

A close-up photograph of a woman's face, showing her eyes and mouth, looking down at her hands. Her hands are positioned to hold a large bundle of fiber optic cables that are glowing with bright white light. The background is dark, making the glowing cables stand out prominently.

2021

Shared brilliance multiplies resilience

Co-creating to lead with
multiparty systems



How to use this information

More than a year into the COVID-19 crisis, we've seen at least one universal truth: Successful leaders keep innovating but now there is a new twist. They aren't doing it alone.

In this piece, we'll explore how innovation and collaboration evolved during the crisis and share how to leverage both as the world continues to adapt and respond to the events of 2020.

We'll present a new data-sharing model then deep-dive into the value of focusing innovation efforts on identity, supply chain, and money by:

01.

Examining the state of innovation prior to COVID-19

02.

Exploring the insights we've gleaned

03.

Sharing our vision for the future of identity, supply chain, and money

Contents

04

Introduction

04 Life, interrupted

06 The link: innovation and resilience

10 Shared data, shared success

15 Diversity: an innovation enabler

16

Identity in crisis

Making ID checks make sense in the digital world

26

Demand on supply

Securing supplies for a more secure future

34

Cashed out

Making change; money for today's markets

42

Conclusion: Open up to radical resilience



COVID-19 disrupted life as we know it on a human, civic, and economic level. The quest for continuity is being felt as we navigate overwhelming, and often competing, challenges through uncharted territory. This is the new reality.

In the last year, we've seen organizations - big and small - do extraordinary things.

Overnight, where possible, workforces became virtual and business models were reinvented to adapt. In general, business leaders across the globe were faced with an unprecedented fast, deep decline across their supply chain.

For many months, the question was: How deep is the disruption and how long will it last? Now, with the understanding that this experience has fundamentally reshaped our world, we are thinking about how to embrace what we call the four new realities as we build for what comes next.

01. Humanity matters more than ever

Every company, educator, and government official needs to think, fundamentally, about their people's human experience. This understanding will shape the organizations that will succeed and thrive in the future.

02. Every business is a tech business

If COVID happened five years ago, it would have been far more devastating. In every industry, technology was the lifeline, proving it's essential to success tomorrow.

03. Work has changed

In many instances, work has become something we **do** versus a place we **go**. Going forward, the future of work will be independent of time and place, and hyper-automated in a human-centric way.

04. Sustainability isn't an add-on

Protecting our planet is something that will be factored into every decision we make going forward.

Technology and sustainability will come together to create the answers to some of our most pressing issues. Our research shows that those that combine technology leadership with sustainability are 2 ½ times more likely to lead in their space.

COVID-19 has illustrated just how interconnected we are as a global community. Together, through collaboration, innovation and shared knowledge, we can successfully build for what comes next.

This is the moment of truth and getting it right couldn't be more important.



The world has changed and isn't going back. So how do you protect your priorities—your people and your core business—today while continuing to drive value and resilience for what's next in our new shared reality?



Innovation is (and has been) the new normal

Investments in innovation have been shown to deliver ROI in both growing economies and in downturns. Pre-crisis, the top 10 percent of enterprise leaders that had invested in technology and digital transformation were outperforming, on a revenue basis, the lowest 25 percent by more than double. The gap has grown as a result of COVID-19 to 5X. Companies that had already made investments in digital transformation were able to:

- 01.** Adjust supply chains faster
- 02.** Reimagine buying models with agility
- 03.** Maintain engagement, collaboration, and productivity of workforces, customers, and partners more effectively

Historically, we've also seen times of crisis give way to whole new ways of doing business as the status quo becomes obsolete. Consider this: During the lowest economic points of the global financial crisis, from the end of 2007 to mid-2009, some companies saw unprecedented success while others stalled or failed. Netflix stock rose 74 percent with its strong business model that leveraged ease of use and distribution. On the other hand, Blockbuster stock dropped 81 percent as it showed hesitation to move to a digital model. Amazon outperformed the S&P 500 by 31 percent as it expanded into new markets, while brick-and-mortar retailers struggled. And despite constraints on access to capital, new and innovative businesses such as Uber, Cloudera, Square, and Slack burst onto the scene, establishing and redefining new business categories.

It would be fair to attribute some of this to a natural evolution, or what economist Joseph Schumpeter described as "creative destruction," as new systems destroy and replace the old. Competitive advantages are always at risk as technologies change along with consumer preferences and economic conditions. No matter the state of the economy, pausing on innovation has proven a costly mistake.

Governments and businesses must learn to outmaneuver uncertainty and navigate the "never normal," for the immediate situation and for continued resilience in the future.



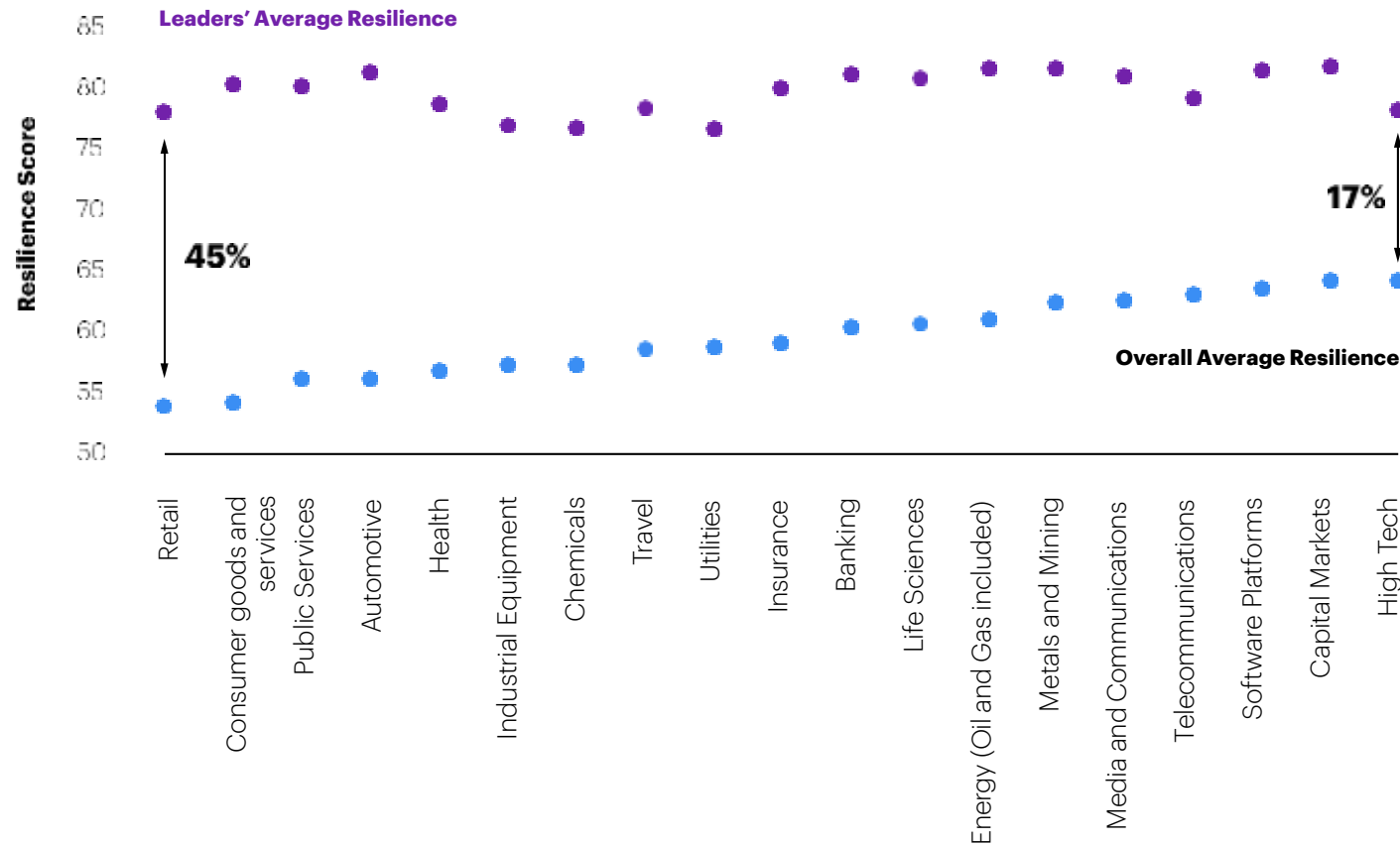
“Innovation is always happening—if you’re not innovating, you’ll be left behind. As we’ve seen historically, times of crises are no exception; they are the rule. They actually allow us to focus on applying innovation to solve the issues at hand as well as propel us forward into the future. And during this unique time, it is multiparty innovation that will enable organizations to unlock trapped value—the gap between the potential value creation of tech innovation and what is actually achieved.”

