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Resilience in the built environment
How can organizations prepare for future disruption and thrive?

Part 2: Enabling resilience in the built environment

Content

Introduction

As an industry, we face a continuous pipeline of disruptions and resilience in the built environment will remain crucial.

Despite this instability, organizations have an unprecedented opportunity to transform their real estate operational model, build their competitive advantage to grow and flourish and drive resilience through the built environment. In this continuously changing, complex environment, real estate has a significant role to play in maintaining stability.

Resilience in the built environment relies on a complex and often ambiguous ecosystem, and we define this resilience as an ecosystem's ability to absorb shocks and disruptions, to cope with uncertain situations through rigorous preparedness, mitigation and adaptation, and to recover from it to flourish.

In the first part of our publication we argued that resilience is built around three pillars: **Enterprise resilience, Societal resilience and Personal resilience**. Leveraging them together could be extremely powerful if activated tactically and strategically.

In this second part we explore the three pillars in more detail and describe how organizations could enable resilience through the built environment, and we identify the levers that they can activate to be fit for the future.

Key takeaways

While flexibility is what everybody craves, adaptability is what every enterprise needs.

The level of workforce readiness (employees, managers and leaders) to quickly absorb disruption is instrumental in resilience.

Maintaining societal cohesion is necessary for business continuity and is achieved through the community.

The pandemic has demonstrated our extreme reliance on technological infrastructure (in and out of the workplace), and how fragile business continuity can be if technology fails to deliver.

Building a diversified and flexible portfolio that responds to the significant disruptions and rapidly changing dynamics of urbanization will embed resilience and enable organization to future-proof their real estate portfolios.

Designing a new workplace model that can withstand disruptions and, absorb and cope with a mass return to work, while still efficiently operating with minimum occupancy, is a unique opportunity to bring maximum flexibility to a real estate portfolio.

The built environment has a significant role to play in providing places that are not only safe, efficient to operate and healthy, but also minimize their impact on people and the planet, and guarantee returns on sustainability.

How do we ensure that CRE is future fit through resilience?

Corporate resilience levels continue to be tested by the elongated crisis as companies shift from survival mode to being prepared for a deep and permanent transformation of their real estate portfolio. We argue that resilience is about the real estate industry's ability to prepare for disruptions, recover from shocks and stress, adapt and grow from a disruptive experience to flourish, and to avoid paralysis. Being future fit in all parts of the organization, not just real estate, goes hand in hand with resilience.

By understanding, anticipating and transforming the operating model to cope with change, companies can manage the risks, and by preparing, mitigating, innovating and restoring business-as-usual operations, they will be able to drive resilience through their operations.

Key questions to consider:

✓ What do we need to be aware of?

✓ What are the risks our organization is facing?

✓ What does 'disruption' mean to our organization?

✓ How can we be proactive?

✓ What can we do now to limit the exposure?

✓ What are the areas of development and investment?

✓ How can we rely on and foster resilience in the community?

✓ What is the maturity level of the organization and its ecosystem?

✓ What is the leadership mindset to address resilience?

✓ Why should we limit change and what is our ability to change?

✓ What are the friction points to overcome?

How do we create resilience in the built environment?

> **❝** *Leaders can build resilience throughout their organizations by actively training the organization to alter the combination of routines, heuristics, and improvisation on the fly to match the changing requirements of different possible scenarios.*

HBR, 2020

While flexibility is what everybody craves, adaptability is what every enterprise needs.
Importantly, for corporate occupiers to attain this goal – and for owners to facilitate it – the role of the real estate industry will be to provide a high level of comfort with an integrated 'future of work model', that brings flexibility to the portfolio, the workforce, the workplace and organizations themselves. Ongoing adaptability across every component of the organization will be fundamental to sustained, robust resilience.

This adaptability is a continuous process. As an industry, we need to respond, adapt and evolve from the new levels of disruptions to bounce back and forward, as COVID-19 and geopolitical tensions will destabilize the entire ecosystem of organizations for years to come.

