



The Different Times

Uniting in climate action and creating a network for change

Jorn Lambert, chief digital officer

Climate change is quickly becoming a climate crisis. From droughts to forest fires and shrinking ice sheets to extreme weather, the data speaks for itself – immediate action is required.

In a 2020 report by Earth.org, 71 percent of adults globally agreed that the climate crisis, in the long term, is as serious as the COVID-19 pandemic. New research commissioned by Mastercard reveals almost three in five (58%) adults globally are more mindful of their impact on the environment since the pandemic began, while 85 percent are willing to take personal action to combat environmental and sustainability issues in 2021.

At Mastercard, we are committed to ensuring people, communities, businesses and the planet can thrive. Recognising that no company can succeed in a failing world, we've set bold targets to address critical global issues such as economic inclusion, cultural diversity, and the security of the global payments ecosystem – all with the goal of helping our partners engage and serve customers in relevant ways. The area of environmental stewardship is one more way we can move forward together.

That's why, in addition to improving our own environmental footprint, we're also leveraging the full scale and scope of our business, technology and partnerships to act on climate change. We are driving systems-level development through powerful coalitions, while also empowering our network of nearly three billion consumers to take collective action to preserve the environment.

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From shoes to slippers: new approaches to customer engagement

Francis Hondal, president of loyalty and engagement

A little over a year ago, consumers traded in their shoes for slippers and moved much of their shopping from in-store to online. The swift shift to digital retail is just one of the many ways consumers worldwide had to change their habits and preferences as they adapted to the global pandemic.

This rapid evolution requires banks and retailers to rethink how they engage with consumers. "Relationship commerce" is now front and centre, challenging brands to build a connection anchored in data while delivering personalised communications, relevant and flexible rewards and offers and a digital-first experience.

For example, the market for betterment will be ripe for innovation in 2021, which creates an exciting

opportunity for brands to partner with other companies while developing new products and services to serve consumers' search for holistic wellness, betterment and growth.

Meanwhile, consumers are placing greater value on how brands respond to important issues ranging from sustainability to social causes. With social equality, inclusion, sustainability and climate change remaining important to many people in 2021, brands need to connect with these socially conscious consumers authentically.

As consumers worldwide continue to evolve their preferences and habits, relationship commerce has become increasingly important. Making smarter decisions will result in better outcomes.

Mastercard's SessionM solution helps brands build loyalty and engagement by using active customer data to understand how to expand their customer relationships, deliver personalised messaging and offer relevant rewards and experiences.

After over a year of social distancing and mobility restrictions, consumers will not only want to build back emotional connections with friends and family but with the brands that connected with them at different levels. Thinking about consumer engagement and loyalty in more personalised and data-driven ways will be vital in continuing to build and maintain these critical relationships.

■ Read the [extended article online](#)

Dear reader,

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Over the last year it's become clear that the wellbeing of our people, our economy, and our planet are all interconnected. We need to ensure that our increasingly digital world is one that drives inclusion, not divides.

At Mastercard, we're applying the best of our resources, partnering across governments, non-profit organisations, and businesses to build a more inclusive and sustainable digital economy for all.

That includes pioneering technologies that increase financial inclusion and security for all; empowering underserved small businesses to recover and grow; leading initiatives that help to close wealth and opportunity gaps and partnering with cities to assist an inclusive recovery. Recognising the quality and nature of our own futures are deeply and inextricably linked to the health and well-being of our planet, we've also put environmental sustainability at the top of our agenda.

We cannot — and likely do not want to — go back to the way things were. We can rebuild stronger together.

Success will only come if we understand the opportunities — the real customer needs — and then deliver purposeful innovation that delivers meaningful impact. People are looking forward, bringing with them the new experiences and preferences established the past year. It's not all about flash and dazzle. It's about having the right approach to fulfil the promise and ensure continued trust.

That's what these stories offer: the experience, advice and inspiration to create a future that's more inclusive and sustainable for everyone.

Because when we start with people, we Start Something Priceless™

mastercard.com/startwithpeople

#startwithpeople

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Gender diversity matters because diversity wins

Ann Cairns, executive vice chair of Mastercard

All over the world, people have been coping with COVID-19, but we also now know that the pandemic has disproportionately impacted women. As we recover, we now have a unique opportunity to hit the reset button in all industries — across the board, and across boards. It is time to ask ourselves if we have the balance of the workforce that our world needs — and prepare to do what it takes to get there.

So, what needs to happen to redress this imbalance?

We need to provide women more choice, better access, enhanced digital tools, improved connections and greater opportunities. As part of its commitment to connect 1 billion people to the digital economy by 2025, Mastercard is placing a direct focus on providing 25 million women entrepreneurs with solutions that can help them grow their businesses through a range of initiatives crossing funding, mentoring and the development of inclusive technologies.

"As we search for ways to sweep away the debris of a COVID-induced gender crisis, we have a new opportunity to make a case for inclusion and diversity."

When it comes to the private sector, more and more firms have diversity and inclusion policies. That is great news, but right now momentum is everything — we need to see companies of all sectors reach out at the grassroots level to create growth pathways for women to contribute their views and value — from entry-level to the top of corporate hierarchy.

As we search for ways to sweep away the debris of a COVID-induced gender crisis that has set back millions of women, we have a new opportunity to make a case for inclusion and diversity — we have a real opportunity to put the all-male boardroom in the history books.

Now is the time to show every shareholder in every corner of the world that diversity matters: because diversity wins.

Mastercard Index of Women Entrepreneurs

In the face of adversity, women around the world are demonstrating opportunism, adaptability and resilience to drive economic recovery.

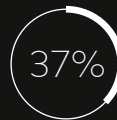
According to 590 women business leaders:



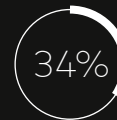
identified and cut unnecessary expenses



shifted to a digital business model



grew an area of the business in response to local or global needs



identified new business opportunities

Understanding the female entrepreneurial environment is essential to supporting the success of women. Each year, Mastercard offers vital insights into the enablers and constraints of women's progress as business owners across 58 world economies, representing nearly 80% of the world's female labour force, in the Mastercard Index of Women Entrepreneurs

Through the report, now in its fourth year, Mastercard is committed to providing a bedrock of information that enables governments, businesses and individuals to take decisive action in implementing targeted gender-specific support resulting in greater gender parity in the world of work.

■ [Download the Mastercard Index of Women Entrepreneurs](#) report to learn more

Join us in supporting
Black women-owned
businesses

[Learn more](#)



How borderless payments help people stay connected to their worlds

Stephen Grainger, executive vice president for Cross-Border Services

During the coronavirus pandemic, when national borders have been closed, the continued functioning of the cross-border payment ecosystem has never been so important.

Whether an international worker sending money home to your family, a gig worker receiving payment from an international platform or a manufacturer sourcing supplies from across the world, we are all — in some way — dependent on borderless trade.

The first Borderless Payments Report from Mastercard, which was published this month, chronicles the vital role that cross-border payments have played in keeping the global economy moving at a time of unprecedented turmoil. It helps us understand why people and businesses send and receive money around the world, and how digital cross-border payment solutions have been a financial lifeline to many.

Maintaining a safe, efficient and inclusive global economy will be essential for economic recovery and growth from the pandemic and beyond, but there is room for improvement yet: all respondents said they faced challenges when it comes to sending and receiving money across borders. These include slow and unpredictable speeds, high and unpredictable costs and limited transparency of payment status. Others feared falling victim to fraud or data loss, while others report the process is too complex. These challenges amount to a general lack of certainty when it comes to making cross-border payments.

That's why Mastercard is supporting banks, non-banking financial institutions and digital platforms to improve efficiency, transparency and predictability of cross-border payments. Through a single, secure point of access, Mastercard Cross-Border Services allow people and businesses to send and receive money securely and with certainty. For any purpose; to any end point.

Because we know that when money moves seamlessly, it breaks down barriers. And staying connected to our worlds is important, now more than ever.

■ Visit crossborder.mastercard.com/borderlesspayments to learn more



● **Consumers** and their families have relied on cross-border payments to survive the pandemic

● **Small businesses** rely on international trade to manage future risk and help them grow

Why we're tying executive compensation to our sustainability priorities

Michael Miebach, president and CEO of Mastercard

In recent months and years, we've seen and participated in unprecedented dialogue around some of the most critical issues facing our society: climate change, discrimination and social justice, and the wealth and opportunity gap among them. Calls for change. Commitments to do more, to be better.

To help accelerate progress toward our sustainability goals, we are making changes to our executive compensation model. Specifically, we are linking compensation for our most senior executives, executive vice presidents and above, to Mastercard's environmental, social and corporate governance (ESG) initiatives, and to three global ESG priorities: carbon neutrality, financial inclusion, and gender pay parity.

The purpose of our incentive compensation programs is to encourage and reward performance that helps us achieve our goals — financial goals, of course, as well as strategic goals that lay the foundation for our future success.

We believe these ESG goals, which our senior leaders have the ability — and responsibility — to influence, will help our business grow and thrive for years to come. This change further reinforces our commitment to deepen our culture of inclusion, and ensure people can reach their potential, economic growth is inclusive, and the planet can thrive.

Innovating with the customer first

Increased customer demand for digital-first solutions and more customised experiences over the past year has led companies to place a greater emphasis on innovation.

In the second edition of the Become Index, 53 percent of executives say their organisations place a high priority on innovation. Close to half of businesses surveyed (42%) responded to the need by increasing innovation budgets. They developed new ways to keep workers safe and novel paths to connect with and cater to customers while safeguarding customers' health and peace of mind.

Become, sponsored by Mastercard and powered by the Harvard Business Review Analytic Services Business Innovators Index, is an annual, long-term innovation research initiative. It provides the actionable insights and roadmap needed to spark innovation, all informed by the extensive research and diverse input from consumers and key innovative businesses around the globe.

■ [Explore the Become Index online](#)

Avoiding healthcare ransomware attacks with a dose of preventative medicine



Ransomware attacks have been a growing problem for the health care industry, having increased in frequency during the pandemic. In 2020, health care data breaches were up 25% in the US over the previous year.

One of the biggest concerns is outside vendors who have access to critical data and systems to help keep their organizations running. While essential, this creates what is known as "third-party risk," in which hospital or medical office data may be exposed if those supply chain vendors are attacked. Organisations need to constantly think about impact a supplier failure could have on their operations.

That's why at the start of the pandemic, RiskRecon, a Mastercard company, offered free access to its services for health care organisations through the end of 2020, helping them assess their digital footprint and identify weak points, creating a risk heat map of potential vulnerabilities. RiskRecon was also recently selected as the first global ambassador for the Health Information Sharing and Analysis Center (Health-ISAC), a non-profit forum for health care companies to collaborate on cybersecurity.

To tackle these cybersecurity challenges — from ransomware to fraud to complex supply chains — staying ahead of the threat is more important than ever. Tools like RiskRecon and information sharing through Health-ISAC are just some of the ways an organisation can improve its security posture.

"The cyber threats facing the healthcare sector are challenging, and as part of any risk management program, they need to be addressed through strategic planning and thoughtful investment," says Errol Weiss, Health-ISAC's Chief Security Officer. "It's literally the equivalent of spending thousands now to prevent something that's preventable or paying millions later to recover from a catastrophe."

Call it preventative medicine.

"The more insights we can share into the shifting cyber landscape, and the more actionable they are, the better prepared we all will be to keep ahead of the criminals," says Simon Hunt, executive vice president for security and cyber innovation at Mastercard. "We may be able to see the end of the pandemic, but the need to safeguard and protect patients, staff and systems will never end."

■ [Learn more on the Mastercard Newsroom](#)

Continued: Uniting in climate action and creating a network for change

This includes everything from equipping them with cards made from sustainable materials, like bio-sourced and ocean plastics, to digital tools that educate them about their personal impact on the environment and inspire them to make mindful spending choices or donate to forest restoration efforts. We have created a Priceless Planet Coalition to mobilise our network of partners to achieve these aims.

The Priceless Planet Coalition unites the efforts of merchants, banks, cities and consumers to make meaningful investments to preserve the environment. Together with forestry experts Conservation International and World Resources Institute, we plan to restore 100 million trees over five years. The Coalition is supported by climate advisory board of experts who inform and guide the programme, bringing the benefit of the latest scientific data and insights.

