Frontline in focus:

Amplify frontline worker output with tailored technology

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Executive summary

Digital workplace trends

The digital workplace is an integral and fundamental component of a technology-enabled future of work. The concept of a digital workplace has become ubiquitous and highly influenced by the latest technological innovations, such as generative AI and the metaverse. Globally, many trends are shaping organizations' digital workplace transformation strategies, including:

Optimizing cost and prioritizing employee experience: Organizations are re-evaluating their digital workplace strategies and embracing agile approaches to enhance employee experience (EX) and gain cost advantages while adapting to changing work environments and business needs. Companies aim to "do more with less" and optimize their technology spending for maximum EX gains by adopting digital workplace technologies that streamline costs while enhancing employee productivity. They are actively exploring experience level agreements (XLAs) and generative AI to achieve these goals.

Digital skills enhancement through training: The importance of digital skills has never been higher, with organizations seeking to upskill their frontline workforce. Upskilling initiatives often offer training and certifications to help frontline workers adapt to new work environments and ensure their skills align with emerging market trends. Organizations are developing communities of subject matter experts and creating workshops for employees to align their skills with evolving market expectations and business needs.

Managing hybrid work needs: Organizations are not returning to the pre-pandemic working world, with most organizations across different industries allowing 55.2% of their workforce to work remotely on average, according to the ISG Future Workplace study 2023. Leadership decisions on employees' working locations increasingly depend upon their productivity and collaboration needs. As a result, organizations are reimagining team collaboration and communication environments and capabilities to boost workplace productivity and employee well-being.

Generative AI integration: Enterprises are actively exploring AI technologies, particularly generative AI tools, and incorporating them into digital workplace services to enhance EX, streamline issue resolution and improve productivity.

Increasing focus on industry use cases: Organizations are looking for digital workplace technologies that can cater to the unique requirements of their industries. Frontline worker roles and requirements differ across industry verticals, and organizations want to invest in digital workplace technologies that ensure high EX and productivity enhancements for both knowledge and frontline workers.

Frontline workers: the backbone of the future of work

Global organizations continue to invest in technologies to transform their workplaces and achieve a competitive edge in the market. Those serving specific industries acknowledge the immense potential of modern technologies and are increasingly looking for ways to apply them in their business processes and industry context. Global workplace leaders from the manufacturing, retail, healthcare and transportation industry verticals understand that technology tailored to their day-to-day operations can significantly improve efficiency. As a result, companies have increasingly adopted technologies specifically catered to empower the frontline workers who deal with daily operations.

A frontline worker is an employee who services directly to customers and must be physically present at a specific place and time to perform their job. They perform their duties in physical locations where they interact with customers or handle essential tasks, often making frontline workers the backbone of many global organizations. In the transportation, healthcare, retail and manufacturing industries, frontline workers form a significant percentage of the workforce compared to deskside and knowledge workers.

These workers have distinct technology needs that heavily influence their efficiency and productivity in day-to-day operations. Organizations must understand these needs and invest in cultural and skill-based training for frontline workers. However, organizations often ignore frontline workers while formulating digital workplace strategies and implementing technology solutions to enhance EX company-wide.

To achieve a competitive edge, global organizations from the industry verticals mentioned above must invest in technologies specifically catered to the requirements of frontline workers. These technologies, known as frontline worker-specific technologies, can improve their productivity and ability to respond to customer queries, making them more agile and efficient. The expanded use of these technologies to support frontline workers can also foster cultural association with the rest of the organization and help support career growth, enhancing EX.

Based on a survey of global organizations, this thought paper highlights that although companies with a large frontline workforce are adopting and leveraging frontline worker-specific technologies, they can certainly do better to unlock the full potential of such enabling technologies. The focus of line-of-business leaders largely remains on improving day-to-day operational efficiency and is less on enhancing the frontline worker EX. This paper also highlights that by enhancing cultural association and providing professional growth opportunities to frontline workers via training and skill development, organizations can retain their frontline workforce, improve their EX and deliver a better customer experience.

Key findings of the study

Organizations with a sizable frontline workforce generally invest in frontline worker-specific technology. Organizations belonging to the four surveyed industry verticals — healthcare, retail, manufacturing and transportation — leverage frontline worker-specific technologies. Paper-based or legacy modes of communication are minimally used across these industries.

Organizations leveraging frontline worker-specific technology report significant business improvements. Organizations that leverage frontline worker-specific technologies report improved productivity, performance, customer satisfaction (CSAT) and EX.

Frontline worker-specific technology usage maximizes the impact of training and employee engagement initiatives. Organizations using frontline worker-specific technology report improved abilities to conduct training and implement other employee engagement initiatives.

Organizations can better leverage frontline worker-specific technology. Most organizations using frontline worker-specific technologies tap into the tools' operational capabilities, such as task and shift scheduling, but fail to address other gaps on the front lines. For instance, organizations often deploy non-portable devices that are not quickly accessible by frontline workers, impacting their ability to communicate issues.

Deploying frontline worker-specific technology may not be enough to retain the frontline workforce. Organizations leveraging frontline worker-specific technologies report a slight decrease in employee turnover rate. Enabling frontline worker-specific technology is not the only factor determining frontline workforce retention.

Organizations are highly interested in leveraging emerging technologies for frontline workers. They have either already adopted emerging technologies to support frontline workers or are planning to use them soon. Most companies highlighted AI and machine learning (ML) as high-priority technologies to leverage within their frontline workforces.

Introduction

Tech proliferation: frontline workers

Most organizations across all geographies are leveraging frontline worker-specific technologies. Organizations in the U.S. have a higher proliferation of frontline worker-specific technologies than organizations in the European region, including the U.K., Germany and France. U.K. firms report a comparatively low proliferation of frontline worker-specific technology, highlighting limited focus across the U.K. for this workforce segment. Companies with frontline worker-specific technologies generally have a high ratio of frontline workers within their workforces. Specifically, organizations in the transportation and manufacturing industries depend significantly on frontline and field workers; therefore, they have the largest frontline workforces leveraging frontline worker-specific technologies. Following closely behind are companies in healthcare and retail, industries in which the dependency on frontline and knowledge workers is not as evenly spread.

Q: Do you use frontline worker-specific technology?

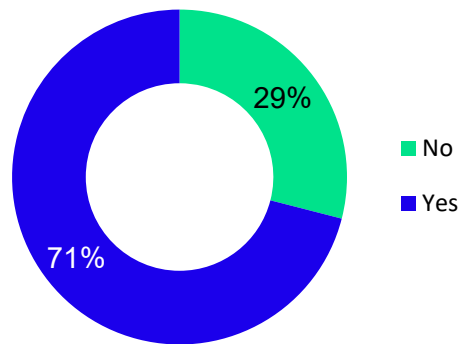**Figure 1:** Organizations leveraging frontline worker-specific technologies

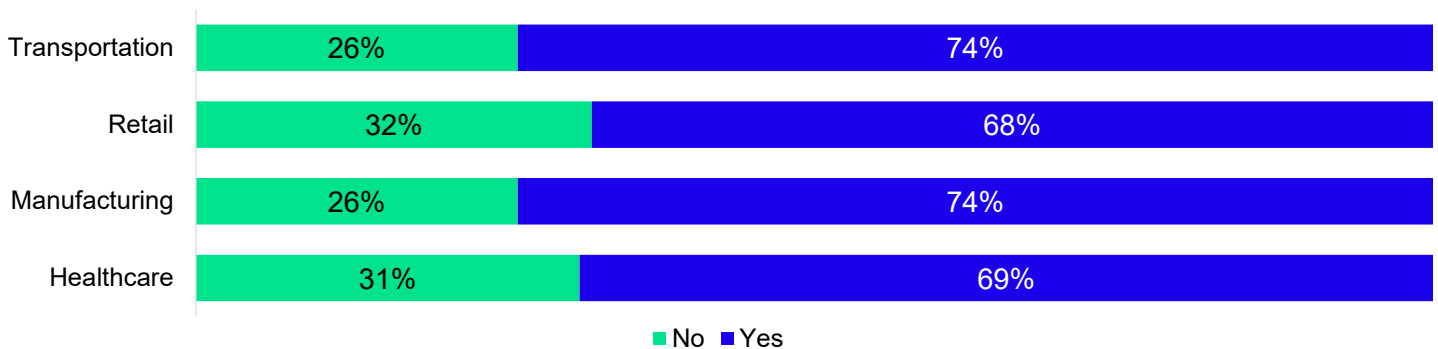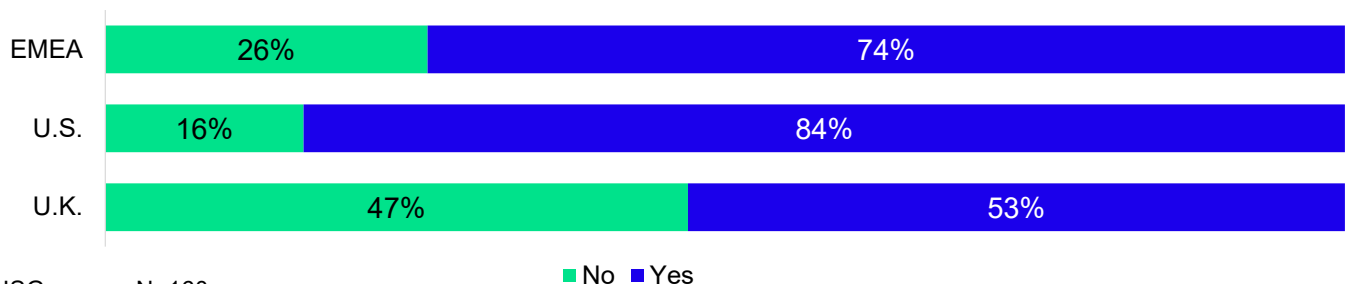**Figure 2:** Organizations leveraging frontline worker-specific technologies across industries

Figure 3: Organizations leveraging frontline worker-specific technologies across geographies
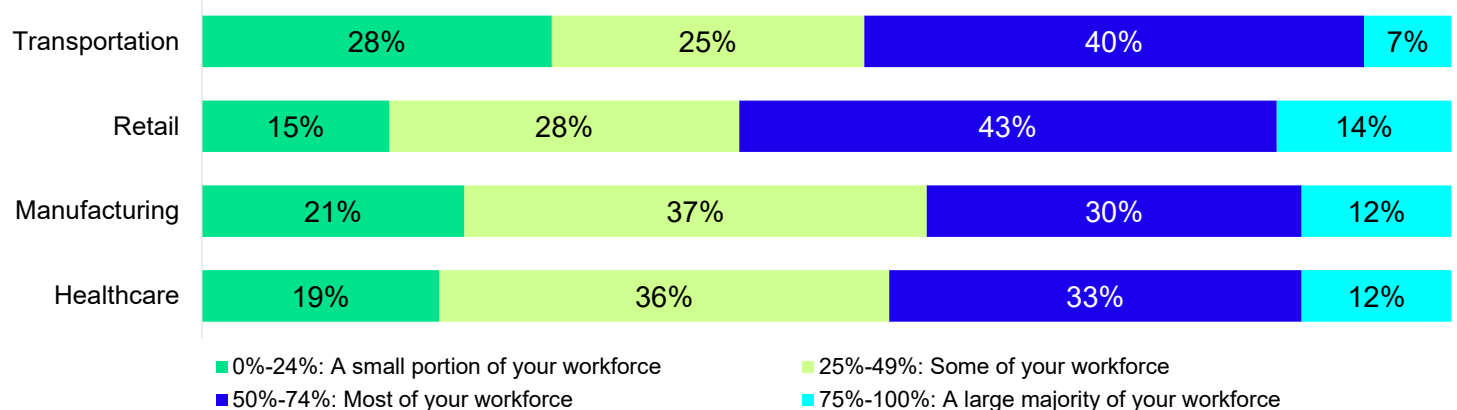

Source: ISG survey, N=160

Frontline-specific devices not leveraged for communication and engagement

Despite understanding the need for and advantages of frontline worker-specific technologies, the entire frontline worker population for each industry vertical does not realize the benefits of such tools. Organizations are not widely utilizing these technologies for enhanced communication and employee engagement.

Q: What percentage of frontline workers in your organization have access to devices that allow them to immediately view communication and engage with leadership or HQ in the field, e.g., send feedback to leadership?

Figure 4: Percentage of frontline workers that can use devices for immediate engagement with leadership

	0%-24%	25%-49%	50%-74%	75%-100%
Transportation	28%	25%	40%	7%
Retail	15%	28%	43%	14%
Manufacturing	21%	37%	30%	12%
Healthcare	19%	36%	33%	12%

- ■ 0%-24%: A small portion of your workforce
- ■ 25%-49%: Some of your workforce
- ■ 50%-74%: Most of your workforce
- ■ 75%-100%: A large majority of your workforce

Organizations that do not use frontline worker-specific technologies also prefer digital tools for communication
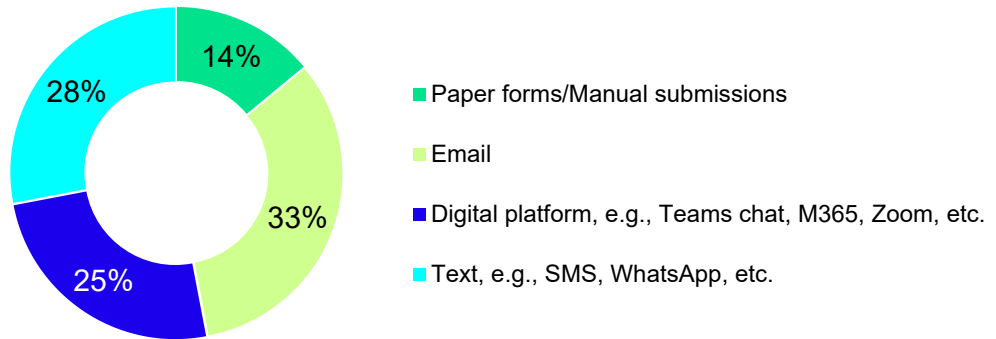
With the increasing proliferation of enterprise technologies, most organizations that do not use frontline worker-specific technologies are leveraging unified communication and collaboration platforms and other digital communication tools.

