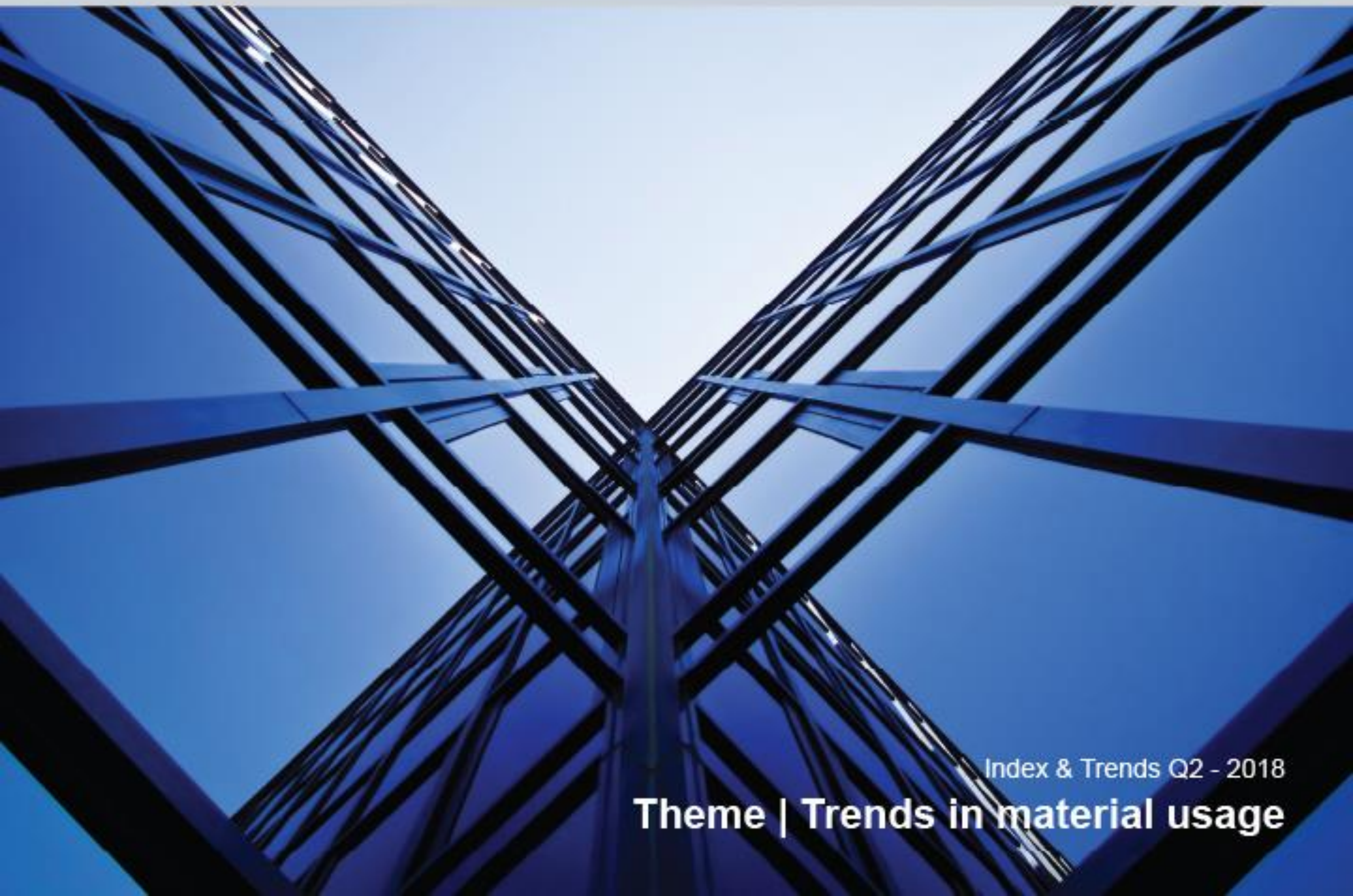
ARCHVISION product of USP

European Architectural Barometer

"Key facts and figures for the construction marketeers"



