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THE STATE OF CONNECTED OPERATIONS

Building for the Next Generation: Workforce Trends in Physical Operations





Physical operations are experiencing a major shift, with nearly half of core workforce skills expected to change by 2027.

The global driver shortage is expected to intensify—with over 7 million positions projected to be unfilled by 2028. The workforce is also aging, with 24.3% of transportation workers over age 55 and only 12% under age 25. These changes, driven by shifting workforce trends, bring both challenges and opportunities for the industries that power over 40% of the global economy—including transportation and logistics, construction, manufacturing, utilities, state and local government, and more.

For leaders, staying ahead of these evolving workforce trends is key to keeping a competitive edge and building stronger, more resilient organizations.

This report shares results from a survey of more than 1,550 leaders in physical operations across 21 industries in 7 countries, uncovering key trends shaping today's workforce. Read on to discover how technology is revolutionizing workforce safety, security, and efficiency while delivering massive ROI. You'll also find firsthand insights into the trends and technologies making physical operations more desirable to a new generation of workers.

1.5K+

leaders in physical operations surveyed

725K+

vehicles and assets under management

5.5M+


employees across the globe


KEY TAKEAWAY #1


Workers are eager for greater investment in safety and security.

71% of leaders frequently hear feedback from their workforce about the need for greater investments in safety and security.

Top 3 safety and security improvements workers are requesting:

 **44%**
Improved emergency response protocols

 **41%**
Enhanced personal protective equipment (PPE)

 **40%**
Better tools to locate and recover stolen or lost equipment

[READ MORE ON PAGE 4 →](#)

KEY TAKEAWAY #2

Technologies that improve workforce safety, security, and efficiency deliver massive ROI.

80% say their organization has saved \$500K+ as a result of technologies that protect workers from false claims and not-at-fault incidents.

Top 3 safety and security improvements workers are requesting:

- #1** Enhanced worker safety
- #2** Improved compliance
- #3** Increased operational efficiency




[READ MORE ON PAGE 6 →](#)

KEY TAKEAWAY #3

Leaders are successfully using technology to attract and retain the next generation of workers.

85% of leaders in physical operations agree that their industry is becoming more desirable to young people.

Top 3 technologies driving this change:

-  Cameras that protect employees from not-at-fault incidents and false claims
-  Automation or robotics that protects workers from dangerous activities
-  Performance scorecards or personalized scores based on safety or efficiency data

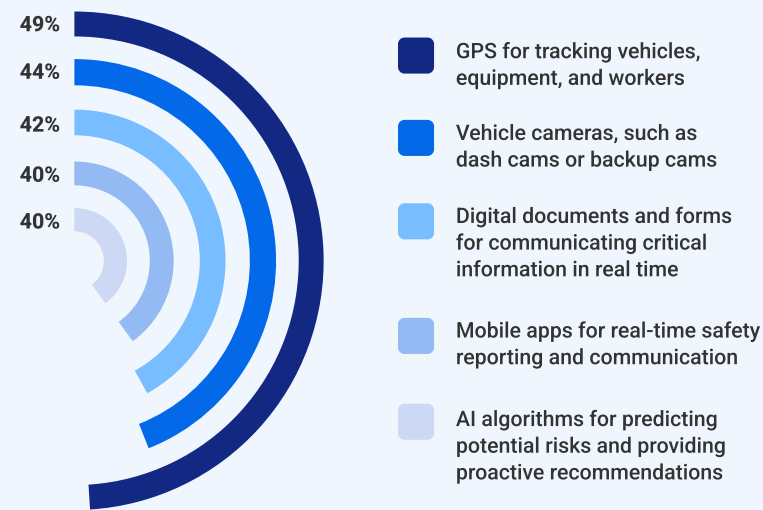
[READ MORE ON PAGE 9 →](#)

