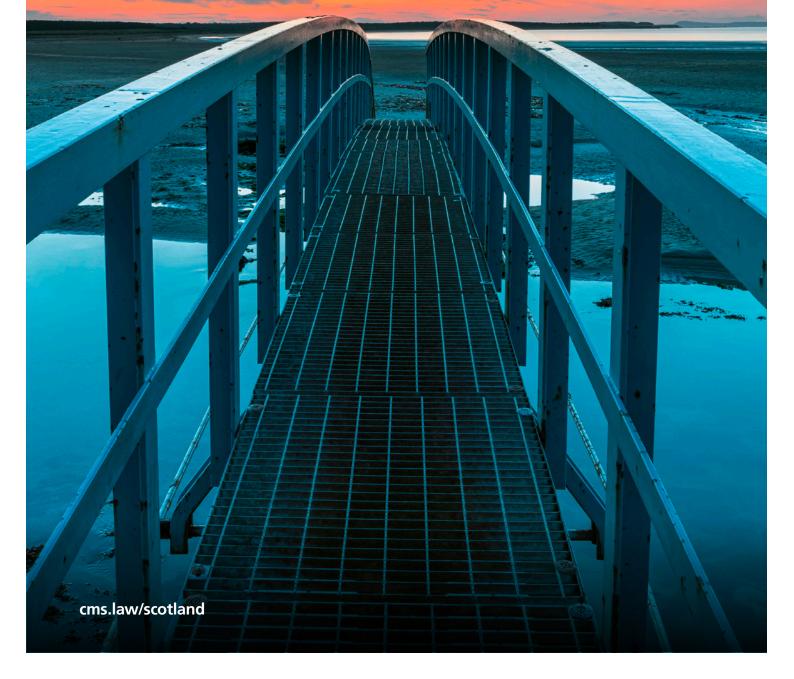


Scotland: building opportunities



National picture

69%

of businesses see Brexit as a concern with only 15% seeing it as an opportunity.

72%

of businesses consider new technology & innovation as important to the growth of business.

Renewable energy

60% Growing headcount: 60% of respondents

will increase investment in people in next three years. Changes in subsidies are heavily influencing business plans.

Proper community engagement presents a great opportunity for project delivery.

Life Sciences

80%

of respondents expect to increase their workforce over the next year, however there are concerns over availability, with 60% of respondents expecting to experience recruitment challenges. Scotland's strengths in clinical studies and tech start-ups bring great opportunities to lead on data-driven solutions.

Technology

Public sector and tech companies car transform public services together.

Technology and data are vital tools in tackling the climate emergency.

44%

of respondents report both turnover and profit increases in the past year as organisations seek to transform their businesses with data efficiencies, AI and automation.

Food and Drink

The sector is running faster to stand still as the sector rapidly evolves.

'Just in time' supply chain increases sector exposure and vulnerability.

Technology vital in promoting brand authenticity and in protecting the value of 'made in Scotland'.

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Foreword

The last year has presented the business community in Scotland with a lot of 'noise' and an environment that encouraged caution.

This report highlights a year of mixed fortunes where, as one interviewee put it, we need to 'run faster to stand still'. Although some have experienced increased turnover there are generally increasing cost pressures which drive down margins and have resulted in caution over workforce and capital investments.

In addition to looking at business sentiments, this report explores a number of Scotland's key sectors – renewable energy, life sciences, food and drink and technology. A key element of our research was interviewing leading figures from each sector to understand how they are responding to an uncertain economic climate and cautious investors. We gain a lot of valuable insight from these interviews and contrast these sectoral perspectives with the overall economic picture.

At the time of the survey, our respondents told us that Brexit is the key threat to their business with 69% perceiving this as a concern and only 15% seeing it as an opportunity. We also learnt that policy, regulation and ambition can create significant opportunities and encourage collaboration between sectors and between business and academia. The Scottish Governments' Programme for Government commits Scotland to achieving net zero emissions by 2045 and aims to end Scotland's contribution to climate change. This creates a catalyst to explore and commercialise newer renewable technologies such as floating offshore wind with Floation Energy and for developers to work with manufacturers and designers to develop larger and more efficient turbines.