Of the four industries surveyed, frontline workers in the manufacturing industry are most likely to rely on paper-based communication for information sharing. In contrast, healthcare frontline workers are the frontrunners in using digital platforms. Email remains the most preferred mode of digital information sharing in all verticals. Many frontline workers across industries also use text-based messaging applications, such as SMS or unsecured WhatsApp.
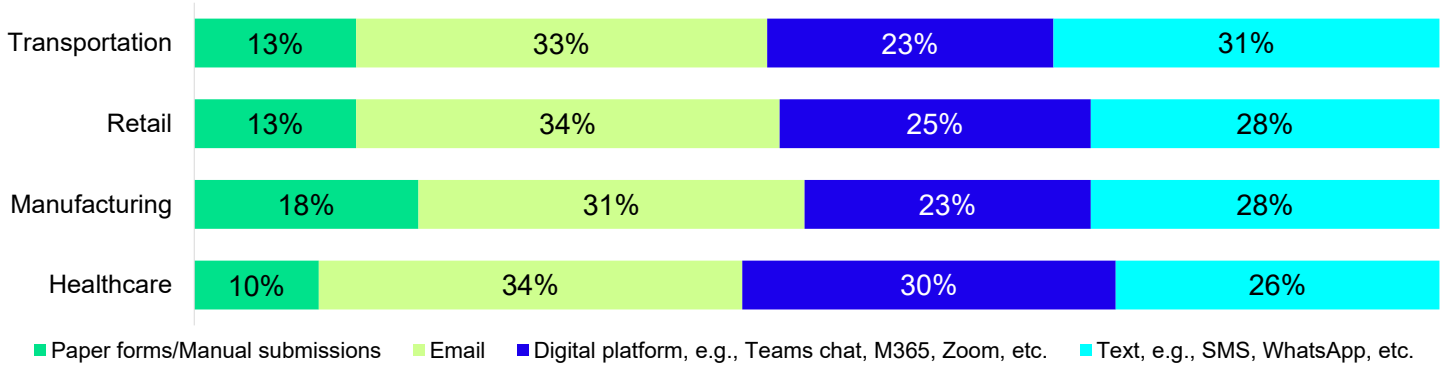
Source: ISG survey, N=160

Q: How do your frontline workers receive and consume information currently?
(Organizations that DO NOT use frontline worker-specific technology)

Figure 5: Modes of communication used by frontline workers

- Paper forms/Manual submissions
- Email
- Digital platform, e.g., Teams chat, M365, Zoom, etc.
- Text, e.g., SMS, WhatsApp, etc.

Figure 6: Modes of communication used by frontline workers across industries

Industry	Paper forms/Manual submissions	Email	Digital platform, e.g., Teams chat, M365, Zoom, etc.	Text, e.g., SMS, WhatsApp, etc.
Transportation	13%	33%	23%	31%
Retail	13%	34%	25%	28%
Manufacturing	18%	31%	23%	28%
Healthcare	10%	34%	30%	26%

Source: ISG survey, N=160

A day in the life of frontline workers with technology enablement

Organizations prefer shared devices for frontline workers

Organizations within the four industry verticals typically provide non-portable shared devices to enable frontline workers to perform their daily operations rather than supplying private portable devices. Around 20% of organizations use shared kiosk devices to facilitate the day-to-day operations of frontline workers. Organizations in these industries often lack the resources to manage a technology ecosystem that allows frontline workers to use their preferred personal devices, resulting in a preference for company-owned device management models.

But frontline workers rely on devices quite frequently during their daily operations. Although these devices are mostly shared or non-portable, most frontline workers must access them every one to four hours.

About 62% of organizations report that their frontline workers need to access devices at least once every two hours, and 95% report usage of every four hours. Time and resources spent while interacting with these devices add up over the long term (for example, 4 times a day leads to 20 times a week and 1,040 times annually). Organizations can significantly enhance frontline worker productivity by providing unhindered device access, while poor device experience can lead to drastic losses.

Industry-specific nuances also drive this usage. Retail frontline workers, who primarily work in storefronts, often need to interact with customers and access devices more frequently than frontline workers in other industries.

Q: What type of device do your frontline workers use?
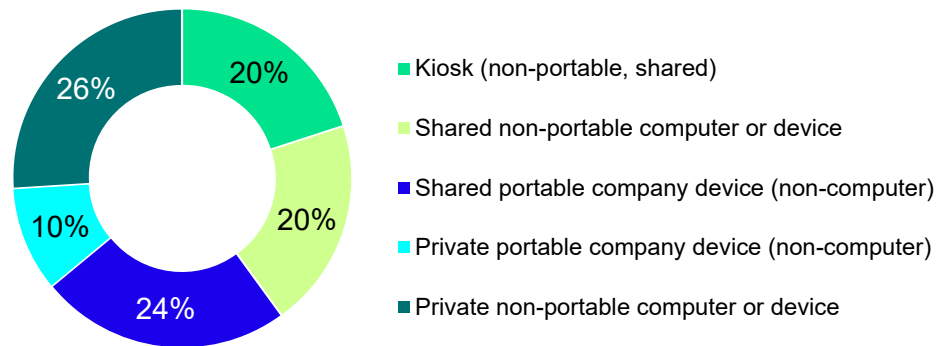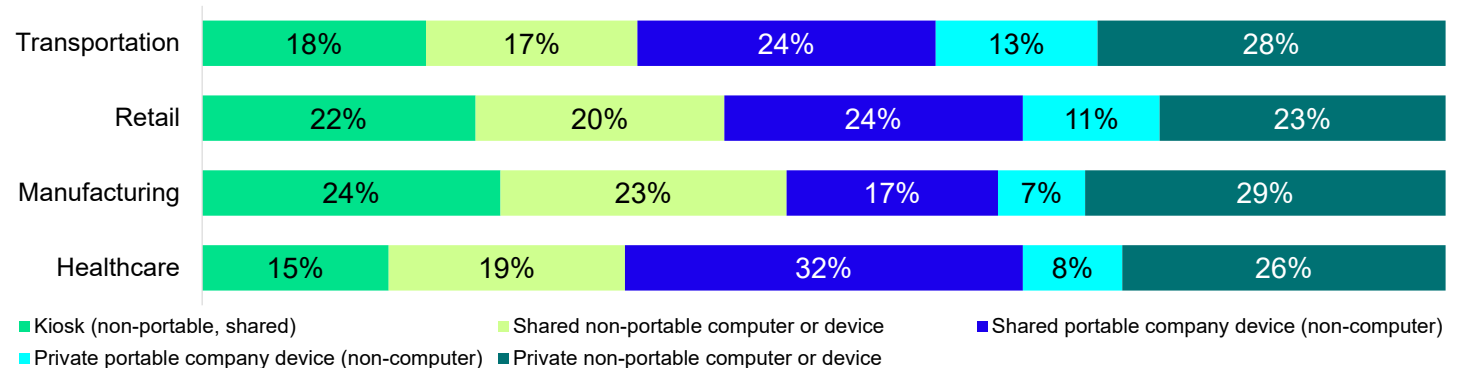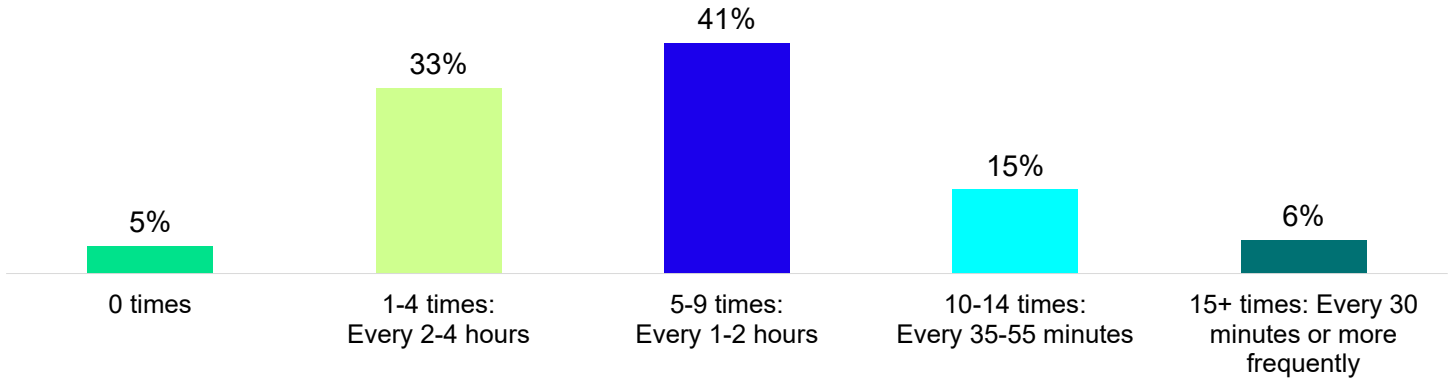
Figure 7: Types of devices used by frontline workers

- 20% Kiosk (non-portable, shared)
- 20% Shared non-portable computer or device
- 24% Shared portable company device (non-computer)
- 10% Private portable company device (non-computer)
- 26% Private non-portable computer or device

Figure 8: Types of devices used by frontline workers across industries

Industry	Kiosk (non-portable, shared)	Shared non-portable computer or device	Shared portable company device (non-computer)	Private portable company device (non-computer)	Private non-portable computer or device
Transportation	18%	17%	24%	13%	28%
Retail	22%	20%	24%	11%	23%
Manufacturing	24%	23%	17%	7%	29%
Healthcare	15%	19%	32%	8%	26%

- Kiosk (non-portable, shared)
- Shared non-portable computer or device
- Shared portable company device (non-computer)
- Private portable company device (non-computer)
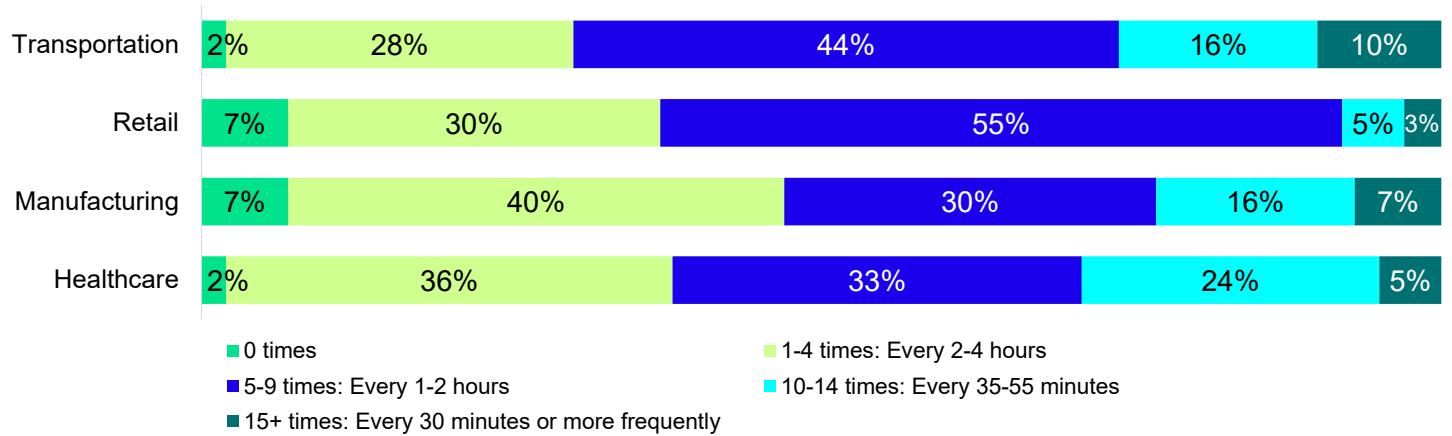- Private non-portable computer or device

Source: ISG survey, N=160

Q: How frequently do your frontline workers need to access a device daily?

Figure 9: Frequency at which frontline workers need access to devices

Category	Value
0 times	5%
1-4 times: Every 2-4 hours	33%
5-9 times: Every 1-2 hours	41%
10-14 times: Every 35-55 minutes	15%
15+ times: Every 30 minutes or more frequently	6%

Figure 10: Frequency at which frontline workers need access to devices across industries

Industry	0 times	1-4 times: Every 2-4 hours	5-9 times: Every 1-2 hours	10-14 times: Every 35-55 minutes	15+ times: Every 30 minutes or more frequently
Transportation	2%	28%	44%	16%	10%
Retail	7%	30%	55%	5%	3%
Manufacturing	7%	40%	30%	16%	7%
Healthcare	2%	36%	33%	24%	5%

- 0 times
- 1-4 times: Every 2-4 hours
- 5-9 times: Every 1-2 hours
- 10-14 times: Every 35-55 minutes
- 15+ times: Every 30 minutes or more frequently

Frontline workers' ability to communicate and resolve issues depends on their proximity to devices

Frontline workers' ability to use devices to communicate and resolve customer or operational issues is influenced to a great extent by their proximity to these devices. If the frontline worker carries a portable device, they can resolve customer issues more efficiently than when a device is located at a distance.

According to the survey, frontline workers frequently rely on non-portable devices that are not immediately accessible, which may result in significant delays in reporting customer queries and complaints. As the

devices are usually stationed far from them, frontline workers spend at least six minutes trying to locate and secure one. This extra time has a direct implication on their productivity.
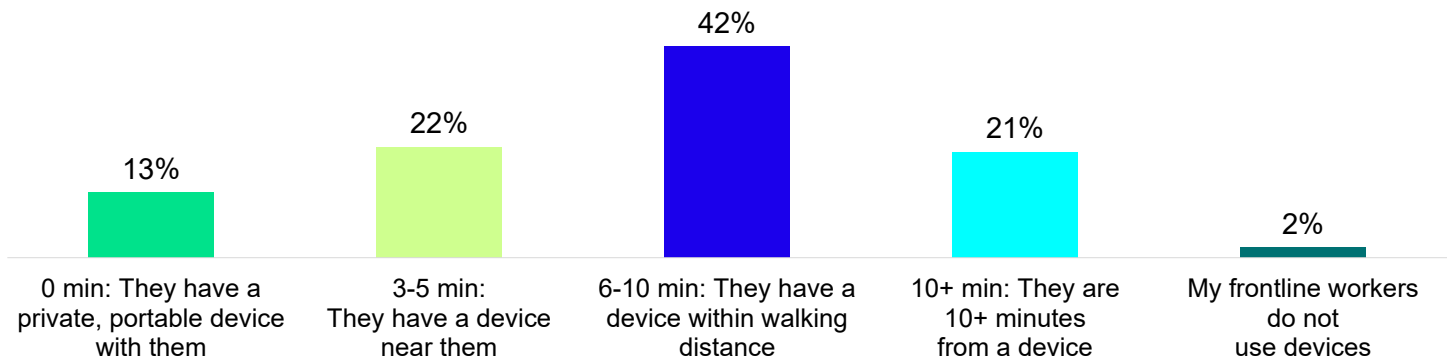
Around 42% of the respondents claim that although a device may be available within walking distance, it can take up to 10 minutes to locate it, log in, complete their task and return to the field.