Today, we're very proud to share that our Coalition includes more than 50 partners in 15 different countries and growing.

Why trees?

Nature has its own networks. Our forests are an integral part of the planet's system for cleaning and renewing the air we breathe – and restoring them is one of the most effective ways to combat climate change. Trees filter the water we drink and provide essential habitat for wildlife. Planting more of them is a simple and powerful way to capture carbon dioxide to help to mitigate climate change – but it's not quite as simple as planting a tree from the local garden centre in your back garden.

Guided by our advisory council and reforestation partners, we have chosen to support three forest restoration projects: the Amazon and Atlantic forests in Brazil; the Makuli Nzaui landscape in Makueni County, Kenya, and the Southern Tablelands and Riverina in Western Sydney, Australia. These meet science-based criteria for environmental sustainability, taking into account impact on biodiversity, climate and community.

First, their methods involve planting the right kinds of trees in the right locations; they are cared for to reach maturity, and so have maximum positive impact in terms of carbon-capture. This is important in Brazil, where approximately 15 percent of the Amazon Rainforest has already been lost. A loss of 20 percent is expected to be an irreversible tipping point that would result in harsh climate impacts across the region. Reforestation in this area will help to avoid the potentially catastrophic collapse of

Empowering people to take meaningful action against climate change



Informing people about their personal impact on the environment to inspire action



Encouraging people to make climate-conscious spending choices with data and insights



Enabling people to contribute by direct donation and using loyalty points

this precious natural asset and keep the ecosystem healthy going forward.

Second, these projects support biodiversity in their local ecosystems – restoration the way Mother Nature intended it. This can meanwhile improve water quality and increase local food production. Specifically in Kenya, reforesting these important catchment areas can help to create reliable sources of water, and the planting of a mix of high-value fruit trees will create crops that can be consumed locally and sold to markets.

And finally, they have positive social impact. In Australia, for example, Conservation International, in partnership with the Greening Youth Foundation, is working to assist and revitalise communities affected by the bushfires and restore the damaged landscapes while developing a long-term blueprint for addressing wildfire and disaster resilience. Restoring trees and empowering consumers to make more climate-conscious actions does not replace the need for companies to reduce carbon emissions, invest in energy efficient workplaces and operational processes, source renewable energy and adapt a sustainable supply chain.

At Mastercard, we're proud to lead by example – managing our own footprint and developing environmentally conscious solutions. Last year we used 100 percent renewable electricity – a key initiative being the expanded use of solar panels in data centres, which account for more than 50 percent of energy usage across the company. We are working to achieve a 38 percent reduction in all direct emissions and indirect emissions from the electricity we purchase and use, and a 20 percent reduction in other indirect emissions by 2025 (based on a 2016 baseline). We're the first in the payments industry to target net zero emissions by 2050.

Through our networks, we're meanwhile mobilising collective action in the world at large. Mastercard recently issued a \$600 million sustainability bond to support the company's goal of building a more sustainable and inclusive digital economy. We're also working to decarbonise our supply chains in collaboration with vendors globally.

As leaders, we must act today to create lasting, exponential impact to our planet. That's what I value so much about coalitions that bring together partners across a range of disciplines and industries. We can take the best ideas of each member and proliferate them across an expanding network that touches billions of consumers. We will only make change if we work at this together. Our economy and people will only thrive when our planet does too.



Plant a tree for someone special
with the Priceless Planet Coalition

Donate now



Africa enters new age of global digital commerce opportunities

Amnah Ajmal, executive vice president for market development in MEA

Across Sub-Saharan Africa, mobile devices are the primary channel used to connect to the internet. According to GSMA, by 2025, it's estimated that there will be 300 million more people using their devices to access internet services.

In light of this significant growth, mobile financial services have become the dominant form of digital payments, with twice as many mobile money accounts as bank accounts in the region. Subsequently, consumers are also increasingly expecting to have access to a broader range of digital financial services.

So, when millions of consumers can suddenly use their phones to also pay for things on global online platforms, it's a big deal. This is exactly what happened in February 2021, when Mastercard and MTN partnered to give millions of customers in 16 countries access to a secure, virtual payment solution linked to the MTN MoMo wallet.

Access to an international marketplace

Suddenly, the world is much bigger. An international marketplace has opened up. Regardless of whether they have a bank account or not, these customers can buy from global online merchants via websites and mobile applications through Mastercard's seamless and secure digital payment experience. Previously, this was limited to a local base of online and offline businesses, curtailing customers' ability to engage with the digital economy on a global scale.

Now, they can explore a larger variety of products, compare options and shop at well-known global e-commerce brands. Payment is quick and secure – for various goods and services from lifestyle, travel and accommodation, to leisure, entertainment, streaming services and more. It will also allow small business owners to purchase from suppliers abroad and pay with the virtual payment solution.

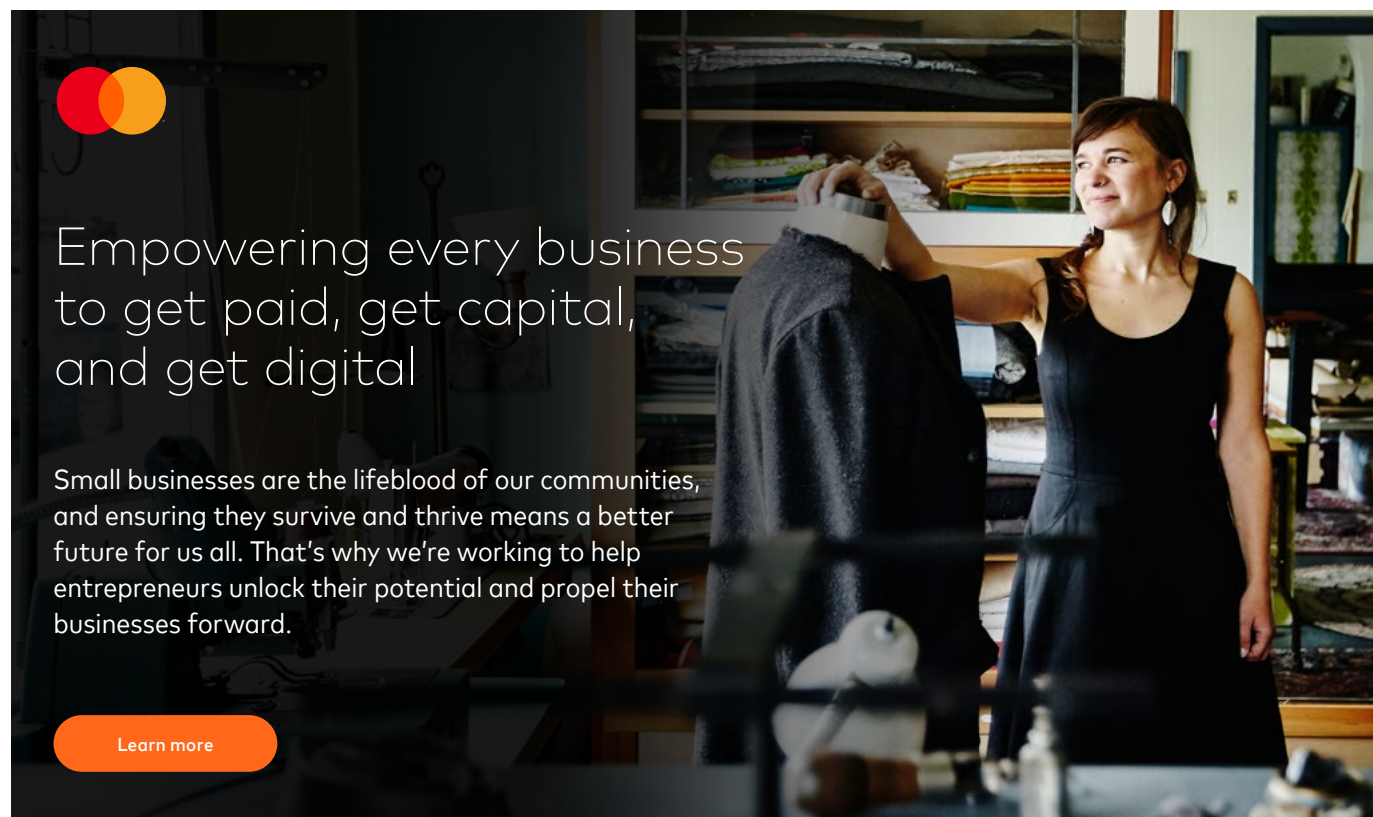
This is a great example of how technology is enabling new global digital commerce opportunities for consumers and merchants with or without a bank account, through a simple, seamless and secure payment experience.

Ecommerce is growing the digital economy

Globally, ecommerce is growing, and shopping online with mobile phones is largely how consumers are accessing these opportunities. According to the Economy 2021 outlook conducted by the Mastercard Economics Institute, 20-30% of the COVID-19-related surge in ecommerce will remain a permanent feature of overall retail spending.

MTN's MoMo was initially designed to facilitate the transfer of cash between mobile users, but its offering has broadened. It includes loans, insurance, remittances, payments and now – global ecommerce access via Mastercard's secure payment solution. Mastercard's ability to deliver innovative digital solutions at scale, is resulting in far-reaching impact to realize the true potential of inclusive growth across the continent.

This strategic partnership is not only a collaboration that makes good business sense; it's also a collaboration that underpins a new wave of financial inclusion through mobile devices, unlocking opportunities for millions of people across Africa. By 2025, Mastercard is aiming to connect 1 billion people to those opportunities, creating a thriving world where a restrictive cash environment doesn't hold anyone back.



Empowering every business to get paid, get capital, and get digital

Small businesses are the lifeblood of our communities, and ensuring they survive and thrive means a better future for us all. That's why we're working to help entrepreneurs unlock their potential and propel their businesses forward.

[Learn more](#)

Hungry for information: How blockchain can build trust in food supply chains

Deborah Barta, senior vice president for provenance and strategy

Consumers today expect companies to act with transparency, commit to sustainable practices and, of course, deliver what has been promised. Demonstrating such a commitment — showing, not telling — is not just a critical strategy, it's essential for survival. And it's crucial, as we've seen in the food supply chain, for public health and delivering essential goods in times of crisis. But the complexity of the supply chain makes it impossible for one company to do it on its own.

That's why the private sector, and more recently, government regulators, are turning to blockchain, the distributed ledger technology that enables transparency while ensuring privacy for all parties. This increases trust and security through the supply chain and gives peace of mind to consumers.

The transparent flow of information enabled by blockchain is the foundation upon which other validation points can be integrated. Using internet-connected devices, for example, a distributor can track the temperature of a shipping container to determine whether the food inside might be contaminated, or whether a case of fine wine has been jostled too much in transit, which can impact the look, taste and value.

At Mastercard, we're collaborating across industries to use our private blockchain technology to provide end-to-end visibility into the product journey with our

Mastercard Provenance Solution, enabling the digital identity of things. Our new partnership with Australia-based Fresh Supply Co. helps them digitise avocado exports to Malaysia, Singapore and Thailand with plans to expand to other products, such as beef, honey and abalone, giving consumers more confidence that the products they buy are safe and genuine.

Provenance is the starting point for this and so much more. It's a mechanism to digitise and transform supply chains regardless of industry — agriculture, luxury goods, logistics, cosmetics and pharmaceuticals — and show authenticity to consumers as well as convey sustainability information. It places a lens on production and distribution networks to deliver traceability and efficiencies into supply chains that impact sustainability measures and the global environment.

In increasingly complex and globally fragmented supply chains, empowering consumers to make informed purchasing decisions enabled by deeper visibility into the identity of things is a powerful way to "think globally, act locally." This transparency can help to highlight those that are committed to ethical and sustainable practices. It's the first step in ensuring that what we're buying is all that it should be.

■ Learn more [about our provenance solution](#)

Meet your farmer

Mastercard Provenance Solution enables shoppers to learn about the origins of their produce by scanning a QR code on their phones.

The Fresh Supply and Mastercard partnership allows shoppers to find out where the avocados were picked, the farmers who harvested them, when they were shipped, and even tips on how to prepare them (crispy avocado tacos, anyone?).



Watch the film



How AI is helping to manage just-in-time liquidity

David Rich,
executive vice president for real-time services

One of the key enablers of the financial industry's success will be to address the liquidity challenges financial institutions face. The more efficiently they can generate and manage liquidity, the more opportunities they have to finance the economy. And a thriving, effective economy fosters economic growth.