A similar story emerged in life sciences where Scotland's strengths in clinical studies and a strong tech start up community present a great opportunity to grow our global reputation. Data and technology will have key roles as the sector seeks to reinvent the way we are diagnosed and treated. The new Medicines Manufacturing Innovation Centre is leading in this field.

The Food and Drink sector highlighted significant concerns at the moment due to cost pressures and concerns over the impact of Brexit on international trade and 'just in time' supply chains. However, the sector is looking towards growth, identifying new markets and exploring how technology and blockchain technology can promote product authenticity and protect the 'made in Scotland' brand.

Technology is a key theme throughout the report and is seen as the platform to improve productivity and efficiencies. 72% of businesses considered new technology & innovation important to the growth of their business. Businesses with international premises/operations and those who export were particularly likely to consider technology and innovation to be important: 82% of businesses operating internationally and 65% of those with exports said it was very important.

Our findings indicate that although there is currently a degree of caution, optimism and confidence improve when looking to the next few years.

We hope you enjoy *Scotland: building opportunities* and would welcome the opportunity to discuss any of the sectors or observations in more detail.

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"Our findings indicate that although there is currently a degree of caution, optimism and confidence improve when looking to the next few years."

Renewable energy

Resilient renewables

As we move further into a reduced subsidy environment it is extremely positive to see entrepreneurial developers such as Muirhall Energy and KOWL continue to move the bar with regard to what can be achieved with renewable projects. The Crossdykes Windfarm demonstrates that unsubsidised sites can be project financed by utilising operational efficiencies, better technology and proper engagement with the community and it is great to see this first happening in Scotland.

Scotland is now also becoming a world leader on floating offshore wind and our engineering expertise in this area can be sold globally. With less government financial support available for the sector developers are looking for other forms of support from Westminster and Holyrood such as improved grid availability, a more efficient planning system and better engagement with NATS. Despite the problems it is great to see sector confidence growing and we look forward to working on a lot more projects in 2020 and beyond.



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The renewable energy sector has shown resilience in the wake of reducing subsidies, the reduced availability of greenfield sites and an uncertain political climate. 30% of respondents in the sector reported an increase in turnover in the past year and 10% reported a decrease in turnover.

Our survey shows us that confidence of those operating in the renewable energy sector is growing. The majority of respondents expect turnover (80% of respondents) and half expect profit growth to accelerate over the next three years, along with increasing investment in people and capital.

However, profit levels have been a concern as the changes in subsidy levels take hold. According to Alastair Yule, Director of Business Management and Sarah Mcintosh, Head of Legal of Muirhall Energy, reduced subsidy levels have prompted some developers to leave the market. There has also been a knock-on impact to the workforce with valuable skills being lost due to uncertainty over the sector's resilience.

Businesses committed to the sector, such as Muirhall Energy, are turning their focus to sites that are the most commercially viable, looking towards larger turbines to maximise generation and exploring how to optimise connections to the grid.



Alastair Yule Director of Business Management, Muirhall Energy



Sarah Mcintosh Head of Legal, Muirhall Energy



Climate change mitigation brings opportunities

The Scottish Government's Programme for Government commits Scotland to achieving net zero emissions by 2045 and aims to end Scotland's contribution to climate change. Among respondents, these climate change targets were identified as the key opportunity for growing the sector. Allan MacAskill, Director from Flotation Energy, which is active in early offshore floating energy pilot developments, highlighted that the floating offshore wind sector could be further developed as it enables resource capture further offshore where the winds are stronger and where turbines are out of sight. This means there will be fewer restrictions around turbine height.

Both the UK and Scottish Governments are keen to support the sector and recently launched a new Offshore Wind Centre of Excellence through the UK's Offshore Renewable Energy (ORE) Catapult.

The aim is to develop an internationally recognised centre of excellence that will work to reduce the cost of energy from floating wind, accelerate the build out of floating farms, create opportunities for the UK supply chain, and drive innovations in manufacturing, installation and operation and maintenance. As for onshore renewables, onshore renewables developers believe there is still a need for some form of government financial support to develop on more challenging sites for the opportunities to be fully realised. Companies such as Muirhall Energy are keen to embed renewable energy development benefits in local communities. This might include progressing shared ownership developments to create lifetime benefits for communities rather than a single payment.

