10 Year National Strategy for Economic Transformation

Analysis of Stakeholder Engagement

Interim Findings

21 September 2021

Scottish Government
Riaghaltas na h-Alba
gov.scot

Stakeholder Engagement: Overview

A national endeavour. We wanted to hear directly from business, workers, stakeholders from across the country.

- An eight-week programme of public engagement, with members of the public and stakeholders invited to submit views directly to a mailbox.
- No set questions were asked, it was an open invitation to submit views.
- Closed 3 September 2021.

Responses

- 260 responses received spread across wider public, private sector, third sector and public sector..
  - Of which, 90 (34%) from Wider Public.
  - Of which, 69 (27% from Private Sector (includes Industry Leadership Groups and organisations representing businesses).
  - Of which, 60 (23%) from Third Sector.
  - Of which, 41 (16%) from Public Sector.
- Given the open invitation to contribute, individuals were not asked to provide information on their characteristics and so it is not possible to determine how representative of the wider public the individual responses received are.
- There is some ongoing engagement still to be included in the analysis, hence this is an interim analysis.

Distilling key themes

- An interim analysis of the responses is presented here, focusing on the views by each group of respondents on:
  - Challenges
  - Opportunities/priorities
  - Ideas to transform the economy.

Views from wider public

Challenges

- **Cluttered Public Sector Landscape:** Large proportion of respondents experienced a public sector which is too cluttered and works in silos. Impact on people from decision making not considered across strategic and delivery organisations.
- **Enterprise Agencies:** Large proportion of respondents have noted frustration with the Enterprise Agencies.
- **Low National Productivity:** Scotland as a nation is highly skilled, but lags behind rUK and OECD nations. Scotland's productivity rate is poor.
- **Duplicative Public Sector:** Relating to productivity, it was highlighted that with a country as small as Scotland, public sector organisations could benefit from sharing corporate services and functions.
- **Ageing housing stock:** In order to transition to Net Zero and for consumers to utilise sustainable living methods, large scale investment in pre 1919 housing is needed.
- **Super fast broadband/5G connectivity:** Connectivity across mainland Scotland and the Islands needs to be improved as public services shift to new digital ways of working.
- **Strategy and delivery questions:** NSET must recognise the role of the private sector as a partner in delivery; it must consider through analysis, the possible trade offs between the different policy targets across the competence of the Scottish Government; incentives to move private sector organisations in the required direction; an understanding of the Government spending multiplier on a sectoral basis to better direct spending and investment.
- **Constitution:** The constraints of devolution and lack of full fiscal and monetary autonomy restricts the ability for the Government to raise investment and direct spending.
- Some concerns noted about lack of diversity of the Council and a lack of specialist expertise in Council on Climate Change, SME's, Transport, Youth, and the Islands.

Views from wider public

Opportunities/priorities

- **Wellbeing Economy Measures:** Transition to person centred measures of progress and success, e.g. Happiness as a measure
- **Public Sector Modernisation**: Recognising the productivity problem and tightening budgets, a modern, digital public sector which is able to divert headcount from back office to front line would improve social outcomes.
- **Tax Reforms:** Start Ups, entrepreneurs and skilled migrants must be incentivised to making Scotland their home. Council Tax should also be reformed and the tax system simplified and made easier to understand.
- **Business Incubator Hubs:** Grants and funding for start ups and entrepreneurs needs to be combined with mentoring, expertise and support. A Business Incubator model such as the Edinburgh Business School Incubator Hub could be delivered across all Local Authorities.
- **Digital Upskilling:** In order to avoid any generation from being left behind, continual funding and lifelong education and learning must be supported.

Views from wider public

Ideas to transform the economy

- **Wealth Creation Projects:** A Scottish Government owned company should be established to increase wealth generation and reduce the Government's reliance on taxation.
- **The Arts:** Joint focus on STEM subjects and creative arts to support entrepreneurship and creativity, embedding creative education into Scotland's strategic ambition.
- **Decentralised, non location specific civil service jobs**
- **20 minute neighbourhoods:** Invest in the concept of 20 minute neighbourhoods and regeneration of city centres.

Emerging Theme – Local versus national transformation

- The public want to see everyday local transformation as much as transformation of the national economy.
- While a large proportion of responses raised the need for a Just Transition away from Oil & Gas, Electric Vehicles and better public transport, an equal proportion raised the need for sustainable living to be more accessible, that is, better access to recycling facilities, active travel infrastructure and affordable and sustainable food.

Views from private sector

Challenges

- **Net Zero:** A common challenge noted was the transition to net zero and a just transition to support jobs and communities most at risk. A need to better identify the key drivers of green growth. Timing is a challenge ensure talent is there once net zero technologies reach scale. Need to address barriers to scaling up low carbon projects in all sections of the community. Twin challenge of biodiversity loss.
- **Skills gaps and labour shortages** in many sectors and regions of the Scottish economy are impediments to growth. Ageing population.
- **Sector specific challenges:** Many arising from Covid-19 which has accelerated many of the trends that were underway. Short term shortages of materials in some sectors.
- **Infrastructure**: Better digital and physical infrastructure including housing and connectivity. Improved tourism infrastructure.
- **Commercialisation of innovation**. Commercialising or attracting large-scale manufacturing of innovations is weak.
- **Regional variation**: City centres and businesses and retail in city centres suffering from loss of footfall.
- **Inequalities** remain and more could be done to promote social capital. Digital divide in more deprived areas.
- **Regulation**: Other countries are more efficient and quicker, in some sectors.
- **Governance and role of public sector:** A complex economic development structure with duplication. Scotland's public sector continues to grow and accounts for an increasing share of employment.

Views from private sector

Opportunities/ priorities (1)

- **Net Zero:** Achieve green economic recovery and jobs for the future, a just transition, and deliver net-zero targets. Work closely with businesses to achieve net zero ambitions by setting clear direction to allow businesses to invest. Net zero solutions by building on Scotland's strengths and investing in them through fiscal measures including carbon pricing. Role for social enterprises in the energy transition. Maximise the potential offered by the marine energy and green hydrogen sectors in Scotland Potential to generate high quality, highly skilled jobs across Scotland, particularly in maritime and peripheral regions. Enhancing our natural ecosystems will bring resilience against climate change.
- **Circular economy:** Consume less and produce less waste. Opportunities for sustainability and sustainable product lifecycles and to improve traceability through supply chain. Scope to include Scottish health and social care procurement agencies to take a whole life approach to decision making about products. Digital solutions can also help rebuild our natural capital.
- **Entrepreneurship and innovation:** Innovation roadmap to drive entrepreneurial economy. Raise awareness of different business models such as employee ownership. Third sector and social enterprise structure important. Smarter and more efficient processes for new start ups by young entrepreneurs. Build on resilience of businesses to adapt and reinvent their business models during pandemic. Support small-scale, local business that provides local, secure jobs and community benefits. Community bank model providing support to SMEs in or with a connection to its geographic area.
- **Data and Digital**: Become a leader in digital technology. Foundational talent pipeline. Support cloud infrastructure and platforms to support remote workforces. Promote digitising supply chains.
- **Infrastructure:** A better managed portfolio of infrastructure investment to promote green projects.
- **Regional/places:** Decentralisation to enable regions to maximise their potential. Renewed focus on local procurement and local supply chains. Recovery programme for Scotland's high streets. Invest in and future proof Scotland town and city centres.

