

# The world after Covid-19

Adapting your business now  
for the new normal in payments

# Executive Summary

**The worldwide COVID-19 pandemic is an unprecedented crisis which has already had huge societal and economic impacts. Business leaders face difficult choices about how best to bring about what is now the essential digitisation of their service delivery and internal operations in order to survive.**

The crisis is accelerating already-existing trends. When it passes, the world it leaves behind will be fundamentally different to how it was before: we will be faced with a new normal. Right now, the top priority for organisations is survival, but it is also the right time for business leaders to start planning for what the future will bring: businesses reinventing themselves and, in doing so, changing the competitive landscape.

As the European leader in payments and transactional services, Worldline has responded quickly to the immediate challenge, and we are also preparing to adapt our strategies so we are fully ready for the lasting impacts of the pandemic on society, business and on how we all use technology. We believe that immediately starting these preparations for the new normal will ensure that we remain in the best possible position to serve our clients, employees, and wider society.

In this paper, we outline the immediate impacts of the pandemic using our deep insights from working with clients across a wide range of sectors. We then present our vision for the lasting changes that will emerge as accelerated longterm trends for society, businesses, and the way we use technology. By sharing this vision, we want to help business leaders start planning for this future today, aided by our insights into how these trends will unfold in the coming years.

We first explore the immediate impacts of the crisis. These include essential digitisation, an increase in online retail, acceleration of cashless payments, and a rise in omnichannel. Next we describe what we believe will be the key lasting impacts, ranging from new attitudes to environmental sustainability and data privacy, through to the adaptation of supply chains and cost-management. By understanding these lasting impacts, we reach conclusions about which technologies will see accelerated relevance, and how organisations can prepare for these changes. Finally, we summarise the key takeaways that business leaders can use to start adapting their strategies now.

No one can predict the future. No one can say how long or how deep this crisis will be. And no one can say with certainty how the world will recover from it or, indeed, whether we will see repeated waves of infection. However, we believe that the trends are now sufficiently clear to enable businesses to start preparing for the new normal, enabling them to be more successful in the post COVID-19 world.

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# Introduction

## The worldwide COVID-19 pandemic has already had a huge impact.

As of 13<sup>th</sup> May, there have been over a quarter of a million deaths globally attributed to the virus and, since the end of March, the global death rate has been approximately 40,000 deaths per week<sup>1</sup>.

It is likely that lives are also being lost as an indirect consequence of this crisis due to over-loaded healthcare systems and logistical challenges in providing care and medicine.

Controlling the spread of the virus through social distancing measures and border closures has also led to other negative effects. Some estimate that global GDP will shrink by about 7% in H1 2020<sup>2</sup>. Some businesses may not stay

solvent. Some employees face lay-offs, others are taking many weeks of unpaid leave. This, in turn, is leading to reduced tax revenues for governments, who are themselves trying to soften the economic impact, and taking on record levels of debt in the process<sup>3</sup>. In parallel, prolonged lockdowns are impacting people's mental health and, in some countries, an increase in domestic abuse has been reported<sup>4</sup>.

Yet, against this distressing backdrop, some positive trends have also emerged:

In many cities, air quality has improved (in Delhi, from a dangerously high AQI of 200 down to 20<sup>5</sup>). Huge drops in CO2 emissions have also taken place (for example, an 18% reduction in China between early February and mid-March<sup>6</sup>).

By switching from in-person to online interaction, people are more in touch with friends and family<sup>7</sup>. They are also feeling a stronger sense of community: in one extreme case, in South Africa, rival gangs have even suspended their turf-wars and are instead delivering food to households in need<sup>8</sup>.

The crisis is also catalysing and accelerating changes in the mindsets and behaviours of governments, businesses, and individuals alike. Whilst this crisis will pass, the world it leaves behind will have changed forever. There will be no return to the old normal, only a return to a new normal.

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Figure 1 illustrates why we consider it essential for businesses to plan for this new normal now<sup>9</sup>. The crisis zone is forcing businesses to rapidly digitise to survive, something we call "essential digitisation". Those who are unable to rapidly digitise their services, products and operations are experiencing significantly reduced business performance. It is our belief that those businesses who not only manage the current crisis but also act now to prepare for the new normal, will be more successful beyond the crisis zone than those who assume they can go back to the old normal.

