FESPA
profit for purpose

FESPA Ltd
Holmbury
The Dorking Business Park
Station Road
Dorking
Surrey
RH4 1HJ
United Kingdom

T: +44 (0)1737 240788
W: www.fespa.com
E: info@fespa.com

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PRINT CENSUS
2023

WELCOME...

The FESPA Print Census is the largest worldwide print research project which collects and shares market intelligence.

Graeme Richardson-Locke

Head of Associations and Technical Lead, FESPA

The Census was introduced back in 2015 and continues to be updated with the aim to share an up-to-date view of market conditions as experienced by speciality printers which in turn helps printers sustain and grow their business.

It is designed to share insightful findings to help printers make informed decisions. Our research focuses on how these businesses view the future, which opportunities they are adopting, what challenges they face, and how they are planning for growth and development.

The data is collected with the support of FESPA's Association network and analysed in partnership with InfoTrends, a division of Keypoint Intelligence.

This edition of the FESPA Print Census is the largest one yet, with a total of 1,778 responses from over 120 countries with respondents including sign and display businesses, screen printers, commercial printers, textile and garment printing specialists and packaging printers. This year, we have also included additional questions around Sustainability and Personalisation which are areas of particular interest.

The data shows a positive outlook with a forward-looking view to satisfy new customer demands. The survey shows a keen interest in print buyers requesting environmentally friendly products, practices, or both, and a strong demand for faster turnarounds, more versioning/personalisation, and shorter print runs as you will see from our Key Trends Report.

As in 2018, we have distilled six key trends from the data, which the research shows to be shaping the industry over the next few years. Read on to discover these trends and some of the stand-out statistics from the Census. They offer valuable insight into the fast-changing world of speciality print in 2023 and beyond.

Christophe Aussenac

FESPA President

As FESPA's President and a print business owner I want to extend our gratitude to all who have contributed to this research. Our Association members and their communities along with the wider participants have provided insight that is useful to us all.

Understanding the trends affecting our futures informs where we find business opportunities and how we can mitigate risk. It is clear to me that increased transparency and accountability of our social and environmental impacts goes hand-in-hand with wealth generation.

We hope you find the results useful and informative.

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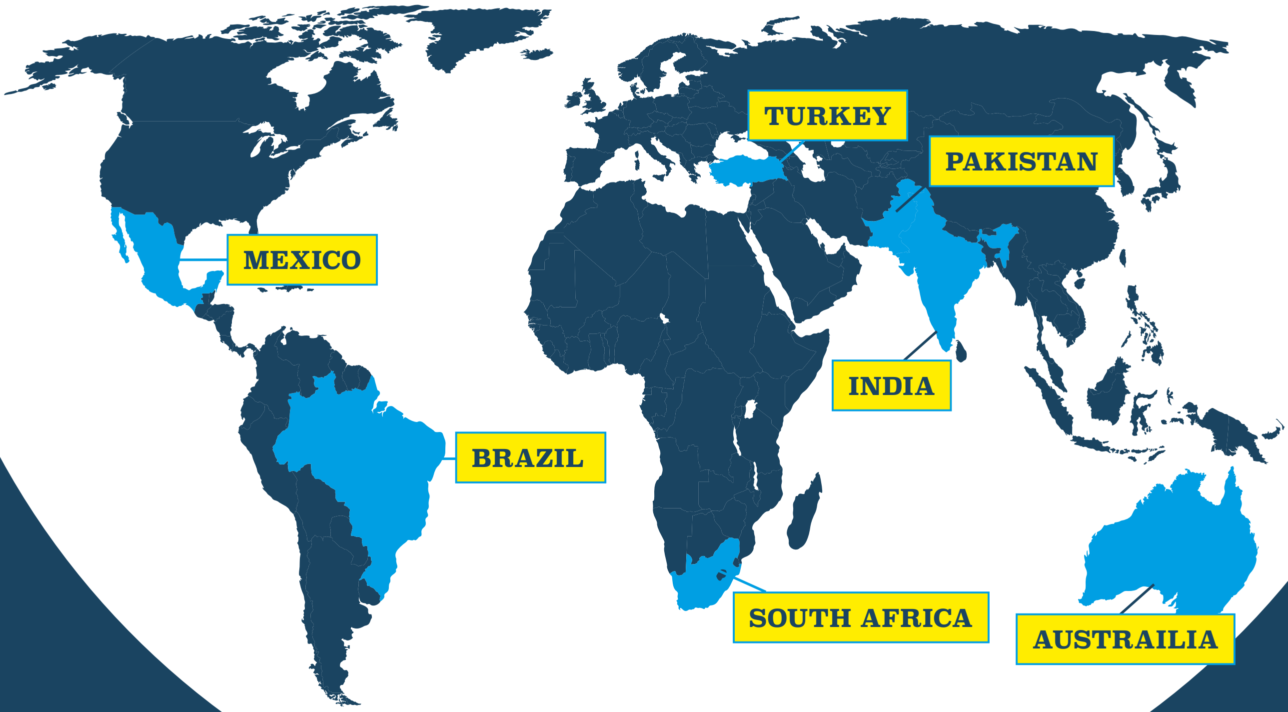
WORLD



The FESPA print census is an industry research project that helps print service providers and vendors understand market dynamics in key industry segments, including signage & display, graphics, textile, and industrial.

With nearly 1,800 respondents from 120 countries, this survey continues a research partnership between FESPA and Keypoint Intelligence that began back in 2007. About 18% of our respondents are already FESPA members.

The respondents from the top 9 countries represent nearly half of our total respondent pool. The greatest volume of these respondents were from European countries although significant responses came from Latin America.

The FESPA community is diverse and growing, and this study was designed to explore service providers in these segments. Survey respondents represented a broad range of graphic arts and industrial segments whose primary business revolves around printing. The greatest percentage of survey participants were digital printing specialists within the graphics industry, but signage and textile businesses were well-represented too.

EUROPE

FIGURE 1

FESPA PRINT CENSUS RESPONDENTS

FESPA Print Census Respondents (Top 20 Countries)

KEY HIGHLIGHTS

Overall

The FESPA Print Census has consistently grown and includes a wide variety of industry segments. Although some of the key trends that we observed are common across all industry segments, others are more industry specific. Here are some of the major trends that we observed during this year's survey:

- **Digital printing investments are accelerating:** This is primarily due to a focus on enhancing image quality, reducing costs, and a desire to grow by entering new market segments.

- **Investments in environmentally friendly products and processes are on the rise:** The demand among print customers for eco-friendly products only continues to grow. Specifically, 72% of print buyers are seeking products that are environmentally friendly, and produced using sustainable practices, or both. Despite the fact that these types of investments can be costly, 70% of the respondents were able to maintain their current pricing without experiencing any negative impact on sales.

- **Customer demands are driving the market:** The industry is being propelled by the increasing desire for quicker turnaround times, more personalization and versioning options, and shorter print runs. To meet these demands, Print Service Provider(s) are turning to technology that can streamline production and provide application flexibility for short and long runs.

- **Print Service Provider(s) are cautiously optimistic about the future:** The majority of survey respondents in the survey expressed a high level of optimism regarding the future of their business, even though they only felt moderately optimistic about the industries they cater to. This perspective is understandable since 51% of those surveyed serve both B2B and B2C structures. Fortunately, printers have a broad and varied client base covering all verticals, providing stability in a volatile market.

Graphics and Signage

- About 70% of graphics/signage firms that own screen-printing equipment also own wide format equipment. Another 15% plan to invest soon.

- We are seeing a continued shift in durable ink use from solvent-based technology to UV curable, latex, and sublimation.

- Common sign & display applications such as banners, signs, and billboards remain a strong base for the business today. Applications that will likely represent areas of growth in the future include interior décor, point-of-purchase displays, and vehicle graphics.

- Over two-thirds (68%) of graphics/signage respondents consider the exploration of new applications that appeal to new markets as extremely important to the future of their businesses.

Textile/Direct-to-Garment

- Current and future applications for textile printers are focused on garments where the benefits of digital printing (e.g., time to market, creativity, and customisation) are driving continued adoption. About 45% of textile respondents already had digital direct-to-garment equipment and another 29% were planning to invest.

- The most commonly owned textile printing equipment included wide format sublimation inkjet transfer printers, wide format pigment inkjet printers, and screen-printing equipment.

- A strong majority of textile respondents reported regularly producing textiles for apparel. Textiles for home design or white goods were also common.

- The most popular direct-to-garment equipment among textile respondents included heat transfer presses (61%) and commercial DTG printers (48%).

Industrial

- About a third of industrial respondents were already using screen-printing equipment for industrial print applications at their companies. Another 14% were planning to invest.

- Among industrial respondents that owned screen-printing equipment, the most commonly printed items included control panels (38%), nameplates (33%), and industrial product marking (31%).

- 63% of industrial respondents with screen-printing equipment also owned wide format equipment, while 14% were planning to invest in wide format in the near term.

Introduction

The FESPA Print Census is a collaborative industry survey conducted by Keypoint Intelligence and FESPA that is designed to provide an in-depth assessment of the key industry segments where digital printing technology is prevalent.

It can also help Print Service Provider(s) offer value-added solutions across a broad range of applications. This is the seventh iteration of a study that was first launched in 2007. Keypoint Intelligence has analyzed the responses to the FESPA Print Census, executed data cleaning processes, compared this year's results to previous surveys, and reported these results in the context of the global industry segments represented by the FESPA community.

With its roots in wide format and screen printing, this research reflects core technologies that have been enabling a wide range of profitable solutions for Print Service Provider(s) as well as equipment suppliers. These are tabulated in the annual forecasts that Keypoint Intelligence has been producing for over 20 years.

According to our most recent forecast data, digital wide format equipment revenues for UV, solvent, and aqueous ink types are expected to exceed €2.2 billion on a global basis by 2026. Equipment revenues are expected to demonstrate a CAGR of 2.1% between 2021 and 2026. This is a relatively flat growth rate that reflects the mature nature of the sign & display industry segment. Despite the maturity of this market, technological undercurrents are creating opportunities for growth as Print Service Provider(s) shift to higher print volume production systems and migrate to alternative ink sets such as latex, sublimation, and UV-curable inkjet.

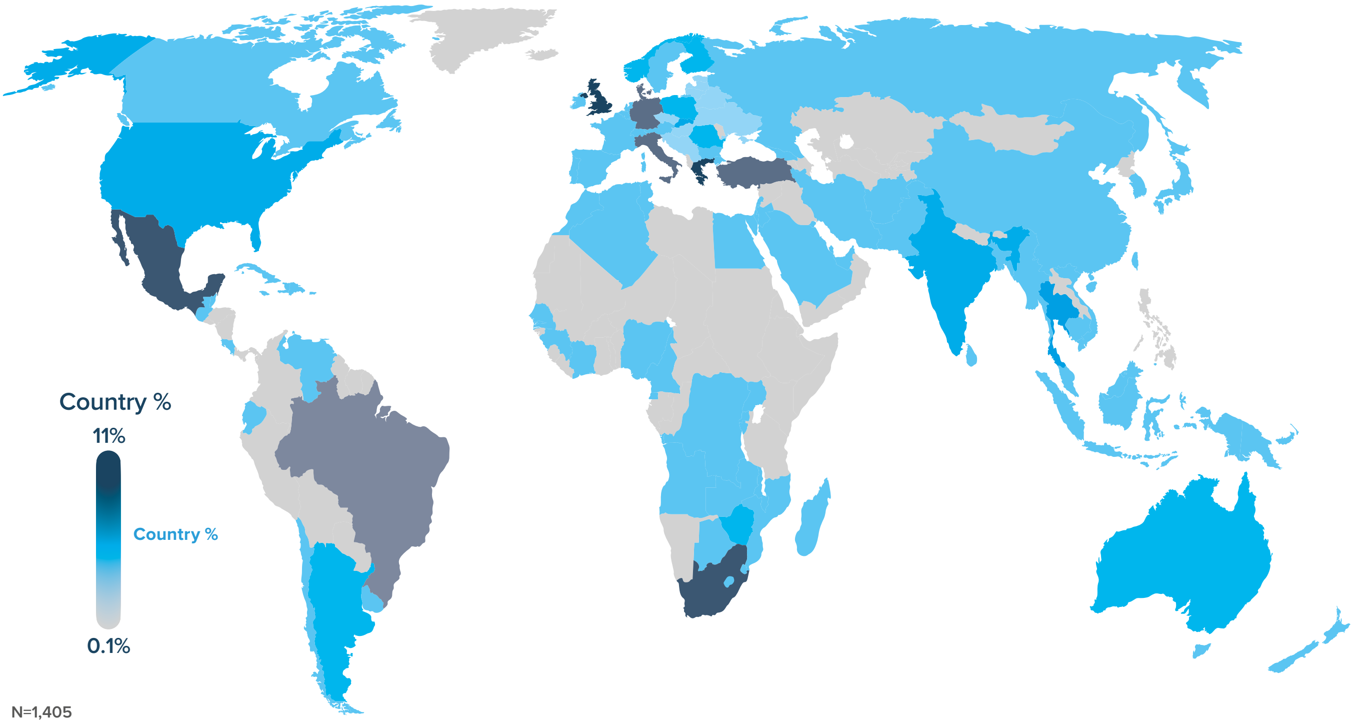
Objectives & Methodology

The objectives of the 2023 FESPA Print Census were to survey FESPA's international membership of print providers and the wider print and sign community to understand their business conditions, technology use, purchasing intentions, and the innovations that will impact their adoption strategies today and in the future. The FESPA Print Census is exploring the transition that Print Service Provider(s) are making from conventional technology to environments where digital printing is integrated into the mix solutions they offer their clients.

Our survey respondents were located all over the world, representing 120 countries from 6 continents. The FESPA Print Census was conducted as an "evergreen" online survey on the FESPA website, as well as in a range of FESPA events around the globe. Our target audiences were FESPA members and event attendees, who are typically Print Service Provider(s) of wide format printing equipment around the world. The survey was offered in Chinese, English, French, German, Greek, Italian, Portuguese, Slovak, Spanish, Thai, and Turkish. Nearly 1,780 respondents completed the survey on a worldwide basis. The top participating countries included *Brazil (11%), Germany (9%), Mexico (7%), the United Kingdom (5%), Italy (4%)*, and *Spain (4%)*.

FIGURE 1

COUNTRY DISTRIBUTION



N=1,405

In relation to our 2018 research, the number of respondents is up, as is the number of participating countries. The top 10 distribution has also changed somewhat.

FESPA Print Census (2018 vs. 2023)			
	2018	2023	2 018 vs. 2023
Number of Respondents	1,405	1,778	+26.5%
Number of Countries	102	121	+19%
Top 10 Countries (Rank Order)	1. United Kingdom 2. Greece 3. Mexico 4. South Africa 5. Germany 6. Italy 7. Turkey 8. Denmark 9. Brazil 10. Thailand	1. Brazil 2. Germany 3. Mexico 4. United Kingdom 5. Italy 6. Spain 7. South Africa 8. Netherlands 9. France 10. Portugal	

Source: 2018 & 2023 FESPA Worldwide Print Census Reports

FESPA

General Demographics

It is always important to consider the types of companies that respond to any survey. We believe that the data within the FESPA Print Census is extremely valuable as the respondents cut across a range of industries and mirror the overall structure of the global industry, representing a variety of small, medium-sized, and large establishments.

The key characteristics of our respondents are outlined below. In the 2023 FESPA Print Census, our research team fine-tuned the methodology for identifying respondents by their primary industry segments. Furthermore, respondents were presented with specific questions to reflect trends in their industry segment in addition to being asked some common questions about overall market trends.

TYPE OF ESTABLISHMENT

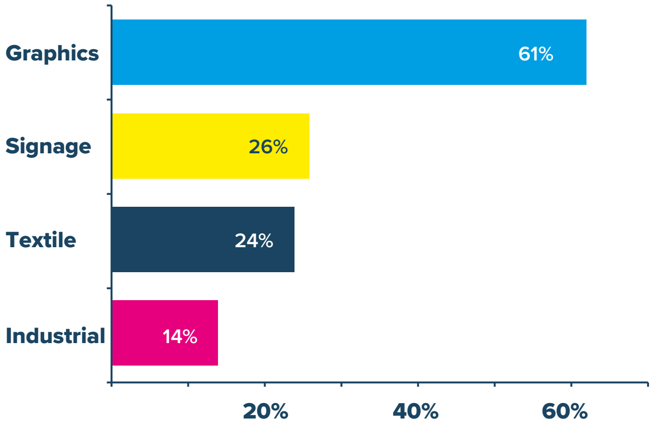
The changes in FESPA membership has brought about a more diverse set of print providers that are connected by a common goal—the desire to embrace new technologies that will enable them to grow their businesses. The expansion in membership has brought a new richness to FESPA events and engagements. Many producers view FESPA as a place to learn about the markets and technologies that they should invest in to support their expansion and locate new sources of revenue streams.

Survey respondents represented a broad range of graphic arts and industrial segments whose primary business revolves around printing. The greatest percentage of survey participants were digital printing specialists within the graphics industry, but other businesses were well-represented too. It should be noted that respondents were allowed to select more than one response when asked about their primary business, so there is some overlap between the groups.

FIGURE 2

PRIMARY BUSINESS

Which of the following categories represents your company's primary business and accounts for most of your revenue?



N = 1,778 Total Respondents | *Multiple Responses Permitted*

2 Source: *023 FESPA Worldwide Print Census*

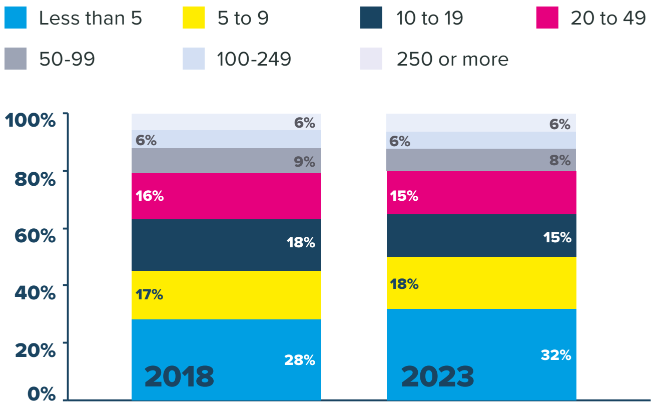
NUMBER OF EMPLOYEES

Total survey respondents worked for businesses with an average of about 43 people, but this mean was drawn upward by the very large companies in the mix. In fact, 65% of respondents worked for companies with fewer than 20 employees. Our survey sample is well-balanced and representative of Print Service Provider(s) within the overall global industry. In relation to our 2018 FESPA Print Census, company size remained rather consistent (where the overall mean was 45 employees).

FIGURE 3

NUMBER OF EMPLOYEES (2018 VS. 2023)

How many employees currently work at your location



2018 (N=1,405)
Means: 45.0

2023 (N=1,778)
Means: 42.6

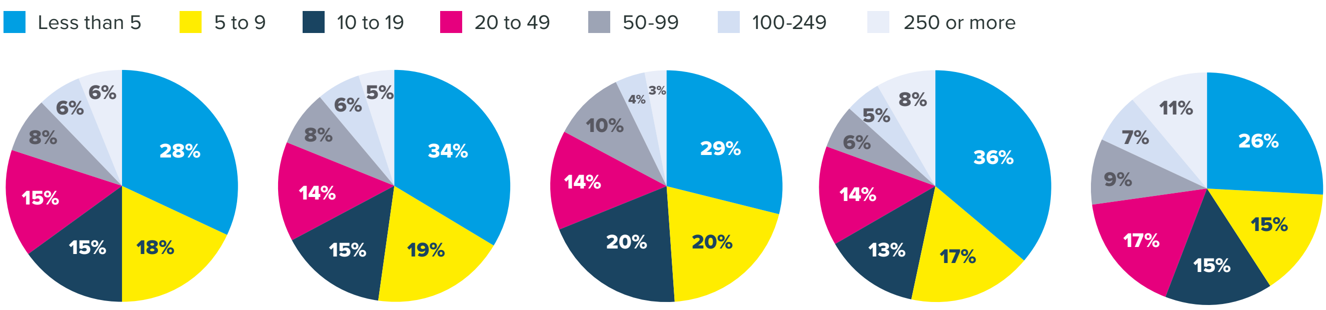
Base: Total Respondents | *Multiple Responses Permitted*

Source: *FESPA Worldwide Print Census Reports*

FIGURE 4

NUMBER OF EMPLOYEES (BY TYPE OF BUSINESS)

Which of the following categories represents your company's primary business and accounts for most of your revenue?

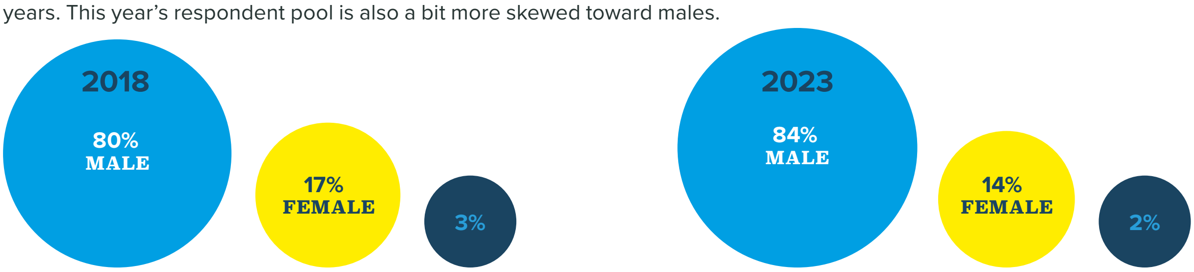


Total (N=1,778) | Graphics (N=1,093) | Signage (N=455) | Textile (N=420) | Industrial (N=245)

Base: Total Respondents | Source: *2023 FESPA Worldwide Print Census*

AGE AND GENDER

The average age of respondents has increased slightly since our last survey, rising from 44 years to 47 years. This year's respondent pool is also a bit more skewed toward males.



Source: 2018 & 2023 FESPA Worldwide Print Census Reports

PRINT REVENUES

Respondents to this year's survey reported an average annual turnover of €4.7 million for print services, which is up from €4.4 million during 2018. This represents an overall increase of about 7%, which is encouraging news for the print industry.

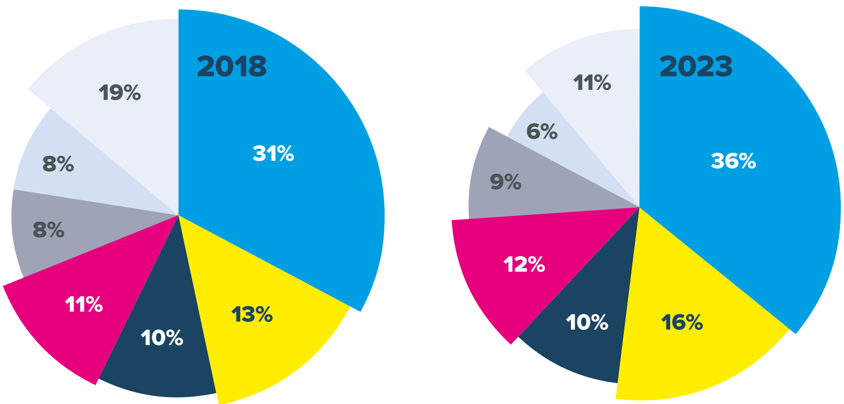
FIGURE 5

ANNUAL REVENUE FOR PRINTING (2018 VS. 2023)

What are your company's annual revenues for printing and related services? (Mean in €Millions)

- Under €500K
- €500K to €999K
- €1.0M to €1.9M
- €2.0M to €4.9M
- €5.0M to €19.9M
- €20.0M or more
- Don't know

Base: 2018 Total Respondents Except Packaging and Labels / 2023 All Respondents
Source: *FESPA Worldwide Print Census Reports*



2018 (N=1,405)
Means: €4.4 Million

2023 (N=1,778)
Means: €4.7 Million

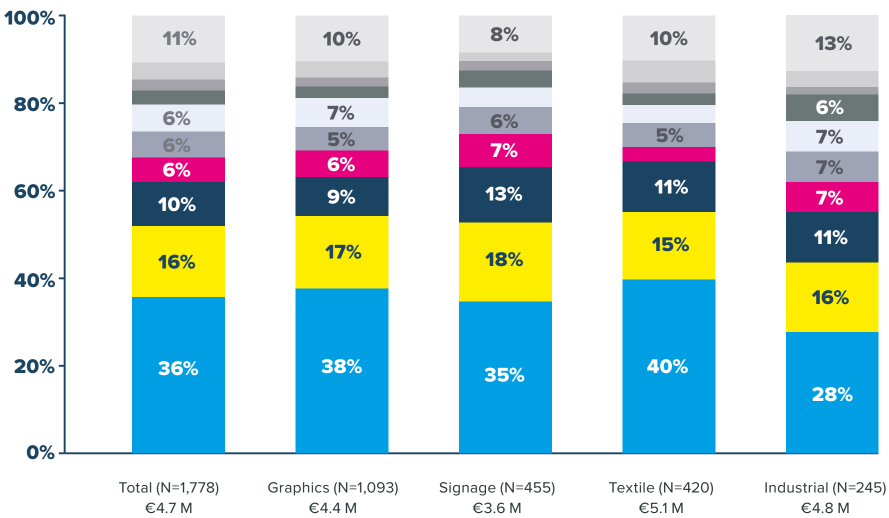
By type of business, signage companies reported the lowest print-related revenues while textile businesses reported the highest.