Index & Trends Q2 - 2018

Theme | Trends in material usage

Questions being answered in this report 1/2

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. What is your position?
3. 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]
4. How many employees in FTE did your company have at the end of 2017?
5. How many employees in FTE did your company have at the end of 2016?
6. How many employees in FTE did your company have at the end of 2015?
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. [If Increased with more than 5% or (very) strongly decreased] Please specify how much in percentage was the increase/decrease the last quarter?
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 projects have been postponed in this quarter?
13. How many projects were not started and cancelled in this quarter?
14. Do you expect that your order book might be empty these coming 12 months?

Questions being answered in this report 2/2

Theme questions

1. Do you regularly work with the following type of products?
2. When facades are involved in projects, will the following products be used more, equally or less in the coming five years?
3. When metals are involved in projects, will the following products be used more, equally or less in the coming five years?
4. When pitch roofs are involved in projects, will the following products be used more, equally or less in the coming five years?
5. When flat roofs are involved in projects, will the following products be used more, equally or less in the coming five years?
6. When insulation is involved in projects, will the following products be used more, equally or less in the coming five years?
7. When bathrooms are involved in projects, will the following products be used more, equally or less in the coming five years?
8. When flooring is involved in projects, will the following products be used more, equally or less in the coming five years?
9. When installation and climate control are involved in projects, will the following products be used more, equally or less in the coming five years?
10. When finishing materials and products are involved in projects, will the following products be used more, equally or less in the coming five years?
11. Which of the following trends have the biggest impact on the usage of these products? (BIM; e-commerce / online purchase; prefabrication; legislation & certification; sustainability). *This question is asked for every product group.*
12. Given the current trends in the building structure, can you indicate for the following techniques what you expect. You can answer on a scale of 1 to 3, where 1 = More; 2 = Equal; 3 = Less.
13. What trend will have the biggest influence on used construction techniques in the next five years?

Contents

Forecasts

Forecast: Future building volumes in total, new-build and renovation

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	↑ %	↓ -10.8%	↓ -%	↑ %	↑ %	↑ %	↑ 7.8%	↑ %	↑ %	↑ %
	€	€	€	€	€	€	€	€	€	€
	-	-	€	€ 22.2	€	€	€	€	€	€
	-	-	€	€	€	€	€	€	€	€

- Full report shows more conclusions and full insights why the construction sector has grown in the past and will grow in the future.

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	↑ 4.0%	↓ -0.6%	↑ %	↑ %	↑ %	↑ %	↑ %	↑ %	↑ %	↑ %
	€	€	€	€ 33.6	€	€	€	€	€	€
	-	-	€	€	€	€	€	€	€	€
	-	-	€	€	€	€	€	€	€	€

- Full report shows more conclusions and full insights why the construction sector has grown in the past and will grow in the future.

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	↑ 8.0%	↑ %	↑ %	↓ -2.2%	↑ %	↑ %	↑ %	↑ %	↑ %	↑ %
	€	€	€	€	€	€	€	€	€	€
	-	-	€	€	€	€	€	€	€	€
	-	-	€	€ 8.2	€	€	€	€	€	€

- Full report shows more conclusions and full insights why the construction sector has grown in the past and will grow in the future.

•See the appendix for forecasts split by residential and non-residential. In the appendix you can also find an explanation of the icons.

