

IBM Services

Building Workplace Resilience to Succeed in the Next Normal



IBM

There can be no argument that the global impact of the pandemic has been far-reaching and hard-hitting. The impact of business disruption has been dramatic and existential, particularly for those industries with a high movement of people where the cost of workplace infections is greatest, such as manufacturing, warehousing, retail, universities and the travel and transportation sectors. The disruption has been ever wide-reaching, and many organizations expect the economic fallout from the crisis to outlive the pandemic itself.

It is clear that the impact of the pandemic on workplace strategies and management will be lasting and transformative. Instead of going back to 'business as usual', real estate and HR organizations must focus their planning on success in 'the next normal'.

The crisis has strengthened the business case for digital technology that enables greater intelligence and value to be derived from data, supports near real-time decision-making and enhances transparency for all employees. Organizations are starting to leverage digital tools, IoT and edge technology to drive business resiliency and build employee confidence. While many business executives have traditionally overlooked resiliency programmes in favour of investing in efficiency initiatives that offer a clearer return on investment, resiliency is now at the top of the corporate agenda, as shock events such as lockdowns and extreme weather continue to hit businesses.

This report provides C-level decision-makers, including heads of real estate, portfolio directors, risk and HR executives, and members of cross-functional task force groups, with insight into the new solutions supporting the 'return to work agenda' and aiding the transition to new, resilient, operating models in the long term.

Reactive strategies have dominated the pandemic response

In the short term, firms have executed the necessary 'reactive' strategies to keep their doors open. Businesses implemented physical and stop-gap measures to facilitate remote working and enforce social distancing measures. These initiatives involved rolling out physical signage, leveraging on-site security personnel to enforce new social distancing controls, performing rudimentary updates to existing desk and room booking systems, and implementing contactless entry, leveraging QR codes.

Recognizing the limitations of these approaches as more employees return to the workplace, businesses are launching new strategies and technology upgrades (**Figure 1**). Organizations reliant on paper-based systems and spreadsheets are prioritizing the digitization of their data to effectively support the remote management of buildings. Firms with disparate, fragmented IT systems reliant on manual data management and analysis are working to integrate these systems and automate key processes.

What level of priority will the following initiatives have in your organisation in the next 12 months?