WORKFORCE EXPECTATIONS

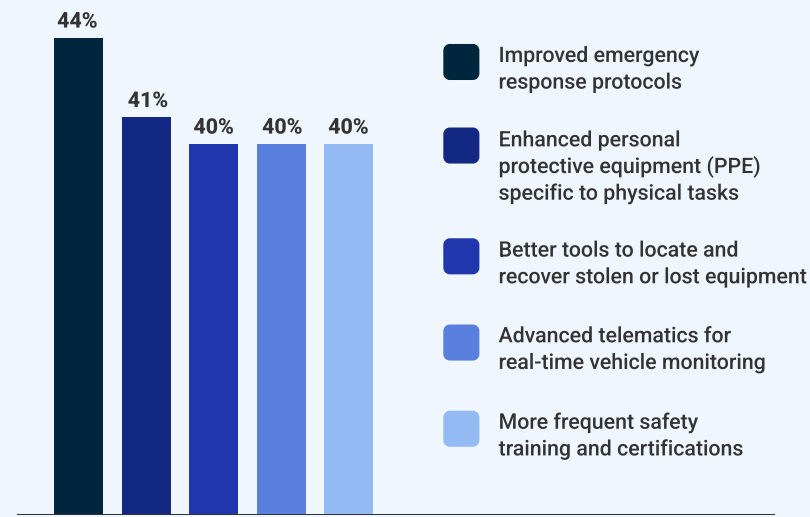
Workers want to know they're safe on the job: 71% of leaders frequently hear feedback from their workforce about the need for greater investment in their safety or security.

Nearly half of organizations are already using table-stakes technology—telematics and vehicle cameras—to ensure workforce safety and security. But employees want more investment in technology that can help them respond during emergencies, locate stolen or lost equipment, and communicate in real time.

Top 5 technologies organizations are currently using to ensure workforce safety and security:



Top 5 types of safety and security investments workers are requesting:



“The buy-in [on dash cams] from our operators has been a huge win. What was once looked at as ‘big brother’ is long gone. Employees are regularly giving feedback and asking for certain dates and times to be reviewed.”



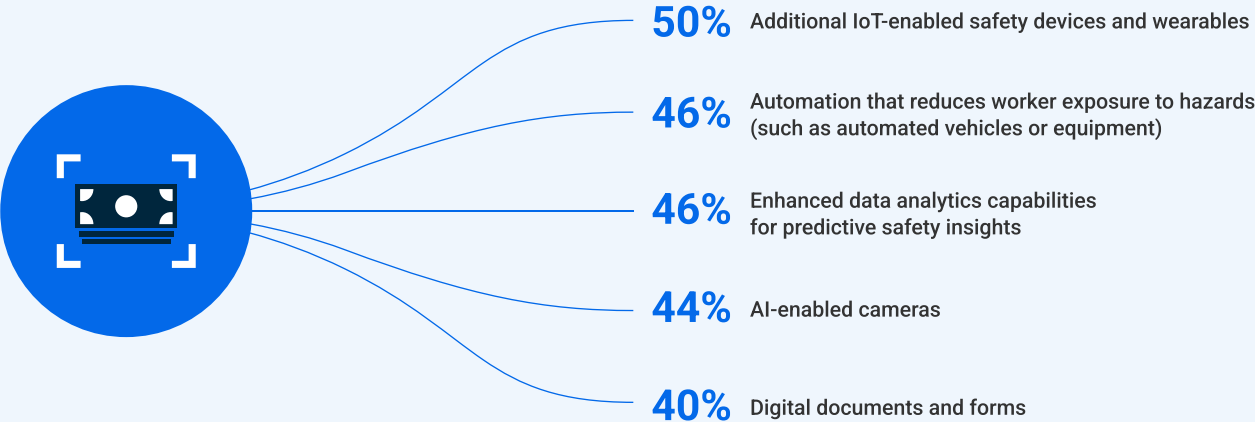
RUSTY MCCLAIN
Assistant General Superintendent,
Road Commission of Kalamazoo County

WHERE LEADERS ARE INVESTING

Leaders are listening: In the next 5 years, 99% plan to invest more in technology that improves workforce safety and security.