Marc Carrel-Billiard

Senior Managing Director, Global
Technology Innovation Lead,
Accenture



Innovation mindsets improve resilience in all industries



The chart shows that the innovative Leaders receive between 17% and 45% higher resilience scores compared to their industry counterparts.

In addition to the aforementioned revenue gains, Accenture Research shows a massive difference in resilience between Leaders – the top 10% of companies when scored by adoption of key technologies, penetration of technologies adopted, and organization and culture – and Laggards, those that rank in the bottom 25% along the same dimensions. This systems resilience describes a system’s ability to operate during a major disruption or crisis, with minimal impact on critical business and operational processes. This means preventing outages, mitigating their impact, or recovering from them. Our definition of systems includes applications, architecture, data, cloud, infrastructure and network.

It’s worth noting that the need to invest throughout times of crisis is a call to action not only for corporations but policymakers as well. Research by the Organisation for Economic Co-operation and Development (OECD) illustrates that countries that maintained or accelerated their investments in research and development (R&D) came out of the 2008 financial crisis with a stronger footing than those with flat or decreased innovation investments.



Where to focus innovation investments

The case for innovating your way through the new realities is strong—but with so many priorities competing for resources, where do you target your attention? It's important to remember we aren't starting from a blank slate. Innovation was already driving transformational change in key areas like identity credentials and verification, supply chain resiliency, and digital money. The COVID crisis validated the need for change and accelerated the drive to build solutions in these areas.

Challenges compounded by COVID-19

Emerging digital requirements for a digital world

Trust between parties is critical to any transaction. Several sectors, like trade finance and banking, rely on manual processes and paperwork to provide that trust. In a contactless world, that can be a nonstarter. As a result, many basic functions have slowed down

or come a grinding halt. Financial companies that require fingerprints for background checks can't onboard new employees. Banks can't conduct in-person inventory audits to reduce fraud.

Because we lack a reliable and sufficient way to digitally prove identity across systems, relief funding has had to go through many layers and manual processes before it reaches the right recipients, and so on.

Supply chain resiliency

Toilet paper to sanitizer, test kits to vaccines—COVID-19 has shined a light on the complex global networks that create and deliver resources where they're needed. Even within political systems, the inability to efficiently share and coordinate information, assets, and personnel across multiple parties prevents us from nimbly responding

to changing supply and demand dynamics and redirecting goods mid-supply chain based upon changes to need and opportunity.

Improving access, management, and movement of money

While we may operate in a fast-paced digital world, our money has remained stuck in analogue. The rapid deployment of money to individuals and small businesses in urgent need relies upon cumbersome processes that leave many without relief. It is an imperative to reimagine money without physical limitations.



Data sharing: The common denominator

Resolving these and other challenges that have redefined our world requires a new way of thinking about data. Organizations must freely move assets and information across their networks, scaling up and down as needed without taking on unnecessary risk. This kind of flexibility requires greater collaboration and a more direct and transparent data-sharing model that allows all stakeholders to see, agree, and act on data together—in real time.

That's a shift from the status quo data model, where companies continually collect, copy, move, manipulate, and reconcile data across silos, risking vulnerability, inaccuracy, and inefficiency with every exchange. (As of 2016, IBM found

that bad data costs the U.S. \$3 trillion per year). More importantly, the current model makes it difficult to answer many of today's most pressing questions:

- 01.** How do we efficiently deliver stimulus checks to the right recipients, including those without bank accounts and facilitate touchless, immediate transactions?
- 02.** What happens within our supply chains when essential parts or products cannot be sourced?
- 03.** How can we digitally prove our identity to securely work from home or receive vaccinations?

“The resiliency in how we bring goods and services together from around the world simply isn't where it needs to be. We're going to see a marked shift in how root-cause analysis is done, where it's continuous and real-time, rather than a response to an event. We tend to spend a lot of time and innovation to ensure stability and viability when times are good, but rarely do we focus in on what happens when things fail.”

Anoop Nannra

Global Blockchain Segment Leader

Amazon Web Services



“The crisis isn’t what anyone would have wanted, but it was inevitable and probably accelerated the tech realm by 10 years. Those who move quickly will be better off in retrospect.”

Sheila Warren

Deputy Head of the Centre for
the Fourth Industrial Revolution
World Economic Forum



From Siloed to Shared

Prior to COVID-19, many organizations had already started moving toward better collaboration and data sharing—even with competitors. In 2019, automakers Ford and Volkswagen formed an alliance around electric vehicle (EV) and self-driving car technology to share costs.

COVID-19 has exposed gaps in the system and accelerated willingness to partner in new, once very unlikely, ways. Collaboration has been key to moving the world from crisis to recovery. Competitors Johnson & Johnson and Merck teamed up to create a vaccine—and relied on government partnerships to speed the approval process and their respective supply chains to distribute the products.

“You’re going to see more competitors working together for a common good, or for their own good, frankly,” says Head of Accenture Ventures Tom Lounibos. “But the fact is, that’s been going on for years.” Trust is another factor driving the need for a more fluid and transparent model.

Companies have long sought to amass data as a way to better understand and relate to their customers, but that approach hasn’t yielded the trusted relationships they’d hoped for. According to a [Mastercard survey](#), only a quarter of people say companies are doing a very good job handling individuals’ data.

The good news? There’s already a solution in play: The multiparty system model provides a shared data infrastructure between individuals and organizations to drive efficiency and build new business and revenue models.

Through a combination of blockchain, distributed ledger, distributed database, tokenization, and a variety of other technologies tailored to ecosystem needs, multiparty systems can alleviate many data-sharing concerns around security, privacy, and control.

“Our customers are continuing to look for, ask, and invest in innovation that not only helps them succeed in the present environment, but is also going to ensure that they are ready to win and accelerate when the upturn comes.”

Ram Jamunathan

SVP, Head of Corporate Strategy,
SAP and Managing Director
SAP.iO



Redefining essential

Businesses that have responded to the pandemic by rethinking their core products and capabilities were able to help when the world needed it and keep their people working.



Ford and **General Motors** teamed up with college football team the **Wisconsin Badgers** to manufacture ventilators in a “pop-up supply chain”



NFL owner Bob Kraft took the **New England Patriots’** team airplane to pick up protective masks in China



Hanes switched its production line to create protective masks



Distilleries and brewers used their production lines to create hand sanitizer during the shortage

“In many ways, when you have fundamental paradigm shifts or a major traumatic experience like a financial or medical crisis, there are opportunities for collaboration across industry groups to build essential solutions for what the world might need right now and into the future.”

Sandra Ro
CEO,
Global Blockchain Business Council



Meet the system

Today's new model: data in motion

Ecosystem trust and collaboration are essential to build and accelerate solutions to scale; multiparty systems enable these collaborations and open new opportunities. What are these systems? How do they work?

