

BUILDING THE FUTURE WE NEED

SCOTLAND DIGITAL DIALOGUE AND NATIONAL REPORT 2020



TECHUK DIGITAL DIALOGUES

Throughout the past year, techUK held a series of Digital Dialogues with leaders across the United Kingdom's nations and regions to better understand how we can harness digital innovation to build a better future in the wake of the coronavirus (COVID-19) pandemic.

Working together with stakeholders and members these conversations were intended to help understand what actions could be taken at the local level in the short, medium, and long-term to support a levelled-up recovery and build the future we need.

Ambition in the face of adversity

The COVID-19 pandemic continues to present huge challenges for the UK's nations and regions.

As we plot a course to recovery, we have an opportunity to apply technology with purpose to deliver better outcomes for people, society, the economy, and the planet.

Our mission should not be simply to get back to where we were, but to build the future we need.

A future that empowers people, strengthens society, grows the economy, and restores the planet.



IT HAS NEVER BEEN MORE IMPORTANT FOR ALL SECTORS, ALL SIZES AND TYPES OF ORGANISATIONS, AND ALL PARTS OF SOCIETY TO THINK ABOUT THE OPPORTUNITIES THAT TECHNOLOGY CAN PROVIDE. TECHNOLOGIES HAVE NEVER BEEN MORE IMPORTANT, BE THAT FOR OUR HEALTH, OUR RELATIONSHIPS, OUR ECONOMY, AND OF COURSE, VERY IMPORTANTLY, OUR ENVIRONMENT.

**Ivan McKee MSP, Minister of Trade,
Investment and Innovation**

Executive summary

The Scotland Digital Dialogue brought together local leaders from across the public and private sectors on 6 July 2020 to discuss the impact of COVID-19 on Scotland and how digital technology can support a levelled-up recovery.

The discussion revealed serious concerns about the social and economic impact of COVID-19 and the long-term ambition to level up the whole of the UK.

However, these concerns were matched with optimism about the opportunity to accelerate digital transformation and apply digital technology to address both long-standing issues and new challenges brought about by COVID-19.

There is a strong desire for greater collaboration across public and private sectors to drive digital innovation and help Scotland recover from the impact of COVID-19.

This report sits alongside six other national and regional reports, as well as a UK-wide report, and sets out some recommendations, based on the Digital Dialogue, about how this could be achieved in Scotland, focusing on the following areas:

- › Strengthening local digital capital
- › Seizing local growth opportunities
- › Innovating to tackle urgent problems