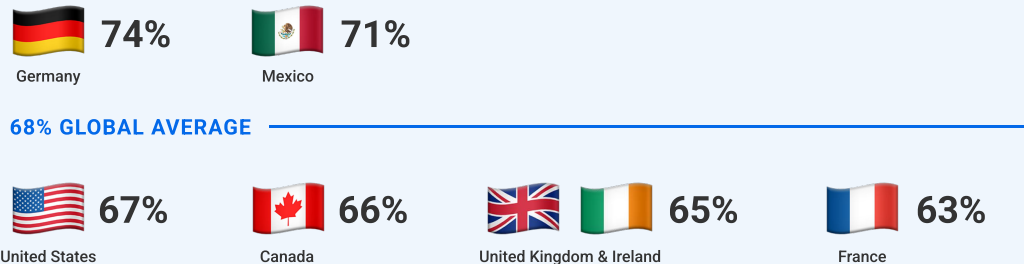
More than half (68%) say they will invest a moderate or significant amount, versus just 31% who plan to invest a small amount. Only 1% say no additional investment is needed.

Top 5 technologies leaders plan to invest in to improve workforce safety and security in the next 5 years:



Leaders in Germany and Mexico are particularly enthusiastic. 74% of leaders in Germany and 71% of leaders in Mexico say they plan to invest a moderate or significant amount in the next 5 years.

Organizations that plan to invest a moderate or significant amount in technology to improve workforce safety and security in the next 5 years:

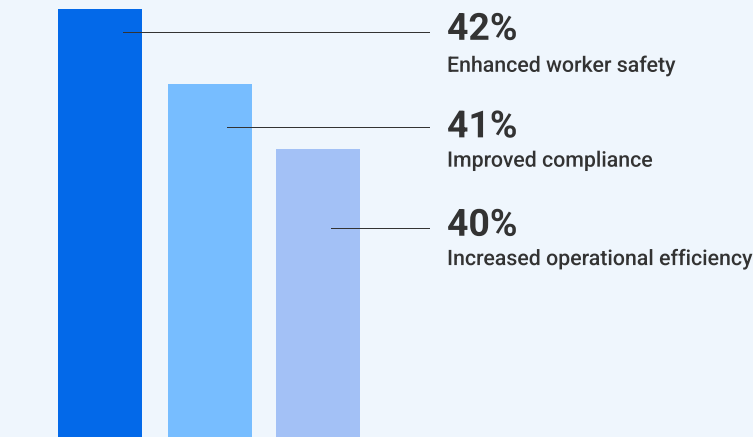


ROI OF SAFETY & SECURITY TECH

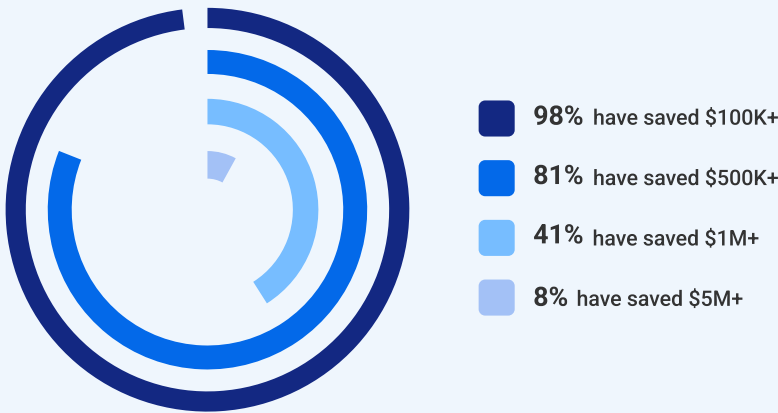
Investments in workforce safety and security are paying off in big ways.

Technologies that improve workforce safety and security—such as cameras, digital documents, and apps for real-time communication—are delivering clear ROI, both in terms of operational improvements and monetary savings. 41% of leaders say their organization has saved \$1 million or more as a result of implementing these technologies, a win-win for organizations and employees.

Top 3 areas where leaders have seen the biggest impact from investments in safety and security technology:



This is translating to big savings. As a result of implementing technologies designed to improve workforce safety and security, 81% say their organization has saved \$500K or more.