Views from private sector

Opportunities/ priorities (2)

- **Internationalisation and inward investment:** Public/private partnerships to increase number of Scottish exporters. Opportunities for strengthening attractiveness for companies to locate beyond the Central Belt. Seek a review of UKG relocation tax threshold. Scotland must constantly reassess its attractiveness for investors, notable opportunity in Pharma. Dedicated Customs Academy to support knowledge and requirements post EU exit.
- **R&D:** Increase government spending on R&D to match advanced economies and boost productivity and innovation. Support for clinical research and development in optimising the setting up and running of more clinical trials in Scotland.
- **Job, skills and education:** A renewed focus on the workforce of the future. Develop youth workforce and female business leaders. Bring in global talent (in sectors such as digital skills). Skills passports for lifelong learning. Review apprenticeship standards. Promote renewables skills. Bitesize learning opportunities, especially for SMEs and the not-for-profit sector. Transform workplaces with a focus on fair work and address employee mental health. Involve industrial and economic expertise in developing curriculum. Embrace diversity. Key role for our world leading universities and colleges.
- **Governance:** Review remit of agencies and NDPBs so that they champion net zero.
- **Funding and other levers:** Funding with conditionality on net zero, waste. Create specific scale up funding opportunities and have as a criterion for access to funding. Ring fenced funding package to promote diversity. Consider Non Domestic Rates relief. Property taxation system to incentivise investment. Continue to promote better regulation. Social investment tools and models.
- **Finance institutions:** Finance institutions to work alongside businesses and take longer term view on debt. Ensure scale ups receive the funding they need.
- **Planning and consents:** Effective planning and associated consenting systems to deliver net zero and support the delivery of new homes of all tenures, to help deliver a green economy and attract the private sector investment necessary.

Views from private sector

Ideas to transform the economy

- **Energy Transition.** Become a leader in exportable net zero solutions. Scotland's green hydrogen sector offers opportunities for the creation of new secure jobs A Green Boards strategy to support company Directors adopt Net Zero. Enhance connections between industry and academia. Using AI cloud and data science for robust emissions measurement. Provide support to foster a strong manufacturing base within Scotland. Deployment of renewables through the intelligent use of battery storage.
- **Data, Digital and Tech**: Become a leader in digital technology. Better data availability means better services. Good data important to recovery. Opportunity in Health and social care data. Invest in cloud computing skills. Women in technology. Cities as a hub for data science and AI.
- **Foster a thriving clinical research environment:** Put research at the heart of all NHS Scotland does, in line with the ambition of making the Scotland the destination of choice for clinical research
- **Brand Scotland**. Opportunity to make much more of Scotland's brand. Take advantage of the positive predisposition that people around the world have to working with Scotland, buying Scottish products, engaging with Scottish people.
- **Government as an exemplar:** Decentralisation of civil service jobs. Digitisation of public services. Create a separate company to manage Government investments.

Views from third sector

Challenges

- **Fiscal framework** – lack of borrowing powers limits capacity of SG to realise economic policy objectives
- Scotland has **high proportion of people on benefits and low productivity**. Entrepreneurship is generally not sufficiently supported or recognised.
- Scottish **business owners may lack ambition to expand companies** – selling businesses on means Scotland loses R&D and assets.
- Greater need for interventions to encourage **gender equality** – for example childcare needs limit women's ability to enter the labour market and access development opportunities, the gender pay gap has yet to be addressed and many jobs at risk of future automation are carried out predominantly by women.
- **Covid-19 has amplified existing inequalities** – particularly around fair work and for certain groups (e.g. the young).
- **Issues around education** – e.g. MA programme can be seen as cumbersome and not fit for purpose. There is a general mismatch between education and needs of industry. This causes issues with recruitment and may harm entrepreneurship – some perceived a gap between number of young people who wanted to start a business, and those who have skills to do so.
- **Net zero** presents challenges and opportunities. Current lack of public understanding on climate change.
- **Good quality housing** plays a large role in economic transformation – but availability of good quality housing is an issue.
- There is **regional disparities** in public sector funding.

Views from third sector

Opportunities/ priorities

- **New ways of working** – e.g. more flexible jobs, renewed focus on fair work, etc. but needs action to maintain these benefits. For example improved digital connectivity, local job hubs, actions to protect town centres etc.
- The third sector's role in providing or complementing the public and private sector should be recognised and capitalised on.
- **Planning** – a more strategic approach is needed to meet the needs of various sectors and encourage job growth. Close working with unions, investors and infrastructure providers is needed to develop place-based solutions.
- **Education sector** – sector has a key role in meeting future job needs – closer working between government and industry needed.
- **Digital connectivity** is key for economic transformation post-COVID. Some of the positives of COVID-19 (e.g. remote working) should be retained and there is need for investment to support this.
- **Net zero** presents many opportunities e.g. circular economy, greater use of renewable energy, development of new jobs - but also presents challenges in terms of transition and support needs for workers in affected industries.
- Opportunity to renew and enhance role of **wellbeing economy** – e.g. by giving wellbeing measures parity with GDP.

Views from third sector

Ideas to transform the economy

- **Targeted skills programmes** should be developed to identify and assist marginalised groups (such as woman and the young). The Youth Guarantee and Developing Young Workforce Programmes Scotland's colleges and universities were seen to be well placed to assist with this due to strong links with industry.
- **Invest in child and social care** to promote woman's labour market equality.
- **New ways of working** – common suggestion was move towards a 4 day working week (with no loss of pay) and the creation of local job hubs to allow for more flexible working.
- Some suggested **greater devolution of power, from Holyrood** to local authorities.
- Respondents suggested various strategies that should be consulted (e.g. Social Renewal Advisory Board, A Fairer Scotland for Woman, etc.)
- **Trial of universal basic income**
- **Reform agricultural payments** to ensure better alignment with climate change and land use goals.
- Deliver innovation-based **City Deals 2**
- Creation of a **National Infrastructure Company** to ensure a strategic and sustainable approach to construction

Views from public sector

Challenges

- **Changes in population and demographics**, particularly in rural Scotland – itself symptomatic of:
  - the need for more and better quality **housing;**
  - **digital connectivity;**
  - and **improved transport links**
- How to reconcile tensions between economic goals such as improved productivity and competitiveness versus concepts such as fair work, just transition, wellbeing.
- The need to clearly articulate SG position on growth, particularly for the business audience.
- Care needed around the timing of the transition to net zero, recognising that sectors will transition at difference speeds and need differing levels of support. Crucial to ensure we don't lose supply chains by moving too quickly. Net zero not zero emissions.
- COVID 19 exacerbating problems of under-investment and fragmented structures in culture sector.
- Designing the economy we want to shape such that it delivers on **reducing inequalities** and **tackles the profound population health challenges** we face.
- Providing **quality local jobs** which meet the skill levels of our residents in order to develop a stronger local economy (view from local government).
- Employers offer too many jobs that are low paid and too few opportunities for low paid workers to progress to higher paid employment. Not only is this economically inefficient, it entrenches social and economic inequality
- The need for a clear strategy to **focus the entirety of the system on a smaller number of priority outcomes with clear ownership and clear measures of success**.