FIGURE 6

ANNUAL REVENUE FOR PRINTING (BY TYPE OF BUSINESS)

What are your company's annual revenues for printing and related services? (Mean in €Millions)

- Under €500K
- €500K to €999K
- €1.0M to €1.9M
- €2.0M to €2.9M
- €3.0M to €4.9M
- €5.0M to €9.9M
- €10.0M to €19.9M
- €20.0M to €49.9M
- €50M or more
- Don't know



Base: Total Respondents | Source: *2023 FESPA Worldwide Print Census*

Trends & Business Conditions

FESPA membership and show attendance ranges across many segments, so it is important to provide a clear representation of all these segments. As is the case in many industries, some trends are common to all respondents. Therefore, before we turn our attention to the individual segments, this section reviews key trends that reflect the responses of all interviewees.

BUSINESS CONDITIONS

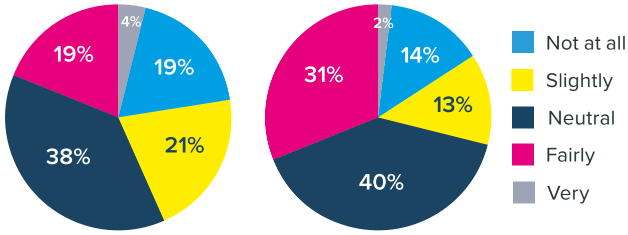
Despite the lingering effects of the COVID-19 pandemic, Print Service Provider(s) are generally optimistic about their own businesses as well as the industry at large. As is often the case, Print Service Provider(s) are generally more bullish on their businesses – 71% of respondents were fairly or very optimistic about their own businesses, compared to 57% that were equally optimistic about the industry as a whole.

With our current track record of ongoing research, we can say with certainty that Print Service Provider(s) are more confident about their own businesses than the overall industry. This optimism is manifesting itself into increased technological investments and purchasing plans as firms strive to take their businesses to the next level.

FIGURE 7

OPTIMISM ABOUT INDUSTRY & BUSINESS

How optimistic are you about the future of the industry you serve/your own business?

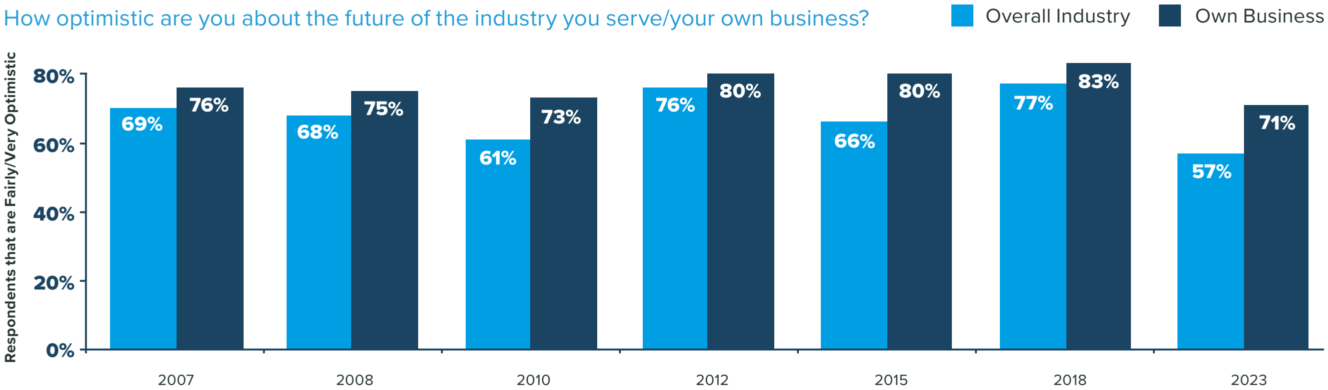


N = 1,778 Total Respondents | Source: *2023 FESPA Worldwide Print Census*

FIGURE 8

OPTIMISM ABOUT INDUSTRY & BUSINESS (2007-2023)

How optimistic are you about the future of the industry you serve/your own business?



Base: Total Respondents | Source: *FESPA Worldwide Print Census Ongoing Research*

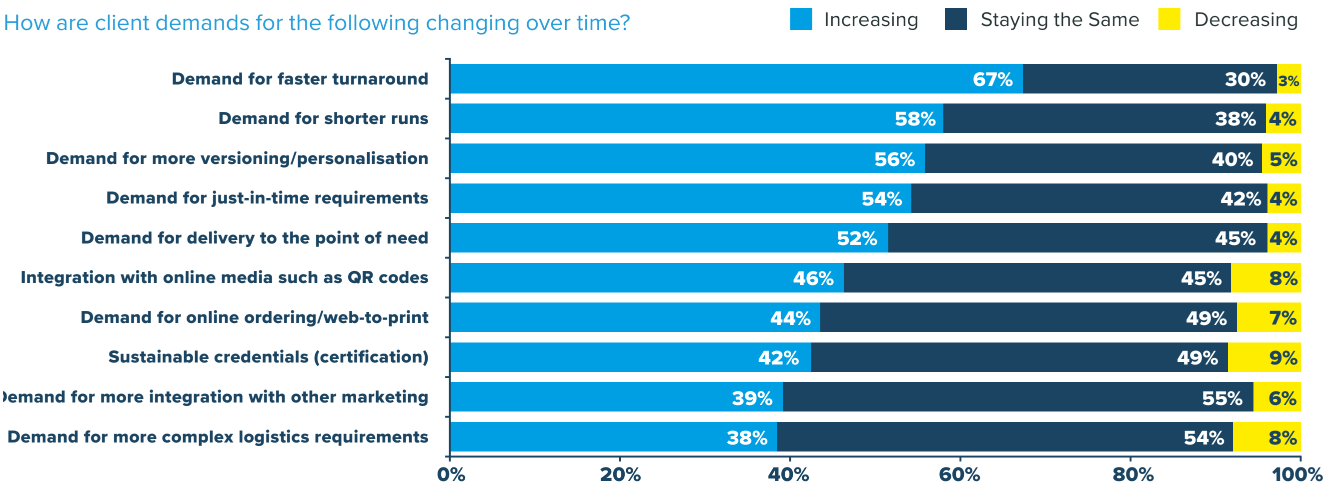
CHANGES IN KEY CUSTOMER REQUIREMENTS

There is no question that customer demand for mass customisation continues to drive the adoption of digital printing technologies. Core customer requirements include fast turnaround, short-run printing, increased use of versioning ; personalisation and just-in-time manufacturing. These requirements have been quite important for several years now.

FIGURE 9

CHANGES IN CLIENT DEMANDS

How are client demands for the following changing over time?



N = 1,778 Total Respondents | Source: *2023 FESPA Worldwide Print Census*

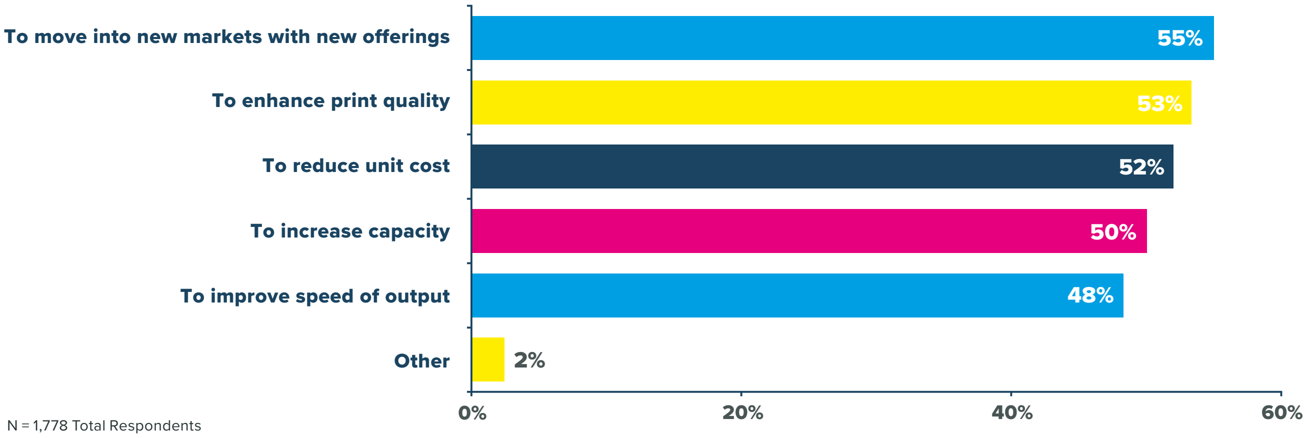
Digital printing technologies and the workflow associated with onboarding jobs and processing them in a seamless operation are critical components for Print Service Provider(s) as they strive to innovate and position their businesses for future growth. Many customers demand a 48-hour shipping timeframe, and Print Service Provider(s) must embrace digital printing and automated workflow tools to meet this requirement.

Correlating their need for a fast turnaround and just-in-time manufacturing, respondents reported that their top reasons for investing in new technologies were to enter new markets a nd to enhance print quality. Today's equipment suppliers are advancing quality management in their devices, improving ink formulation, and developing media that is designed for a wider range of applications.

FIGURE 10

RATIONALE BEHIND TECHNOLOGICAL INVESTMENTS

What are the reasons behind your planned technological investments?



N = 1,778 Total Respondents
Source: *2023 FESPA Worldwide Print Census*

Multiple Responses Permitted

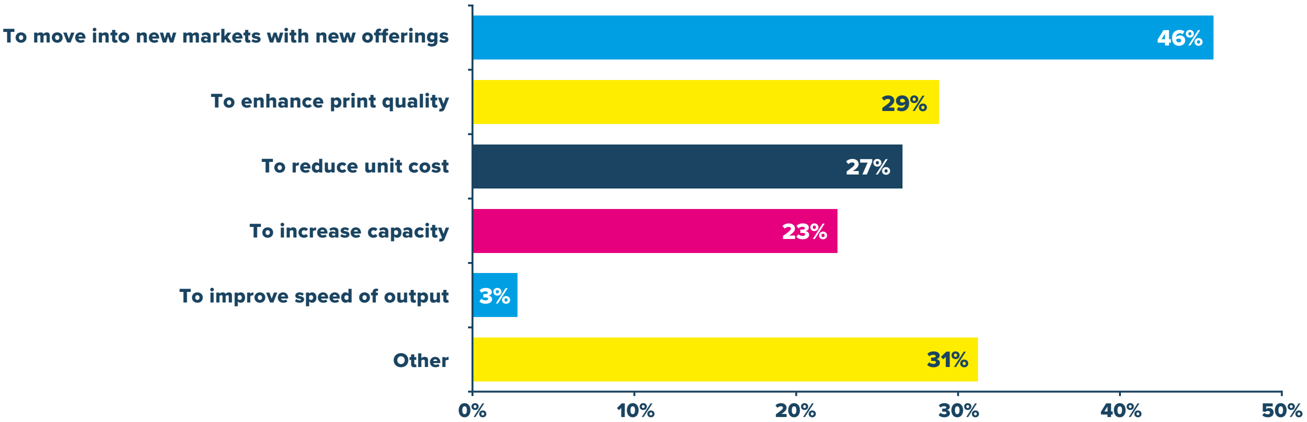
Print Service Provider(s)' technological investments are certainly important, but we also wanted to explore non-technological investments that they were making. Not surprisingly, well-trained staff members topped the list at 46%. Employee training is key to equipment maintenance, customer satisfaction, and efficient production—even if the technology is not always cooperating!

The next tier of investments is also expected as a natural development in companies that are investing in digital technologies. Investments like e-commerce portals, interactive customer collaboration tools, and digital asset management are a priority for efficient production and the ability to produce jobs with more automation and fewer human errors. They are critical in environments where large numbers of jobs must be effectively managed.

FIGURE 11

RECENT NON-TECHNOLOGICAL INVESTMENTS

Which of the following investments have you made in the past 2 years?



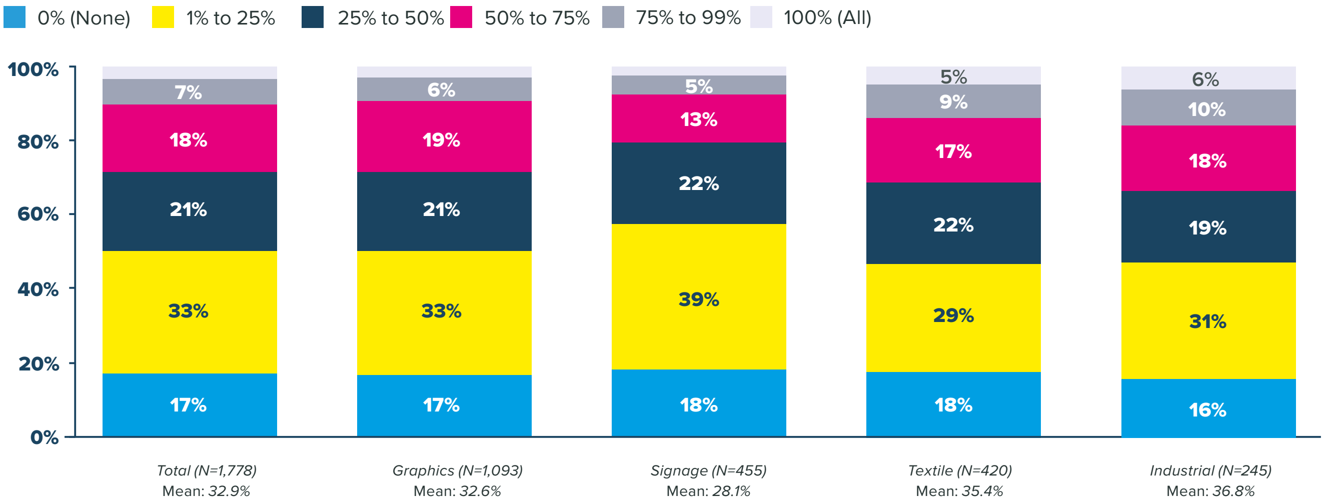
N = 1,778 Total Respondents
Source: *2023 FESPA Worldwide Print Census*

Multiple Responses Permitted

FIGURE 12

DEMAND FOR ENVIRONMENTALLY FRIENDLY PRODUCTS (BY TYPE OF BUSINESS)

Which of the following best describes the share of your customers that are demanding environmentally friendly products?



Base: Total Respondents
Source: *2023 FESPA Worldwide Print Census*

THE IMPORTANCE OF SUSTAINABILITY

Our respondents represent a diverse range of producers from a variety of industries. Despite their differences, they all share a commitment to the environment. On average, total respondents reported that about a third of their customers were currently demanding eco-friendly products. This share was lowest among signage respondents and highest among industrial firms.

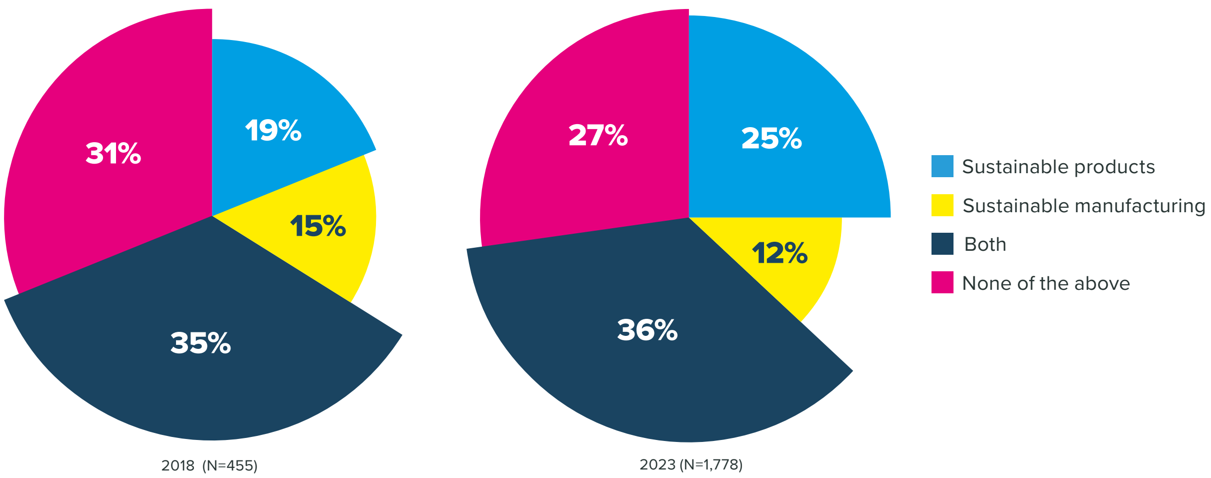
Most respondents indicated that sustainable manufacturing and/or sustainable products are desirable. It should be noted that the share of respondents who reported that no sustainability initiatives were requested declined from 31% in 2018 to 27% in 2023.

Since the environment is a top priority, we sought to better understand the specific actions respondents have taken to improve their environmental friendliness. The top responses included energy efficient/certified equipment, the use of VOC free inks, and sourcing equipment from eco-friendly suppliers.

FIGURE 13

REQUESTED SUSTAINABILITY INITIATIVES (2018 VS. 2023)

Which of the following best describes the type of sustainability your customers are requesting?

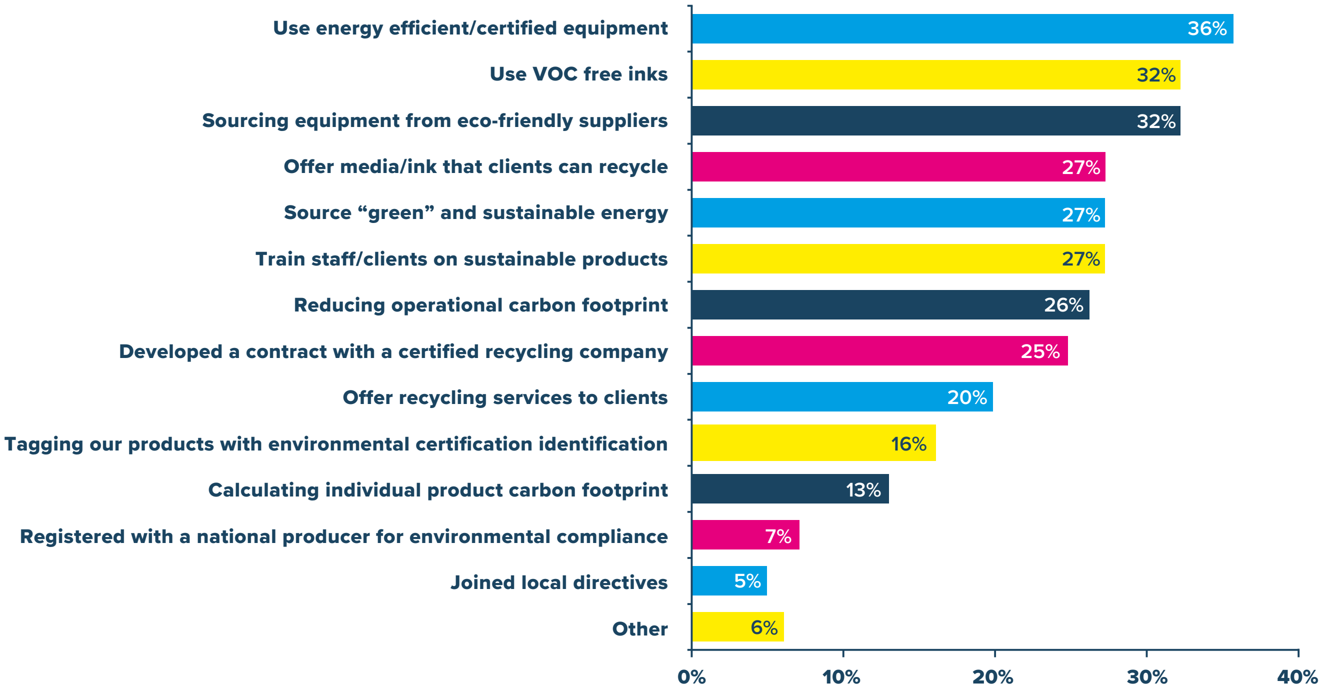


Base: Total Respondents
Source: *FESPA Worldwide Print Census Reports*

FIGURE 14

ECO-FRIENDLY ACTIONS

Which of the following actions have you taken to make your operations more environmentally friendly?



N = 1,778 Total Respondents
Source: *2023 FESPA Worldwide Print Census*

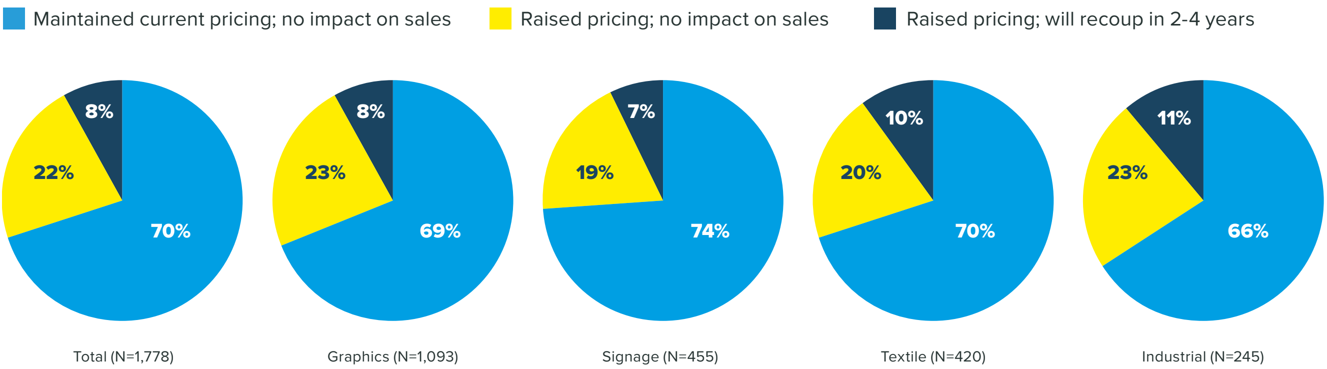
Multiple Responses Permitted

As we considered the activities that Print Service Provider(s) are taking to meet today's increasingly stringent environmental standards, we also asked how the investment in more sustainable products affected our respondents' bottom lines. Fortunately, most Print Service Provider(s) reported that this investment had no negative impact on business and that they were able to maintain their current pricing. About 8% of total respondents needed to raise their prices, but soon expected to recoup the expenses from the investment. The differences by type of business were not pronounced, but industrial respondents reported that sustainable practices had a slightly stronger impact on their sales.

FIGURE 15

IMPACT OF ENVIRONMENTAL STRATEGY (BY TYPE OF BUSINESS)

How has your environmental strategy affected your business?



Base: Total Respondents
FESPA Worldwide Print Census Reports

Analysis by type of business

As noted earlier in this document, survey respondents represented a broad range of graphic arts and industrial segments whose primary business revolves around printing. This section will focus on participants that identify as digital printing specialists within the graphics, signage, commercial, and screen-printing industries.

As was also previously stated, respondents were allowed to select more than one response when asked about their primary business. To address the extensive overlap between the groups, we created this merged section to concisely show results from Print Service Provider(s) that categorise themselves as graphics, signage, commercial, and screen printers.

COMMERCIAL PRINTERS

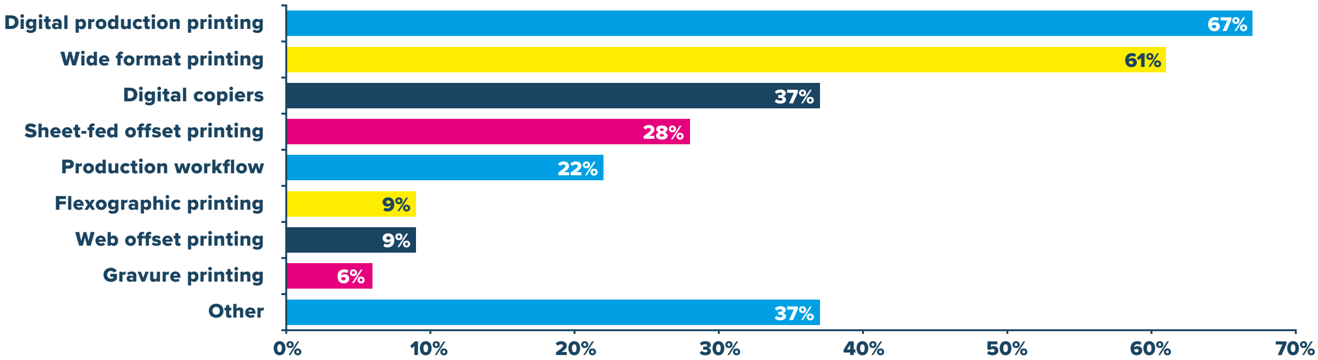
859 FESPA respondents (48% of the total) offered commercial printing and reprographics services. These businesses are best identified as general commercial printers, quick printers, reprographic shops, in-plants, or prepress shops. Commercial printing companies are often involved in a wide variety of printing projects as they strive to cater to their clients' requirements. As a result, many of these firms have diversified their services to include page printing and a broader range of wide format applications. They aim to strengthen their client relationships by developing expertise in production workflow and business strategies and expanding their range of services.

In the commercial print space, digital production printing devices continue to grow, increasing from 58% in 2018 to 67% in 2023. Conversely, sheetfed offset decreased by 8%. The steady migration to digital will see this trend continue in the coming years.

FIGURE 16

DOCUMENT PRINTING TECHNOLOGIES

You stated that your primary business is commercial printing. Which of the following types of document printing technologies do you own?