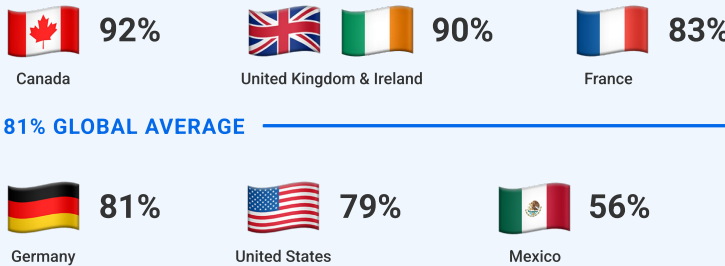
“I fully believe the reason we have fewer accidents today is the integration of the camera system and technology that notifies our employees when the vehicle becomes exposed to various on-road hazards.”



TROY WAGNER
Vice President of Safety, Maxim Crane Works

Organizations in Canada and the UK & Ireland are seeing even greater ROI. 92% of leaders in Canada and 90% in the UK & Ireland say their organization has saved \$500K+, compared to the 81% global average.

Organizations that report saving \$500K+ as a result of implementing technologies designed to improve workforce safety and security:



PROTECTING WORKERS PAYS OFF

Technology that protects employees from false claims and not-at-fault incidents delivers huge ROI.

Protecting workers has a positive ripple effect. One of the biggest areas where organizations are seeing ROI is technology such as cameras that exonerate employees from false claims and not-at-fault incidents. This has a direct financial benefit, reducing both liability costs and the potential for costly legal disputes.

100% of organizations are using some form of technology to protect their workers from false claims.

 52%

Cameras installed in buildings or on job sites

 52%

Cameras installed in or on vehicles

 49%

Telematics systems that provide real-time vehicle or equipment data

 40%

Digital documents or forms

 36%

Other IoT sensors, such as wearable devices

As a result, 50% say they have enhanced reputation and trust with their clients or community. Many also report increased employee morale, improved productivity, and lower turnover.

50%

Enhanced reputation and trust with clients/the community

49%

Increased employee satisfaction and morale

36%

Lowered employee turnover

47%

Improved employee productivity

36%

Reduced insurance premiums

33%

Decreased litigation costs



"Leaders are always trying to find ways to improve customer satisfaction. In my experience, starting with the stakeholders that are closest to your customers—your frontline employees—is the best place to start. With these best practices, you can empower your teams to make lasting improvements to customer support that truly raise the bar."



JOSEPH SMITH

Vice President of Customer Support Services,
GardaWorld Security Services US

Bottom lines are benefitting. As a result of implementing technologies designed to protect workers from false claims and not-at-fault incidents, 80% say their organization has saved \$500K or more.



97% have saved \$100K+

80% have saved \$500K+

27% have saved \$1M+

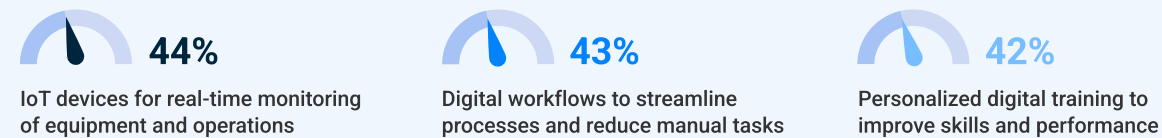
5% have saved \$5M+

UNLOCKING PEAK PERFORMANCE

Operations leaders see new technology as a game-changer for boosting productivity and increasing efficiency.

Beyond safety and security, leaders are focusing on technologies that provide real-time insights and streamline processes. 44% are interested in IoT devices for real-time equipment and operations monitoring, enabling quick issue resolution and smoother workflows.