Views from public sector

Opportunities/ priorities

- A **stable policy context** shaped by a high-quality business environment, the ability to respond to strategic shifts/shocks, and sustained investment in human capital and innovation.
- **Natural capital** - used to provide green power to Scotland; developed to support new industries e.g. Blue Economy, Green Hydrogen and Offshore Wind.
    - Carbon capture and storage, hydrogen, wave and tidal, subsea cables and pipelines and aquaculture all present distinct economic opportunities in Scotland, often supporting remote and fragile economies.
    - But opportunities here not widely understood - must do more to raise awareness of sustainable commercial/economic potential.
- A **just, net zero transition** should be at the heart of the new strategy.
    - Greening the economy and transport network is crucial
- Use the strategy as a means of achieving a wide range of **societal outcomes**, including those relating to climate, inequalities, poverty, health and work.
- **Place investment** - new and innovative ways of supporting regeneration, community ownership and wealth building.
- Delivering a **whole systems approach** to exploit synergies between Scotland's ambitions to become a Fair Work Nation, to transition to net zero, to address child poverty and to become a wellbeing economy.
- Prioritise **innovation** as a driver for local, place-based economic growth. Protect discovery research and harness the power of innovation to amplify the contributions of research and development to economic development and transformation.
- **Transition current skills investment profile** to more responsive portfolio incl (1) Traditional academic pathways; but also (2) expanded work based pathways; (3) rapid industry led retraining (for unemployed); (4) Upskilling of existing workers.

Views from public sector

Ideas to transform the economy

- Capitalise on Scotland's early recognition of the importance of **Fair Work** and **Workplace Innovation**. A focus on how businesses are run and the importance of high quality workplace practices is essential to addressing poor productivity performance, and to create ambitious businesses with the right leadership to encourage investment, innovation and high levels of skills utilisation. This should include improving Fair Work conditionality alongside support for business.
- Facilitate enhanced role for **private sector networks & peer-to-peer knowledge transfer**. Many businesses need advice not funding.
- Support and fund acceleration of **Business Support Partnership** – necessary vehicle for streamlining and joining up business support and other economic development activity - reduces duplication, enhances system thinking, collaboration and ensures we learn from partners across Scotland – importantly incorporates **sharing of data** to aid much more effective understanding of system wide activity and evidence about "what works".
- Develop & implement integrated national/regional skills investment strategies to support ambitions of Climate Emergency Skills Action Plan (CESAP) & the Scottish Technology Ecosystem Review (STER) as two of the most significant cross sector, transformational programmes.
- **Multi-year funding cycles** for capital and revenue funding programmes that support Just Transition, fair work, No One Left Behind and inclusive economic growth.
- Address income and health inequalities through UK corporation tax changes to limit excessive profits and mandatory employee representation on boards. Break up monopolies, ensure competition, increase community owned businesses and regulate financial sector to limit "wealth extracting financial engineering".
- Establish Scotland as a world leading 'responsible' nature-based tourism destination
- New, Good and Green Jobs - supporting sectors of the future but helping existing sectors transition - creating supply of new jobs in Scotland alongside potential to develop saleable expertise, practices and technologies.
- Digital tools to support up-take of innovations in technology and working practices.

Summary

- We have had a good response from business, workers and stakeholders from across the country.
- This initial analysis of responses has analysed them separately by the four different groups (wider public, private sector, third sector and public sector). This was done to explore similarities and differences across these groups.
- The analysis has found many common themes across the groups.
- Of course this means that there is some repetition in the presentation of findings here. The next stage of the analysis will be to consolidate and provide an overall summary.
- Respondents have proposed many novel and ambitious ideas for transforming the economy that can be explored further and can be grouped in transformational projects.

10 Year National Strategy for Economic Transformation

Office of the Chief Economic Adviser

Regional Economic Performance: Overview

Scottish Government
Riaghaltas na h-Alba
gov.scot

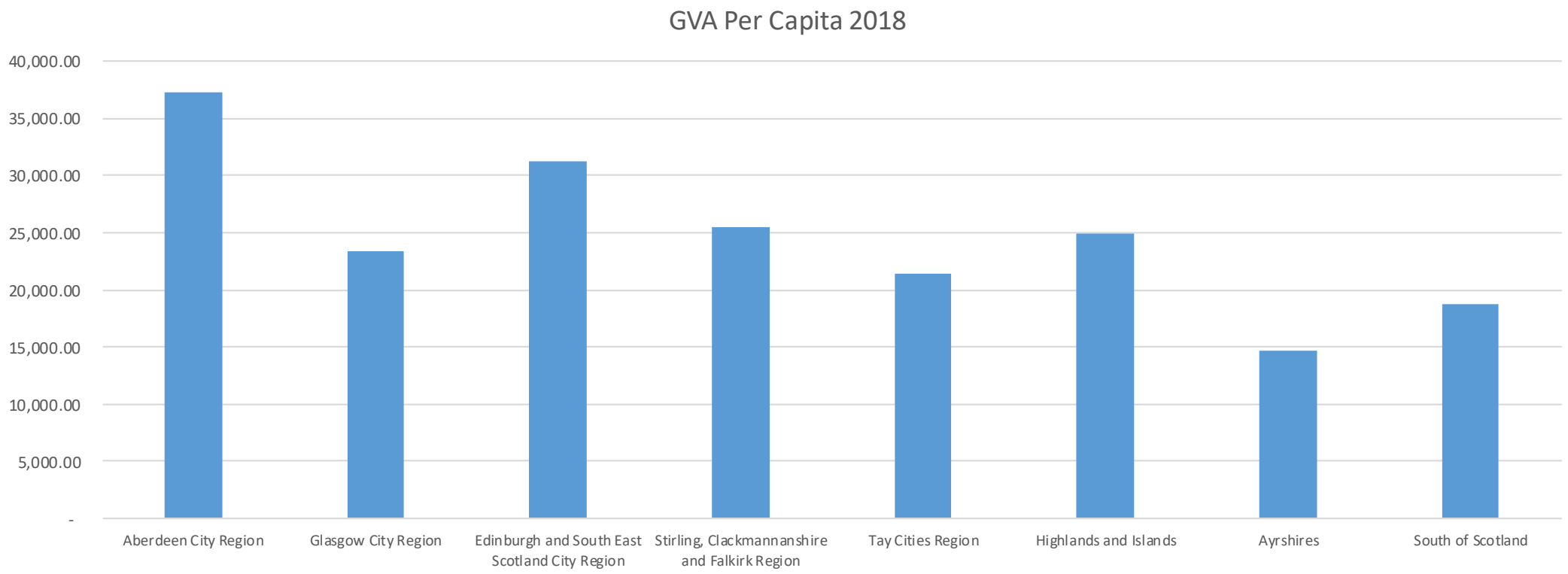
Regional Economies: summary of key emerging challenges from the analysis (1/2)