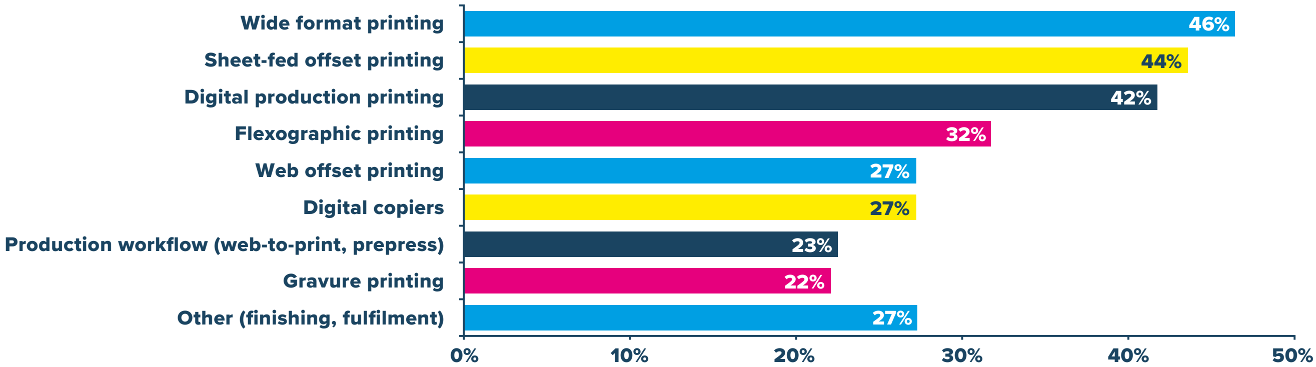
N = 859 Commercial Printing Respondents | Source: *2023 FESPA Worldwide Print Census* Multiple Responses Permitted

In an attempt to diversify their offerings, commercial printers are incorporating wide format printing alongside their traditional offerings. Ownership of wide format devices increased from 48% in 2018 to 61% in 2023. Of even greater importance is that the percentage of revenue from wide format print (46%) is higher than traditional sheet-fed (44%) and digital production printing (42%). This shows a continued shift to wide format among commercial printers.

FIGURE 17

SHARE OF REVENUE FROM VARIOUS TECHNOLOGIES

What percentage of your business/revenue comes from the following printing technologies today?



N = 859 Commercial Printing Respondents | Source: *2023 FESPA Worldwide Print Census* Multiple Responses Permitted

SCREEN PRINTERS

This year's FESPA survey received a strong response from screen printers. This section of the report outlines the key trends affecting screen printers in terms of graphics and signage printing.

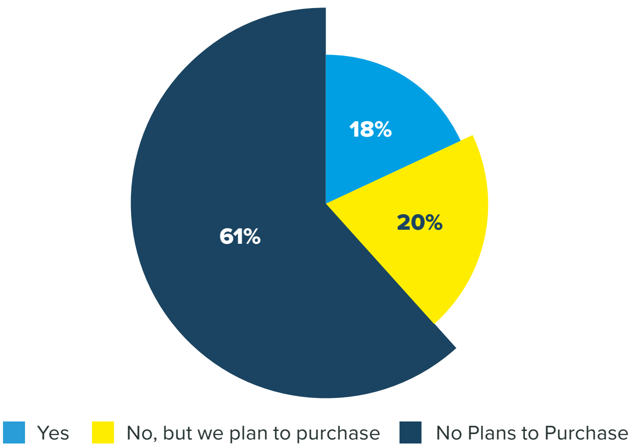
Of the 1,312 respondents that classified themselves as graphics and signage Print Service Provider(s), 18% owned screen-printing equipment and another 20% were considering purchasing it in the next 2 years.

Although a good portion of graphics and signage printers own screen-printing equipment, only a small share consider it to be the mainstay of their revenue. Over half of respondents indicated that screen-printing accounts for under 25% of their revenues, and another 29% said that it accounts for 25% to 50%.

FIGURE 18

OWNERSHIP OF SCREEN-PRINTING EQUIPMENT

Do you own screen-printing equipment?

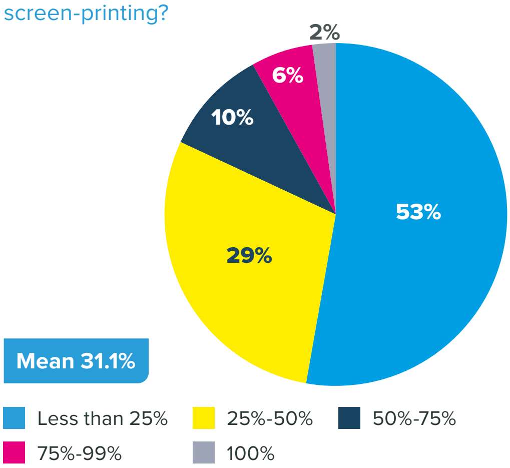


N = 1,312 Graphics/Signage Respondents
Source: *2023 FESPA Worldwide Print Census*

FIGURE 19

REVENUES DERIVED FROM SCREEN-PRINTING

What percentage of your revenues are derived from screen-printing?



N = 241 Respondents that own screen-printing equipment
Source: *2023 FESPA Worldwide Print Census*

WIDE FORMAT TECHNOLOGY

As was the case with previous FESPA Census surveys, the majority (70%) of graphics and signage respondents already owned wide format printers and had experience producing a variety of applications and providing associated services. As shown in the Figure below, this share is up from 66% in 2018. Another 15% had not yet invested in wide format but intended to do so in the near future. Only 15% had no plans to invest at all.

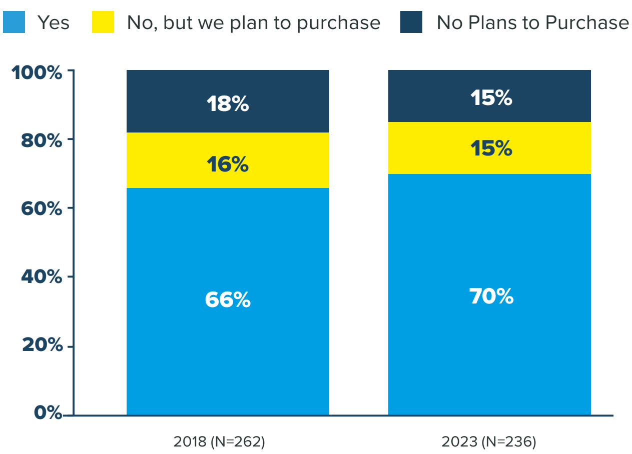
Wide format printing technology is widely available, enabling Print Service Provider(s) from diverse backgrounds to offer valuable services to their clients. While this is positive for the industry, it also means that Print Service Provider(s) from non-traditional environments are now competing with established sign & display businesses by providing comparable value-added offerings. At the same time, sign shops are adopting new technologies and expanding their own applications to increase revenue.

The sign & display respondents who did not own wide format equipment and had no plans to purchase it were asked why they weren't interested. Of those respondents, 57% said wide format was not part of their core business, 26% said they outsourced their wide format printing, and 11% considered wide format a longer-term strategy that they might reconsider in the future.

FIGURE 20

OWNERSHIP OF WIDE FORMAT EQUIPMENT (2018 VS. 2023)

Do you have any wide format printing equipment at your establishment?



Base: Graphics/Signage Respondents that own screen-printing equipment Source: *FESPA Worldwide Print Census Reports*

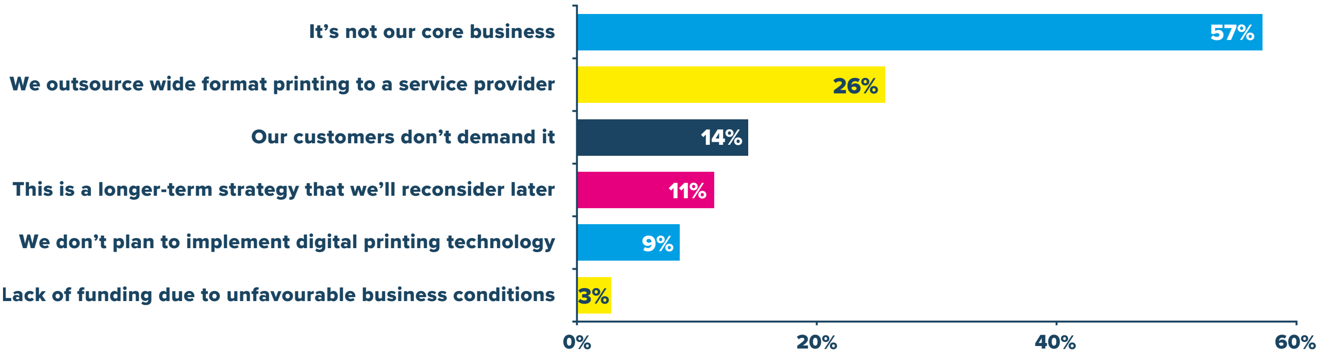
Respondents who owned wide format printing equipment were asked about the devices they had. Among graphics and signage respondents, solvent-based technologies still have a strong presence (23% solvent, 48% eco-solvent). At the same time, however, improvements in UV printing technologies (such as new ink types, LED curing, and more configurations) are making these devices a formidable substitute for solvent-based technologies.

At this time, 40% of respondents are using flatbed or hybrid UV systems. Many graphics and signage shops are also employing roll-fed UV and Resin/Latex inkjet to produce output that rivals solvent-based technologies in terms of quality and durability. Although some respondents have adopted dye-sub technology for textile printing, they represent a smaller portion of our response pool.

FIGURE 21

REASONS FOR LACK OF INTEREST IN WIDE FORMAT

You indicated that you have no wide format printing equipment and no near-term purchasing plans. Why is this?

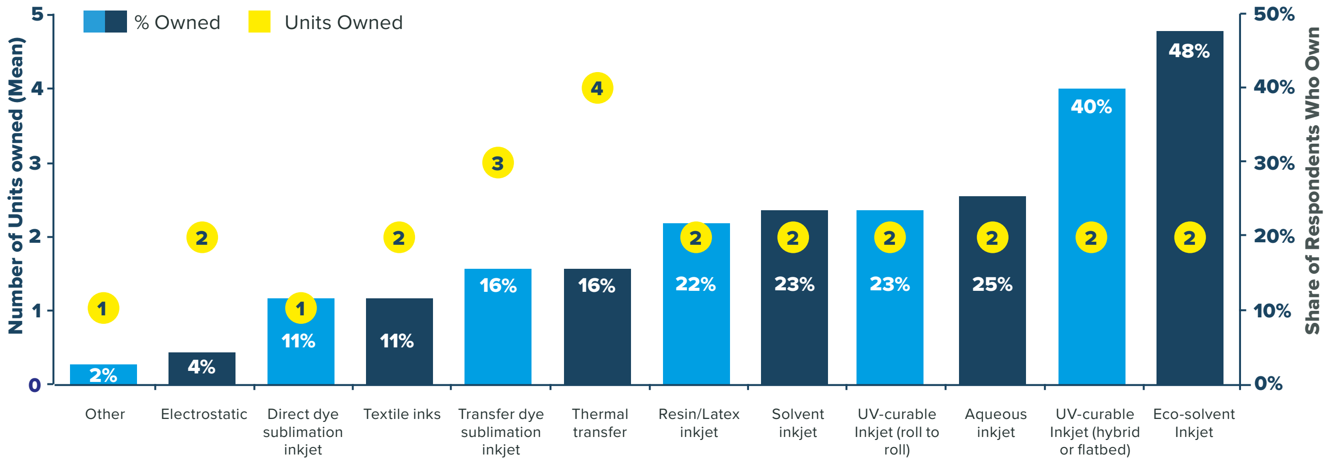


N = 35 Graphics/Signage Respondents that own screen-printing equipment but have no plans to invest in wide format equipment
Source: *2023 FESPA Worldwide Print Census*
Multiple Responses Permitted

FIGURE 22

OWNERSHIP OF WIDE FORMAT EQUIPMENT

Which of the following types of wide format printing equipment do you or your company currently own?
How many of each of the following wide format/finishing devices do your currently own? (Means)



N = 166 Graphics/Signage Respondents that own screen-printing and wide format equipment
Source: *2023 FESPA Worldwide Print Census*

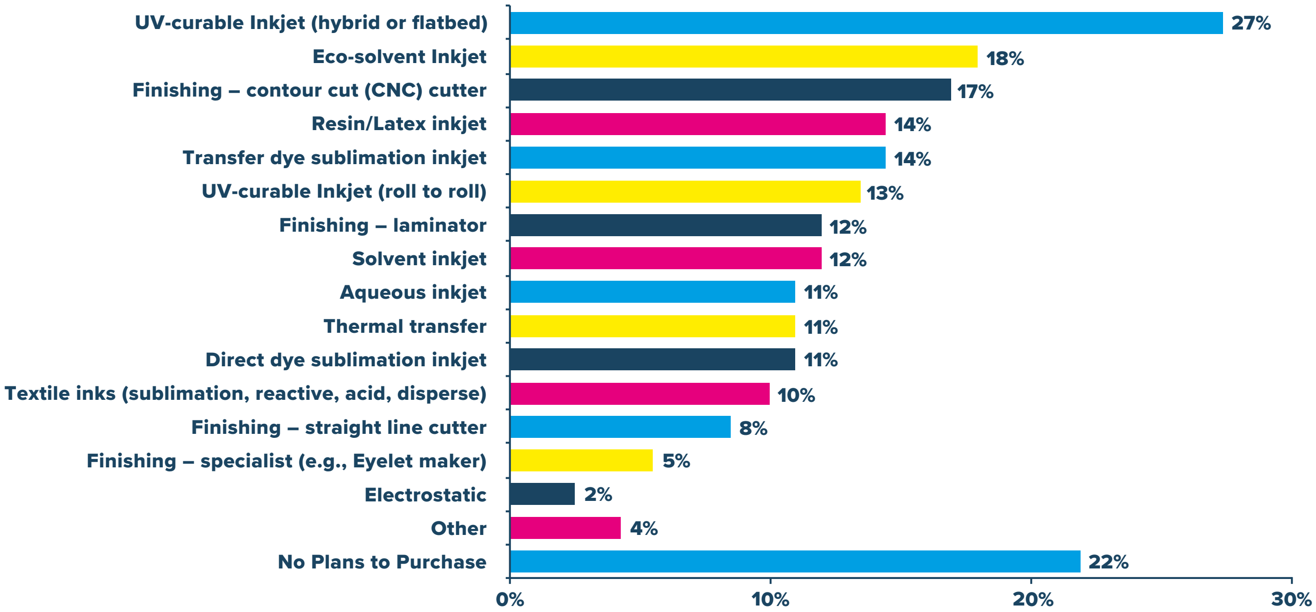
As mentioned earlier, purchasing trends are leaning towards UV curable ink sets. Among graphics and signage businesses, 28% are planning to buy UV flatbed printers to directly print on rigid substrates, or a UV printer with a hybrid feed type to allow for greater versatility. Eco-solvent technology is still popular at 18%, but resin/latex is not far behind at 14%.

When Print Service Provider(s) were asked about the reasons for adding wide format printing to their offerings, 49% cited a desire to maintain their competitive business position. Another 43% hoped to reach new clients, while 42% wanted to offer new applications to their existing clients. Moreover, with 23% of respondents acknowledging the decline of traditional print, Keypoint Intelligence believes that the growth of wide format will continue to drive adoption among commercial printers and screen printers alike.

FIGURE 23

WIDE FORMAT PURCHASING PLANS

Which of the following types of digital wide format equipment/accessories are you most likely to purchase in the next 2 years ?



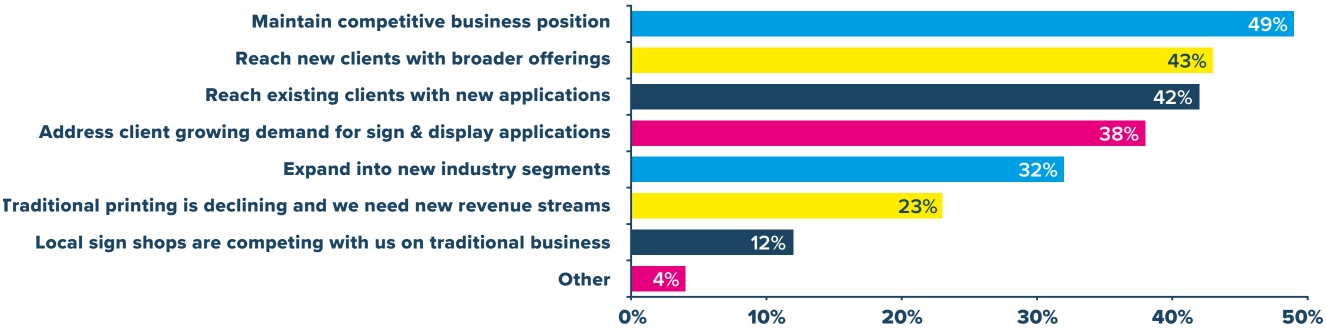
N = 201 Graphics/Signage Respondents that own screen-printing and wide format equipment | Source: *2023 FESPA Worldwide Print Census*

Multiple Responses Permitted

FIGURE 24

REASONS FOR ADDING WIDE FORMAT

What was the rationale for adding wide format printing to your mix of product offerings?



Multiple Responses Permitted

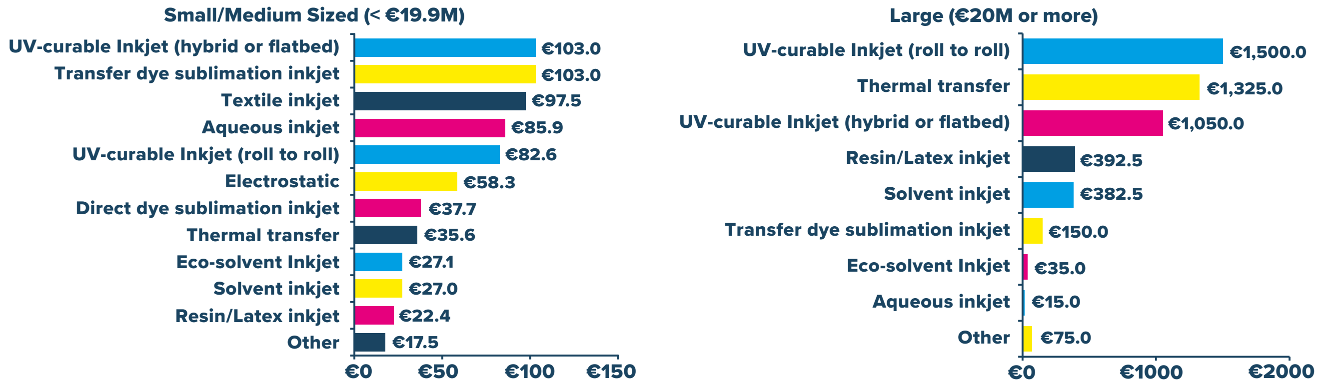
N = 528 Respondents that offer wide format printing | Source: *2023 FESPA Worldwide Print Census*

Among graphics and signage respondents, planned investment levels and technology interest depended on the size of the business. Small to medium-sized Print Service Provider(s) with annual revenues of under €19.9M were looking to invest equally (€103k) in either UV flatbed or transfer dye sublimation devices. On the other hand, larger Print Service Provider(s) with annual revenues over €20M were interested in high-throughput UV roll-to-roll, hybrid, and flatbed, as well as thermal transfer technologies. Their investment level is also much higher than that of smaller businesses, with up to €1.5M budgeted for their next capital expense.

FIGURE 25

PLANNED EXPENDITURES FOR WIDE FORMAT EQUIPMENT (BY ANNUAL REVENUES)

On average, how much do you expect to pay for the new equipment you plan to acquire? (Means in € Thousands)



N = Varies; Base: Graphics/Signage Respondents that own wide format equipment and/or plan to purchase more in the next 2 years
Source: *2023 FESPA Worldwide Print Census*

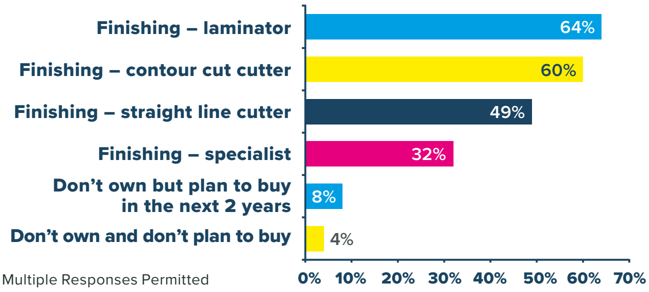
FINISHING TECHNOLOGY

According to our survey results, the majority of respondents (64%) own laminators, which have been a mainstay in many wide format shops for protecting prints for indoor and outdoor installations. In addition, contour cutters have grown in importance as they enable a range of creative applications that can be achieved using sophisticated laser or knife cutters. Precise cuts can aid in creating dimensional displays and form-fitting panels, helping to meet assembly instructions for a variety of display applications. Contour cutters were also popular, owned by 60% of respondents.

FIGURE 26

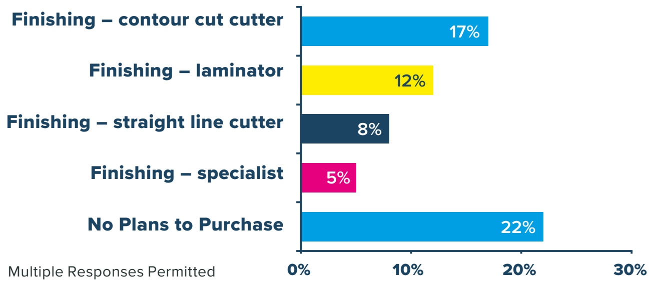
WIDE FORMAT FINISHING EQUIPMENT – OWNERSHIP & PURCHASING INTENTIONS

Which of the following types of wide format finishing equipment do you or your company currently own?



Multiple Responses Permitted

Which of the following types of wide format finishing equipment are you most likely to purchase in the next 2 years?



Multiple Responses Permitted

N = 166 Graphics/Signage Respondents that own screen-printing and wide format equipment
Source: *2023 FESPA Worldwide Print Census*

Graphics and signage Print Service Provider(s) are allocating a significant budget for their next finishing purchase, with CNC devices commanding a higher investment compared to other finishing technologies. On average, these businesses are planning to spend over €70k on a CNC cutter.

FIGURE 27

PLANNED EXPENDITURE FOR WIDE FORMAT FINISHING EQUIPMENT

On average, how much do you expect to pay for the new equipment you plan to acquire? (Means in €Thousands)

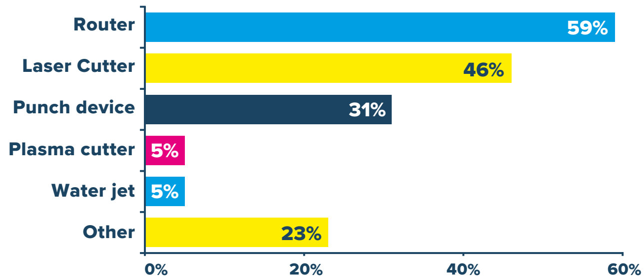
N = Varies; Base: Graphics/Signage Respondents that own screen-printing and wide format equipment and plan to purchase more in the next 2 years
Source: *2023 FESPA Worldwide Print Census*

When asked to provide additional information on the specific types of CNC devices owned or planned for purchase, Print Service Provider(s) showed consistent preferences. Among the respondents, 59% currently own a router, and 68% plan to buy one within the next 2 years. 46% have laser cutters, and 53% plan to invest in one.

FIGURE 28

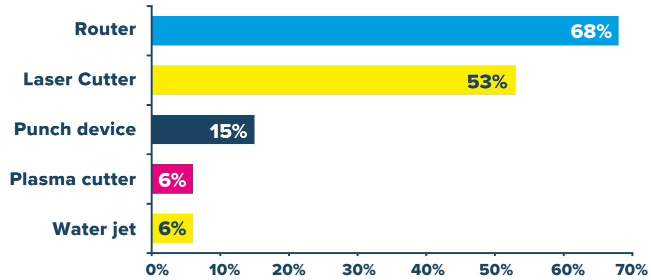
CNC CUTTING TECHNOLOGY – OWNERSHIP & PURCHASING INTENTIONS

Which of the following types of CNC cutting technology do you currently own?



N = 99 Graphics/Signage Respondents that own CNC finishing equipment
Source: *2023 FESPA Worldwide Print Census* Multiple Responses Permitted

Which of the following types of CNC cutting technology do you plan to purchase in the next 2 years?



N = 34 Graphics/Signage Respondents that plan to purchase CNC cutting equipment
Source: *2023 FESPA Worldwide Print Census* Multiple Responses Permitted

As market growth slows down and the need for maximum productivity becomes more crucial, Keypoint Intelligence predicts that the trend of acquiring finishing equipment to eliminate costly outsourcing will persist.