Device proximity is similar across industries, with slight variations. Frontline workers in the transportation industry are placed farthest from the devices comparatively. In contrast, 41% of retail organizations report frontline workers spend zero to five minutes on the process, implying they either have access to private portable devices or have shared devices in their immediate vicinity.
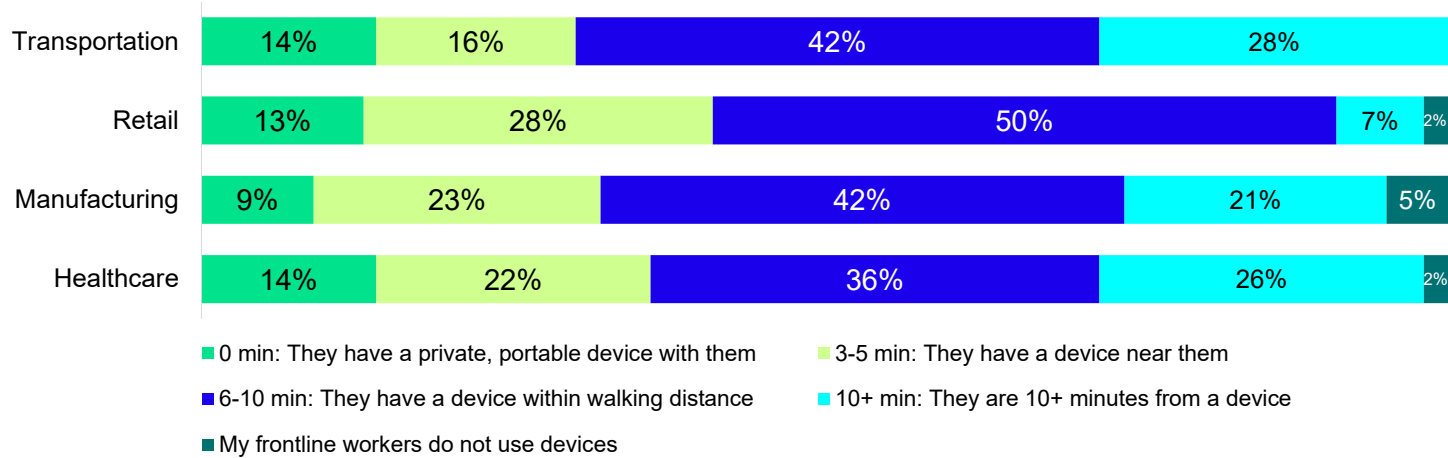
Source: ISG survey, N=160

Q: How much time do your frontline workers spend locating and securing a device, logging in and returning to their work in the field?

Figure 11: Time taken by frontline workers locating and securing a device, logging in and returning to their work in the field

0 min: They have a private, portable device with them	3-5 min: They have a device near them	6-10 min: They have a device within walking distance	10+ min: They are 10+ minutes from a device	My frontline workers do not use devices
13%	22%	42%	21%	2%

Figure 12: Time taken by frontline workers locating and securing a device, logging in and returning to their work in the field across industries

	0 min	3-5 min	6-10 min	10+ min	Do not use devices
Transportation	14%	16%	42%	28%	
Retail	13%	28%	50%	7%	2%
Manufacturing	9%	23%	42%	21%	5%
Healthcare	14%	22%	36%	26%	2%

■ 0 min: They have a private, portable device with them
■ 3-5 min: They have a device near them
■ 6-10 min: They have a device within walking distance
■ 10+ min: They are 10+ minutes from a device
■ My frontline workers do not use devices

Most organizations expressed that frontline workers usually spend a significant amount of time (10 to 20 minutes) reporting customer or other issues. However, organizations leveraging frontline worker-specific technologies are less likely to report delays. Organizations experience slight improvement when they use frontline worker-specific technologies for complex issues and errors that take significant time to report.

Many organizations do not have the mechanism to let frontline workers report issues using their private devices. Frontline workers with company devices near them can report these issues immediately. In contrast, those without devices within their immediate reach may spend a significant amount of time (10 to 20 minutes) trying to report customer issues. Even when devices are within reach, there can be delays as frontline workers try to access them while waiting in a queue or at a kiosk. Further analysis reveals that only a small percentage of organizations deploy issue-reporting software on their devices.

Source: ISG survey, N=160

Q: How quickly do frontline workers report issues and errors, such as a broken item or customer issue?

Figure 13: Time taken by frontline workers to report issues against proximity to device


■ They have a device near them   ■ They have a device within walking distance
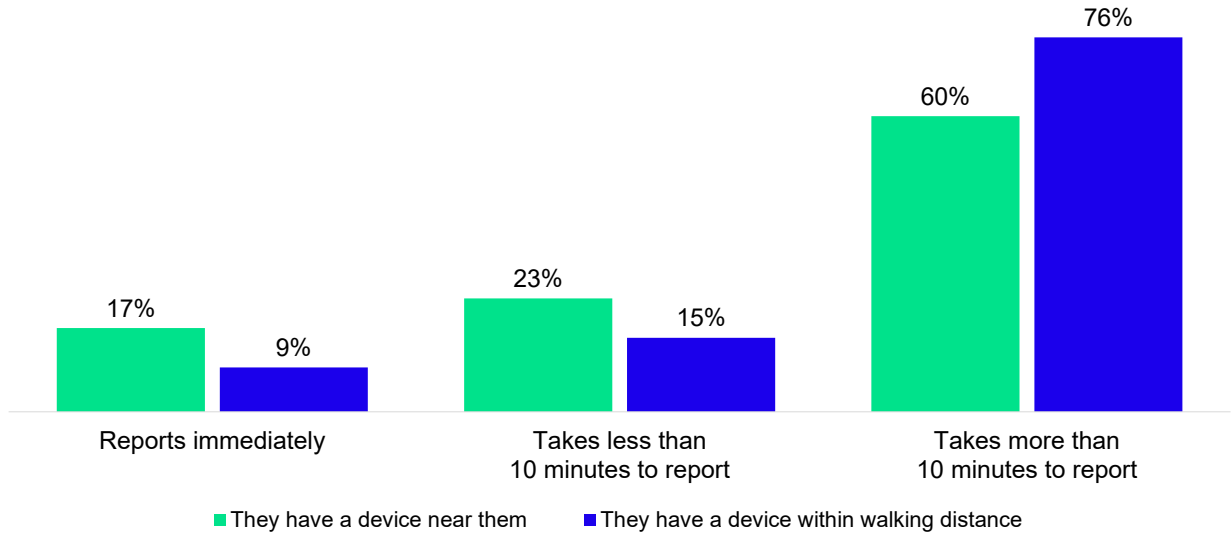
Technology improves frontline workers' ability to respond to customer issues

Integrating frontline worker-specific technologies can lead to faster resolution of customer queries. Organizations that have implemented such technologies report that their workforces can react to customer queries and complaints much faster than those without access to the technology. When frontline workers leverage the technologies to respond to customer issues within 24 hours, organizations report a significant increase in CSAT ratings.
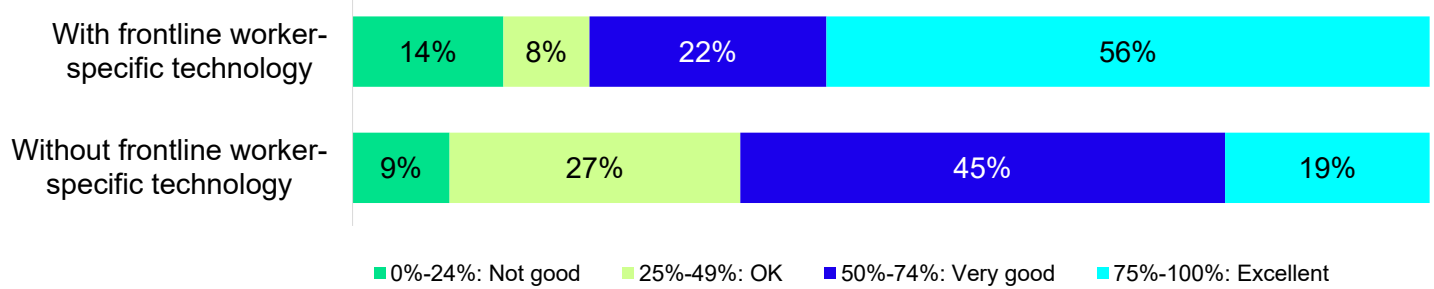
Q: How quickly do your frontline workers respond to customer issues such as emailing a customer about a lost package or scheduling an on-site appointment?

Figure 14: Time taken by frontline workers in responding to customer queries

■ With frontline worker-specific technology   ■ Without frontline worker-specific technology
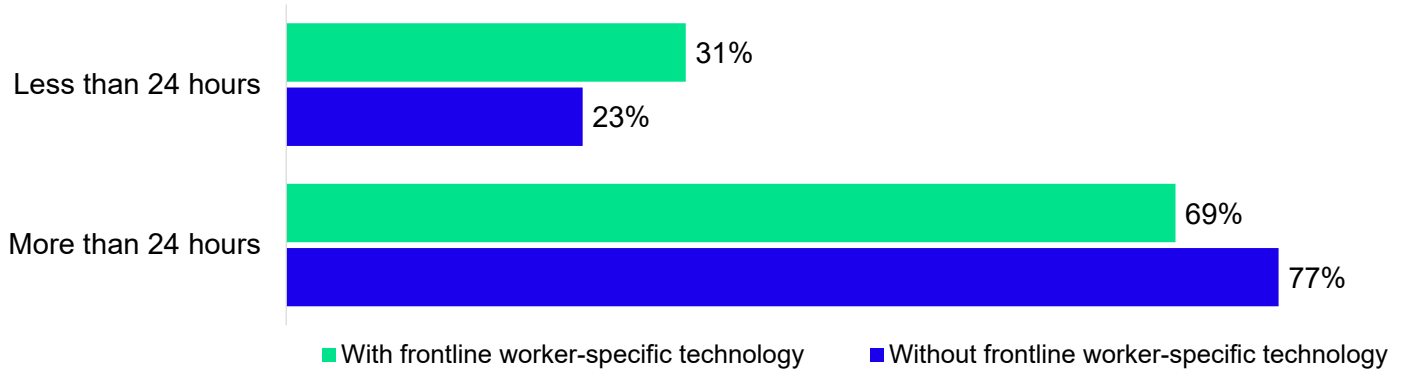
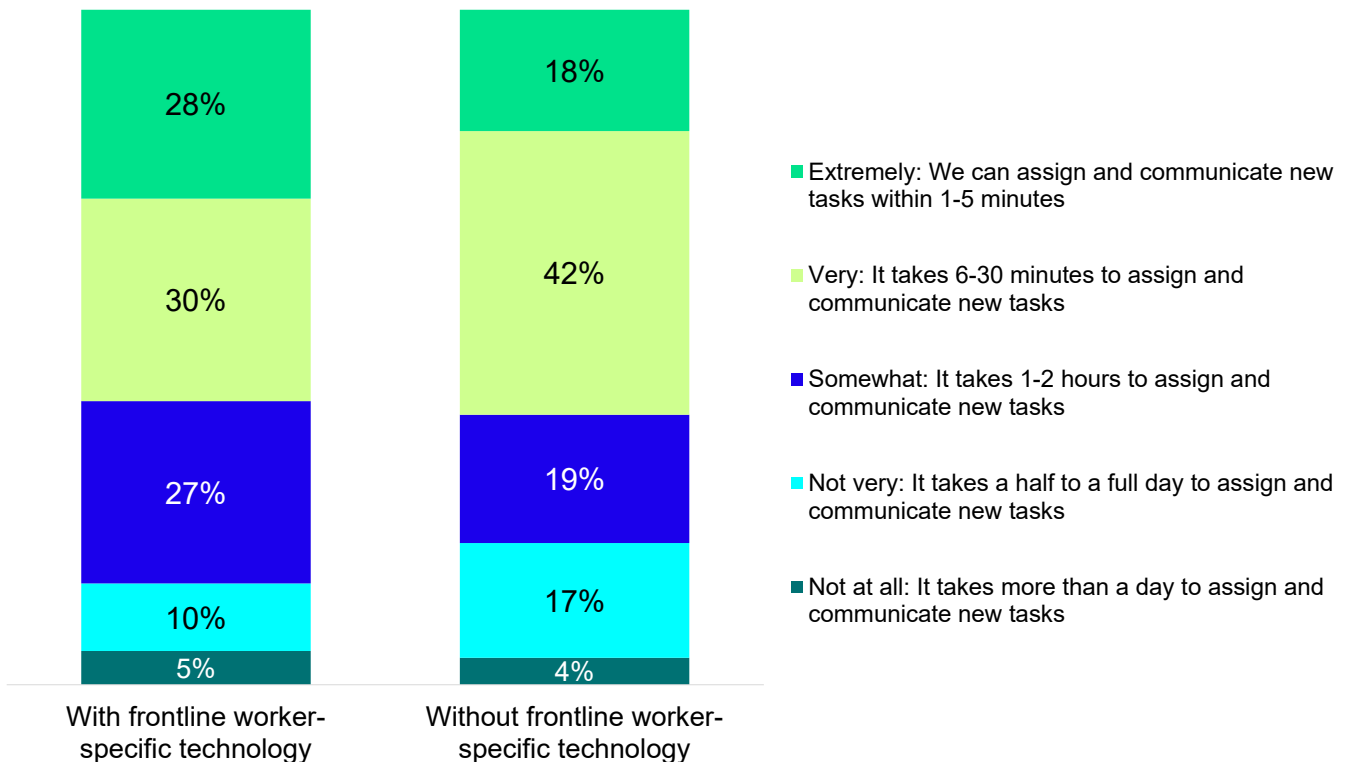**Figure 15:** Organizations' CSAT ratings when frontline workers respond to customer issues within 24 hours

With frontline worker-specific technology	14%	8%	22%	56%
Without frontline worker-specific technology	9%	27%	45%	19%

■ 0%-24%: Not good   ■ 25%-49%: OK   ■ 50%-74%: Very good   ■ 75%-100%: Excellent

Frontline worker-specific technology makes workers more agile

Organizations that leverage frontline worker-specific technologies report that their workers are more agile than those that do not use frontline worker-specific technologies. Organizations with frontline worker-specific technologies report a 10% increase in "extreme agility" of frontline workers.