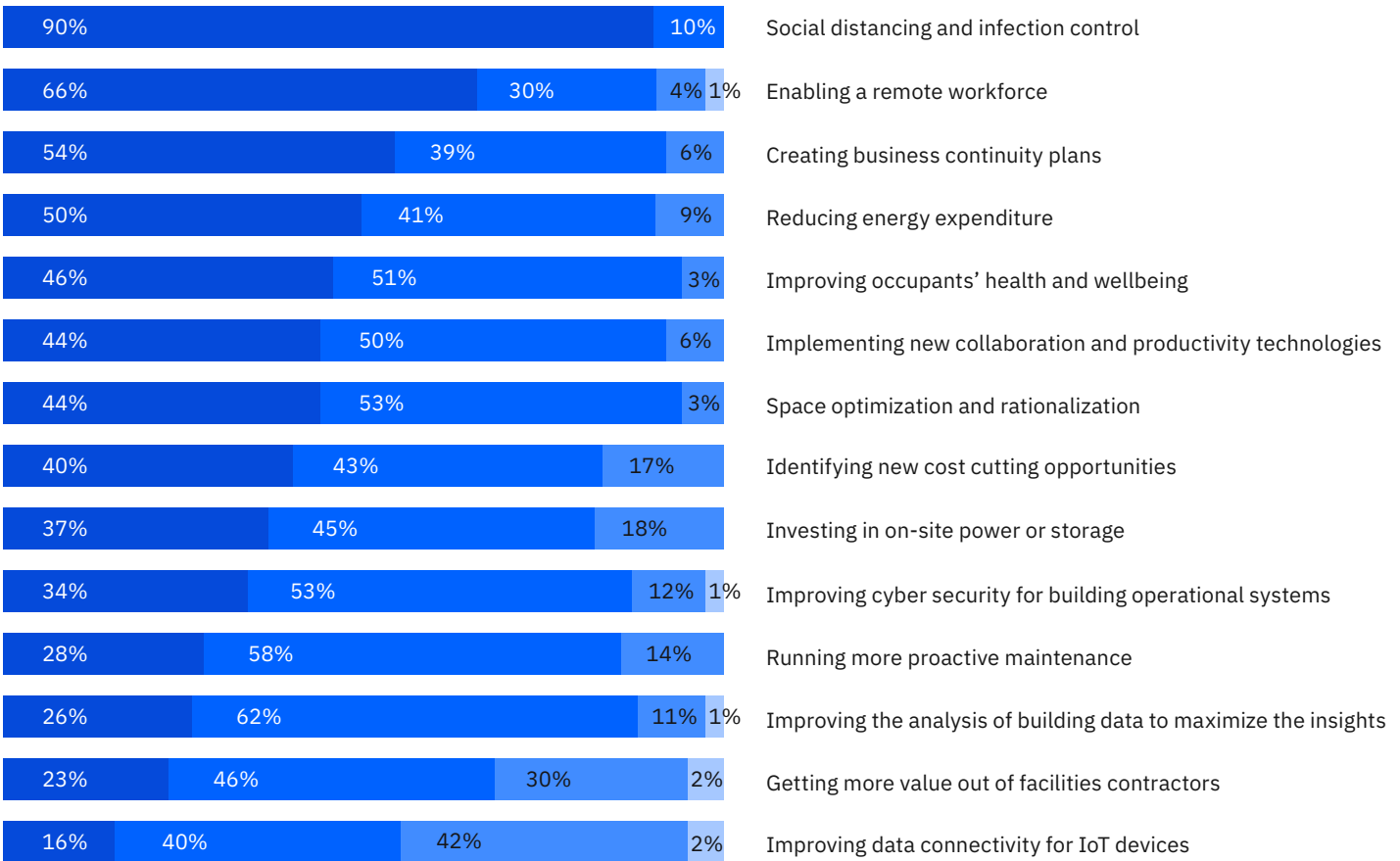


Figure 1 N=250
 Source: Verdantix Global Corporate Survey 2020: Smart Building Technology Budgets, Priorities and Preferences

● High priority ● Medium priority ● Low priority ● Don't know

As firms emerge from their 'reactive' phase, they now are looking to address the weaknesses highlighted in their real estate resiliency strategies (**Figure 2**). Leading firms will use this opportunity to reset their business to adapt, succeed and thrive during the next normal.

Beyond physical systems, organizations need to transform existing processes, procedures and workflows to ensure they have the agility and flexibility to build resilience in the long term. A joint focus on technology and process transformation will not only assist firms in preparing for future shock events, but also enable organizations to readily capitalize on the next economic upturn.

COVID-19 has highlighted weaknesses in building resiliency strategies

What we are hearing from your peers

“the lockdown has highlighted holes in our IT infrastructure for remote working” (UK Workplace Manager)	“I dont have the tools to remotely manage my building while folk are off site” (US Facilities Manager)
“Covid-19 has caught us by surprise. We’ve had to scramble to close our buildings” (US Facilities Manager)	“I need a new plan to maintain income stability during the lockdown” (UK REIT)

Figure 2
Source: Verdantix

Transitioning out of survival-mode sustainably

The pandemic has ushered in renewed interest in resiliency programmes for businesses (Figure 3). Firms are looking at making their workforce and all operating processes flexible and adaptable, given the growing risk of lockdowns and other shock events, such as wildfires or storms. At the building level,

firms are expanding on initiatives that have centred around power resiliency during storm events, with a new ambition to bring resiliency to all workflows, data and technology. Having access to the right information at the right time to enable near or real-time decision-making drives transparency

Actions taken now to mitigate the current crisis can build resilience for future shocks



Crisis Management

- Make use of technology that is already in place
- Work with existing technology vendor to reconfigure solutions



Business Continuity

- Targeted technology investments to support business operations
- Risk and impact assessment to identify critical investments and process improvements



Recover and build resilience

- Respond to weaknesses in current strategy
- Review technologies that help to build efficiency and resiliency for the future (remove management, monitoring solutions)

Figure 3
Source: Verdantix How To Manage Your Workplace During COVID-19

Execute an employee-centric strategy

Employees are dealing with a broad range of stress factors, including job insecurity, routine disruption and domestic pressures relating to the pandemic. Many workers feel at risk and shrouded in uncertainty to a large degree. It is critical that the technology and workflow investments provide support in alleviating the challenges faced by employees, empowering them to control their own work day,

drive their own skills development and undertake training that gives them control over their career path in the business. The 2020 Verdantix Smart Buildings Global Corporate Survey of 250 executive-level respondents found that attracting and retaining talent is the most important objective over the next three years (**Figure 4**).