SOFTWARE INVESTMENTS

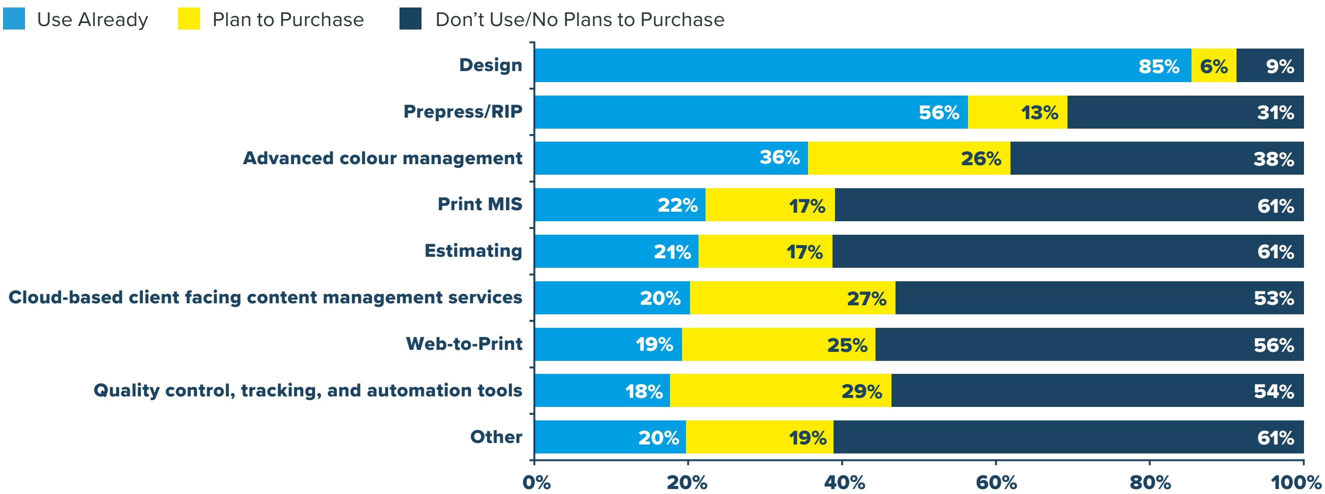
Efficient workflow tools are a crucial element in the successful production of digital products. In addition to enhancing productivity and output quality, they play a key role in connecting clients with Print Service Provider(s), facilitating efficient in-shop production, and tracking completion to meet service level agreements. While workflows were once considered a necessary inconvenience, they have now become a valuable asset for enabling profitable operations.

Quality control, tracking, and automation software was the most popular planned purchase for graphics and signage respondents. Cloud-based content management, advanced colour management, and web-to-print were also highly ranked. The survey revealed a shift in Print Service Provider(s)' focus from design and prepress solutions to consistent quality that meets the demand for timely delivery.

FIGURE 29

SOFTWARE OWNERSHIP/INVESTMENT PLANS

What are your ownership/investment plans for the following types of software?

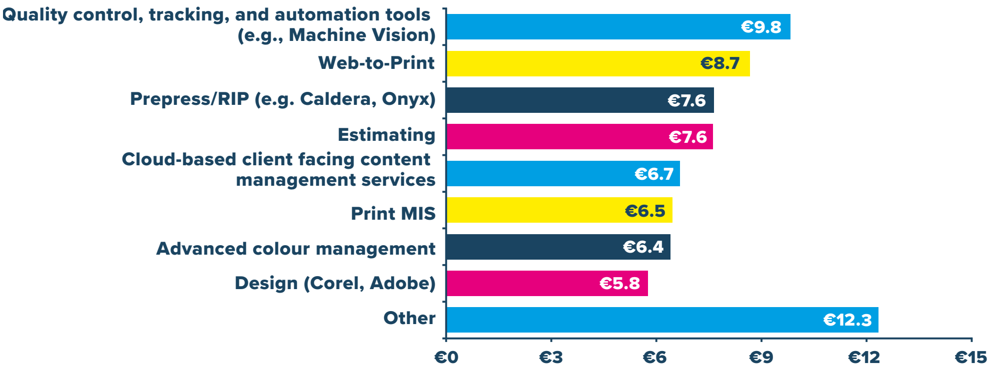


N = 528 Respondents that offer wide format printing | Source: *2023 FESPA Worldwide Print Census* Multiple Responses Permitted

FIGURE 30

PLANNED EXPENDITURES FOR SOFTWARE

On average, how much do you expect to pay for the new software you plan to acquire? (Means in €Thousands)



N = Varies; Base: Graphics/Signage Respondents that own screen-printing and wide format equipment and plan to invest in new software
Source: *2023 FESPA Worldwide Print Census*

Survey respondents anticipate spending an average of €7,930 on their software investments, which is 30% less than the average of €11,229 recorded in 2018. Although software is essential to all business operations, budgets for systems in graphics and signage models are often the first to be reduced. Fortunately, there are now many affordable subscription options available that enable Print Service Provider(s) to use the tools they require without incurring excessive costs.

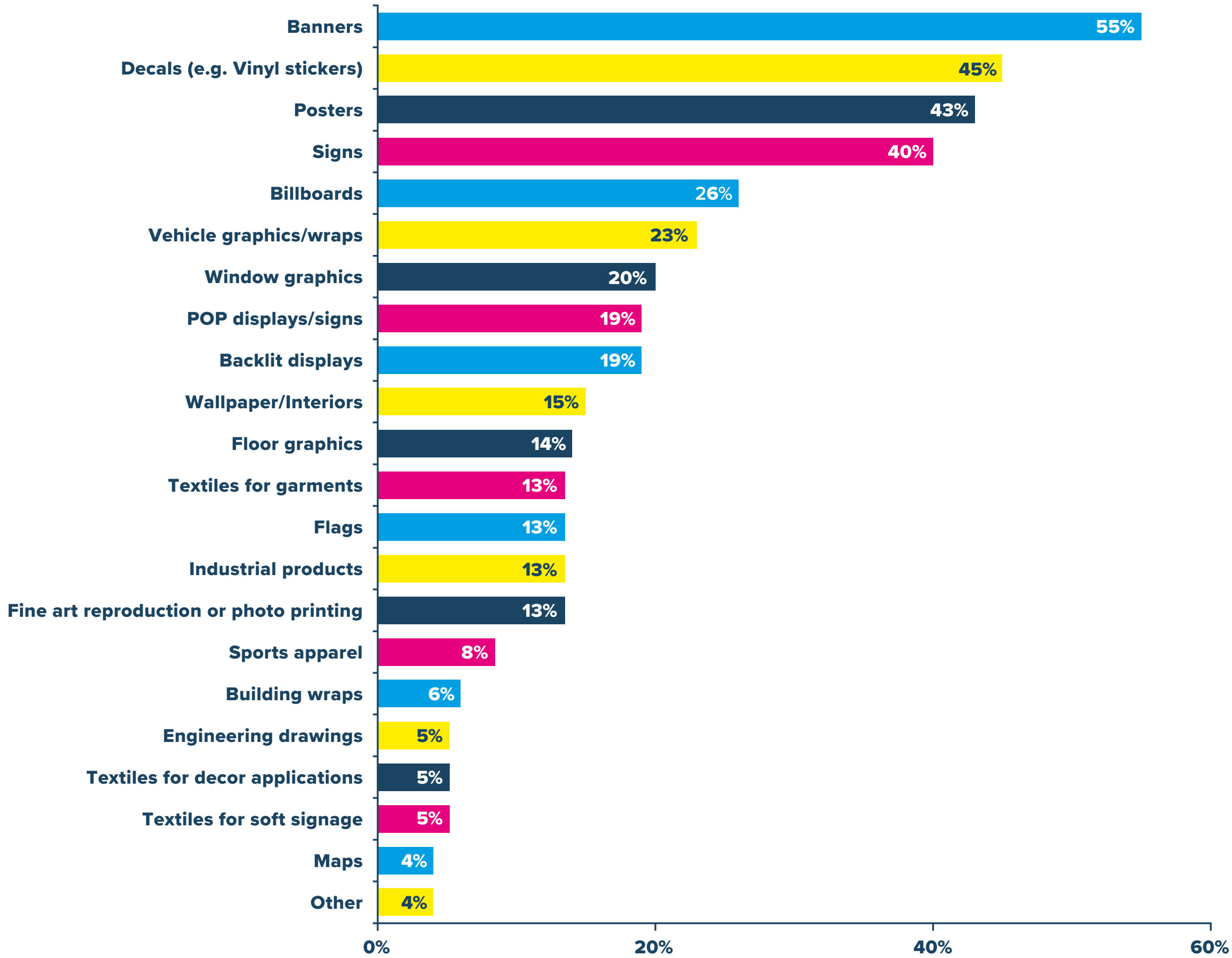
APPLICATIONS PRODUCED

The top applications driving revenue for graphics and signage businesses have remained relatively consistent over the past few years, with banners leading the pack at 55%, followed by decals, posters, and signs. Other applications in the top 10 include vehicle wraps, billboards, window graphics, and POP displays, all of which are closely related to visual communications.

FIGURE 31

WIDE FORMAT PRINTING APPLICATIONS

Which of the following applications do you regularly produce on your wide format printer?



N = 201 Graphics/Signage Respondents that own screen-printing and wide format equipment
Source: *2023 FESPA Worldwide Print Census*

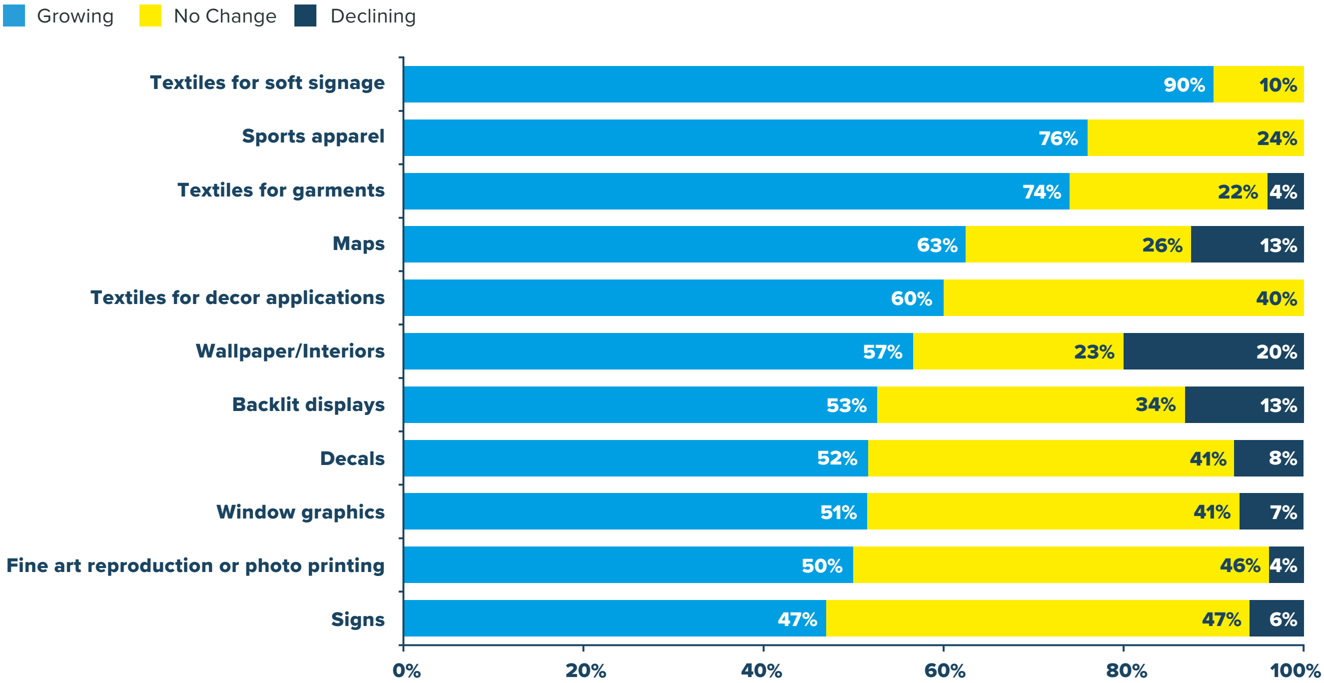
Multiple Responses Permitted

Graphics and signage Print Service Provider(s) continue to focus on their core applications and are reporting that these applications still provide future opportunities. Although 90% of Print Service Provider(s) surveyed reported that textile for soft signage was growing, only 5% are actually producing this application. The same is true for sports apparel and textiles for garments – these applications are reported as growing, but production levels within the graphics and signage space are low. 60% of respondents stated that decorative applications are continuing to grow. Map printing is on the rise in the aqueous space as well as UV, offering dimension to raised relief printed maps, with the use of clear ink layers. The core applications will always produce revenue, however Keypoint Intelligence believes that market-aware Print Service Provider(s) will take advantage of their technology to move into these growing applications to generate new revenue streams and expand into new markets.

FIGURE 32

CHANGE IN WIDE FORMAT PRINTING APPLICATIONS (TIER 1)

How are the following applications that you produce changing as a percentage of your wide format printing business?

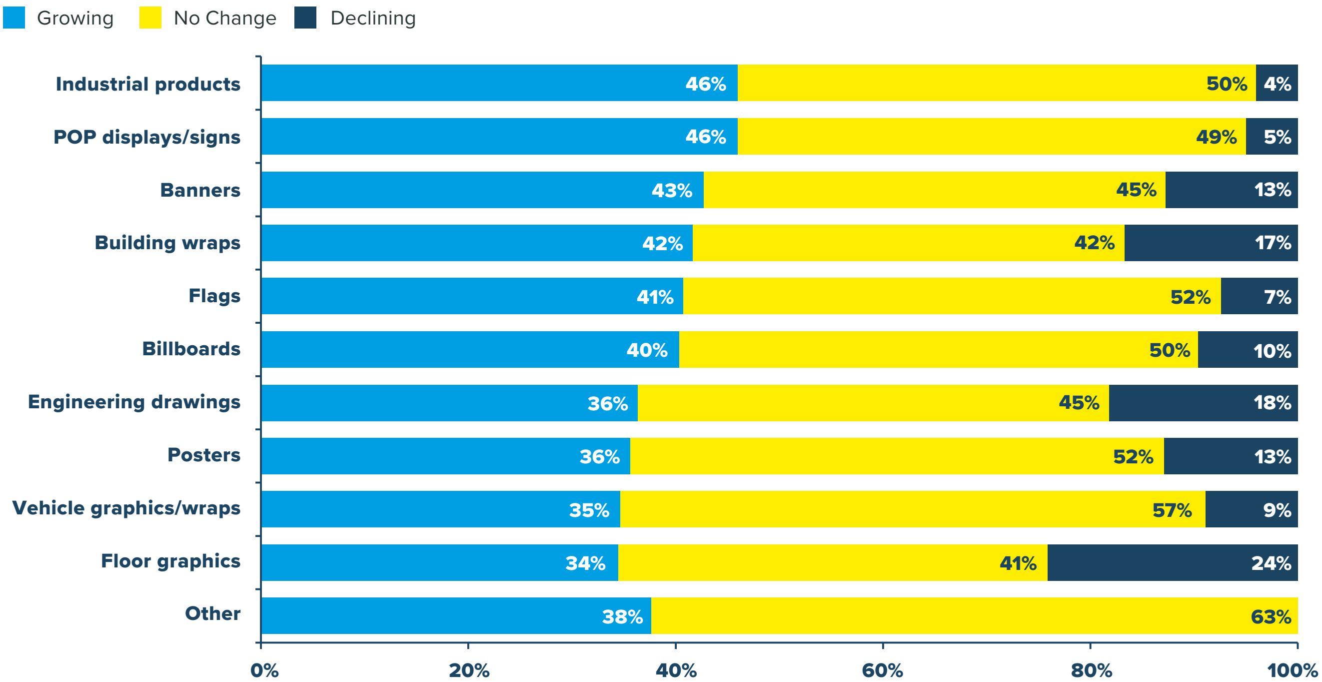


N = Varies; Base: Graphics/Signage Respondents that own screen-printing and wide format equipment
Source: *2023 FESPA Worldwide Print Census*

FIGURE 33

CHANGE IN WIDE FORMAT PRINTING APPLICATIONS (TIER 2)

How are the following applications that you produce changing as a percentage of your wide format printing business?

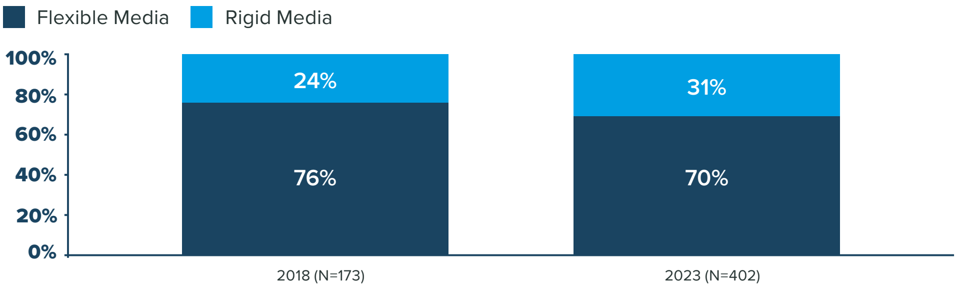


N = Varies; Base: Graphics/Signage Respondents that own screen-printing and wide format equipment
Source: *2023 FESPA Worldwide Print Census*

FIGURE 34

WIDE FORMAT OUTPUT – RIGID VS. FLEXIBLE (2018 VS. 2023)

What percentage of your wide format output is produced on the following types of media?



Base: Graphics/Signage Respondents that own wide format printing equipment | Source: *2023 FESPA Worldwide Print Census*

The range of applications available to Print Service Provider(s) will continue to expand as new technologies enable printing on more surfaces and accommodate evolving customer preferences. Faster turnaround times are driving growth in direct-to-rigid substrate printing, with respondents stating that 31% of their output is now printed directly to rigid substrates. This represents an increase of 7% since 2018.

DIGITAL SIGNAGE

Almost half of graphics and signage respondents believed that live media and LCD screen advertising systems were already impacting the wide format printing market, and all but 10% agreed that there would likely be changes in the future. With that said, less than a third of respondents currently offered or planned to offer live media or LCD advertising systems.

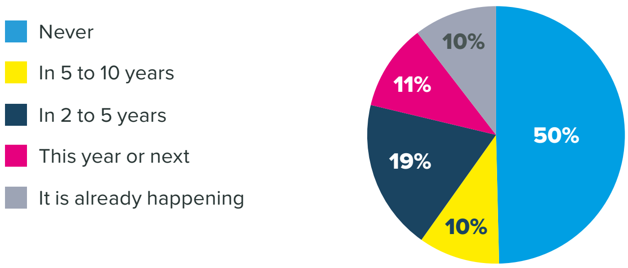
Although many graphics and signage Print Service Provider(s) acknowledge the impact of live media and LCD screen advertising systems on wide format printing, ownership and investment plans are low. This could indicate a potential opportunity for Print Service Provider(s) to expand their offerings to meet their customers' evolving needs.

While 52% of graphics and signage Print Service Provider(s) believe that the needs of print and display clients are the same, many have still chosen to run their digital display business as a separate entity from their wide format business, requiring additional investments in re-training or hiring new staff. There may be some reluctance from traditional graphics and signs businesses to fully embrace digital displays as a new opportunity for revenue. As the market continues to evolve and clients demand more diverse offerings, however, Print Service Provider(s) may need to adapt and integrate digital displays into their overall business strategy.

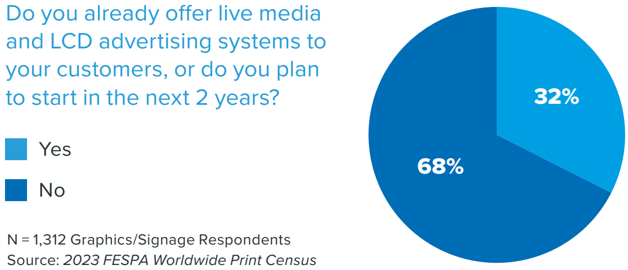
FIGURE 35

IMPACT OF LIVE MEDIA & LCD SCREEN ADVERTISING SYSTEMS

When do you expect live media & LCD screen advertising systems to impact the wide format printing industry?



Do you already offer live media and LCD advertising systems to your customers, or do you plan to start in the next 2 years?

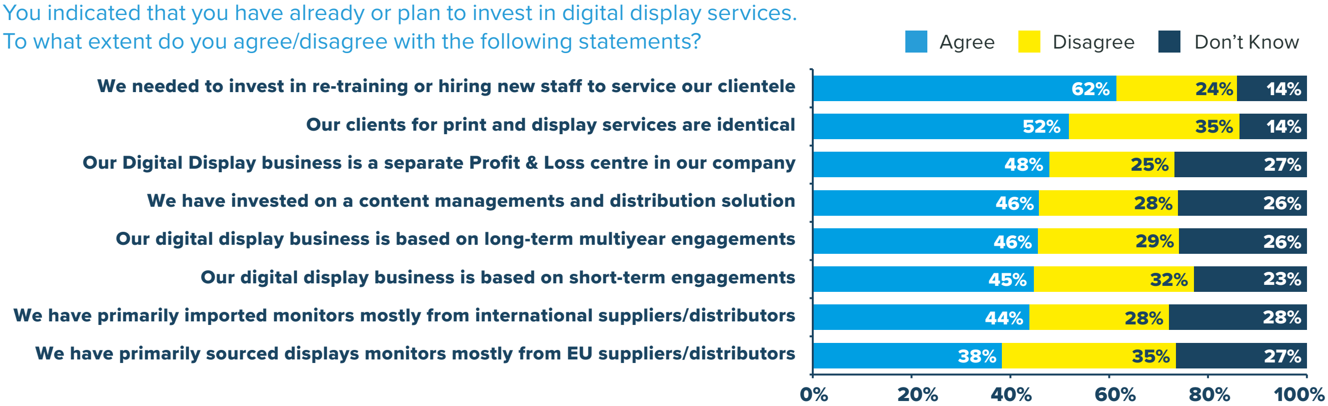


N = 1,312 Graphics/Signage Respondents
Source: *2023 FESPA Worldwide Print Census*

FIGURE 36

OPINIONS ABOUT DIGITAL DISPLAYS

You indicated that you have already or plan to invest in digital display services. To what extent do you agree/disagree with the following statements?



N = 426 Graphics/Signage Respondents that are interested in digital displays | Source: *2023 FESPA Worldwide Print Census*

FESPA

TEXTILE PRINTERS & APPAREL DECORATORS

Textile printing is a very large industry, and digital technologies are a rapidly growing segment of the textile market. This is prompting many Print Service Provider(s) to invest in textile printing technologies to increase the range of products and applications they offer.

In this rendition of the FESPA Print Census, we made a distinction between graphic applications (such as soft signage, flags, and banners) and fabrics printed for apparel, décor, and industrial applications. While many print technologies between these two segments are similar, they are two very distinct markets.

Textile printing is a diverse segment where a range of analog and digital solutions are used on a regular basis. These technologies enable printing on a variety of materials such as cellulosic, protein, and manmade fibers. All of these materials require specific ink chemistry and printing equipment to meet industry standards for quality and permanency. Final fixation of inks to fabrics also requires specialised equipment such as conveyor ovens, heat presses, steamers, and washers. As a result, many textile printers use technologies that are dedicated to the fabrics they produce.

With the rapid growth in this segment and digital representing approximately 5% of total worldwide fabric printing, our newest FESPA Print Census addresses this audience based on specific equipment used, applications produced, and future growth potential. Nearly a quarter (24%) of total survey participants selected textile printing as part of their company's primary business, and these firms can be categorised into two types:

1. Textile printers that are typically using wide format inkjet in addition to analogue platforms

2. Apparel decorators that use a variety of printing platforms like screen-printing, embroidery, direct-to-garment (DTG), and direct-to-film (DTF)

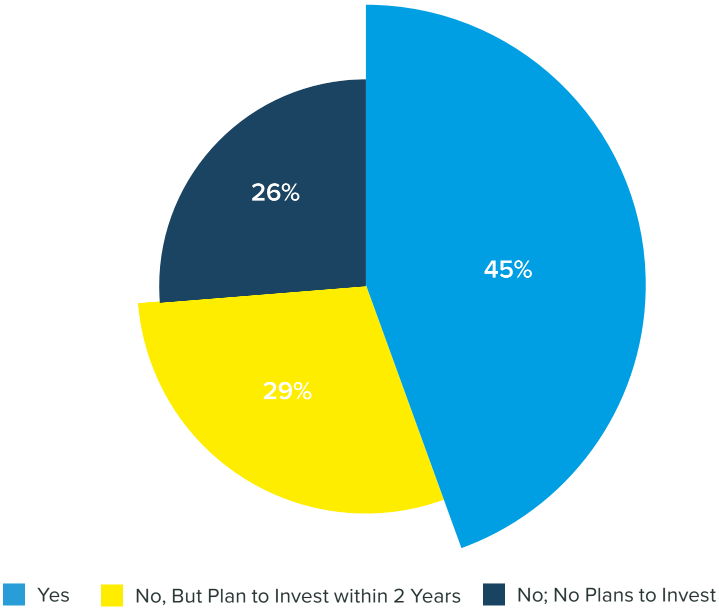
TECHNOLOGY USE: CURRENT & FUTURE

When textile respondents were asked whether they were already using digital printing in their business operations, nearly three-quarters had already invested in digital printing or planned to do so in the next 2 years.

FIGURE 37

ADOPTION OF DIGITAL PRINTING

Do you have any digital direct-to-garment equipment used for producing décor, apparel, or industrial fabrics at your company?



N = 420 Textile Respondents
Source: *2023 FESPA Worldwide Print Census*

At the same time, however, adoption is not uniform across this industry segment and there are differences between apparel decorators and textile printers. Apparel decorators' adoption of digital printing is slower, as many continue to use screen-printing for many of their applications. When we look at the growth trajectory of digital printing in the textile market, these gaps are slowly beginning to fade and both segments are expected to embrace digital technology in the coming years.