Q: How agile is your organization in assigning new tasks to your frontline workforce? For instance, if a new task comes in or shifts need adjusting, how long does it take to update the system and communicate the changes and details successfully?

Figure 16: Organizations' agility in assigning new tasks and communicating changes and details to their frontline workers

With frontline worker-specific technology: 28%, 30%, 27%, 10%, 5%

Without frontline worker-specific technology: 18%, 42%, 19%, 17%, 4%

■ Extremely: We can assign and communicate new tasks within 1-5 minutes

■ Very: It takes 6-30 minutes to assign and communicate new tasks

■ Somewhat: It takes 1-2 hours to assign and communicate new tasks

■ Not very: It takes a half to a full day to assign and communicate new tasks

■ Not at all: It takes more than a day to assign and communicate new tasks

Source: ISG survey, N=160

Measuring the business impact of frontline workforce digital transformation

Software used on frontline worker-specific devices

Frontline worker-specific technology implementation can significantly affect customer service, job efficiency and productivity, and employee engagement. However, organizations leveraging frontline worker-specific technologies tend to use software immediately relevant to their day-to-day operations, such as shift and task management software. They usually do not expand the scope of these technologies to support additional functionalities such as payroll, onboarding and training, issue reporting and documentation, and health and safety.

Organizations that provide issue reporting and documentation software to their frontline worker devices report that their frontline workers can more quickly communicate issues than those of companies without the software. This gap contributes to delays in customer complaint reporting and resolution described in the above section.

According to the survey, the manufacturing industry has been actively adopting frontline worker-specific software that offers issue reporting and documentation capabilities in addition to shift and task management software. About 22% of respondents in this industry report using software for issue reporting and documentation.

Q: What software do frontline workers use on their portable devices to do their jobs?

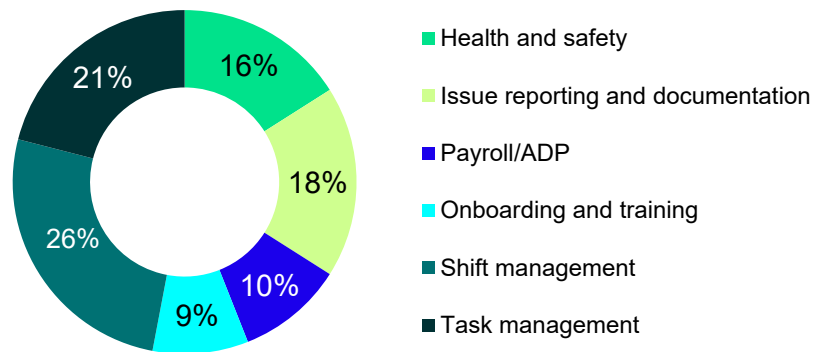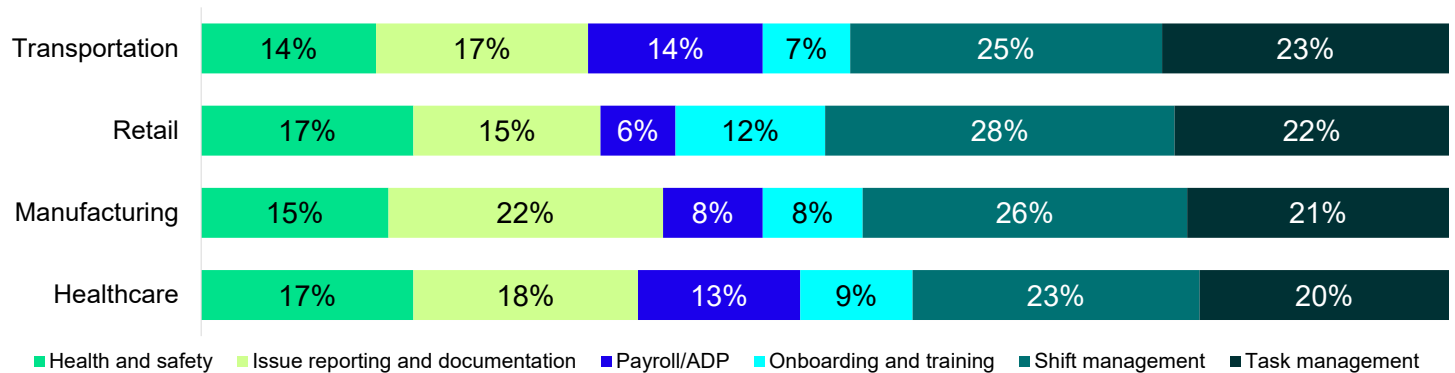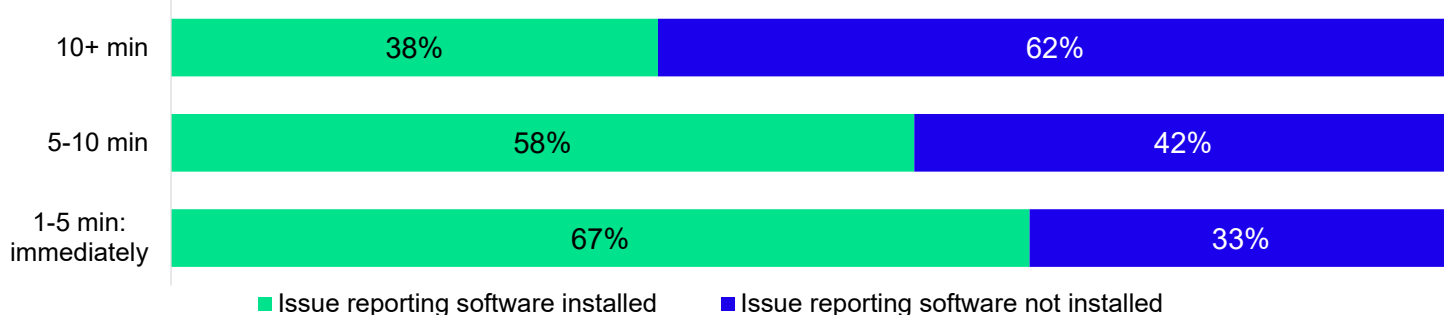**Figure 17:** Software used on frontline worker-specific devices

- Health and safety
- Issue reporting and documentation
- Payroll/ADP
- Onboarding and training
- Shift management
- Task management

Figure 18: Software used on frontline worker-specific devices across industries

	Health and safety	Issue reporting and documentation	Payroll/ADP	Onboarding and training	Shift management	Task management
Transportation	14%	17%	14%	7%	25%	23%
Retail	17%	15%	6%	12%	28%	22%
Manufacturing	15%	22%	8%	8%	26%	21%
Healthcare	17%	18%	13%	9%	23%	20%

Source: ISG survey, N=160

Q: How long does it take frontline workers to report issues when issue reporting and documentation software is installed on their devices?

Figure 19: Time taken by frontline workers to report issues with issue reporting and documentation software installed on their devices
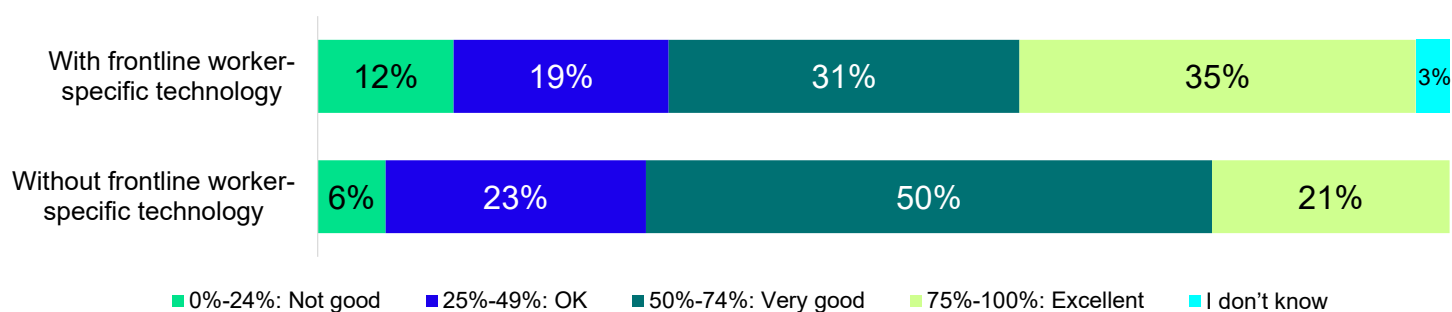
	Issue reporting software installed	Issue reporting software not installed
10+ min	38%	62%
5-10 min	58%	42%
1-5 min: immediately	67%	33%

■ Issue reporting software installed   ■ Issue reporting software not installed

Customer satisfaction ratings

The use of technologies specifically designed for frontline workers directly impacts organizations' CSAT ratings. With better device accessibility and enhanced software and communication tools, frontline workers can report and respond to customer queries and complaints much faster, improving service efficiency and CSAT ratings. Organizations leveraging frontline worker-specific devices and technologies report exceptional CSAT ratings compared to those not utilizing specialized technologies.

Q: What is your customer satisfaction rating?

Figure 20: Customer satisfaction rating

	0%-24%: Not good	25%-49%: OK	50%-74%: Very good	75%-100%: Excellent	I don't know
With frontline worker-specific technology	12%	19%	31%	35%	3%
Without frontline worker-specific technology	6%	23%	50%	21%	

■ 0%-24%: Not good   ■ 25%-49%: OK   ■ 50%-74%: Very good   ■ 75%-100%: Excellent   ■ I don't know

Employee satisfaction ratings

Organizations leveraging frontline worker-specific technologies also report better end-user experiences for the frontline workforce. Technologies specifically designed for frontline workers can help streamline tasks and processes, resulting in higher productivity and efficiency, a better EX and increased job satisfaction.
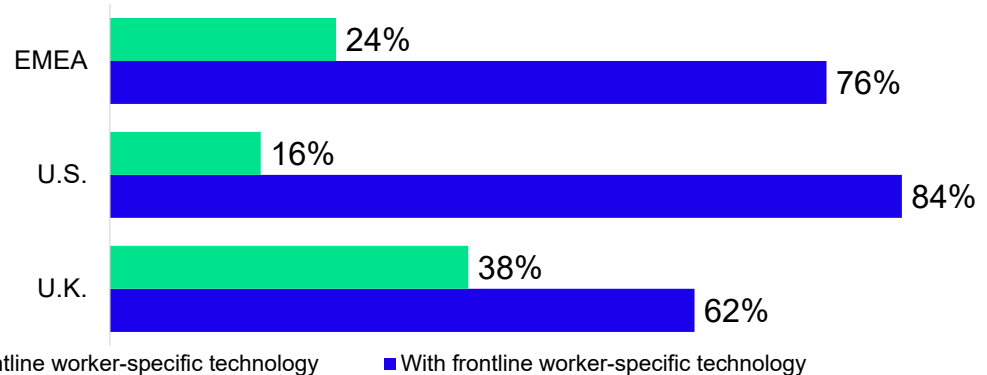
Q: What is your frontline worker satisfaction rating?

Figure 21: Frontline worker satisfaction rating
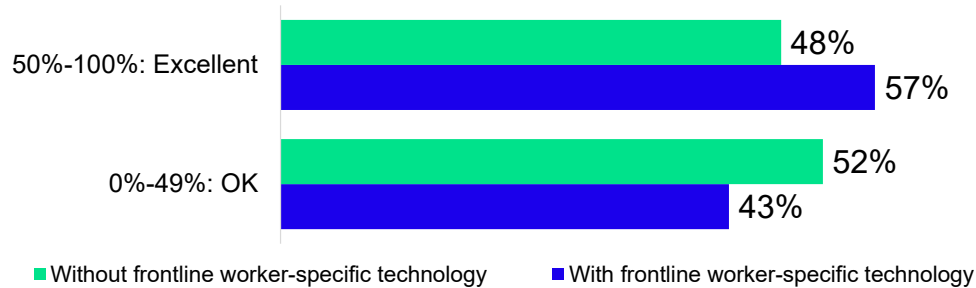
The U.S. is leading the way in generating excellent frontline worker satisfaction ratings through the use of tailored technology. According to the survey, 84% of U.S. organizations implementing frontline worker-specific technologies report excellent frontline worker satisfaction ratings.

The survey revealed a similar trend among task workers and service workers. This notable achievement in ratings may be attributed to these workers' access to frontline worker-specific devices equipped with relevant software, significantly improving their work efficiency and overall experience.