Sub-theme	Challenge Opportunity
1. Wellbeing and productivity	1.1 Based on GVA per capita, economic wellbeing is not equally distributed across Scotland's regions. At REP, Aberdeen City Region and Edinburgh and South East Scotland City Region perform relatively well, while the Ayrshires and South of Scotland Regions lag behind. In 2018, the Ayrshires GVA per capita was less than half that of Edinburgh and Glasgow City. Similar to economic wellbeing as measured by GVA per capita, regional economic performance measured in terms of labour productivity is also unequally distributed across Scotland
2. Entrepreneurship	2.1 Entrepreneurship, as measured by VAT business registrations per 10,000 adults, is closely correlated with regional economic wellbeing and competitiveness. On this measure, the stronger regions appear to have higher levels of entrepreneurship. However, when it comes to survival rate of newly registered businesses, there does not appear to be huge variations across regions (although survival rate has declined over the period 2013 to 2015) 2.2 The distribution of high growth enterprises in Scotland is also unequal, although a number of weaker regional economies (Ayrshire and Stirling & Clackmannanshire) seem to perform much better on this measure. Overall, however, high growth firms seem to be more concentrated in larger cities
3. International Competitiveness / Exposure	3.1 While there is variations in international competitiveness/exposure across regions (based on international exports as % of GVA), with the exception of Aberdeen City regions, the weaker regions in terms of general economic performance (the Ayrshires and Clackmannanshire & Stirling) appear to perform better. However, the weaker regions account for a very small proportion of Scotland's exports
4. Labour Supply	4.1 Based on population aged 16 - 64 years, labour supply has grown across regfions of Scotland in the last 30 years. The only exception is the weaker economies of the Ayrshires and South of Scotland, and also the Islands and Remote Rural Areas
5. Infrastructure - digital	5.1 While high-speed broadband coverage (fixed and mobile) across Scotland is high, a number of regions lag behind - notable the Highland region and the island 5.2 Passenger transport accessibility is high in highly populated areas - especially in the Central belt and also the Aberdeen City Regions. However accessibility scores are low in 'mainly rural' and 'islands and remote rural' areas
6. Capital	6.1 Scotland's major cities (Edinburgh, Glasgow and Aberdeen) received a large proportion of inward investment projects over the period 2015-2020. Edinburgh, Glasgow and Aberdeen account for more than 50% of Scotland's inward investment flows

Regional Economies: summary of key emerging challenges from the analysis (2/2)

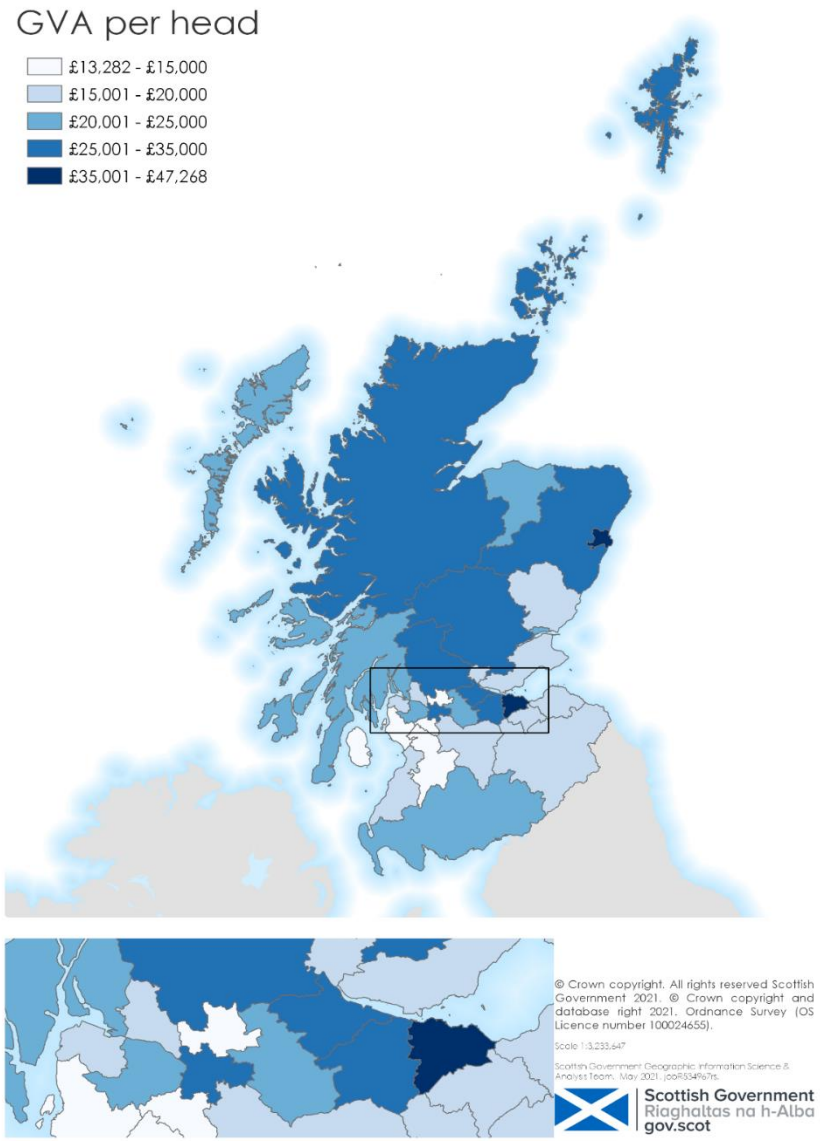
Sub-theme	Challenge Opportunity
7. Innovation	7.1 Enterprise innovation activity in Scotland is unevenly distributed - reflecting distribution of higher education institutions and the innovating business base. In absolute terms, Edinburgh has been the front running Local Authority in terms of expenditure on BERD throughout the period 2009-2019. However, looking at BERD as a percentage of GDP1 the picture shifts slightly. In 2019, BERD in West Lothian is estimated to have been 2.98% of GDP, with City of Edinburgh noticeably lower at 1.77% and all other Local Authorities at 1.07% (Dundee City) or lower.
8. Employment	8.1 Employment outcomes vary significantly across Scotland's regions. Proportion of workless households (where no adult is working) across Scottish local authorities follows a similar pattern to other inclusion/socio-economic indicators, with post-industrial areas lagging behind. For example, the proportions of workless households in cities like Dundee and Glasgow is twice that of the best performing regions like Aberdeenshire