Rank the following real estate management objectives by importance for your company over the next 3 years? (from 1 is most important and 5 least important)

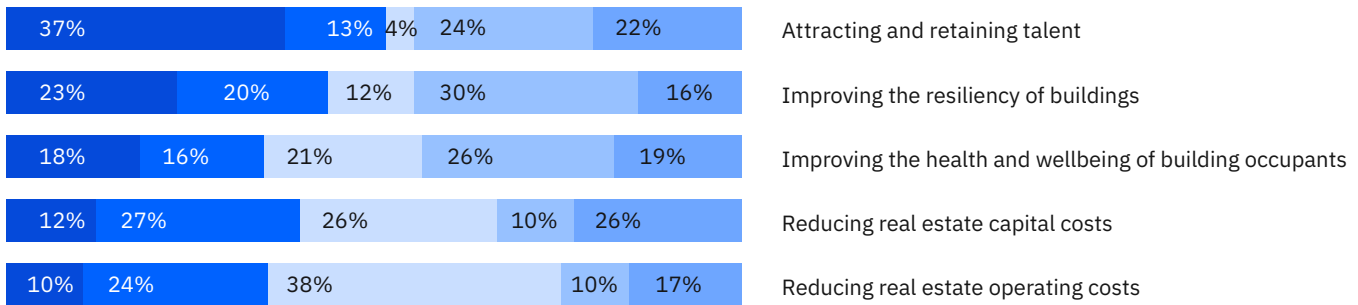


Figure 4 N=250
 Source: Verdantix Global Corporate Survey 2020:
 Smart Building Technology Budgets, Priorities and Preferences

● Most Important ● 2 ● 3 ● 4 ● Least Important



Firms need to provide working environments that give a holistic, human-centric experience, to remain competitive in the future.

Firms should focus on

- **Leveraging data intelligence to empower smarter business decision-making.** Most real estate organizations have a plethora of existing data from legacy platforms such as building management systems and space management software, which often remain siloed and with untapped potential. Consolidating data from disparate sources and integrating these systems into a central reporting platform can unlock this value and generate insights to inform decision-making rationale, while improving transparency. Leveraging data and analytics tools such as AI and natural language processing can guide firms' occupancy planning, real estate strategies and business continuity initiatives. IBM Global Real Estate reduced the time and effort required for data collection, analysis and insights generation by 95% and the time to insights from days to minutes. Furthermore, IBM enables Melbourne Health to support 12,000 members of its clinical workforce and 40 health campuses with improved data and monitoring, to improve decision-making processes.
- **Using technology to rapidly collect and disseminate information to employees.** There is a clear need to engage with employees to build a successful, resilient organization empowered by digital technology. Work to integrate employee input from surveys and real-time feedback mechanisms into business strategies to ensure investments meet employee needs and mitigate key pain points. These tools can also be used to help workers feel connected and up to date with changing protocols and policy changes — relating to recurring lockdowns, for example — in a timely and effective manner. IBM has worked with Orange County, CA, to develop data-sharing solutions to help them manage care and service delivery to 6,800 homeless individuals in response to COVID-19.
- **Incorporating the real-world experience of digital choice into the workplace.** Providing workplace safety insights directly to employees is a critical part of making them feel empowered and informed before entering the workplace. This is well illustrated by the extension by IBM Services of its Workplace Services Solution with its IBM Digital Health Pass app, allowing clients' employees to seamlessly perform a health self-assessment prior to making hot desk reservations and entering the workplace. By providing employees with a clear 'green' or 'red' pass to return to work, individuals can feel confident and safe in their decision-making. In addition, IBM Services brings AI Assistant into common workplace tools such as Slack and Microsoft teams, by delivering natural language engagement with facility services. AI Assistant enables employees to reserve rooms, submit service requests and locate a colleague — all with customized notifications and SMS support. IBM is using this technology itself, to support the safe return to work at over 400 sites across the world.