Figure 22: Organizations with excellent frontline worker satisfaction ratings across geographies

Figure 23: Excellent frontline worker satisfaction ratings among task and service workers
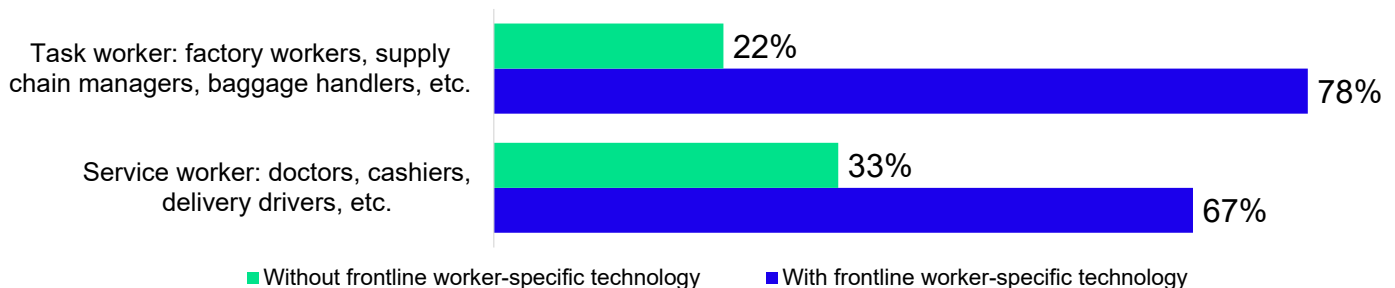

Source: ISG survey, N=160

Employee turnover rate

Organizations leveraging frontline worker-specific technologies report decreases in low- to mid-level attrition rates among frontline workers. However, frontline worker-specific technologies alone cannot prevent higher-level attrition (50% or more). Frontline workers with experience using frontline worker-specific technologies are better positioned to explore career advancement and other opportunities than workers who lack those skill sets. Organizations must remember that factors such as overall employee experience, management styles and company culture all play important roles in employee turnover.

Q: What do you estimate your frontline worker annual turnover rate to be?

Figure 24: Annual frontline worker turnover rate
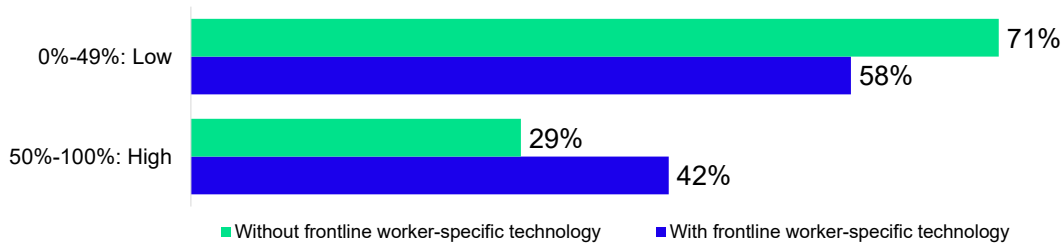
When comparing different industries, it is evident that the transportation sector reaps the most significant benefits from utilizing frontline worker-specific technology. According to the survey, organizations within this industry experience lower employee turnover rates when using frontline worker-specific technology, followed by the healthcare and retail industries.

Furthermore, when compared regionally, organizations in the U.S. and EMEA have effectively reduced employee turnover rates by embracing frontline worker-specific technology. Organizations in the U.K. have comparatively been less successful in managing turnover rates even after deploying frontline worker technologies. This is attributed to a lower focus on this workforce regionally, as is evident with the proliferation of frontline worker-specific technology explained in earlier sections.

Figure 25: Organizations with low annual frontline worker turnover rate (0% to 49%) across industries
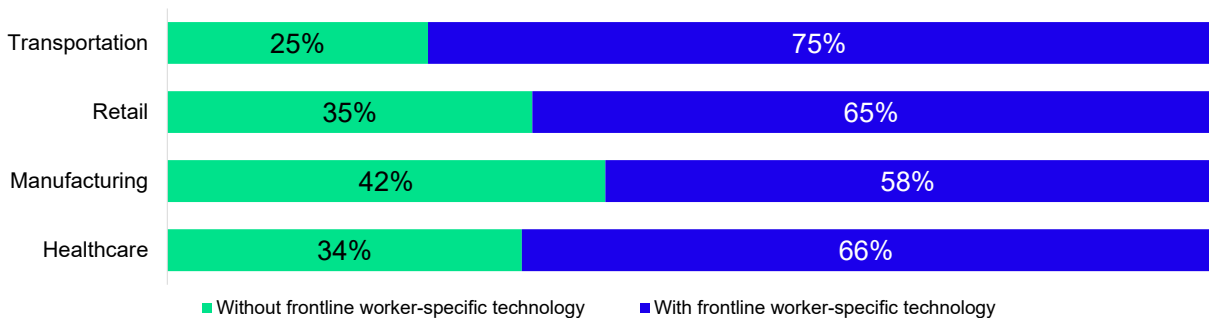
Figure 26: Organizations with low frontline worker turnover rate (0% to 49%) across geographies
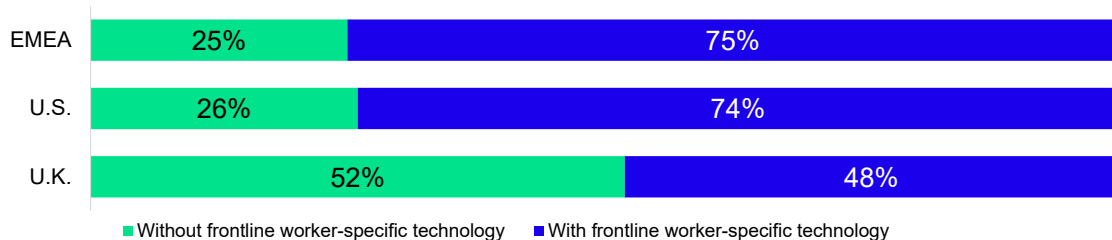
Source: ISG survey, N=160

Empowering frontline workers through technology

Access to training and its impact on frontline workers

Most organizations understand the need to conduct training to develop and enhance the knowledge and skills of their frontline workforces. Frontline workers who receive proper and frequent training can perform their duties more effectively, reducing risks associated with poor performance, preventing turnover and providing better customer service, all of which also contribute to higher CSAT.

Around 72% of organizations report providing ongoing training to their frontline workers to maintain and advance their skills. The transportation industry, which employs the most frontline workers overall, prioritizes providing training and development programs, followed by the retail sector.

Q: Do you provide ongoing training and development to maintain and advance the skills your frontline workers need?

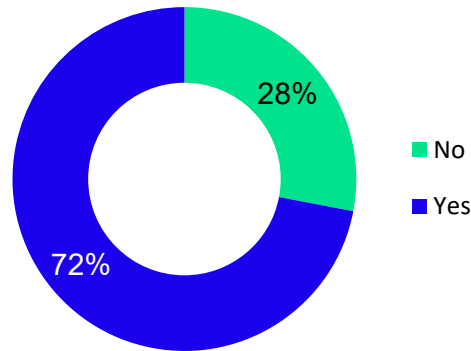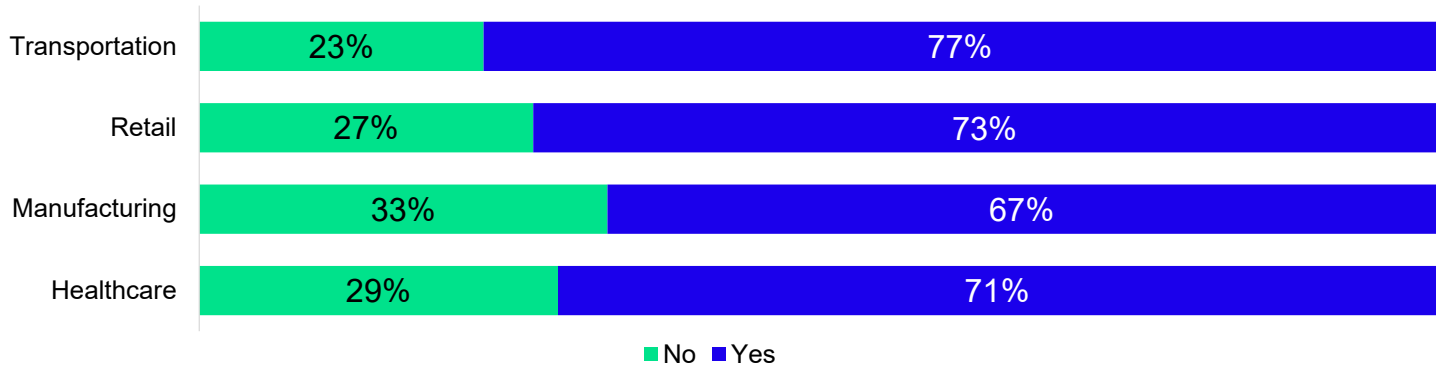**Figure 27:** Organizations providing training to their frontline workers

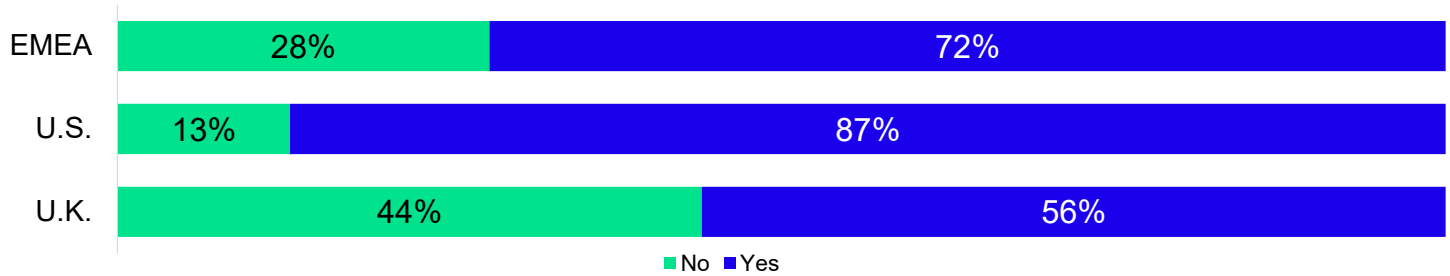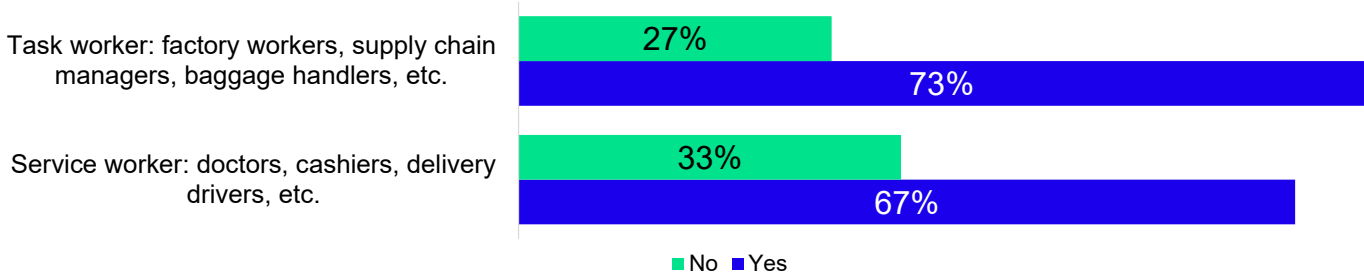**Figure 28:** Organizations providing training to their frontline workers across industries

About 87% of U.S. organizations are committed to delivering ongoing training and development initiatives to support skills enhancement and progression of their frontline workers. Moreover, the organizations focus on providing training opportunities for task-based employees, such as factory workers and supply chain managers.

Figure 29: Organizations providing training to their frontline workers across geographies

	No	Yes
EMEA	28%	72%
U.S.	13%	87%
U.K.	44%	56%

■ No ■ Yes

Figure 30: Organizations providing training to their task and service workers

Task worker: factory workers, supply chain managers, baggage handlers, etc.
- 27%
- 73%

Service worker: doctors, cashiers, delivery drivers, etc.
- 33%
- 67%

■ No ■ Yes

Impact of training on employee satisfaction ratings

Organizations that offer continuous training to their frontline workers tend to receive higher frontline worker satisfaction ratings than those that do not.

The survey indicates that U.S. organizations that invest in training programs report notably elevated satisfaction levels among their frontline employees.

**Figure 31:** Impact of training on employee satisfaction ratings

50%-100%: Excellent
- 24%
- 76%

0%-49%: OK
- 32%
- 68%

■ Without training ■ With training
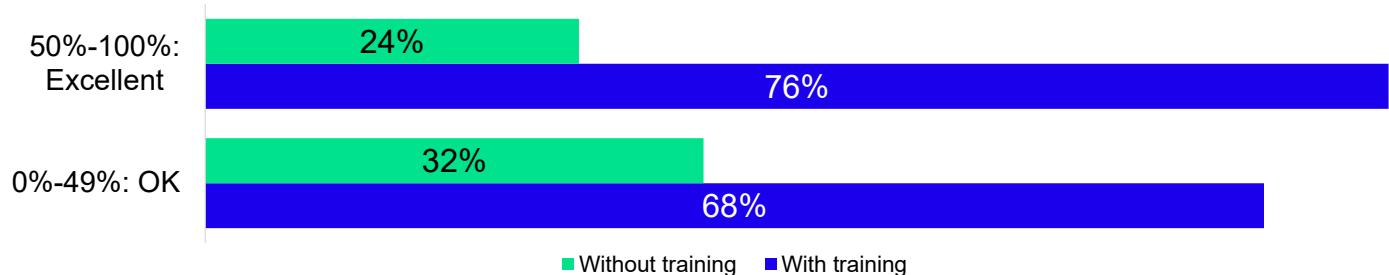
Source: ISG survey, N=160

Figure 32: Organizations with excellent frontline worker satisfaction ratings (50%-100%) across geographies

	Without training	With training
EMEA	27%	73%
U.S.	6%	94%
U.K.	42%	58%

■ Without training ■ With training
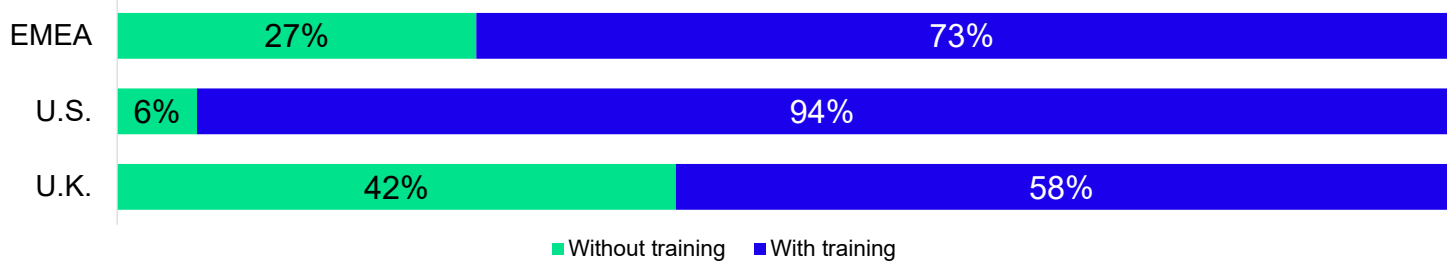
Impact of training on employee turnover rate

Most organizations recognize the importance of ongoing training for their frontline workers to adapt to dynamic business needs. Organizations that consistently train their frontline workers report a reduced employee turnover rate.

