



Google Workspace

Google Workspace for manufacturing

Increasing productivity,
collaboration, and connection
for the next generation of workers



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Executive summary

The manufacturing industry is evolving. Fast. Communication and collaboration tools have become essential for improving operations, recruiting the next generation of workers, providing a positive customer experience, and staying competitive.

Google Workspace makes it simple for your entire workforce to securely connect with each other, their managers, and your organization – across apps, devices, back offices, and the frontline. And by providing a single communication and collaboration platform for the entire team, you can help every employee feel valued and connected to the company mission.

Its integrated tools can also be used to modernize and automate workflows such as inventory management and equipment tracking – helping to eliminate paper-based processes. Digitizing operations with Google Workspace provides the data needed for real-time tracking and visibility to improve decision making, productivity, quality, and security.

Read this guide to learn more about how Google Workspace can help you innovate operations, attract and retain top talent, and keep your business ahead of the curve.



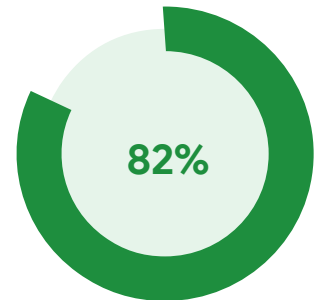
Driving digital and cultural transformation

Equip your teams with the tools for success

With rising transportation costs, increasing competition, and shifting demand, manufacturers are under pressure to find ways to increase productivity and improve their operations while minimizing disruption. Additionally, ongoing labor challenges that have impacted the industry since before the pandemic are forecasted to continue over the next several years.¹ With the wave of retirees currently exiting the industry – coined the “Great Crew Change” – it’s not surprising that attracting and retaining frontline employees is a top focus for 83% of manufacturers.²

Digital transformation initiatives can help manufacturers increase productivity and lower costs. However, implementing new technology will be most successful when you also drive a cultural transformation across your organization that extends down to the level of the individual employee. Equipping your teams with the right tools to create, connect, and collaborate will help you enable and retain a high-performing workforce.

Google Workspace is familiar and intuitive, and an effective solution for organizations that want their employees to start using digital tools with little to no training. Fifty percent of organizations that switched to Google Workspace said their teams felt comfortable using the platform in less than a month.³ In addition to fast adoption, Google Workspace also provides significant cost savings. A recent study found that teams that switched to Google Workspace saw an average efficiency gain of approximately 38% by consolidating platform management costs.⁴

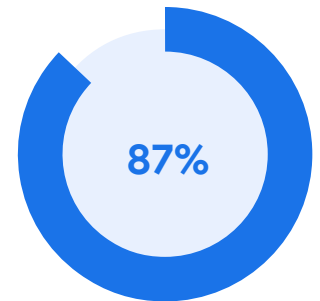


of organizations that switched to Google Workspace report their teams have become more innovative.³

Over 8 million organizations and more than 3 billion users across the globe rely on Google Workspace, which includes popular apps such as **Gmail**, **Google Docs**, **Google Sheets**, and **Google Slides**, as well as **Google Drive** for secure file storage, **Google Meet** for safe video calling, **Google Forms** for surveys, and **Google Classroom** – an online platform for training and upskilling employees. For creating custom apps and automations, no-code platform **AppSheet** digitizes manual processes and automates workflows.

Google Workspace provides enterprise-grade security across devices, including support for secure email and data access from employee’s personal devices. Our growing suite of APIs also provides seamless integration with existing software, including SAP, Salesforce, Siebel, PeopleSoft, NetSuite, and more.

Google Workspace can help modernize the factory worker experience, empower your employees to make more data-driven decisions, and unlock collaboration across teams and locations.



of leaders say their organization will be more successful when frontline workers are empowered to make decisions in the moment.⁵



Modernizing the factory worker experience

Improving employee engagement, training, and upskilling

Traditionally, most factory workers and other "deskless" employees were not given company email addresses or software licenses for productivity and collaboration tools, seeing as they spend a large portion of their time away from computers. However, these days almost all workers can access their phones and other devices throughout the day. This makes everyone – including those in manual labor roles – "information workers."

