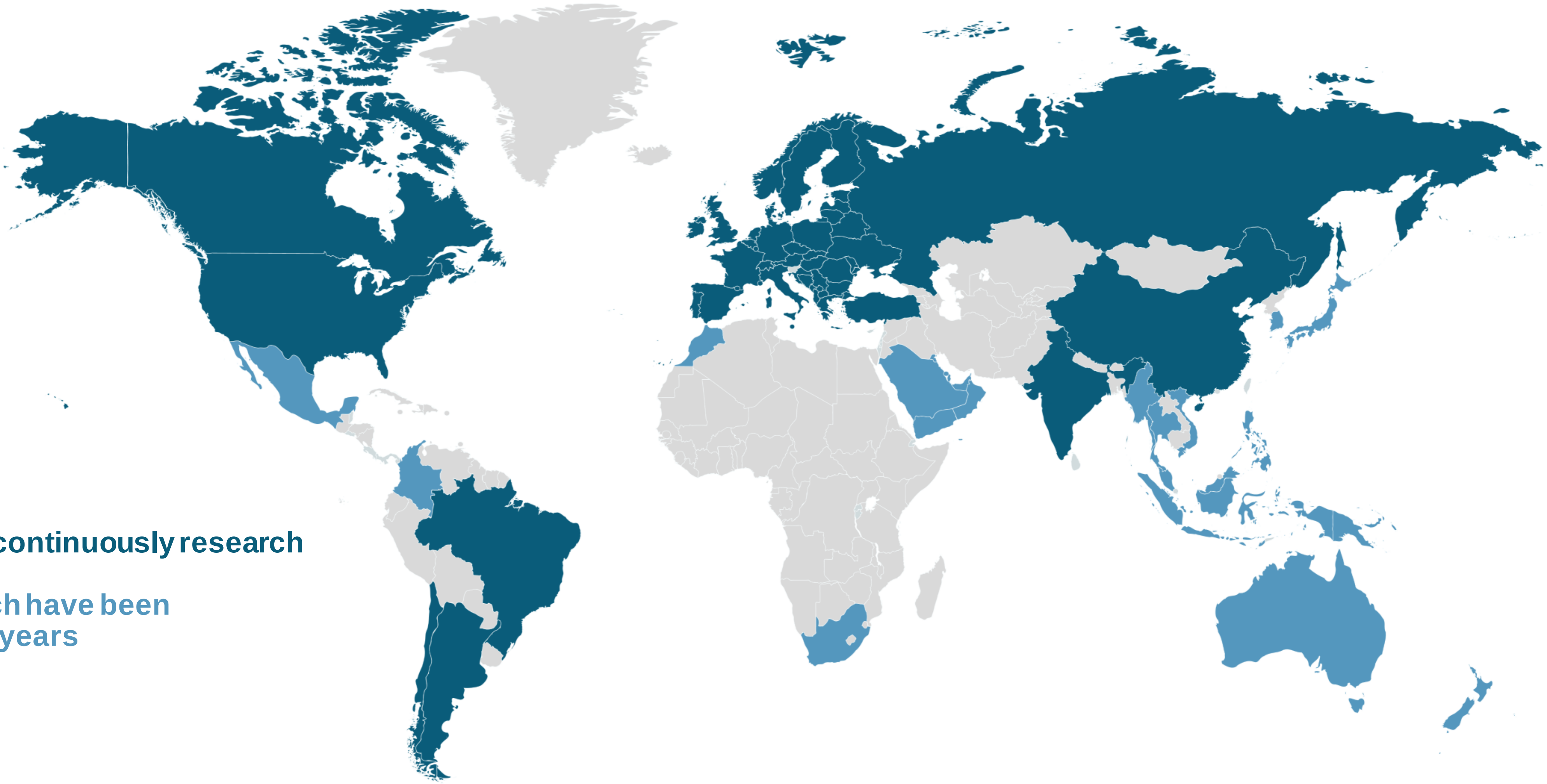
Our multi-client research monitors

	European **Architectural** Barometer	European **Contractor** Monitor	European **Mechanical Installation** Monitor	European **Electrical Installation** Monitor	European **Painter Insight** Monitor	European **Home Improvement** Monitor
Target group	Architects	Building contractors	HVAC installers	Electrical installers	Professional painters	Consumers
Methodology						
Annual sample size	3,400 interviews	2,050 interviews	2,600 interviews	3,000 interviews	2,300 interviews	26,400 interviews
Country scope	• Germany • United Kingdom • France • Netherlands • Belgium • Poland • Spain • Italy	• Germany • United Kingdom • France • Netherlands • Belgium • Poland • Spain • Italy	• Germany • United Kingdom • France • Netherlands • Belgium • Poland	• Germany • United Kingdom • France • Netherlands • Belgium • Poland • Spain	• Germany • United Kingdom • France • Netherlands • Belgium • Poland • Spain • Italy • Denmark • Sweden	• Germany • United Kingdom • France • Netherlands • Belgium • Poland • Spain • Italy • Denmark • Sweden • Austria
Way of reporting	Quarterly	Bi-annually	Quarterly	Quarterly	Annually	Quarterly
2022 Theme topics	• Q1: Sustainability • Q2: Trends in material usage • Q3: Decision making • Q4: Brand health scan	• H1: Prefabrication • H2: Digitalisation and BIM	• Q1: Digitalisation and BIM • Q2: Prefabrication • Q3: Smart buildings and products • Q4: Media orientation	• Q1: Sustainability • Q2: Smart buildings and products • Q3: Services in the installation market • Q4: Brand health scan	• Trend tracking • Sustainability • Labour shortage • Online buying • Media orientation	• Q1: Orientation; rise of digital natives • Q2: Purchase Channels; online leaders • Q3: Brand health check • Q4: DIY vs DIFM; outsourcing jobs

We are active globally



Countries which we continuously research

Other countries which have been researched in past 2 years

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Principals of USP

Construction				DIY		Installation	
ASSA ABLOY	AkzoNobel	Wienerberger	HILTI	OBI	adeo	ABB	BOSCH
ArcelorMittal	DAW	3M	SAINT-GOBAIN	ALLEGION	maxeda DIY Group	GRUNDFOS	hager
etex inspiring ways of living	FESTOOL	Villeroy & Boch 1748	DSM	3M	Ideal Standard	Schneider Electric	LG Life's Good
icopal	Interface	WD-40	fischer innovative solutions	BRIGGS & STRATTON	KOHLER	MITSUBISHI ELECTRIC	Panasonic
KNAUF	OWENS CORNING	UNILIN FOR SMART LIVING	PPG	Dulux	KÄRCHER	VIESSMANN	Vaillant
ROCKWOOL	sto Building with conscience.	VELUX	stiho	WAGNER	GROHE	signify	ShurTech Brands
Tarkett	TRESPA	tesa	DÖRKEN	Intergamma	Yale	sonepar	TTi

USP Marketing Consultancy