Figure 33: Organizations with low frontline worker turnover rate (0%-49%)

32%
68%

■ Without training
■ With training
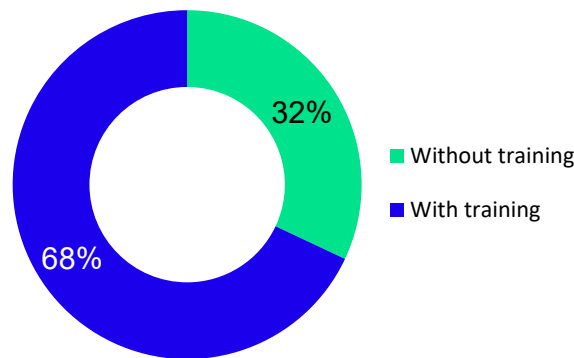
The survey indicates that organizations in the U.S. and EMEA that invest in training programs report lower employee turnover rates.

However, organizations still must invest in other approaches to foster high retention among frontline workers. Providing ongoing support and engagement opportunities can also help reduce attrition rates.

In addition, many organizations do not utilize frontline worker-specific technologies to their full potential to train their workforces. They continue to rely primarily on traditional training methods such as in-person training (39%) or training via a standard device such as a laptop or mobile device (41%).

From an industry vertical perspective, organizations in the transportation and healthcare sectors increasingly leverage frontline worker-specific devices to train frontline workers.
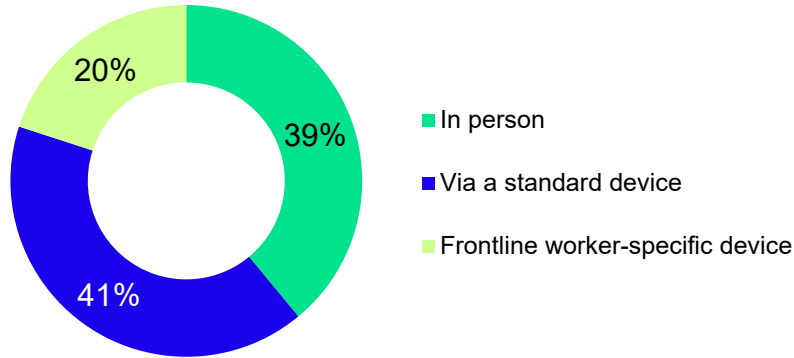
Figure 34: Organizations with low frontline worker turnover rate (0%-49%) across geographies
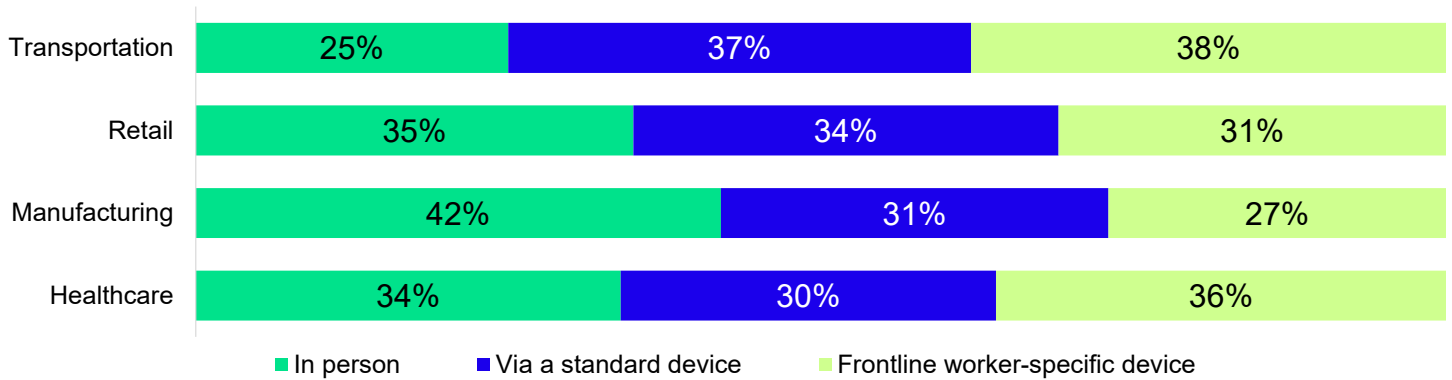
	Without training	With training
EMEA	27%	73%
U.S.	16%	84%
U.K.	52%	48%

■ Without training ■ With training
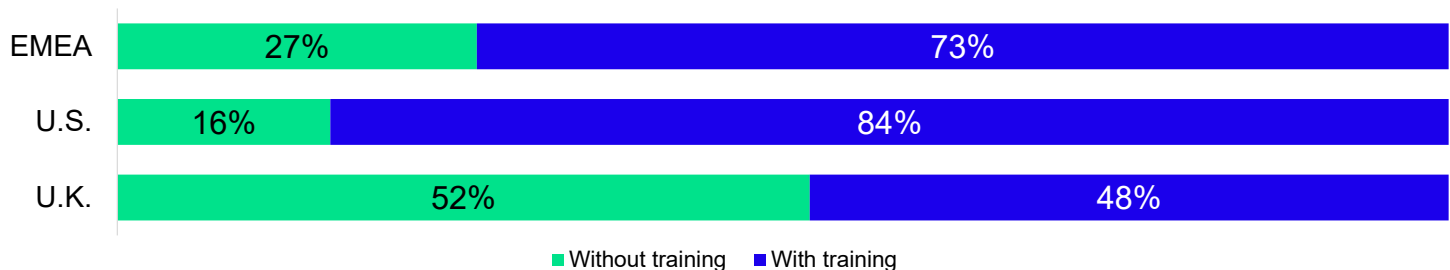
Source: ISG survey, N=160

Figure 35: Frontline worker training delivery methods

```
        20%              39%
   41%

  ■ In person
  ■ Via a standard device
  ■ Frontline worker-specific device
```

Figure 36: Frontline worker training delivery methods employed across industries

	In person	Via a standard device	Frontline worker-specific device
Transportation	25%	37%	38%
Retail	35%	34%	31%
Manufacturing	42%	31%	27%
Healthcare	34%	30%	36%

■ In person   ■ Via a standard device   ■ Frontline worker-specific device
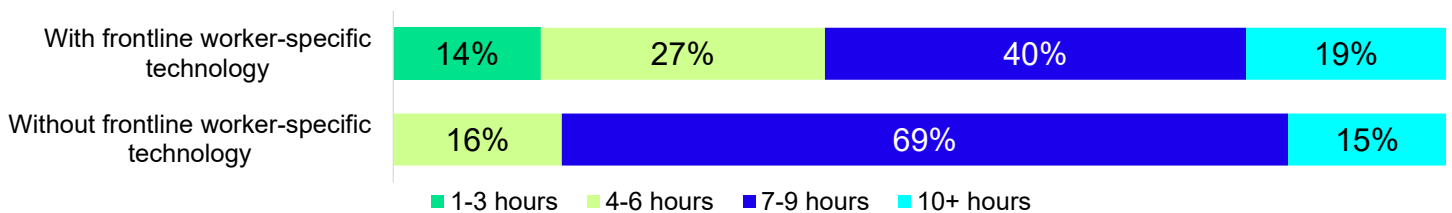
Time spent yearly on training

Organizations leveraging frontline worker-specific technology and devices report a significant reduction in training time spent per frontline worker annually. With the integration of frontline worker-specific technologies and devices, 14% of organizations say it only takes one to three hours per year to train each frontline worker, which is unachievable by organizations that do not use frontline worker-specific technologies.

By using frontline worker-specific technology, organizations can provide more training on complex use cases that historically may have required more than 10 hours a year per frontline worker.

Figure 37: Time spent yearly on training frontline workers

	1-3 hours	4-6 hours	7-9 hours	10+ hours
With frontline worker-specific technology	14%	27%	40%	19%
Without frontline worker-specific technology		16%	69%	15%

■ 1-3 hours   ■ 4-6 hours   ■ 7-9 hours   ■ 10+ hours

Source: ISG survey, N=160

Access to engaging opportunities

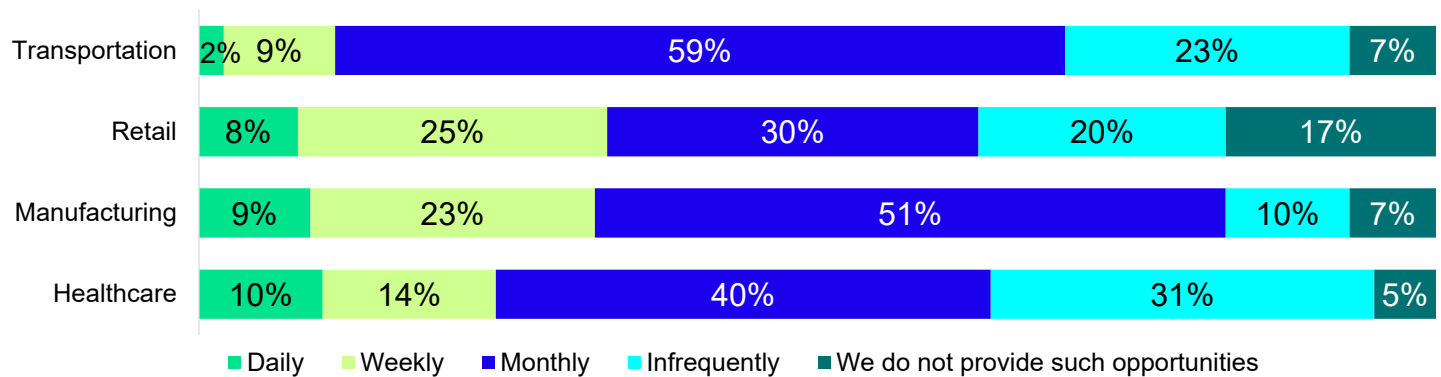About 70% of organizations surveyed offer their frontline employees engagement opportunities through workshops, team events, community boards and other initiatives to enhance job satisfaction and reduce turnover rates. They are actively utilizing frontline worker-specific technologies to facilitate these initiatives, which enables them to conduct these events more often.

Q: How frequently do you provide your frontline workers with engaging opportunities, such as workshops, team events and community boards, to increase job satisfaction and prevent turnover?
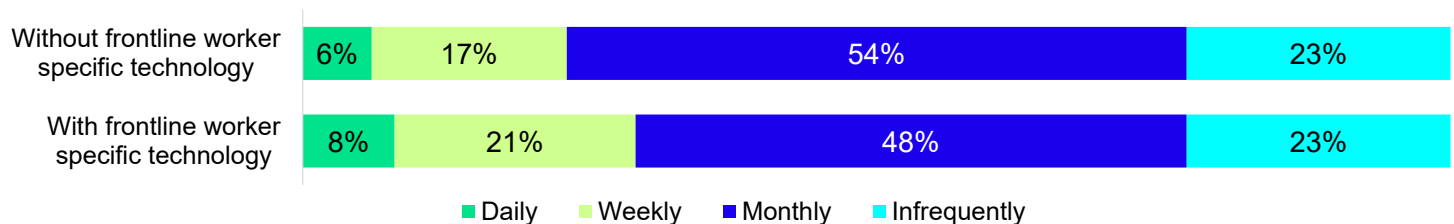
Figure 38: Frequency at which organizations provide engaging opportunities

- Daily
- Weekly
- Monthly
- Infrequently
- We do not provide such opportunities
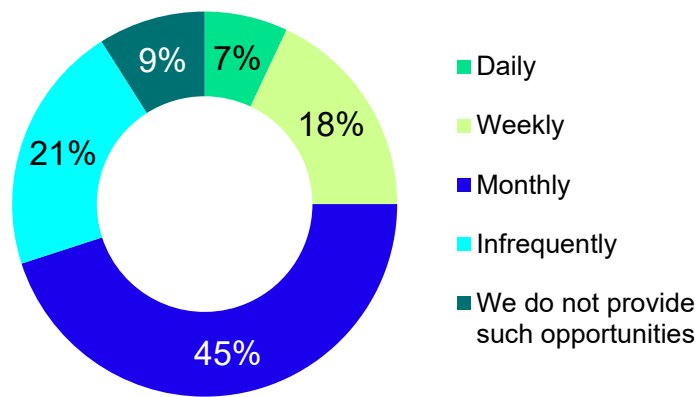
Figure 39: Frequency at which organizations provide engaging opportunities across industries

	Daily	Weekly	Monthly	Infrequently	We do not provide such opportunities
Transportation	2%	9%	59%	23%	7%
Retail	8%	25%	30%	20%	17%
Manufacturing	9%	23%	51%	10%	7%
Healthcare	10%	14%	40%	31%	5%

■ Daily ■ Weekly ■ Monthly ■ Infrequently ■ We do not provide such opportunities

Figure 40: Share of organizations by frequency of providing engaging opportunities to their frontline workers when using frontline technologies

	Daily	Weekly	Monthly	Infrequently
Without frontline worker specific technology	6%	17%	54%	23%
With frontline worker specific technology	8%	21%	48%	23%

■ Daily ■ Weekly ■ Monthly ■ Infrequently

Source: ISG survey, N=160

Onboarding process: time taken to onboard a new employee

The application of technology results in reduced onboarding times for new frontline workers. However, complex frontline operations may require significant time to onboard a new employee. When frontline worker-specific technology isn't used, most organizations report it takes six to nine months to onboard a new employee. But with frontline worker-specific technology usage, that onboarding time is reduced to three to six months.

Q: How much time is spent per worker onboarding new frontline workers?