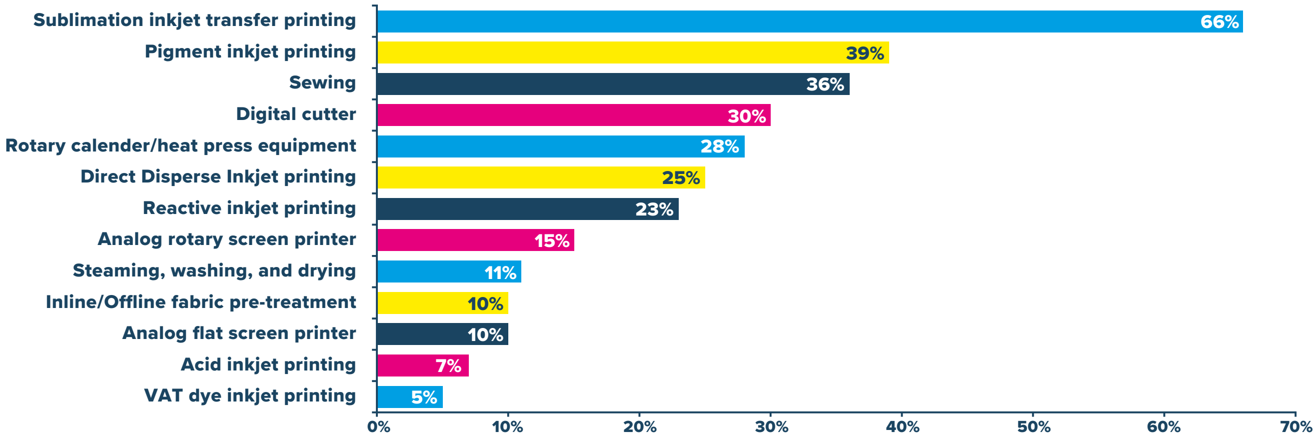
We asked textile respondents who currently own digital textile printing equipment to indicate the mix of print technologies and supporting accessories they used. Not surprisingly, the greatest percentage of respondents used sublimation inkjet, followed by pigment ink. Sublimation is used for polyester fabric applications like performance apparel and décor, and its ability to decorate hard substrates like ceramics and metals enables users to create multiple applications with a single technology.

On the finishing side, key technologies include sewing, digital cutting, rotary calenders/heat presses, steaming/washing/drying, and inline/offline fabric pre-treatment (10%). Finishing equipment is critical for textile printers to get close to final cut pieces before sewing. Some respondents are in vertically integrated environments that use all the necessary tools to produce a final garment.

FIGURE 38

TEXTILE PRINTING TECHNOLOGIES

Which of the following types of textile printing and related equipment do you or your company currently own?



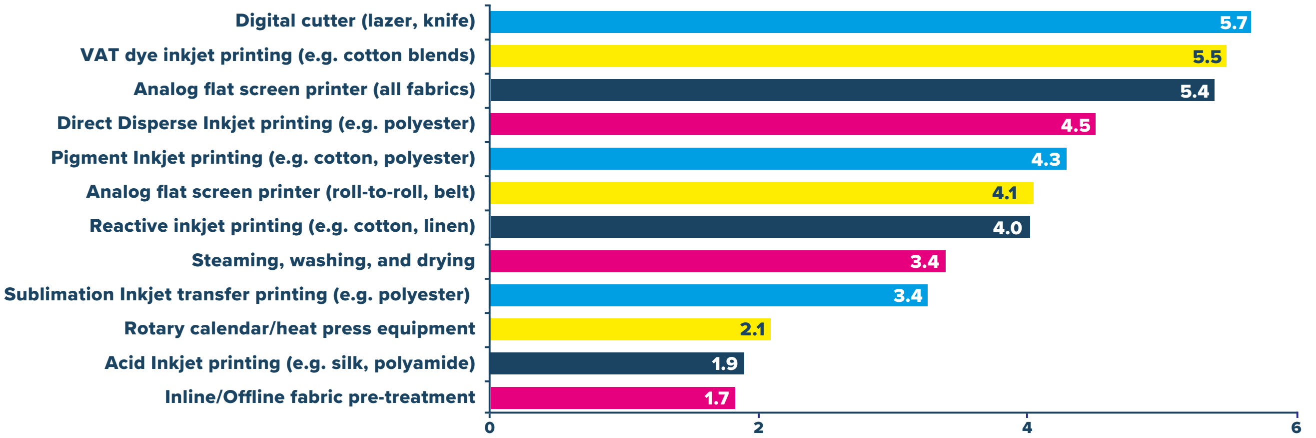
N = 206 Textile Respondents that own digital textile printing equipment | Source: *2023 FESPA Worldwide Print Census* Multiple Responses Permitted

Textile printers must manage multiple substrates and ink chemistries for the applications they produce. This is evident in the Figure below, which shows the average number of devices owned across a variety of platforms and accessories to support operations. Digital cutters, VAT dye inkjet printers, and analogue rotary screen-printing presses have approximately 5 devices each in operation. Direct disperse and pigment inkjet, along with analog flat screen-printing presses, each showed approximately 4 devices owned on average.

FIGURE 39

NUMBER OF TEXTILE DEVICES OWNED

How many of each of the following textile printing devices do you currently own? (Means)



N = 206 Textile Respondents that own digital textile printing equipment | Source: *2023 FESPA Worldwide Print Census* Multiple Responses Permitted

Pigment ink is experiencing rapid growth and adoption in the textile market because it is suitable for printing on natural and synthetic fabrics using heat-based curing, thus eliminating the need for steam fixation and different printers for each fabric type. Improvements in pre-treatment, colour saturation, and hand feel are achieving results and speed levels that meet consumer demands, especially in the décor market for upholstery and home furnishings. They are also being used in the apparel decorating industry in DTG and DTF printers. The adoption of pigment print also is becoming popular with décor fabric producers. Décor is the next growth opportunity for textile printing, and we expect this growth to continue, although it will be slower than the fashion segment.

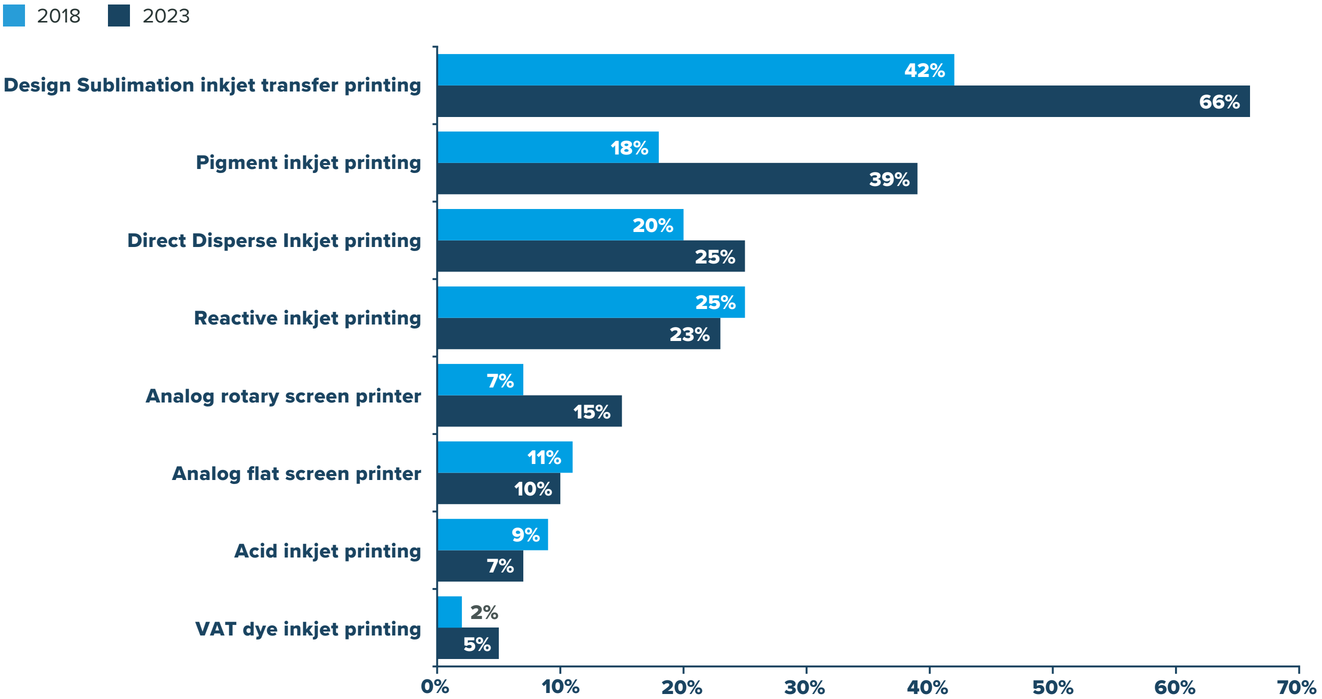
VAT dyes are somewhat new to the digital print world and are used extensively in high-volume and high-permanency applications such as military and outdoor products, due to their cost and permanency (e.g., washability, fade resistance, rub resistance). When we compare the technologies and platforms being used by textile printers today versus 2018, we see some notable differences. As shown below, dye sublimation and pigment ink have jumped in use compared to 2018.

Apparel decorators also use a wide variety of printing and decorating equipment. Regarding printing and decorating platforms, Commercial DTG, sublimation, and screen-printing ranked as the most popular. Nevertheless, it's important to note that DTF is being used by 29% of respondents—which is rather impressive given that it's only been on the market since 2020!

FIGURE 40

TEXTILE PRINTING TECHNOLOGIES (2018 VS. 2023)

Which of the following types of textile printing and related equipment do you or your company currently own?

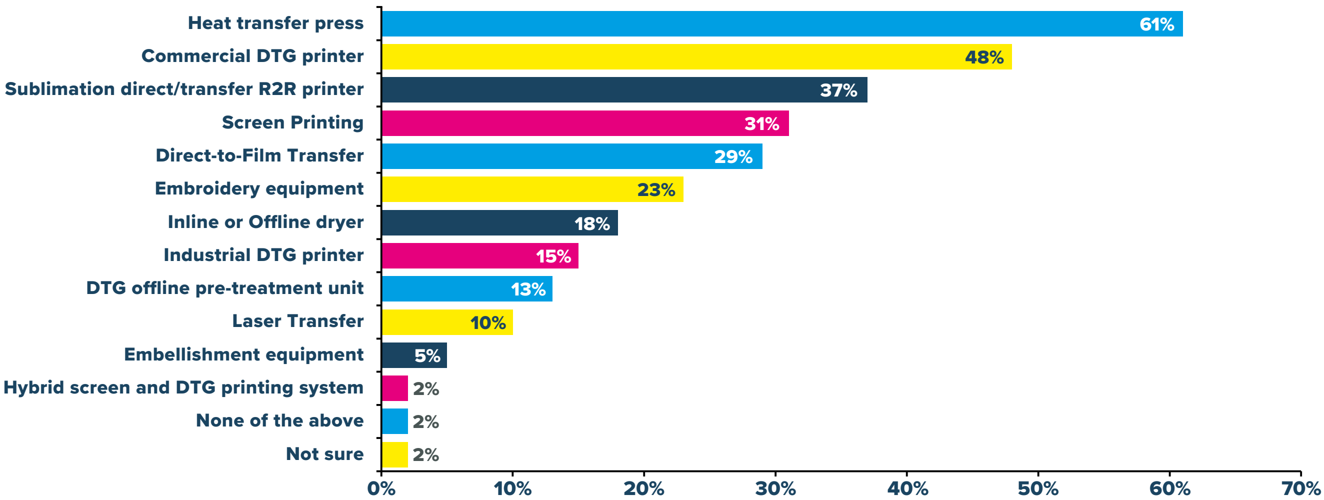


N = 206 Textile Respondents that own digital textile printing equipment | Source: *2023 FESPA Worldwide Print Census* Multiple Responses Permitted

FIGURE 41

APPAREL PRINTING TECHNOLOGIES

Which of the following types of apparel decorating equipment do you own today?



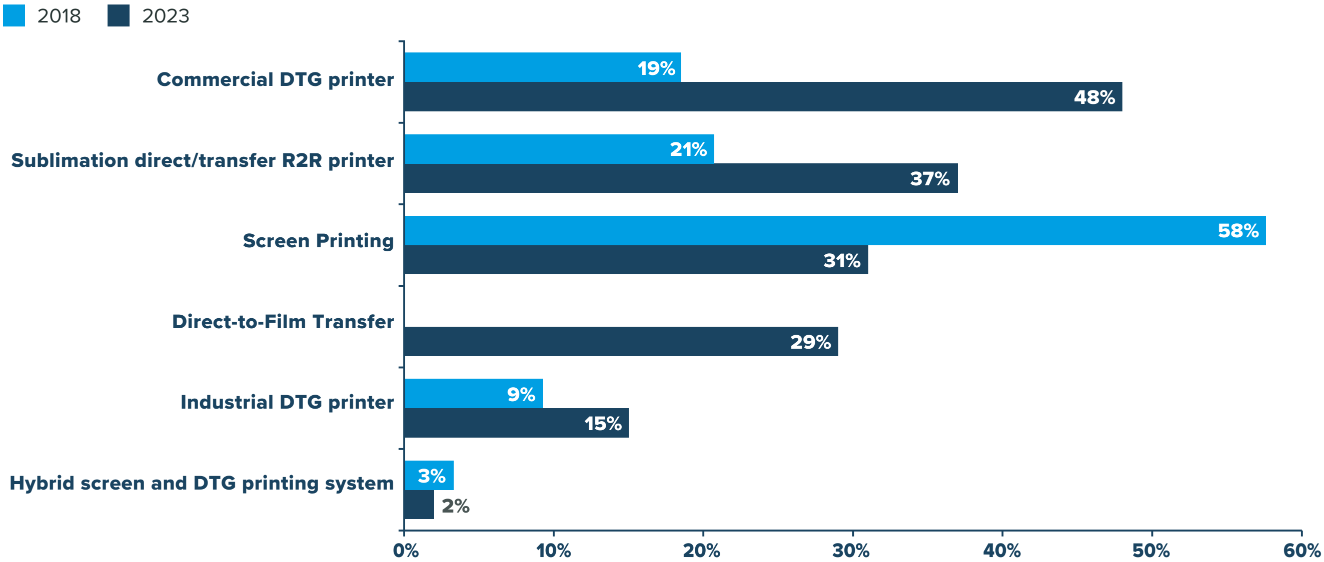
N = 166 Textile Respondents | Source: *2023 FESPA Worldwide Print Census* Multiple Responses Permitted

When we compare the range of major technologies and platforms used by apparel decorators today versus 2018, commercial DTG jumped 29% and sublimation jumped 16%. Also of note is the significant 27% drop in screen-printing versus 2018. Industrial DTG saw a 6% increase over 2018, which is another indication that apparel volumes are moving to the industrial segments of DTG and are significantly fueled by e-commerce.

FIGURE 42

APPAREL PRINTING TECHNOLOGIES (2018 VS. 2023)

Which of the following types of apparel decorating equipment do you own today?



N = 166 Textile Respondents
Source: *2023 FESPA Worldwide Print Census*

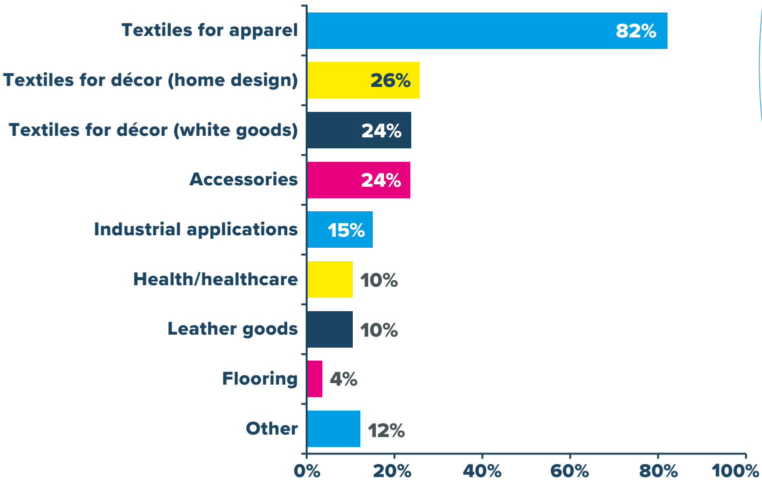
Multiple Responses Permitted

As noted earlier, the diversity of the textile printing industry lends itself to a wide range of applications. The most popular applications include apparel, décor, apparel accessories, and industrial applications. Fabrics for fashion applications are seasonal and require long lead times when using the traditional high-volume fashion manufacturing model. Digital printing enables much shorter lead times and on-demand manufacturing, which considerably cuts the overall timeline while also reducing waste due to unsold inventory. With fashion trends changing rapidly, digital printing allows the design and brand community to keep their products line fresh in retail and online stores. It also enables the rapid rise in micro fashion brands who can afford to launch multiple designs in low volumes or by offering print-on-demand.

FIGURE 43

TEXTILE APPLICATIONS

Which of the following types of applications do you regularly produce?



N = 420 Textile Respondents
Source: *2023 FESPA Worldwide Print Census*

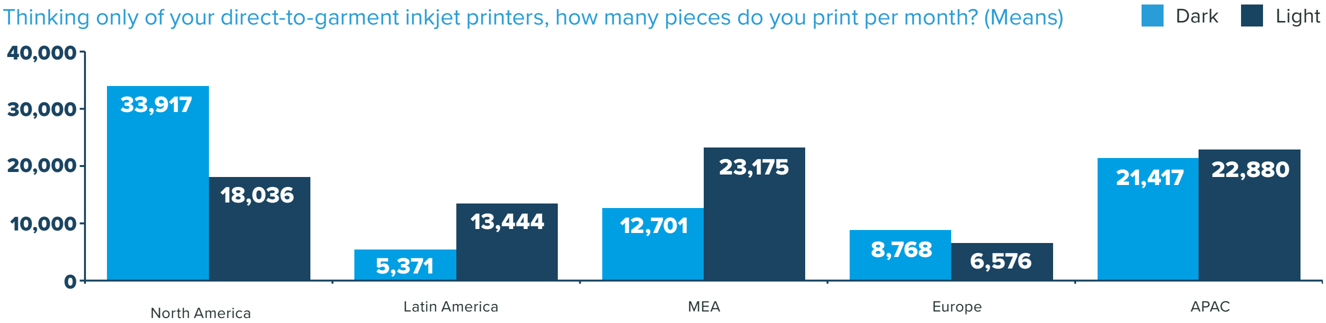
Multiple Responses Permitted

We asked respondents who use direct-to-garment inkjet to tell us the number of white and dark items they print per month. A global breakdown of responses is provided below. It is quite evident that the mean average of dark shirts printed is considerably more in North America than in any other surveyed region. In Latin America, the Middle East and Africa (MEA), and Asia Pacific (APAC), light shirts are equal to or well above dark shirts in terms of quantities decorated. A near equal amount of light and dark garments are printed in APAC and Europe.

FIGURE 44

AVERAGE NUMBER OF LIGHT/DARK DTG PRINTS (BY REGION)

Thinking only of your direct-to-garment inkjet printers, how many pieces do you print per month? (Means)



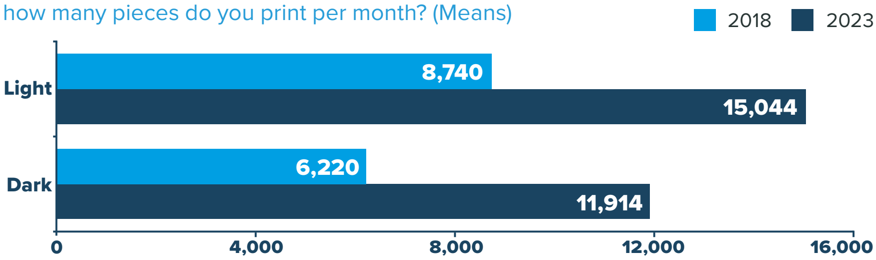
N = Varies; Base: Textile Respondents that own or plan to purchase digital direct-to-garment equipment | Source: *2023 FESPA Worldwide Print Census*

We asked textile printers who own or plan to purchase digital textile equipment about their purchasing plans. The most common choices included sublimation transfer, pigment printing, and reactive printing. The ability of pigment and sublimation inks to produce fabrics without a wet fixation improves environmental impact (e.g., less energy, less water) and expediency of product to market. This is attractive to producers without wet fixation technologies or to those in zones that may not allow unrestricted use of natural resources.

FIGURE 45

AVERAGE NUMBER

Thinking only of your direct-to-garment inkjet printers, how many pieces do you print per month? (Means)

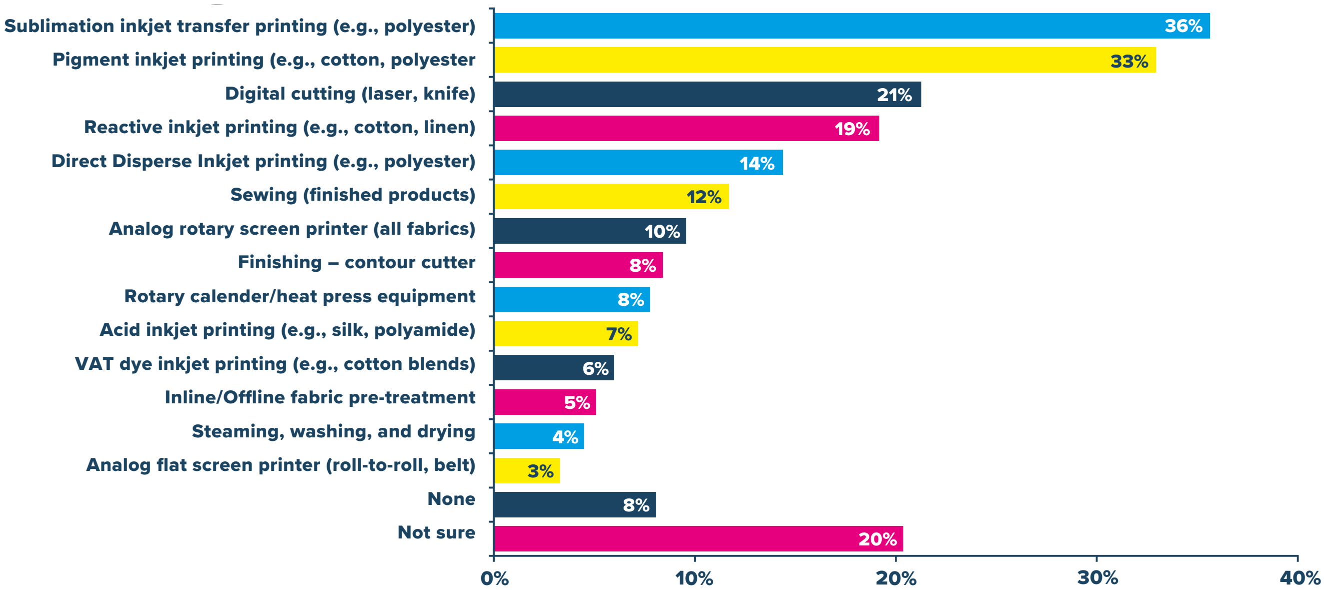


N = Varies; Base: Textile Respondents that own or plan to purchase digital direct-to-garment equipment
Source: *2023 FESPA Worldwide Print Census*

FIGURE 46

TEXTILE PRINTER PURCHASING PLANS

Which of the following types of digital textile printing equipment/accessories do you plan to purchase in the next 2 years?



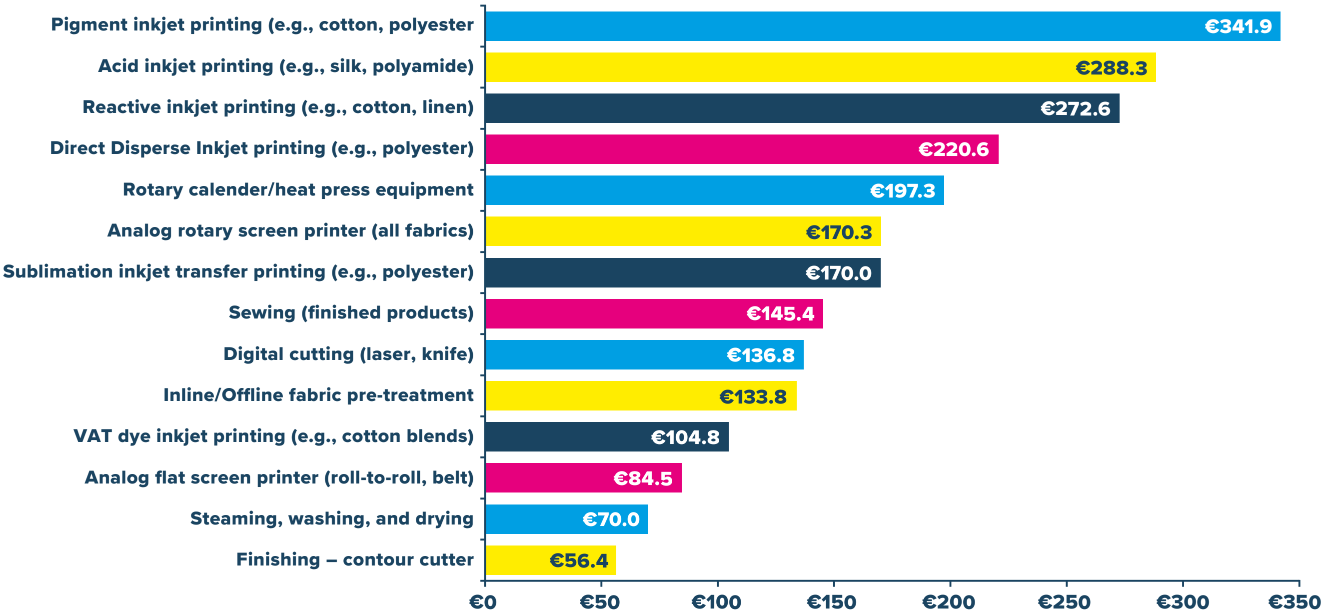
N = 334 Textile Respondents that own or plan to purchase digital textile printing equipment | Source: *2023 FESPA Worldwide Print Census* Multiple Responses Permitted

We then asked respondents about their anticipated budget for these purchases. Not surprisingly, pigment inkjet ranked highest with an average of €341.9K. This further supports the rising interest and projected growth of pigment ink use in the textile printing industry. Acid and reactive inkjet systems ranked next highest with mean budgets of €288.3K and €272.6K, respectively. Rotary calender/heat press equipment followed with a mean average of €197.3K, undoubtedly due to the high use and popularity of sublimation. Of particular note is the intent to invest in analogue rotary screen printers, with an average budget of €170.3K and only 10% of respondents planning to purchase.

