



# **THE DATA DEBATE:** A FORWARD VIEW OF KEY TRENDS FOR 2021 AND BEYOND



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# FOREWORD

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2020 has been a year like no other. The Covid-19 pandemic has upended economies, irrevocably changed consumer behaviour, and forced businesses to change the way they operate.

While in many ways it has pressed pause on our lives, in other ways the pandemic has initiated G-force inducing acceleration.

Nowhere is this more evident than in our approach to data.

Data has shaped our response to this crisis at a global, national and enterprise level. It has identified where to send medical supplies and channel financial support to people and businesses. It has allowed food banks to connect with vulnerable families in need of supplies, and councils to forecast where to deploy resources for new outbreaks.

And these are just a handful of examples where data has been at the forefront of our fight back against Covid-19. Without a doubt, the pandemic has expanded our horizons in how we apply data – and demonstrated its huge value in combatting society's biggest problems.

On top of this, the pandemic has accelerated the digitalisation of our economy and our transition towards a digital marketplace. At the height of the UK pandemic in April, close to half of the employed population worked from home.<sup>1</sup> Almost every single Briton – 96 per cent – ordered a parcel online.<sup>2</sup>

Businesses had to adapt. Fast. With continuity dependant on their ability to operate and transact virtually, digital transformation was expedited. Advancements previously scheduled to take years were condensed into a few months.

But the business response to the pandemic cannot end here. While there is a broader sense that the rollout of a vaccine will conclude this chapter – for businesses, it's only the beginning.

We are not going back to the way we were before. If businesses are to survive the immediate fallout from the pandemic and thrive into the future, they have to understand their new, post-Covid landscape.

And this takes us back to data.

Data will be paramount. It will enable businesses to identify and comprehend shifts in customer behaviour, and better understand the rapidly evolving marketplace in which they operate.

However, accessing these benefits will demand close collaboration between government, industry and regulators. These parties will need to work together to develop a data regulation framework that encourages innovation and data sharing, while building people's trust that their data is being used responsibly.

Businesses will also need to get a robust digital infrastructure in place. Those who can lay these foundations, embrace the new standards and focus on what's right for their customers, will find many chances to prosper in this new data-driven world.

**Jonathan Westley**

UK&I and EMEA Chief  
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# INTRODUCTION

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As 2021 begins, the UK is faced with significant change. Alongside all the disruption caused by the global pandemic, Britain will also emerge from the Brexit transition period into a new environment outside the European Union. This new reality will present many challenges and opportunities, as the nation comes to terms with its new circumstances.

Chief among these is to establish the UK as a world-leading data economy. The government clearly signalled its commitment to this with the launch of the UK National Data Strategy as a mechanism to stimulate economic innovation and growth.

Now is the time for industry to work together with government to consider all the components needed to create a competitive data ecosystem, which supports a strong data science future.

In this report we have taken the opportunity to step-back, identify the immediate challenges to organisations using data more effectively, and the steps they need to take to overcome them. In doing so we hope to break barriers and instigate collaboration. Working together we can help public, private and third sector organisations access the next wave of data-enabled technologies, and unlock data's full potential to drive business and economic growth.

## BUILDING A NEW APPROACH TO DATA: THE UK NATIONAL DATA STRATEGY

The UK National Data Strategy is built around four pillars, defined as:

### **Data foundations**

The true value of data can only be realised when it is fit for purpose, recorded in standardised formats on modern, future-proof systems and held in a condition that means it is findable, accessible, interoperable and reusable. By improving the quality of the data, we can use it more effectively and drive better insights and outcomes from its use.

### **Data skills**

To make the best use of data, we must have a wealth of data skills to draw on. That means delivering the right skills through our education system, but also ensuring that people can continue to develop the data skills they need throughout their lives.

### **Data availability**

For data to have the most effective impact, it needs to be appropriately accessible, mobile and reusable. That means encouraging better coordination, access to, and sharing of data of appropriate quality between organisations in the public, private and third sectors, and ensuring appropriate protections for the flow of data internationally.