GVA Per Capita by Regional Economic Partnership Area

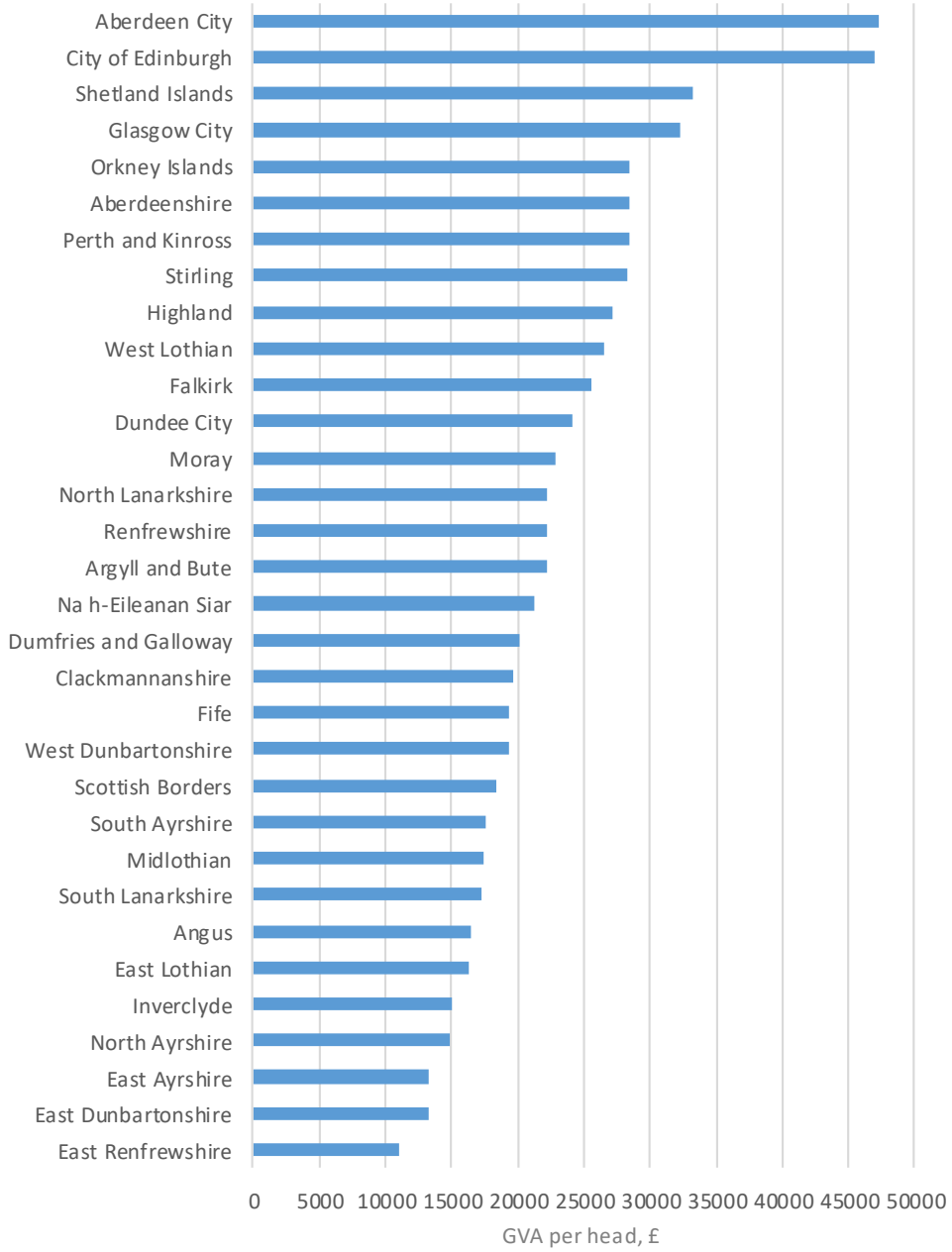


- Based on GVA per capita, economic wellbeing is not equally distributed across Scotland's regions. At REP, Aberdeen City Region and Edinburgh and South East Scotland City Region perform relatively well, while the Ayrshires and South of Scotland Regions lag behind.
- In 2018, the Ayrshire's GVA per capita was less than half that of Edinburgh and Glasgow City. Similar to economic wellbeing as measured by GVA per capita, regional economic performance measured in terms of labour productivity is also unequally distributed across Scotland.