FIGURE 47

PLANNED EXPENDITURES FOR TEXTILE PRINTERS

On average, how much do you expect to pay for the new textile equipment you plan to acquire? (Means in €Thousands)

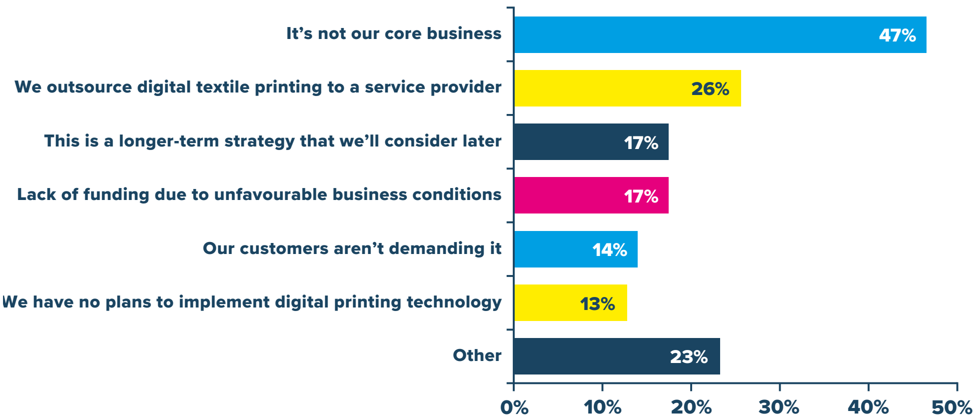


N = Varies; Base: Textile Respondents that own or plan to purchase digital textile printing equipment | Source: *2023 FESPA Worldwide Print Census*

FIGURE 48

REASONS FOR NOT INVESTING IN DIGITAL TECHNOLOGY

You indicated that you have no digital textile printing technologies and no near-term investment plans. Why is this?



N = 86 Textile Respondents that don't own digital textile printing technologies and have no plans to invest
Source: *2023 FESPA Worldwide Print Census*

Multiple Responses Permitted

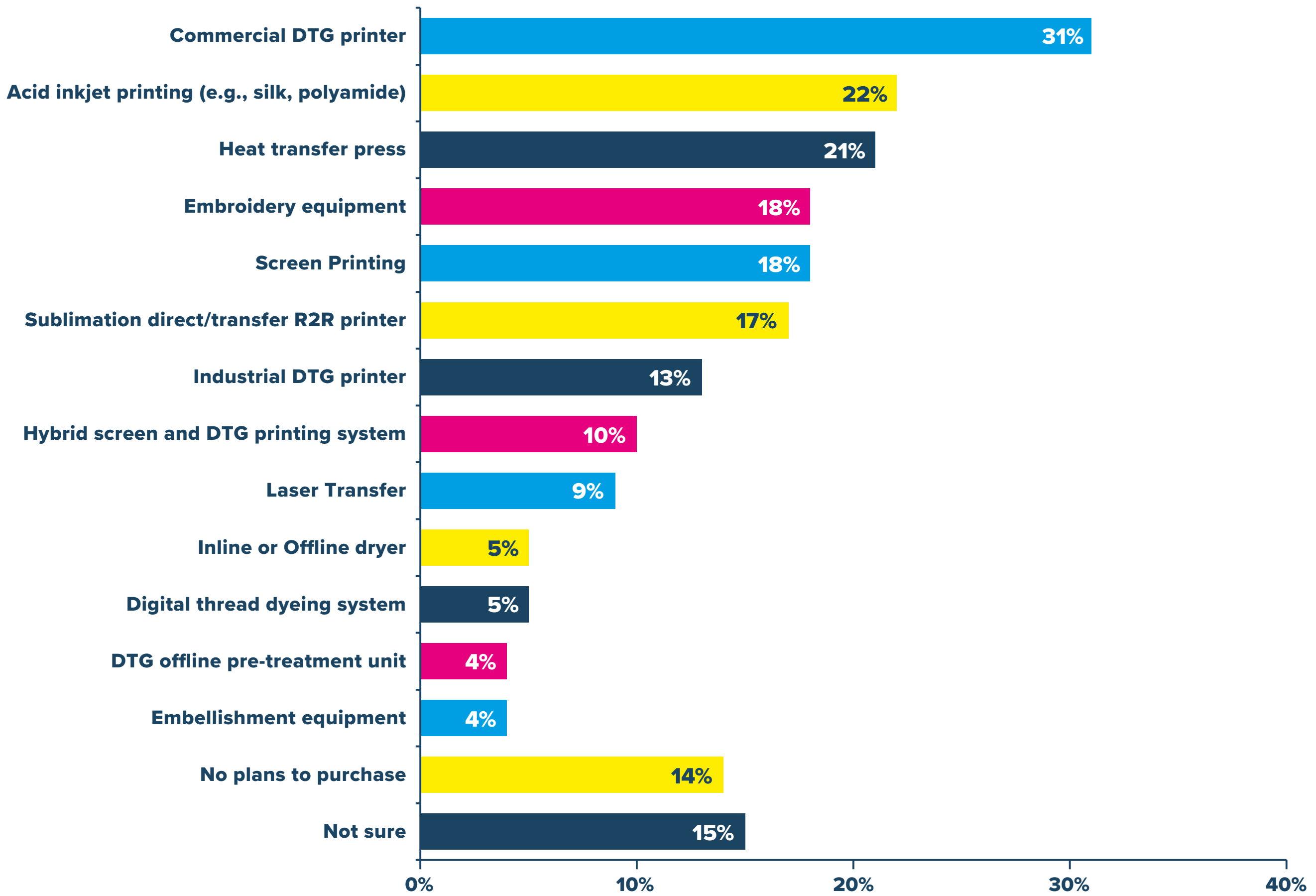
We asked the respondents who don't use or plan to purchase digital printing technology why this was the case. Nearly half stated that digital printing technology is not their core business, and 26% outsourced digital textile printing to a service provider. Digital printing is part of a long-term strategy and will be considered at a later time for 17% of this subset, and 17% indicated they don't have the necessary funding due to unfavourable business conditions. Only 13% have no plans at all to implement digital printing technology.

Of apparel decorators that plan to purchase this type of equipment, 31% are planning to purchase commercial DTG printers, followed by DTF systems. 18% plan to purchase screen-printing equipment and embroidery machines.

FIGURE 49

PLANNED APPAREL DECORATING PURCHASES

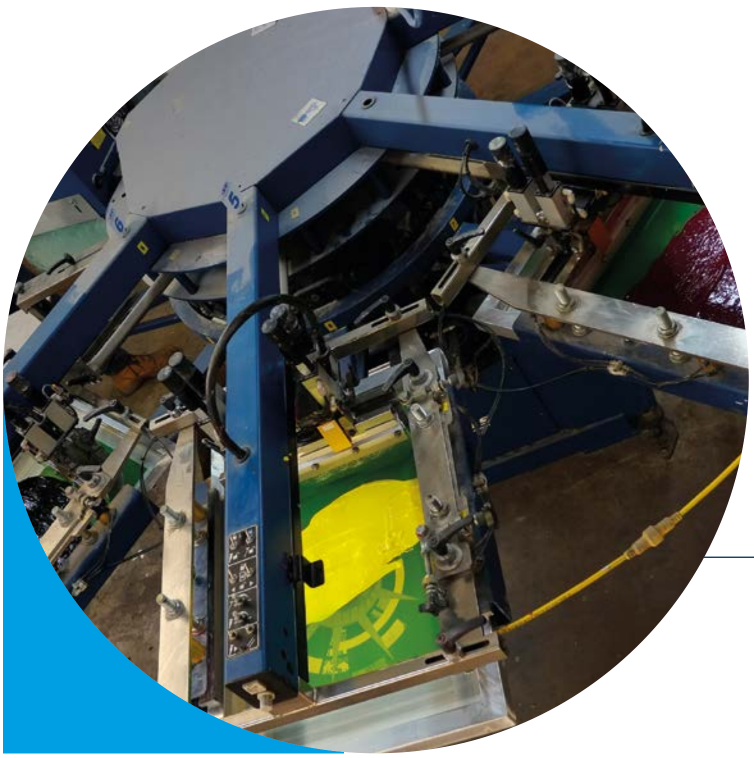
Which of the following types of apparel decorating equipment or accessories will you most likely purchase in the next 2 years?



N = 420 Textile Respondents

Source: *2023 FESPA Worldwide Print Census*

Multiple Responses Permitted

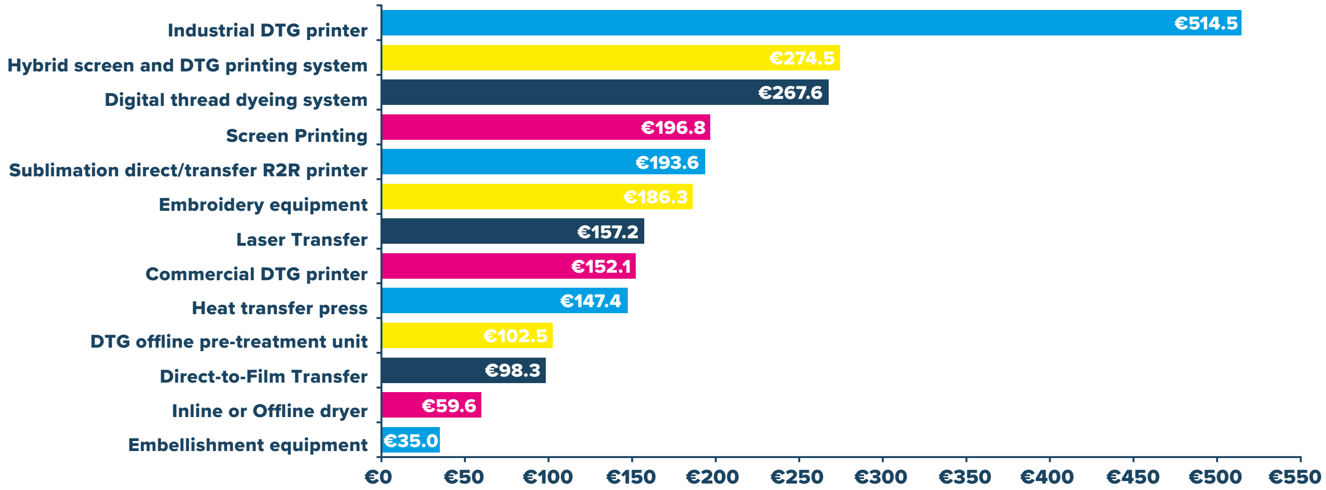


In terms of anticipated budget for these planned purchases, industrial DTG inkjet ranked highest with a mean budget average of €514.5K—which is nearly 61% larger than the next ranking technology, hybrid screen and DTG printing systems. This supports the notion that Industrial DTG will be a segment of the DTG industry that volumes will naturally move into. Also of note is the average planned investment into digital thread dying systems like Coloreel and Twine. Embroidery, while at its core is digital, suffers from multiple thread colours used for typical embroidery designs and the resulting time lost due to thread breaks. Digital thread dyeing works with a single white thread that is digitally printed and stitched into the fabric, taking embroidery to the next level. The unique solution makes previously complicated designs accessible, including gradients, textures, and other effects. Using only a single thread and needle significantly improves quality and efficiency. The technology also reduces waste and moves the textile industry towards more sustainable production.

FIGURE 50

PLANNED EXPENDITURES FOR APPAREL DECORATING EQUIPMENT

On average, how much do you expect to pay for the new direct-to-garment equipment you plan to acquire? (Means in €Thousands)

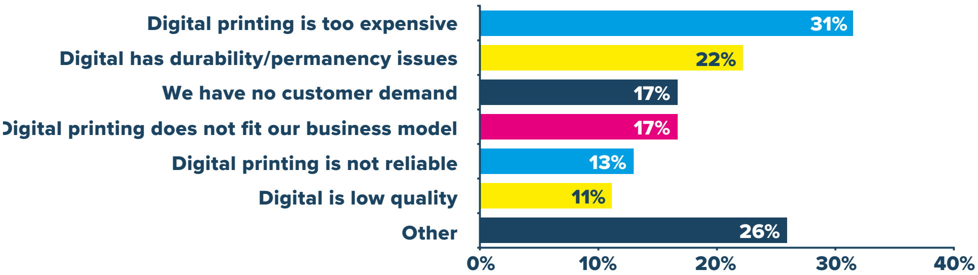


N = Varies; Base: Textile Respondents that plan to purchase direct-to-garment equipment in the next 2 years | Source: *2023 FESPA Worldwide Print Census*

FIGURE 51

REASONS FOR NOT INVESTING IN DIGITAL TECHNOLOGY

You've indicated that you only have analogue printing technologies at this time. Why haven't you invested in digital?



N = 54 Textile Respondents that only have analogue printing technology | Source: *2023 FESPA Worldwide Print Census*

Among respondents that only use analogue technology and have no plans to purchase any digital printing equipment, 31% indicated digital printing is too expensive. Another 22% stated that digital printing does not have the durability and/or permanency necessary for their business. A small number of respondents were concerned about reliability or poor quality.

Multiple Responses Permitted

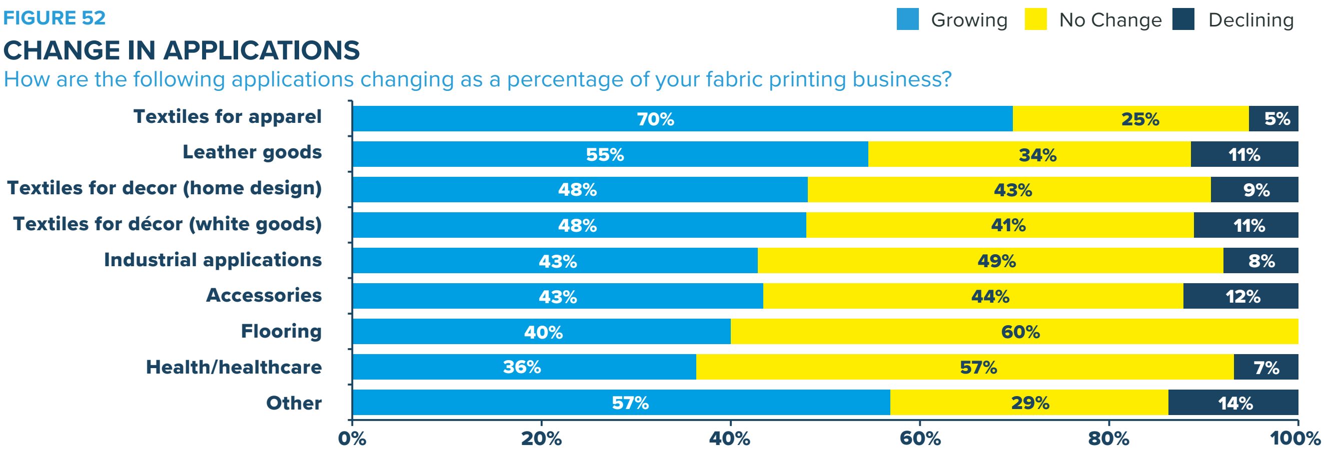
APPLICATIONS, BUSINESS INITIATIVES, CUSTOMER MIX, AND REVENUES

70% of respondents who are involved in apparel are seeing growth in textiles for apparel. Nearly half are experiencing growth in décor, supporting the previously mentioned trend that décor is a promising opportunity.

FIGURE 52

CHANGE IN APPLICATIONS

How are the following applications changing as a percentage of your fabric printing business?



N = Varies; Base: Textile Respondents | Source: *2023 FESPA Worldwide Print Census*

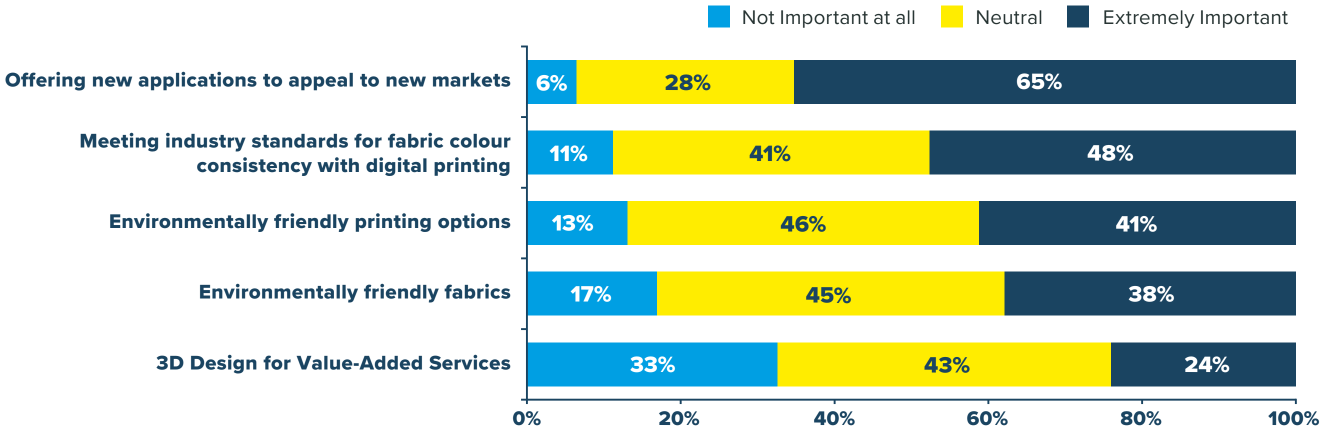
The popularity of décor in the digital textile market ignited during the pandemic as consumers and businesses sought to replace old wallcoverings, upholstery, or other décor items. Millennials and the oldest members of Generation Z are buying homes and starting families. Both generations are well-known for their desire to be unique and make a statement about who they are; it's all about the experience and a desire to be seen. Additionally, architects and interior designers are seeking innovative and functional printing solutions that while practical, also provide highly aesthetic and creative environments to respond to rising consumer demand for custom décor. It appears that this trend will continue in applications like custom pillows and blankets, wallcoverings, window coverings, lampshades, and upholstery/re-upholstery.

To better assess textile and apparel printers expectations, we asked them to rate the importance of various business opportunities. Expansion into new markets, meeting industry standards for colour consistency, and offering eco-friendly printing methods and fabrics were extremely important. Respondents were evenly split on the use of 3D garment design as a value-added opportunity, which is understandable within this sample population of Print Service Provider(s).

FIGURE 53

IMPORTANCE OF BUSINESS INITIATIVES

How important are each of the following initiatives to your business?

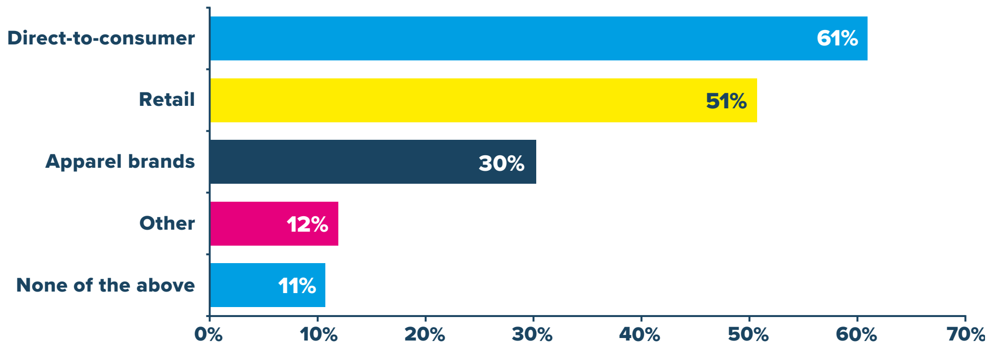


N = 420 Textile Respondents | Source: *2023 FESPA Worldwide Print Census*

FIGURE 54

TYPES OF CUSTOMERS SERVED

Which of the following types of customers does your company serve?



N = 420 Textile Respondents | Source: *2023 FESPA Worldwide Print Census*

Multiple Responses Permitted

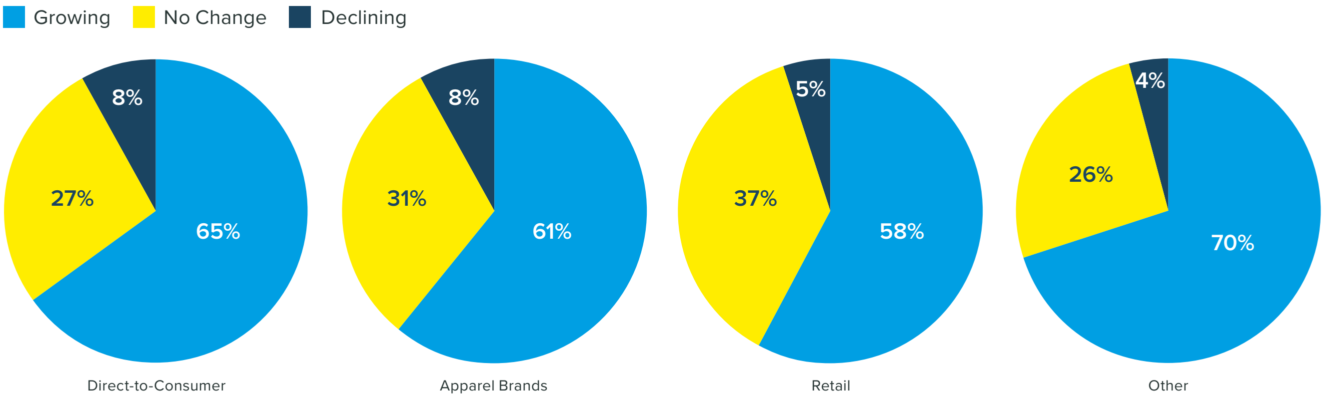
Over half of textile printers and apparel decorators serve direct-to-consumer and retail customers. Additionally, 30% of respondents provide service for apparel brands.

Most respondents report that direct-to-consumer, retail, and apparel brands, are growing as a percentage of their overall businesses.

FIGURE 55

CHANGE IN TYPES OF CUSTOMERS SERVED

How are the following types of customers changing as a percentage of your overall printing business?

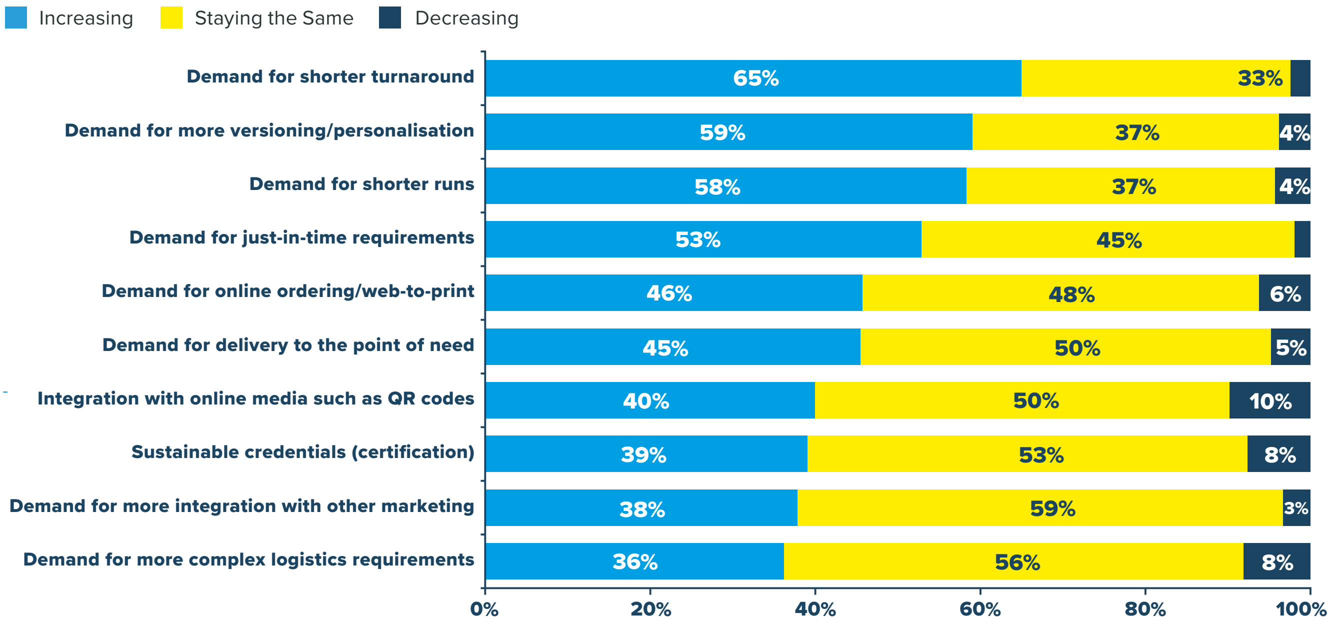


N = Varies; Base: Textile Respondents | Source: *2023 FESPA Worldwide Print Census*

FIGURE 56

CHANGE IN CLIENT DEMANDS

How are client demands for the following changing over time?