Regulation changes

Government policy and regulation are key issues impacting our respondents businesses. 80% reported these areas having a negative impact.

Sarah Mcintosh of Muirhall Energy notes that the reduction in government financial support for existing development activity impacts the commercial appeal of more challenging sites. There are also concerns over the regulation of turbine heights.

Allan MacAskill notes the challenges of progressing floating technology from demonstration to full commercialisation with very limited financial support for commercial developments.

The first commercial developments will benefit from the technology and cost reduction achieved by fixed development, but the first phase will be challenged by being the first to deploy the technology at a commercial scale. The first projects will be of significant scale – 200 to 500 MW – but insufficient to gain the full benefit of scale by undertaking GW developments.

Technology increases commercial viability

78% of respondents from the renewable energy sector view technology as very important to future growth. Technology will enable the development of more efficient and commercially viable turbines, national grid connections and battery storage.

These requirements are largely driven by market competition with the majority of turbines coming from mainland Europe.

The case studies from Muirhall Energy and KOWL explore the benefits for the sector from continued innovation in turbine development and also look at new approaches to bring renewable energy sites to market.

Case Study: Crossdykes Windfarm

One Scotland's first subsidy-free onshore windfarms (Muirhall Energy)

In September 2019, independent Scottish developer Muirhall Energy joined the race to deliver Scotland's first subsidy-free onshore wind project.

Working with partners WWS Renewables, the company has started construction at its 46MW Crossdykes wind farm in Dumfries and Galloway. The project is expected to produce first power in September 2020.

Construction has already begun, and the company has a tight timescale for delivery. Chris Walker, Managing Director of Muirhall Energy, reflects on how onshore wind projects can become more cost-effective over time: "Access to the Contract for Difference or some other support mechanism would make a huge difference to the economics of the sector. This would encourage the build-out of some of the more challenging consented sites, therefore ensuring onshore wind makes the biggest possible contribution to meeting our net zero climate change targets whilst keeping bills down for consumers."

The development at Crossdykes wind farm brings an opportunity for the local community to own up to 10% of the windfarm. In addition to the shared ownership offering, community benefit programmes will be offered and payable regardless of whether

"Access to the Contract for Difference or some other support mechanism would make a huge difference to the economics of the sector."

the shared ownership offering is taken up. An annual fund of GBP 322,000 (GBP 7,000 per megawatt) will be put in place for the long term benefit of neighbouring communities. This amounts to GBP 8m over the 25 year lifetime of the wind farm.



Case study: Kincardine Offshore Windfarm Project

First floating offshore wind project in the world to feature wind turbines over 9 MW (KOWL / Cobra)

A world first was confirmed in the summer of 2018 that a firm order has been placed for 9.5 MW floating wind turbines for the Kincardine Offshore Windfarm project in the North Sea.

Danish MHI Vestas Offshore Wind has signed a contract with Spanish developer and construction company Cobra Group to provide five V164-9.5 MW turbines for the Kincardine floating offshore wind project.

This means Kincardine will be the first floating project in the world to feature wind turbines over 9 MW, a major step towards making floating wind turbines sustainable. MHI Vestas stated: "With a maximum capacity of 50 MW Kincardine looks to set a new standard in floating offshore wind as the industry advances toward utility scale projects."

Developer Kincardine Offshore Windfarm Limited (KOWL) confirmed at the end of 2018 that power was flowing from a 2 MW Vestas turbine at the site. Kincardine is due to be fully operational in 2020 and is one of the world's largest floating offshore wind farms. "Kincardine will be the first floating project in the world to feature wind turbines over 9 MW"

Life Sciences

Mixed fortunes for Life Sciences

The recent general election campaign highlighted once again the challenges facing the NHS, in Scotland and throughout the UK, given an aging population, the challenges of funding innovative and life-changing treatments, and increasing regulation.

The responses to our survey confirmed the importance of ensuring that we are harnessing all the assets at our disposal, including making the most of our health data, to make treatments more efficient and cost-effective.