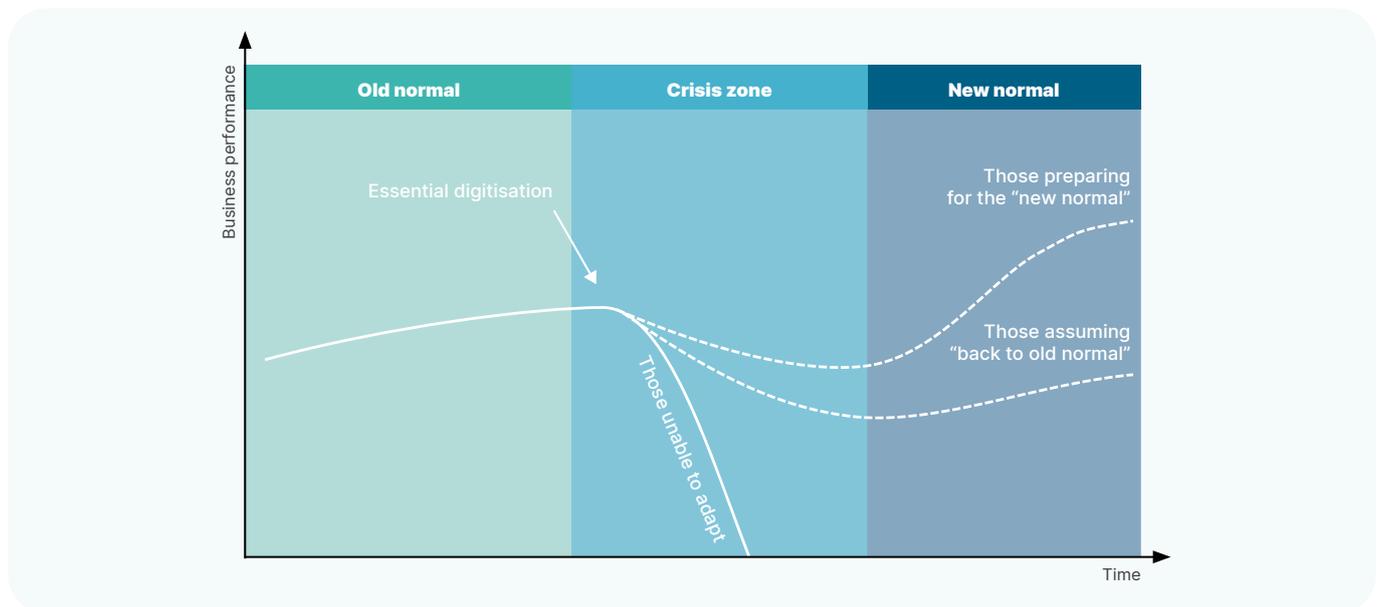


Figure 1: Why we believe organisations must prepare for a new normal

1 <https://www.worldometers.info/coronavirus/>  
2 [http://resources.oxfordeconomics.com/world-gdp-to-fall-2.8-in-2020-exceeding-financial-crisis-toll?oe\\_most\\_recent\\_content\\_download\\_id=0000021&interests\\_trending\\_topics=coronavirus](http://resources.oxfordeconomics.com/world-gdp-to-fall-2.8-in-2020-exceeding-financial-crisis-toll?oe_most_recent_content_download_id=0000021&interests_trending_topics=coronavirus)  
3 <https://news.sky.com/story/coronavirus-us-treasury-announces-biggest-ever-borrowing-as-economy-struggles-11983231>  
4 <https://www.nytimes.com/2020/04/06/world/coronavirus-domestic-violence.html>  
5 <https://www.theguardian.com/environment/2020/apr/11/positively-alpine-disbelief-air-pollution-falls-lockdown-coronavirus>  
6 <https://www.nationalgeographic.co.uk/environment-and-conservation/2020/04/carbon-emissions-are-falling-sharply-due-coronavirus-not-long>  
7 <https://www.independent.co.uk/news/uk/home-news/coronavirus-uk-lockdown-end-poll-environment-food-health-fitness-social-community-a9469736.html>  
8 <https://www.bbc.co.uk/news/av/world-africa-52205158/how-coronavirus-inspired-a-gangland-truce-in-south-africa>  
9 Source: Worldline authors of this report

# Immediate impacts

## From essential digitisation now to a new digital future

We fully understand the grave and difficult challenges being faced by businesses everywhere. Consumer spending has decreased across almost all industries<sup>1</sup> and, despite the extraordinary measures being taken by governments to mitigate the economic impact, many organisations, large and small, face a fight for survival (especially in hard-hit sectors such as transport, travel and hospitality). For those who are still able to trade during this crisis, the most immediate impact facing them is essential digitisation: replacing as much as possible the physical services they provide and their in-person ways of working, with virtual equivalents. Even businesses where this would never have been considered before are being forced to make the shift: for example, a balloon modeler for children's parties pivoting to educating parents via video link on how to model the balloons for their kids themselves<sup>2</sup>. Many such newly-discovered and digitally-enabled operating models will live on, even after the crisis has passed, as business trends (and the technology trends that enable them) are accelerated (as illustrated in Figure 2).

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As countries introduce various degrees of lockdown, many company premises are now closed or open with only a skeleton staff. To stay operational, they need software tools that support home working and they are making heavier use of many existing communication methods (e.g. SMS, WhatsApp, Skype, Zoom, Microsoft Teams, Webex, etc). The proliferation in use of multiple communications platforms is creating new security threats<sup>3</sup>. Some companies have also found that their software systems were simply not designed for homeworking, placing unmanageable demands on their IT infrastructure.

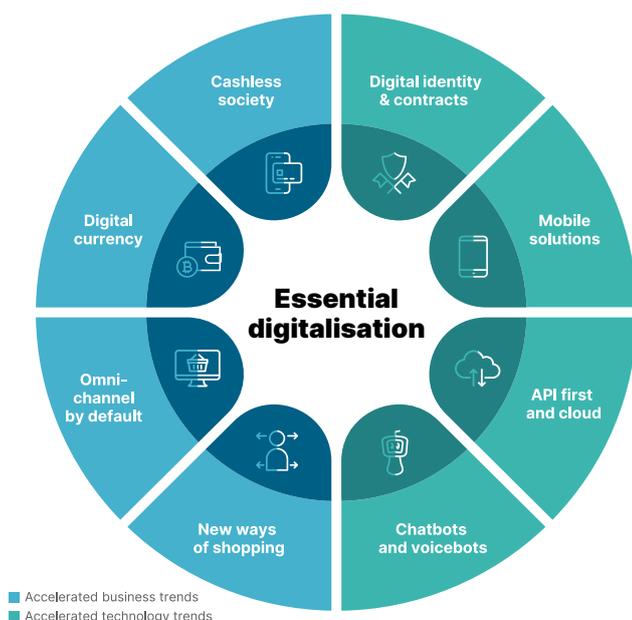


Figure 2: How we see essential digitisation accelerating business and technology trends