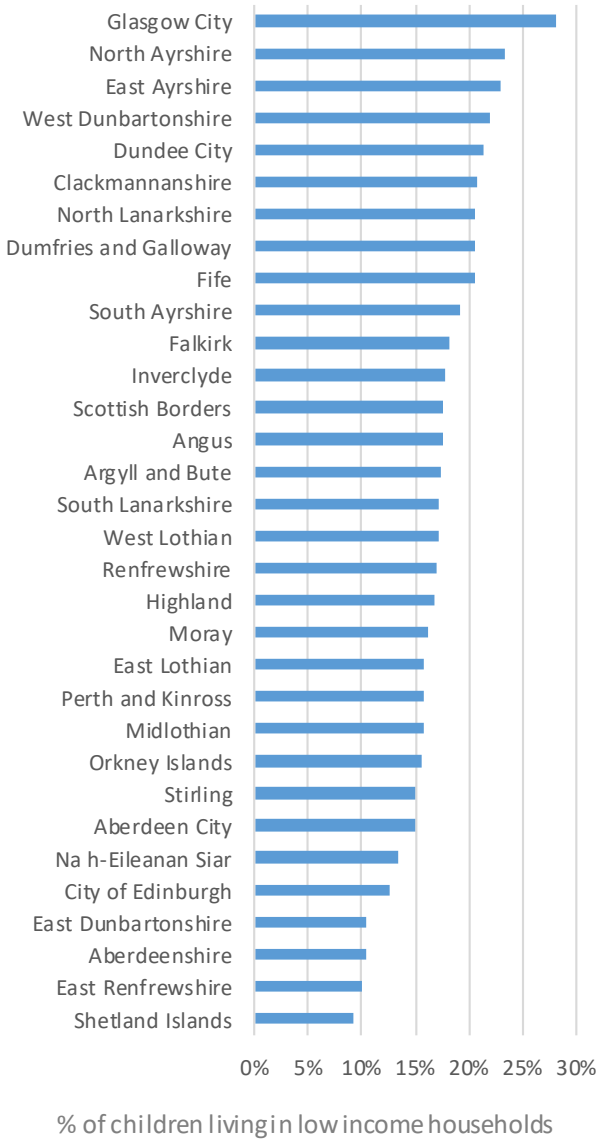
Regional Economic Performance

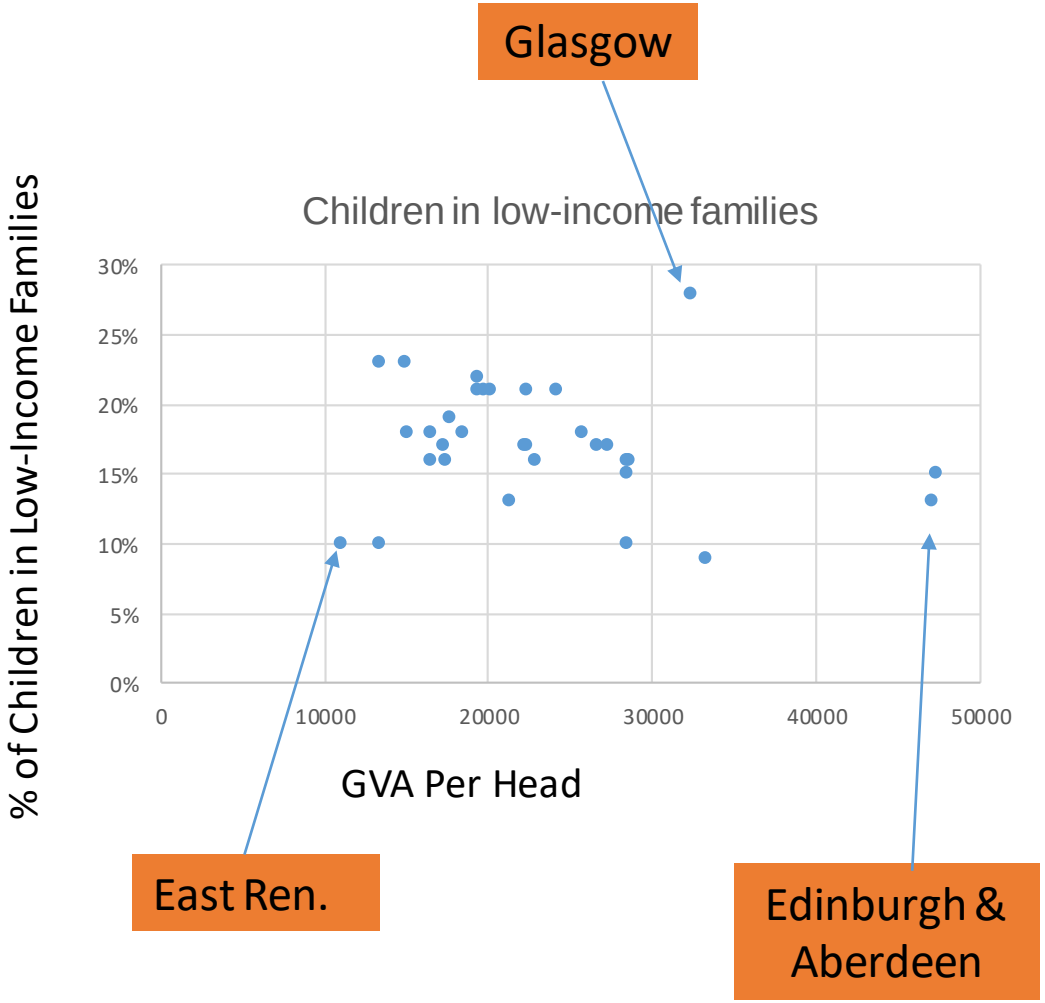


- Based on GDP per head, Scotland's economic performance varies significantly across regions. Edinburgh and Aberdeen city regions have highest GVA per head
- The least performing LA areas are largely concentrated to the western central belt – East Renfrewshire, East Ayrshire, East Dunbartonshire, Inverclyde
- Moderate weak economic performance is also a characteristics of eastern LA areas like Angus, Clackmannanshire, Dumfries & Galloway, Fife, Midlothian and Scottish Borders



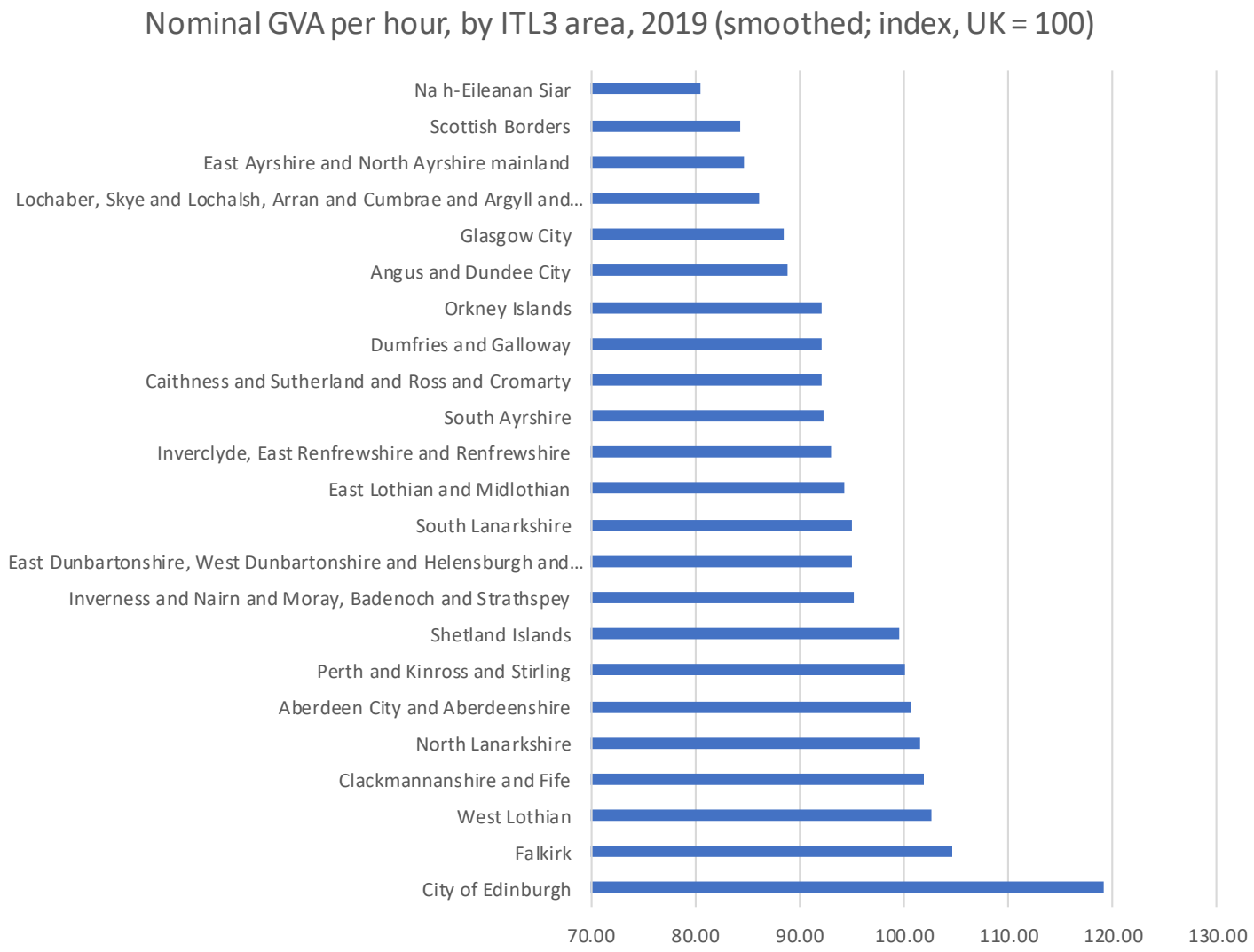
Regional Economic Performance and Outcomes