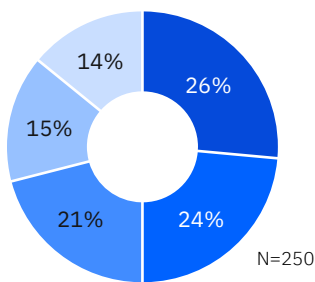
Target investments that will alleviate short-term pains and generate long-term gains

The pandemic has highlighted and strengthened the business case for digital transformation initiatives. Firms of all technology maturities are working towards reprioritizing every technology need in the context of digital and talent transformation.

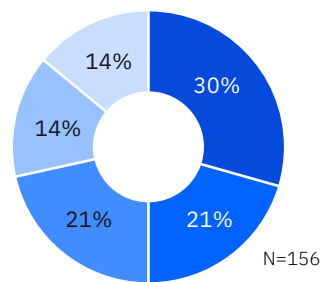
The benefits of a strong digital strategy are being witnessed, especially for high footfall and customer-facing industries, such as retail, that are heavily reliant on physical space (**Figure 5**).

What impact is COVID-19 having on the digitization of real estate and facilities processes at your firm? (select one only)

All Responses



High Footfall Industry Responses



Customer-facing Industry Responses

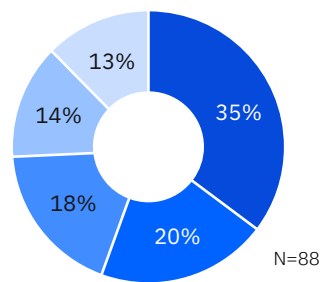


Figure 5

Source: Verdantix Global Corporate Survey 2020: Smart Building Technology Budgets, Priorities and Preferences

- It has caused us to make new targeted digital investments
- It is accelerating our digitization programmes across multiple areas
- It is accelerating our digitization agenda
- It is causing us to reevaluate our digitization agenda
- It has had no impact on the digitization agenda

¹Independent. (2020) Primark sales fall from £650m a month to zero and Cath Kidston permanently closes all stores.

<https://www.independent.co.uk/news/business/news/primark-sales-coronavirus-cath-kidston-stores-close-high-street-a9476981.html>

²Bloomberg. (2020) Adidas CEO Hopeful That Cooped-Up Consumers Will Buy Sportswear.

<https://www.bloombergquint.com/business/adidas-forecasts-second-quarter-loss-with-sales-dropping-40>

Failing to invest in a solid digital foundation has already been shown to be a risky strategy. For example, UK retailer Primark, without an online presence, went from monthly sales of £650 million to zero during the lockdown¹. By contrast, Adidas expects to exceed its revenue target for the fiscal year, thanks to a 55% increase in online sales in March, despite around 75% of its stores remaining shut². Industries unable to function remotely — such as manufacturing and the education sector — face the greatest pressure to implement early reopenings in a way that avoids a spike of new infections. Technology-enabled solutions can help manage these risks while generating long-term value.

Firms should focus on:

- **Getting value from existing infrastructure with the deployment of innovative technologies.** IBM has enabled its Worker Insights solution to support a range of pandemic-specific use cases (Figure 6). This solution provides a single pane of glass dashboard to give organizations oversight across their portfolio. Worker Insights is device-agnostic: this, given tight CAPEX controls, allows firms to minimize their investment by supplementing existing infrastructure such as cameras and sensors with the latest AI and edge technology, such as IBM Video Analytics, to monitor occupancy, crowd density and the use of face masks.

Digital transformation agendas should focus on supporting the tighter connections seen between existing EHS, sustainability, facilities management and HR data systems. This is becoming easier today with the rise of API connection platforms.

IBM Worker Insights uses advanced sensor technologies to monitor potential risks



Social distance monitoring
Track the relative distance between people and receive alerts if people are too close



Vital signs monitoring
Monitor biometric employee data and receive alerts for deviations.