## Cashless acceleration

Banks now need to meet their customers' needs with limited physical branch infrastructure. To achieve this, they require fully digital processes, from onboarding to offboarding and everything in-between. They are also likely to see an increase in the use of direct mobile payments, especially via apps such as TWINT<sup>4</sup> or Tikkie<sup>5</sup> (which enables remote peer-to-peer mobile payments to be made via existing messaging platforms such as WhatsApp or Facebook Messenger). The providers of such messaging services are also speeding up their plans to support direct payments via their apps, with WhatsApp Pay now targeting a launch date in India of the end of May<sup>6</sup>. People still need to pay each other (even if just to pay a friend who drops off some shopping to their house) and can no longer do so using cash (without breaching social distancing rules), so numerous in-person cash transactions are being replaced with electronic equivalents.

**This crisis will force more customers to interact with their banks digitally, and they will also become more comfortable doing so.**

Banks will also be providing many more loans to businesses and individuals, often backed by governments seeking to drive compliance and acceptance of social distancing measures by mitigating their economic impacts. However, current risk-management models are unlikely to be optimised for scenarios where a crisis can result in defaults across multiple countries and sectors in a short space of time. These models will need to be updated, drawing on mathematical techniques such as catastrophe theory<sup>7</sup>.

The digitisation of banking is a longstanding phenomenon. Even before the crisis, it already led to fewer branches (and even banks without any branches at all) as customers did more of their banking online via browser-based interfaces and mobile apps. These often aggregated together banking with other relevant services, ranging from shopping offers through to personal financial management (in part enabled through PSD2). This trend will accelerate as the crisis forces more customers to interact with their banks digitally, and they also become more comfortable doing so.

The reduced usage of branches, coupled with the financial pressures banks are facing, will lead to further branch closures as banks re-think their current operating models. However, as we will discuss later, it may also lead to an increasingly stark digital divide, with those who still prefer (or need) to access banking via a physical building, having increasingly fewer options available to them and potentially having to pay a premium for it. Banks may help to bridge this divide by increasing their call centre capacity with solutions that can be operated by people working from home augmented by voicebots. When integrated with trusted digital identification and e-contract solutions, these can enable those customers who are less digitally confident to access banking services without visiting physical branches.

10 <https://www.weforum.org/agenda/2020/05/coronavirus-covid19-consumers-shopping-goods-economics-industry>  
 11 From "How are payments businesses adapting a world no-one prepared for" webinar delivered by Payers on 16/04/2020  
 12 <https://www.forbes.com/sites/kateoflahertyuk/2020/04/20/zooms-200-million-users-are-facing-a-new-threat-heres-what-to-do/>  
 13 <https://www.twint.ch/>  
 14 <https://www.abnamro.nl/en/personal/internet-and-mobile/apps/Tikkie/index.html>  
 15 <https://www.livemint.com/technology/tech-news/whatsapp-pay-service-may-launch-by-this-month-s-end-11588697372920.html>  
 16 Pieter A. (2012) Catastrophe Theory in Forecasting Financial Crises. In: Sornette D., Ivliev S., Woodard H. (eds) Market Risk and Financial Markets Modeling. Springer, Berlin, Heidelberg

## Merchants face an asymmetric challenge

Merchants are customers of banks: they depend on banks to accept payments and for financial support. Conversely banks also depend on merchants as an important source of revenue.

On the one hand, regrettably, many merchants are facing very uncertain futures. Some may shut down temporarily, others may be consolidated into larger firms, and others may be reborn into new, different enterprises – changing their business models and addressing new consumer needs as they adapt to the new normal.

On the other hand, some face the challenge of how to re-organise their operations to minimise physical contact whilst still trading. Retailers are accepting remote orders via the web, by phone, and from social media. The new trend of “live stream shopping” is increasing<sup>1</sup>, where products are shown to a limited set of customers during an online video-call with an opportunity to place orders at the end of the interaction.

For those retailers where demand has surged (notably for home delivery), there is a need to scale their operations rapidly. Many consumers are switching to online rather than in-store purchasing. On our acquiring platforms we are seeing a decrease in POS (point of sale) transactions that is mirrored by an increase in online activity. In Belgium, e-commerce transactions have hit an all-time high for 2020.

However, although the volume of these e-commerce transactions has nearly doubled, the average transaction value has almost halved, so the switch to online is not compensating for the drop in in-store shopping. One explanation could be that people are moving online for their essential shopping (such as groceries), while massively reducing their discretionary spend (e.g. on a new TV, holiday, etc). We see similar results and trends in other geographies. For example, one of our clients in Spain has seen a three-fold increase in online transactions, and, in the UK, online sales as a proportion of all retailing reached a record high in March 2020<sup>2</sup>. Our research suggests that geographies where online shopping was less prevalent before the crisis, are seeing a bigger switch to online. To meet this demand, retailers are relying more than ever on their e-commerce platforms, which are having to support order-of-magnitude volume increases.

Fulfilling these orders is challenging for many retailers, who also face the increased complexity of sourcing from multiple, smaller, local producers since they are no longer able to rely on bigger international providers. This is creating a new opportunity for those smaller, local producers. Not only will they see a new interest from retailers looking to source more locally, but they can also sell directly to the larger number of consumers now shopping via online marketplaces.