While impulsive adaptability and flexibility was forced on businesses to ensure their immediate survival in the early stages of the pandemic, the dust has somewhat settled. This has allowed companies to carefully rethink their ecosystem and transform their structure to cope with future systemic risks by bringing more resilience to their model and its foundations: **Enterprise resilience, Societal resilience, and Personal resilience**. Understanding the constituents and interrelationship of each of these foundations will be crucial, as the trading between each is extremely powerful if activated tactically and strategically.

Figure 1: An Ecosystem of Resilience in the Built Environment

❝ *The resilient system or organization will be able to reconstitute itself - the non-resilient one will not. Resilience in organizations relies upon vigilance, value creation and value protection:*

✓ *Vigilance includes early warning systems, predictive analytics, and extensive monitoring through horizon scanning and foresight.*

✓ *Value creation includes collaborative innovation, distributed problem solving, strategic human resources, recruitment focused on resilient persons.*

✓ *Value protection includes coordinating capabilities, organizational modularity, crisis planning, redundancy, and hedging.*

Jeffrey Saunders, Nordic Foresight

Enterprise resilience

Enterprise resilience relies on a resilient workforce and a robust physical infrastructure combined with rugged technological platforms: a fusion of people, place and technology. Without it, an organization's business continuity could be negatively impacted.

Defining enterprise resilience: An organization's ability to deliver on their central purpose, including reducing risks, and seizing opportunities as they emerge from disruptions by learning to adapt to a constantly changing environment.

Workforce resilience

To create an environment at work in which people can better adapt to adverse situations, manage stress and retain motivation.

AON, The Rising Resilience, 2020

Technological resilience

To reduce technology system outages and other costly tech glitches by improving incident response and delivering innovative services at high speed while maintaining a high level of operational stability.

McKinsey, 2020

Workplace resilience

To design a working environment that enables a business to sustain their everyday activities or to quickly adapt to uncertain situations affecting their daily routines and operations while supporting workers wherever they work.

JLL, 2021

We have seen that workforce resilience has enabled businesses to cope with significant and uncontrollable disruptions throughout the pandemic. Forbes argues that "resilient people view difficulty as a challenge, not as a paralyzing event. They see failures and mistakes as lessons to be learned from and opportunities for growth". As Howlett reported in an article in People Management, "a state of resilience can help employees power through stressful situations and periods of uncertainty". This has certainly been the case over the last 24 months. There is value in understanding what parts of the workforce are critical to restore or continue operations, and what the company can do to support them. For example, emergency child care in helping employees outside regular work hours, or providing the right working environment.

Four ways employers can improve workforce resilience through their work environment:

Workplace design to improve employee engagement and wellbeing

46%	41%	9%	4%

New or enhanced health and wellbeing amenities

43%	43%	10%	4%

Improving indoor air quality

42%	45%	8%	5%

Dedicate spaces for occupants to recharge (e.g., outdoor spaces, roof gardens etc.)

35%	45%	12%	7%

■ Accelerate investment　　■ Keep investment steady　　■ Reduce investment　　■ Don't know

Figure 2: Does your CRE function plan to reduce or accelerate investment in each of the following areas between now and 2025?

Source: JLL Future of Work Survey 2022, involving 1,095 decision makers in CRE.

The level of workforce readiness (employees, managers and leaders) to quickly absorb disruption is instrumental in resilience, and greater preparedness is only likely through the use of collective intelligence to make better decisions. HBR advocates that "organizations can prepare themselves to cope with novel and uncertain situations, be they existential crises, like a pandemic, or more familiar situations, like an industry shake-up". HBR further argues that "leaders need to deepen their understanding of how disruption impacts different employees to develop effective and affordable interventions".

While the resilience of the workforce during the pandemic somewhat surprised us, our extreme reliance on technological infrastructure (in and out of the workplace) was confirmed. The pandemic has demonstrated how fragile business continuity can be if technology fails to deliver. The success of remote working has highlighted the complete dependency on the robustness of the technology platform that an enterprise deploys and maintains, on top of the individual and workforce resilience of employees and managers. However, while workforce resilience helps in the short and medium term, it often hurts a company's growth in the long term because remote work can negatively impact an individual's innovation capability, and ultimately, individual performance.