Multiparty systems, through a combination of new techniques and technologies, including but not limited to areas such as blockchain, other distributed systems technologies (such as DLT), and privacy-preserving techniques and tools such as confidential computing, can help drive collaborative innovation throughout an ecosystem. Some multiparty solutions allow partners to securely share access to the same data at the same time. (Not a copy of the data, the actual data itself, including its activity history). This single source of truth means everyone with appropriate authorization sees the same information at virtually the same time.

Not only does this streamline data-sharing, it makes it possible to use data in new ways to leapfrog traditional processes. Each piece of data effectively becomes a unique digital object that can't be copied, moved, changed or "spent" without the collective consent of the ecosystem. It can also be encoded with rules that declare how it should be used and by whom, along with the option to revoke those permissions.

This applies to organizations as well as individuals, who gain the power to store personal data in digital wallets and share access as they see fit. Greater control over data breeds greater trust and more willingness to share—whether it's individuals granting corporations access to tailor experiences or supply chain partners offering more transparency.

Mobilizing data in this way empowers ecosystems to rethink entire processes and services with new-found transparency, confidence, and control, helping them gain competitive advantage and remain resilient during future global disruptions.

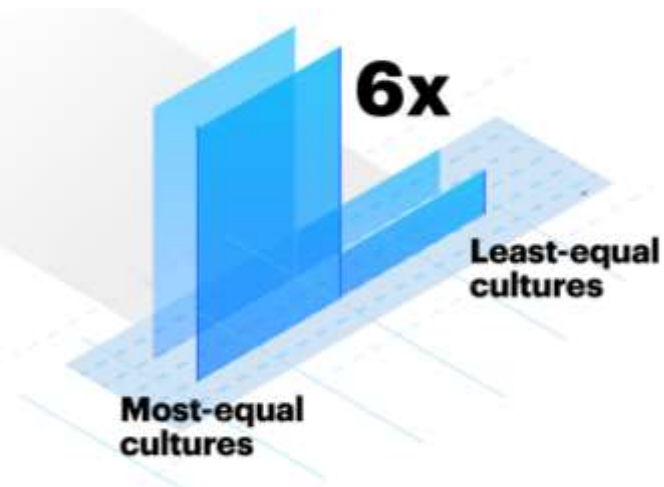


Diversity positively influences an innovation mindset. Equality multiplies it.

The combined effect of culture-of-equality and diversity factors on innovation mindset.

Amid the pandemic, another important conversation took the global stage: the call for social justice and equality.

Organizations that prioritize inclusion and diversity believe their actions will have a positive impact on their employees, innovation, and revenue. [Accenture Research](#) has found that culture is the number one driver of innovation: Cultures considered by their people to be the most equal and diverse have “innovation mindsets” that are 11 times those of their least-equal counterparts. And when leadership is considered, companies with more diverse management teams have [19 percent](#) higher revenues due to innovation.



“Innovation mindset” (an individual’s willingness and ability to be innovative at work) is **six times higher in the most-equal cultures than in the least-equal ones.**

“Our unwavering commitment to inclusion and diversity unleashes innovation and creates a culture where everyone feels they have equal opportunity.”

Julie Sweet

Chief Executive Officer

Accenture



Identity in crisis?

Everyone who has ever started a new job or traveled on a plane knows that our methods for proving our identity are time-consuming, tedious, and complex, resulting in frustration for individuals. They can also be inaccurate, inefficient, and expensive for businesses. The current systems are designed without the people in mind, and it is clear they were not designed to operate in a fast-paced digital world.



Just be you

From boarding a plane to onboarding when you join a new organization, we're often asked for any number of verifiable sources of evidence in order to prove that we're us and that we meet certain criteria. The documents we provide are often physical and difficult to update. And because we can't discretely show or hide the various bits of information presented on them, we often end up oversharing (e.g., a bartender needs to know you're of legal drinking age but doesn't need to see your full date of birth, your height and weight).

Pre-COVID-19, organizations were already working to solve these challenges across multiple industries and geographies, leveraging blockchain, biometrics, and other innovative technologies to reimagine a people-centric, self-managed digital identity experience—one that puts the individual at the heart of the identity ecosystem while unlocking new value for entire industries. This is known as decentralized identity, where multiple parties simply share access to data that has been verified by a recognized authority but is owned and controlled by the individual. The transformative opportunities surrounding decentralized identity extend to travel, hospitality, healthcare, financial services, and beyond.

Initiatives ahead of COVID-19

Accenture's identity-focused initiatives prior to the pandemic

- Working as part of the [Known Traveller Digital Identity program](#), a multiparty system of government agencies, airlines, and airport convened by the World Economic Forum (WEF) to build a secure and seamless global travel experience that can be extended to the hospitality industry and others
- [Ensuring safe commuting for employees in India](#)
- [Supporting health services with more efficient onboarding of medical staff](#)
- Improving onboarding and KYC processes within financial services
- Developing interoperable common standards in [partnership with the WEF](#) to ensure uniformity and among these projects and others.



What did this crisis reveal?

All at once, freedom of movement was restricted around the world, and the abrupt collapse of the economy left tens of millions applying for government assistance, relief packages and short-term loans. It soon became clear that the traditional paper-based, in-person

methods of identity proofing, enrollment (US) and transaction endorsement were not only obsolete but also potentially hazardous due to requiring human-to-human contact. How, then, do you establish trust and authenticity in a virtual, socially-distanced world?

To reconnect everyone safely, we need to rebuild trust in society and its critical functions. It all starts by empowering the individual with comprehensive, user-centric solutions that enable them to return to life without sacrificing safety or privacy.

01.

How do we trust that a person is who they say they are remotely?

02.

How can we onboard a new employee if it's not viable or palatable to present a physical document?

03.

How do we enable large event organizers to better know their attendees and potential risks, ahead of time, remotely?

04.

How do we fundamentally trust that we will be allowed to enter a country, a stadium, or our offices without consistent and coherent guidance across sectors and borders?



The key is a faster-to-market, private, fully digital, trusted, and secure way to share identity-related data. This can be achieved with a multiparty system centered around the individual, wherein they are always in control of their own information, selecting what to share with whom and for how long.

Accenture envisions this, in part, as a dynamic health solution that incorporates credentials such as a recent negative COVID-19 test, a vaccination certificate, and other attestations (e.g., driver's license, skills, and education) into a digital identity "wallet" controlled by the individual.

Whether for public health, travel, or simply returning to a workplace, this solution and others like it must be standards-based and interoperable so that users can share their information with any number of organizations ahead of time without requiring those disparate systems to be integrated.