**To minimise contact, we see that omnichannel models (drive-in, click-and-collect) are becoming the default.**

We see that omnichannel models (drive-in, click-and-collect) are becoming the default, even for small businesses such as local butchers. For many companies, the urgent need to provide a seamless omnichannel experience with a more contextual and personalised service (from order placement

through to collection/delivery) will be a new challenge. Today, minimising the physical contact involved in providing these experiences is paramount, using methods like “Scan and Pay” where customers can use their own mobile phone to scan products as they add them to their basket and then, at the end of their shop, complete payment. QR codes can also enable people to pay at a safe distance and without physical contact, whether inside a shop or even through the store-front window. Indeed, the general concept of enabling consumers to pay by “bringing their own device” is a clear solution for avoiding in-store contact at checkout.

Consumers may also wish to have greater insight into the complete supply chain and the amount of human touch involved, which could be provided using blockchain-based traceability solutions<sup>3</sup>.

As retailers adapt, consumer expectations have been forced to adapt too: people no longer expect to be able to buy whatever they want, whenever they want it; rather, they are pleased to buy what they need, and are more accepting of longer delivery times.

## Cancellations and reduced bookings hit transport, travel and hospitality

Sadly, the transport, travel and hospitality industries have been particularly hard-hit by this crisis.

Mobility data collected by Google<sup>4</sup> shows a global reduction of 59% in people's use of transit hubs (such as bus and train stations) at the end of April compared to January. For some countries this is more extreme: for example, 82% in Spain and 78% in France. Even rising-star platform giants like Airbnb and Uber are suffering as people's mobility is reduced to such a high degree.

There are expected to be 287 million fewer international tourist arrivals to Europe in 2020 compared to 2020, and volumes of international travel are not expected to be regained until 2023<sup>5</sup>.

Hotel occupancy rates have fallen. At the peak of the downturn in China, revenue per available room fell by almost 90%<sup>6</sup>. In China a recovery is now starting, and we expect a similar up-turn to follow in other countries as restrictions are lifted, although it is uncertain whether and how long it will take for occupancy to return to pre-crisis levels.

Not only are businesses in these sectors seeing unprecedented decreases in new bookings, they are also having to service a huge demand for processing cancellations and refunds. These usually relatively slow, manual operations are now becoming a main activity for many of these firms. There is a corresponding impact for Merchant Acquirers who have to process many of these refunds and manage an increase in the number of chargeback requests.

The reduction in transport and travel has also seen fuel sales affected, with reduced use of petrol stations and the US oil price turning negative for the first time in history. The general reduction in mobility will also lead to lower footfall in areas where people usually congregate, impacting local businesses (such as sandwich shops) as well as lowering the use of vending machines.

17 <https://www.voguebusiness.com/consumers/live-streaming-china-shopping-kim-kardashian>  
18 <https://www.ons.gov.uk/businessindustryandtrade/retailindustry/bulletins/retailsales/march2020>  
19 [https://worldline.com/en/home/newsroom/press-releases-general/2018/pr-2018\\_03\\_01\\_01.html](https://worldline.com/en/home/newsroom/press-releases-general/2018/pr-2018_03_01_01.html)  
20 Google LLC “Google COVID-19 Community Mobility Reports.”  
21 <https://www.google.com/covid19/mobility/> Accessed: 5th May 2020  
22 [https://s3.amazonaws.com/tourism-economics/craft/Latest-Research-Docs/Europe-Tourism-RB-April\\_SUMMARY\\_tewebsite.pdf](https://s3.amazonaws.com/tourism-economics/craft/Latest-Research-Docs/Europe-Tourism-RB-April_SUMMARY_tewebsite.pdf)  
<https://www.rli.uk.com/what-can-the-european-hotels-market-expect-from-covid-19-lessons-from-china/>

# Lasting impacts for society

Having considered the immediate impacts being faced by businesses today, we will now examine what we believe will be the lasting impacts for society and business.

## The environment vs. the economy

The current crisis has demonstrated that it is possible to reduce air pollution and CO2 emissions, with France's president Emmanuel Macron observing that, when it is over "people will no longer accept breathing dirty air."<sup>1</sup> However, the crisis also highlights the current link that exists between economic output and environmental damage. We believe that this will result in a lasting impact on societies' attitudes: it is clear that today there is a tension between what is good for the economy and what is good for the environment; the challenge for the future will be how, and how quickly, this link can be broken, and what trade-offs we are prepared to make. We believe that the shift in social attitudes and behaviour during this crisis (placing greater value on social responsibility) will create a new pressure for governments and companies to invest more in sustainability and the circular economy<sup>2</sup>.

It is clear that today there is a choice between what is good for the economy and what is good for the environment; the challenge for the future will be how, and how quickly, this link can be broken, and what trade-offs are we prepared to make.

## People adapting to virtual ways of working

The shift to online interactions means that, after this crisis, many more people will be skilled in the usage of the tools that enable this and be more accustomed to this way of

communicating. In education, they will have experienced the benefits of new models of delivery and more efficient remote lessons. At work they will have discovered that it is possible to be productive without attending an office. And they will have learned new ways to socialise with friends, replacing rituals that were once deemed to require face-to-face contact with virtual equivalents (such as lunches, coffee breaks, a beer with friends, and even weddings).

In some cases, people are seeing a benefit to these virtual versions, such as lower costs, less travel, and reduced environmental impact.