But effectively managing just-in-time liquidity is not as simple as stock-piling the reserves: If assets are held in liquid form, they're not available for use in other activities; and holding too much liquidity results in significant processing and other costs.

Amid the global shift to real-time payments, the challenges are compounding — the quicker things happen from a bank's point of view, the harder it is to respond to them. And in a real-time world it can be harder to identify trends and forecast for change.

"The advancement of AI technologies is helping to automate more elements of liquidity management."

Now, the advancement of artificial intelligence (AI) technologies is helping to automate more elements of liquidity management at speeds that far exceed human capabilities... Mastercard's **reporting and analytics solution** involves applying advanced data analytics to historic transactional data to help financial institutions predict their liquidity more effectively, and significantly reduce the risk of a breach. This results in improved operational efficiencies. The AI allows us to create an adaptive forecasting model, making it more reliable and more accurate than rules-based solutions.

This is not just a solution to manage liquidity, but to optimise it. The better banks can manage their liquidity, the more resources they have for more profitable activities and to capitalise on unforeseen opportunities when they arise.



Listen to David Rich
in conversation with
journalist Libby Potter

Listen now



Economic mobility requires benefits that move with workers

Parag Mehta,
executive director of the Mastercard Center for Inclusive Growth

One of the most important parts of a good job is that it provides people with financial security and economic mobility. Whether they're in traditional nine-to-five jobs, or doing part-time work, freelancing or juggling multiple gigs, they should feel that sense of financial security and economic mobility — and a big part of that is benefits.

At the Mastercard Center for Inclusive Growth, we've been talking to workers deeply affected by the lack of access to benefits and supporting research around these issues. What they say they want is more control over their finances. One way to get that is by divorcing benefits from the employer-employee relationship and by removing the geographic location so that as you move from job to job and place to place, your benefits can move with you.

Together with the Aspen Institute, the Center formed the Global Inclusive Growth Partnership to combine our expertise and networks to address systemic issues such as the need for portable benefits. Our **Benefits21** initiative is designed to ensure financial security and economic dignity for all workers by modernising these systems. With a framework for designing an integrated system of benefits that is people-centric, inclusive, portable and interoperable, we can invest now in initiatives that lay the groundwork for a rebuilding a more inclusive and sustainable economy, one that benefits all workers.

And we are. In October 2020, Stride, the leading portable benefits platform for independent workers, partnered with Mastercard to provide customers with the ability to offer cardholders in the U.S. access to simple and affordable health, dental and vision coverage plans. Jolbe, a community of more than 2 million on-demand workers in the delivery, warehouse, grocery and restaurant sectors, and Black-owned fintech Mobility Capital Finance (MoCaFi) are among Mastercard's first customers to use Stride's portable benefits platform.

Going forward, Mastercard plans to offer non-traditional workers a wider range of benefits' choices, including insurance, financial management, education and offers. The portable benefits initiative aims to enable Mastercard partners to deliver relevant benefits to these workers, ensuring they have a safety net to prepare them for the future, wherever they choose to work and whatever they choose to do.

■ Read the full story on the [Mastercard Newsroom](#)



In the middle of the butter eye

An interview with *Frode Åsheim*, executive vice president of Mastercard Payment Services.

by **Chris Button**
associate analyst for marketing

There's a beautiful Norwegian idiom used to describe something being in a great spot. Å være midt i smørøyet literally means "to be in the middle of the butter eye" and refers to the delectable hollow formed in butter as it melts into a bowl of porridge.

In February 2021, Mastercard completed its acquisition of the account-to-account payment business of Nordic-based Nets to form Mastercard Payment Services. Capabilities include clearing and settlement instant payment infrastructure, bill payment and e-invoicing applications. Frode Åsheim, executive vice president for Mastercard Payment Services, joined Mastercard with 310 of his former Nets colleagues.

We begin by asking Åsheim if the Norwegian idiom might be an apt way to describe the new position of Mastercard Payment Services within Mastercard. "We occupy a central place in Mastercard's multi-rail strategy," he responds. "That's a strong foundation for us coming in." But he's quick to add a cautionary note: "I'm not sure I'd describe Mastercard as porridge though!"

Nordic origins

Åsheim speaks with a mix of humbleness and pride: "A Nordic player coming into a global company doesn't know all the answers, but we take pride in knowing that we represent top-notch solutions." Mastercard Payment Services' Nordic origins aren't coincidental: countries in the region are esteemed as pioneers in payments technology with their near-cashless economies and electronic IDs for banking.

"We're too small individually, so we create economies of scale by coming together within markets and sometimes across borders. Cost of labour is high too, so we digitise processes and have invested heavily in digital infrastructure," explains Åsheim. He also reflects on Mastercard Payment Services' "50 years of experience and history" in its evolution from the merger of Norwegian payments processor BBS and Danish payments processor PBS.

Global vision

Still, Nordic doesn't do justice to the scope of Mastercard Payment Services' activities, which extend to instant payment infrastructures in Slovenia, Italy and Hungary. "It's truly more than a Nordic business" comments Åsheim, noting that its instant and bill payment capabilities are relevant worldwide. "The vision is more than European, and it's actually a global one," he adds.

It's the clarity of Mastercard's global vision that Åsheim finds particularly appealing. But he also reflects on a culture of openness "in terms of how people act." He effacingly suggests that "Mastercard is truly leading the way", but the sense of compatibility is palpable. "Combine that with the sense of urgency that we bring through our smaller size, and that's a strong argument for joining forces," he notes.

Distinction in the details

Global footprint aside, Åsheim is keen to stress the importance of services: "Equally important is moving from infrastructure to applications, which is really where you start using the rails that you have provided." Here he notes the combined strengths of Mastercard Payment Services' "strong experience in bill pay services" and Mastercard's "broader suite of applications."

Bill-pay services are of course not unique to Mastercard Payment Services. The distinction is in the details. Åsheim highlights "multi-access" as one example of how his business stands out. He's referring to how Nordic customers can access the same invoice across multiple bank channels. There's a sort of analogy in open banking, but Åsheim is keen to distinguish the level of integration that benefits the bill payers and bill presenters. "With our multi-access approach, all invoices can be paid in any bank a customer chooses. This simplifies and supports a thriving bill pay ecosystem. To pay and get paid in any channel is a true omnichannel approach," he explains.

Coming together

A discussion around integrated payments across Nordic banks naturally brings up P27. The joint initiative is led by a consortium of Nordic banks to build a world-first multi-currency instant and batch payments platform for the region. It will be operated by Mastercard.

The scope of P27 makes the Norwegian and Danish background of Mastercard Payment Services an important complement to Mastercard's existing presence in Sweden through Vocalink. "We hope that we can bring local insights. We know the markets. We know the stakeholders. We know the existing services very well and happen to drive a lot of them. And we think that's of essence when you go live," comments Åsheim.

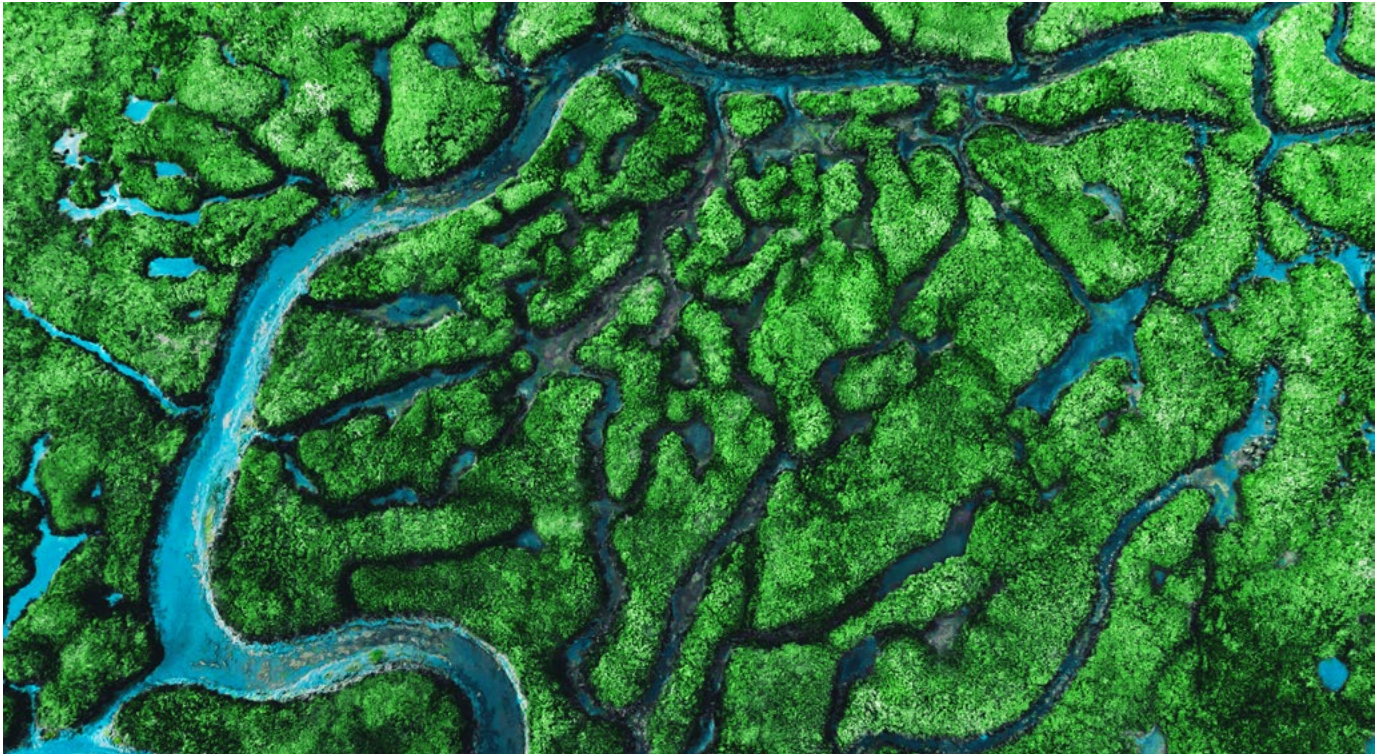
Again, he's humble: "I'm sure Mastercard would have been able to do it without us," he says. "But maybe they can do it even better with us," he adds with a hint of pride.

That Nordic butter looks ready to sink in.

■ Learn more at mastercardpaymentservices.com

Why marketers need to care about climate change

Raja Rajamannar, chief marketing and communications officer



The topline

As marketers, we know that we need to be able to anticipate what will be coming over the horizon and be prepared for it. More importantly, we need to know what is already here, but has not yet gotten proper attention from companies, brands, and marketers.

One such topic is climate change and environmental sustainability. It has taken years for the world to evolve and come together to firstly acknowledge that there is an issue of climate change and then commit to do something about combating the issue. Through the Paris Agreement, there is a global level of togetherness, and in all probability, it is here to stay for a multiplicity of reasons.

The time is now for marketers, if not sooner, to take the right action to not only support sustainability, but to do so by blending it into their core marketing strategies and into their day-to-day activities.

The insights

1) Societal momentum. The physical effects of environmental ravage can no longer be ignored; therefore, it has generated momentum at a global level. It is very rare that an initiative brings so many governments from across the world together, because the need is felt and seen so clearly. This type of global action will undoubtedly give this space the much-needed boost.

2) Companies need to deal with investors. Investors are holding companies accountable for behaving in an environmentally sustainable fashion. For example, many large investment management firms/

asset managers, are rebalancing their portfolios in favour of companies focused on ESG (Environmental, Social and Governance). As the momentum of ESG investing is picking up fast, companies cannot ignore the topic and need to adopt the right strategies to be socially responsible. And many companies have begun actively doing so.

3) The consumer perspective. Consumers, particularly the younger generations, are keenly environmentally conscious. They are willing to back only brands that are environmentally sustainable. They need evidence of action on how brands/companies are tackling the issue. This is also gaining stronger momentum by the month.

The essential truth

It's imperative that marketers see the writing on the wall: governments, investors, and consumers care deeply about environmental sustainability. The momentum is building at scale, in this space. As marketers, we always have to do what is right for the planet, right for the society, and right for the consumers. It's a principled stance on the one hand and a prudent business practice on the other.