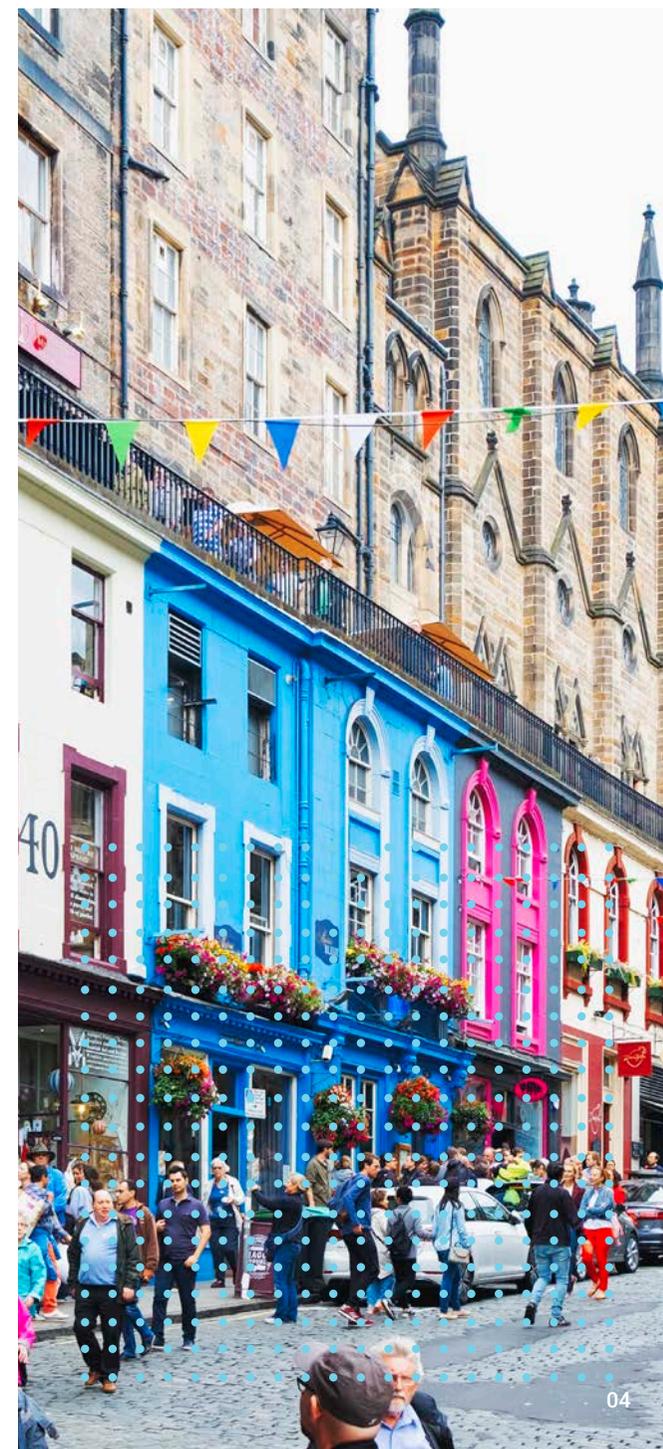


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SCOTLAND DIGITAL DIALOGUE





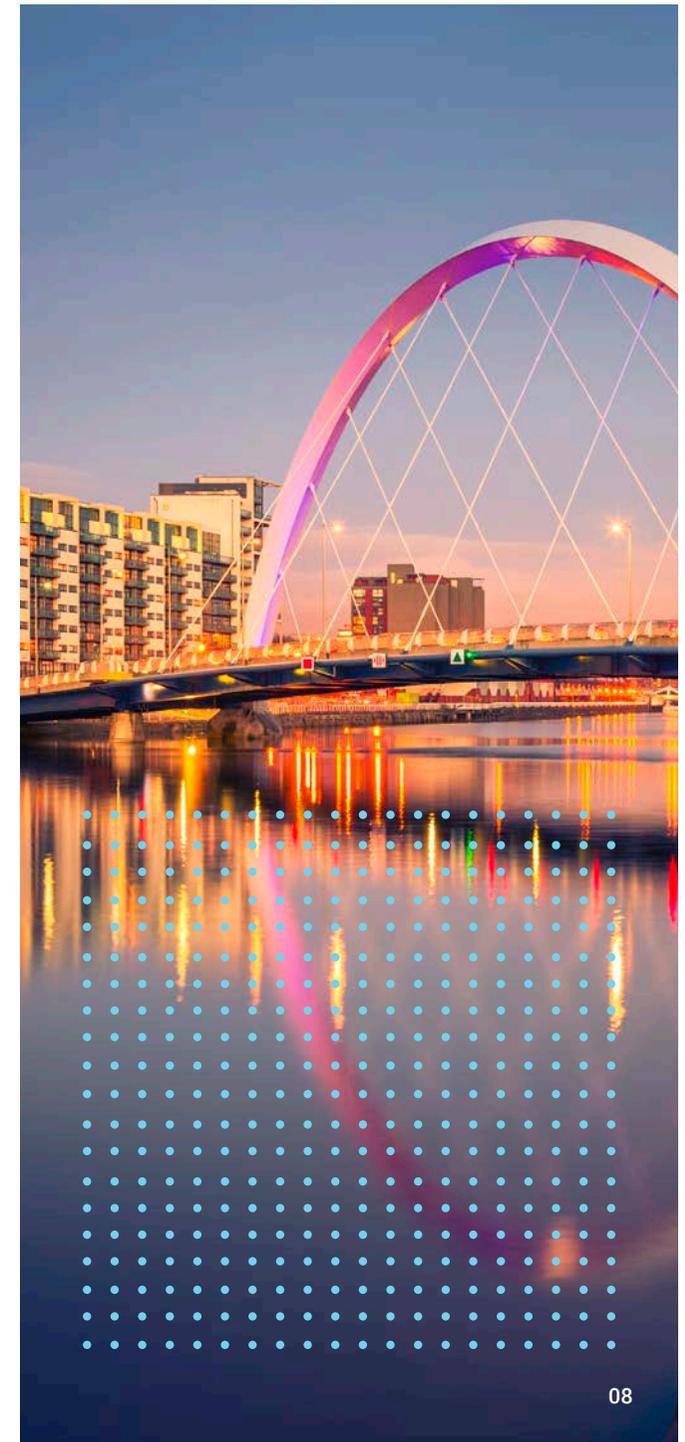
Participants

The key senior stakeholders who participated in the digital dialogue came from a variety of organisations, from the tech sector and beyond. These ranged from large corporates to small and medium-sized enterprises (SMEs); professional services and legal firms; trade organisations, cluster groups, and incubators; the public sector and government; and universities and other educational institutions.

The impact of COVID-19 on Scotland

The **Scottish Government's economic assessment** from June 2020 saw a fall in gross domestic product (GDP) of more than one-third during the preceding lockdown period, and 14% over the previous year. Additional government research suggests that unemployment could reach 10% later in 2020.

Analysis showed that 22% of the economy was strictly closed during the peak of the lockdown period, impacting over 900,000 jobs and over one-third of the business base, including the self-employed.



Concerns from the Digital Dialogue

Digital skills gap: the discussion on digital skills focused on a number of separate issues – from apprenticeships and the unwillingness of many firms, especially SMEs, to take on apprentices, to the skills gaps, especially for SMEs and their leaders.

Digital connectivity: the need for better connectivity in rural areas and for disadvantaged communities was discussed in detail, highlighting the importance of not only service provision, but service affordability – a significant issue being that deprived areas often suffer from not just inadequate digital infrastructure, but also affordability problems.

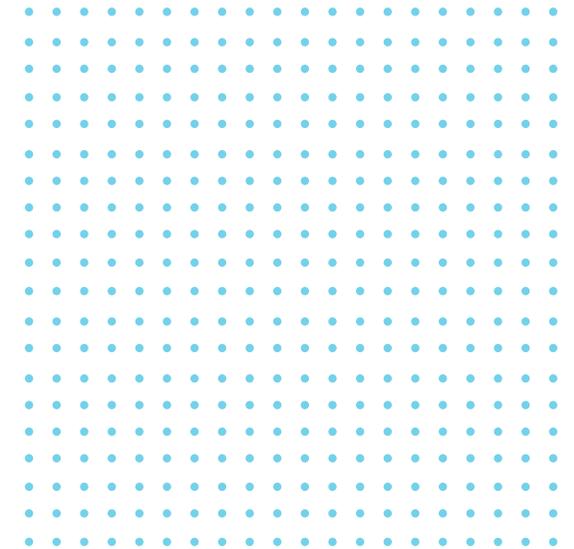
Data privacy, resilience, and cyber security: particular issues discussed include the vulnerability of many businesses, especially SMEs, to cyber attacks due to the use of legacy information technology (IT), and the need for both data protection and privacy, especially in the context of both minors and children.

COVID-19 as a catalyst for change in Scotland

The bulk of the discussion centred on how tech and digital transformation can help firms in a variety of sectors innovate. Specific sectors discussed include:

- High-value manufacturing and how tech can help retool to making high-value products rather than bulk products.
- Healthcare and the need to continue the transformation seen thus far as a response to the COVID-19 pandemic by increasing accessibility in areas with poor public service provision, as well as the need for data security and for all change to be sustainable.
- Farming and the opportunities arising from using 5G and the Internet of Things (IoT) to increase productivity, which would require better connectivity in rural areas.

Other opportunities discussed as being particularly relevant to Scotland were fintech and green finance in particular, gaming and the strong potential to take gaming tech to the wider industry, space tech and the growing Scottish space industry, and using Scottish islands as testbeds and sandboxes for technology trials and pilot programmes.



Recommendations

A wide range of ideas were discussed at the Digital Dialogue which have been synthesized into three broad recommendations for next steps:

Work together to strengthen local digital capital

Scotland's potential to recover will depend upon the strength of its local digital capital. Local stakeholders from across the public and private sectors should work together to develop an integrated plan to strengthen the eight component parts of local digital capital.

Use digital to accelerate local growth opportunities

Scotland has several sectors that are primed for success, including high-value manufacturing, agritech, and the digital and creative sector. Concerted action should be taken to ensure that these sectors are at the forefront of digital adoption to support and accelerate their growth.

Launch local innovation challenges to tackle urgent problems

COVID-19 has taken a heavy toll on many businesses, services and communities across Scotland. The Scottish Government should challenge local innovators from across the public and private sector to come forward with new ideas and innovative solutions to some of its most urgent local problems, from housing and healthcare to supporting high streets, public spaces, and the creative economy.