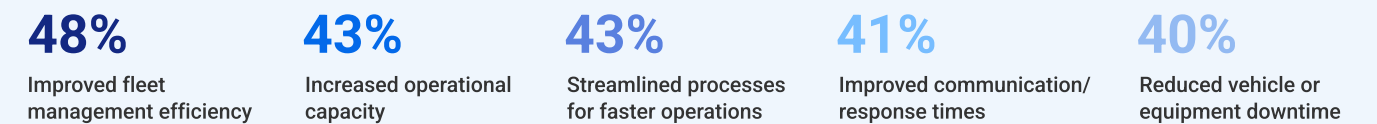
Top 3 technologies leaders believe will increase workforce productivity and efficiency:



99% say their workforce's time has been freed up by recent technology improvements. As a result, they are able to reallocate workers' time to other high-value areas, including:



Top 5 ways leaders predict these technologies will increase workforce productivity and efficiency over the next 5 years:



Leaders in this space are already reaping the benefits. As a result of implementing technologies designed to improve workforce productivity and efficiency, 78% say their organization has saved \$500k or more.

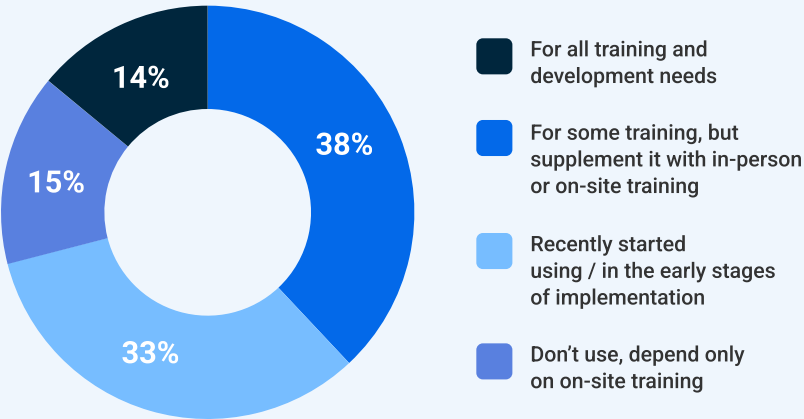


SHIFT TO DIGITAL TRAINING

Learning management systems (LMS) and e-learning platforms have a major impact on retention, leaders say.

A growing number of organizations are turning to e-learning platforms and LMS to train and develop employees, with 85% already using these digital solutions. The #1 improvement leaders say they've seen as a result is improved employee retention. Only 15% still rely solely on onsite training.

85% of organizations are already using an e-learning platform or LMS to make training more frequent, consistent, and accessible—indicating a shift towards tech-first training.



KEY TAKEAWAY #3

Of those currently using an e-learning platform, 100% say they have seen improvements as a result. Top 4 areas of improvement:



“With [technology], we've raised the bar for coaching. We drive positive behaviors with recognition and rewards, and address undesired behaviors immediately with more training, rather than being punitive.”



MARK LUDEWIG
Vice President of Safety, AWP Safety

Coaching and skill assessment are becoming more tech-forward — though it's still early days. Currently, the most common methods for ongoing coaching and skill development among those currently using an e-learning platform are:



THE STATE OF CONNECTED OPERATIONS

RECRUITING & RETAINING THE NEXT GENERATION

85% of leaders in physical operations agree that their industry is becoming more desirable to young workers.

Organizations that embrace new technology—particularly technology that protects workers from false claims and dangerous activities—are seeing a positive impact on recruitment and retention of young workers. This reflects the next generation's comfort with technology and their expectation for it to be part of daily life, both on and off the job.



“It’s fair to say that working in the tyre industry means that we were not always at the forefront of technology. But all that’s changing. We have a young workforce and tech—any tech—is second nature to them. When we introduce something new, they pick it up really quickly. They don’t need to be shown what to do.”



JOHN KINGMAN
Chief Technology Officer, Group Tyre

What technologies have been most impactful in this shift?

Competitive benefits—including pay—remains one of the most influential levers in recruiting and retaining younger workers, but leaders report that certain technologies are also having a big impact:

Cameras—which are sometimes associated with employee pushback and privacy concerns—were the #1 technology leaders cited as helping with recruitment and retention due to their ability to protect employees from not-at-fault incidents and false claims.