Occupancy monitoring
Track the number of individuals in a configurable area and receive alerts if there are too many people.



No-go zone monitoring
Create and monitor zones that are off-limits with alerts.



Crowd density monitoring
Monitor the motion in a set area and receive alerts as needed.



Elevated body temperature monitoring
Track the skin or body temperature of employees and generate alerts as needed.



Face mask monitoring
Monitor face mask use in a set area and receive alerts as needed.



Contact event tracing
Receive a report on social distancing violations at a site to help limit workforce infections.



Figure 6

Solutions based on:

- Thermal cameras
- Bluetooth beacons and smartphones
- People counting sensor
- Wearables
- Optical cameras

– **Targeting new investments on adaptable technology that will deliver business value beyond the pandemic.** The pandemic is driving investment in a range of new technologies (**Figure 7**). To maximize return on investment, firms should prioritize those technologies that can be adapted to meet business needs. In the future, the benefits of IBM Worker Insights can be extended to support overall health and safety. For example, a large airline is using wearables to improve safety for its agents and staff involved in ramp and station operations. Through a combination of employee wearables and Bluetooth beacons the airline has been able to monitor and manage pandemic-specific risks relating to social distancing and occupancy control. These technologies can also be repurposed over the long term in a broad range of industrial, manufacturing and warehousing use cases to support collision detection, proximity warnings and connected worker solutions. In the retail sector, where digital transformation should be centred on customer experience, retailers can re-purpose social distancing monitoring systems to track customer footfall.

“Whilst manual measures may be sufficient to manage the return of smaller numbers of employees to the workplace, the successful management of the return to work of significant quantities of people requires tools and technologies. Our Worker Insights solution is the most comprehensive available to help organizations to manage the challenges of returning to work at scale. It also provides exponential capabilities that organizations can leverage for future gains in productivity and effectiveness.”

- Louise Skordby, IBM Global Offering Lead, Connected Solutions, IBM Services.

What new technology investment (if any) is COVID-19 driving at your firm?