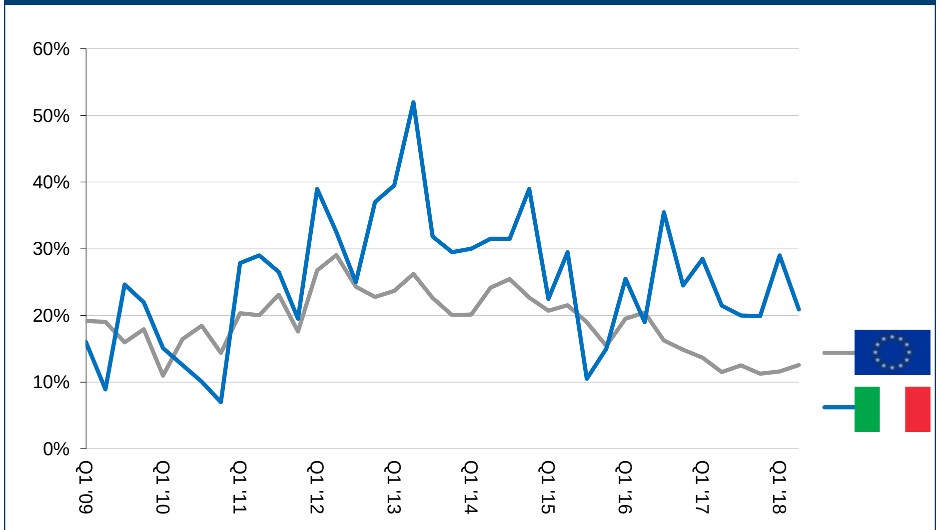
Amounts in billions at 2013 prices

Contents

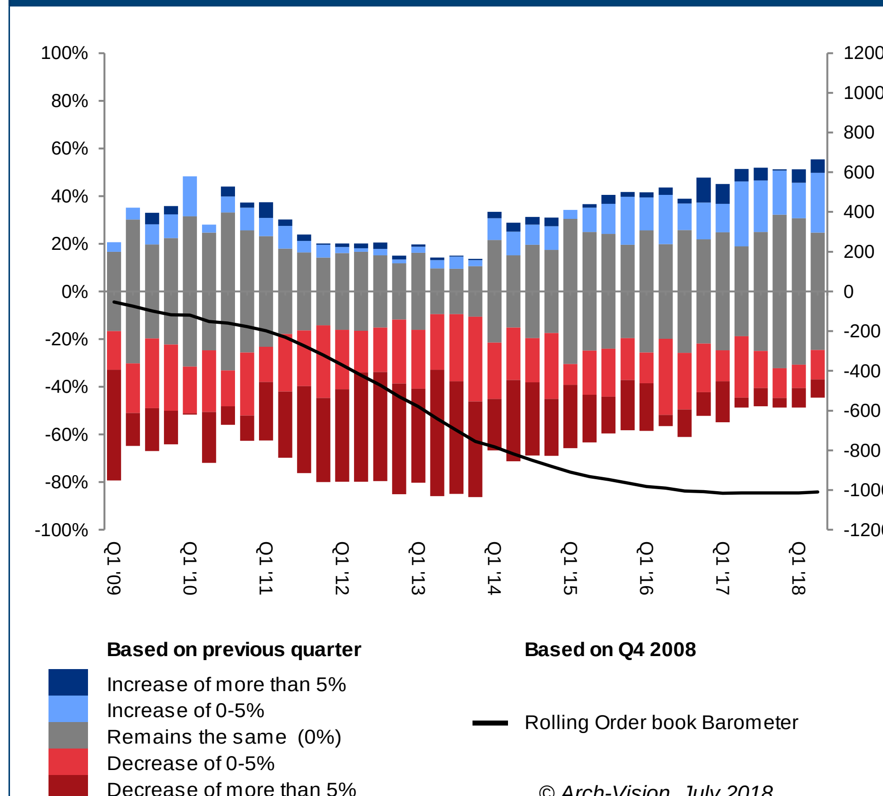
Italy recovers from crisis, seems to become more stable every quarter

- Where we could see stabilizing figures for the first time in years in 2016, 2017 showed a very small growth again after years of contraction. The architects expecting an empty order book increased in Q1 2018, but Q2 shows a sharp drop again back to the levels of the second half of 2017.
- Overall, the market in Italy is expected to experience careful recovery from the hard hit it took in 2010-2015. Arch-Vision expects growth figures of 1.7% and 1.4% in 2019 and 2020.