Automation and robotics that protect workers from dangerous activities followed as a close #2. This indicates that young workers want on-the-job protection and are comfortable with the use of technology to increase their safety.

Personalized performance scores based on safety or efficiency data have also been particularly helpful, indicating young workers’ eagerness for personalized feedback and being recognized in the workplace.

Technologies that have positively impacted organizations’ ability to recruit and retain younger workers:



Cameras that protect employees from not-at-fault incidents and false claims



Automation or robotics that protects workers from dangerous activities



Performance scorecards or personalized scores based on safety or efficiency data



Wellbeing tools that provide check-ins or capture employee feedback



Data-based incentives and rewards, such as monetary bonuses or gift cards



A solution that digitizes formerly paper-based workflows, such as checklists or documents



Telematics system that increases efficiency and saves employees’ time



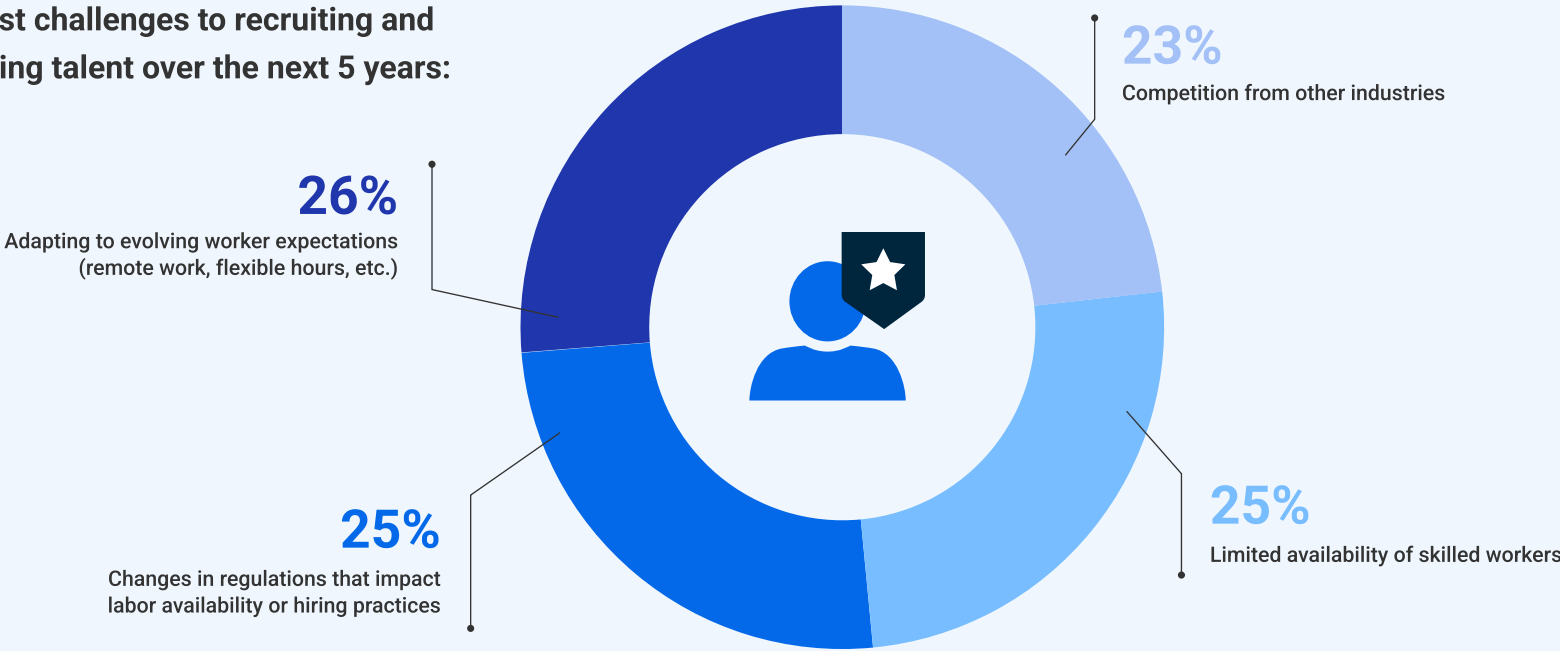
Virtual coaching tools that provide feedback

LOOKING AHEAD

To stay competitive, leaders must take a holistic approach to recruiting and retaining talent over the next 5 years.