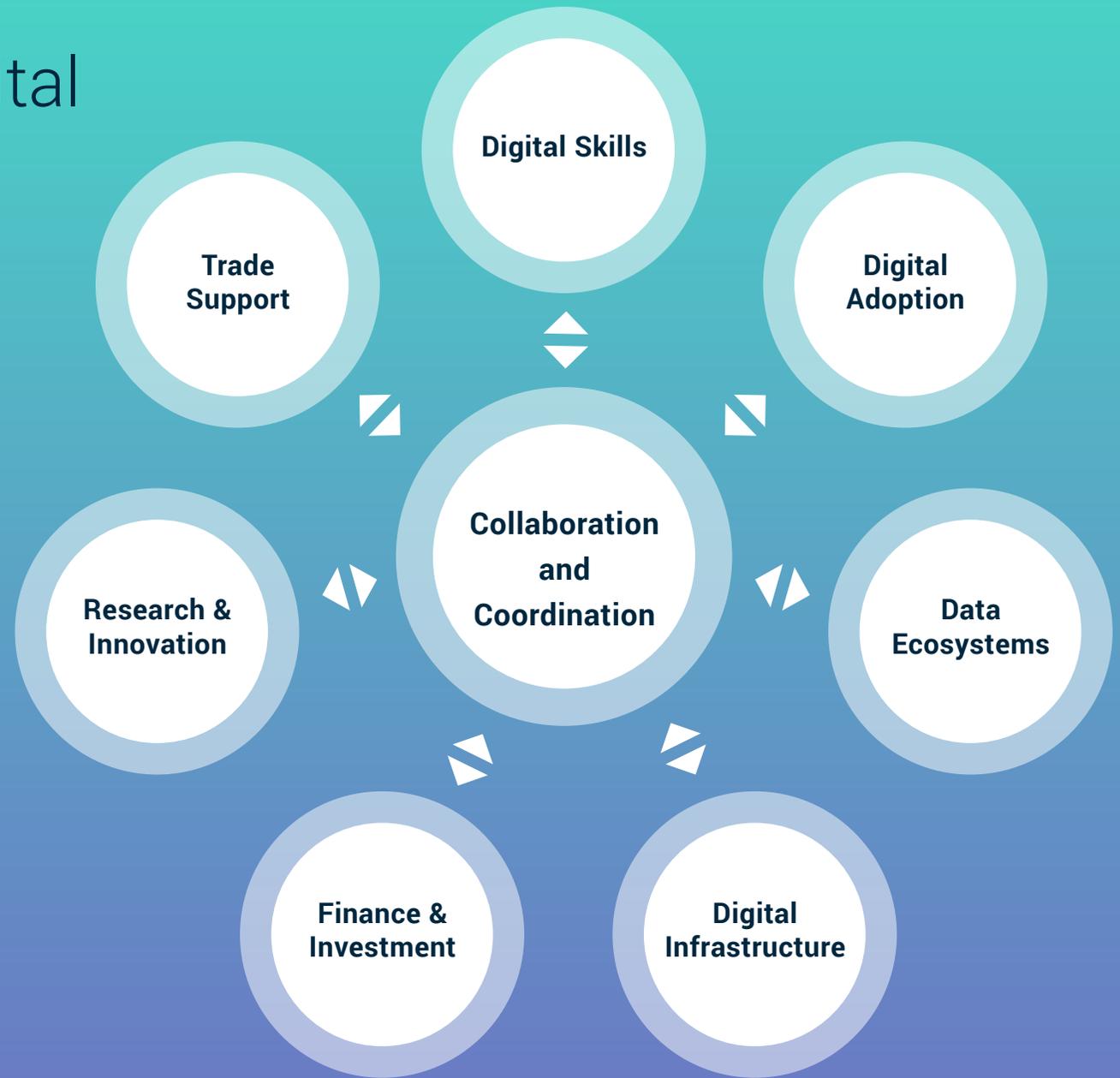
STRENGTHEN LOCAL DIGITAL CAPITAL

Local Digital Capital

Local digital capital describes the inputs needed at the local level to maximise the benefits of digital.

These eight components were identified by participants across techUK's Digital Dialogue events as the essential inputs necessary for a nation or region to benefit from digital innovation.

techUK believes there is real value in thinking about these inputs in aggregate and developing a strategy that focuses on strengthening digital capital at the national and regional level.



Strengthen local digital capital

While participants in the Digital Dialogue touched on many of the different aspects of local digital capital, the four that were the most frequently discussed were:

- › Digital skills
- › Digital adoption
- › Finance and investment
- › Collaboration and coordination

Participants stressed the need for greater levels of digital skills, the potential role of apprenticeships in helping people obtain digital skills without a university degree, and the need to upskill SMEs and especially SME leaders in order to further digital adoption.

Second, connectivity was another key issue that was discussed, particularly for rural and disadvantaged communities, with the importance of not just ability to access a sufficiently fast connection, but affordability as a key point as well.

Third, data was another big topic that was discussed, primarily the need for privacy, resilience, and safety, particularly to address cyber security weaknesses for many SMEs.

Finally, participants stressed the need for greater levels of coordination and collaboration between the public and private sectors.



PARTNERSHIPS ARE SO IMPORTANT – WE NEED TO COLLABORATE MORE EFFICIENTLY AND EFFECTIVELY, ESPECIALLY ON R&D

Digital Dialogue Participant



THERE IS A VERY APPARENT DIVIDE BETWEEN DIGITALLY ADVANCED SMES AND THOSE THAT AREN'T – SOME CAN ADAPT TO CHANGING CIRCUMSTANCES MUCH MORE QUICKLY. DIGITAL SKILLS ARE THE KEY HERE, AS MANY SMES LACK SCOPE, ARE NOT ALWAYS PLUGGED INTO THE OPPORTUNITY/RISK OF THE DIGITAL WORLD. WE NEED TO OFFER THEM SUPPORT TO HELP THEM GROW.

Digital Dialogue Participant

Digital skills

Scotland faces a significant digital skills gap, with **ScotlandIS suggesting that 75% of employers struggle to recruit qualified digital staff**, coinciding with a 31% reduction in computing education and a high dropout rate of computer science undergraduates.

The Scottish Technology Ecosystem Review, also known as the “Logan Review”, identified education and training as fundamental requirements for the future success for Scotland’s tech sector, with a particular need for a more dynamic curriculum at the school level and better linkages between university computing courses and business entrepreneurship.

Research shows that small businesses in Scotland are ahead of the UK average, with 60% having all six digital skills classified as “essential” by **Lloyds Bank**, and only 1% of SMEs offline. In order to continue growth, digital strategies and support for SME leaders are critical, with 63% of business leaders believing that digital is relevant to their business.

The Scottish Government, the third sector, and the private sector have been partnering to address the skills gap through training programmes like CodeClan, dressCode, and the University of Edinburgh’s Digital Skills Framework.



APPRENTICESHIPS HAVE A BIG POTENTIAL TO HELP PEOPLE GET DIGITAL SKILLS IN A REAL-WORLD SETTING, AND THEY ARE OPEN TO BOTH LARGE AND SMALL COMPANIES. HOWEVER, WE NEED TO FIND BETTER INCENTIVES TO ENCOURAGE COMPANIES TO TAKE ON APPRENTICES.

Digital Dialogue Participant

Digital infrastructure

In Scotland in 2018, **4G data from all operators** reached 74.8% of premises and 39.2% of the total geographic area, with voice calls from all operators reaching 91.1% of premises.

The Scottish Government has a **detailed plan and numerous programmes** aimed at improving both broadband and mobile networks, especially in the more rural areas.

The Digital Scotland Superfast Broadband programme achieved its initial target of delivering fibre broadband to 85% of premises in Scotland by March 2016.

The Reaching 100% Broadband programme, is a commitment from the Scottish Government to deliver 100% superfast broadband coverage across the nation.

The Scottish 4G Infill programme invests £25 million to deliver mobile infrastructure to rural areas and spots without coverage.



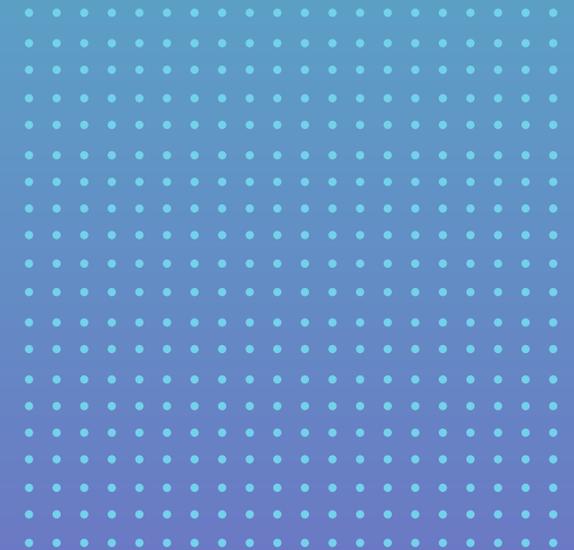
CONNECTIVITY HAS TWO ASPECTS – INFRASTRUCTURE AND AFFORDABILITY, WHICH HAS A LARGE IMPACT ON THE MOST SOCIALLY DEPRIVED AREAS. WE NEED TO TAKE A MORE HOLISTIC VIEW.

Digital Dialogue Participant



IF WE IMPROVE CONNECTIVITY, WHICH WILL ENABLE REMOTE WORKING, PEOPLE LIVING IN THE HIGHLANDS AND ISLANDS WILL BE ABLE TO WORK FOR LARGE ORGANISATIONS OR DO TECH JOBS WITHOUT LEAVING THEIR ISLAND. THIS IS A HUGE OPPORTUNITY.

Digital Dialogue Participant



Data ecosystems

The Scottish Government, in its most recent pre-COVID-19 digital strategy, made the **better use of secure and open data** a key priority.

Scotland is home to the Data-Driven Innovation initiative, part of the Edinburgh and South East Scotland City Regional Deal, aimed at helping organisations and citizens across Scotland benefit from data. It is a 15-year programme partnership between the University of Edinburgh and Heriot-Watt University, with researchers collaborating with industry on data partnerships in the public, private, and third sector, and driving future innovation through five data-drive innovation hubs.