They also demonstrated a healthy level of optimism in the ability of Scotland's life sciences industry to rise to these challenges. We look forward to working with clients to achieve these objectives in the coming years.



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In the Life Sciences sector, 60% of survey respondents reported an increase in turnover over the past year. However they also gave strong indications that profits are being squeezed.

Dr Dave Tudor, Managing Director of the Medicines Manufacturing Innovation Centre at the CPI (Centre for Process Innovation), highlights that this could be attributed to cost pressures facing the NHS along with the complexity in the development and approval of new drugs which can take between seven and ten years from development stages to reach patients. Initiatives such as the Centre enable a group of businesses to share the risk and cost of the development of new drugs.

The survey showed a mixed response on the levels of anticipated investment in people and capital. Brexit is partly to blame but this slowdown of investment is anticipated to be short term. Businesses responded that they expect turnover and profit growth over the next three years, supported by investment in people.



Dr Dave Tudor Managing Director, Medicines Manufacturing Innovation Centre



The impact of Brexit

Whilst there seems to be a positive picture for workforce demand at the moment with 80% of Life Sciences respondents expecting to increase their workforce over the next year, there are concerns regarding availability with 60% of respondents expecting to experience recruitment issues over the next year. One survey respondent tells us that "access to skilled labour will be badly affected by Brexit".

A reputation for technical sophistication

Scotland has a strong reputation for clinical studies. When this is coupled with its reputation for supporting innovating and cutting-edge tech start-ups, the potential opportunities for technical advancements in the Scottish Life Sciences industry are huge.

Data will have a key role to play. In Scotland, 60% of medicines prescribed are for repeat illness, which presents opportunities to change the way patients engage with the health system to better utilise limited healthcare resource. According to Dr Tudor, the sector is constantly innovating and exploring the potential impact of daily injections to combat illness and to understand what mainstream gene therapy treatment could mean for the population.

Ron MacDonald, Associate Director from the NHS digital team, highlighted that technology and digital present great opportunity to treat patients more effectively in rural areas, leveraging the investment made in broadband infrastructure. He emphasises utilising technology to share data and information quickly will enable practitioners to diagnose and treat patients more effectively. Artificial intelligence, with its capability to enhance early detection of disease, is a particularly exciting area.

In the future, respondents are confident that technology will be applied to all products and that practitioners will be able to monitor patient activity to ensure they are taking treatments as prescribed. Dr Tudor commented that the 'patient interface is going to be more intelligent than it's ever been before.' In addition, the types of drugs being developed continue to evolve, and with assets such as the Medicines Manufacturing Innovation Centre, the direct risk to companies is being reduced with additional benefits of collaboration.

Access to new markets

100% of our Life Sciences respondents reported that access to new markets was a big opportunity for their businesses.

In addition, the types of drugs being developed continues to evolve, and with assets such as the Medicines Manufacturing Innovation Centre (case study), the direct risk to companies is being reduced with additional benefits of collaboration.

"Dr Tudor commented that the 'patient interface is going to be more intelligent than it's ever been before.'"

Case study: Medicines Manufacturing Innovation Centre

New Medicines Manufacturing Innovation Centre to strengthen UK Pharma

Academia and industry are coming together to create the state-of-the-art Medicines Manufacturing Innovation Centre.



Located in Renfrewshire, Scotland, and led by Medicines Manufacturing Innovation Centre for Process Innovation (CPI) in partnership with the University of Strathclyde, UKRI, Scottish Enterprise and founding industry partners, AstraZeneca and GSK.

Dr Tudor, Chair of the Scottish Life Sciences Industry Leadership Group and Managing Director of the MMIC said: "Industry, government, academia and others are working together to secure an internationally competitive leadership position for the UK in Life Sciences for the long term. GSK has long advocated the value of collaborations like the Medicines Manufacturing Innovation Centre to capitalise on our world-class science base and deliver innovation that drives growth and improves patient care.