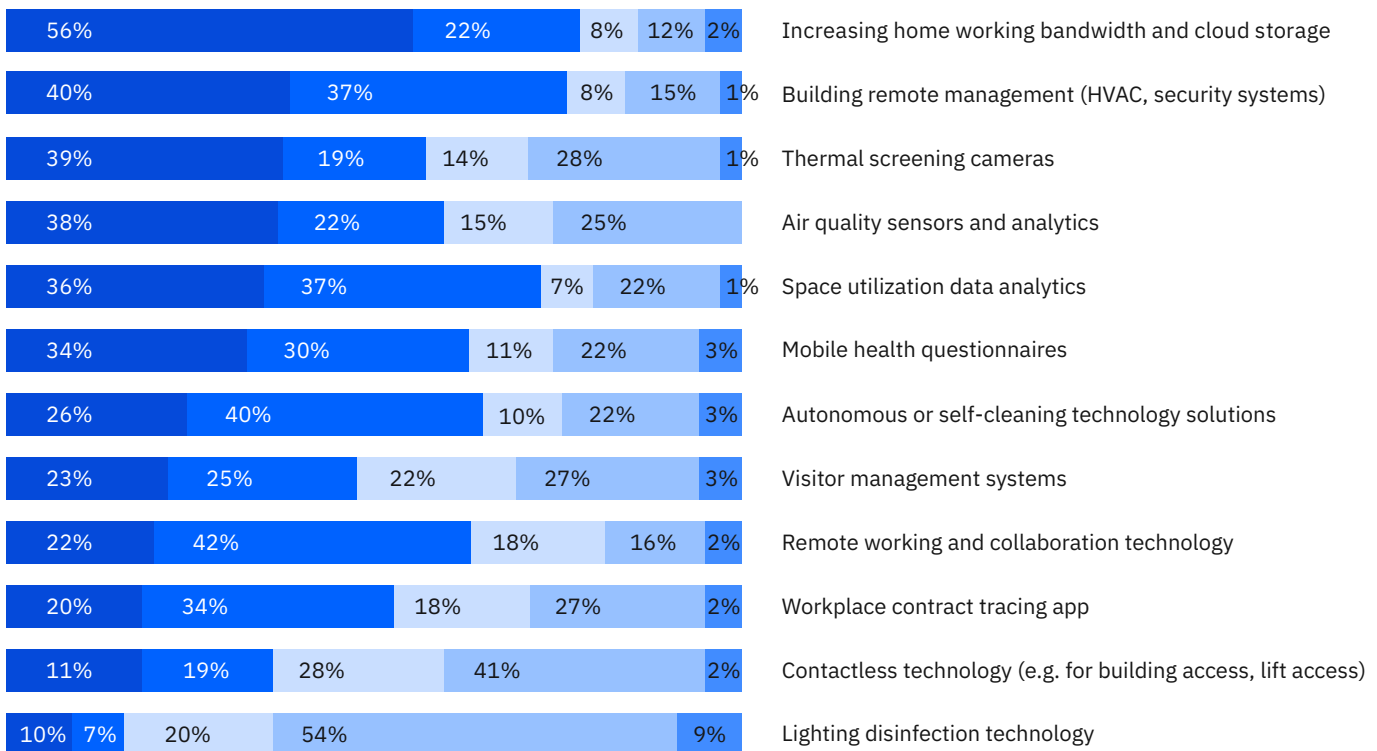


Figure 7 N=250
 Source: Verdantix Global Corporate Survey 2020: Smart Building Technology Budgets, Priorities and Preferences

- New investment at all relevant sites
- New investment at a few sites
- Evaluating or Trialling
- No further investment
- Don't Know



Invest in intelligent workflows that prioritize flexibility and agility

Workflows are how things get done in an organization. Intelligent workflows are predictive, automated, agile and transparent. By providing greater visibility, real-time insights and cross-functional benefits, intelligent workflows can bring new efficiency to everyday processes.

Firms should focus on:

- **Using intelligent workflows to enhance facilities management, talent and transformation.** By making workflows more intelligent, organizations can increase the confidence and speed with which decisions are made, empower people to do higher-value work and create more meaningful experiences for customers and employees. For real estate, intelligent workflows make reactive facilities management smarter, data-driven, automated and proactive. They help organizations transition away from the rigid scheduling of maintenance activity based on calendar milestones to leveraging data to proactively maintain a building based on asset usage and degradation. Intelligent workflow can also assist with space optimization initiatives and reducing real estate costs. IBM has achieved a 50% reduction in real estate spend and has reduced space allocation per employee by 75% by utilizing TRIRIGA for lease and space management and room reservations. Digitizing workflows can also aid talent retention by offering employees greater transparency across the organization and the digital tools to work remotely.
- **Exploring emerging technologies for connected workers, such as IoT, AI, ML and edge computing.** Even though many facilities and operations departments remain bound to pen and paper, exponential technologies such as IoT devices, 5G/edge and AI are ushering in a new age of optimization. Connected workers supported by remote/AI-based assistance, wearables and safety sensors with access to asset history, diagnostic interfaces and digital twins can lead to dramatic productivity gains. These technologies can also drive the semi-automation of tasks; for example, from early in the pandemic, GM Financial's virtual agent, Nanci, powered by IBM Watson, has handled 50% to 60% of all inbound requests. In Phoenix, AZ, the Maricopa Superior Court uses Watson Assistant to resolve 70% of questions from citizens without human intervention, saving 100 hours in employee time in the first month alone.

Key Actions to Build Resilience in the Long Term

Formulating a robust strategy in the face of uncertainty is challenging. Scenario planning around plausible futures is critical to devising actionable and flexible strategies that will prepare organizations for whatever the future may bring.

It is clear across the board that the risks of external shocks cannot be effectively managed with email, spreadsheets and siloed technology. All firms need to be reviewing and refreshing their technology foundations going forward, to achieve the new vision for an engaging, resilient and safe workplace (**Figure 8**).