My take

This is not a call to action for a single brand — no brand can, by itself, save the entire planet. Brands around the world need to band together to be able to create real impact.

As marketers, where do we start? While it may seem daunting to take the first step in the right direction, there are plenty of coalitions for marketers to join,

Brands around the world need to band together to be able to create real impact.

and you should evaluate which is the best for you and your strategies. For example, yesterday, World Federation of Advertisers, where I sit as the president, launched the Planet Pledge. Brands for Good also has an impressive roster of brands making commitments to prioritising the environment. And there are many others.

Long story short

Marketers must pay attention to climate change and environmental sustainability. They need to evaluate their own strategies against this backdrop. Are marketers taking into account the global momentum behind climate change and environmental sustainability? Are they listening to the clear values being expressed by their investors? Are they observing the actions and expectations of their consumers?

As marketers, we sit in a very influential position. We need to figure out what is right for our companies/brands and have a clear strategy on environmental sustainability baked into our marketing strategies. It's not only for the benefit of our brands, but for the world itself.



Join us at the **Payments Canada Summit** from **31 May to 4 June 2021** as we explore the future of payments around the world. Here's a handy guide to when and where you can find Mastercard on the agenda.

Speakers' corner



Paul Stoddart, president of New Payment Platforms gives a keynote address.

Monday 31 May, 11:45am–12:00pm EDT →



Heike Strasser, director for product architecture joins a panel on 'ISO 20022: The messages may be common, but the challenges sure aren't.'

Monday 31 May, 1:05pm–2pm EDT →



Liz Oakes, executive vice president for Mastercard Send™ makes predictions for 'Faster payments: the next 10 years.'

Wednesday 2 June, 1:05pm–2pm EDT →



Carolina Caballero, head of innovation in B2B payments and digital currencies discusses 'CBDC: incremental or transformational innovation?'

Thursday 3 June, 12:05pm–1pm EDT →



Jesse McWaters, vice president for global digital public policy explores 'The next payments frontier: the future of digital currencies in Canada.'

Friday 4 June, 11am–11:55am EDT →



Manal Toukan, senior vice president for bill payments asks 'How real-time payments will change the bill payments landscape.'

Friday 4 June, 12pm–12:55pm EDT →

You can also catch us at the following virtual conferences:

BAFT

8–10 June 2021

EBAday

28–30 June 2021

Sibos

11–15 October 2021

Not attending this year?

Catch all the conversation from Mastercard after the event at mastercard.com/startwithpeople

Accelerating Canada's digital economy

Countries all over the world are realising that a vibrant digital economy requires the real-time movement of money. Payments Canada is the latest organisation to [partner with Mastercard to build a state-of-the-art, real-time payment infrastructure](#), bringing faster, simpler, more flexible and convenient payments to Canada by 2022.

"Canada requires a real-time payments system to remain globally competitive," says Tracey Black, president and CEO of Payments Canada. "Domestically, we believe that the Real-Time Rail (RTR) will act as a platform for payment product and service innovation[s]...that meet the evolving needs of Canadians and Canadian businesses. Additionally, a real-time payments system will position Canada to

participate in innovation that is shaping the global payments landscape, such as open banking and cross-border, real-time payments."

"To create a system that empowers all people, businesses and governments to put their money to use requires partnership and collaboration," adds Paul Stoddart, president for New Payment Platforms at Mastercard. "Real-time payments lay the groundwork for a more efficient, safer and more accessible ecosystem where money works harder for everyone, everywhere."

■ [Read the full discussion online](#)



'Buy now, pay later' to improve consumer control

Matthew Cavin, vice president for product management

Over the last year, we've heard a lot about our "new normal." But that's a deceptive term. There's nothing new about our wants and needs – to connect, to easily and seamlessly navigate the world (even if it's largely a virtual one), and to exert control over our own lives. What's new is that the technology is now there to meet the moment and create fresh ways of moving forward.

The pandemic has, if anything, underscored our desire for choice, control and simplicity in managing our money, and that's what continues to drive our commitment to a fast-growing checkout option – often referred to as instalment loans or "buy now, pay later" options. As we have done for decades in

connecting banks, businesses and people to simple, safe payments, we help make these transactions work, using our technology and forging partnerships to bring these choices to shoppers at checkout in ways that make the most sense for everyone.

The ability to choose how you want to pay means shoppers can spread the cost of a specific big-ticket item (or even a smaller splurge) over a set period of time. It's not new – remember layaway? – but the way it can be delivered is. Taking instalments plans from a cumbersome, paper-heavy process to an entirely digital and near-real-time experience, we're helping merchants customise where, when and how their

customers pay, at any stage of a shopping journey, online or in store. And for consumers, it means you walk out of the store today with exactly what you need.

By working with banks, fintechs and other players, we help merchants to deliver these instalment options safely and securely to people the moment they are seeking them, improving satisfaction and brand loyalty while increasing sales for merchants by more effectively turning browsers into buyers.

The models we have embraced ensure shoppers have that choice at checkout, including continuing to work directly with our traditional issuing partners to split transactions into instalments on their cards. We are also collaborating with alternative lenders around the world to enable merchants to offer instalments at checkout with simple, easy-to-navigate terms that harness the safety, security and convenience of our network.

When deftly combined with digital-first and data-first strategies, Mastercard Instalment Payment Services allow any buy now, pay later provider – whether a fintech turned issuer or a traditional issuer – to offer compelling interest-free instalments to consumers at any retailer, anywhere.

■ [Download the report, 'Taking all the credit'](#)

Follow the journey of five women from five countries across the globe who have each set out to start a purpose-driven business to improve and uplift their communities.

From food insecurity and sustainable farming to special education and diversity and inclusion in the workplace, these films highlight the perseverance and passion of women entrepreneurs who are driving social change.

■ FIVE premiered on ShortsTV.

Watch online



**Sarah Beydoun, Sarah's Bag
Lebanon**

Sarah's Bag gives a second chance to women who've endured imprisonment, prostitution and abuse.



**Ekta Jaju, ONganic Foods
India**

Organic Foods is living proof that one small seed of change can transform a countryside.



**Irena Orlovic, Harfa
Croatia**

Harfa is an entrepreneurial publishing house founded with a desire to help teach an entire country.



**Carolina Ignarra, Talento Incluir
Brazil**

Talento Incluir encourages employers to hire and value people with different abilities.



**Maya-Camille Broussard, Justice of the Pies
United States**

Justice of the Pies serves up future talent by teaching skills to kids from underserved communities.

FIVE

Have data, will travel: Why the tourism industry needs data analytics for a recovery

Nicola Villa, executive vice president for government engagement

It's no secret that the pandemic has devastated the global travel and tourism industries. An estimated 120 million people globally have lost their jobs in tourism, notably women, young people and small entrepreneurs who account for 80 percent of the global sector, while small and micro-businesses — particularly in growing sectors such as agri-tourism and eco-tourism, and in developing countries — are watching their investments wither.

But this moment is also one of opportunity to not only rebuild but also reimagine tourism. Innovative technology, public-private partnerships and data analytics are already allowing communities to fast-track their recovery by capturing economic benefits and fostering job creation. They are also increasingly ensuring a more adaptable, inclusive and sustainable

sector that promotes environmental integrity as well as economic development.

The key tool here, for governments, private companies and small entrepreneurs will be data insights. Consumers use on average about 38 travel sites and plan their travels five weeks before their journey, surf social media for tips, post their vacation photos and trip reviews, and pay for much of their trips digitally. This generates massive, fresh pools of data — but pulling relevant insights in order to not only engage travellers but guide tourism investment requires expertise and advanced data analytics.

For example, through Mastercard's [Tourism Insights](#), government agencies use anonymised and aggregated payment data — pre- to post-trip — to

uncover consumers' behaviours, sentiments and spending habits, allowing better decision-making and planning. The Czech government, the first to harness Tourism Insights in the wake of the pandemic, says it will help identify the segments of travellers [spending the most money on the road](#), and their preferences, to better target tourism investment.

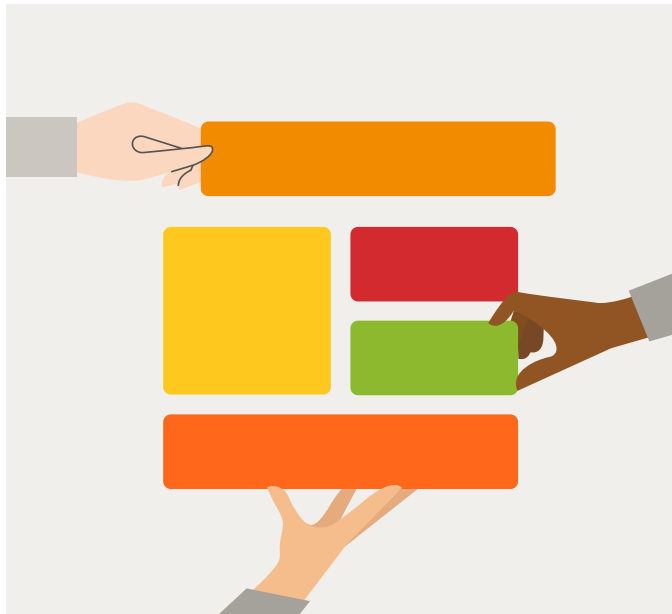
In these hard times, we will continue to work together with the industry and governments to navigate the challenges introduced by the pandemic, and to help rebuild a more inclusive and sustainable tourism economy.

■ Read the full story [on the Mastercard Newsroom](#)



Collaborate to innovate: The journey to becoming digital first

Hayden Harrison, manager, storytelling



and mortar stores to start selling online. Then, the group focused on enabling safe and simple digital payments. That meant integrating them seamlessly with the shopping experience.

Hugo represents a different aspect of the ecosystem. Spot Money is an open banking platform that consolidates payments and banking with a digital marketplace for financial services into a consumer-friendly app. “Our aim,” explained Hugo, “is to service the full spectrum of a consumer’s financial needs in a single customer-centric platform, giving them the choice to transact seamlessly and review tailor-made financial offers based on their unique needs.” The company takes a radically consumer-centric approach, which treats payments as an enabler of lifestyle experiences:

“We took a view not to think as a digital bank or as a solution provider. We put ourselves in the consumer’s mind and in their shoes... We really wanted to understand what people are doing with their money and what outcome they’re looking for.

The panellists agreed the biggest opportunity to deliver these digital-first experiences is via smartphones. With significant and growing penetration of internet-enabled devices in even – and sometimes especially – the least developed markets, apps are fast becoming the most common means by which people access and engage with financial services.

Shah summarised this as a ‘super app’ proposition, then asked how Mastercard – as leaders in this space – are accelerating developments in digital first to make these consolidated consumer experiences possible.

“If the need for businesses to go digital was ever in question, the events of the past 12 months have decidedly ended the debate” in its favour, said Gaurang Shah, senior vice president for digital payments and Labs at Mastercard. In the past year, we’ve seen consumer adoption of digital payment technologies accelerate faster than we’d expected it would in half a decade. “In 2021, it’s more important than ever for companies to take a digital-first approach,” he continued.

Over two days from 23–24 February 2021, Mastercard brought together c-suite business leaders from telcos, fintechs and retailers in partnership with CNBC Arabia and CNBC Africa for **Collaborate to Innovate** – a virtual conference to explore the opportunity to transform the digital business landscape of the Middle East and Africa region and beyond.

Paul Stoddart, president of New Payment Platforms at Mastercard, joined John Hadden, CEO of Alshaya Group and Andre Hugo, CEO of Spot Money SA on a panel to discuss the journey to becoming digital first. The discussion, which was moderated by Shah, looked at designing a digital vision while anticipating the ever-evolving dynamics of customer expectations.

Hadden was the first to detail how the coronavirus pandemic had accelerated a digital shift. His company, Alshaya Group is a leading international franchise operator in MENA for nearly 90 of the world’s most recognised brands, including Starbucks, Footlocker and Pottery Barn: “First and foremost, we expanded our e-commerce presence,” helping the brands that had operated primarily as brick

“We very much take a similar approach being that one stop shop for our customers, being able to handle all of their payment needs,” explained Stoddart. That goes beyond just buying things to include non-discretionary payments such as paying bills or receiving wages and earnings. “We have to take a magnifying glass to each step within the payment process and look at how we can reduce friction and improve efficiencies.” Mastercard’s suite of **real-time payment applications**, which integrate seamlessly with a financial service provider’s app, enable all these use cases and more. Both infrastructure and rail-agnostic, they allow consumers to send and receive digital payments using a card, bank account or digital wallet.