N = 420 Textile Respondents | Source: *2023 FESPA Worldwide Print Census*

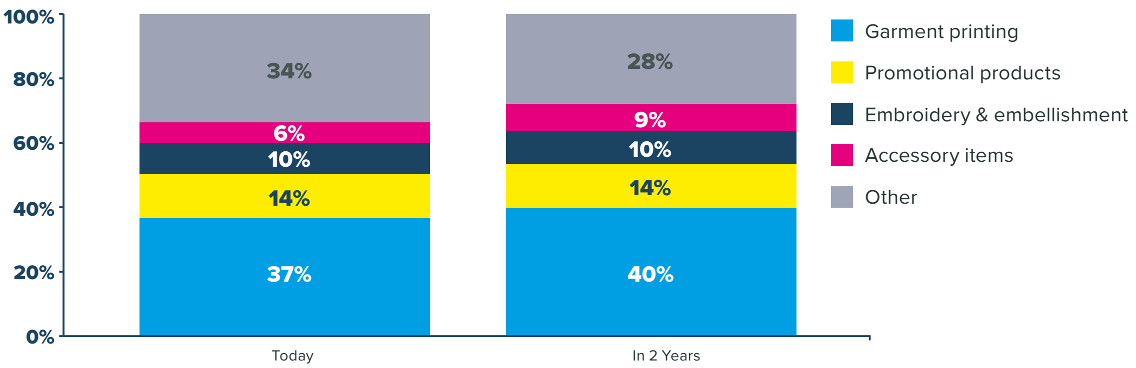
Our survey data supports the notion that demands for faster/shorter turnaround, personalisation, and smaller print volumes are increasing, as are demands for just-in-time delivery, online/web-to-print, and delivery to the point of need. Very few respondents reported that any of the listed demands were declining, emphasising that today's clients are more demanding than ever.

Next, textile respondents were asked about the percentage of revenues that could be attributed to various applications, and how these were expected over time. Although garment/apparel printing is expected to see some growth, very little change is expected for the remaining applications.

FIGURE 57

CHANGE IN APPLICATION REVENUES (CURRENT AND FUTURE)

Thinking only of your direct-to-garment printing business, approximately what percentage is attributed to revenues from the following today/in 2 years?



N = 334 Textile Respondents that own or plan to purchase digital textile printing equipment | Source: *2023 FESPA Worldwide Print Census*

SOFTWARE INVESTMENTS

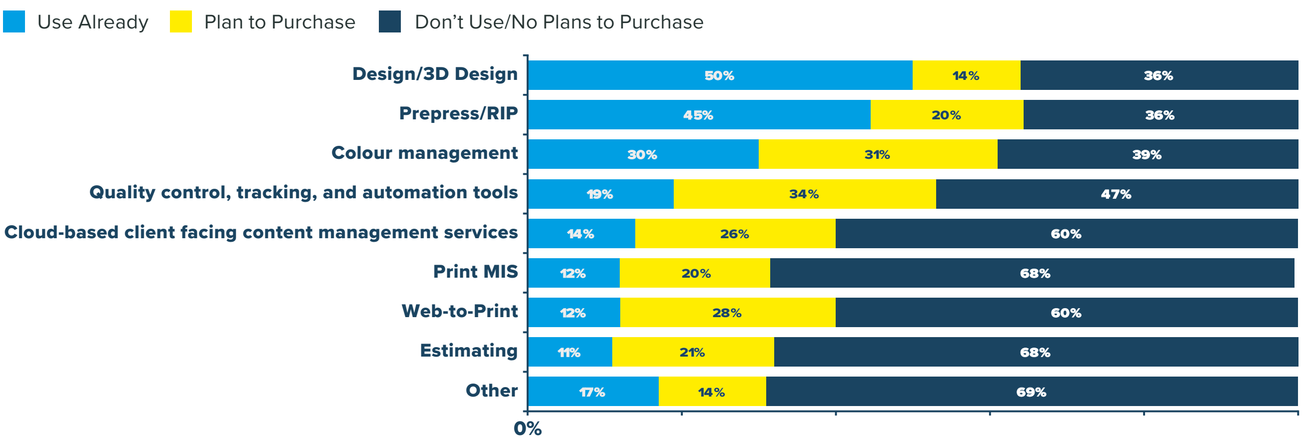
In keeping with our observation regarding their key strategies for business growth, textile printers and apparel decorators were asked about their software use. Half of respondents are using Design/3D Design software, and another 14% plan to purchase. It should also be noted that over a third of respondents plan to purchase quality control software. The issue of colour management has clearly become a necessity with 30% of respondents already using this software and another 31% planning a purchase. The transition from spot colours to trichromatic or expanded gamut process colours in digital printers creates many opportunities for creativity, but it is important to pay close attention to colour consistency and matching output from one production batch to the next. This is not always an easy task with so many variables, including ink, drying, and fixation.

Fabric/textile printers are also planning investments in web-to-print and cloud content management—two key enablers of opening a business to the changing supply chain. Digital printing is available today to mainstream large producers as well as an emerging range of on-demand producers that can compete with them in shorter runs with identical quality output. These are the center of a shift within the industry, where smaller digitally-aware producers can address small batch manufacturing by offering customisation, short turnaround, and highly personal fulfilment experiences. These are enabled by technologies that enable rapid processing along with a positive experience.

FIGURE 58

SOFTWARE OWNERSHIP/INVESTMENT PLANS

How would you describe your ownership or investment plans for the following types of software?



N = 420 Textile Respondents | Source: *2023 FESPA Worldwide Print Census*

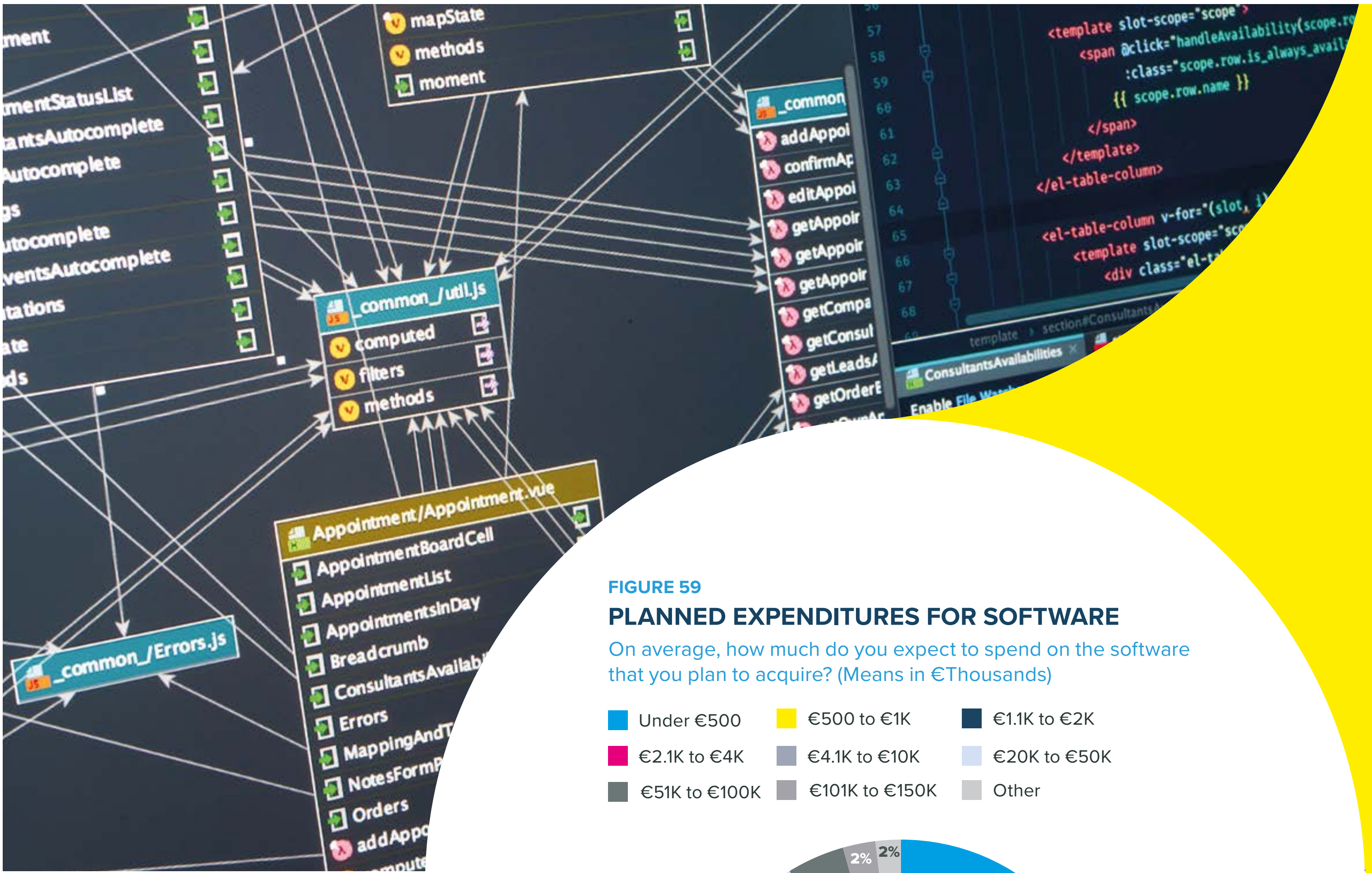
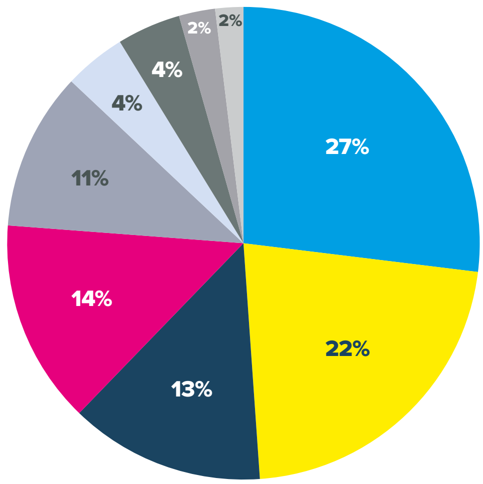


FIGURE 59

PLANNED EXPENDITURES FOR SOFTWARE

On average, how much do you expect to spend on the software that you plan to acquire? (Means in €Thousands)

Under €500 | €500 to €1K | €1.1K to €2K | €2.1K to €4K | €4.1K to €10K | €20K to €50K | €51K to €100K | €101K to €150K | Other



N = 420 Textile Respondents | Source: *2023 FESPA Worldwide Print Census*

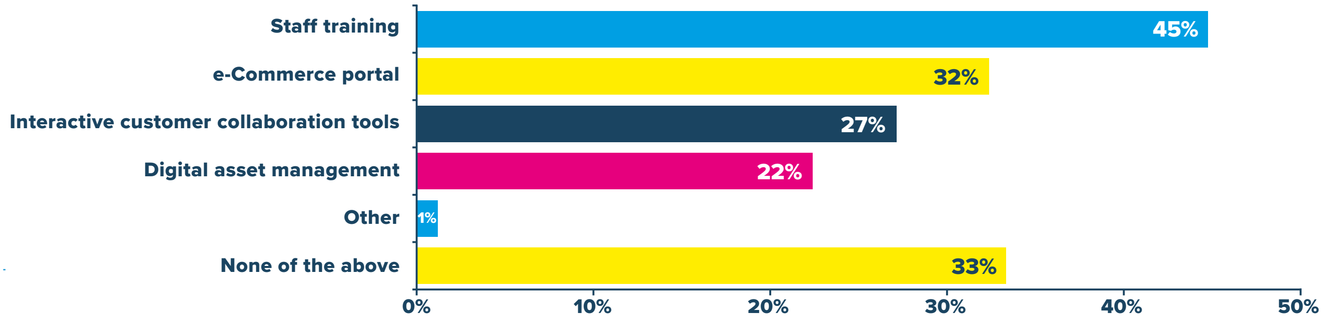
As shown below, nearly half of textile printers and apparel decorators expect to invest less than €1,000 on their software. We attribute this to 3 years of a global pandemic, as well as the challenges of global inflation and a weak labor market in 2022. Only 12% of respondents planned to spend more than €20,000.

As our textile respondents continue their technological investments, we wanted to explore the reasons behind them. Not surprisingly, staff training—which is key to equipment maintenance—topped the list at 45%. The next tier of investments is also unsurprising as more companies invest in digital.

FIGURE 60

RECENT INVESTMENTS

Which of the following investments have you made in the past 2 years?



N = 420 Textile Respondents | Source: *2023 FESPA Worldwide Print Census*

Multiple Responses Permitted

INDUSTRIAL PRINTERS

We also developed questions for the industrial printing industry in our 2023 FESPA Print Census. While it's a vague and obscure title, industrial print is defined as "printing that is part of the process of manufacturing"—and it isn't always ink that is being printed.

Industrial print plays a role in the functionality or decoration of a product, but decoration is often a simple instruction, indicator, or description. It's used for a variety of end products like control panels, flooring, ceramic tile, automotive/aerospace, and medical devices. Additional applications include dials/gauges, membrane switch/graphic overlays, containers, tableware, and touchscreens. The control icons on the dashboard of your car, its rear defroster, the airbag contacts within the SRS system, the touchpad on a microwave, and the dial settings on an oven are all part of the massive industrial printing sector. Without industrial printing, many of the products we use daily would not function properly or be simple to operate.

Screen-printing technology is widely used in industrial printing due to the ink deposit thickness produced. Conductive inks on a flexible ribbon cable must have enough thickness to provide the necessary flow of electrical current passing through. Otherwise, the current experiences resistance which can generate heat. Screen-printing inks are also very durable, which is a requirement for very strenuous applications such as military, medical, and aerospace.

There were 245 respondents to this year's survey who identified as industrial printers. Roughly a third of industrial printers already had screen-printing equipment, and another 14% planned to purchase it soon. Surprisingly, over half of respondents didn't use it and had no plans to invest.

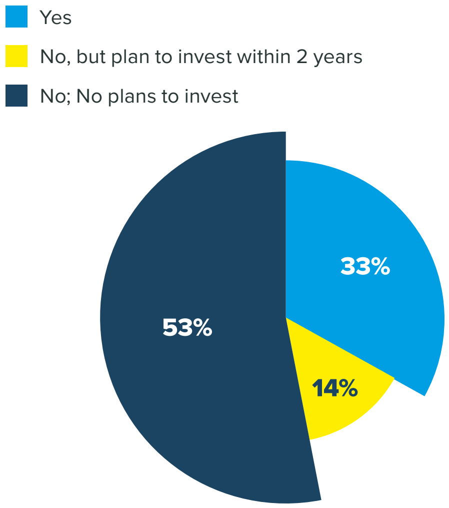
Common screen-printing applications included control panels, nameplates, and industrial parts. The list of items above certainly doesn't represent all the items that are printed in the industrial sector, illustrating that screen-printing provides ample opportunity for printing and decorating a wide range of items.

When asked about the share of revenues derived from screen-printing, 26% of respondents indicated that it represented more than three-quarters of their company revenues. Meanwhile, nearly half of respondents indicated that screen-printing is 50% or more of company revenues. With an overall average of 51.5%, screen-printing plays a major role in industrial printing.

FIGURE 61

USE OF SCREEN-PRINTING EQUIPMENT

Do you have any screen-printing equipment used for industrial print applications at your company?

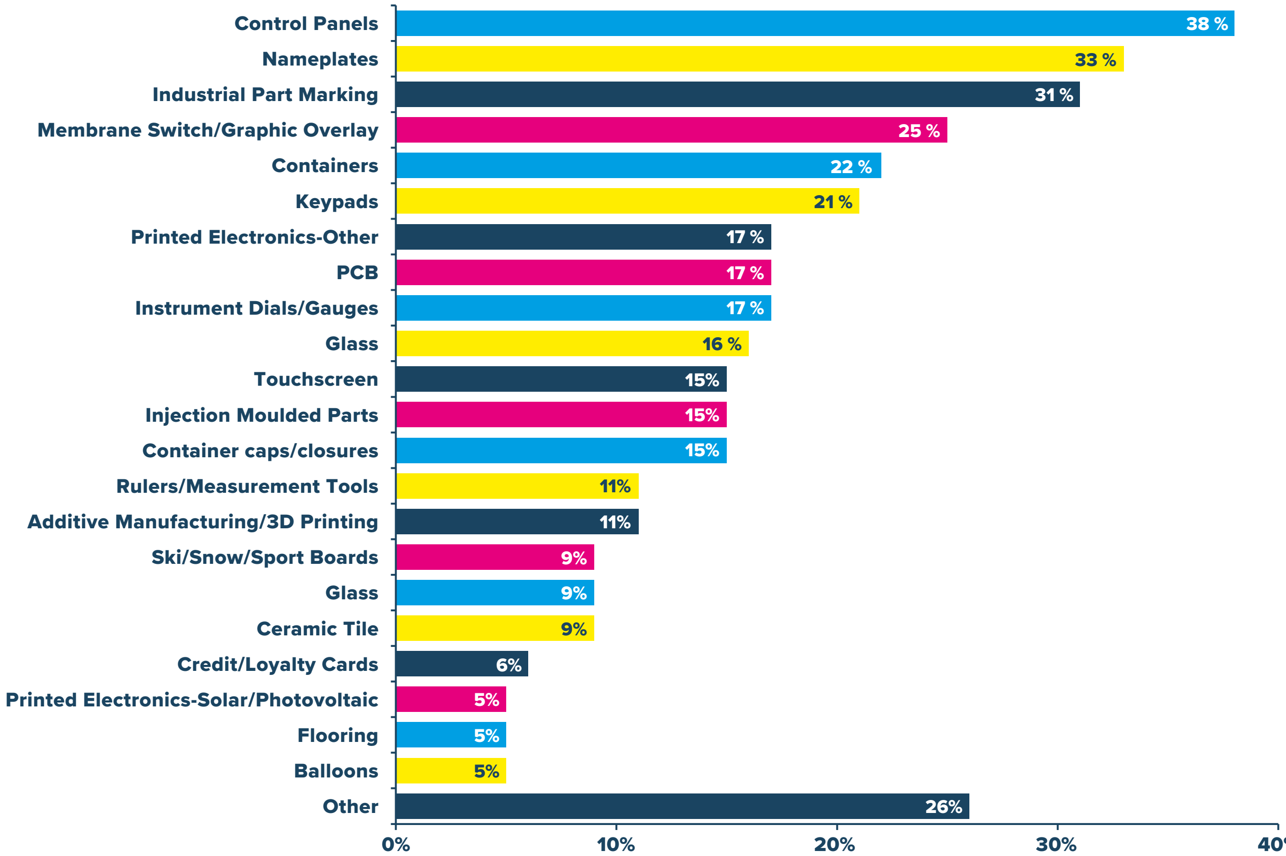


N = 245 Industrial Respondents
Source: *2023 FESPA Worldwide Print Census*

FIGURE 62

SCREEN-PRINTED APPLICATIONS

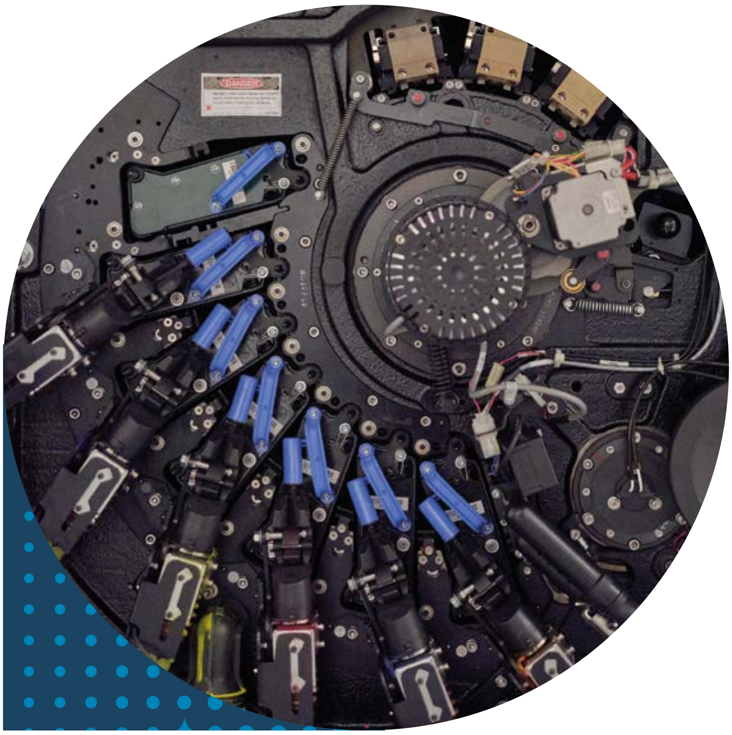
On which of the following do you screen-print?



N = 81 Industrial Respondents that own screen-printing equipment | Source: *2023 FESPA Worldwide Print Census*

Multiple Responses Permitted

DIGITAL INDUSTRIAL PRINTING



Screen-printing in industrial applications has many advantages. We believe that for many two-dimensional applications, digital inkjet provides acceptable output, but typically not with the durability of screen-printing. For thick coatings (including the deposition of conductive inks for printed circuit boards), inkjet does not currently compete with screen-printing. More robust UV-curable inks come with several drawbacks, including safety. UV inks that do not migrate or do so minimally have found their way into certain applications. Electron beam curing is a no-migration alternative that already exists and achieves complete polymerisation without the use of photoinitiators. While electron beam has a higher initial capital cost than UV, it's less expensive in the long run. Single-pass inkjet printing with in-line electron-beam curing has potential in offering capital and operating cost advantages over analogue printing.

As inkjet printing speeds get faster, widely available single-pass printing becomes more prevalent, and new inks and functional materials that can be easily jetted are introduced, more manufacturers will adopt digital inkjet for its flexibility and other advantages. It has already become the dominant technology in markets such as ceramic tiles, but screen-printing and other analogue methods continue to provide speed and performance that inkjet cannot match. Investments in research and development will continue toward digital technologies, bringing further breakthroughs.

While wide format inkjet is not widely used in industrial printing applications, we wanted to understand where respondents were on the investment scale. 63% of respondents who own screen-printing equipment also use wide format printing equipment, and 14% have plans to invest. Only about a quarter of respondents don't use wide format and have no plans to purchase.

We then asked respondents with screen-printing and wide format devices what types of wide format printing equipment they own. UV-curable inkjet (hybrid or flatbed) printers were used by 44% of respondents, followed by eco-solvent inkjet at 42% and UV-curable (roll-to-roll) printers at 29%.

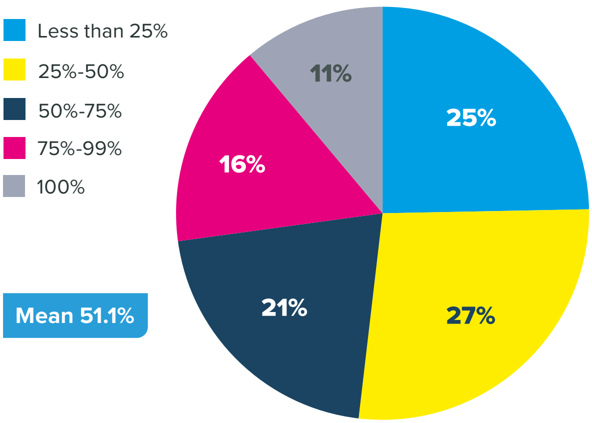
Used by 22% of respondents, thermal transfer printers use ribbons made of wax or resin-based ink that is heated by the thermal head to melt the ink onto the printing media. Solvent inkjet, used by 20% of respondents, has higher VOC levels versus eco-solvent inks and must be used with ventilation and fume extraction systems to protect operators. Solvent ink retains a distinctive odor, making it largely unsuitable for indoor use.

While screen-printing is still widely used for industrial applications, this data clearly shows that industrial printers have integrated a wide range of digital inkjet technologies in their operations.

FIGURE 63

SHARE OF REVENUES FROM SCREEN-PRINTING

What percentage of your revenues are derived from screen-printing?

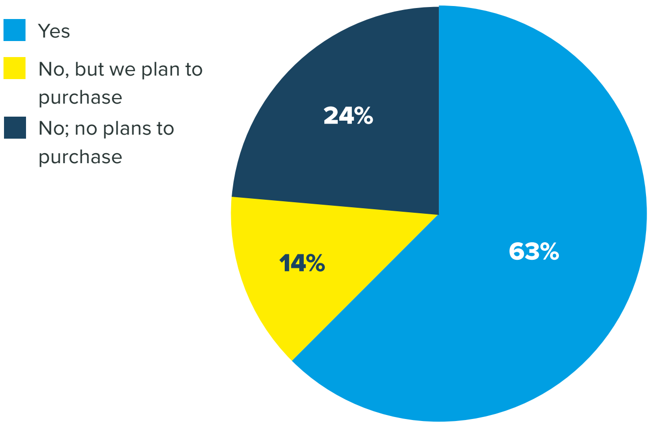


N = 81 Industrial Respondents that own screen-printing equipment
Source: *2023 FESPA Worldwide Print Census*

FIGURE 64

USE OF WIDE FORMAT PRINTING EQUIPMENT

Do you have any wide format printing equipment at your establishment?