Numerous other organisations and programmes are a part of the Scottish data ecosystem, including The Data Lab, DataFest, and the Urban Big Data Centre at the University of Glasgow.

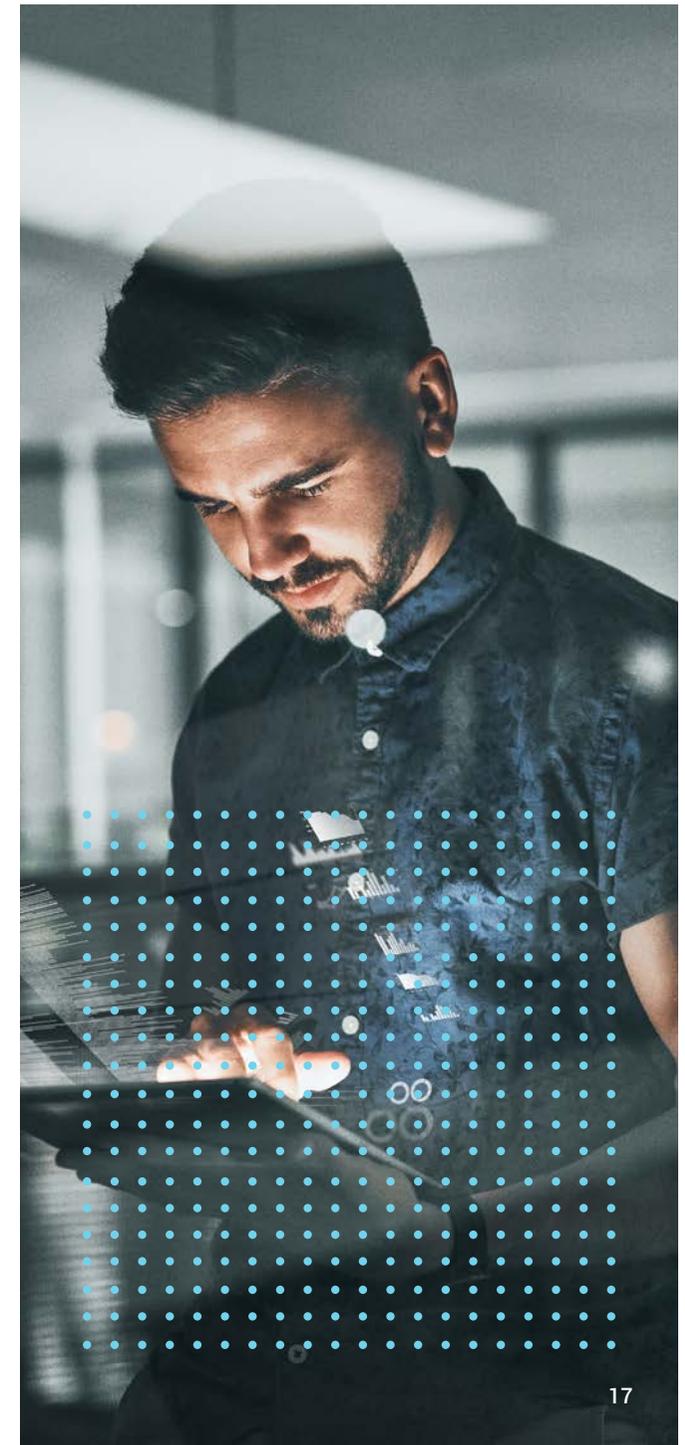


IN THE PAST, DATA AND IT HAS BEEN SEEN AS A SUPPORTING FUNCTION. ONE LESSON IS THAT DATA IS A CURRENCY AND THE OXYGEN OF AN ORGANISATION, AND NEEDS TO BE TREATED AS SUCH BY SENIOR LEADERSHIP.

Digital Dialogue Participant

THE DATA LAB AND THE OPEN DATA INSTITUTE HAVE DONE GREAT WORK AROUND HOW WE SHARE AND KEEP DATA PRIVATE BUT STILL ALLOW ACCESS.

Digital Dialogue Participant



Collaboration and coordination

Collaboration also emerged as a key priority in Scotland, with participants citing the benefits of a strong devolved administration, while also wanting deeper collaboration within the digital sector and between the digital sector, local government, universities and colleges, and other economic sectors.



SEIZE LOCAL GROWTH OPPORTUNITIES

Seize local growth opportunities

The participants in the Digital Dialogue highlighted several key sectors in Scotland where digital innovation can be applied to drive the economic recovery and growth:

- › High-value manufacturing and how tech can help retool from making bulk goods to high-value products.
- › Agriculture and the opportunity to digitise farming and utilise agritech, IoT, and 5G to increase productivity, alongside the need for better rural connectivity.
- › The digital sector, from fintech and green finance, to gaming, space tech, and digital healthcare.



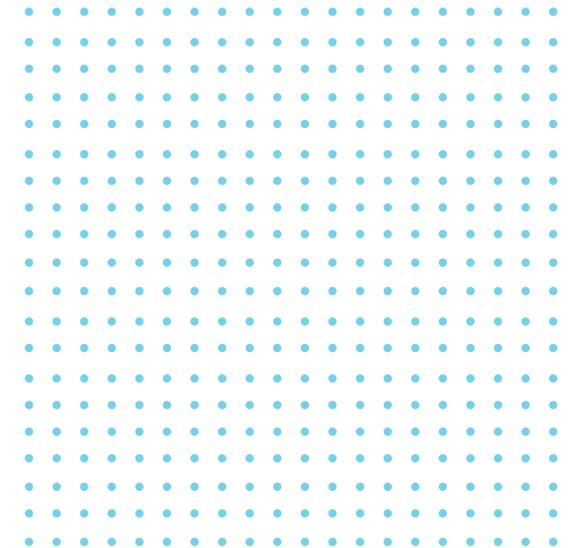
WE NEED TO LOOK AT USING TECH IN HIGH-VALUE MANUFACTURING, SIMILAR TO INDUSTRY 4.0, AND RETOOL TO MAKE HIGH-VALUE PRODUCTS, NOT JUST BULK PRODUCTS.

Digital Dialogue Participant



FARMING IS MUCH MORE DIGITAL NOW, AND EU CAP FUNDING WAS A BARRIER TO GROWTH, SO THERE IS A NEW OPPORTUNITY TO HELP FARMERS WITH DIGITAL SKILLS AND TO TARGET FINANCE TO SUPPORT DIGITAL ADOPTION AND IOT IN RURAL AREAS.

Digital Dialogue Participant



Seize local growth opportunities

Scotland has strengths in several growth sectors, as identified in the Scottish Government's own economic strategy:

- › Food and drink: agriculture and fisheries
- › Creative and digital
- › Tourism and hospitality
- › Energy and renewables
- › Life sciences
- › Financial and business services

These key sectors are ripe for innovation and growth driven by digital innovation. The COVID-19 pandemic has increased the need to double down on these key growth sectors to help Scotland recover and thrive post-COVID-19.

Opportunities for collaboration and coordination should be deepened by building up strong networks, to join up sectoral ecosystems and harness any potential spill over effects from the tech sector to other sectors.

New business starts should also be encouraged in the key growth sectors in the long-term, in order to better utilise the developing talent pool, encourage entrepreneurship, and raise productivity.