## Cashless society

The crisis has reduced the number of cash-based transactions. In most regions the maximum value allowed for contactless payments has been raised, and MasterCard has reported a 40% global increase in contactless usage worldwide in the first quarter of 2020<sup>3</sup>. They also report that 80% of contactless transactions were for amounts of less than \$25, a range typically dominated by cash. As a result, after the crisis, both consumers and merchants will have become accustomed to and see the benefits of going cashless. It follows that fewer people will want to carry cash, fewer retailers will wish to accept it, and legislation may be adapted more quickly to allow businesses to be fully cashless.

## A shifting digital divide

Of course, not everyone will be carried along this journey of essential digitization. We expect that the percentage of people who are digitally-resistant and digitally-reluctant will decrease. Many will adapt out of necessity, and many will be supported to make the transition (e.g. through the provision of free laptops to poorer families, or buddies to support elderly people access technology). However, a significant number will still be left behind, not able to afford or use digital solutions. As more services will be digitised, we predict that those accessing non-digital services will be smaller in number and find themselves even more alienated and excluded than they are today (as illustrated by Figure 3<sup>4</sup>). As such, although the number of people left behind may be smaller, the gap between the digital haves and have-nots will be wider. Organisations will have to manage this both for their staff, and for the customers and end-users they serve.

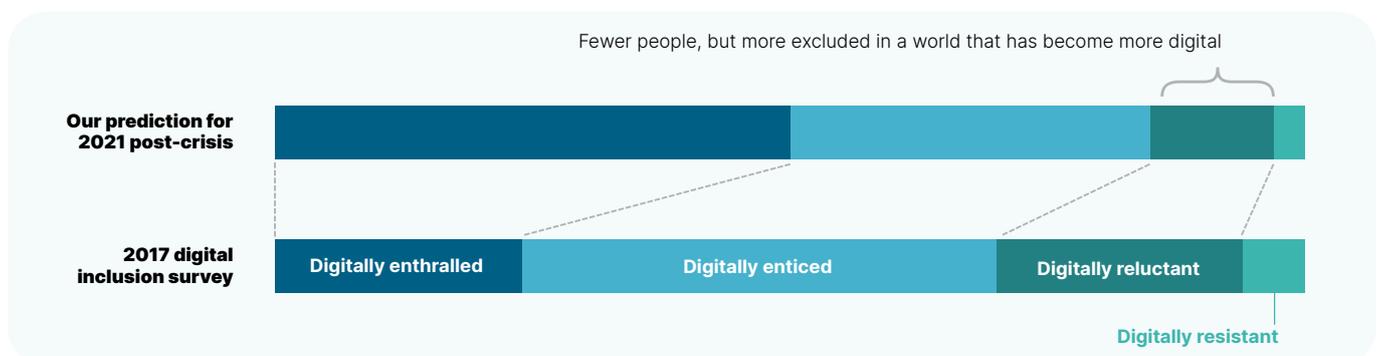


Figure 3: Shifts in the Digital Divide predicted by Worldline

23 <https://www.ft.com/content/3ea8d790-7fd1-11ea-8fdb-7ec06edeef84>

24 <https://www.ellenmacarthurfoundation.org/>

25 <https://www.nfcw.com/2020/05/01/366386/mastercard-reports-40-growth-in-contactless-transaction-volumes/>

26 Based on 2017 Digital Inclusion Results published in Journey 2022: Resolving Digital Dilemmas, <https://atos.net/content/mini-sites/journey-2022/>



### Changing attitudes to government and data

The crisis has forced people to re-evaluate the importance of different jobs. When deciding which work is essential, jobs like stacking supermarket shelves and waste collection sit alongside doctors and nurses as essential components of modern-day civilisation. Governments and businesses are already being challenged about whether the level of remuneration for these critical roles is appropriate<sup>1</sup>.

To try and minimise the health and economic impact, governments have made interventions at a scale not witnessed before, ranging from restrictions on movement through to financial support for individuals and businesses who are affected. The requirement to target this financial support, both in terms of who receives it and also how it is used

(e.g. food only), creates a clear use case for e-vouchers and other kinds of e-money, whose usage may then continue to become more accepted and widespread beyond the current crisis.

Much of this financial support is being provided as or funded by debt, which means we will be entering a prolonged era of high debt. It seems likely that this will shift public opinion to be more accepting of “big government”. Furthermore, regions that have traditionally valued data privacy (such as the EU through GDPR) may start to question whether a more relaxed attitude to data privacy can be justified in the name of saving lives and securing the economy, perhaps via “regulatory sandboxes” where rules are relaxed for specific use cases or at specific times. This may be a Pandora’s box: even if opened with good intent, it may be difficult to close it again if personal data starts to be misused (by nation states or businesses). Even when data is

protected through anonymisation, it can still be possible to deduce information about individuals by combining multiple datasets together.

Attitudes to other types of regulation may also be very different when we reach the new normal. During the crisis, many governments struggled to source essentials for their fight against the pandemic, ranging from simple items like face masks and hand sanitizers, through to complex medical ventilators. This has exposed the supply chain dependencies between nations in healthcare, but also poses a wider question: how much should countries and regions depend on others for vital aspects of their domestic infrastructure? To answer this, regulators may have to adapt competition rules, and previously controversial concepts such as that of “industrial champions”<sup>2</sup> may be viewed more favourably.

27 <https://www.nursingtimes.net/news/workforce/hancock-asked-if-nurses-should-be-paid-more-after-covid-19-crisis-06-04-2020/>  
28 <https://www.euractiv.com/section/economy-jobs/news/europe-looks-for-its-formula-to-create-industrial-champions/>

# Lasting impacts for business

After this crisis,  
we believe there will be  
two long-lasting impacts  
for business.