Cities resilience:

When we look at technological application and resilience at a greater scale, Cities that can leverage their technology strengths will be able to revolutionize urban digital ecosystems and harvest vast amounts of real-time data on energy efficiency, waste management, health, mobility and space usage as buildings gradually become smarter. The real estate industry and technology sectors working together hold the key to creating scalable smart-city solutions to drive city-wide energy and resource efficiency.

Designing a new workplace model which can sustain disruptions, absorb and cope with the mass return of workers, and operate efficiently with minimum occupancy, is an exceptional opportunity to maximize a portfolio's flexibility.

Fundamental to its design, the resilience of a workplace model must stretch to its limit and breathe elasticity to offer maximum resilience in a period of adversity. The physical work environment can be used to promote an organization's efforts to create a resilient enterprise.

Importantly, enterprise resilience on its own is not enough to address resilience in the built environment. Reliance on people and society is also necessary for effective business continuity and disaster recovery; together they are vital in maintaining urban and public infrastructure and societal cohesion.

Traits of enterprise resilience:

Value protection:
- Scenario planning
- Leadership mindset
- Business continuity planning
- Remote-working policies
- Upskilling
- Unified ICT (Information and Communications Technologies)
- Cyber-protection
- Activity-based working

Value creation:
- Innovation management
- Work-from-anywhere strategy
- Dispersed / Distributed portfolio
- Responsive behavior
- Crowdsourcing capabilities
- WaaS platform (Workforce as a service)
- Digital experiences / Metaverse environment
- Virtual collaboration platforms

Personal resilience

Personal resilience is at risk because people have been significantly impacted by the individual challenges experienced throughout the pandemic.

Very few people have managed to avoid the effects of lockdowns, restrictions and new ways of working and living, as well as the underlying threat to health. The detrimental effects from the pandemic on minority groups, working mothers, part-time workers, low-income families, working parents and carers, amongst other vulnerable groups, can still be mitigated by organizations.

MIT argues that "the hypercompetitive and fast-paced world of business today requires short response times and more accurate responses and more exploration of potential opportunities".