The Medicines Manufacturing Innovation centre will ensure the UK is a technology and innovation leader in small molecule pharmaceutical and fine chemical manufacturing, thereby boosting the competitiveness of both sectors. The centre will incorporate capabilities for development and manufacturing of drug substances and drug products in a GMP-capable environment. This will aid the materials quantities used in process development to be minimised, and timelines to be accelerated to achieve iust-in-time_right-first-time and

just-in-time, right-first-time and real-time-release manufacturing

With a collaborative innovation culture and state-of the art facilities, the new Medicines Manufacturing Innovation Centre will develop brand new technologies.

Then Scottish Government Minister for Business, Innovation and Energy, Paul Wheelhouse, said: "I am delighted that the

"...the Medicines Manufacturing Innovation Centre will also be well placed to support new business start-ups and spin-outs and enable established life and chemical science companies to profit from innovation."

principles. Users will be able to evaluate, test and prototype processes using an array of advanced Industry 4.0 manufacturing technologies including continuous, digital and autonomous manufacturing.

Pharmaceutical companies are investing millions to speed up manufacturing processes, reducing waste and cost. Future medicines will also require innovative manufacturing technologies. Medicines Manufacturing Innovation Centre will be located in Scotland, given its potential to become a global centre of excellence and bringing significant benefits to Scotland's economy. The location of the MMIC is also a very positive endorsement of Scotland's Life and Chemical Science sectors and will build on our internationally recognised strengths in both Research and Development and manufacturing.

Technology

Tech to transform businesses

The technology sector in Scotland is one sector where we are really beginning to see signs of optimism. There has been significant investment by the public sector in things like broadband and that is now allowing entrepreneurial businesses to grow and flourish right across the country.

At the other end of the spectrum we are seeing global giants building significant tech hubs in Scotland, particularly in the financial services sector. In the space in-between, a number of home-grown businesses are thriving and taking real steps forward. Challenges ahead like Brexit and perhaps more pressing issues around skills shortages, but technology is definitely a sector that is on the rise in Scotland. It is great to be part of it!



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33% increasing their employees over the past year, rising to 46%

in the next three years



44% reporting both turnover and profit increases

in the past year

The sector has reaped the benefit of the focus on tech, data and AI across all industries. As organisations seek to transform their businesses with efficiencies around using data to drive decision making and AI to create workflow efficiencies, 44% of our tech sector respondents report both turnover and profit increases in the past year.

The tone of positivity continues over a one to three year timeline with over half of respondents expecting both turnover and profits to increase. In addition, 46% of respondents report plans to increase their employee base in the next three years.



Public and private sectors working together

Scott McEwan, Chief Executive of Boston Networks, highlights the drive for IoT-driven data, cloud-based services and mobility as opportunities for the tech sector. Scott also highlights the importance of partnering and collaborating across the sector to better understand where business issues exist and where technology can play a key part in addressing them. In addition, the sector can see opportunities for the general economy including through regional collaborations by local government.

One example of this collaboration is within the NHS. Technology and digital present great opportunity to treat NHS patients more effectively in rural areas, leveraging the investment made in broadband infrastructure. According to Ron MacDonald, Associate Director from the NHS Digital Team, the benefits of utilising technology to share data and information guickly will enable practitioners to more effectively diagnose and treat patients. Artificial intelligence, with its capability to enhance early detection of disease, is a particularly exciting area.

Brexit a key concern

Almost 70% of respondents identified Brexit as the key issue expected to have a negative impact on their sector. Maintaining links with the EU in a post-Brexit era is considered one of the key challenges. As one of our survey respondents states: "no deal could be a total disaster if there was a period without access to current trade deals - not just to the EU but with nations outside the EU. Customers are likely to avoid UK suppliers out of prudence when they have an alternative."

Another area of concern is around skills retention. Scott McEwan, for example, highlights that Boston Networks is experiencing a shortage of consultative sales talent who can work with potential clients to scope requirements.

The role of tech companies in fighting climate change

The contribution of technology is becoming increasing important in tackling climate change as AI and machine learning help reduce the carbon footprint of manufacturing, transport and the way that our homes and offices operate. It is also helping to create new ways of generating and storing energy and making existing approaches more efficient.

The case study from Boston Networks explores the Internet of Things and sensors in enabling businesses to monitor the efficiency and productivity of their assets remotely, saving resources.