Leaders are evenly split on what they foresee as the biggest challenge to recruiting and retaining talent over the next 5 years, indicating that there’s no silver bullet; leaders need to take a comprehensive, multi-faceted approach.

Biggest challenges to recruiting and retaining talent over the next 5 years:



“Recruiting and retaining drivers—and keeping them safe as they do their runs—are critical to the industry’s future. By building trust, championing safety, and celebrating excellence, we can create an environment where drivers don’t just work, they thrive.”



TRACY RUSHING
Executive Director of Safety & Recruiting,
R.E. Garrison Trucking

As employee expectations change, organizations must adapt to compete for talent.

To address these challenges, leaders need to invest in a range of strategies, from offering **competitive benefits** and growth opportunities to investing in **upskilling and reskilling**.

By adapting to employees’ evolving expectations, organizations can build a more resilient approach to talent management.

TURN INSIGHTS INTO ACTION

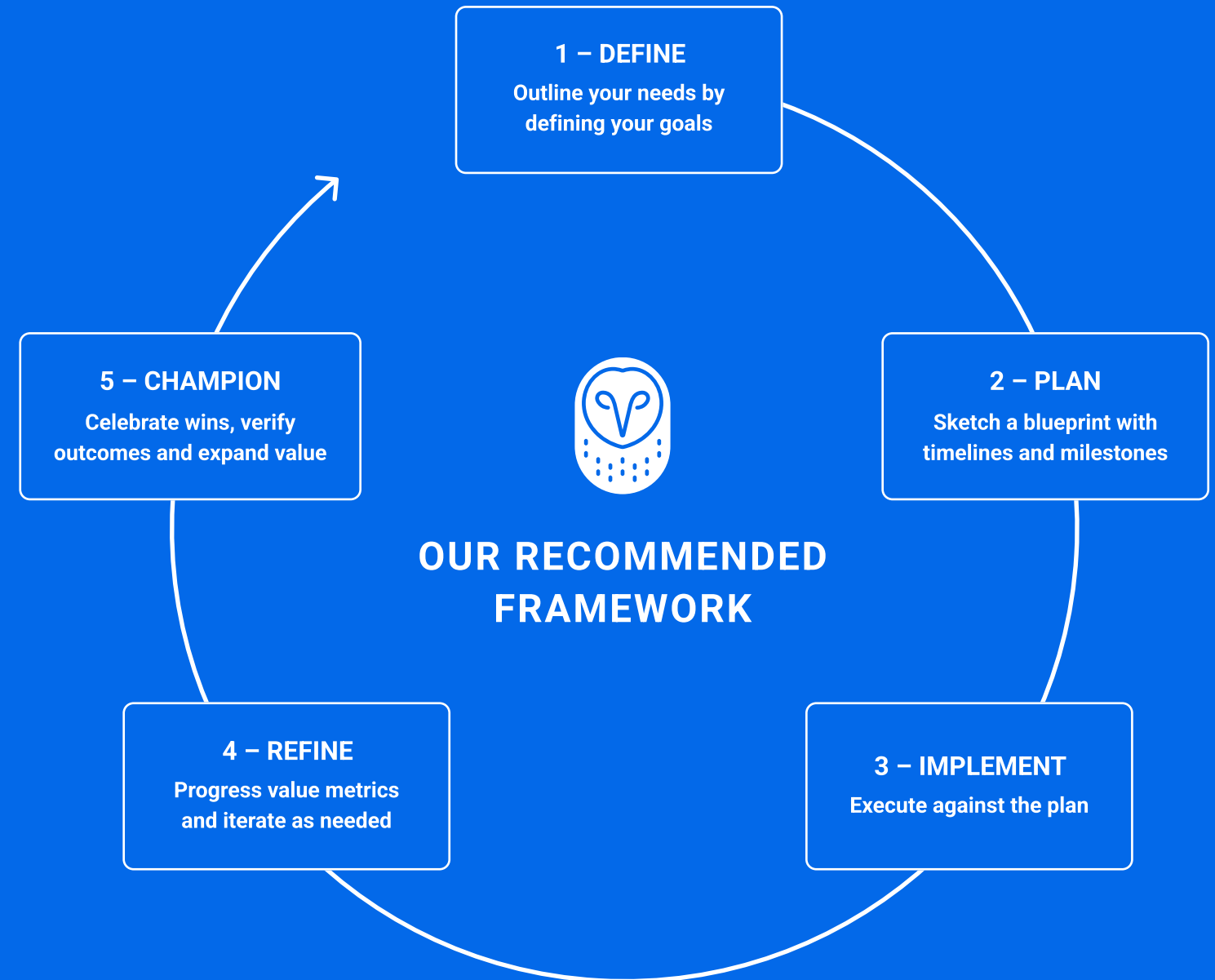
Preparing your workforce for new technology: Samsara's change management framework