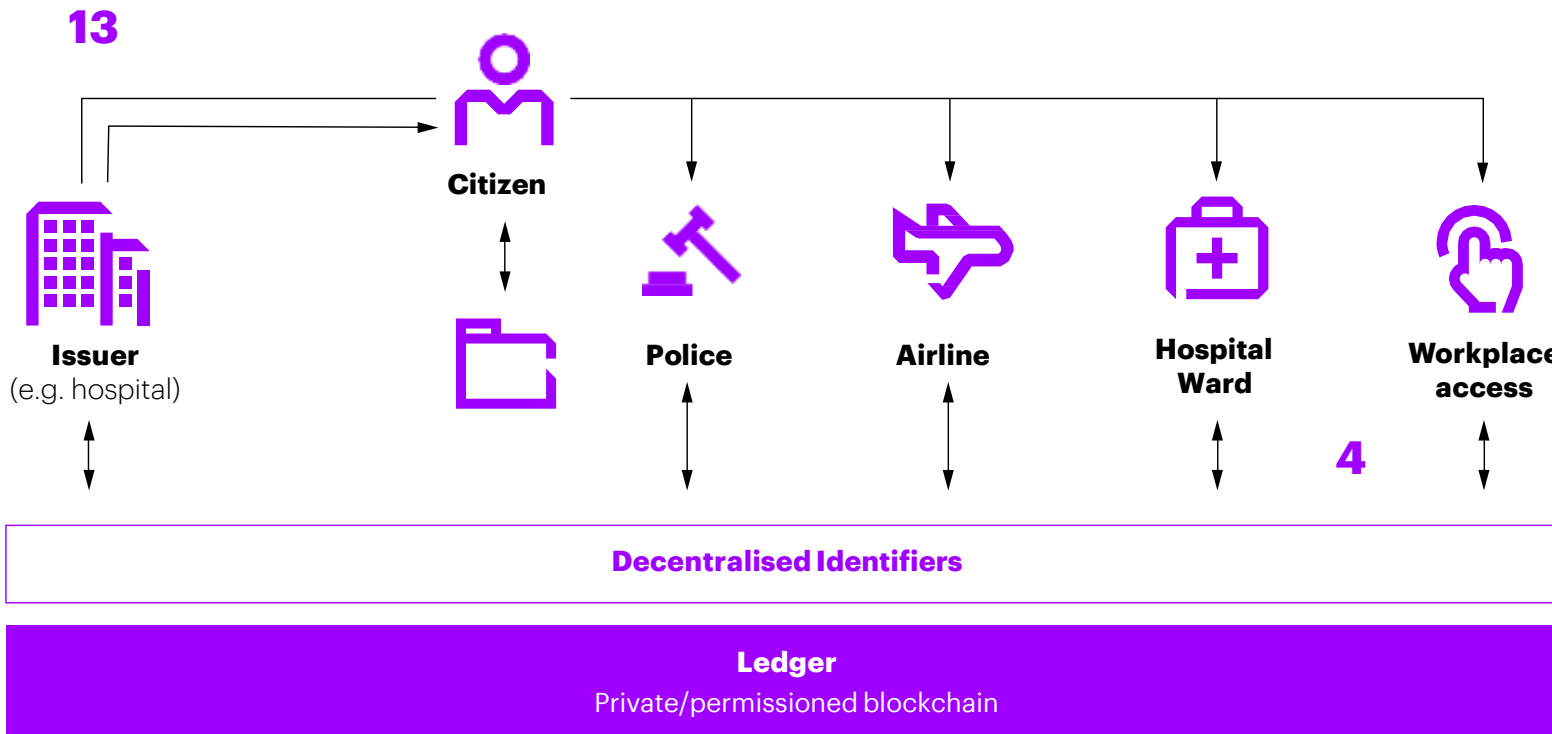
For example, if employees return to an office site, each can share their health risk data with the employer in advance, allowing it to prepare separate entrances and seating areas for vulnerable persons while advising those who are higher risk to work remotely.



Touchless travel

This type of anytime, anywhere proof of health, risk status, and travel history could underpin new levels of trust to safely reconnect our global society.

This quick and significant impact will help many hard-hit industries, including travel and leisure sectors like airlines, hotels, tourism, and retail get back to business.

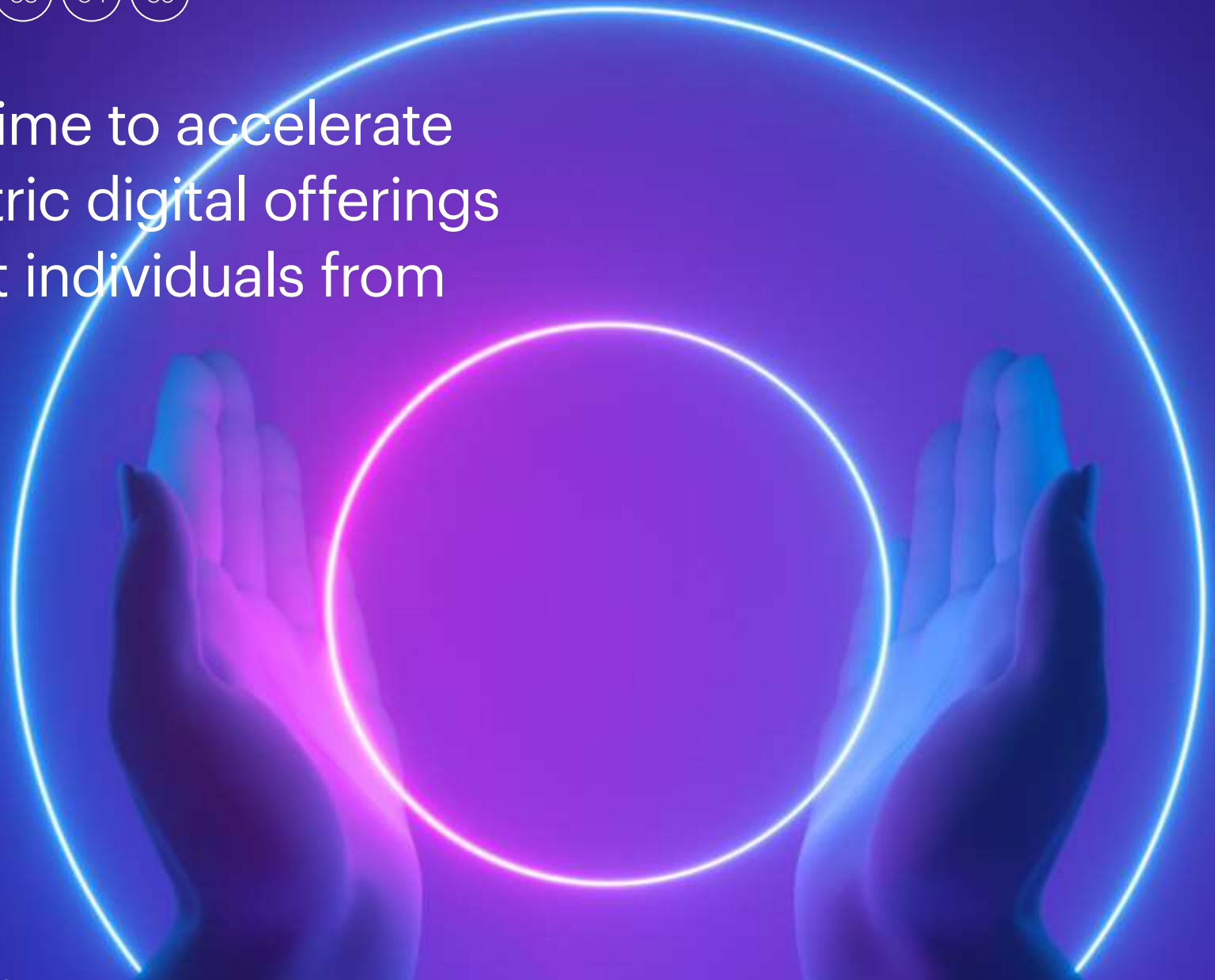


Wallet contents

- Antibody or vaccination certificates
- Negative COVID-19 test
- Medical history
- Employee number
- Passport
- Visas/travel authorizations
- Travel history, i.e. border crossings
- Preferences



Now is the time to accelerate human-centric digital offerings that support individuals from every angle.