"Scott McEwan, Chief Executive of Boston Networks, highlights the drive for IoT-driven data, cloud-based services and mobility as opportunities for the tech sector."



Scott McEwan Chief Executive, Boston Networks

Case study: Boston Networks

Delivering transformational GBP 6m Internet of Things Scotland Network – the most advanced IoT network in the UK

IoT Scotland will provide a wireless sensor network for applications, to change the way businesses work.

This network supports full commercial use of IoT in Scotland and will help transform the potential for businesses and the public sector to explore sensor and imaging applications, to pilot their ideas and then launch proven, sustainable products and services into the global market.

The network will enable all businesses and the public sector to monitor the efficiency and productivity of their assets, equipment, scheduling maintenance and improving production. For example, IoT Scotland could support wider use of smart bins that wirelessly inform local authorities when they require emptying, ensuring best use of bin lorries but also helping to reduce carbon emissions. Similarly, the network could monitor office environments to lower costs by saving energy, while reducing carbon footprints of buildings.

The three year project includes investment from the public and private sector with the Scottish Government investing GBP 2.7m, with the remaining investment coming from Boston Networks, Scottish Enterprise and Highlands and Islands Enterprise.

Minister for Public Finance and Digital Economy, Kate Forbes said:

"The Internet of Things is set to transform every sector of our economy, from manufacturing to agriculture and presents an exciting opportunity to revolutionise the way businesses and the public sector across Scotland work.

"As the network is rolled out across the country, it will enable companies to innovate, providing low-cost access to next-generation connectivity, helping organisations develop new solutions and devices with global export potential."

A spokesperson for Boston Networks stated:

"The wide reaching network, which will be the most advanced in the UK, has the potential to revolutionise the use of smart technologies and will be rolled out in cities, towns and rural areas across the country. The network will allow a wide range of users, from small IoT start-ups to multinationals to focus on the deployment of sensors and applications, rather than network build."

"The Internet of Things is set to transform every sector of our economy, from manufacturing to agriculture"



Food and Drink

A challenging environment for food and drink

It was perhaps surprising to find that resourcing, while certainly a concern for food and drink producers, is not their biggest issue. The increasing cost of raw materials and corresponding decrease in turnover are crucial concerns.

Undoubtedly Brexit will affect staffing due to the relatively high percentage of EU nationals supporting the sector in Scotland but other issues, such as the raft of new policy and legislation on plastics and packaging, have captured the industry's attention due to the potential costs involved in complying.

As Scotland moves towards a circular economy and zero emissions by 2045, attention is turning to how businesses can adapt and remain competitive. While the short-term outlook is less rosy the long-term future is positive, supported by predicted turnover growth of valuable – Scottish brands.



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40% of the survey respondents in the food and drink sector report a decrease in both turnover and profits over the past year. In addition, 30% of respondents had decreased their employee base. The sector is uncertain about the prospects for the next year, but more confident about the longer term, with a third of respondents expecting their profits and employee base to increase over the next three years.

"James Withers, Chief Executive of Scotland Food and Drink, outlines a trend of 'running faster to stand still'" Respondents and interview participants see considerable opportunity in international market development and through authenticity and, as highlighted by Scotland Food and Drink, the brand positioning of 'made in Scotland'.

James Withers, Chief Executive of Scotland Food and Drink, outlines a trend of 'running faster to stand still', with those exporting perishable goods feeling the most vulnerable. Currency movements have been positive for many exporters but this has been more than offset by rising commodity and input costs.



James Withers Chief Executive, Scotland Food and Drink



'Just in time' supply chains increases exposure

Respondents noted rising costs and Brexit as the key issues impacting the sector. In addition to the trade impact noted above, James highlights that approximately one third of the 120,000 people employed in food and drink in Scotland are non-UK EU nationals, and businesses are concerned about the impact of Brexit on skills and workforce retention. Also, with the forecast growth of the sector, it is estimated that 22,000 new jobs will need to be filled by 2022.