### **Responsible data**

As we drive increased use of data, we must ensure it is used responsibly, in a way that is lawful, secure, fair, ethical, sustainable and accountable, while also supporting innovation and research.





# LAYING THE FOUNDATIONS FOR DATA INNOVATION

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## THE CHALLENGE

Data needs to be findable, accurate, describable and readable – whether by machine or person. Yet even within organisations, data is being produced in a variety of different formats. This makes it incredibly difficult to compare, correlate and combine different data sets internally – let alone externally.

## THE SOLUTION

For years we have known that data standardisation is key to organisations unlocking the value of their own data, and ultimately entering the data ecosystem. However, many organisations still have a long way to go.

There is significant opportunity for industry players to work closely with government to assist in this, by creating a set of standards for treating and referencing data. Initially these could cover priority areas, including identity indicators and standards around cleaning and validating data. Agreeing on a common approach to these would help organisations take control of their own data, and pave the way to greater data sharing between departments and organisations, up and down the UK.

Standardisation also lies at the heart of both compliance and innovation. It enables the former by ensuring that organisations have the right processes in place to align with regulation. Business and data leaders will be keeping a close eye on this, as more clarity is given on the UK's departure from the European Union and what this means for data portability and storage. Following this, evolving legislation may create new areas of opportunity to take advantage of.

With innovation, data standardisation underpins cloud-based collaboration. Within this model, datasets can be uploaded and accessed via secure portals by a range of businesses, who can explore potential uses in tandem.

Over recent years this sandbox model has become increasingly central to catalysing disruptive innovation and tackling societal and business issues. For instance, the Atos Financial Services Sandbox<sup>4</sup> is a cloud-based platform that connects businesses with fintechs to support product and solution development.

While moving into 2021, standardisation continues to be the cornerstone of most successful data projects, organisations, such as Experian, are also looking at how they can use non-standardised datasets to innovate.



## PUTTING STANDARDISATION AT THE HEART OF DATA INNOVATION

COVID-19 has generated perhaps the greatest number of scientific efforts the world has ever seen in combating a health challenge. Yet to be truly successful, organisations scattered across the globe have had to address the challenge of sharing data and findings in a coordinated way.

The European Bioinformatics Institute (EMBL-EBI) and its partners set up the COVID-19 Data Portal, which allows researchers to upload, access and analyse relevant reference data and specialist datasets. This is an example of how sandbox innovation, which allows multiple parties to work on the same data, at the same time, can only be achieved through data standardisation.

In doing so, the portal facilitates data sharing and analysis, and ultimately accelerates research into the coronavirus. It also acts as the primary entry point into a wider project – the European COVID-19 Data Platform.



# DEVELOPING BETTER DATA SKILLS

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## THE CHALLENGE

Forms of job creation and training must evolve if they're to sustain the UK's ambition to become a world leader in data science.