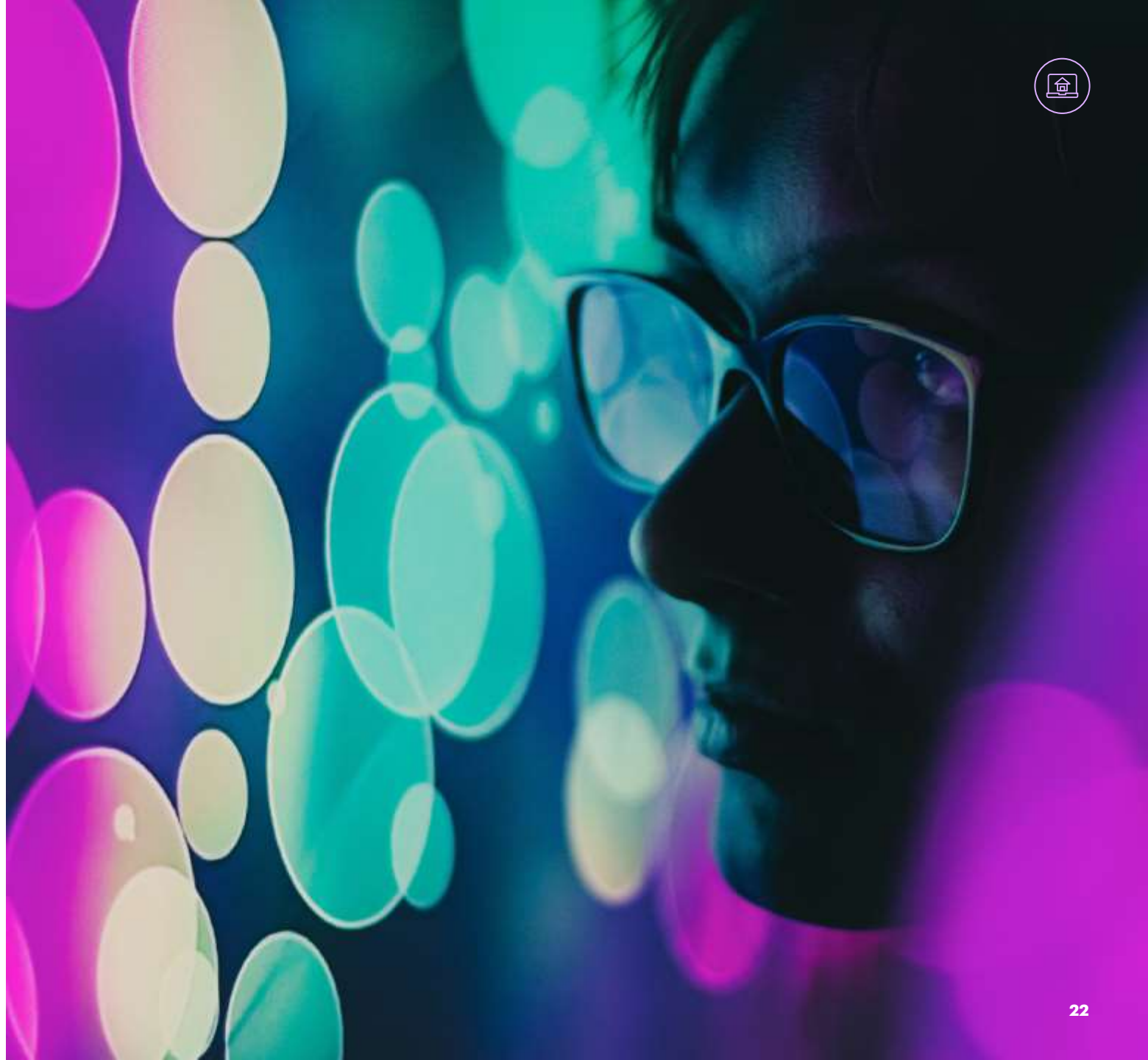


What's next: Safety fast?

Investments in the identity space must now be driven by safety and the rebuilding of trust, both across your value chain (vendors, partners, etc.) and among individuals as they attempt to reengage in the world with confidence.

Solutions need to be dynamic and quick to deploy as things evolve, but more importantly, your organization must adopt an innovation mindset, with the willingness to embrace new capabilities and reimagine new ways of doing things.

Behavior is changing, as more people switch to digital forms of engagement across the board.





Thought starters

The multiparty system technologies that enable this level of comprehensive support are already here, tested, and proven. The task now is to define which use cases will leverage them to help people resume daily life as seamlessly as possible. Think about how your organization could facilitate the following:

01.

International and domestic travel

How can we preemptively share health status or risk with airlines, train operators, cruises, and border authorities.

02.

Safer workplaces

How can we relay health status or risk with employers to minimize infection in the workplace and ensure safety for everyone, including gig economy workers?

03.

Hiring and onboarding

How can we share trusted identity-related data remotely to minimize physical contact and ultimately replace physical identity proofing?

04.

Rebuilding consumer confidence in retail

How can we share health status before entering shops? How can companies provide more information about inventory to appeal to changing preferences and concerns in future pandemics (e.g., whether an item is guaranteed in stock, where it's produced, etc.).

05.

Reopening tourism and leisure

What type of information needs to be shared prior to booking or entering a crowded location, such as a restaurant, pub, museum, or sporting event? What would that look like?

06.

Replacing in-person identity checks

For large transactions in financial services and other commercial sectors, how do we share trusted identity data, and what are the biometric and document authentication capabilities required?



Determine who you need to collaborate with on these solutions. Not only do organizations need to come together globally, they also need cohesive guidance from governments to prepare for the future. Many identity-related solutions are already emerging to enable travel and return to work. Without open innovation, solutions will remain siloed, unaccepted, or unusable by other parties. This will only lead to confusion, a negative user experience, and failure to adopt.

Think about the critical privacy considerations that come with identity-related solutions, whether contact tracing or health credentials. COVID-19 has demonstrated a need for data from the entire population about health status, contacts, whereabouts, travel history, and many other aspects of each individual's life. To prevent mass surveillance and ensure protection, solutions must leverage new approaches using privacy-preserving technologies to enable anonymous sharing of data with authorities.

“There is nothing more important to this space than digital identity as a general matter. That is true for blockchain, it's true for data policy, it's true for AI, it's true for IoT: Identity, not just of people, but of things. How do you know this thing is the thing that it claims to be, for example?”

Sheila Warren

Deputy Head of the Centre for the Fourth Industrial Revolution

[World Economic Forum](#)

“The most important aspect of decentralized identity innovation is preserving privacy—allowing individuals to control their data.”

Christine Leong

Managing Director, Blockchain Identity & Biometrics

[Accenture](#)



Recommended actions – Identity

01.

Prevent

What to do now

- Address the burning platform to rebuild trust among employees and customers
- Adopt and build capabilities to ensure safety in the movement of people
- Recognize that in-person processes are no longer really viable. To continue onboarding and serving customers and employees, digital capabilities must be adopted quickly and securely
- Prioritize high-impact use cases with transformational benefits and efficiency gains
- Reframe your mindset on technology. Times of crisis call for innovation. Use this opportunity to pilot high-value solutions while balancing risk

02.

Prepare

What to do next

- Adopt proven decentralized and self-managed identity capabilities to enable employees and customers to share identity-related data in a private and trusted manner
- Build capabilities that enable the return to daily life, with reimagined processes that are digital, private, and user-centric
- Collaborate with other organizations across sectors to manage risk and reduce potential confusion and redundancy

03.

Predict

What to do long-term

- Strengthen partnerships to enable long-term opportunities to collaborate and scale digital identity solutions that add value across your ecosystem



Demand on supply

Before COVID-19, organizations had already recognized that digitalizing their supply chains would be a competitive advantage. But their innovation efforts often didn't focus on the broader ecosystem, resulting in supply chains built for efficiency vs. resiliency—which proved catastrophic during the early days of the pandemic.



In stable times, supply chains are already complex, but they more or less work. This crisis has revealed that across all industries supply chains are not prepared for the unexpected.

Other key challenges included:

01. Supply chains often rely on advanced planning and forecasting with minimal real-time visibility into goods. This lack of transparency and agility limits the ability to quickly adjust the flow of goods in response to unexpected disruptions.

02. Despite advances in digitizing transactions, there was no mechanism for ensuring consistency of information across various parties. This results in cumbersome and costly reconciliation efforts and increases risk of errors.

03. Banks and financial institutions lacked substantial visibility into supply chains, limiting their ability to mitigate liquidity risks and access working capital locked in supply chains.