But Stoddart challenged the idea that a ‘digital first’ future is a ‘digital only’ future: “We’ve got to remember that cash is the lifeblood for a lot of citizens around the world. So our efforts to reduce the reliance on cash should be done sensitively and ensuring that people aren’t excluded from the financial world.”

“Our efforts to reduce the reliance on cash should be done sensitively and ensuring that people aren’t excluded from the financial world.”

■ Read the full story [on the Vocalink website](#)

Our consumer approach to financial data sharing

It’s time to flip yesterday’s data experience to a new reality. Where consumers (all of us), the originators of the data, use, control, understand and, most importantly, benefit from that data. Read the five core principles guiding our consumer-permissioned data sharing model from Finicity, a Mastercard company.

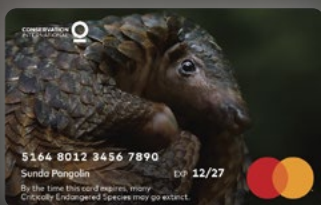
■ Read the white paper



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One million plant and animal species are currently threatened with extinction. Help build a future we can all live in with the Wildlife Impact Card programme, which is available globally.

Give a virtual Mastercard Wildlife Impact gift card to friends and loved ones in the US. For each gift card purchased, \$1 will be donated to Conservation International to support endangered species, wildlife and their habitats — part of our wider commitment to biodiversity and environmental sustainability.

[Learn more](#)

Building for inclusion with a layered-cake approach to securing online interactions

Justine Fox, director for software engineering at NuData, a Mastercard company

Ever since the video game *Portal* was released in October 2007 and popularised “The Cake Is a Lie” meme, I have enjoyed using a layered cake as a way to describe cyber resilience. In *Portal*, the protagonist is promised a cake by GLaDOS (an AI-powered robot antagonist), though a player will never see said cake during a regular playthrough. Thus, “the cake is a lie.”

But, is it really a lie? NuDetect, by NuData Security, is a cybersecurity tool with four integrated layers of security. I like to think of these layers as tasty whipped cream and chocolate wafer ones. Each wafer — I mean, layer — represents a security control. Within NuDetect, these layers include device intelligence that recognizes the devices a person uses, behavioural analytics that ensures that the device usage is normal, passive biometrics to look at the user’s inherent behavior like how they type, and a consortium of aggregated interactions that adds attackers to a blocklist. These layers interoperate in real time to ensure the highest security and privacy standards while accommodating human diversity across any connected device. This multi-layered approach ensures that the online environment users interact with is both secure and frictionless.

Today’s attackers are becoming more creative and sneakier in their techniques to break through security layers for cybercrime. In fact, in 2020 we saw that **38 percent of attacks were sophisticated**: that is, they mimicked human behaviour to try to bypass our cybersecurity layers. But they got caught by our cybersecurity layered cake. However, mitigating

attackers is not the only thing a good security tool should do.

If you are working on your next online security strategy, here’s something not many pay attention to. As part of your own security layered approach, double-check that you are keeping accessibility and inclusion top of mind. By including accessibility in the design phase, you can tackle the human side of cybersecurity early on, resulting in friendlier and more inclusive access. NuDetect leverages inclusion as a foundational design principle to make its security transparent and seamless for users.

At NuData, as folks come online, we ensure they’re protected and secured, requiring as little friction as possible to validate their identity. Perhaps it is true that the cake seems a lie: a user who doesn’t see the security layers and is still protected doesn’t need to see the cake, just to enjoy the online experience knowing they are protected.

■ Looking for more food for thought (with less sugar, I promise)? [Read the 2020 H2 report ‘Fraud Risk at a Glance’](#)

Mastercard Conversations

How are business leaders disrupting the present and shaping the future?

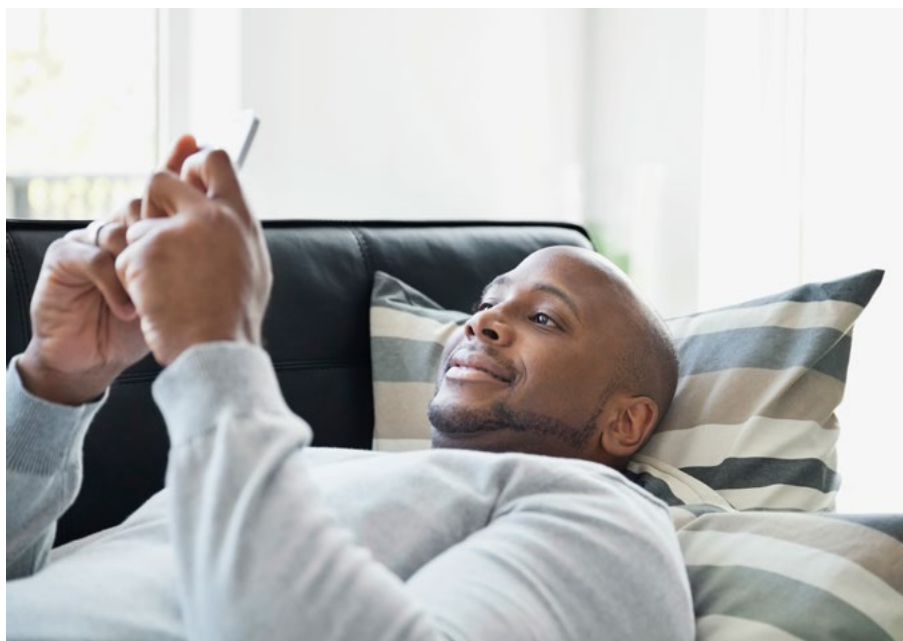
Watch a new series by CEO Michael Miebach featuring business leaders who discuss how they are responding to some of the biggest challenges in business, innovation and leadership.

In the first episode, we hear from Arvind Krishna, President and CEO of IBM, and Margaret Keane, Chair of Synchrony, key contributors to Mastercard’s second annual **Become Index** on global innovation. Hear their perspectives on the steps organisations must take to become world-class innovation leaders.

“It’s not just about the technology. It’s about innovating processes and helping partners accelerate the changes they need to make in order to meet the needs of their customers.”

— Margaret Keane, Chair of Synchrony

Watch now



Demand for speed and convenience is driving adoption of contactless and instant payments in India

Shashank Kumar, senior analyst for marketing

In a year upended by the coronavirus pandemic, many of our day-to-day experiences have become more digital. We now shop, stream and socialise online. So it's perhaps little surprise that consumers in India are also showing a greater preference for digital and contactless payments.

There has been a big jump in the use of digital payments," says Manasi Narasimhan, vice president for marketing and communications, South Asia at Mastercard. Narasimhan's comments reflect findings of a new survey, titled 'Preparing for the post-COVID-19 world: India consumer sentiment tracker,' which highlights evolving attitudes and behaviours towards digital payments, retail and travel.

The pandemic seems like the perfect storm for digital acceleration — banks transitioned to move many of their customer interactions to digital, grocery stores and pharmacies enabled online ordering, and schools pivoted to offer remote solutions. And consumers in India embraced this change, driven by concerns around safety, hygiene and convenience.

In addition to going online for day-to-day items like groceries, which was traditionally an offline purchase, 64 percent of respondents in India say they also bought online education solutions and 52 percent ordered health and wellness products and services.

Preference for instant and contactless payments was already on the rise, but survey findings show that the pandemic has accelerated demand for the speed, convenience and superior customer experience that these payment methods provide. Fifty-eight percent of respondents in India say they intend to increase their usage of contactless payment, while 81 percent believe that contactless payment is here to stay.

For instant payments, India is setting the benchmark for what's possible in terms of adoption. More than 2 billion instant payment transactions were processed in January 2021 alone, and India is on a 27.5 percent annual growth trajectory to reach nearly 86 billion transactions by 2025.¹

"These insights [will help to further] economic recovery by providing safe, secure and low-cost digital payments methods as our digital and physical worlds immerse in unique ways," believes Narasimhan.

Consumers in India desire the convenience of digital, but they also need to be reassured about security. Although 2 out of 3 people in India feel secure making online payments — an indication of their growing comfort with the digital ecosystem — there's a lot of room for improvement.

Our findings show that financial institutions remain best positioned to meet these needs, but there are also significant opportunities for newer, digital-native service providers. To be prepared for the post-COVID-19 world and to deliver true value to consumers, they must provide payment tools that improve customer satisfaction and retention.

At Mastercard, we're leveraging our insights to guide ideas, our innovations to build solutions, and our network to fuel momentum. Using secure data and networks, partnerships and passion, our innovations and solutions help individuals, financial institutions, governments, and businesses realise their greatest potential. We're collaborating across the industry in over 100 markets to enable and ensure that all payments are safe, simple, smart, and accessible for everyone.



Technologies and trends shaping the future of commerce

the 5G edition

From 5G to cryptocurrency, the global landscape for payments and commerce is undergoing a profound shift that will reshape the digital economy of tomorrow. Mastercard Signals examines the transformative innovations, global trends and new behaviours changing the way we shop, sell, interact and exchange.

[View online](#)

On grit, rebuilding and the longest year

"How we rebuild is not only the most difficult part but also the most exciting. It's up to us to push for real changes to make for a better, more inclusive world."

■ Read the annual letter from Michael Miebach and Ajay Banga

Insightful lessons from a global crisis

Raj Seshadri, president of Data & Services

Do you remember life before 2020? I find myself struggling to picture my daily routine pre-COVID. So much changed in the last year for all of us professionally and personally.

There has always been a certain sense of the unknown for businesses, but the pandemic's far-reaching implications were unprecedented, and the change to consumer behaviour was practically immediate. It became apparent very quickly that preconceived notions and prior research about consumer behaviour had become instantly outdated.

In April 2020, as consumers shifted their dollars online en-masse, we kicked off the Recovery Insights initiative. We pulled together the experts, tools and data-driven insights to figure out what this all meant – and what we, as well as the grocers, consumer packaged goods companies, airlines, banks and others, could do about it.

The answer:
Second guess – and test – everything.

The projects we've worked on run the gamut. We've helped apparel brands refine their inventory to address the rise in e-commerce, grocers fine-tune store hours to give at-risk shoppers peace of mind, and governments direct services to fuel local economies. Since the initiative began, it has resulted in roughly 1,000 engagements and opportunities with businesses and governments worldwide.

This mission of navigating uncertainty toward recovery changed us – as individuals, as communities and as a company.

Our world is only continuing to change. Through data-driven decision-making, agility and a commitment to finding innovative ways to support the path to recovery, I feel confident in the role we can play for the betterment of our fellow businesses, governments and people.

■ Take a deeper dive [into three lessons learned](#)



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How real-time multi-rail disbursements can empower those in need

The pandemic has put a fine point on the need to make disbursements more efficient by making them digital, faster, and to an account of the receiver's choosing.

According to recent data, more than a quarter of the 60 percent of US consumers who say they live paycheck to paycheck report having had trouble paying their bills. [Mastercard's own state of pay research findings](#) show that 58 percent of survey respondents from 14 countries said keeping up with credit commitments is a burden at the moment. Forty-three percent of respondents had put off making a purchase between paydays because of cash constraints and a fifth (20 percent) said they'd missed a payment or made it late.

Now, real-time disbursements are speeding up the delivery of economic assistance while providing increased choice, access and financial control. One example is [Mastercard's partnership with Oracle to speed up emergency aid disbursements](#) to people in need through a solution called Civic Assist.

"We partnered with Mastercard and others to figure out a way to... distribute funds quickly," said Rob Tarkoff, executive vice president and general manager at Oracle. He offered the example of the Angeleno Card Program in Los Angeles, California, US, which launched in 2020 to provide direct financial assistance to families hit hardest by the coronavirus pandemic. The City worked with

Mastercard and Oracle to streamline the verification and eligibility of people applying for support, and in three months, the programme distributed over \$36 million in direct financial assistance to more than 100,000 people across Los Angeles via pre-paid cards. Following the success of the initial pilot, Mastercard and Oracle are now working to replicate the solution in other cities across the United States and around the world.