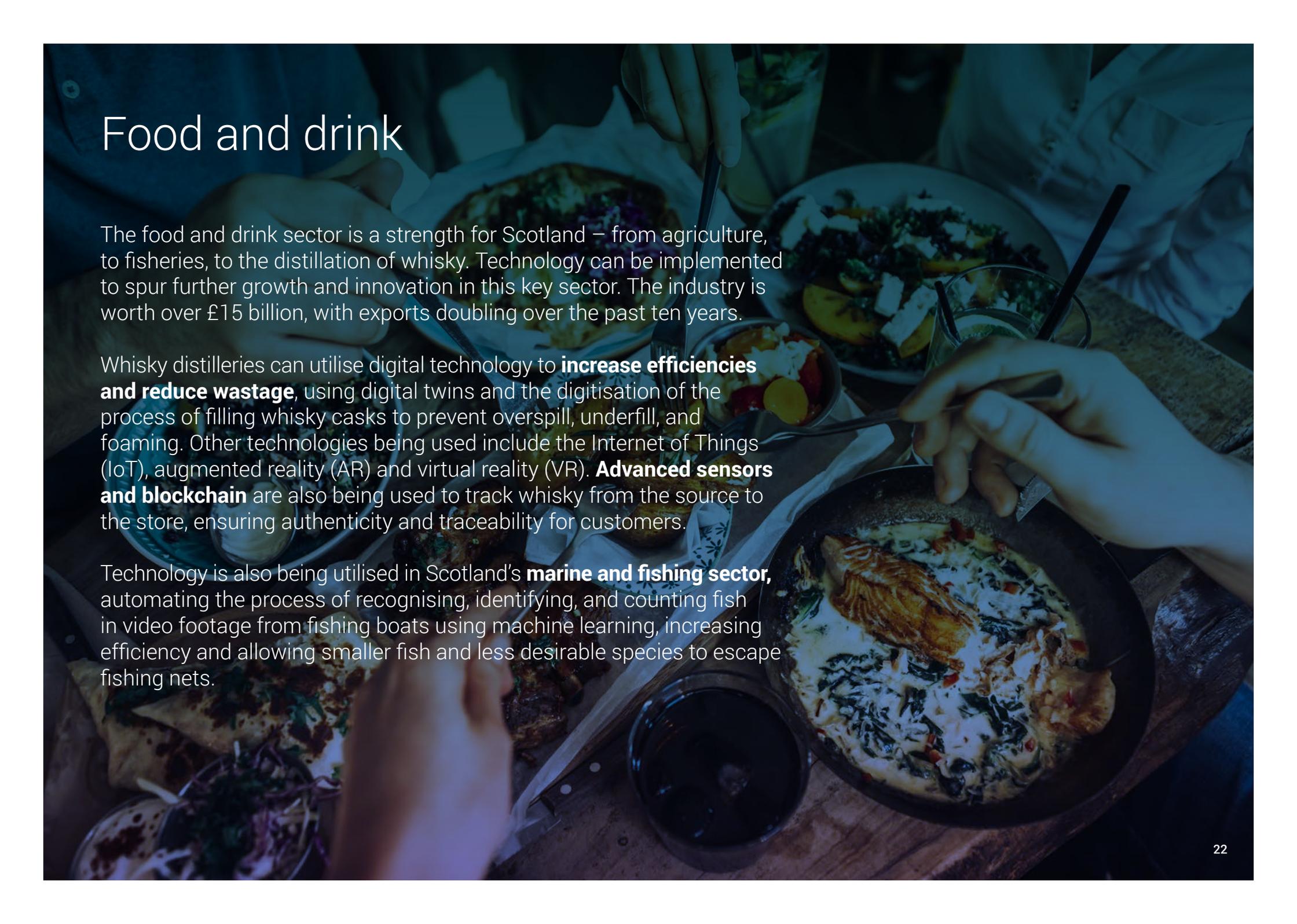
These sectors are the key sectors we believe have the best chance of increasing digital uptake and innovation.



WE NEED TO TAKE GAMING TECH INTO OTHER INDUSTRIES. SCOTLAND LEADS ON GAMING, WITH HUGE DATA, BIG PLATFORMS, LOTS OF PHYSICS MODELLING AND OTHER TECH. WE HAVE THE OPPORTUNITY TO TAKE IT INTO INDUSTRY – MAYBE SOMETHING LIKE MIXED REALITY, WITH HIGH POTENTIAL AND WE ARE CLOSE TO A TIPPING POINT. WE NEED TO FIND THOSE ADJACENT OPPORTUNITIES AND GET THOSE SPILLOVER EFFECTS

Digital Dialogue Participant

Food and drink

A group of people are dining at a restaurant. The table is set with various dishes, including a large fish dish, a salad, and a glass of wine. The lighting is dim, and the overall atmosphere is warm and inviting.

The food and drink sector is a strength for Scotland – from agriculture, to fisheries, to the distillation of whisky. Technology can be implemented to spur further growth and innovation in this key sector. The industry is worth over £15 billion, with exports doubling over the past ten years.

Whisky distilleries can utilise digital technology to **increase efficiencies and reduce wastage**, using digital twins and the digitisation of the process of filling whisky casks to prevent overspill, underfill, and foaming. Other technologies being used include the Internet of Things (IoT), augmented reality (AR) and virtual reality (VR). **Advanced sensors and blockchain** are also being used to track whisky from the source to the store, ensuring authenticity and traceability for customers.

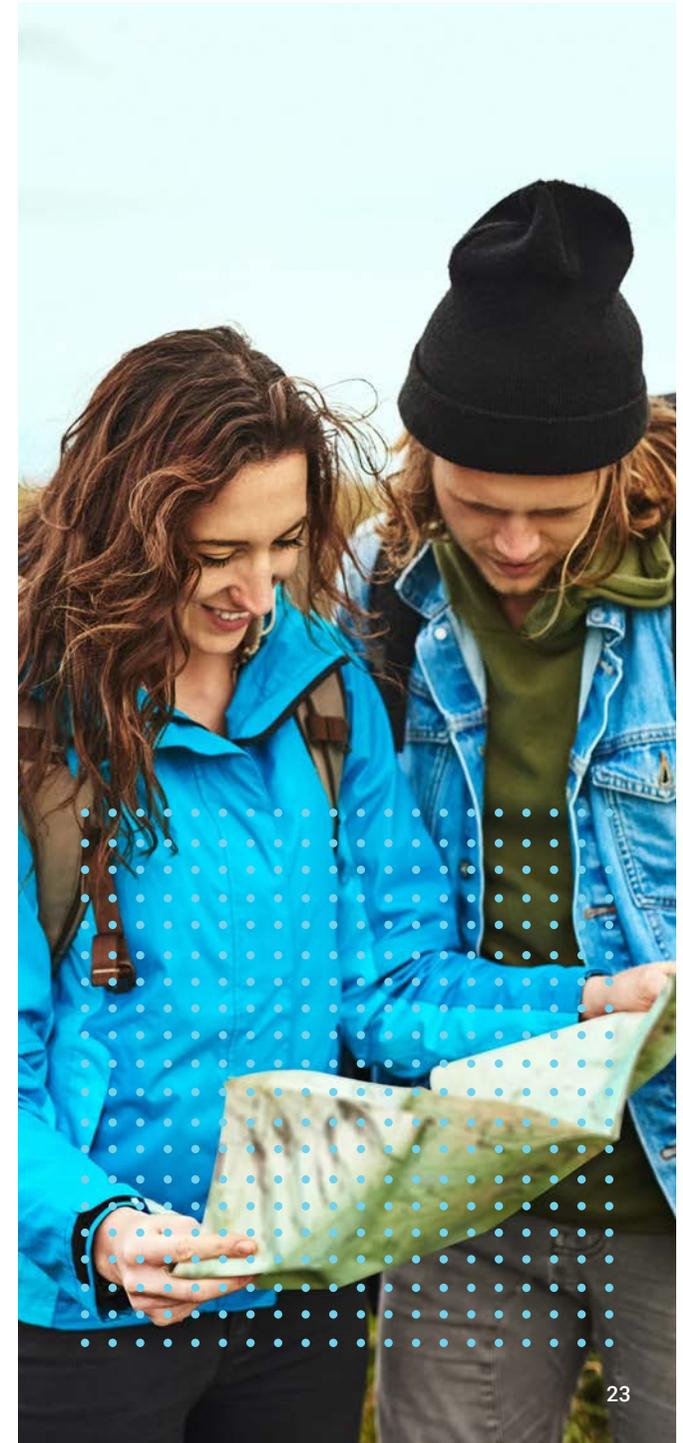
Technology is also being utilised in Scotland's **marine and fishing sector**, automating the process of recognising, identifying, and counting fish in video footage from fishing boats using machine learning, increasing efficiency and allowing smaller fish and less desirable species to escape fishing nets.