The emergence of multiparty strategies and tools has helped to address these challenges, breaking down data siloes across supply chain actors and offering a single shared view of data to enhance transparency, provenance, and visibility. Through a combination of technologies like DLT, IoT and AI, leading enterprises have already embarked on a path to more resilient and customer-centric supply chains without compromising on data security and compliance.





Prior to COVID-19, Accenture and Intel began working with Nippon Express, one of Japan's leading logistics companies, on a multiparty system platform that provides increased transparency and track-and-trace to manufacturers, wholesalers, and medical institutions. The effort aims to reduce the presence of counterfeit drugs by tracking raw materials and products from origin to endpoint while minimizing onerous and costly manual checks and reconciliation.

The key to this and similar efforts is ensuring the focus is not just on digitization of existing processes, but reimagining the way various parties involved in a trade interact with each other on the flow of the physical goods/product, sharing of data/information, and flow of finances between them to break the functional siloes of finance, procurement, treasury, and supply chain and logistics.

In 2017, the WHO estimated that counterfeit medicine revenues account for 10 to 15 percent of the world's pharmaceutical market.





It's not, "How do I digitize an existing process?" It's, "How do I rethink that existing process and have the right data in the right place to do the right things that are required to give an outcome that has lower risk and lower impact to any business continuity issues in the future?"

Rob Barnes

CEO and Co-Founder

TradeIX



What did this crisis reveal?

71%

of companies surveyed did not have a business contingency plan for the outbreak lasting longer than a few weeks.

Consider the challenges hospitals and front-line workers experienced in acquiring the ventilators, test kits, and personal protective equipment (PPE) required to treat patients and protect themselves. What seems rather simple in typical times can be broken down by any number of dependencies or failure points within a supply chain. For COVID-19 test kits, endpoint delivery often failed due to a lack of nasal swabs that were primarily produced in one of the world's hardest-hit regions early in the crisis: Northern Italy.

The supply chain could not adapt with requisite agility to source the swabs from another producer. This highlights the need for cross chain visibility.

If the impact on the purchasers was severe, the impact on suppliers was nothing short of devastating. For instance, farmers had to destroy millions of pounds of food due to sudden drop in demand because of restaurant closures, all while millions of people were finding themselves food insecure for the first time in their lives. Thousands of businesses that have temporarily shut down are now out of business, leaving supply chains permanently destabilized. This has highlighted more than ever the need for sustainable supply chains built on systems that provide deep tier visibility.

Supply chains always experienced friction and revenue losses due to inaccurate and outdated data. For instance, predictive models used for planning built on historic data can lose effectiveness by sudden changes in demand and supply patterns. The pandemic has exposed the weakness of such models. There's a clear need for planning based on real time, multiparty data.

A multiparty system with a shared data construct—where every party has full control over their data but can share specific information securely with selected parties—is key to building such a supply chain.

We are already seeing a shift towards such systems.

- **SAP.iO startup partner Goodr is using distributed ledger technology to better track surplus food and divert supplies to food banks and other recipients in need.**
- **Accenture is leveraging its alliance with Splunk for real-time analytics on supply and demand and its track-and-trace capabilities to bring visibility across multiple tiers of a supply chain, helping to drive sustainability objectives.**



Across supply chains, risk mitigation through letters of credit (LOC) is essential to ensure continued operations. However, this traditionally paper-based process, relying on printed documents transported by courier, was halted at the onset of COVID-19, bringing many supply chains to a standstill. The crisis has held a magnifying glass to processes like this that essentially became liabilities to business despite having worked for decades, if not centuries.

A process dependent on couriers is not really fit for today's fast-paced, global and digital world, but it was only when business came to a complete stop that many companies saw how imperative it is to invest in the future. Accenture's partner TradelX had been rethinking the LOC and other trade finance processes before COVID-19 and the crisis only highlighted the pain points they had been working to solve.

Organizations should follow TradelX's lead by not just focusing on a near-term solution

through digitization. The time is now to reimagine the entire process and build for what's next with a new solution that can adapt and grow—regardless of what the future holds. That is what TradelX has done with their payment commitment product that acts as an alternative to LOCs and with their supply chain financing solution to accelerate much-needed access to working capital for small- and medium-cap enterprises (SMEs).

Accenture's True Supplier Marketplace solution for managing vendor and customer identities is another example of a transformative solution that would have delivered immense value during COVID-19 for companies that had identified key suppliers but were unable to trade with them due to delays in completing the pre-onboarding risk assessment. True Supplier Marketplace allows companies to manage all their details and third-party certifications on a DLT platform so they are shared securely and almost instantly with potential trading partners.

This allows for rapid and reliable risk assessment and onboarding. In addition, it allows for discovery by other new potential trading partners.





What's next: Connection

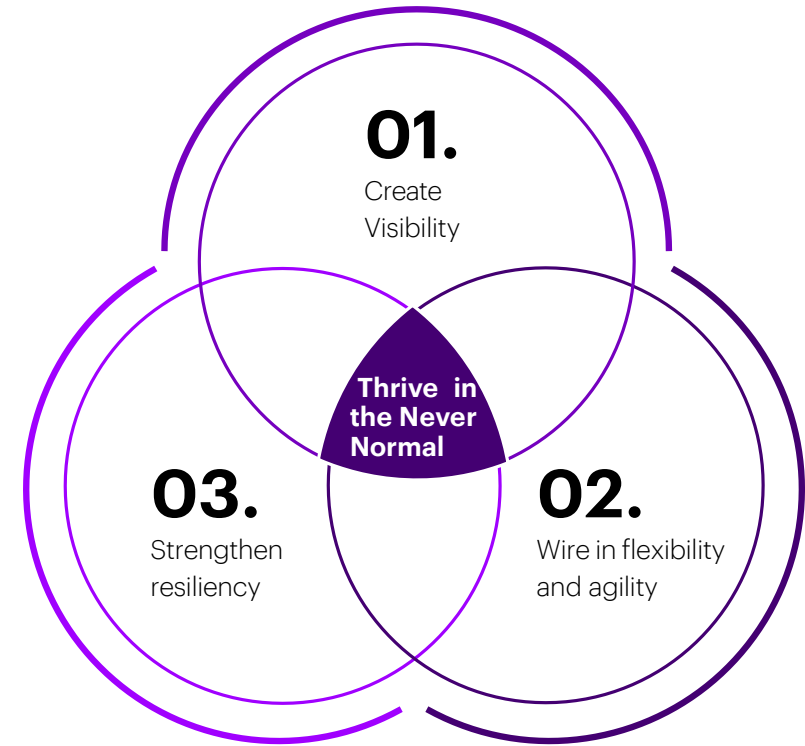
Just as a chain is only as strong as its weakest link, a supply chain is only as resilient as its riskiest liability. Organizations can no longer focus on innovating with the information and resources available within their four walls and data silos. They must instead prioritize closing the divide among all participants through strong planning, mobilization, and coordination. Blockchain-based liquidity solutions and circular supply chains that enable small suppliers to be rewarded for sustainable practices would be key to bringing in the small and medium enterprises to bridge the digital divide.

Even beyond the crisis, agile supply chains will be required to meet dynamic consumer demand driven by the growing shift to online channels that provide greater ease to switch brands. A study by Accenture and Geodis, found that brands estimated ecommerce in 2020 would represent nearly half of their sales (compared to a third before COVID-19).

Consumers have also become more sensitive to ecological impact and sustainability. So, providing transparency on these aspects will be an immediate competitive advantage and, over time, become a factor in purchase decisions and brand loyalty.

With COVID-19 accelerating a burning platform to supply chain resiliency centered around data management and transparency, new processes and data-sharing mechanisms are more important than ever. **This is the time to break silos within and across organizations and move toward One Connected Supply Chain.** This will provide new ways to resolve process friction and opacity throughout the value chain, delivering operational efficiencies, reducing revenue leakage, optimizing working capital, and increasing trust with consumers and business partners.