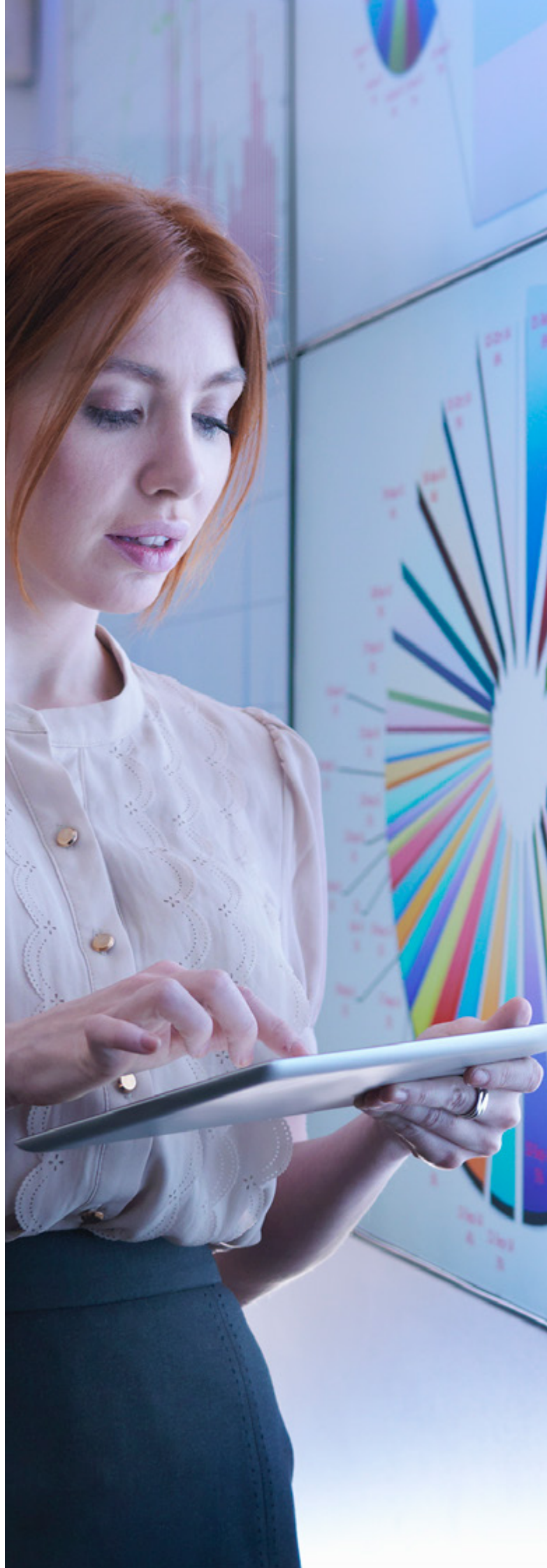
Right now, there is a significant data skills shortage, exacerbated by the fact that some of the bigger brands in technology dominate the recruitment of new and existing talent. Four in five (86%) data leaders report difficulty in hiring talent in the sector, and almost half believe that skills shortages pose the greatest challenge to delivering value within their organisation.

One overlooked area is the handling and processing of data effectively. The conversation around skills usually gravitates towards data scientists, but they need to have data that has been cleaned and is fit for purpose. There needs to be more focus on how we get data to the point that scientists can use it effectively.

## THE SOLUTION

Any discussion about digital skills often turns to what schools and universities are doing, but we need to broaden our perspective if we're to effectively tackle the shortage.

The UK National Data Strategy offers the opportunity to look at data skills through a national lens. This will enable government and industry to identify which skillsets are missing where, and be far more strategic about their development.



By fostering collaboration between employers and regional universities, the Data Strategy could help ensure institutions are developing the data skills needed by local employers through re-training. This would boost productivity, support local job creation, and make sure that the benefits of the Strategy are felt up and down the UK and at an individual level.

But it's not just about cultivating the right data skills within educational institutions. Businesses also have a role to play in future-proofing the UK's workforce. They must place a fresh emphasis on building data capabilities amongst their existing employees at all levels. Failure to do so could see data knowledge concentrated in the hands of a few, who are then relied upon to support the entire business. This is unsustainable and can lead to issues if these people move elsewhere.

One organisation tackling this issue head-on is Marks & Spencer. In 2018 the retailer partnered with Decoded to create the world's first Data Academy in retail. The programme aims to support the business' digital transformation, by building the necessary skillsets from the ground up. Employees can enrol in an 18 month in-work data science skills programme, where they learn to adopt and apply data analytics tools and technologies such as machine learning.

More recently, this programme has expanded even further with the launch of a new entry-level Data Technician course that teaches employees how to manipulate, scrutinise and then translate that data into valuable insights.

But education at one stage or another is not the only key to data skills - increasing diversity could also help. While the discussion around diversity and inclusion often focuses on gender and ethnicity, there is a strong case to be made for improving neurodiversity within organisations too.

For example, Asperger's can be an advantage in certain jobs, particularly those involving data analytics. But conventional recruitment practices work against those with the condition. In a world with growing skills gaps, and a desire for employees with creativity and potential to innovate, it is even more critical that these policies and processes give all types of people an equal chance to succeed.

## INDUSTRY COLLABORATION IMPROVING DATA LITERACY AT SCALE

The Data Literacy Project is a global community dedicated to making a more data literate world.