Firstly, investors will value, and executives will try to build, companies that can be resilient, even in the face of unpredictable and far-reaching global events.

To achieve this resilience, organisations will need to be able to adapt in a fast and agile way to unforeseen circumstances. This will force them to re-evaluate their supply chains and their attitude to cost management. Secondly, there will be a lasting impact on where and how people work, something we characterise as a shift from teleworking to smart working.

## Resilience of supply chains

This crisis has highlighted that many supply chains were fragile: highly dependent on single suppliers and efficient distribution channels. To make their supply chains more resilient, we expect businesses will adapt their approach to:

- Adopt multi-sourcing models to reduce dependencies on single, dominant suppliers
- Increase the degree of local sourcing
- Increase inventory (reduction of Just-In-Time)

To support these flexible supply chains, contracts will have to be adjusted and payments will become more frequent, lower value, and made between a higher number of participants. ERP (enterprise resource planning) and MRP (material requirements planning) systems will need to facilitate the fast onboarding and switching of suppliers.

The adaptation of supply chains is not only relevant for physical goods, but also for the full range of services that businesses rely on. In the UK, Worldline was able to support one client by rapidly deploying and running a local call centre (based around our Contact solution) when the crisis made it impossible for their off-shore provider to deliver the service they needed.

## Changing attitudes to cost management

Many businesses have been forced to reduce costs drastically during the crisis. We believe this experience will cause a lasting change in mindset in the following ways:

- A realisation that it will be possible for some savings to be maintained (with little or no negative impact), even after the crisis ends, such as reduced travel or requiring less office space.
- A greater willingness to use standard, off-the-shelf products and platforms (rather than highly customised ones), in order to lower costs.
- A desire to achieve greater financial resilience by having a cost-base that can flex and scale up or down in line with their own revenues (e.g. transaction-based or pay-as-you-use pricing, outcome-based pricing, lower fixed costs, and reduced capex).

Of course, for many companies, a major cost driver is their staff costs. We see an important tension emerging. On the one hand, businesses may wish to have staff costs that are more flexible (e.g. gig-economy, zero-hours contracts, etc.). On the other hand, employees and governments may see more value in employment contracts that provide greater security and predictability. Whilst many state aid schemes have been quick to support those on traditional employment contracts (such as government-funded furlough), it has been harder to react quickly and fairly for those who are self-employed or whose patterns of work are irregular.





### From teleworking to smart working

A recent survey of technology professionals found that 79% did not regularly work from home before the crisis but, once the crisis hit, this switched to 93% almost exclusively doing so<sup>1</sup>. At Worldline we recognise this story, with our people demonstrating a great capacity to adapt to this new way of working: even with 97% of our staff switching to permanent home-working, we have remained fully operational. Many respondents to the survey reported increased productivity while working from home, due to fewer interruptions, more purposeful meetings and less time spent commuting. It remains to be seen whether, in the longer term, the reduction in “chance encounters” and “coffee machine conversations” that can occur only when you habitually bring people physically together, could negate these productivity gains.

We believe that, for all businesses, this sudden and prolonged change in ways of working that we are seeing now, will lead to longer-term shifts in attitudes. During the crisis, managers and employees have taken a more flexible approach to work, not just in terms of location but also in terms of hours and a greater willingness to fit around family commitments (and embrace the background noise of children on conference calls as normal). As external interactions with partners and clients have become virtual, people will question whether taking two flights for a 1-hour meeting is worth the additional time, cost and environmental impact, when compared to a straightforward video call.

At Worldline, we have always had a culture that focusses on results and gives people autonomy in how they achieve them. We believe that, for many organisations, working remotely has increased the amount of autonomy

people have in their work and the way they are managed: rather than judging people by whether or not they turn up for work, they are being measured instead on the results they deliver (not by how they achieve them). We characterise this as a shift from teleworking (working in the same way, but from home) to smart working (based on high autonomy and results orientation).

A knock-on effect of this shift is that businesses may decide to reduce the number and size of their offices and remodel their remaining locations into meeting spaces that encourage creativity and collaborative interactions, rather than trying to efficiently squeeze the most desks possible into the smallest space. This type of change will not only reduce costs (travel, office space) but will additionally create a results-oriented work culture that will be more appealing to the Generation-Z talents that many want to attract.

# Technologies with accelerated relevance

In general, the current crisis is not leading to the development of new technologies, rather it is seeing much faster and more widespread adoption of those that already existed.

This reminds us of an important point: the benefit (or not) of any technology comes not from the technology itself, but rather from how it is used. In this section we will briefly describe some of the use cases for existing technologies that we think will see an acceleration in relevance that will last beyond the current crisis. In general, these use cases fall into one of two categories.

1. Those that address specific needs arising either directly during the crisis or in the new normal.
2. Those that enable organisational resilience by increasing the agility with which companies can respond to change.

## Technologies addressing the needs of the new normal

**Digital currencies:** Growth in stable coins (e.g. ECB moving to CBDC) as alternatives to cash, which have the potential to enhance the efficiency of the provision of financial services.

**Digital contracts:** Fully digital contracts so that agreements can be entered into without physical signing whilst still complying with the eIDAS regulations.

**IoT:** Firstly, we see IoT as an enabler of autonomous zero-contact payments: devices that can place orders and pay for them without any human intervention. Secondly, IoT can be an enabler for the pay-as-you-use charging models which we expect will be demanded more post-crisis.