- Using % children in low-income families as a key economic outcome, the highest economic performance regions (Edinburgh & Aberdeen) appear to perform the better
- Generally, % of children in low income families tends to be higher in LA areas with low GVA per head
- But there are a few exceptions - Glasgow

Regional Productivity



Source: ONS

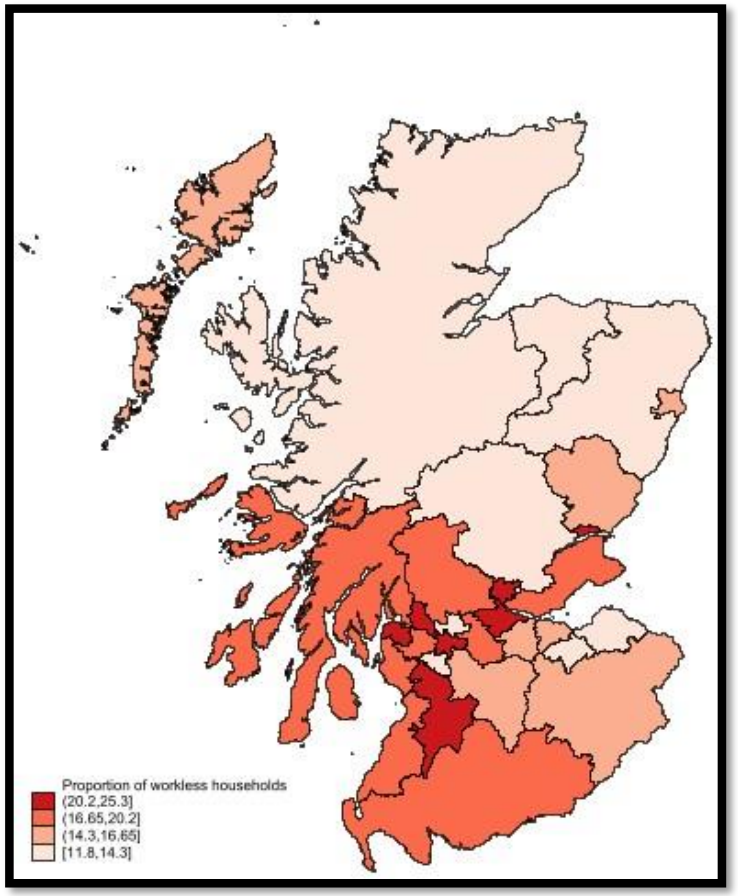
- City of Edinburgh is a notable outlier in terms of hourly productivity.
- It is joined by Falkirk; West Lothian; Clackmannanshire and Fife; N Lanarkshire; Aberdeen City and Aberdeenshire; and, Perth and Kinross and Stirling in achieving rates above the UK as a whole.
- Glasgow City, as an urban area, might be expected to sit above the UK average but achieved just 88.6% of the UK average, suggesting that is not realising the full potential benefits of agglomeration.
- A recent report by the Centre for Cities suggested that Glasgow was facing a gap of £7bn between its productive potential and actual GDP.[1]

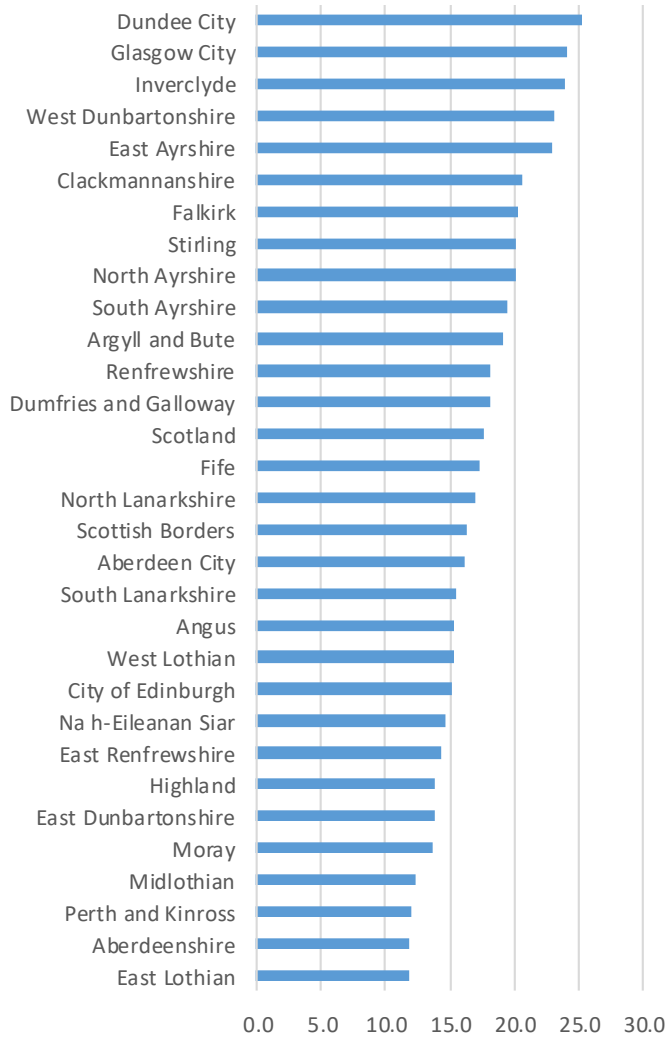
[1] *So you want to level up?,* Paul Swinney, June 2021