Figure 6. Building visibility, agility, and resiliency into supply chains Supply chains require participants to refocus and prioritize three key areas to thrive in the never normal



Source: [Accenture Strategy](#)



Recommended actions – Supply chains

01.

Prevent

What to do now

- Begin by investing to close the digital divide and identifying core technology advancements that others in your supply chain may lack
- Consider your existing architecture and assess where you can reduce friction in data sharing to enhance supply chain visibility for high-priority use cases
- See our [COVID-19 deep dive on supply chains](#) for more

02.

Prepare

What to do next

- Consider how supply chains and ecosystems are adapting in the new world, specifically focusing on how improved data management and transparency across stakeholders can improve existing processes
- Develop a list of prioritized use cases, evaluating them based on the level of effort across the supply chain and mutual value for all parties
- Consider joining an existing network or creating one of your own based on your influence in your trade ecosystem and availability of existing networks that address your priority use cases

03.

Predict

What to do long-term

- Continue looking for opportunities to strengthen existing networks and develop new ones that bolster new and existing value chains
- Ensure your strategy and evaluation process remain iterative
- Continuously monitor for future opportunities



Cashed out

In building our digital economy over the past decade, we've modernized all kinds of services, interactions, and commercial activities. Yet money itself hasn't evolved. Our financial system was built for a different world than the one we live in now.



Innovation has been focused on incremental improvements, often digitizing an analog currency or process. National payment infrastructures have long been siloed, with high barriers of entry wrought with friction as a result of previous global financial and economic crises. Plagued with massively inefficient, error-prone, and expensive reconciliation efforts, the system is susceptible to risk and security vulnerabilities. It's no surprise that both the public and private sectors have pushed for a new approach.

Advances in tokenization and multiparty systems offer new and more efficient alternatives to legacy technologies. Private enterprise recognized the value of a tokenized form of money and started the cryptocurrency innovation wave that led to the current stablecoin focus as a means to close the innovation gap between our digital systems and our analog money.

For central banks, the opportunity to improve payments and meet customer expectations has expedited the desire to explore digital

currencies. Based on DLT, central bank digital currency (CBDC) can provide greater utility than physical bank notes, with capabilities such as real-time transfer, peer-to-peer transactions, and restricted offline capabilities that would help in an emergency when telecommunications may be unavailable.

Even prior to COVID-19, we had reached a tipping point where central banks, custodians of the most reliable form of money in the world, are moving from research, testing, and experimentation into the realization of CBDC.

Accenture has served six of the G20 central banks with three projects in flight, including the [Digital Dollar Project](#), a partnership to encourage research, public discussion, and private sector involvement around a framework for creating a US CBDC. This trend has signaled central banks' desire to modernize systems for the future, recognizing that CBDC initiatives take careful planning, consideration and time to implement at scale.

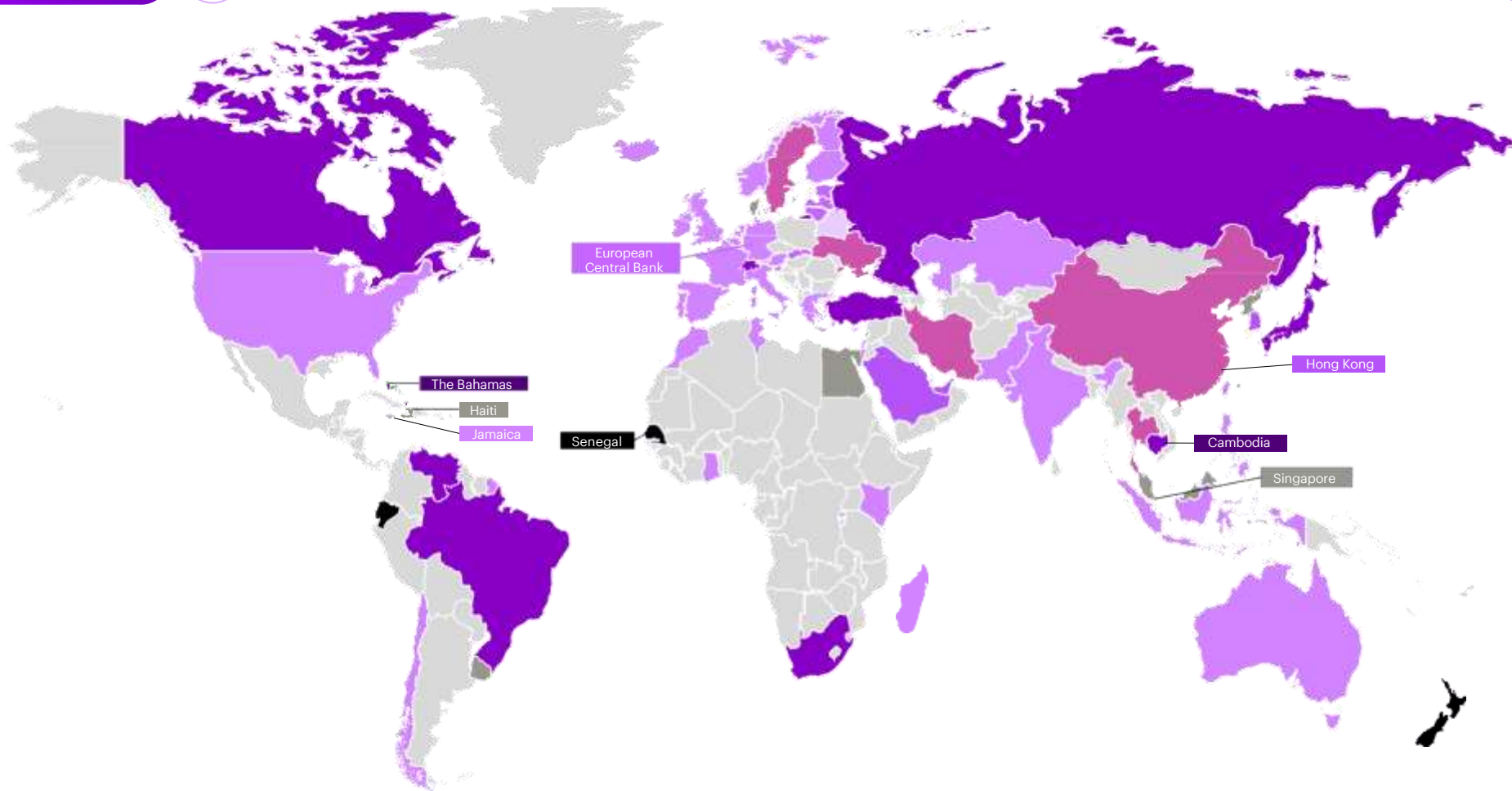
“This crisis must serve as a wake-up call and a call to action for business and government to think, act and invest for the common good and confront the structural obstacles that have inhibited inclusive economic growth for years.”

Jamie Dimon

Chairman and CEO

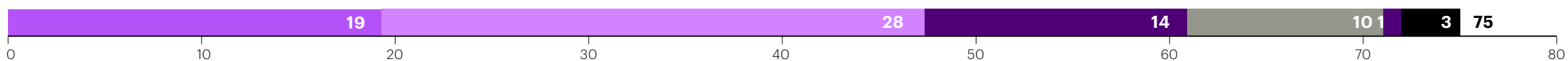
JPMorgan Chase

Central banks are launching digital currency research and initiatives



- No development yet
- Research
- Pilot
- Development
- Inactive
- Cancelled
- Launched

Number of Countries



Source: www.atlanticcouncil.org



“State-of-the-art financial infrastructure of the 20th century is becoming increasingly obsolete in the 21st century.”

Chris Giancarlo

Chairman Emeritus

The US Commodity Futures
Trading Commission



What did this crisis reveal?