Your organization's ability to adopt new technology quickly and effectively can determine whether you lead the way or fall behind the competition—but change management can be tricky, especially at scale.

Samsara's recommended framework for change management covers five key stages. Every successful program launch or iteration on an existing program combines the same five stages.

To learn more about this approach and hear from a leader who managed a successful rollout, watch our on-demand [webinar](#) on achieving effective change management at scale.

Scan the QR code or visit bit.ly/change-management-webinar





Methodology

This survey was conducted by an independent research firm, Wakefield Research, between October 24 and November 4, 2024. 1,550 operations leaders were surveyed across seven countries: the United States, Mexico, the United Kingdom, Ireland, France, Germany, and Canada. This survey consisted of 20 questions and was conducted online, in either the English language or translated into a local language across markets. Global results have been aggregated across all responses to provide an average.

The respondents were leaders with a minimum seniority of director at organizations with 500 or more employees and 150 or more owned or leased vehicles, powered assets, and/or unpowered assets. Respondents worked in the following industries and had responsibility in one or more of the business areas listed below:

- **Industries:** Building & facility management, chemical, construction, field services, food & beverage, logistics, manufacturing, mining & extraction, moving & storage, oil & gas, retail, telecommunications, transportation, utilities & energy, warehousing, waste management, wholesale, or public sector.
- **Responsibilities (one or more):** Compliance, field service management, fleet management, IT/technology/data, logistics, maintenance, operations, safety/health/environment, security, and/or service operations.

The survey included an oversample to increase the total number of U.S. public sector respondents to 250, and the addition of the following qualifying titles for U.S. public sector respondents: Administrator, City/County Manager/Executive, Director, Elected Official (e.g., Mayor, Supervisor, Councilman, etc.), Safety/Risk Management.

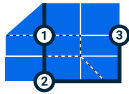
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About Samsara

Samsara (NYSE: IOT) is the pioneer of the Connected Operations® Cloud, which is a platform that enables organizations that depend on physical operations to harness Internet of Things (IoT) data to develop actionable insights and improve their operations. With tens of thousands of customers across North America and Europe, Samsara is a proud technology partner to the people who keep our global economy running, including the world's leading organizations across construction, transportation and warehousing, field services, manufacturing, retail, logistics, and the public sector. The company's mission is to increase the safety, efficiency, and sustainability of the operations that power the global economy.

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*Samsara has partnered with customers to help prevent an estimated 200,000+ crashes (October 2022 - October 2023) and save ~2.3 billion pounds of carbon emissions from entering the atmosphere (estimate based on year-over-year reduction in idling rates per monthly available hours for cohort of 2,500+ Samsara customers observed during Q1-Q3 CY22).



220B+

customer miles traveled



3B

Pounds of CO2 reduced annually



200K+

accidents prevented annually with help from Samsara



>8X ROI

\$2M+ annual savings on average for customers





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