Figure 41: Time spent by organizations per worker to onboard new frontline workers

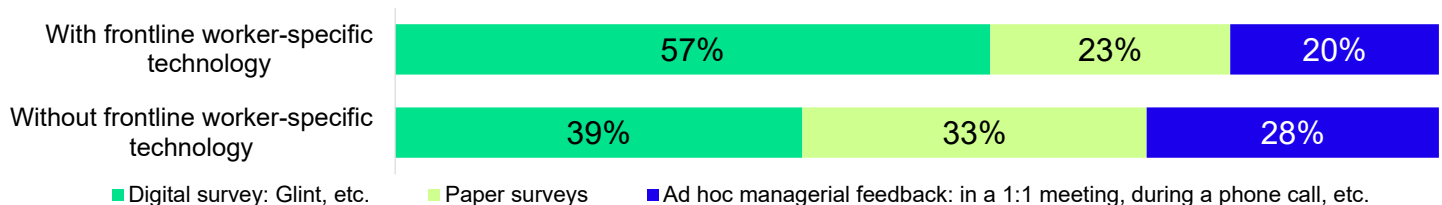|	0-3 months	3-6 months	6-9 months	9+ months
With frontline worker-specific technology	8%	43%	37%	12%
Without frontline worker-specific technology	2%	40%	48%	10%
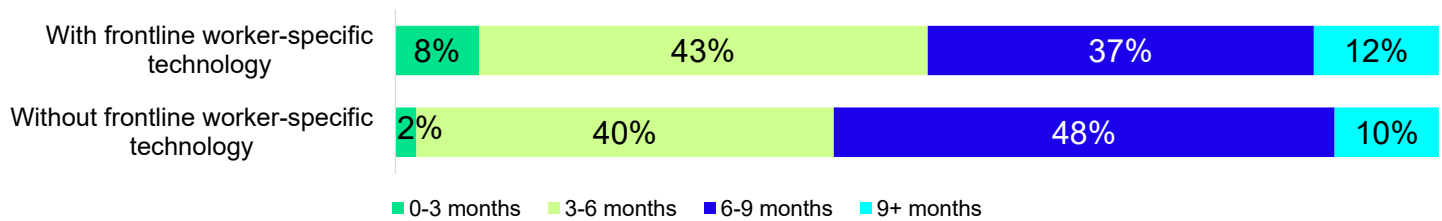
Feedback mechanisms: How does a frontline worker provide feedback?

Organizations leveraging frontline worker-specific technology experience higher usage of digital tools, such as surveys, to provide internal feedback. This approach reduces the need for paper-based surveys and 1:1 ad hoc meetings, saving time and resulting in faster conflict resolution, improved employee satisfaction and enhanced productivity.

Q: How do your frontline workers provide feedback on their experiences with existing processes and technologies?

Figure 42: Feedback mechanisms used by frontline workers

	Digital survey: Glint, etc.	Paper surveys	Ad hoc managerial feedback: in a 1:1 meeting, during a phone call, etc.
With frontline worker-specific technology	57%	23%	20%
Without frontline worker-specific technology	39%	33%	28%

Source: ISG survey, N=160

Employing emerging technologies to support frontline workers

Types of emerging technologies used

Organizations already leverage or are considering adopting emerging technologies to support the frontline workforce, specifically to improve productivity and task management in frontline workers' day-to-day operations.

With the significant advancements in AI and the popularity of generative technologies such as ChatGPT, organizations are focusing on AI, ML and robotic process automation to enable their frontline workforces.

Q: What type of emerging technologies are you using to support your frontline workers?

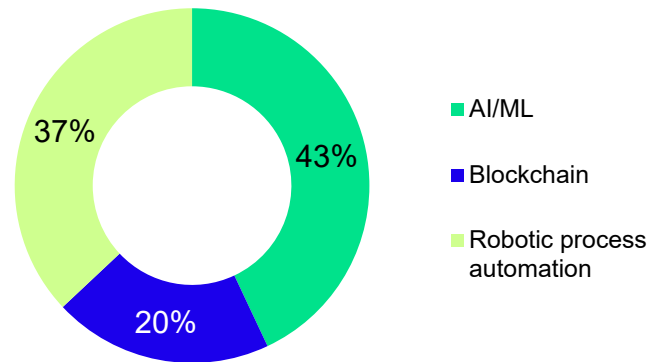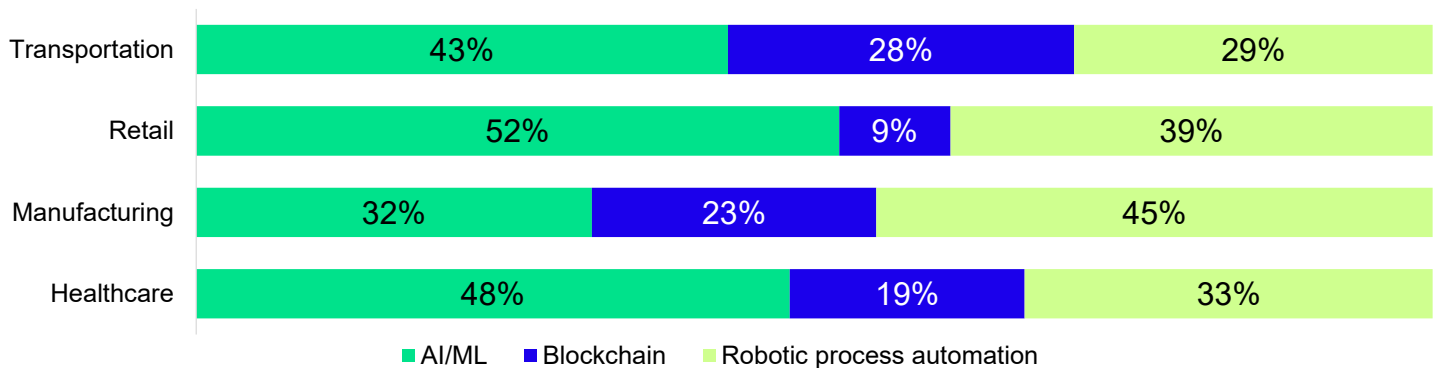**Figure 43:** Types of emerging technologies being used to support frontline workers

- AI/ML — 43%
- Blockchain — 20%
- Robotic process automation — 37%

Figure 44: Types of emerging technologies being used to support frontline workers across industries

| Industry	AI/ML	Blockchain	Robotic process automation
Transportation	43%	28%	29%
Retail	52%	9%	39%
Manufacturing	32%	23%	45%
Healthcare	48%	19%	33%

Source: ISG survey, N=160

Finding new ways to enhance frontline worker productivity

The transportation sector is the frontrunner for leveraging emerging technologies among the surveyed industries. Retail organizations are highly interested in implement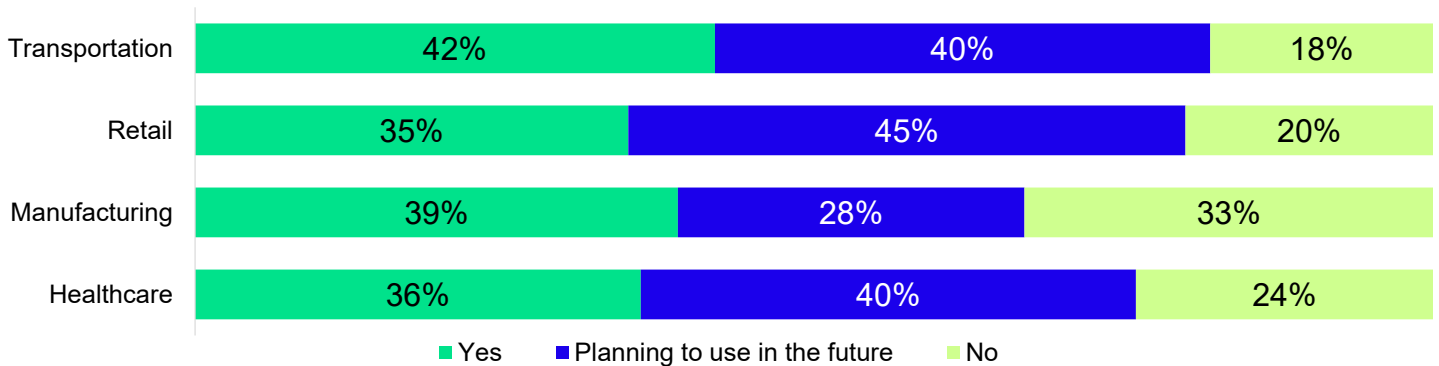ing these technologies in the future. The manufacturing industry has the second-highest percentage of organizations implementing emerging technologies for their frontline workers; however, this industry is also slow to adopt technology changes. Therefore, among the surveyed industries, the highest percentage of organizations not leveraging emerging technologies are from the manufacturing industry.

Q: Are you using emerging technologies, such as auto-scheduling new tasks to accommodate frontline worker availability, location, skillsets and demand; automate repetitive tasks; and easily share data and records to support your frontline workers?

Figure 45: Current state analysis of emerging technology integration for frontline workers

- ■ Yes
- ■ Planning to use in the future
- ■ No
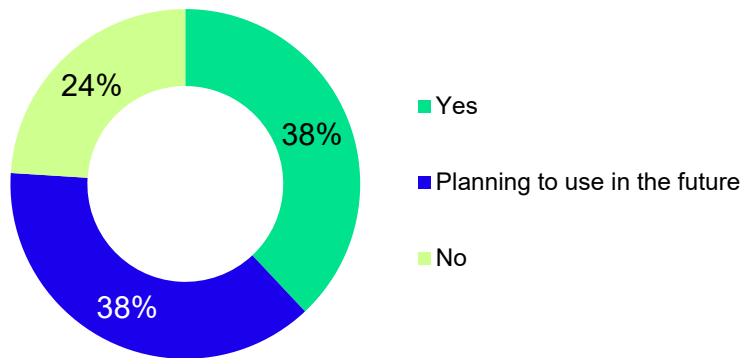
Figure 46: Current state analysis of emerging technology integration for frontline workers across industries

	Yes	Planning to use in the future	No
Transportation	42%	40%	18%
Retail	35%	45%	20%
Manufacturing	39%	28%	33%
Healthcare	36%	40%	24%

Plans to utilize emerging technologies in the future

About 90% of organizations that are currently not leveraging emerging technologies for frontline workers plan to leverage these within two years as a high or top priority. While the healthcare and transportation industries lead in prioritizing emerging technology usage, half of the organizations surveyed in the manufacturing industry have given a low priority to emerging technologies.

Q: When do you plan to begin using emerging technologies to support your frontline workforce?

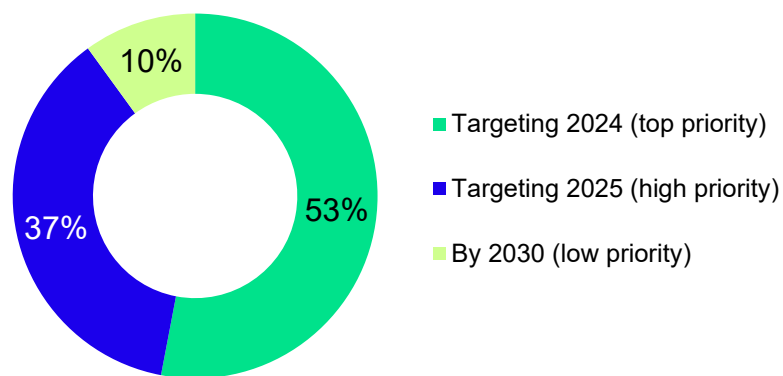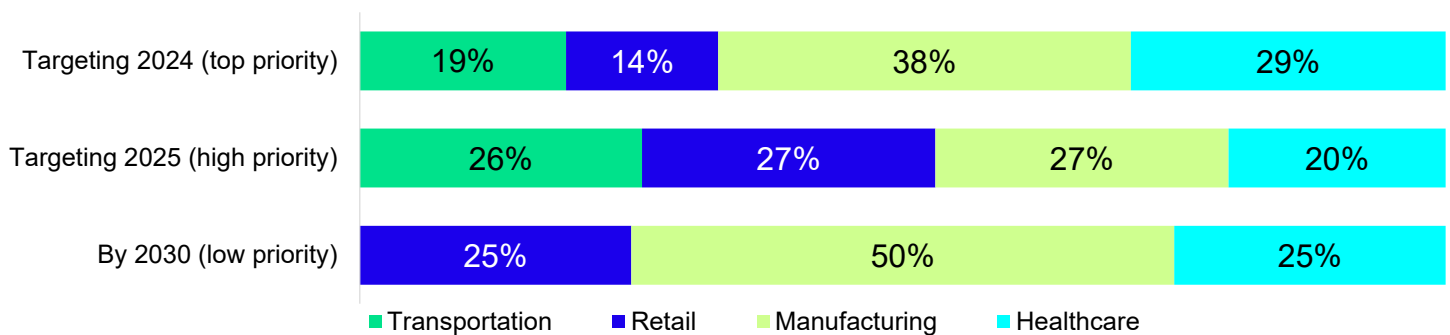**Figure 47:** Future plans to utilize emerging technologies

- Targeting 2024 (top priority)
- Targeting 2025 (high priority)
- By 2030 (low priority)

Figure 48: Future plans to utilize emerging technologies across industries

	Transportation	Retail	Manufacturing	Healthcare
Targeting 2024 (top priority)	19%	14%	38%	29%
Targeting 2025 (high priority)	26%	27%	27%	20%
By 2030 (low priority)		25%	50%	25%

Key recommendations and conclusion

Frontline worker-specific technology is a must-have for organizations, irrespective of the size of your workforce. Our study shows that organizations across diverse industries and frontline workforce sizes are leveraging frontline worker-specific technologies in some form. While many utilize specific devices to support day-to-day operations, some organizations use these technologies for additional functionalities, such as payroll and onboarding.

While implementing frontline worker-specific technologies, organizations must prioritize ease of use and proximity to users. Organizations must implement frontline worker-specific technologies that are easily accessible to users. If an enabling frontline device is located at a significant distance, it can impact frontline employees' ability to respond to issues efficiently, affecting their productivity. Organizations must explore providing portable devices or prioritize placing devices in closer proximity.