While the pandemic has tested individuals' resilience, with stress, fatigue and burnout commonplace among workers, the crisis has shown that people can manage and cope with personal struggles and change with minimal losses, remaining optimistic and finding opportunities. Gartner contends that HR leaders must focus on workforce health, not just productivity, to achieve and sustain workforce resilience. Organizations who capitalize on their workforce resilience will be better equipped to handle disruptions, but they need to address workforce health (physical, social and mental) and safety.
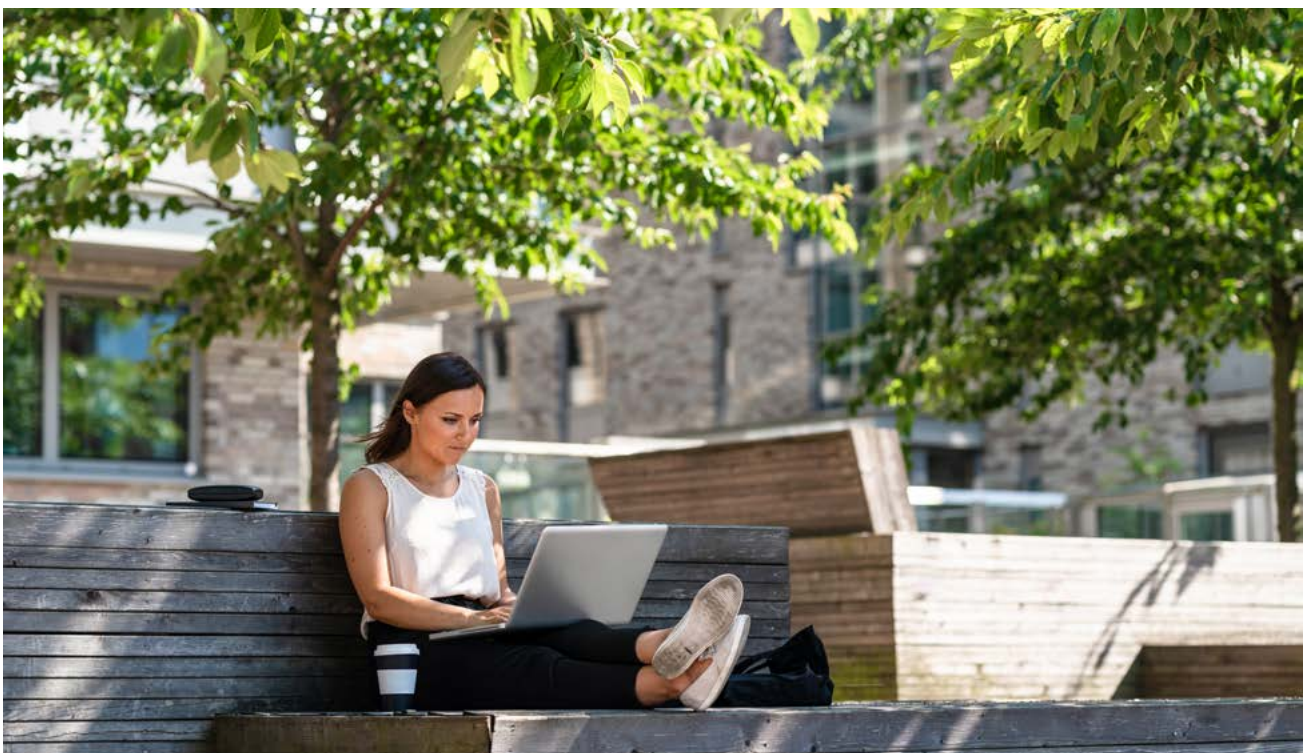
Defining personal resilience: The ability of communities to recover from and adjust to misfortune, to align with others to create positive change, and to drive a resilient mindset to help individuals deal with challenges in their professional and personal lives.

Physical resilience

The body's ability to adapt to challenges, maintain stamina and strength, and recover quickly and efficiently.

Mental resilience

The ability to manage our minds in a way that increases our ability to face the first arrow and to break the second before it strikes us (HBR, March 2020) and to overcome fear and access [our] capacity (SHRM, 2020).

Social resilience

The ability of communities to withstand and recover from stress, such as environmental change or social, economic or political upheaval.

The last 24 months have highlighted the criticality of the workforce, its resilience and its true value. McKinsey argues that "truly sustainable and inclusive growth solutions go beyond improving business and economic performance." Consequently, the role of the real estate industry must be to put people at the center of their considerations and to genuinely take care of their health and wellbeing to achieve sustainable performance. As physical, mental and social health is necessary to build a path to resilience and performance for employees, employers have a new responsibility to actively support their people's health and well-being needs to create a regenerative workplace for all.

In JLL's recent survey of 3,300 office workers across the globe, we found that:

Social health is at risk. The appeal of face-to-face interactions is a strong driver for the return to the office: Only 36% of the workforce are able to maintain strong working and personal interactions with colleagues at a distance.

Mental health should be better addressed in the office: 75% of employees expect to feel protected at work when expressing their difficulties or concerns.

Physical health is closely connected to a healthy work-life balance and healthy routines: 75% of employees say they are struggling to find the time or energy to incorporate these habits into their weekly routine.

Traits of personal resilience:

Value protection:
- Psychological safety
- Ability to achieve
- Community belonging
- Physical wellness
- Healthy routines

Value creation:
- Feeling of inclusion
- Shared responsibility
- Work-life harmony
- Reciprocity
- Hybrid rythm

Societal resilience

66 *Repurposing the built environment in sustainable and responsible ways requires a mindset shift. In equal measure, it requires a shift in the criteria for assessing return on invested capital to include environmental and social impact. If organizations do not recognize this, then their other stakeholders will – their investors, their customers and their employees. Therein lies the risk of not adapting to the climate risk that exists right now.*

Guy Grainger, JLL

Society at large plays a significant role when it comes to achieving resilience at scale. In particular, Environmental resilience associated with Community resilience and Urban resilience is now critical in pursuing sustainability goals and decarbonization targets in the built environment.