When your factory workers are equipped with the right devices and apps, they can collect valuable data and make informed decisions. In fact, 87% of leaders say their organization will be more successful when frontline workers are empowered to make decisions in the moment.⁵ Equipping factory workers with the right tools can have multiple positive outcomes.



60%

of deskless workers are unsatisfied with their employer-provided technology.⁶

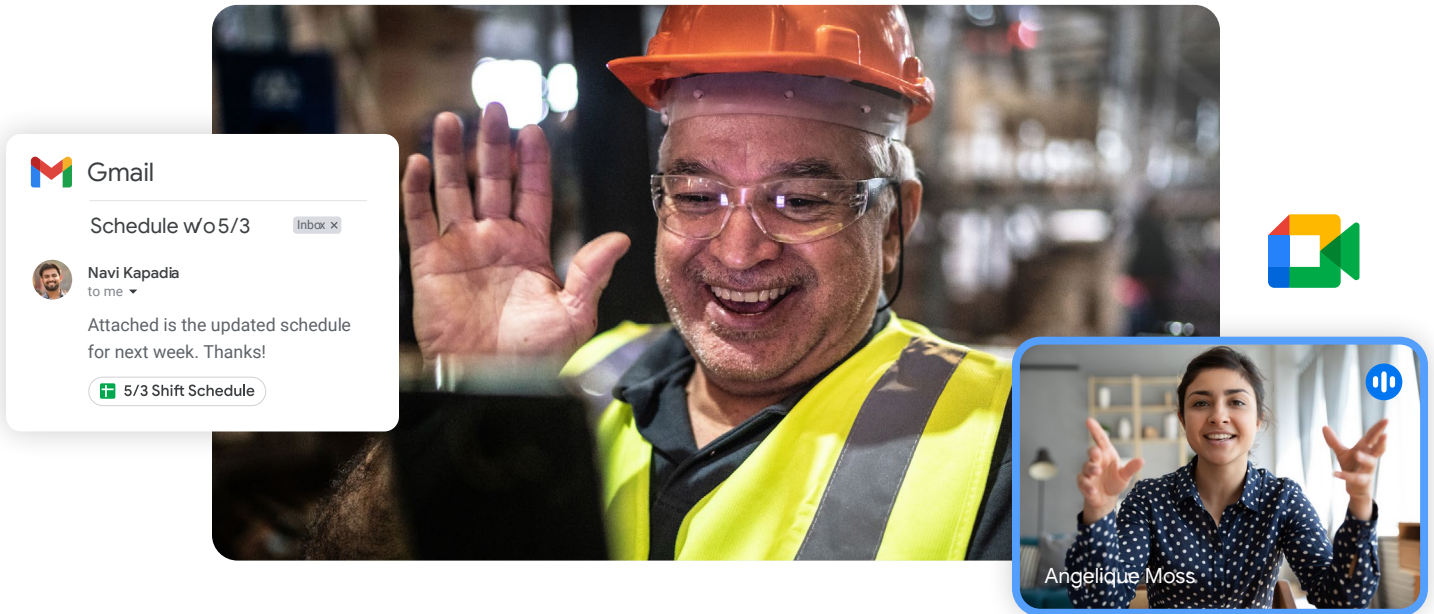
"We need to empower employees to get the information they need, when they need it, on any device. Google Workspace makes that happen."

— **Manesh Patel**, CIO, Sanmina

Sanmina is a Fortune 500 electronics manufacturer with operations in 20 countries and approximately 35,000 employees.