But it's not just about speed. "Part of our multi-rail strategy at Mastercard," said Chiro Aikat, executive vice president for North America Product and Engineering at Mastercard, "is to enable people to send and receive payments via multiple channels." Mastercard and Oracle are also exploring opportunities to disburse funds using [Mastercard Send™](#), which enables near real-time payments to billions of cards, bank accounts, digital wallets and cash-out locations around the world. This makes it easier for recipients — whether they're consumers, gig workers or small businesses — to access and spend their money however they choose.

Together with our partners, we continue to explore new opportunities to improve the speed at scale of disbursements around the world. By pairing our secure and innovative solutions with Oracle, Aikat concluded, we can deliver payment solutions that are both cost-effective and fast, which in turn empowers people with greater financial control.

■ Learn more [about Civic Assist](#)

Bringing transparency, efficiency and control to consumer bill payments

Manal Toukan, senior vice president for Bill Pay

45%

of consumers would like to view, manage, and pay their bills in one place



Paying bills is never fun. It's often a "must do" activity in every household, which requires a lot of time and effort for one to "sit down and sort out the bills". It's a fragmented process, with most consumers paying bills across a variety of platforms and reviewing bills across many different sources. Shouldn't there be a better way?

Historically, digital innovation in consumer bill pay has lagged behind other financial experiences, and as a result has failed to meet customer

expectations. If consumers are paying for goods and services with contactless cards, digital wallets, smart watches and connected appliances, then shouldn't they also be able to pay their bills in a streamlined way?

To help us understand what people want when paying bills, Mastercard commissioned Mercator to help us better understand their needs and pain points. We found that, on average, U.S. consumers pay 21 bills each month, ranging from rent and credit cards to

utilities and student loans. Imagine having to go to 21 sites to pay bills, each requiring a unique username, password, and account number! It results in a highly inefficient and frustrating experience for U.S. bill payers. When asked how they would prefer to pay their bills, 45 percent of respondents would like to have a central place, online or in an app, to view, manage, and pay them all.

Mastercard is leading the charge on bill payment innovation with a new

digital solution that makes it easier for consumers to view, manage, and pay multiple bills in one place, without having to set up individual accounts, remember different passwords or log into multiple websites. Known globally as Mastercard Bill Pay, it's live with banks and credit unions in the U.S. as Mastercard Bill Pay Exchange, reducing friction and bringing long-needed transparency, consistency and simplicity to consumer bill payments.

■ Download the white paper, [Bringing transparency, efficiency and control to consumer bill pay](#)

When it comes to digital identity, trust is not optional

Ajay Bhalla, president of Cyber & Intelligence

The more things change, the more they remain the same. As people, we're hardwired for community, connection and interaction. We rely on these things to survive and thrive. Communities enable us to connect and interact and are the support structures we turn to for healthcare, education, entertainment and so much more. In our increasingly digitised world, they may look different than the small, local — and physical — networks of our grandparents, but they're no less essential. The key thing to remember is that trust still lies at the heart of each and every community.

Building trust in a digital world can be challenging. The first step is enabling individuals to identify one another and identify themselves. Digital identity, built with the end user's needs and challenges in mind, can go a long way toward reducing economic and social divides, as well as drive greater inclusion. That's essential, whether establishing a bank account or loan, interacting with government agencies and services, such as receiving benefits or disbursements, or enabling a more personalized and efficient shopping experience, remotely or in store.

Enabling people to prove their identity seamlessly and securely, in both the digital and physical worlds, has a range of benefits and it's why we have placed such great emphasis on developing a globally interoperable solution via our digital identity service, ID.

However, in today's increasingly connected world, identity extends far beyond the person to also include devices, transactions and accounts. Mastercard's identity solutions have played a critical role supporting businesses, governments and consumers during the global crisis, helping rapidly authenticate genuine transactions and reduce fraud and cybercrime.

These solutions leverage technologies like passive and behavioural biometrics and next-generation AI capabilities, and will serve as a key enabler in getting the world back on track during the recovery. But as important as it is to leverage identity solutions for the benefit of all, they must be underpinned by trust, so that data sits with its rightful owner, the user, and is only exchanged with consent.

Our own experience in building trust and inclusion proves what we already knew: we get further, faster, when we're working in deep collaboration with others. But making commitments is not the same as taking meaningful action.

Individually, we have made moves. Collectively, we're on the right road. Only together will we reach our ideal destination and achieve a more trusted and inclusive environment, with identity at the heart of our approach.

■ Read the full article in the [Wall Street Journal](#)



How open banking can create financial opportunities for all

Steve Smith, global open banking lead and co-founder & CEO of Fincity, a Mastercard company

Mastercard acquired Fincity in November 2020 as part of its work to expand consumer choice across cards, real-time payments, cryptocurrencies and open banking. We spoke to Fincity's co-founder and CEO Steve Smith to learn how open banking can grow financial wellness and inclusion.

How did Fincity start?

Early in her life, my grandmother adopted the envelopes budgeting model. In short, a person takes the family's income and divides it amongst a set of envelopes dedicated to all family expenses. I loved this model and saw how it could help people get and stay on track financially. We took this budgeting concept and applied a technology-driven approach to supercharge the experience.

We started by initially connecting to around 1,200 financial institutions in the U.S. By 2015, we had integrated more than 10,000 banks. Fincity was very deliberate to ensure concerns of all parties were best addressed while always taking a consumer-centric approach to the access of data and protection of that data.

What is the potential for open banking?

Data can tell people's stories in a richer and more nuanced way. It provides greater insight and context to drive better financial decisions and outcomes. One area we are focused on improving is financial inclusion. Through the use of open banking, lenders can have real-time views of a borrower's financial situation.

For instance, when a family applies for their first mortgage, they can give their permission for a provider to access asset, income and employment status from their financial accounts to determine what kind of house the family can afford.

What sort of responsibility do you feel you have to support people who may be struggling financially?

I absolutely believe that if you're in technology, you have a duty to develop it in a way that actually improves lives and avoids being destructive. Through open banking we can address our original vision of having a positive impact on the world and helping individuals, families and business achieve their financial goals and attain greater financial health.

"Through open banking we can help individuals, families and business achieve their financial goals and attain greater financial health."

■ Read the [full interview on the Mastercard Newsroom](#)



From uncertainty to understanding

A good model for predicting third-party risk is only as good as the data you feed it.

New research from RiskRecon and Cyentia Institute identifies the highest-value data categories and compares different models to help organisations better assess third-party risk.

■ Download the report '[From uncertainty to understanding](#)'

The future of receivables and treasury management

Joe Proto, CEO of Transactis, a Mastercard company and senior advisor

Earlier this year, I sat down with Transactis distributing partner People's United Bank to discuss how treasury management has evolved and what the future has in store.

What impact has the 2020 pandemic had on accounts receivable?

When people ask me how I have spent nearly 40 years in the payments industry, I tell them that it's remained exciting because the landscape is ever evolving. COVID has had, and continues to have, a major impact. We were already in a multi-decade secular shift of continuous improvement and automation, but the pandemic pushed the proverbial envelope.

Two-thirds of the bills businesses send in the U.S. are paper-based – that's nearly 10 billion bills. When the pandemic forced many companies to suddenly close their offices, their ability to send bills and get paid, as well as make payments, using manual, paper-based processes was dramatically disrupted. It created a logjam effect: I can't pay you if you're sending me paper bills in the mail because there's no one in the office to process them. And you can't pay me because I can't get the bills out. So, what started as a logistical nightmare fueled a cashflow nightmare.

There's a tremendous amount of pressure for businesses not only to survive but to grow and emerge from the pandemic stronger than before. That means they need to focus their precious resources – both cash and people – on what is core to their success.

What does the future of accounts payable and receivables look like?

Digital bill presentment makes receivables more accurate, easier and faster to post and reconcile payments at far lower costs. Moving forward we'll see wherever possible automation should replace manual processes for receivables.

The future of receivables is also the future of payables: They're really twins separated at birth by antiquated paper-based processes. As we continue to move toward digital interoperable API-based processes for receivables, I expect to see a network effect that solves for more automated payables and receivables at the same time.

Beyond that is multi-rail. Right now we ask, "Should I pay this with a cheque, an ACH, credit, debit, or digital wallet?" But if you send a package, you don't care if it gets there by truck, by plane, or by boat. You just care if it gets there. It will soon be the same way with bill payments.

Banks are in the ideal position to provide this network, leveraging and collaborating on innovation with technology companies, to focus on the movement of money and data in a way that happens as a singular integrated process. However, the most successful banks will combine their reach and strength in compliance and fraud management with the innovations of fintechs to ultimately create the most value for corporate and retail customers.

■ Read the bank's full eBook:
[The Digital Transformation Tipping Point for AP & AR](#)

Sustainability first in Dubai: the smart city of the future



Urbanisation is increasing at a pace never before experienced. By 2030, the world will have 43 megacities, each with more than 10 million inhabitants.

At the heart of smart city development lies engagement with its inhabitants. This helps make cities more liveable, resilient and able to better respond to challenges. In the journey toward becoming smarter, the aim is to have cohesion between physical, digital and human systems.

Dubai, in the United Arab Emirates (UAE), has emerged as one of the early adopters of innovation to create an interconnected, intelligent city with digital technology embedded across its functions. Led by Smart Dubai, the city has transformed itself into a model smart city through the Smart Dubai 2021 strategy, revolutionising the way government services are delivered to its people. With over 100 smart initiatives and 1000 smart services over three years, the city has recorded a palpable increase in happiness levels among residents.

So what's next for this smart city of the future? Mastercard partnered with Smart Dubai and Expo 2020 Dubai to conduct a survey that captures the needs and wants of UAE residents.

"Our vision is to build an inclusive, holistic, and resident-centric smart city by leveraging the power of technology"

The Smart City Aspirations Survey explores how residents are stakeholders in driving smart city trends, developments, and technologies.

Over half (54%) of respondents expect COVID-19 to accelerate the development of smart cities, and many respondents also report that they expect habits adopted during the pandemic to change their behaviours permanently. The top three trends expected to continue are working from home (27%), the preference of card, contactless and electronic payments (21%) and an increase in online shopping (15%).

Digitalisation is one of the strongest driving forces that power not just smart but also sustainable cities. Multiple sectors are being disrupted positively by the development and commercial deployment of emerging technologies. Those of the Fourth Industrial Revolution (Industry 4.0 or 4IR), which are already being tested commercially, play a vital role in developing smarter cities that fulfil the expectations of their inhabitants.

Any future innovation must be inclusive.

"At Smart Dubai, we don't believe in the use of technology for the sake of technology," says Meera Al Shaikh, International Relations and Partnerships Section Manager at Smart Dubai. "Our vision is to build an inclusive, holistic, and resident-centric smart city by leveraging the power of technology, leading to higher levels of happiness amongst residents and visitors [to Dubai]."

■ Download the white paper, '[Building the Cities of the Future](#)'

Craig Vosburg, chief product officer at Mastercard

The future state of pay

■ Read insights from Mastercard in WIRED

93%

of consumers are considering emerging payments such as biometrics, digital currencies, contactless and QR code

The pandemic made us think differently, partly out of necessity. To deliver the choice and flexibility that consumers need — and increasingly expect — merchants and retailers will need to offer a range of payment solutions that are easy to access and always on.

As we look ahead, we need to continue to enable all choices, both in-store and online, to shape the fabric of commerce and make the digital economy work for everyone.

Taking a quantum leap into the future of financial services

The race for quantum supremacy may grab headlines, but it feels removed from our daily lives. Quantum computing — the ability to solve incredibly complex problems exponentially faster than today's supercomputers can — sounds great for answering larger-than-life questions, such as planning for space missions or designing antibodies to speed drug discoveries. But its immediate impact for everyday consumers is harder to see.

Dr. Steve Flinter has some views on this. As head of Mastercard Foundry's Artificial Intelligence and Machine Learning Research and Development team, he and his colleagues explore ways that quantum computing could push payment networks into new frontiers. Mastercard recently partnered with IBM Research, the Tyndall National Institute, University College Dublin and others as part of a \$13 million research initiative based in Ireland to accelerate quantum computing research, including applications in financial services.

For starters, Flinter's team is experimenting with quantum computing in an effort to customise consumer rewards programmes at an individual level. If successful, the idea would transform the business of consumer loyalty by improving efficiency, choice and customer satisfaction, delivered at a far lower cost to companies.