Actions To Pursue The Vision Of A Resilient and Employee-centric Workplace

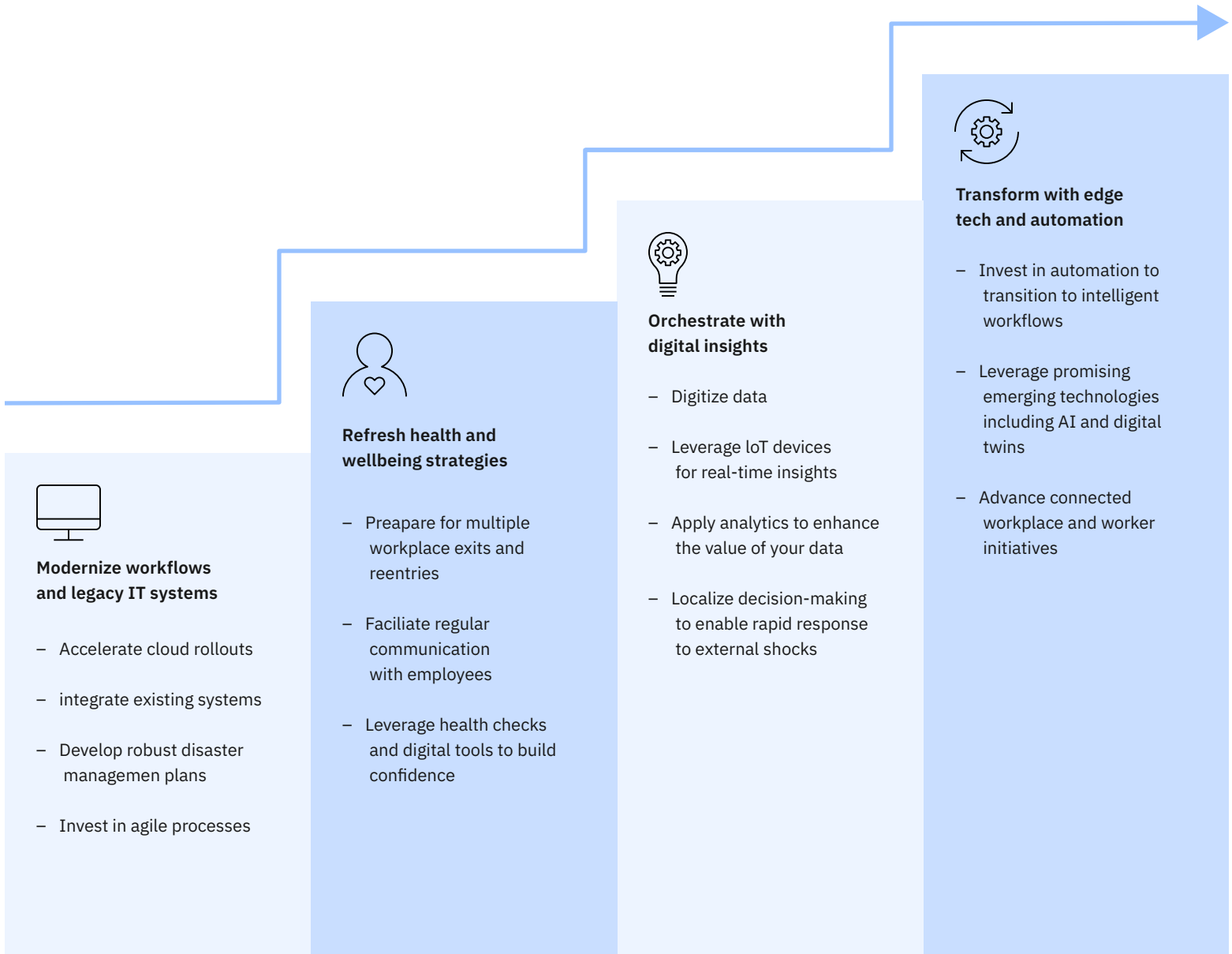


Figure 8
Source: Verdantix

Resilience in the next normal is focused on having the digital tools and agile processes to readily respond to crises and external shocks whilst minimizing business disruptions. While pursuing the vision of a resilient workplace may seem aspirational, there are practical steps that firms can take now to garner momentum towards this goal.