Launched by global data leader Qlik, the Data Literacy Project includes founding partners Accenture, Cognizant, Experian, Pluralsight, the Chartered Institute of Marketing, and Data to the People.

With the ability to read, understand, question and work with data now key to people and business success, the Project aims to ignite discussion and develop the tools needed to shape a data literate society.

As part of this, it provides free educational courses, reports, advice and real-life stories to inform, equip and inspire individuals and their organisations in data literacy. Courses vary in duration and complexity – from Data Fundamentals to Advanced Analytics, encouraging people to build and expand their skillset.



# MAKING DATA AVAILABLE – PUTTING CONSUMERS IN CONTROL

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## THE CHALLENGE

For data to be effective and to drive the most insight and innovation – volume, veracity and variety are the key. However, at present, many people don't understand why their data is needed and how it is used. This is hampering organisations' access to data, and their ability to build better products and services.

Added to this, there is also some uncertainty within organisations as to what data they can share and how they can make it accessible, both internally and externally.

Over constrictive regulation remains a challenge – many are fearful of sharing data under the assumption that regulation may restrict the potential of what they want to do. However, private and public sector enterprises need to strike the balance between risk-based compliance and innovation.

We have seen, with Open Banking, how competing organisations can share data to deliver enhanced value to their customers and themselves. However, the lengthy process can prove a barrier to data sharing. Keeping people engaged throughout the customer journey is key and more needs to be done if the true benefits of such innovation are to be realised.

## THE SOLUTION

A misconception exists that businesses know what data they need to analyse to deliver a specific outcome – but this isn't always the case. Instead, the best insights are often garnered from investigating a variety of different data sets with no set agenda.

There is no upside for organisations in gathering data for data's sake – this is a time consuming and costly activity. However, they do need to be able to experiment within a framework if they're to develop products or solutions that present real value to people.

And this is the real crux of the matter. People – or indeed any data sharers – need to see how sharing their information will benefit them or the communities they live in. Increasingly, people are prepared to share information if they understand the terms of the exchange and place a high enough value on the product or service they receive in return.

Organisations also need to face into the risks that people may perceive in how the data is used, shared or stored. In this scenario, if the value outweighs the risk, they are more inclined to share. This is known as the 'consent equation'

It is a delicate value exchange, and as people's comprehension around the power of their data improves, organisations are going to have to work harder to prove the value of what they are offering in return. If they can get their approach right, by demonstrating integrity through better data stewardship, transparency, accuracy and outcomes, then everyone stands to win.

Open Banking is one example of how data sharing between competing organisations has delivered some value to people and businesses. However, it also demonstrates the challenges in getting people to adopt new technologies, and how this in turn prevents these technologies achieving their full potential.

The first significant barrier to adoption is experience. At present, elongated consent pages mean that around 60 to 70 per cent of those interested in signing up to Open Banking drop out along the 18-step process. The second barrier takes us back to the consent equation. The benefits accessible through Open Banking are not compelling enough for many people to share their data.

Overcoming both challenges will demand a concerted effort from financial services providers, government and regulators. Collaboration will be key to removing friction from the process and neutralising the threat of consent fatigue, whilst ensuring the necessary protections remain in place. It will also be imperative to improving functionality and driving a proper expansion into Open Finance. This would enable people to link their whole universe of financial commitments – and provide a very compelling reason to adopt the technology and make their information available.



## **BOOSTING OPPORTUNITIES THROUGH BETTER DATA AVAILABILITY**

Underpinned by Open Banking technology, Experian Boost presents a step towards Open Finance. The new service enables users to include regular payments, such as council tax bills and digital entertainment services, into their credit score. Using the service, people can increase their score by up to 66 points, without damaging it, while lenders can better manage their credit risk.

With over 4.9 million unique users in the United States, the service clearly demonstrates people's willingness to share their data when they are confident in how it will be used and assured of the benefit to them.