A financial and banking system that works 99 percent of the time is not sufficient when it leaves people unable to access or use their money even 1 percent of the time. Central Banks often prioritize the customer experience and specifically fast access to capital but the stakes and expectations of customers have risen. The COVID-19 crisis magnified failures in the following areas:

- 01.** Significant challenges by governments in distributing money to their people, particularly the unbanked
- 02.** Dependency on paper money, despite it posing a higher risk of spreading COVID-19 due to physical handling
- 03.** Inability for people to access their money due to bank closures

04. Difficulty sending money internationally when it was needed the most

While central banks had sought to address these pain points and others before the crisis, they now have a new sense of urgency driving them in the form of a global economic downturn. All of these challenges are now more significant than ever, and all are the result of an outdated financial system.

The greatest implication is likely to be the inability of governments to effectively distribute money to people. From stimulus checks to unemployment compensation, municipalities around the world are rapidly looking for ways to put money in people's hands. Unfortunately, that task has proven far more complex than it should be. For the United States, a month after Congress passed a \$2 trillion stimulus bill, more than half the expected beneficiaries remained empty-handed. CBDCs can solve these

issues, acting as a form of helicopter money to reduce the many layers of government and friction that come between relief money, and the people who need it.

Since 2019, Accenture has been working with Sweden's Riksbank to pilot a digital platform for the e-krona, which includes exploring ways of sending emergency support to citizens during times of national concern. While the initiative was too immature to benefit Sweden during COVID-19, the Riksbank is continuing to make strides in the process, including a digital currency that works without a connected device.



Plan for a digital-first world that is not based solely on physical cash.



What does this mean for the future?

Our view of money is rapidly changing. Whereas consumers previously showed preference toward digital money, they now expect and demand it. Corporations are reacting to changing customer preferences while feeling friction in the current financial services system. And governments are prioritizing new methods of managing and distributing money.

The writing was on the wall for central banks, and the ones that were already exploring CBDC certainly have a head start. CBDC as an outcome is all but inevitable: In a future crisis, no country will be able to get away with the challenges realized in the last year without enacting change.

Organizations should use this time to assess learnings and create a strategy to move forward. Consider how a new financial infrastructure will impact your business and what moves you can take now to strengthen your future. Plan for a digital-first world that is no longer based solely on physical cash, incorporating a wide range of technologies such as touchless interactions, IoT devices, and DLT to create seamless experiences. Figure out what new opportunities exist when money can move faster, cheaper, and safer.





Recommended actions – Money

01.

Prevent

What to do now

- Assess the growing expectations for digital money and transactions by your customers, partners, etc.
- Evaluate your data architecture and identify systems (e.g., batch case processing) that may limit the adoption of digital money
- Begin conversations with policy makers and central banks to assess the interest and opportunity for CBDCs
- Get up to speed on the latest thinking around [CBDC](#)

02.

Prepare

What to do next

- For central bank and policy makers: Leverage the [WEF Central Bank Digital Currency Policy Marker-Toolkit](#) to support decision-making and identify risks when considering CBDC
- For organizations and businesses: Develop a list of high-value use cases to prepare for tokenized value and contactless solutions to ensure safe transactions or payments while reducing friction

03.

Predict

What to do long-term

- Expand and strengthen opportunities to develop a global network and solution to move money digitally, fluidly, and securely
- Continuously refine your strategy with new learnings, inputs, and requirements



Open innovation today for resilience tomorrow

As organizations navigate prolonged uncertainty, a short-term mindset will dramatically restrict innovation and erode long-term value. While driving operational efficiencies during crisis is necessary, innovation is not optional. Yesterday's models are hindering and halting business continuity and resiliency. Crises often bring forward new burning platforms, both immediately and long-term, that ultimately call for recalibration and acceleration of innovation investments to adapt to new realities.



Accelerating innovation is not a directive to simply digitize existing processes; it's a catalyst to reimagine how outcomes are attained. The low-hanging fruit is going digital as moving to the cloud and strengthening cloud investments become table stakes.

The greater opportunity is redefining how everything works while securing business as usual through enhanced ecosystem collaboration and data sharing.

Consider how your organization can improve how it does business with others, focusing on where increased data sharing and visibility, management and tracking of digital assets, and multiparty efficiencies drive value.

Organizations should expect to transition from siloed innovation to building trusted, collaborative ecosystems. Through open innovation, Gartner states, organizations can expand innovation potential and increase speed of transformational change while distributing costs. By leveraging open innovation, they gain access to boundaryless resources, diverse ideas, and a flexible workforce to spur experimentation.

Convening an ecosystem to better serve customers and the world at large will prove to be a profitable exercise for leaders who properly balance vital prudence with future-proofing innovation.

“These times of express, acute pain that is so persistent around the globe provide us the context to think about problems and solutions differently. They allow us to be a little more radical—stepping away from how we do it today with incremental improvement—to fundamentally redesign the process altogether.”

Rich Meszaros

Managing Director, North America Blockchain |
Multiparty Systems Lead

Accenture



Multiply your brilliance

01.

Now

- Focus on solutions and experimentation with ecosystem partners that center on the most disrupted processes
- Look to see where you can reduce friction in data-sharing and enhance accuracy across your networks. Better access to accurate, useful data improves decision-making and creates a multiplier innovation effect for new products and services, without compromising security and data protection

02.

Next

- Develop a short-and long-term strategic framework for innovation and experimentation, including improved data sharing across your ecosystem to create new and greater value for your customers
- Ensure your ecosystem strategy is revolutionary, not evolutionary—avoid simply replacing legacy processes and making incremental changes. Focus instead on reimagining and restructuring the process to align with new and “here-to-stay” realities to achieve desired results
- Recognize that prolonged uncertainty is our new reality, according to Gartner. By creating repeatable processes for continuous evaluation of business strategy and investments in innovation at speed, your organization can improve its ability to rise above a crisis and prepare for future disruption, including reinventing for market and customer changes
- Continually calibrate governance and incentive models across your ecosystem partners, understanding that different stakeholders are likely pursuing different use cases and value propositions as part of the same ecosystem



Authors

David Treat, Senior Managing Director, Global Tech Incubation Lead, Global Blockchain | MPS Lead

Melanie Cutlan, Managing Director, Global Blockchain | MPS Co-Lead

Christine Leong, Managing Director, Global Decentralized Identity & Biometrics Lead

Pooja Sanghvi, Managing Director, Global MPS Supply Chain & Trade Lead

John Velissarios, Managing Director, Global CBDC, Custody and Tokenized Assets Lead

Copyright © 2021 Accenture. All rights reserved.

Accenture and its logo are trademarks of Accenture.

About Accenture

Accenture is a global professional services company with leading capabilities in digital, cloud and security. Combining unmatched experience and specialized skills across more than 40 industries, we offer Strategy and Consulting, Interactive, Technology and Operations services — all powered by the world’s largest network of Advanced Technology and Intelligent Operations centers. Our 506,000 people deliver on the promise of technology and human ingenuity every day, serving clients in more than 120 countries. We embrace the power of change to create value and shared success for our clients, people, shareholders, partners and communities.

www.accenture.com

About Accenture Research

Accenture Research shapes trends and creates data driven insights about the most pressing issues global organizations face. Combining the power of innovative research techniques with a deep understanding of our clients’ industries, our team of 300 researchers and analysts spans 20 countries and publishes hundreds of reports, articles and points of view every year. Our thought-provoking research—supported by proprietary data and partnerships with leading organizations, such as MIT and Harvard—guides our innovations and allows us to transform theories and fresh ideas into real-world solutions for our clients.

www.accenture.com/research

This document makes descriptive reference to trademarks that may be owned by others. The use of such trademarks herein is not an assertion of ownership of such trademarks by Accenture and is not intended to represent or imply the existence of an association between Accenture and the lawful owners of such trademarks.