In an endeavour to create a resilient workplace, firms should aspire to:

– **Modernize workflows and legacy IT**

- Modernize old IT infrastructure and transition from on-premise systems to cloud-hosted solutions. This allows for highly configurable and hyper-agile IWMS, CMMS and BMS infrastructures that respond to changing situations.
- Pursue the seamless integration of existing systems and data to form a single pane glass view of business operations. This enables managers to evaluate real-time data in order to benchmark against customizable KPIs.
- Invest in agile processes leveraging automation for productivity and efficiency gains using intelligent workflows. The ability to streamline administrative tasks helps employees open up more time for strategic planning.
- Develop solid disaster management plans and scenarios, leveraging digital tools for communication. Managers will be able to quickly disseminate information to the workforce via mobile applications, improving employee confidence.

– **Refresh health and wellbeing strategies to build employee confidence**

- Make flexibility and iteration central to plan for multiple exits and re-entries to the workplace, using mobile technology. This will allow workers to maintain healthy and productive hybrid working styles.
- Ensure employees have the opportunity to provide input on business strategies and facilitate regular communication. Creating a collaborative approach to building management can act as a major driver for employee wellbeing and talent retention.
- Use a range of health checks and digital tools, such as real-time infection contact tracing. This technology can spearhead safe return to work initiatives, reducing risk and offering a large boost to employee confidence.
- Digitize workplace monitoring, leveraging mobile apps, employee wearables and Bluetooth beacons. This promotes safe occupant behaviour patterns, reducing accidents and decreasing response time to serious incidents.

– **Orchestrate with digital insights**

- Focus on transitioning to real-time data collection, using IoT devices such as wearables, environmental sensors or existing infrastructure such as cameras that are already in place. This equips decision-makers with constant, focused data streams.
- Apply analytics to predict problems and make effective decisions. For example, incident heatmaps reveal hazard hotspots in the workplace, indicating zones on which to focus risk mitigation efforts.
- Draw on site-specific data to generate localized insights that give decision-making power to local teams. This ensures that site-specific or regional teams have the agility to respond to the pandemic and external shocks quickly, whilst giving management high-level insights to make systemic changes.

– **Transform with edge technology and automation**

- Leverage emerging but promising technologies, such as AI for cognitive buildings. AI is already supporting faster and smarter workplace decisions and will eventually evolve to support self-learning workplaces.
- Empower employees' processes by automating menial tasks, such as verifying PPE usage and Covid social distancing compliance. This improves efficiency and offers a boost to worker morale.
- Tap into the potential of the connected workplace, using digital twins to provide a virtual model of workplace activity. Digital twins offer deeper understanding and insight into a facility, advancing efficiency goals and reducing risk.

“IBM has a fresh and modern consulting framework that puts human-centered outcomes at the heart of the process and empowers diverse teams to tackle our global challenges at speed.”

-Global Operations Lead, Major Life Sciences Organization

Conclusion

It is clear that waiting for the return of 'business as usual' is not a feasible option and preparing for a static 'new normal' will only protect firms in the very short term. Working now to embed resiliency into your organization will enable your firm to quickly seize new opportunities in the future and respond to further shock events. It is more critical than ever to ensure that business strategies are employee-centric and data-driven, with a focus on giving staff the confidence to continue work safely and efficiently. Intelligent workflows, agile processes and digital technology are valuable assets in the resilience toolkit and, together, can help firms not only prepare for the next normal, but capitalize on it. Businesses need to transform operations at speed and scale to be resilient and to drive business growth.

From creating smart workplaces, smart factories, intelligent assets, connected cars and smart cities, to designing next-gen aircrafts, organizations need robust operational processes to align with business objectives. These require a well-defined strategy, operational transformation and processes built on exponential technologies such as AI, IoT, cloud, edge computing, 5G, robotics, drones, AR/VR and digital twins.

IBM Services helps organizations build intelligent operations. Our deep operational transformation experience across industries, combined with IBM Research capabilities, and proprietary and ecosystem partner technologies, helps accelerate clients' transformations to drive efficiency, cost benefits and competitive advantage.

Read more here

<https://www.ibm.com/services/process/operations-consulting>

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- 1 Technology CEO Council Report, One Trillion Reasons, October 2010 (<http://www.greenbiz.com/research/report/2010/10/25/one-trillion-reasons>)
- 2 Technology CEO Council Report, One Trillion Reasons, October 2010 (<http://www.greenbiz.com/research/report/2010/10/25/one-trillion-reasons>)