This decade is a pivotal time to both decarbonize the built environment and build spaces for a resilient future and, in response, the commercial real estate industry has dramatically magnified its focus on responsibility and social purpose. Occupiers, owners, investors and city leaders – both individually and in unison – have a role in meeting the demand for greener, more sustainable spaces.

74%
say they are likely to pay a premium for green credentials. 56% plan to do so by 2025

Source: The Future of Work Survey 2022, JLL, July 2022. 1,095 decision-makers across 13 market

Defining societal resilience: The ability of society at large to successfully respond, recover and adapt to change. This includes residents, the local environment, enterprises, the economy and infrastructure.

Environmental resilience

To minimize environmental risks associated with disasters, quickly returning critical environmental and ecological services to functionality after a disaster while applying this learning process to reduce vulnerabilities and risks to future incidents.

EPA, 2015

Community resilience

The ability of societies to maintain their core functions while minimizing the impact of a shock or crisis and other societal effects.

BMJ Global Health, July 2021

Urban resilience

The capacity of a city's systems, businesses, institutions, communities, and individuals to survive, adapt and grow, no matter what chronic stresses and acute shocks they experience.

Resilient Cities Network, 2021

Public sector resilience entails ensuring continuity of operations and avoiding disruptions to critical services.

Cisco, 2011

At an urban level, the OECD argues that resilient cities can absorb, recover and prepare for future shocks (economic, environmental, social & institutional). Resilient cities will be those that promote sustainable development, wellbeing and inclusive growth, and in JLL's latest research report on , we reason that cities with robust innovation ecosystems will be best placed to respond to these shocks and propel the next phase of urban regeneration.
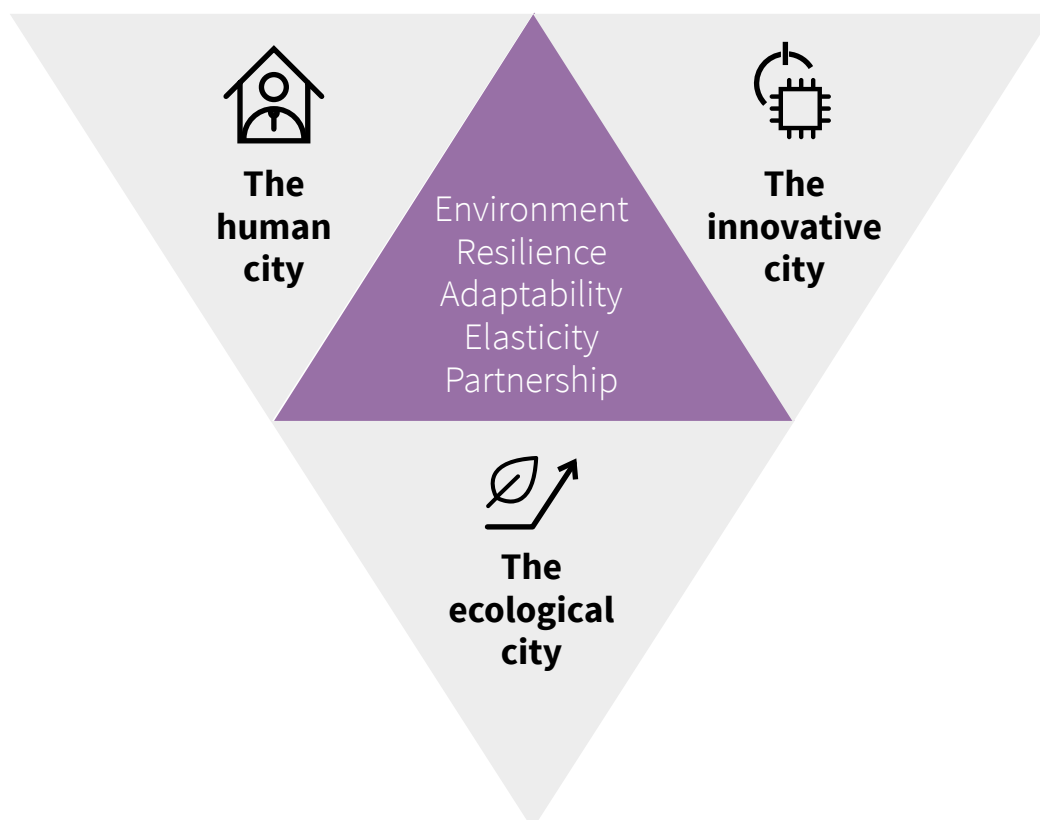