SANMINA




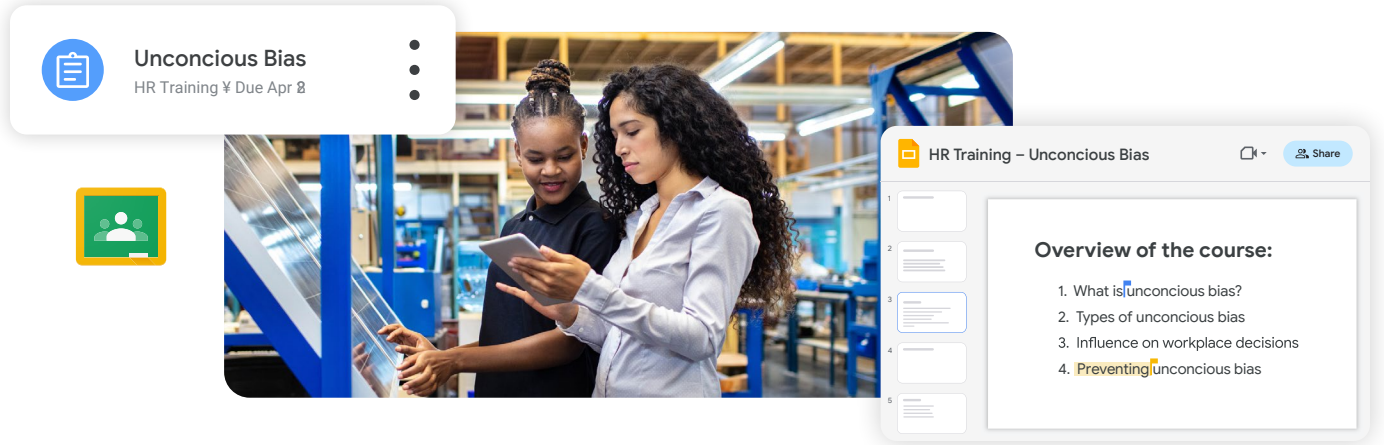
Create a more collaborative culture and more engaged employees

The fact that “deskless” workers often feel more disconnected from company headquarters than their office-based colleagues can be costly, as research indicates it may lead to higher employee turnover. Seventy-nine percent of employees who feel supported and valued have no intention of leaving their employer.⁷

Providing employees with a corporate email account and access to organization-wide meetings over video conferencing not only builds connection with your employees, it also streamlines communication that has traditionally been done in person, over the phone, or via fax.

- 
Gmail allows employees to receive secure company communications so they can stay informed and easily access important documents sent by management or HR from any device. Built-in safety features help keep users and data safe from cyber-security threats, and when an employee leaves the company, IT can immediately revoke access to protect company data.

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Google Meet video conferencing allows managers to host team meetings virtually, enabling you to conduct company-wide and department-wide meetings without a large physical space. Employees can securely join from their mobile phone or computer wherever they are, regardless of their shift. Including all workers in company-wide emails and meetings can build greater connection to the company mission, improve morale, increase collaboration across sites, and reduce employee turnover rates.





Support career growth and increase productivity with training


Manufacturing companies, particularly those with manual labor workers, are increasingly competing with organizations from other industries for skilled labor.² And with the "Great Crew Change," they are facing unprecedented pressure to hire and train new talent.

Google Workspace provides a more modern and efficient way of working that is preferred by the next generation of manufacturing employees. A recent survey found that 75% of recent college graduates prefer working in Google Workspace because they feel it offers a more advanced, seamless way for teams to work together.⁸

The people who select and buy technology are also changing. Over 50% of today's IT decision makers were born after 1980,⁹ and they are increasingly choosing Google as their innovation partner for digital transformation within their organizations.

 **Google Classroom** offers an online training platform that allows employees to learn at their own pace and on their own time. Unlike in-person training, **Classroom** allows employees to pause, go back, and retake the training as frequently as they'd like. The platform also provides managers with the ability to assign and track progress against learning goals on both an individual and organizational level.

 **Google Workspace** has a **cloud-native, zero trust architecture** as well as built-in identity, access, and endpoint management capabilities that make it easy for IT teams to securely configure personal and company-issued devices. With Google Workspace, new employees can use their personal devices for work from day one.

 **Google Drive** helps your teams keep documents organized and secure. New employees are able to meet compliance requirements and easily upload required documents before they start. This paperwork can be uploaded and digitally organized in a secure location rather than relying on physical forms.

Thriving in the new era of hybrid work and AI

Collaborate seamlessly across time zones and locations

The transition to hybrid work models has been a once-in-a-generation shift for millions of organizations around the world. Companies need to provide their teams with the flexibility to connect, collaborate, and get things done from anywhere, at any time.

Google Workspace is a cloud-first solution designed for highly distributed ways of working. Bridging communication and collaboration across email, documents, and communication tools enables fluid, asynchronous workflows and seamless collaboration. It's a fundamental move away from traditional client applications where storing, uploading, and attaching documents requires strict version control.