Cost pressures and the 'just in time' supply chains that many food businesses operate increase exposure and vulnerability. James also notes the unintended consequences of policy development and the impact health-driven policy initiatives can have on some smaller luxury food businesses. Going forward, the sector is also keen to promote the scale and variety of job opportunities it offers and will undertake close collaboration with schools and colleges to promote the sector and support staff retention. This is noted especially in more rural locations where there are close community links with business.

The role of technology

Less than half of respondents view technology and innovation as important to their business, which appears largest because of the capital costs involved. There are some innovative approaches to this problem - for example, independent drinks manufacturers exploring a collaborative, joint investment in bottling machinery, however this reinforces the cost barriers which face individual, smaller businesses. In some cases however, the technology isn't as efficient as human resource. As one interviewee noted that "there's no machine yet that can fillet a fish as good as a person in the north of Scotland."

Areas where technology will be utilised in the future appears to be around brand protection, as noted in the case study with Arc-net, and packaging. With pressing climate change targets and business responsibility, there is considerable research and development into making packaging as sustainable as possible. This includes innovation such as edible packaging or edible barcodes on products.

Adelphi distillery also explained the importance of technology to support international market development, supporting a better understanding of customers and also in telling the product story in a digital world.

Case study: Using AI to manage barley to bottle

Distilled ID is a full featured, end-to-end distillery management platform for the spirit drinks industry.

Using AI, it covers the full needs of any active distillery from stock and dry goods management, through spirit production, to cask management and finally product distribution.

The product is supported by arc-net's established blockchainbacked traceability system, enabling individual product tracking and a unique "Storybook" interface as part of the package.

Arc-net developed the product in 2017, starting with a commercial partnership with Adelphi's Ardnamurchan distillery to launch their 2017 AD spirit. The product development has continued with the launch of Ardnamurchan 2018 AD and 2019 AD Spirit releases which contain an individually unique QR code.

Scanning this QR on a smartphone provides a wealth of information on the provenance of the drink, including everything from the grain delivery to the moment the bottle was filled.

The technology behind the system continues to evolve as whisky becomes increasingly valuable around the world. This includes exploring opportunities to develop security measures to track if any bottle is tampered and protect against counterfeit.





A holistic view for Scotland

In the second half of 2019, CMS undertook a business sentiments survey with over 100 Scottish businesses across a range of sectors and business size.

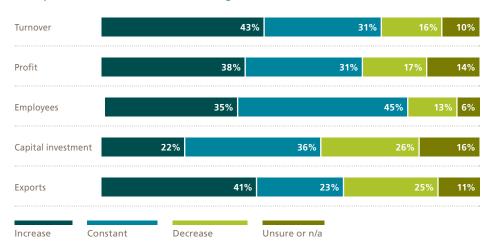
The survey identified considerable variance in performance over the course of the past year, and only 34% of businesses reported increased profits, suggesting margins are being squeezed through competition, increased production costs or currency impacts.

When respondents looked to the year ahead, short term predictions reveal some expectations of improvement, with a majority of businesses expected to see increases or consistency across performance measures.

Predictions for the next three years are largely positive, with the number of businesses predicting increases over the next three years higher than for the next year. When we started to look at those businesses it was clear businesses that export outside the UK were more likely than those that don't to predict increased turnover (71% vs 37%), profit (62% vs 37%), and number of employees (52% vs 30%). Businesses whose operations were only in Scotland only were less likely than those with international operations to expect employee numbers to increase (29% vs 59%).

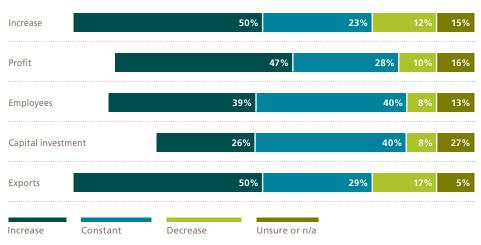
In addition, businesses with fewer staff (between 1 and 10) were less likely than others to predict increases in turnover in the next 3 years (33%), or to predict increases in profits (31%).

Looking ahead to the next 12 months, what changes do expect your business to experience in each of the following?