Figure 3: Urban Ecosystem from JLL, Regeneration, 2021

Traditional urban cores and core fringes in large cities are being reimagined to reflect their changing role in the innovation ecosystem, one that is more mixed-use and brings new approaches to placemaking that combine digitization, inclusiveness and sustainability. Successful and resilient urban cores are pivoting to being places of innovation, collaboration, creative energy, and in-person social and business interaction. They are transitioning from 'Central Business Districts' to 'Central Social Districts', leveraging their cultural and amenity legacy to attract people and business. This is meeting the needs of people who are increasingly demanding more of the built environment – holding buildings to a new standard around how they impact the planet and the lives of those in and beyond them.

75%
say their employees will increasingly expect their workplace to have a positive impact on society

Source: The Future of Work Survey 2022, JLL, July 2022. 1,095 decision-makers across 13 market

In addition, some small and medium-sized cities are becoming increasingly important in the innovation ecosystem – fostering creativity and offering significant talent pools. They also offer an attractive quality of life and are typically more affordable than the large gateway cities. As we move into the next cycle of recovery, now is the time for organizations to revisit city choices and look to these structural factors, which will highlight the cities best positioned to recover from disruptions and offer long-term resilience that is linked to enterprise and personal resilience.

With the climate crisis looming large on the future of real estate, **environmental resilience** will be challenged on all fronts. The built environment has a significant role to play in providing places that are not only safe, efficient to operate and healthy, but also minimize their impact on people and the planet, and guarantee returns on sustainability. Importantly, it is not just about the resilience of individual places: in the context of climate change and intensifying weather events, investors and occupiers are increasingly using a climate-risk lens when considering new markets to migrate to and buildings to occupy, buy or sell.

The following three dimensions are rapidly increasing in prominence and are expected to shape the value conversation in coming years:

Climate risk and resilience

It is no longer possible to ignore that extreme climate events are increasing in frequency and intensity.

Occupant health

Buildings will be graded on their ability to optimize health, wellbeing and human performance.

Carbon emissions

Growing climate commitments and a shifting regulatory landscape will make occupiers and tenants more carbon conscious.

Responsible Real Estate:

In April 2021, JLL surveyed nearly 1000 executive decision-makers among investors and corporate occupiers and found that:

83% of occupiers and 78% of investors believe climate risk is financial risk.

79% of occupiers anticipate that carbon emissions reduction will be part of their corporate sustainability strategy by 2025.

42% of occupiers believe that their employees will increasingly demand green and healthy spaces.