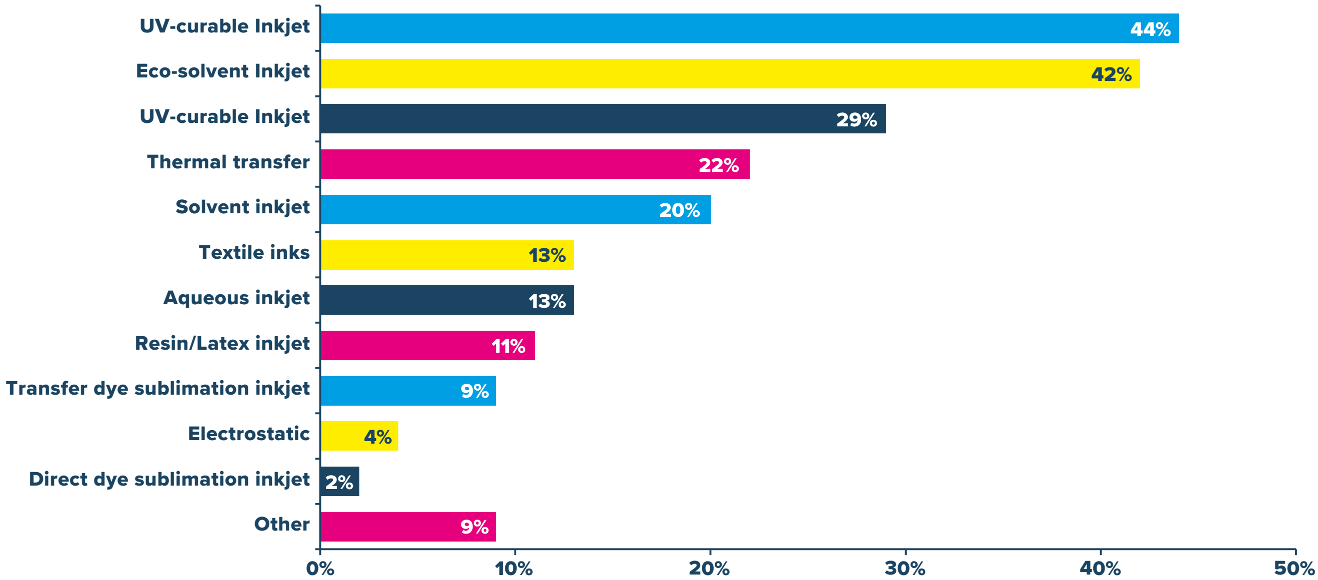


N = 72 Industrial Respondents that own screen-printing equipment
Source: *2023 FESPA Worldwide Print Census*

FIGURE 65

OWNERSHIP OF WIDE FORMAT PRINTING EQUIPMENT

Which of the following types of wide format printing equipment do you or your company own?



N = 45 Industrial Respondents that own screen-printing equipment and wide format printing equipment
Source: *2023 FESPA Worldwide Print Census*

Multiple Responses Permitted

Nearly 40% of respondents that own screen-printing and wide format devices attribute at least 31% of their revenues to digital printing. It should also be noted that 63% of respondents attributed 21% or less of their revenues to digital.

Industrial respondents that own screen-printing equipment and own/plan to invest in wide format printing equipment were asked about the share of revenues that would likely be attributed to digital in two years.

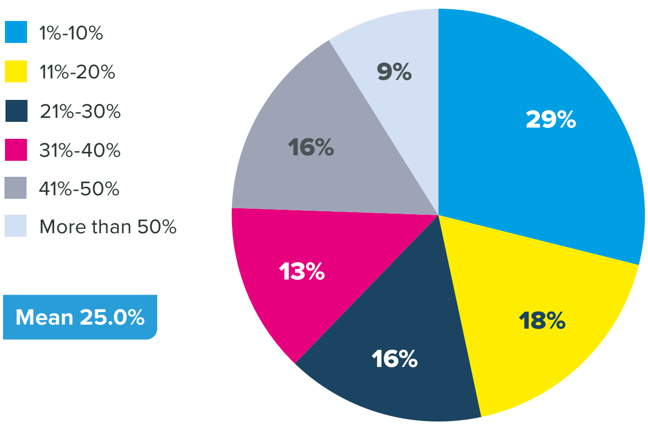
As illustrated below, 41% of respondents anticipated that digital would account for at least 31% of revenues in 2 years, and 34% believes revenues attributed to digital would be 41% or more. Overall, digital is expected to represent 28.5% of revenues in 2 years.

These same respondents were asked which types of wide format printing equipment they planned to purchase. Here again, UV-curable inkjet (hybrid or flatbed) topped the list of choices, followed by eco-solvent printers.

FIGURE 66

REVENUES ATTRIBUTED TO DIGITAL PRINTING (CURRENT)

Approximately what percentage of your revenue is attributed to digital printing?

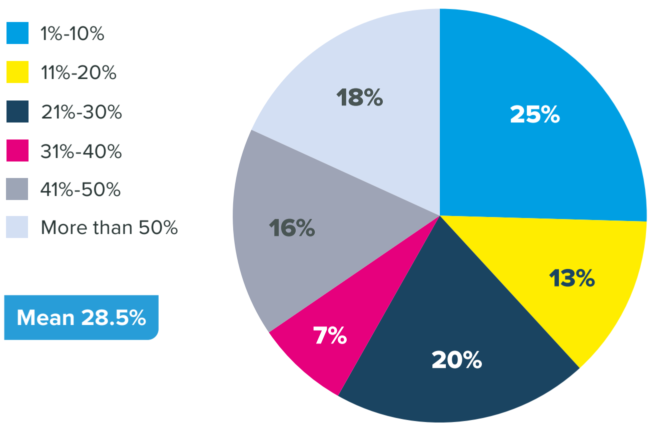


N = 45 Industrial Respondents that own screen-printing equipment and wide format printing equipment
Source: *2023 FESPA Worldwide Print Census*

FIGURE 67

REVENUES ATTRIBUTED TO DIGITAL PRINTING (FUTURE)

Approximately what percentage of your revenue will be attributed to digital printing in 2 years?

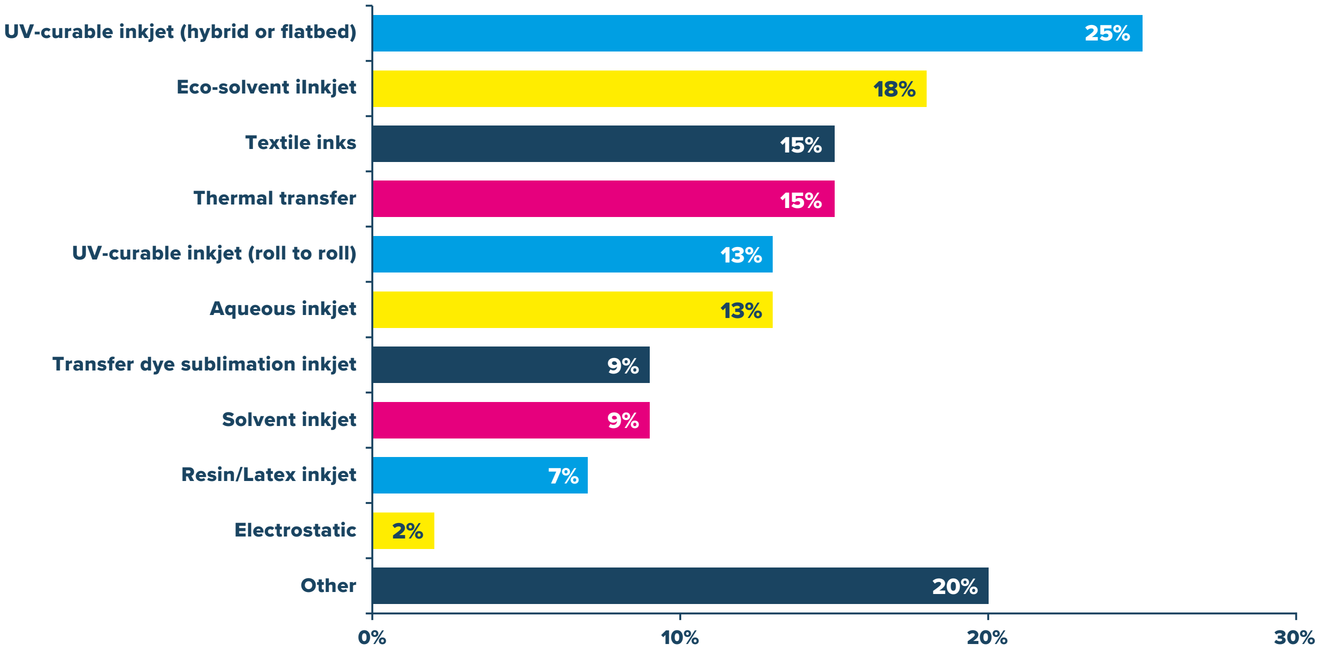


N = 55 Industrial Respondents that own screen-printing equipment and own/plan to invest in wide format printing equipment
Source: *2023 FESPA Worldwide Print Census*

FIGURE 68

WIDE FORMAT PURCHASING PLANS

Which of the following types of wide format printing equipment do you plan to purchase in the next 2 years?



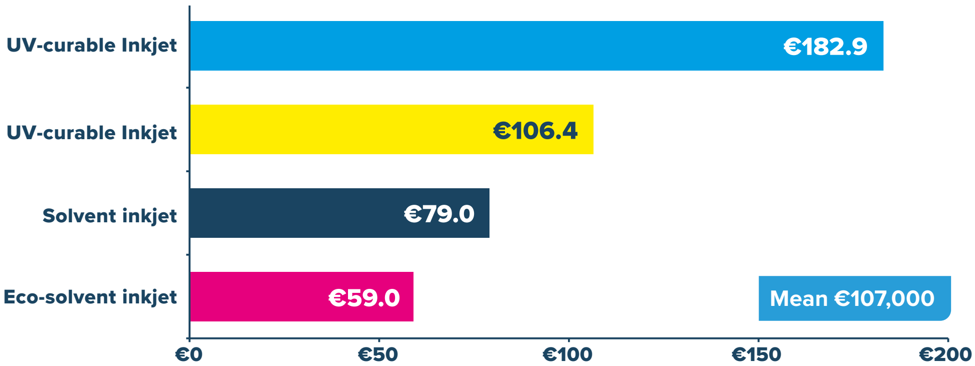
N = 55 Industrial Respondents that own screen-printing equipment and own/plan to invest in wide format printing equipment
Source: *2023 FESPA Worldwide Print Census*

Multiple Responses Permitted

FIGURE 69

PLANNED EXPENDITURES FOR WIDE FORMAT EQUIPMENT

How much would you expect to pay for the wide format equipment you plan to acquire? (Means in €Thousands)



N = 55 Industrial Respondents that own screen-printing equipment and own/plan to invest in wide format printing equipment
Source: *2023 FESPA Worldwide Print Census*

Perhaps not surprisingly, UV-curable inkjet (hybrid or flatbed) showed the highest average investment amount at €182.9K, followed by UV-curable inkjet (roll-to-roll) at €106.4K. This can be attributed to the resulting durability and achievable production speed attributed to the instant cure of UV inks.

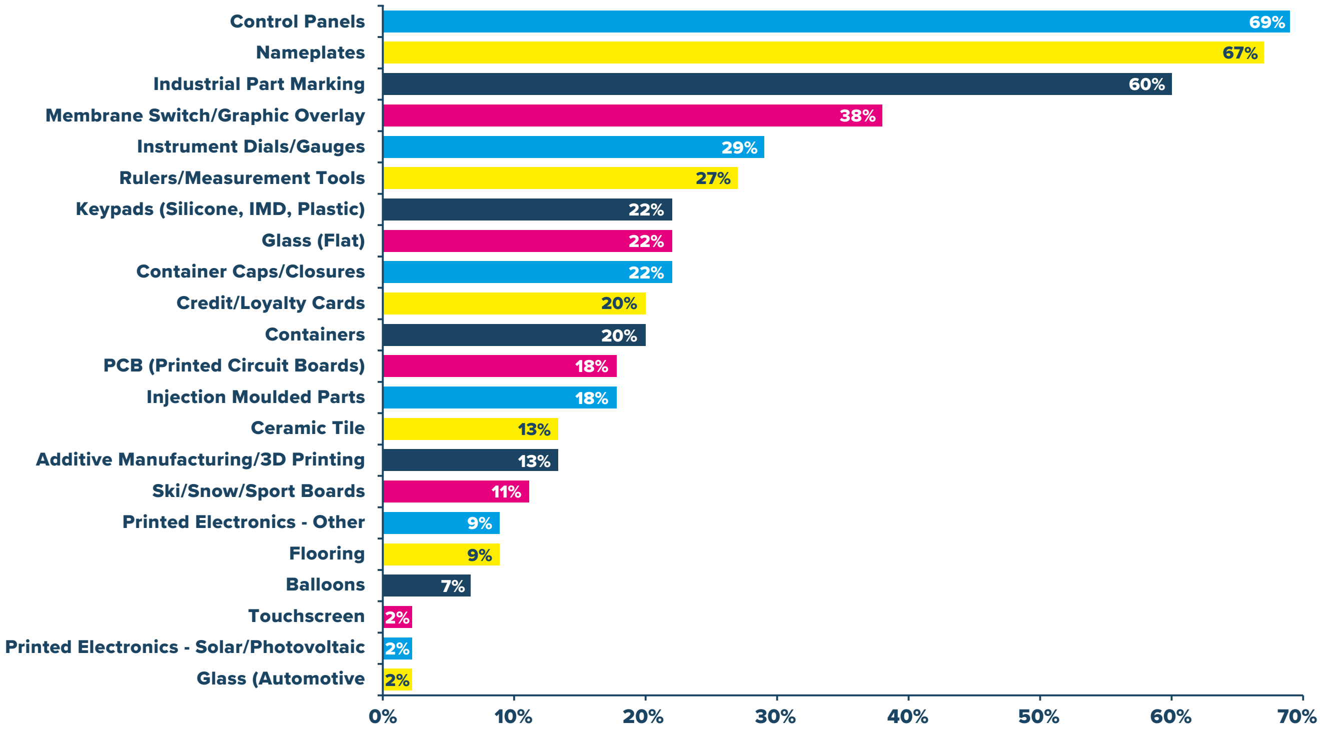
The industrial applications produced using digital printing are shown in the Figure below. As with screen-printing, control panels, nameplates, and industrial part marking rank as the top three with at least 60% of respondents involved in these applications. Industrial digital printing is also used by approximately one third of respondents for membrane switch/graphic overlays and instrument dials/gauges that have graphic icons, text, and more simple requirements versus more complex applications like injection moulded parts.

We also believe that digital printing is commonly used, when feasible, for prototyping of items before final designs are approved for mass production. Industrial digital printing is in its infancy due to the slow speeds and limited choices of ink materials that have the necessary functionality (e.g., conductive) and/or durability. Even so, there are plenty of applications where digital printing can be used for regular industrial applications when printing metals (e.g., control panels, nameplates) or plastic films (e.g., graphic overlays) are required.

FIGURE 70

APPLICATIONS PRODUCED WITH DIGITAL PRINTING

Which of the following applications do you regularly produce with your digital printer?



N = 45 Industrial Respondents that own screen-printing equipment and wide format printing equipment | Source: *2023 FESPA Worldwide Print Census* Multiple Responses Permitted

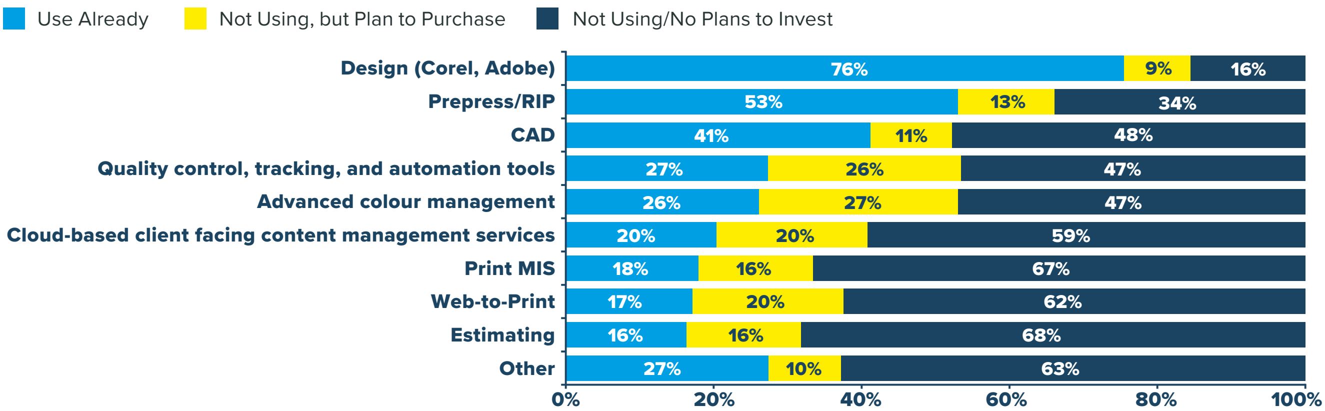
SOFTWARE INVESTMENTS

Industrial firms were also asked about their ownership or investment plans for various software products. Given the unique applications associated with industrial printing, software genres generally differ due to the facets of the item(s) printed, and what will be printed. Over three-quarters of industrial printers already use design software for graphical layout activities, and Prepress/RIP software is used by over half of respondents. CAD software (e.g., AutoCAD and Solidworks) is used by 41% of firms for a variety of applications like circuit boards, printed electronics, and 3D parts. Meanwhile, 53% of respondents are already using or plan to invest in quality control/tracking/automation software or advanced colour management software.

FIGURE 71

SOFTWARE INVESTMENTS

What are your ownership/investment plans for the following types of software?



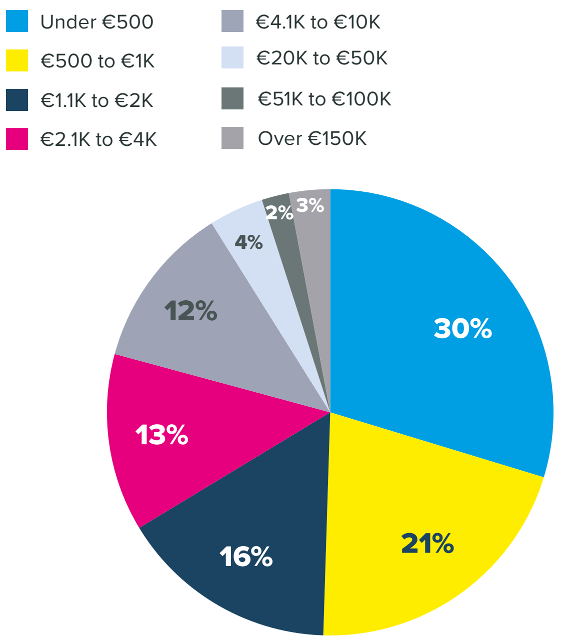
N = Varies; Base: Industrial Respondents | Source: *2023 FESPA Worldwide Print Census*

The greatest percentage of industrial respondents with plans to make a software investment expected to spend no more than €500 on their purchase. At the other end of the spectrum, only 3% of respondents expected to pay over €150,000.

FIGURE 72

PLANNED EXPENDITURE FOR SOFTWARE PURCHASES

How much would you expect to pay for the software you plan to acquire? (Means)



N = Varies; Base: Industrial Respondents
Source: *2023 FESPA Worldwide Print Census*

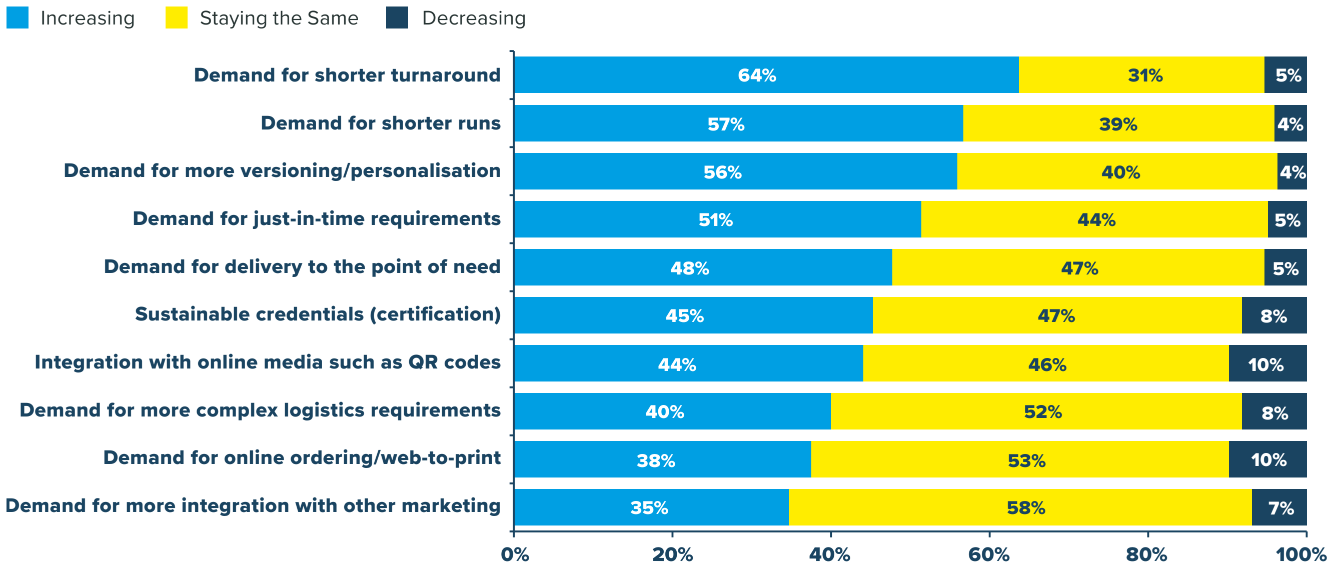
CLIENT DEMANDS

Industrial printers typically work with clients, engineers, and technicians to meet their requirements. Given the end products produced, quality, durability, reliability, and performance are extremely important in many applications and clients can be extremely demanding with all of those aspects. In addition to these factors, clients are also showing an increased demand for faster turnaround times and shorter run lengths. Demand for versioning/personalisation and just-in-time requirements also rank high.

FIGURE 73

CHANGES TO CLIENT DEMANDS

How are client demands for the following changing over time?



N = 245 Industrial Respondents | Source: *2023 FESPA Worldwide Print Census*

Opinion

For many years now, FESPA and Keypoint Intelligence have collaborated on the design, implementation, and development of findings of the FESPA Print Census. This edition is wide-reaching and the largest yet, covering 120 countries and 1,778 respondents from a diverse set of industry segments. Responses from this community enrich our knowledge about the key trends that impact technology adoption, preferences, and the industry's overall business health.

The survey revealed that despite economic instability caused by the global pandemic, Print Service Provider(s) remain optimistic about the future. Revenue and investment levels have increased, and technology will be driven by customers' demand for faster turnaround times and customized, short-run production. For years to come, the trend will be to purchase finishing equipment and production step-saving devices. Additionally, customer demand for eco-friendly solutions will encourage Print Service Provider(s) to provide sustainable products with a reduced carbon footprint at an efficient rate.

Moving forward, however, Print Service Provider(s) will face the challenge of doing more with less. Automation tools and web-to-print models will pave the way for the future workplace, and while many Print Service Provider(s) have already adapted to online and automated capabilities, some remain hesitant to do so.

Despite the ever-changing marketplace, printers have the advantage of serving customers across all verticals. If one vertical slows down, another may be growing, and having the ability to produce a wide variety of applications in-house from start to finish provides stability.

The path forward may not be without difficulties, but the print market has proven to be resilient. Print Service Provider(s) have the opportunity to advance their positions, offerings, and technological efficiency in the years to come to maintain high levels of production and profitability.

Eric Zimmerman
Principal Analyst

AUTHORS

Eric Zimmerman
Principal Analyst

Eric Zimmerman is the Director of Keypoint Intelligence's Wide Format Printing Consulting Service. He develops Keypoint Intelligence's annual global market forecasts for hardware and supplies used in the wide format printing markets. He is also responsible for conducting multiple primary research studies annually in the wide format market both on a custom basis and as part of Keypoint Intelligence's syndicated research.

Johnny Shell
Principal Analyst

Johnny Shell is the Director of Keypoint Intelligence's Functional & Industrial Printing Service. He is a printing expert and recognized industry leader with over 35 years of industry experience. Johnny's solid commitment to organizational advancement and strategy-driven growth enables him to design and execute revenue-based strategies using his comprehensive knowledge of printing techniques and technology platforms.

Eve Padula
Senior Consulting Editor

Eve Padula is a Senior Consulting Editor for Keypoint Intelligence's Production Services with a focus on Business Development Strategies, Customer Communications, and Wide Format. She is responsible for producing and distributing many types of content, including forecasts, industry analyses, and research/multi-client studies. She also manages the editing, formatting, and delivery cycles for many types of deliverables.

COMMENTS OR QUESTIONS?

Message us at **marketing@infotrends.com**

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