Tourism and hospitality

Before the COVID-19 pandemic, Scotland's Tourism and Hospitality sector was a great strength, with 15.5 million visitors to Scotland in 2018, 3.5 million of whom came from overseas – spending a total of £5 billion, with the sector's total value more than £10.5 billion, employing more than 218,000 people.

Prior to the COVID-19 pandemic, Scotland's tourism organisations had a programme, Digital Tourism Scotland, aimed at helping SMEs in the sector use more digital tools effectively, focusing on customer relationship management software, ecommerce, social media, and online marketing. Fully utilising those digital technologies will drive innovation, productivity and economic growth, and help the sector recover when tourism and travel make their return.

Further digital innovations are in the works, with a new Traveltech for Scotland initiative launching last month, led by the University of Edinburgh and funded by the public sector, to look at innovations from virtual reality experiences to robots in hotels.



Life sciences

Scotland is home to the Medicines Manufacturing Innovation Centre, a collaboration between the CPI, University of Strathclyde, UK Research and Innovation, Scottish Enterprise, AstraZeneca, and GlaxoSmithKline. The centre aims to accelerate the development of new generation manufacturing processes and to help companies integrate those with their existing models. Additionally, the centre has been focusing on technology translation for small molecule drug manufacturing.



Digital

Scotland's digital and creative sector has seen strong growth, with demand increasing due to the COVID-19 pandemic for cloud services, digital connectivity, remote working technology, and digital health solutions.

In Glasgow (22%) and Edinburgh (23%) more than one-fifth of the workforce are in digital, with more than 69,000 tech jobs advertised in 2019, and Edinburgh having a median salary of £44,938, the highest in the UK outside of London.

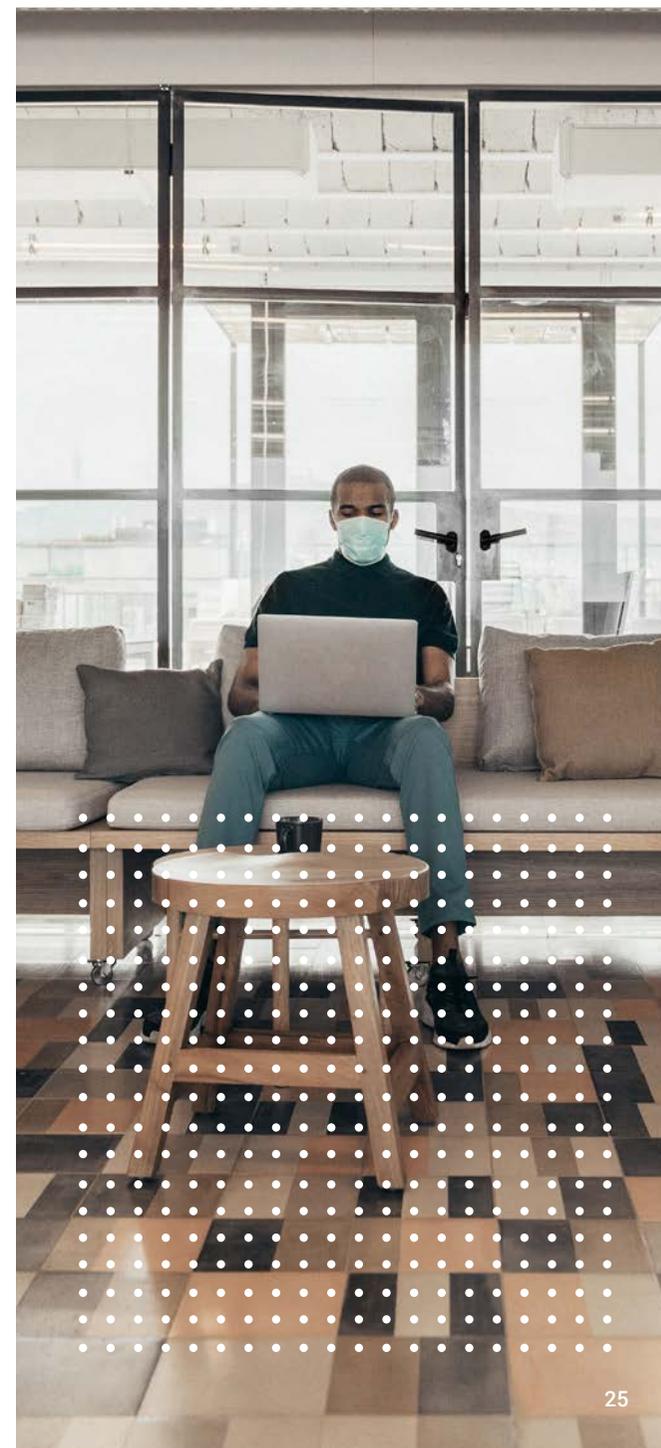
Scotland should go from strength to strength and double down on the technology sector, building on its expertise in gaming, semiconductors, and cybersecurity to leverage the lessons learned and harness spillover effects by applying digital tech expertise to new sectors.

Scotland can also count ScotlandIS as a key asset, as having a strong digital technologies trade association to coordinate, support, and enable the sector is key to growing a collaborative ecosystem.



SCOTLAND HAS A LOT OF TECH ACTIVITY IN MANY AREAS – HEALTH, AGRITECH, FINTECH, THE SCOTTISH SPACE INDUSTRY, GEOSPATIAL AND DOWNSTREAM ANALYTICS, AND OUR TECH INDUSTRY HAS SHOWN GREAT RESILIENCE AND SO FAR HAS BEEN ABLE TO WEATHER THE STORM.