Traits of societal resilience:

Value protection:
- Community engagement
- Integrity in design
- Local supply chain commitment
- Developing public infrastructure
- ESG engagements
- Act on climate
- Talent diversity

Value creation:
- Placemaking
- Inclusion, diversity & equity
- Regenerative workplaces
- Affordable living
- Cultural heritage preservation
- Waste and circularity policies
- Innovative cities
- Local employment creation
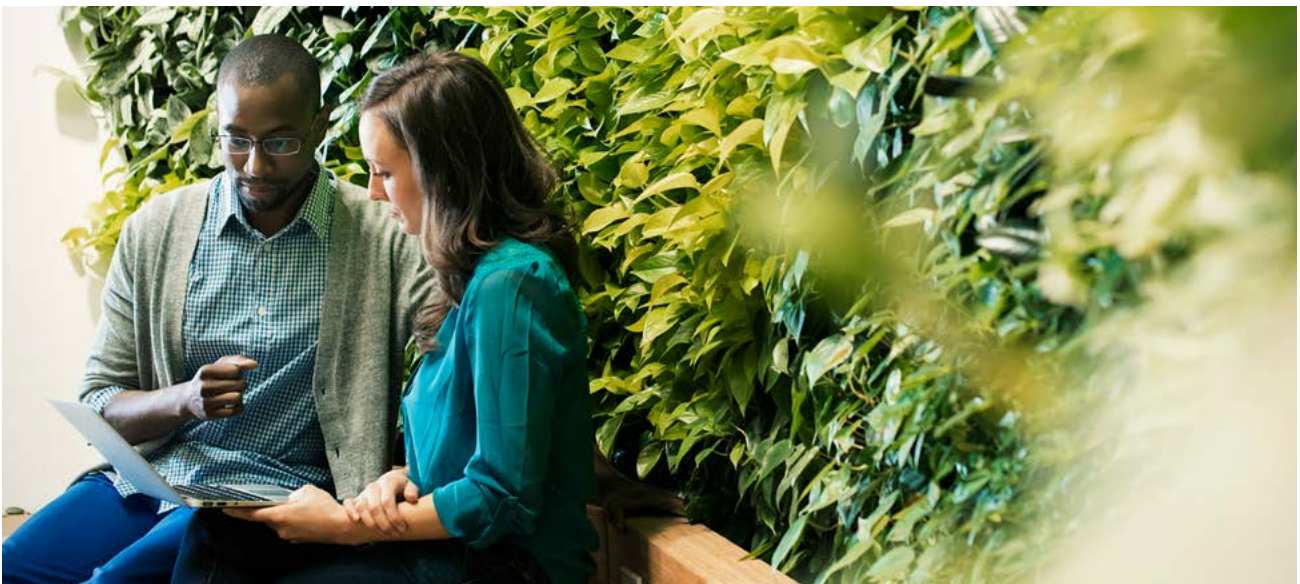
Where do you start?

1 **Imagine a new resilience model:**
Understand resilience in a new way, forecasting risks, exploring uncertainties and enhancing your capabilities to manage both best and worst-case scenarios.

2 **Cultivate resilience:**
Nurture a culture of resilience among the enterprise, the leadership, the workforce, the community and the entire ecosystem you operate with and from. Develop an innovation mindset, risk awareness and a safety culture across the organization.

3 **Assign capital investment:**
Allocate the right budget and competencies to the project. An elongation of the crisis creates an endemic situation, and investment capital is therefore required to deploy the transformation.

4 **Create a distributed network:**
Enable the organization to cope with sudden disruption by relying on a distributed and interconnected network (people, assets, services, systems).

5 **Reinforce the technology infrastructure:**
Invest, improve and maintain a technology platform to enable both work from anywhere and dynamic occupancy planning to support hybrid work.

6 **Invest in innovation:**
Boost your capacity to invest in innovative solutions to deliver better solutions across a distributed network, such as building advanced digital platforms to enable business continuity on and off site. The ability to innovate remains a major enabler of success by improving operations or sourcing alternatives. Innovations can be incremental, radical, or disruptive to improve product and service configurations, offerings, and experiences.

7 **Enable performance deployment:**
Unlock workforce productivity levels through flexibility that can fuel performance in adverse situations to create a 'buffer' to cope with sudden disruption when it happens, and provide the ability to boost productivity during times of high demand.

8 **Enable an ecosystem of partnerships:**
Build on your ecosystem of partnerships to source assistance and to reinforce your resilience model and sustain disruptions through and with your network. Connect communities and networks by developing synergies between the public and private sectors.

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