# DEMONSTRATING RESPONSIBLE DATA USE

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## THE CHALLENGE

The growth of data driven products and services, combined with the promotion of data legislation such as the General Data Protection Regulation (GDPR), means that people are more aware than ever about the data they share and its collective worth when combined with the data of others. When they share their data, they want to feel that any information will be respected and protected. This is a serious challenge, but also an opportunity, for businesses, that necessitates a robust and strategic response – those that fail to protect, store and use data responsibly will risk losing consumer confidence, as well as a potential loss of business, reputation and/or interventions from regulators.

## THE SOLUTION

Organisations must use data responsibly. They need to demonstrate integrity through better data stewardship, transparency and accuracy, in order to build trust. This in turn will deliver better business outcomes. The major challenge for brands today is to establish enough trust with their customers so that they willingly share the data businesses need to create better products and services.

This builds on the principle of only collecting required information as outlined in the previous section, with the focus on privacy, or data protection by design.

With that said, we must never leave the citizen behind, privacy and protection are key. Recognising the importance of maintaining high levels of trust in those that hold data, we must do everything we can to demonstrate the benefits to people of increased data sharing.

It falls to those working in the data industry, collaborating with government and regulators, to find new ways of earning and maintaining consumer trust and understanding. We need to work towards a culture of continuous communication with the end users, ensuring that people are always aware of what their data is being used for and the benefits of sharing that information in exchange for better products, services and experiences.



As we look forward, we can see more technologies that will support this. Privacy preserving technologies aim to balance the responsible use of data with still being able to use information to the benefit of all. These technologies include:

- Personal data vaults, where people host their personal information in encrypted cloud-based storage (such as mobile-accessed data wallets, containing all their financial, legal, medical and other data) with complete control over how and what they share with whom.

- Zero trust data sharing, which uses cryptography to limit how much personally identifiable information (PII) is included in data, allowing it to be used while preserving privacy.
- Synthetic data, whereby businesses artificially create the data they need to run machine learning programmes.

When they handle customer data, organisations are not its owners, but they are entrusted with significant responsibility. The ethical use of that information will need to be at the forefront of organisations' minds. People care about how their data is used, so there is an opportunity for enterprises to differentiate themselves through demonstrating responsible data use.

## UNDERSTANDING DATA SHARING, CONSUMERS AND THE VALUE EXCHANGE

Experian research found that people's attitudes to data sharing and the value exchange fell into four distinct personas:

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### The Accepting:

People who see data sharing as an inevitable trade-off, and tend to 'go with the flow', allowing companies to access their data in order to use the services they need.

2

### The Cautious:

People who make sure the company requesting data is legitimate and that they understand the transaction fully before sharing any information.

3

### The Unaware:

People who don't know how some companies use their data and click 'accept' without really understanding the consequences.

4

### The Incognito:

People who develop ways to navigate data sharing without revealing any information that they do not want to share.



# LOOKING FURTHER AHEAD

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Over the course of this paper, we have outlined the challenges organisations face as they seek to use data to further their ambitions, as well as the solutions to those obstacles. But what do the near-term opportunities look like once those challenges are overcome and those solutions implemented?

The following are three of the future trends we believe are closest to fruition, and which would have a significant effect on how all sectors can and should use data to the benefit of their organisation, but more importantly, the consumer and society.

**Standardisation will drive the growth of data marketplaces and data as a service (DaaS), and in doing so, improve data availability** - Data marketplaces and exchanges provide single platforms to consolidate third-party data offerings, and it is a booming area. Since the data resides in the cloud, these marketplaces and exchanges provide centralised availability and access (to analytics and other data sets, for example) that create economies of scale and reduce costs for third party data. Gartner predicts that by 2022, 35% of large organisations will be either sellers or buyers of data via formal online data marketplaces, up from 25% in 2020.<sup>8</sup>

The key to accelerating these marketplaces will be standardisation. Whether the scale of this materialises though will depend on establishing a fair and transparent methodology by defining a data governance principle that ecosystem partners can rely on.

It's sensible that marketplaces focus initially on non-personal data, which has a less inherent risk associated with it. The governance experience of how open data is handled and shared can be usefully drawn upon in this instance.