When and how quantum computing will become part of everyday life remains to be seen. As Flinter points out, 20 years ago, no one predicted smartphones and 4G networks would lead to rideshare apps such as Uber or Lyft. "There will be things that we cannot contemplate now that will be available to us in the future," he says.

And that's precisely what quantum computing may help us discover.

■ Read the [full article on Mastercard Newsroom](#)



Why Mastercard is bringing crypto onto its network

Raj Dhamodharan,
executive vice president for digital asset and blockchain products and partnerships

Whatever your opinions on cryptocurrencies — from a dyed-in-wool fanatic to utter sceptic — the fact remains that these digital assets are becoming a more important part of the payments world.

We are preparing right now for the future of crypto and payments, announcing that Mastercard will start supporting select cryptocurrencies directly on our network. This is a big change that will require a lot of work. We will be very thoughtful about which assets we support based on our principles for digital currencies, which focus on consumer protections and compliance.

Added to this work, Mastercard is actively engaging with several major central banks around the world as they review plans to launch new digital currencies, dubbed CBDCs, to offer their citizens a new way to pay. Last year, we created a test platform for these banks to use these currencies in a simulated environment. Using our deep experience in payments technologies, we look forward to continuing these partnerships with governments and helping them explore the best ways to develop these new currencies.

With 106 approved blockchain patents and an additional 278 pending applications worldwide, we already have one of the payments industry's biggest blockchain patent portfolios to draw from to make these projects successful.

Our philosophy on cryptocurrencies is straightforward: It's about choice. Mastercard isn't here to recommend you start using cryptocurrencies. But we are here to enable customers, merchants and businesses to move digital value — traditional or crypto — however they want. It should be your choice, it's your money.

We are inspired by so much of the work going on in the payments world — in banking, in emergent fintechs, in crypto — to push forward change. And we are doing as much as we can to set the stage for these players to take the next step forward.

The Bahamas is 'disaster-proofing' payments with its first-ever digital currency

The Bahamas' Sand Dollar, the first central bank-issued digital currency in nationwide circulation, should expand financial inclusion and accelerate recovery following hurricanes.

■ Learn more [on the Mastercard Newsroom](#)

Four guiding principles to drive the inclusive digitisation of MSMEs

Payal Dalal and Luz Gomez at the Mastercard Center for Inclusive Growth

2020 was a year like no other. The COVID-19 pandemic disrupted every facet of life, from lives to livelihoods to long-term prospects. Micro, small and medium enterprises (MSMEs) — the lifeblood of local communities and economies — were hit extremely hard by the lockdowns, shifts in consumer behaviour, evaporation of capital and financing and disruptions to supply chains and financial systems.

The Mastercard Center for Inclusive Growth has always focused on connecting MSMEs to the networks that power the modern economy, including financial services and capital, markets and supply chains, digital platforms, investors and mentors. In 2020, the modern economy became synonymous with the digital economy, and the Center redoubled efforts to help MSMEs survive and thrive, building on Mastercard's global commitment to bring 1 billion people, including 50 million micro and small businesses into the digital economy by 2025.

"It will take unprecedented collaboration to realise our collective aspirations. A critical element will involve new nodes of knowledge sharing to disseminate timely lessons and insights that inform action."

With grants from the Mastercard Impact Fund, the Center has helped advance inclusive digitisation of MSMEs around the world. As we reflect on our portfolio and impact and listen to our partners on the financial security front lines, we've identified four guiding principles that we will be incorporating into our work in 2021 to help bring about an inclusive and sustainable digital economy that works for everyone, everywhere:

1. Move from a growth mindset to a resilient one,
2. Invest in the entrepreneurial support system,
3. Be gender intentional rather than gender-neutral, and
4. Go beyond financial and digital literacy to change behaviours and improve resilience.

■ Learn more at the [Mastercard Center for Inclusive Growth](#)



Preventing illegal adult content on our network

John Verdeschi, senior vice president for franchise customer engagement and performance

Every day, our teams use a combination of technology and best practices to monitor and protect our network and all who interact with it.

In April 2021, we extended our existing Specialty Merchant Registration requirements. The banks that connect merchants to our network will need to certify that the seller of adult content has effective controls in place to monitor, block and, where necessary, take down all illegal content.

These additional requirements build on years of work from our teams, creating the processes, establishing industry standards and setting today's foundation in place. It includes relationships with law enforcement and other groups like Interpol, Europol, the National and International Centers for Missing and Exploited Children, the International Anti-Counterfeiting Coalition and the Center for Safe Internet Pharmacies, among others.

More recently, we added to our commitments through relationships with the Internet Watch Foundation

and We Protect Global Alliance. Both of these organizations are leading the charge to fight sexual exploitation, protect the youngest consumers and make the internet a safer place for people of all ages.

The evolution of our registration programs is critical to ensure that we — as well as those who connect merchants to our network — understand who we are doing business with and what can be expected of their activities.

We're committed to doing everything in our power to ensure only lawful activity takes place on our network. In the process, we also hope to improve content controls to benefit people with the greatest need for these protections.

■ Read our [updated requirements on the Mastercard Newsroom](#)

Creating a digitised transit system can move everyone forward

Will Judge, vice president for transit solutions

A city only works when it moves. Trains, buses and other public services are what enable residents to be productive, stay connected and enjoy the diverse culture of cities.

But for years, officials and planners have struggled to match these transportation networks to the needs of growing populations. All too often, these shortcomings come at the expense of underserved people, such as those who can't afford cars or live on city outskirts that aren't connected to transit networks — so-called transportation deserts.

Before the pandemic, the rise of private-sector ride-hailing and bike-sharing services helped fill these gaps. Now, COVID-19 health concerns about mass transit have opened the door for truly multi-modal systems of transportation.

These new transit networks could help get people to their destinations safely and seamlessly, with the ease of using just a single payment card or device. Most importantly, these systems could get our cities moving again amid the pandemic and afterwards make them more inclusive for city dwellers.

Mastercard has been architecting innovative urban mobility solutions and transforming transit experiences for over a decade. Working in partnership across the ecosystem, we are applying global standards and payment innovation to transit networks in order to help cities and transit operators address the challenges they face while realising efficiencies, supporting public health & safety concerns and delivering convenience for travellers.

Like every aspect of our post-COVID recovery, getting people moving again won't be easy. However, some of society's greatest accomplishments were borne from its darkest moments. And, if we use this time of rebuilding well, we can create a transportation system that gives everyone everywhere the opportunity to unlock their potential, creating limitless possibilities.

■ Learn more about [Mastercard Transit Solutions](#)

In Atlanta, making sure a massive public transit investment benefits everyone



Listen to the full series of Fortune Favors the Bold on the Mastercard Content Exchange or on Apple Podcasts, Google Music Play and all other listening platforms

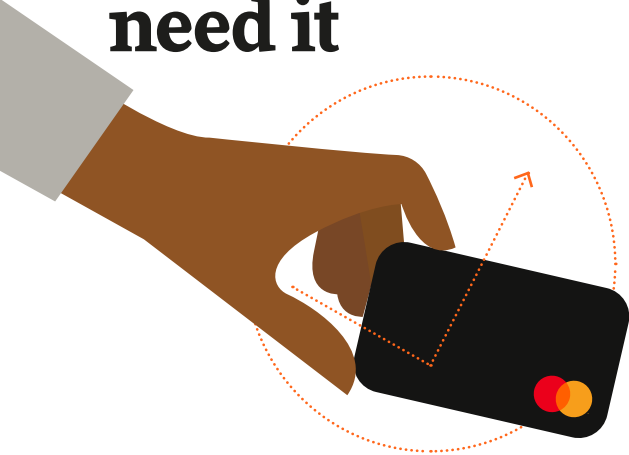
Transportation isn't just about getting from point A to point B. Access to public transportation can determine where you can afford to live, work and build your life. In this episode of the Mastercard podcast "Fortune Favors the Bold," host Ashley C. Ford talks to self-proclaimed transit nerd Shayna Pollock of the nonprofit Central Atlanta Progress and Kevin Bacon, an urban designer with Atlanta City Studios, about how to channel the city's massive commitment to public transportation in ways that benefit everyone.

"There's a wide recognition that transit is the future," Pollock says. "It's also a time for us, in my opinion, to think about where we're making investment. There are always more needs than money, and we need to ensure we make those investments in a smart way to serve how the community is going to grow."

How can Atlanta ensure that the city remains a comfortable, affordable and accessible place to live and work?

Listen now

Delivering clarity when and where cardholders need it



Corey Venier,
senior specialist for communications at Ethoca, a Mastercard company

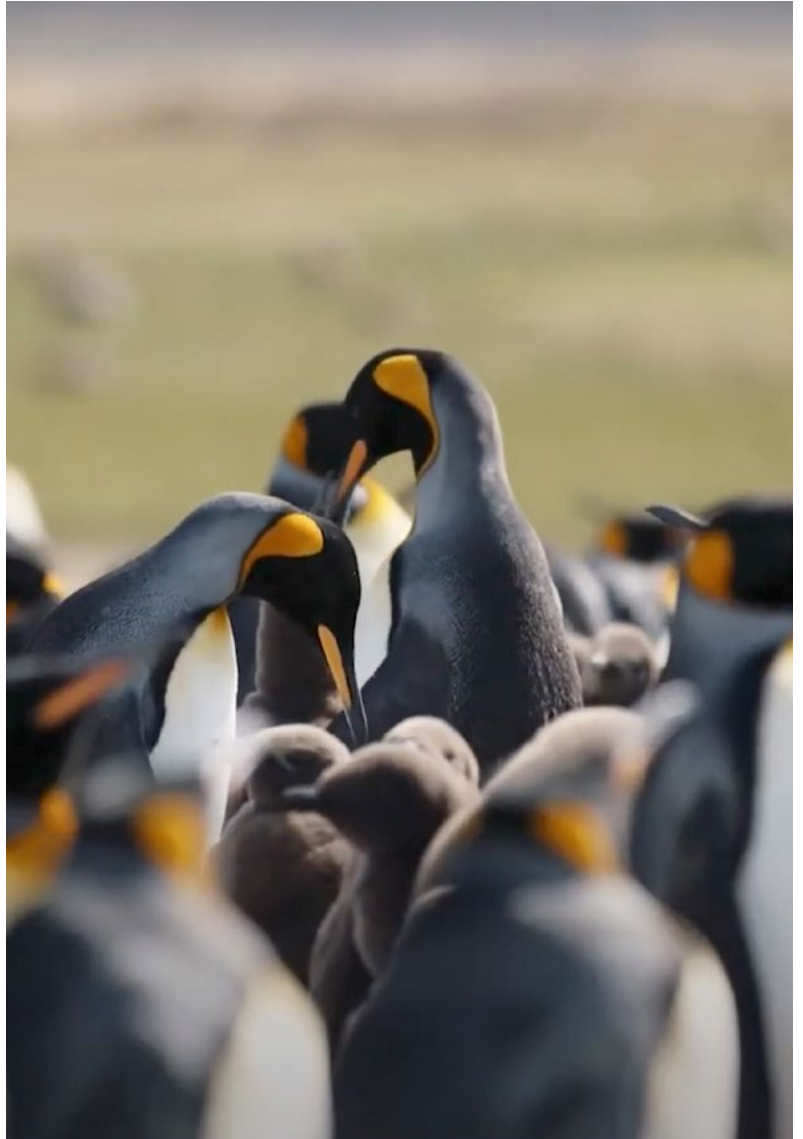
Accelerated by COVID-19, consumers are adopting new digital habits at a faster pace than ever before. In March 2021 alone, online sales grew 56 percent year-over-year, and consumers came to rely increasingly on digital banking channels to review their purchases and track spending. But, according to recent research, 77 percent of surveyed consumers report that they're often unable to recognise transactions in their online statements, and **96 percent want more detailed information** available in their digital banking application to help understand what they bought.

"Our mission has always been to enhance the customer experience and minimize disputes by improving communication between payment stakeholders," said Jason Howard, Ethoca's executive vice president. "Consumer Clarity™ is the next step in this journey, putting the needs of consumers first to help solve one of the biggest problems in digital commerce and banking today — a lack of purchase transparency."