Predictions for the next three years are largely positive, with the number of businesses predicting increases over the next three years

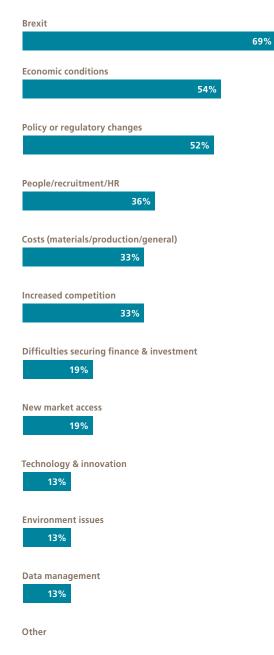
Looking ahead to the next 3 years, what changes do expect your business to experience in each of the following?



Beyond Brexit, the economy and policy / regulatory environment are concerning businesses the most

Brexit dominates concerns about growth for the next 12 months, with over two-thirds of businesses considering that Brexit could have a negative impact on their business and industry sector in the coming year. Concerns around Brexit were particularly high for businesses with an annual turnover of less than GBP 1m, 82% of which expected a negative impact.

Over 50% of respondents were also worried about economic conditions and policy / regulatory changes. This again highlights concerns around macro factors which are, in many circumstances, outwith the control of businesses. What are the key issues facing your business and industry sector today that could have a negative impact on growth in the next 12 months?



Technology and innovation are key opportunities for exporters

Looking forward to the next year, factors with the potential to provide growth opportunities include improved economic conditions, policy or regulatory changes, new market access and technology and innovation.

New market access, technology & innovation and environmental issues were the only factors that more businesses perceived as an opportunity for growth than as issues with a potentially negative impact on growth. Technology and innovation were considered particularly important by businesses who exported (53% confirmed this vs 23% of businesses with no exports).

What are the key opportunities for your business and industry sector today that could drive growth in the next 12 months?

Improved economic conditions
44%
Policy of regulatory changes
41%
New market access
40%
Technology & innovation
35%
Environmental issues
22%
Reductions in costs (materials/production/general)
19%
Less competition
19%
People/recruitment/HR
1776
Brexit
15%
More opportunities for securing finance and investment
13%
Data management
13%
Other
<u>4%</u>



The next five years

Challenges

In keeping with responses when asked what key issues were facing businesses and industry sectors that could have a negative impact on growth in the next 12 months, Brexit was the most cited challenge facing the Scottish economy in the next five years. Technology & Engineering and Life Sciences organisations were most likely to have cited Brexit.

Opportunities

Independence/devolution was the most cited potential opportunity that could drive the Scottish economy forward in the next five years, however there were fewer comments identifying this as an opportunity than as a possible challenge.

Government spending/ investment, trade agreements, high tech sectors and green industry/ energy were also highlighted as potential opportunities. Unsurprisingly green industry/ energy was the most commonly cited opportuwnity in the energy and Life Sciences industries.

Methodology

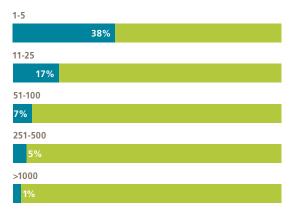
In the second half of 2019, international law firm CMS, in conjunction with delivery partners, conducted a business sentiments survey with over 100 businesses in Scotland. In addition, we carried out six in-depth interviews with leading figures from key sectors in the Scottish economy.

Sample summary:

- The survey sample was skewed towards technology and engineering and food and drink sectors (33% and 18% respectively)
- Views gathered predominantly from senior decision makers
- Businesses in the sample were predominantly SME's, with less than 10% having +250 (full time equivalent) employees
- Over half (57%) reported an annual turnover of less than GBP 1m for the previous financial year, though 18% had achieved a turnover of in excess of GBP 5m
- Two fifths of businesses export goods or services mostly to Europe
- Almost one fifth of businesses had overseas operations
- The sample includes businesses operating in all areas of Scotland, however, activity was most likely to be located in Glasgow/West and/or Edinburgh/Lothians.

The sample:

Number of staff



Annual turnover

Less than £70,000	
2%	
£100,001-£200,000	
17%	
£400,001-£750,000	
10%	
£1,000,001-£2,000,000	
11%	
£3,000,001-£4,000,000	
5%	
More than £5,000,000	
18%	
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