Expecting empty order book in 12 months



Development of order book



Building volumes

	2009	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	-	%	%	-10.5%	%	-3.5%	%	%	%	1.7%	1.4%
	€	€	€	€	€	€	€	€	€	€	€

Contents

Trends in material usage: Introduction

- Each quarter, the European Architectural Barometer Report focuses on a different topic that plays an important role for architects in Europe. In Q2 2018, the focus was on Trends in Material Usage. This subject was surveyed by Arch-Vision in 2015 and 2016 as well, but this quarter also a split by building type was asked (expectations for material usage for residential and non-residential buildings). The results of this split by building type can be found in the appendix.

- The following topics will be discussed in this theme part:
  - Which product groups do architects work with on a regular basis;
  - For the following product groups architects were asked to give their expectation if certain products will be used more, equally or less in the coming five years:
    - Installation and climate control
    - Facade products
    - Bathroom products
    - Insulation materials
    - Finishing materials
    - Pitched roof products
    - Flat roof products
    - Flooring products
    - Metals
  - Furthermore for each of these product groups we asked the architects which of the following trends would have the biggest impact on the usage of materials:
    - Sustainability
    - Legislation & certification
    - Prefabrication
    - BIM
    - E-commerce/ online purchases
  - Lastly we asked which of the following construction techniques architects would expect to use more, equally or less in their projects in the coming five years:
    - Wood structure construction
    - Prefab panel construction
    - Metal structure construction
    - Whole prefab concrete systems
    - Brick cavity walls
    - Concrete on the job site
    - Concrete block envelope

Specification of product groups

- Architects indicate to work with a great variety of product groups on a regular basis.

Product groups with which the architects work on a regular basis								
Insulation	%	%	%	%	%	%	100%	%
Flooring products	%	%	%	%	%	%	%	%
Façade products	%	%	%	%	%	%	%	%
Finishing materials & products	%	%	%	%	%	%	%	%
Flat roof products	%	%	%	%	%	%	%	%
Pitched roof products	%	%	%	%	%	%	%	%
Bathroom products	%	%	%	%	%	%	%	%
Metals	%	%	%	%	%	%	%	%
Installation & climate control products	%	%	%	%	%	%	%	%

Trends in material usage

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The conclusions and key insights for this page can be found in the full report.

Installation & climate control																
	2018	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	2016
LED Lighting	%	96%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Heat Recovery solutions	%	%	%	%	%	%	%	%	%	%	%	%	%	79%	%	%
Heat pumps	66%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Photovoltaics	%	%	%	27%	%	%	%	%	%	%	%	%	%	%	%	%
Mechanical ventilation	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	62%
Floor heating	%	%	%	%	%	%	%	%	%	%	%	%	%	72%	%	39%
External blinds	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	62%
Plastic pipe systems	%	%	%	%	%	%	%	%	%	%	%	%	%	51%	%	30%
Air conditioning	%	%	%	%	%	%	%	%	%	%	%	%	%	-4%	%	%
Floor cooling	%	%	%	1%	%	%	%	%	%	%	%	%	%	27%	%	3%
Cool roofs	%	%	%	%	%	%	%	%	%	%	%	%	%	13%	%	13%
Gas boilers	%	-7%	%	%	%	%	%	%	%	%	%	%	%	-12%	%	-36%

Saldo: more minus less usage in coming 5 years

Trends in material usage

The conclusions and key insights for this page can be found in the full report.