Digital Dialogue Participant



Renewable energy

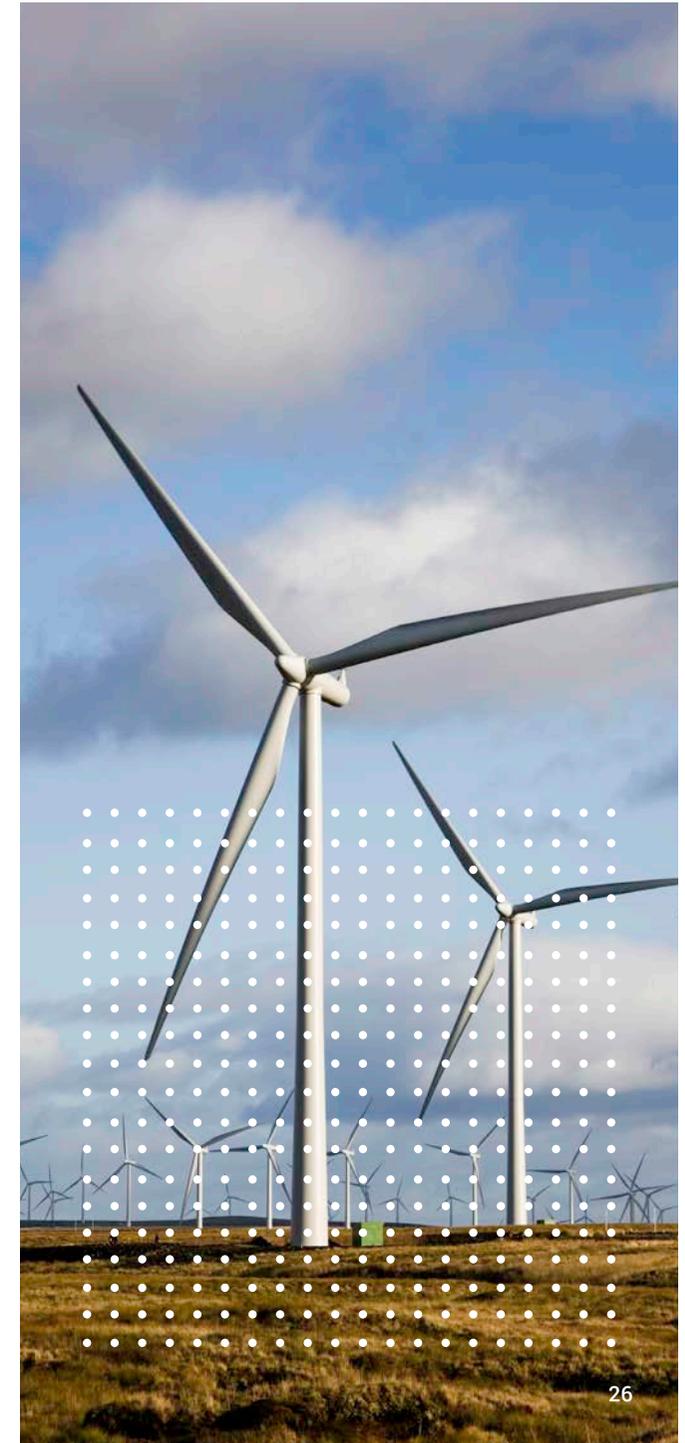
In addition to a long history with the oil and gas industry, Scotland is also home to a strong renewable energy sector, with the world's first tidal array, world's first floating offshore wind farm, and the largest hydrogen bus fleet in Europe.

Scotland has 25% of Europe's offshore wind and tidal resources, and over 60% of the UK's onshore wind capacity, making it an ideal place to innovate and drive further development of crucial low-carbon and renewable energy sources.



THE ABERDEEN CITY REGION DEAL DOES A LOT OF WORK LOOKING AT ENERGY AND FOCUSING ON THE ENERGY TRANSITION AND THE INTEGRATION OF RENEWABLES, BUT WE NEED TO COORDINATE AND SHARE DATA.

Digital Dialogue Participant



Financial services

Scotland has a very strong fintech sector, drawing on its long history of financial innovation, entrepreneurship, and Edinburgh's status as the second-largest centre of finance in the United Kingdom.

Scotland's fintech sector is growing fast and expected to create more than 15,000 jobs over the next ten years, bolstered by specialist degree courses at the University of Strathclyde and the University of Stirling.

Additionally, the University of Edinburgh is home to the Global Open Finance Centre of Excellence, which has so far secured £55 million in funding to develop financial technology and education to deliver social and economic benefits around the world – focusing on the use of open finance and the better use of data between financial businesses.



EDINBURGH IS A
CENTRE FOR FINTECH
ALREADY, AND EDINBURGH
UNIVERSITY HAS WON
A LOT OF FUNDING FOR
DIGITAL FINANCE. GREEN
FINANCE AS WELL IS A
STRENGTH FOR SCOTLAND.

Digital Dialogue Participant

Digitising key growth sectors

The best way to enable the digitisation of Scotland's key growth sectors is to do two things:

- › Ensure that the strategic economic planning for key growth sectors has a strong digital underpinning.
- › Foster greater collaboration, crossover, and links between local tech firms and firms in the key growth sectors, to best utilise digital technology to supercharge growth sectors. This could take the form of events to generate collaboration or the creation or expansion of cross-sectoral groups and organisations.



THE ROLLOUT OF FULL FIBRE AND 5G WILL UNDERPIN INDUSTRY 4.0 AND IOT, NEW SENSORS, AND MORE. THE FUNDAMENTAL WAYS WE ENGAGE WITH AND CONSUME SERVICES WILL CHANGE. WE NEED TO PUSH SMES UP THE DIGITAL MATURITY INDEX AND DRIVE INNOVATION AND BIG CHANGE IN RURAL AREAS TO UNLEASH THE LATENT POTENTIAL IN RURAL COMMUNITIES AND DRIVE HOME INDUSTRY 4.0 ACROSS SCOTLAND.

Digital Dialogue Participant

A photograph of a female scientist in a white lab coat and safety glasses, working in a laboratory. She is wearing blue gloves and is focused on a piece of equipment. The background is a blurred laboratory setting with a grid of white dots on a dark blue background. The text 'LAUNCH LOCAL INNOVATION CHALLENGES' is overlaid in white, sans-serif font on the left side of the image.

LAUNCH LOCAL INNOVATION CHALLENGES

Launch local innovation challenges

Digital technology is not a panacea to deep-rooted issues but can help support new approaches and solutions.

The Scottish Government should set out “local innovation challenges” in the model of “The Grand Challenges” in order to spur new local innovation, with a commitment to scale successful ideas.

Participants discussed digital healthcare in particular, and the opportunity to provide better care in areas with poor service provision through the use of tech.

Participants also discussed the potential to use the Scottish Islands as testbeds and sandboxes to drive innovation.

These are just a few examples of many local innovation challenges where digital solutions should be considered.



ORKNEY AND OTHER ISLANDS CAN BE USED AS TESTBEDS OR REGULATORY SANDBOXES, AS THEY HAVE UNIQUE CONNECTIVITY CHALLENGES AND DO NOT WANT TO BE LEFT BEHIND, BUT WANT TO BE BEACONS OF WHAT CAN BE DONE.

Digital Dialogue Participant



5G, DIGITAL APPOINTMENTS, THE TRANSFORMATION OF GPS, AND REMOTE CAR OPPORTUNITIES COULD LEVEL UP ACCESSIBILITY AND PROVIDE A MASSIVE BENEFIT IN AREAS WITH POOR PUBLIC SERVICE PROVISION, BUT WE NEED TO GET DATA SECURITY, AFFORDABILITY, AND SUSTAINABILITY RIGHT.

Digital Dialogue Participant

The Logan and Higgins Review

The Scottish government recently released two independent reviews, one of the Scottish tech sector - the **Logan Review** - and one of the wider Scottish economy and the impact of COVID-19 - the **Higgins Review**.

The Logan Review focuses on the entire Scottish tech ecosystem, examining the current state of the sector and what policy interventions should be taken to accelerate the ecosystem past the “tipping point” when network effects and a virtuous circle come into play. The report stressed the importance of three fundamental support areas the tech sector depends on: education and talent, infrastructure, and funding. It also made 34 policy recommendations to provide the tech sector with enough support to get it past the “tipping point”.

The Higgins Review focused on the entire Scottish economy in the context of the COVID-19 pandemic and the subsequent ongoing economic recovery efforts. It identified digital innovation as a key growth area among others for the economic recovery. The report specifically identified digital skills, connectivity, and tech in general as key to adapting to new ways of working in the post-COVID-19 world but does not provide tech specific recommendations. It does list several other sectors of the economy with digital skills gaps, including agriculture, hospitality, and retail, and also recommends support for those lacking digital connectivity and the necessary devices and skills to utilise technology.

Two of the key areas highlighted by the Logan Review – tech skills and connectivity infrastructure, are the same aspects of local digital capital that participants frequently brought up – reinforcing their importance and how much focus should be put on improving those in Scotland.

The Higgins Review additionally further demonstrated that the tech sector will have a key role to play in Scotland’s economic recovery, again highlighting the importance of digital skills and digital connectivity infrastructure.