Organizations must utilize frontline worker-specific technology to its full potential. Companies can realize significant benefits by adopting additional technologies — and fully leveraging them — to support their existing fleets of frontline worker-specific devices. Organizations

are currently averse to enabling frontline workers' private devices with functionalities to support workplace operations. However, modern workplace technologies can support secure communication and collaboration among frontline workers without requiring investments in company-owned devices.

Organizations must leverage frontline worker-specific technologies for employee engagement activities. There is a visible benefit in leveraging technology to provide frontline worker training and employee engagement opportunities. Organizations can also equip frontline workers with software and solutions to enhance collaboration, interpersonal communication, corporate communication and training. Companies must focus on expanding existing frontline worker-specific technology usage to foster employee engagement and contribute to workforce retention.

Organizations should leverage emerging technologies to support frontline requirements. As emerging technologies pose great potential for disrupting how frontline workers work, organizations must explore applying them to support frontline workforce operations.

Appendix

Research methodology

Objective

This thought leadership paper aims to understand the challenges frontline workers encounter, particularly in accessing appropriate digital workplace services and support. The aim is to identify areas for improving the frontline worker experience to create a more supportive environment that enhances productivity and elevates employee satisfaction.

For this paper, we interviewed 160 respondents in Germany, France, the U.S. and the U.K. We aimed to gain a holistic understanding of the challenges and opportunities faced by frontline workers. These respondents included line-of-business leaders and managers responsible for overseeing the day-to-day activities of frontline workers across various industries, including manufacturing, retail, transportation and healthcare. Their roles spanned a broad spectrum, encompassing operations, logistics, production and more.

Summary

Unisys collaborated with ISG to comprehensively examine the daily experiences, challenges and needs of frontline workers. This paper explores the role of tailored technologies for frontline workers and how companies in assorted industries of varying sizes can effectively utilize them to enhance the frontline worker experience and boost their productivity.
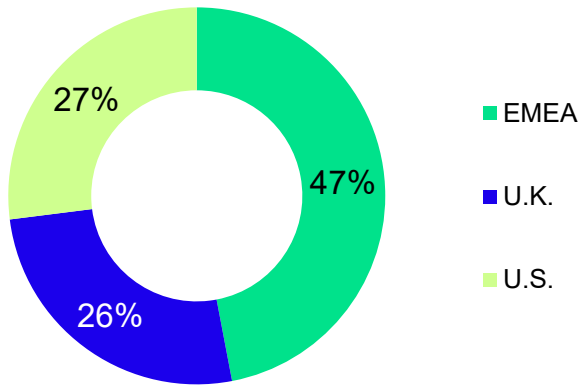
Additionally, it explores how providing the right services and support, such as training and engaging opportunities, can significantly contribute to higher retention rates and a marked reduction in turnover.

Last, the paper highlights how the lack of access to technology for these workers impacts employee and customer satisfaction ratings, ultimately affecting an organization's overall reputation and performance.
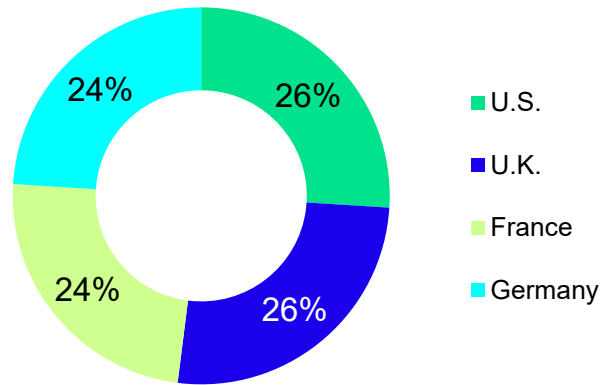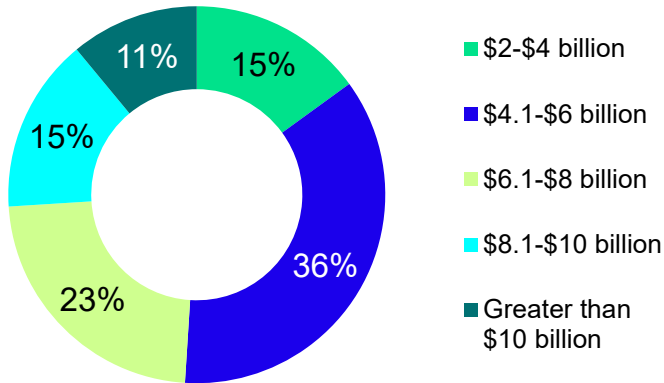
Respondent demographics
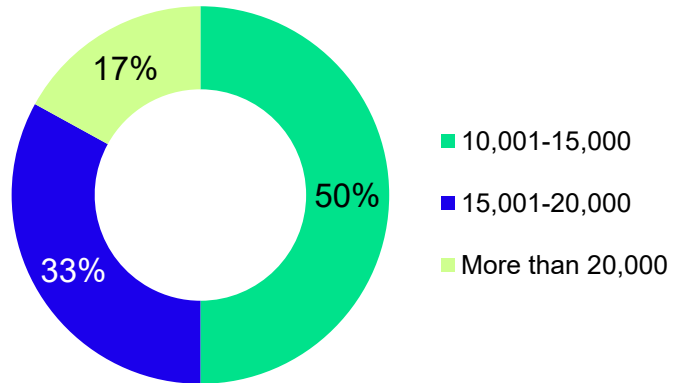
Respondents by company geography/location

- EMEA — 47%
- U.K. — 26%
- U.S. — 27%

Respondents by company headquarters

- U.S. — 26%
- U.K. — 26%
- France — 24%
- Germany — 24%

Respondents by company's annual revenue

- $2-$4 billion — 15%
- $4.1-$6 billion — 36%
- $6.1-$8 billion — 23%
- $8.1-$10 billion — 15%
- Greater than $10 billion — 11%

Respondents by company size

- 10,001-15,000 — 50%
- 15,001-20,000 — 33%
- More than 20,000 — 17%

Respondents by industry

- Transportation — 26%
- Retail — 24%
- Manufacturing — 26%
- Healthcare — 24%
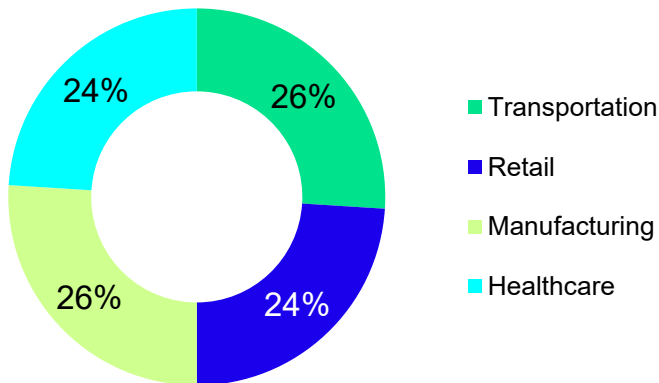
Respondents by age group

- 18-24 years old — 21%
- 25-34 years old — 26%
- 35-44 years old — 24%
- 45-54 years old — 17%
- 55+ years old — 12%

Respondents by job role

Job role	Percentage
Logistics manager/Head of line of business	20%
Head of logistics	15%
Manufacturing manager	14%
Head of operations	11%
Production manager	8%
Nurse administrator	7%
Nurse supervisor	7%
Floor manager	5%
Shift supervisor	5%
Charge nurse	4%
Staffing coordinator	4%
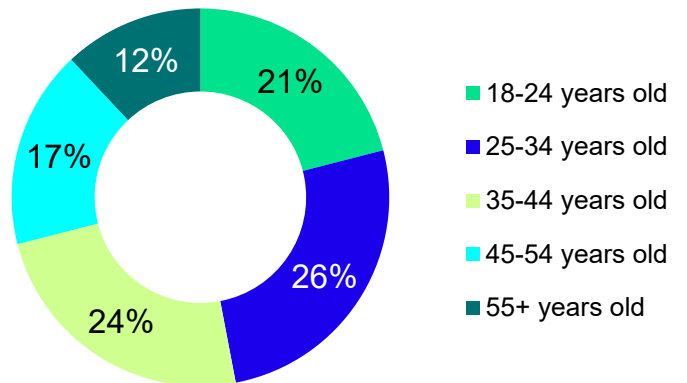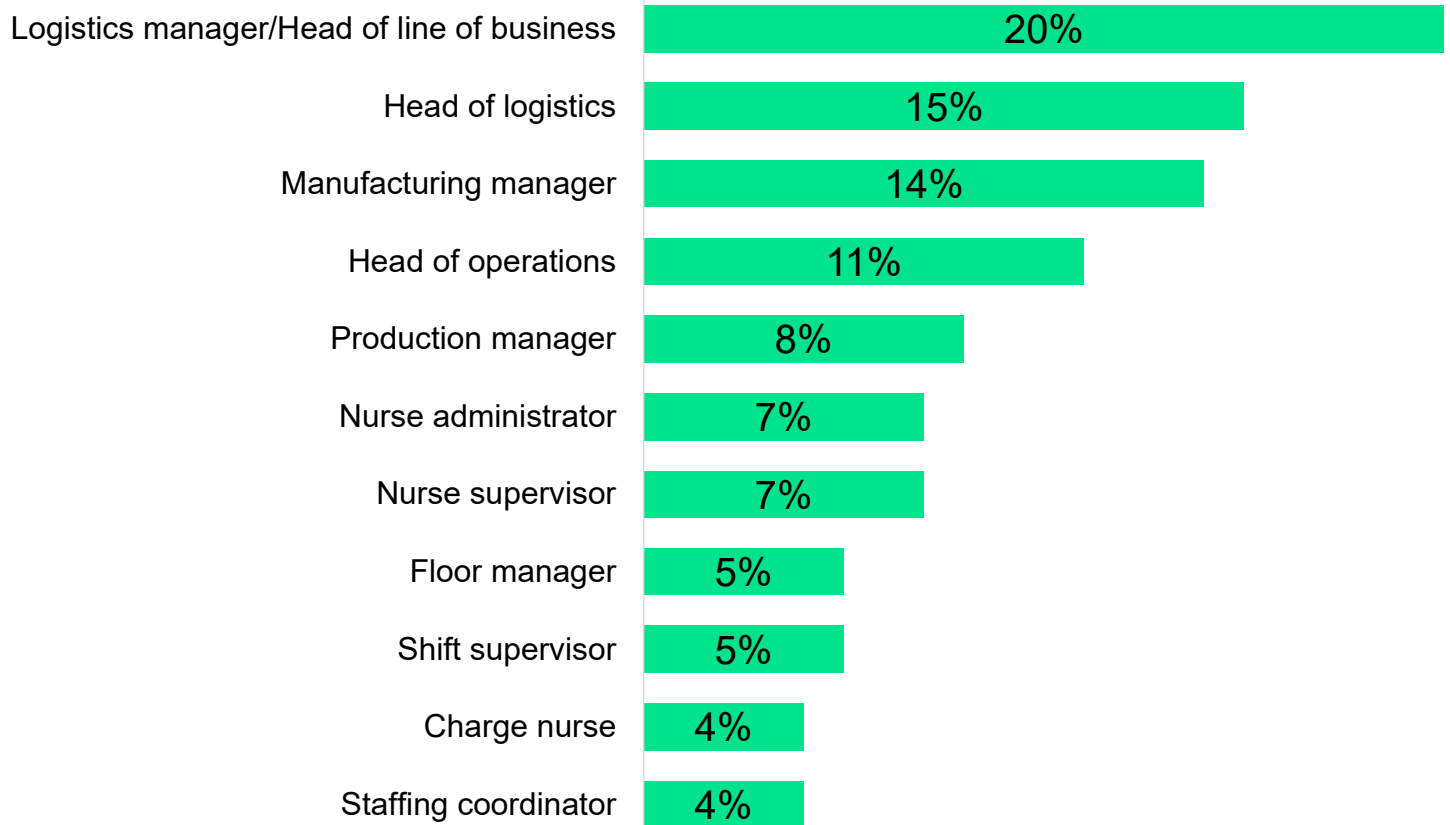
Bios

Mrinal Rai — Assistant Director and Principal Analyst, ISG

Mrinal Rai is an Assistant Director and Principal Analyst at ISG and leads research for the future of work and enterprise customer experience with technology. His expertise is in the digital workplace, emerging technologies and the global IT outsourcing industry. He covers key areas around the Modern Workplace, End-User Computing, Unified Communications as a Service and Productivity Collaboration technologies. Mrinal works with ISG advisors and clients in engagements related to the digital workplace, unified communications and service desk. He also leads the ISG Star of Excellence™ program that tracks and studies enterprise customer experience with their ITO and BPO service providers. He authors multiple blogs and the ISG enterprise CX Insights reports. He is also the ISG's official media spokesperson in India. He has been with ISG for 11+ years and has close to 17 years of industry experience.

Co-author

Tanya Varshney — Research Analyst, ISG

Tanya is a Research Analyst who specializes in cross-vertical research, with a focus on disruptive innovations and convergence technologies within the retail, banking and healthcare verticals. Tanya has over 4 years of experience in the technology research industry and in her prior role, she carried out research delivery for both primary and secondary research capabilities dedicated to AI and analytics. At ISG, Tanya is a member of ISG's Custom Research team where she actively contributes to a diverse portfolio of custom engagements and projects. She is responsible for the Digital Innovator Series, dedicated to analyzing, evaluating, and assessing lesser-known digital innovators across various industries.

Data Analyst

Tishya Selvaraj — Data Analyst, ISG

Tishya serves as an accomplished analytical professional at ISG actively contributing to ISG Provider Lens™ studies in areas such as Mainframes, Automation, Future of Work Services & Solutions, and more. Her global role involves providing vital support to lead analysts in the analytical process. Additionally, she works on custom research analysis for our clients worldwide. Having significant expertise in programming languages, visualization tools, and other market research instruments, she has authored focal points reports unveiling critical market trends and insights. Prior to her current role, Tishya played an integral part in Database Management, ML model building, and product analytics, focusing on customer-centric approach, success metrics, KPIs, product strategies, and GTM strategies demonstrating agility in providing novel and inventive solutions to intricate business challenges.

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