Consumer Clarity connects merchants and card issuers to share purchase information such as easy-to-recognize merchant names and logos, purchase location details and itemised digital receipts. Issuers can then share this information with consumers directly in their digital bank statements or through their back-office teams. This helps to significantly reduce unnecessary disputes and costly chargebacks caused by transaction confusion.

Leveraging the scale of Mastercard's global payment network, Consumer Clarity currently provides enriched transaction information from more than 145 million merchant locations spanning two hundred countries. Combined with a growing list of digital receipt participants this empowers issuers and merchants to save costs and optimise their digital offerings — giving consumers clarity when and where they need it.

Connecting the Falklands to the digital economy



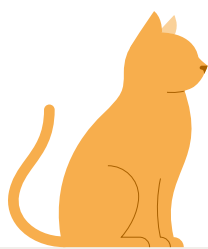
The Falkland Islands are a remote, weather-beaten archipelago where the penguins outnumber the people 100:1. A British overseas territory, the Islands are located about 8000 miles from the UK but less than 800 miles from the northern tip of Antarctica.

Falklanders are enterprising, inspired and above all resilient; many have grown their own small businesses from the ground up — but they faced a challenge when it came to accepting card and digital payments.

Last year, Mastercard connected the Falkland Islands Government to Square, and the three organisations formed a partnership to bring card and digital payments to the Falklands' small businesses.

Falklands Helicopter Services has been using Square to take payments online, over the phone and on site for walk-up bookings. "It's been a game changer," says Sparky Ewen, the managing director. "We can run the business on the move and spend less time worrying about cash and more time doing what we love: giving our visitors a bird's-eye view of one of the most beautiful places on earth."

■ **Watch the film to discover how four small businesses have been transformed**



Stories from the frictionless future of payments

Feeding São Paulo

[Listen now](#)

In São Paulo, they say there are three kinds of drivers. The ones stuck in traffic. The ones about to get stuck in traffic. And the ones on mopeds.

Lucas fell into the third category. His hydrogen-powered scooter could weave between buses and driverless cars faster than a wasp in a thunderstorm.

It was a good thing too; speed was what Lucas got paid for. He delivered take-outs from restaurant kitchens to customers' front doors.

Drones were his biggest competition, but there was still money to be made on a moped — if you knew the right routes.

One afternoon, Lucas returned home with a box of cod fritters. Ana, his mum, was waiting. "Leftovers from Casa do Brasil," he said, handing her the box.

Ana popped a fritter into her mouth. "They're nice," she said. "But I can make better."

Lucas rolled his eyes. "Mum, that restaurant's won all kinds of awards."

Ana started rustling about in a kitchen cabinet.

"What're you doing?" asked Lucas.

"You'll see," said Ana. "It's not all about fancy restaurants. Sometimes, Mum knows best."

That evening, Ana made cod fritters. Lucas had to admit they were even better than the ones from Casa do Brasil. As he polished off the last one, he had an idea...

"Hey Mum, why don't I deliver your fritters? Like I do for the restaurants."

Ana smiled, but she was shaking her head. "Fish doesn't come cheap, Lucas. We can't feed the whole city."

"But I'm not talking about feeding the whole city. I'm talking about a few small batches... just to see if it works. Besides, I did some extra deliveries this evening." Lucas tapped his work app and requested payment for the day's work; the funds hit his account immediately. "See, we have enough money to get us started. I'll buy the fish in the morning."

"Oh alright," said Ana, throwing up her hands in mock desperation. "We can give it a go."

Ana made the fritters while Lucas wrote the ad. "Bolinho de Bacalhau," said the headline. "Just like your mum used to make."

Within a matter of hours, Lucas and Ana had swapped a kitchen full of cod for six hundred Real.

The next day, he arrived at the market at the crack of dawn, ready to spend his profits on more ingredients. "I'm calling your Aunt Rosa," said Ana. "If we're making that many fritters, we're going to need an extra pair of hands."

Within a few months, Lucas and his mum were running their own small business.

Lucas downloaded an app to his smart watch so he could spend more time delivering fritters — and less time managing finances.

The app allowed him to find and pay suppliers immediately, automatically reconciling invoices in seconds. The fishmonger was so pleased with the instant payments that he gave Lucas the pick of the fish.

Lucas had never been one for numbers but with all of his earnings and invoices in one place, he could see exactly how much money was coming in and out of the business. No guesstimated profits. No waiting for transactions to clear. Money flowed fast — and so did requests for cod fritters.

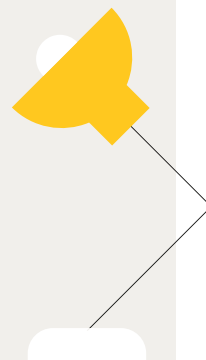
He was even able to get help when the old hob his mum cooked with broke down. He applied for credit on his phone. The bank used his transaction history and customer reviews to approve the request in an instant.

Later that summer, Lucas was delivering to a big house in Vila Olímpia. By now, he employed a small squad of moped drivers, but from time to time he still liked to take deliveries himself. It was a good opportunity to chat to his customers.

Lucas pulled in at the front gate. A security drone came to life and a woman came out to greet him. "Oh shoo," she said, waving her hand at the drone.

Then she turned to face Lucas. "Young man, these fritters are the best I've ever tasted. Tell me, what's your secret?"

"Listen to your Mum," he said, handing her the box. "Turns out, she really knows best."



Agony Aunt

"I use my credit cards plenty, but I've never played the points game. It has always seemed so complicated, so my points expire unless I grasp at offers like a year's subscription to 'Trout Today!' Any recommendations?"

Hey, don't knock my favourite magazine! The recipe section alone is worth a flight to Tahiti. It's actually never been easier to redeem points, but if you need an additional incentive, why don't you consider donating your points to a favourite charity? Your bank or airline is likely to have a feature that allows you to donate points or miles to a worthy cause, although the value of points may vary. Mastercard's **Pay With Rewards** feature on your bank's app allows you to use your points to plant trees as part of our Priceless Planet Coalition to plant 100 million trees by 2025. One caveat: While heart-warming, the donations are not tax-deductible. But I get the feeling you're not the type of person who itemises anyway.

"I run a food stall, and it has always been a cash-only business. With more customers going digital — literally, one guy told me he hadn't touched a banknote since COVID-19 hit — I know I need to get with the times. But I don't know if it's worth the hassle of investing in a terminal. Are there any alternatives?"

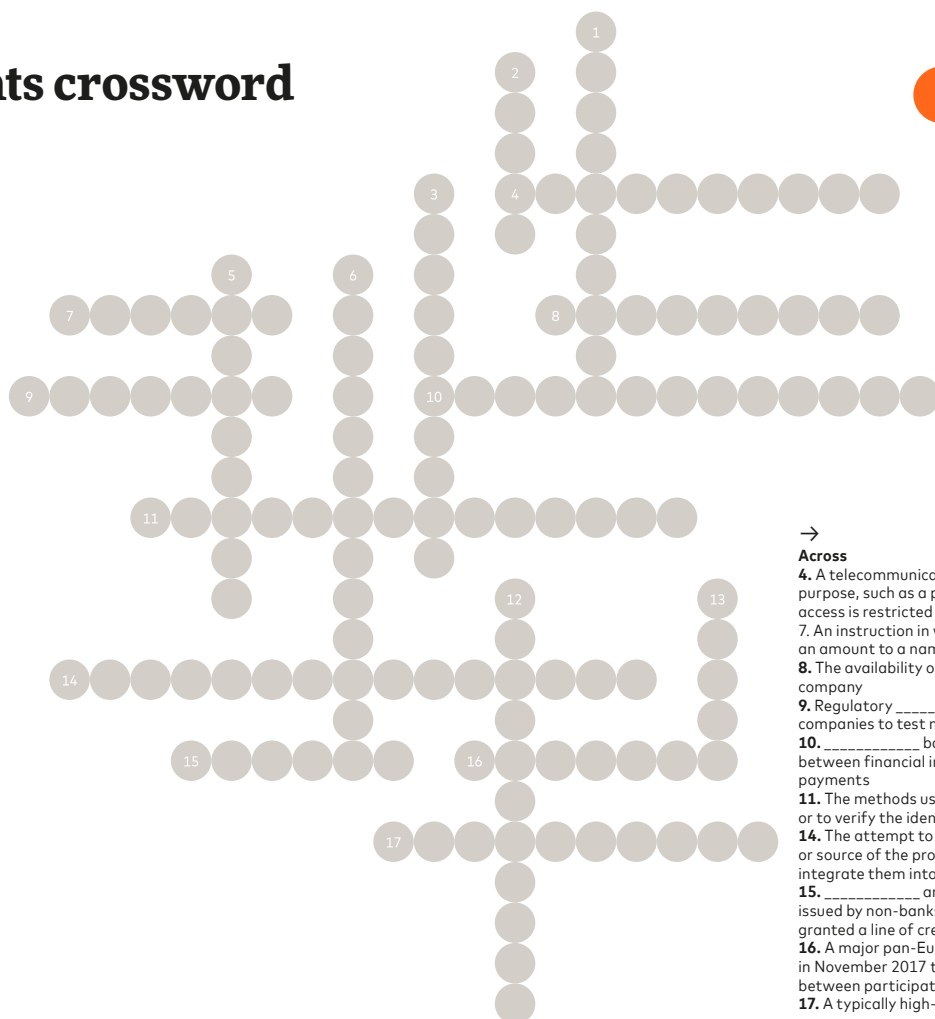
It's been so long since I've used an ATM that I've forgotten my PIN. Wait — 1234. Phew! But to answer your question, yes, there's another option, and you might already have it in the palm of your hand. You can turn any Android smartphone or tablet into an acceptance device thanks to cloud-based **tap-on-phone technology**. Customers simply tap their contactless card or mobile wallet against your device to make a payment. Not only will it allow you to deliver the experience that your customers are increasingly expecting, but you can use it to improve your operations with faster checkout and simpler accounting. Still need convincing? A recent **consumer global survey by Mastercard** showed that six in 10 people say they avoid merchants that don't accept digital payments of any kind.

"I've met the man of my dreams. He's accomplished, charming and so devoted to his ailing mother. Plus, he looks just like Brad Pitt in 'Legends of the Fall.' Like, eerily so. The only problem is, I haven't been able to meet him because of the pandemic. Okay, there's another problem. He's asking me to lend him some money while he's busy taking care of his mother. Should I do it?"

I hate to tell you, but it sounds like Brad is too good to be true. He may be pulling a romance scam on you, which is increasingly common during COVID, when we're thirsting for connections. Here are a few hallmarks of this type of scam. Has he moved your conversations off the dating site on which you met to a private chat? Is he encouraging you to keep your romance a secret from your family and friends? Is he curious about every detail of your life but withholding on details of his own? It's okay to say no — and if he tries to rush you or manipulate you, you're probably being conned. This kind of betrayal can be financially devastating — you may be liable if you authorised any payments or transfers of money — and emotionally detrimental as well. A guy who looks like Brad Pitt in "12 Monkeys" is probably a safer bet.

Payments crossword

- ↓
Down
1. The part of a business that is responsible for post-trade activities
 2. The transmission or processing of a group of payment orders as a set at discrete intervals of time
 3. A distributed ledger technology that can act as a complete and irrevocable record of international payment transactions
 5. An electronic clearing system in which payment orders are exchanged between financial institutions
 6. See 5
 12. A preauthorised payment method in which funds are drawn from a person or business's bank account
 13. A cooperative organisation created and owned by banks that operates a network which facilitates the exchange of payment and other financial messages



Check your answers

- **Across**
4. A telecommunications network used for a specific purpose, such as a payment system, and to which access is restricted
 7. An instruction in writing telling a person's bank to pay an amount to a named recipient (UK spelling)
 8. The availability of cash assets to a market or company
 9. Regulatory A 'safe space' for companies to test new services in a live environment
 10. banking. A bilateral agreement between financial institutions to enable cross-border payments
 11. The methods used to verify the origin of a message or to verify the identity of a participant
 14. The attempt to conceal or disguise the ownership or source of the proceeds of criminal activity and to integrate them into the legitimate financial systems
 15. and entertainment card. A card issued by non-banks indicating that the holder has been granted a line of credit
 16. A major pan-European payment system launched in November 2017 to enable instant transfers in euros between participating countries
 17. A typically high-interest source of short-term credit