Generative AI capabilities in Google Workspace also help teams work more productively. Like a collaborative partner, Google Workspace can generate first drafts and summaries instantly, as well as make suggestions as users continue to refine and edit their work, helping them get to a finished email, document, or presentation faster.



75%

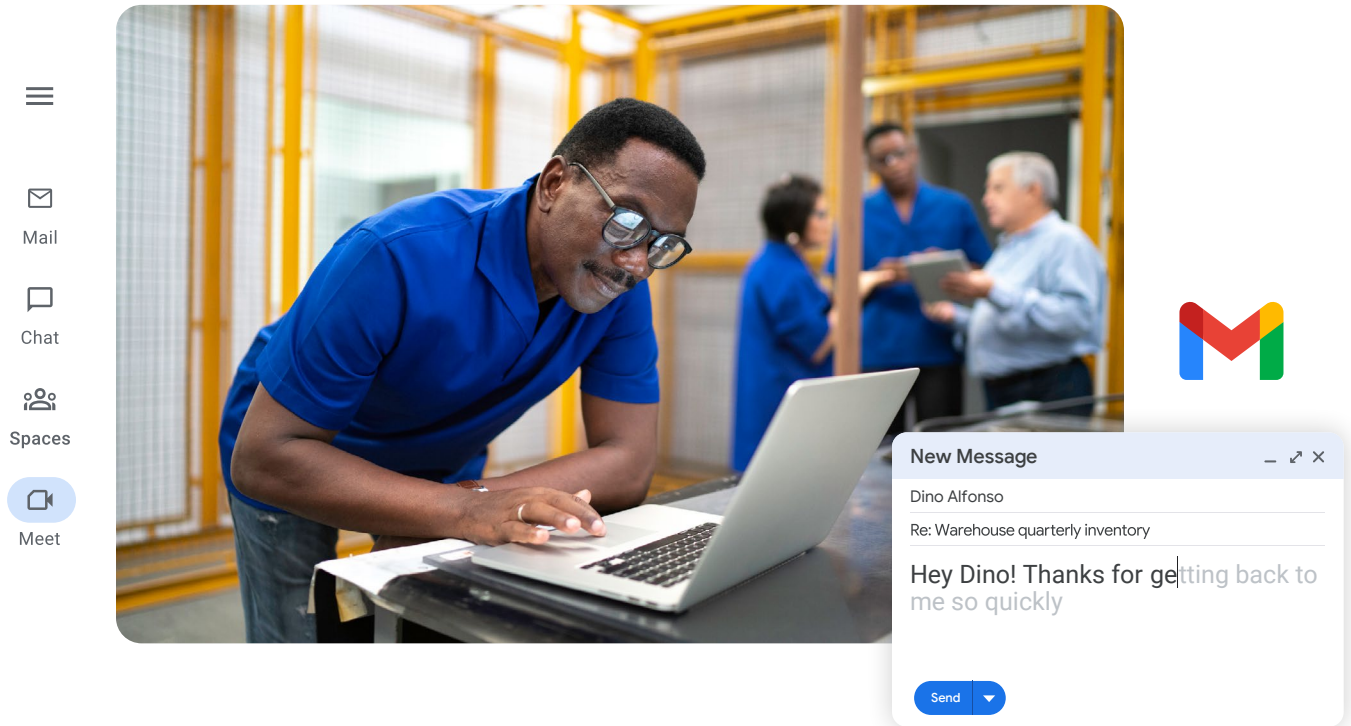
of recent college graduates prefer working in Google Workspace because it offers a more advanced, seamless way for teams to work together.⁸

“We were deeply impressed with how quickly our employees got used to Google Workspace. It’s not only improved collaboration internally, the ease of use has also made it easier to work with external partners and customers and foster closer relationships with them.”

— **Christian Schiffner**, Systems Manager, Kaeser Compressors


Kaeser Compressors is a manufacturer of compressed air products with approximately 7,000 employees around the world.







Supercharge productivity with helpful communication and collaboration tools

Google Workspace makes it easy for team members to collaborate whether they're working across the table or across multiple time zones. And with uninterrupted workflows, employees can work efficiently and effectively.

 **Google Meet** fosters more human connection, with features such as **real-time transcription** that enables every team member to be seen and heard, regardless of their location, language preference, or visual capabilities.