Bathroom Products

	[UK] 2018	[UK] 2016	[DE] 2018	[DE] 2016	[FR] 2018	[FR] 2016	[ES] 2018	[ES] 2016	[IT] 2018	[IT] 2016	[NL] 2018	[NL] 2016	[BE] 2018	[BE] 2016	[PL] 2018	[PL] 2016
Water & energy saving fittings	%	%	%	%	%	%	%	90%	%	%	%	%	%	61%	%	%
Shower solutions	%	54%	%	%	%	%	%	85%	%	%	%	%	%	%	%	%
Showers without shower tray	%	%	%	62%	%	%	%	%	%	%	%	%	%	%	%	%
Use of wall coverings	%	15%	%	%	%	%	%	%	%	%	22%	%	%	%	%	%
Recyclable bathroom products	31%	%	%	-11%	%	%	%	%	%	%	%	%	0%	%	%	%
Solid surface wash basins	24%	%	%	-8%	%	%	%	%	%	%	%	%	%	%	%	%
Ceramic bathroom products	10%	7%	%	12%	%	%	%	%	%	%	15%	%	%	%	%	8%

Saldo: more minus less usage in coming 5 years

Trends in material usage

The conclusions and key insights for this page can be found in the full report.

Metals	UK 2018	UK 2016	DE 2018	DE 2016	FR 2018	FR 2016	ES 2018	ES 2016	IT 2018	IT 2016	NL 2018	NL 2016	BE 2018	BE 2016	PL 2018	PL 2016
Steel	%	%	%	21%	%	%	%	%	%	31%	%	%	%	%	%	23%
Aluminium	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Stainless steel	0%	%	%	%	%	11%	%	%	%	23%	%	8%	%	%	%	%
Zinc	%	26%	%	%	%	%	%	-11%	%	%	%	%	%	%	%	-2%
Copper	%	-17%	%	%	%	%	%	%	%	%	%	%	%	-55%	%	%

Saldo: more minus less usage in coming 5 years

Trends in material usage

The conclusions and key insights for this page can be found in the full report.

Trends which have the biggest impact on the usage of <u>pitched roofs</u>

% (very) strong impact								
Trend 1	72%	64%	80%	74%	71%	83%	87%	32%
Trend 2	67%	56%	74%	66%	66%	61%	74%	78%
Trend 3	55%	23%	53%	56%	48%	59%	39%	47%
Trend 4	41%	20%	57%	49%	35%	33%	35%	32%
Trend 5	28%	11%	21%	28%	13%	15%	15%	22%

Trends which have the biggest impact on the usage of <u>flat roofs</u>

% (very) strong impact								
Trend 1	72%	59%	83%	70%	75%	89%	74%	44%
Trend 2	68%	51%	75%	72%	72%	52%	68%	74%
Trend 3	39%	16%	49%	57%	56%	41%	38%	52%
Trend 4	46%	12%	52%	52%	40%	28%	30%	31%
Trend 5	30%	6%	17%	35%	13%	17%	13%	31%

Contents

Trends in material usage: summary

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Installation & climate control																
LED Lighting	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Heat Recovery solutions	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Heat pumps	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Photovoltaics	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Mechanical ventilation	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Floor heating	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
External blinds	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Plastic pipe systems	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Air conditioning	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Floor cooling	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Cool roofs	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Gas boilers	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%

Residential buildings

Commercial buildings and offices

Saldo: more minus less usage in coming 5 years

Trends in material usage: summary

Facade																
Architectural glass	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Mineral wool	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Concrete / plasterwork	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Metal	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Aluminium Composite Materials (ACM)	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
High Pressure Laminate (HPL)	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Bricks	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Fibre cement	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%

Residential buildings

Commercial buildings and offices

Saldo: more minus less usage in coming 5 years

About USP Marketing Consultancy

USP Marketing Consultancy

Head office — **Rotterdam**

Subsidiary — **Düsseldorf**

Total **70**

Project managers

Research analysts

Consultants

- Market specialist installation, construction and DIY from the **start**
- Dedicated and multi-client research
- Active in the market for over **25** years
- **218** dedicated market research projects in 2016