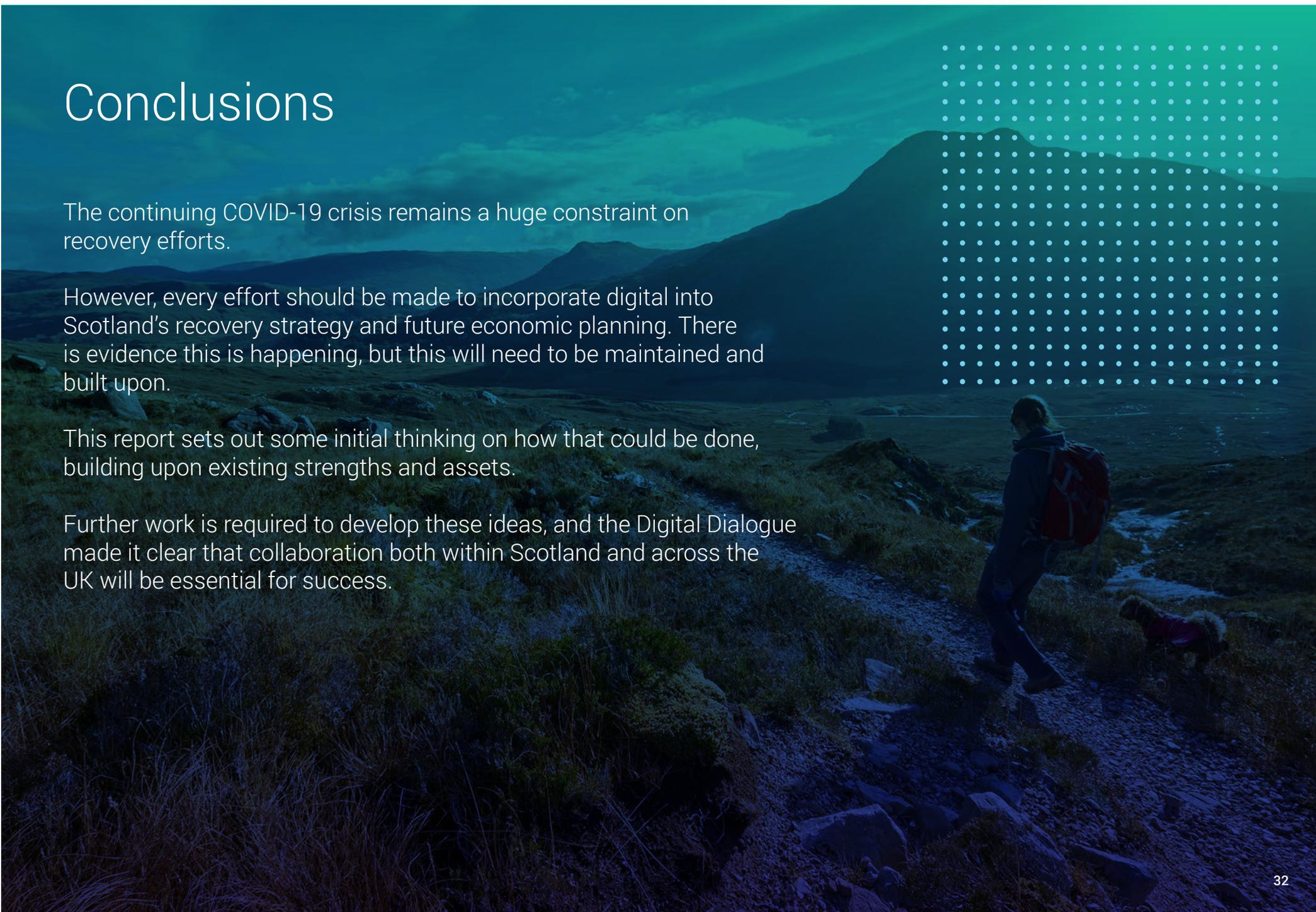
Conclusions

The continuing COVID-19 crisis remains a huge constraint on recovery efforts.

However, every effort should be made to incorporate digital into Scotland's recovery strategy and future economic planning. There is evidence this is happening, but this will need to be maintained and built upon.

This report sets out some initial thinking on how that could be done, building upon existing strengths and assets.

Further work is required to develop these ideas, and the Digital Dialogue made it clear that collaboration both within Scotland and across the UK will be essential for success.



Survey of participants

techUK recently surveyed the participants of the Scotland Digital Dialogue, asking them how optimistic they were about the potential for digital innovation to drive the economic recovery in the region, and where they felt digital transformation efforts could make the biggest difference.

75% of the respondents felt somewhat optimistic, and 25% felt about the same since taking part in the Digital Dialogue.

Respondents felt digital technology could make the biggest difference in the following areas:

- Digitisation of SMEs to improve innovation, efficiency, and competitiveness.
- Greater inclusion in healthcare, education, and social interactions.
- Improved access to markets and content when people can no longer gather in person such as online festivals, digitalised museums or art galleries, etc.
- Public services including better joined up services, better outcomes using intelligence from data, and more choice for citizens of how to engage with services.



Participants

Douglas Adam, Head of VMB Scotland, Virgin Media Business

Jennifer Adams, Corporate Development Director, Incremental

Graeme Agnew, Director of IT, Digby Brown

Ian Brotherston, Head of Public Sector Innovation Strategy, Innovate UK

John Brown, CIO, Arnold Clark

Melony Buchanan, Business Development Manager, Capita

Malcolm Cameron, Head of Digital & Tech Operations, Scottish Enterprise

Kum Wah Choy, Chief Engineer, Costain

Colin Cook, Digital Director, Scottish Government

Dr Derek Craig, EPSRC Head of Regional Engagement (Scotland), UKRI

Brian Currie, DigitalBoost Programme Manager – Business Gateway National Unit, Convention of Scottish Local Authorities (COSLA)

Professor Quintin Cutts, Professor Computer Science Education, University of Glasgow

Mark Dames, Head of Policy and Public Affairs, BT Scotland

Julian David, CEO, techUK

Sheila Flavell, COO, FDM

Andrew Foskett, Head of Scottish Practice, Methods

Steven Grier, Country Regional Manager – Scotland & LRG North, Microsoft

Professor Jane Hillston, Head of School in the School of Informatics, University of Edinburgh

Rachid Hourizi, Director, Institute of Coding

Alan Lees, Scotland Director, BT Enterprise

Jacqueline MacDougall, Marketing Manager – Business Gateway National Unit, Convention of Scottish Local Authorities (COSLA)

Liz McCutcheon, CEO, LESL

Mike McGregor, Director, Clients and Industries, Deloitte

Ivan McKee MSP, Minister for Trade, Investment, and Innovation, Scottish Government

Anne McLister, Head of Digital Economy, Glasgow City Council

Jane Morrison-Ross, Chief Executive, ScotlandIS

Gary Mutch, Government Affairs, Oracle

Laurie O'Donnell, Visiting Professor and Development Director – School of Design and Informatics, Abertay University

Louise O'Leary, Account Director – Digital, Civica

Keith Ridgway, Executive Chair, National Manufacturing Institute Scotland

Professor Carl Schaschke, Dean of School of Computing, Engineering, and Physical Sciences, University of the West of Scotland

Hannah Schlesinger, Director of Development, Edinburgh Science

Charendeep Singh, Deputy Chief Executive, Scottish Chambers of Commerce

Jackie Smith, Head of Consulting, Scotland Public Sector, Sopra Steria

Professor Sally Smith, Dean of Computing, Edinburgh Napier University

Janette Stewart, Principal, Analysis Mason

Margaret Totten, Managing Director, Akari

Antony Walker, Deputy CEO, techUK

Martyn Wallace, CDO Local Scottish Government, Digital Office for Scottish Local Government

Douglas White, Head of Advocacy, Carnegie UK Trust

Anton Whitefoot, PS Sales Leader, Oracle

Stephen Williams, Senior Partner – Scotland, Deloitte

Jane Wood, Nations and Regions Director, BT