**Mobile solutions:** Mobile solutions have never been more important than during the current crisis (not only as “bring your own” payment devices but also as a vital mechanism to track and trace infections). Some countries may even push to ensure that everyone has a smart phone. The legacy of this in the new normal will be that mobile use cases (e.g. mobile payments, mobile wallets, tracking of people and goods, etc.) will see greater adoption.

**AR/VR:** Use of Augmented Reality and Virtual Reality to support remote expert assistance and collaborative design.

**3D Printing:** Although relatively slow and expensive, its flexibility and the ability to build physically close to demand has proved valuable as supply chains have become disrupted. 3D Printing also offers a way for more businesses to digitise their products. In such scenarios, management of intellectual property (IP) becomes important as well as facilitating the correct payments to the rights holders.

**Non-contact authentication:** Methods of authentication that do not require any physical contact (such as NFC, voice, iris or facial recognition) will become more valuable.

**Advanced encryption techniques:** With increased digitization and a corresponding increase in digital fraud/theft, strong encryption and privacy preserving cryptography (e.g. zero-knowledge proofing, homomorphic encryption, and multi-party computations) will become more relevant.

**Communication tools:** With remote working being more commonplace and a higher number of people’s interactions not being conducted face-to-face, there will be a greater requirement for secure, reliable communication tools.

**Collaboration tools:** With remote collaboration being more usual, tools that effectively support such collaboration will become both more widely adopted and also more critical to operational efficiency and performance.

**Proximity Services:** Through the use of different technologies (Bluetooth, NFC, Wi-Fi, etc.) it is possible to detect the presence of people and send them a targeted message at the right place and time. Many countries are turning to these technologies to help control the spread of COVID-19 in their populations. As the principles of their use become more accepted and known, other use cases will become more common too, such as enabling physical shops to organise better their interactions with customers.

## Technologies enabling business resilience through agility

**Cloud and micro services:** Web-scale application architectures based around micro services running in the public or private cloud to facilitate flexible scale-up and scale-down infrastructure on a pay-per-use basis, enabling huge surges or drops in demand to be handled. Additionally, there will be an increased desire for portability to avoid dependency/lock-in to one cloud provider.

**Big data:** Sourcing the dispersedly available information from a variety of systems to a centralised infrastructure (e.g. a data lake) will enable data-based decision making for management, operations and commercial teams as they can analyse the situation in real-time and act accordingly.

**API first architectures:** Building systems by integrating multiple components via APIs (which can be consumed by or from internal and external parties) allows for faster adaptation of systems to changing circumstances and, hence, increased agility.

**Chatbots and voicebots:** During the crisis, chatbots are being deployed more widely, including to provide people with information about COVID-19<sup>1</sup>. The result will be that consumers are more used to chatbots and businesses will understand better how to leverage them.

**Communication infrastructure:** Meeting the connectivity requirements for increased secure online interactions and the digital exchange of goods and services (spanning traditional networks as well as 5G and LPWA such as LoRa and Sigfox).

30 <https://www.weforum.org/agenda/2020/04/chatbots-covid-19-governance-improved-here-s-how/>

# Planning for the new normal

As we stated at the start of this paper, we do not know exactly when the new normal will arrive, nor exactly what it will look like. What we do strongly believe is that it will require businesses to adapt, and many will have to reinvent themselves completely.

Furthermore, we consider that the emerging trends summarised in Figure 4<sup>1</sup> are already clear enough to enable businesses to start planning these changes now.

Within Worldline, the way we interact with each other, with our customers, and with our partners, has changed during this crisis. We recognise that it will also be different in the new normal, and we plan to leverage people's increased ability and willingness to interact digitally to accelerate progress towards our sustainability goals, become more responsive to customer needs, and achieve even greater efficiency and scalability for our internal operations.

Of course, we all hope a vaccine and more effective treatment will emerge to end the current crisis. Even if they do, people's perceptions of the world will have changed, and our role will be to plan for a world of fragility that requires resilience and

innovation. At the same time, we will continue to strive to be the reliable, trusted partner that our clients can turn to for solutions which address their unique concerns.

We also see that it is now more important than ever to use our capacity for innovation to support our clients. We want to work with our clients to understand what the lasting impacts that we have described here will mean for their business, and how they might harness technologies in new, valuable ways when the new-normal arrives.

The current crisis is not something that anyone would have wished for. The human cost has been huge, and the repercussions will last for years. However, we are determined to learn from it, to prepare ourselves for what the future will bring, and to help our customers not only respond to this immediate crisis, but also to urgently prepare for the new normal.