Revenue distribution

70% turnover coming from international projects

90% of turnover coming from dedicated market research, 10% from multi client

70% of the turnover is B2B, 30% B2C

82 Focus groups

2.104 in-depth interviews

25.300 B2B CATI interviews

B2C **34.250** online interviews

Research in **38** countries in 2016

USP's of USP

Market specialist for the **construction, DIY** and **installation** market for over 25 years

Strong **network of partners** covering all major countries in the world

Ability to conduct **research in multiple countries** at the same time

Multi client reports covering Installers, Contractors, Painters, Consumers and Architects

Dedicated market research, both **B2B and B2C**

Experienced in **qualitative** and **quantitative market research**

Deep **knowledge** of the **industry**

Ability to **target all** relevant **stakeholders** in the construction and DIY markets

Dedication, honesty and **love** for the industry

Fact based consultancy

Appendix

What we do; Dedicated market research

Examples

- Segmentation
- Customer journey
- Branding
- Concept/product research
- Customer satisfaction
- Market exploration
- Distribution research
- Trends
- Market size
- Pricing

Dedicated market research

- Tailor made
- Driven by your information needs
- Advice & consultancy based on fact's and over 25 years of experience in the industry
- Worldwide coverage
- B2B, B2C, qualitative and quantitative 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

Appendix

What we do; multi-client research

Providing continues information for our clients about their main target groups based on facts. Providing insights on key trends, turnover development, future building volumes, background characteristics of the target groups and much more.

Architects

European architectural barometer, 8 countries, reports quarterly, 6.400 interviews by phone annually. Trends like **BIM, DMU, Media orientation** and **future building volumes.**

Contractors

European contractors monitor, 8 countries, reports quarterly, 6.400 interviews by phone annually. Trends like **BIM, DMU, Media orientation and branding.**

HVAC installers

European installation monitor: 6 countries, reports quarterly, 4,800 interviews by phone annually. Trends like **Branding, purchase channels, Media orientation** and background **characteristics** including **turnover and order book** developments.

Electrical Installers

European electrical installation monitor: 7 countries, reports quarterly, 4,800 interviews by phone annually. Trends like **Branding, purchase channels, Media orientation** and background **characteristics** including **turnover and order** book developments.

Painters

Painters insights: 8 countries, reports annually, 2.000 interviews by phone annually. Trends like **mechanical application, labour shortage, purchase points** and **branding.**

Consumers

European home improvement monitor: 11 countries, reports quarterly, 26,400 online interviews annually. Trends like **DIY vs DIFM, online buying, branding** and information on a **product level.**

Trends and Vision in the market

- Building information modelling will become a license to operate
- Design, Build and maintain
- Digitization
- Changing role of the DIY stores
- Shifting decision making
- Prefab will become more widespread
- Increasing influence engineers & contractors
- Smart homes/offices
- Changing role of the wholesale
- Going from gas heating towards electric
- Qualitative & quantitative labour shortage Europe
- Aging society in Europe
- Building industry needs to become Smarter, faster and cheaper
- Online buying of products by professionals

Appendix

ARCH VISION

Some National and International Clients

Construction		Installation		DIY	
ASSA ABLOY	VELUX	hager	reflex Thinking solutions.	BRIGGS & STRATTON	Royal Flora Holland
PPG	icopal	GRUNDFOS	walraven	GROHE	cromology
MBI De Steenmeesters	SAINT-GOBAIN	ABB	BOSCH	hansgrohe	Ideal Standard
KNAUF	Bostik smart adhesives	LG Life's Good	MITSUBISHI ELECTRIC	WAGNER	tesa
Villeroy & Boch	AkzoNobel	Panasonic	PHILIPS	KOHLER	Yale
DAW	Owens Corning	Vaillant	wavin	ShurTech Brands	fischer innovative solutions
3M	FESTOOL	VIESSMANN	KONE	ALLEGION	3V3

More information?

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