With ever increasing regulation around the use of personal data, it remains to be seen whether marketplaces can be equipped to handle the risks, transparency and due diligence that organisations need to assess before using these data types. Companies also need to ensure that data traded in this way still maintains its integrity, and that the "understanding" of the data and its value is not divorced from the data itself. If this can be achieved, then data marketplaces will have a significant impact on efforts to combat ongoing issues around the availability of data.



**Responsible use of data at the heart of the operationalisation of artificial intelligence (AI), machine learning (ML) and natural language processing (NLP)** – Techniques such as ML, optimisation and NLP have demonstrated their worth during the Covid-19 crisis. They are providing vital insights and predictions about the spread of the virus and the effectiveness and impact of countermeasures. The way these technologies have been applied during the pandemic has demonstrated their potential on the world stage and will undoubtedly accelerate their adoption.

Yet these solutions are only as good as the data they're fed. Standardisation will help ensure data is digestible, while advancements in synthetic data could help remove bias from datasets by ensuring they are adequately diverse. Along with this will come a focus on the data governance and transparency aspects of AI. There will be a move towards Responsible AI – which enables model transparency as an essential mechanism for protecting against poor decisions. It results in better human-machine collaboration and greater trust, driving adoption and alignment on decisions throughout the organisation.

**The return of the business as data steward** – Legislation and regulation is better connecting individuals to their personal information. It is now up to organisations to use this information and turn it into value for their customers in an easy and safe way. If organisations can demonstrate that they are able to store and use information responsibly, in a way that is accessible, easy to share and simple to withdraw at any point, they will win people's trust. An opportunity then arises for these businesses to be a repository for people's data.







## CONCLUSION: CREATING A VIBRANT UK DATA ECONOMY

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The coronavirus pandemic has caused so much disruption and completely changed the way we live, work and play. It's challenged business models and significantly accelerated digital trends. However, at the same time, it has also demonstrated the value of taking a data-driven approach to solving some of society's biggest issues.

In the right hands, combined with good judgment and expert knowledge, data gives us the insights to act with accuracy and speed, making a huge difference to people and the communities they live in.

Using relevant information to help us navigate the crisis has reminded us of the great value of data and technology in tackling even the biggest challenges. The benefits are far-reaching, provided it is used effectively and people's privacy is respected.

The pandemic has also demonstrated the need for adaptability and flexibility in our approach to data. Moving forward, industry will need to work with government and regulators to ensure our regulatory framework can facilitate this and support in fostering an environment of innovation. There is opportunity to draw on best practice globally when considering options.

The Government's new National Data Strategy offers a renewed focus on key actions organisations need to take to help build on the work which is already positioning the UK's data industry as a world leader. However, we will need to devise and formulate an approach to data that is both acceptable to people – and meets the requirements of business. It will take efforts from all sides to achieve this, and deliver the solutions we have outlined in this paper.

The overarching principle that should underpin the UK Data Strategy has to be around design for use rather than prevention. Whilst we must recognise and respect the importance of data privacy, we should always commence our thinking from the point of positive facilitation of achieving our aim or objective, not the historical standpoint that we have seen in an EU context at times of prevention and restriction.

By implementing a flexible and innovative approach to data use, we also have to acknowledge that the benefits are much further reaching than the simple aim of boosting innovation.

Data science and data led technology is one of the most important growth industries of the future – both economically and in terms of appealing to talent wanting to work in the industry. In our own business, we have seen a 133 per cent growth in applicants for data science and analytics roles this year alone.

Consumers, meanwhile, are also embracing the use of new, helpful data. Over 1m customers use Open Banking, which allows greater control between different bank accounts. Four of the largest banks have Open Banking apps, as do several challenger banks. Cross account searches and access increased from 80.7m last July to 475m in July this year, showing popularity with users.

As the world becomes ever more connected, the sheer volume, range and variety of available data will continue to grow at a substantial rate. The ability to analyse and use it in the right way will show us its true value.

Britain needs to be at the forefront of the digital revolution, and it is encouraging to see the government state its ambition to become a global leader.

As we see increased standardisation, data skills built, people better motivated to share their data and safeguards put in place to maintain their long-term confidence, we will be able to deploy data in new, innovative ways that lead to the creation of a vibrant UK data economy.



# APPENDIX

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