 **Google Chat** helps teams communicate more effectively and connect more meaningfully. You can set up dedicated spaces inside **Chat** to centralize communication for specific teams and locations, helping team members access important information and build stronger bonds with their colleagues and managers.

 **Gmail, Google Docs, and Google Chat** offer AI-powered writing features such as **Smart Compose** and **auto-generated summaries** to help users get to work faster. Google Workspace also uses AI to automatically improve the video quality in **Google Meet**.

Make data-driven decisions by digitizing manual processes

Increase employee efficiency by streamlining workflows

Eighty-three percent of frontline manufacturing workers still rely on paper to follow work instructions and track their work.¹ Paper-based processes are more prone to human error, inhibit efficiency and transparency, and can pose security risks if the paper is misplaced or lost. Paper-based documentation is also less sustainable and makes it difficult to quickly track down information.

Minimizing paper-based processes, and digitizing workflows is an initiative that many companies have adopted to increase efficiency. Digital access to operational data can unlock valuable insights, inform business decisions, and empower employees to make better decisions in the moment.



83%

of frontline workers still use paper to follow work instructions and/or track their work.¹

“Operations teams in Thailand and Toronto started using Google Workspace to look at metrics on a daily basis and provide real-time visibility into each other’s operations to make sure we’re meeting our customer scorecard metrics. We went from weekly updates to daily updates.”


— **Paul Stanners**, Director, Digital Transformation Program, Celestica


Celestica is a multinational manufacturing and design company with approximately 24,000 employees worldwide.



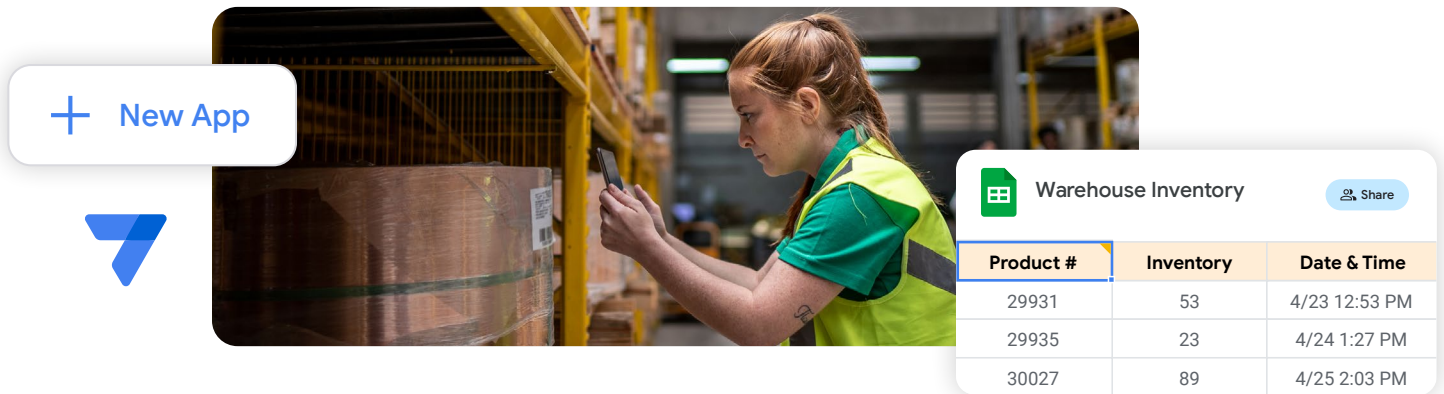


Streamline document-based workflows

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Google Docs is cloud-based, enabling seamless version control. Team members can work on a shared document at the same time or asynchronously, without having to create different versions. And all changes are easily tracked and managed.
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Google Drive allows document owners to easily share and revoke access, capture electronic signatures, and safely store documents in the cloud. Printing and faxing are no longer necessary as other teams and even external stakeholders can view, add comments, or edit documents from any device, with all changes tracked. Existing paper notes and documents can also be digitized using **AppSheet** and **Optical Character Recognition**.





Equip workers with the devices and apps they need to make better decisions

Enabling workers to collect and report on operational data in digital formats creates data sets that can lead to valuable business insights and inform future decisions. Companies can easily create custom apps with **AppSheet** to digitize processes across the entire manufacturing process – without the need for code or IT provisioning.