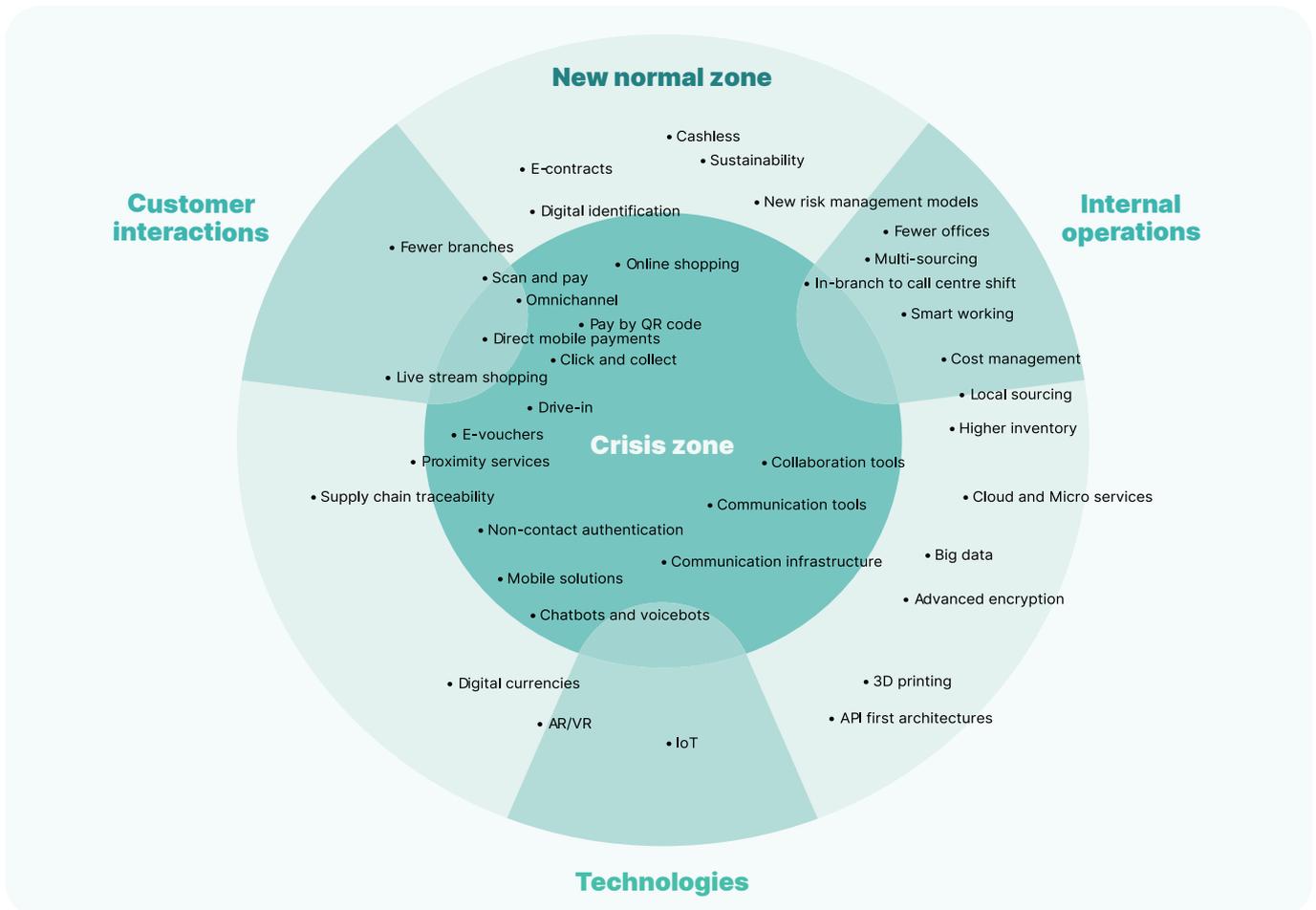


Figure 4: Accelerated trends as we move from the crisis zone to the new normal

# 10 key takeaways

## #1

The COVID-19 pandemic has resulted in hundreds of thousands of deaths globally, and measures to control the spread of the virus are having far-reaching economic impacts.

## #2

Against this distressing backdrop, some positives have emerged such as a reduction in CO2 emissions, people connecting with their families more, and an increasing community spirit.

## #3

To survive, businesses are facing essential digitization of their products, services and internal operations. We see acceleration of cashless payments (e.g. contactless, mobile peer-to-peer, QR codes), a boom in online retail, and strong demand for omnichannel experiences such as click-and-collect.

## #4

The challenge for retailers is asymmetric: some are seeing reductions in sales, whilst others are facing logistical challenges in keeping up with demand (e.g. home food delivery).

## #5

The crisis is catalysing new mindsets in society and business that will outlive the current emergency.

## #6

Society will expect a new balance to be reached between economic output and environmental impact. People will be more accustomed to virtual digital interactions, changing the digital divide: while more people will be comfortable with technology, a smaller minority will be more excluded.

## #7

Businesses will place a higher value on the resilience of their supply chains and cost-drivers, whilst also shifting from teleworking to smart working for their staff.

## #8

The relevance of many technologies will be accelerated by the knowledge gained by governments, businesses and individuals about how they can be effectively harnessed.

## #9

We do not expect the world will return to how things were before the crisis, instead we will see the arrival of a new normal.

## #10

Businesses who start planning and preparing now for the new normal will perform better post-crisis than those who make decisions expecting that the old normal will return. Those who understand and embrace this new future will thrive, those who do not may struggle to survive.



## About Worldline

Worldline [Euronext: WLN] is a global leader in the payments industry and the technology partner of choice for merchants, banks and acquirers. Powered by 20,000 employees in more than 50 countries, Worldline provides its clients with sustainable, trusted and innovative solutions fostering their growth. Services offered by Worldline include instore and online commercial acquiring, highly secure payment transaction processing and numerous digital services. In 2021 Worldline generated a proforma revenue close to 4 billion euros. [worldline.com](https://www.worldline.com)

Worldline's corporate purpose ("raison d'être") is to design and operate leading digital payment and transactional solutions that enable sustainable economic growth and reinforce trust and security in our societies. Worldline makes them environmentally friendly, widely accessible, and supports social transformation.

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We are also grateful to **Marc-Henri Desportes**, **Louise Freer-Jones**, **Gilles Grapinet**, **Wolf Kunisch**, **Pascal Mauzé**, **Esperanza Moreno**, **Rob Price**, **Susanne Stöger**, **Hubert Tardieu**, **Nigel Thorley** and **Sandrine van der Ghinst** who all provided valuable insights and feedback during the preparation of this paper.



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