Using Google Workspace and AppSheet, you can create apps that connect to your existing ERP and line-of-business applications and automate standard manufacturing processes. For example:

- Procurement and purchase order apps
- Inventory management and order status apps
- Production and equipment tracking apps
- Digital checklist apps for quality control and equipment inspections
- Defect documentation and tracking apps, including photo capture
- Incident reporting apps for health and safety policies
- Contract management and purchase ledger apps for finance teams
- Dynamic scheduling for shift handover apps, with automatic alerts

 **AppSheet’s library of prebuilt app templates** makes creating custom apps simple. Teams can build the apps they need without coding or IT support – they simply start with an app template and customize it to fit their needs.

 **Gmail, Google Chat, and Google Drive** allow factory workers, truck drivers, and other “deskless” employees to easily communicate with their colleagues and access necessary documentation, such as product specs or SOP documents. Google Workspace apps work offline as well, so employees can still capture data in locations without Wi-Fi or a cellular connection. Once the app reconnects to a signal, it automatically syncs the stored data to its backend.

Secure communications and collaboration

Enable teams to safely connect, create, and collaborate

With Google Workspace you can feel confident that your users and data are safe everywhere work happens. Security and compliance features are built-in to every layer, so you're protected against hacks and data leaks on any device. And our tools make it easy for you to maintain control over your data with privacy and security settings that are right for you.

- **Built-in enterprise-grade access management, data protection, and device management capabilities** mean your organizational data is always protected.
- **AI-powered threat detection** and **zero trust security** protect every user, along with customer and company data, even if they use their personal device.
- **Default-on, anti-abuse measures** in **Meet** – including **anti-hijacking controls** for invites and dial-ins – secure your meetings.
- **Provisioning and revoking access** is simple with the IT admin interface.
- **Google Vault** enables companies to create a persistent record of Google Workspace data for archival and search purposes.



Did you know?

You can use Google Workspace with your existing devices, apps, and services. Our open platform has the APIs you need to integrate and build custom solutions that meet your specific needs.

Google Workspace includes the following apps:



Gmail
Network-encrypted, cloud-based email



Google Chat
A platform for 1:1 and group direct messaging



Google Meet
Enterprise-grade, secure video conferencing



Google Drive
Secure storage and access for shared files



Google Calendar
Centralized scheduling for every kind of appointment



Google Docs, Sheets, and Slides
Collaborative documents, spreadsheets, and presentations



Google Forms
Custom forms, surveys, and questionnaires



Google Sites
High-quality websites for teams, projects, and events



AppSheet
A no-code platform for building custom mobile and web apps



Google Classroom
An all-in-one place for educating and learning

Getting started

It's a critical moment for the manufacturing industry, and we're committed to helping companies like yours unlock new ways of working that prioritize the employee experience alongside business outcomes.

Organizations around the world have successfully deployed Google Workspace and have experienced significant gains in productivity. Read case studies from manufacturers such as [Airbus](#), [RZB](#), [Korean Air](#), [LafargeHolcim](#), and [Mercer International](#) to learn how they use Google Workspace in their day-to-day operations.

To learn more about how Google Workspace can benefit your team or organization, [contact sales](#) to request a demo, or [sign up for a free trial](#) today.



Top manufacturers across the globe depend on Google Workspace.



¹ "The State of the Connected Frontline Manufacturing Worker." Parsable. 2021.

² "Big Gains in Perceptions of US Manufacturing as Innovative, Critical, and High Tech." Deloitte and The Manufacturing Institute. 3/30/22.

³ "Report: Google Workspace vs. Microsoft 365: Impact on Business." Quadrant Strategies. March 2022.

⁴ "The Business Value of Google Workspace." IDC. 2022.

⁵ "The New Decision Makers: Equipping Frontline Workers for Success." Harvard Business Review. 2020.

⁶ "The State of Technology for the Deskless Workforce." Emergence. 2020.

⁷ "The future is flexible." Achievers Workforce Institute. 2023.

⁸ "The Emerging Workforce Overwhelmingly Prefers Google Cloud Productivity and Collaboration Tools over Alternatives." GlobeNewswire. 8/23/22.

⁹ "Google Workspace Global Enterprise Attitudes & Usage Survey." 2022.