Worklessness is higher in post-industrial areas

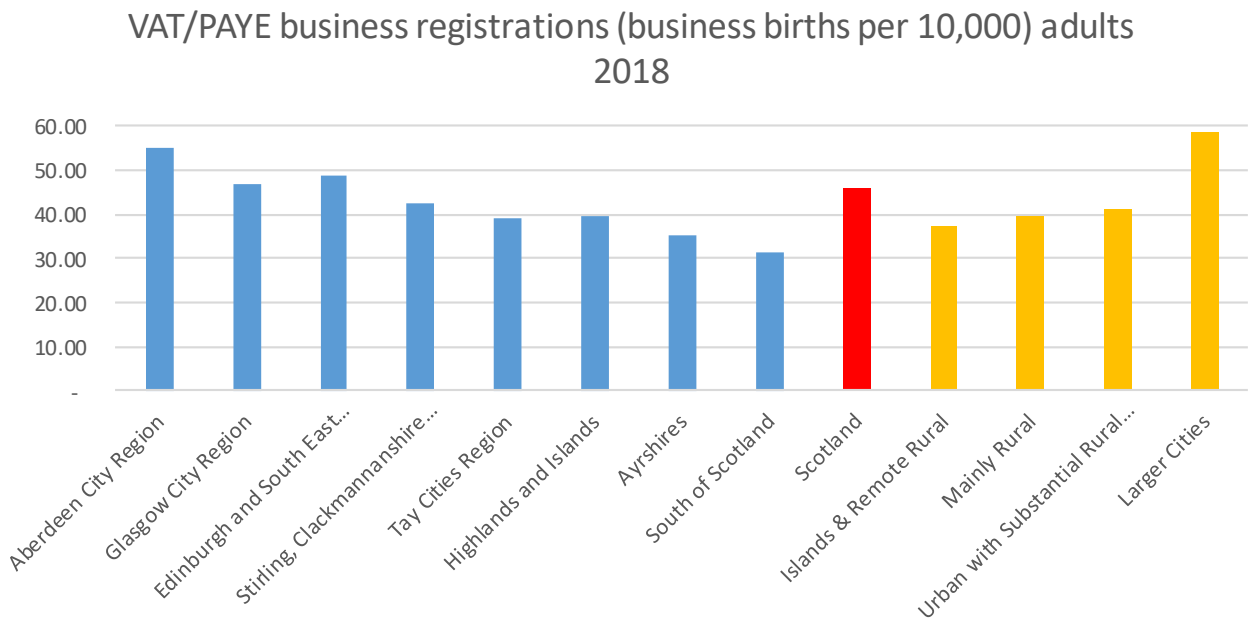
- Proportion of workless households (where no adult is working) across Scottish local authorities follows a similar pattern to other inclusion/socio-economic indicators, with post-industrial areas lagging behind.

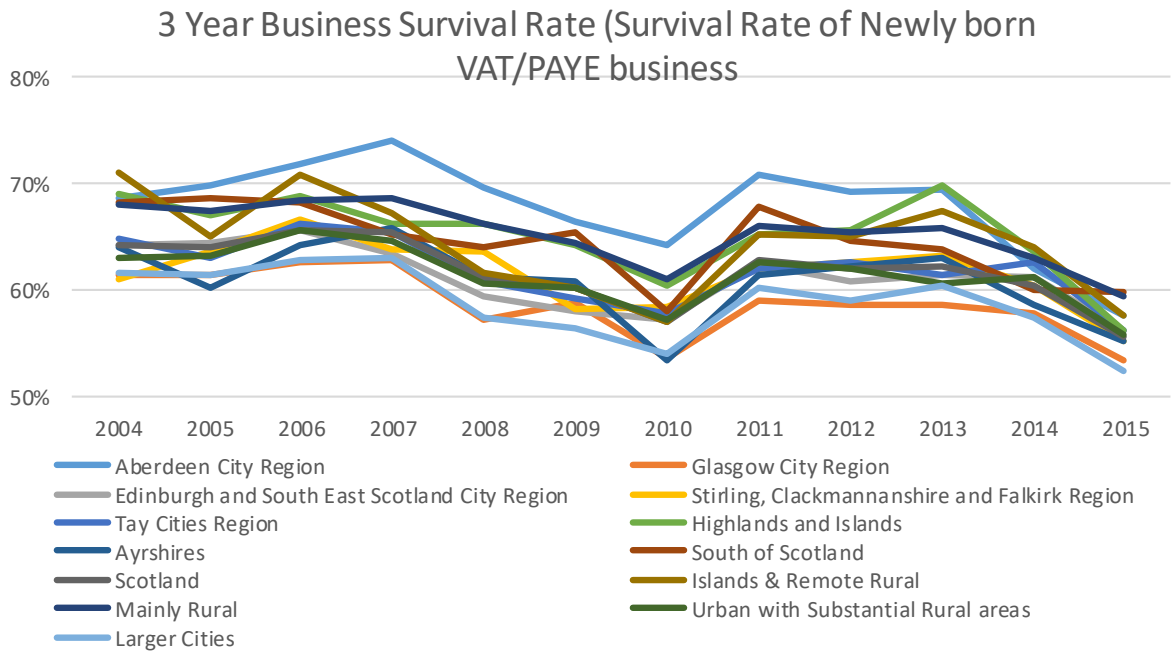
Proportion of workless households





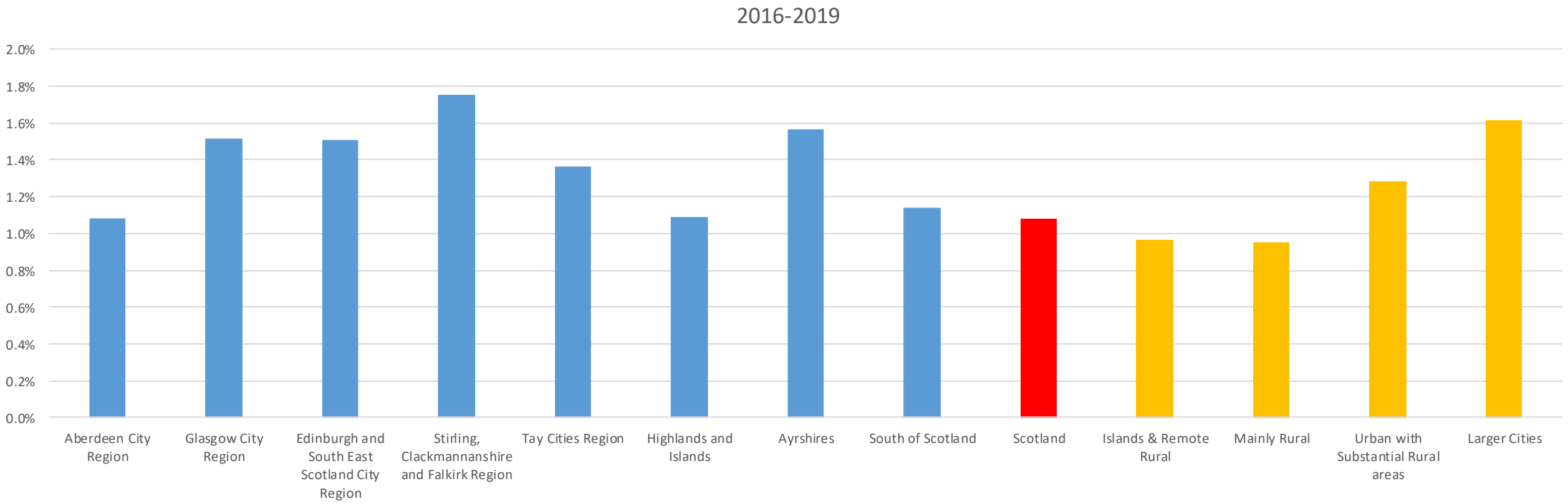
Entrepreneurship





- Entrepreneurship, as measured by VAT business registrations per 10,000 adults, is closely correlated with regional economic wellbeing and competitiveness. On this measure, the stronger regions appear to have higher levels of entrepreneurship. However, when it comes to survival rate of newly registered businesses, there does not appear to be huge variations across regions (although survival rate has declined over the period 2013 to 2015).

Number of High Growth Registered Private Sector Enterprises per 100 VAT/PAYE registered Private Sector Enterprises

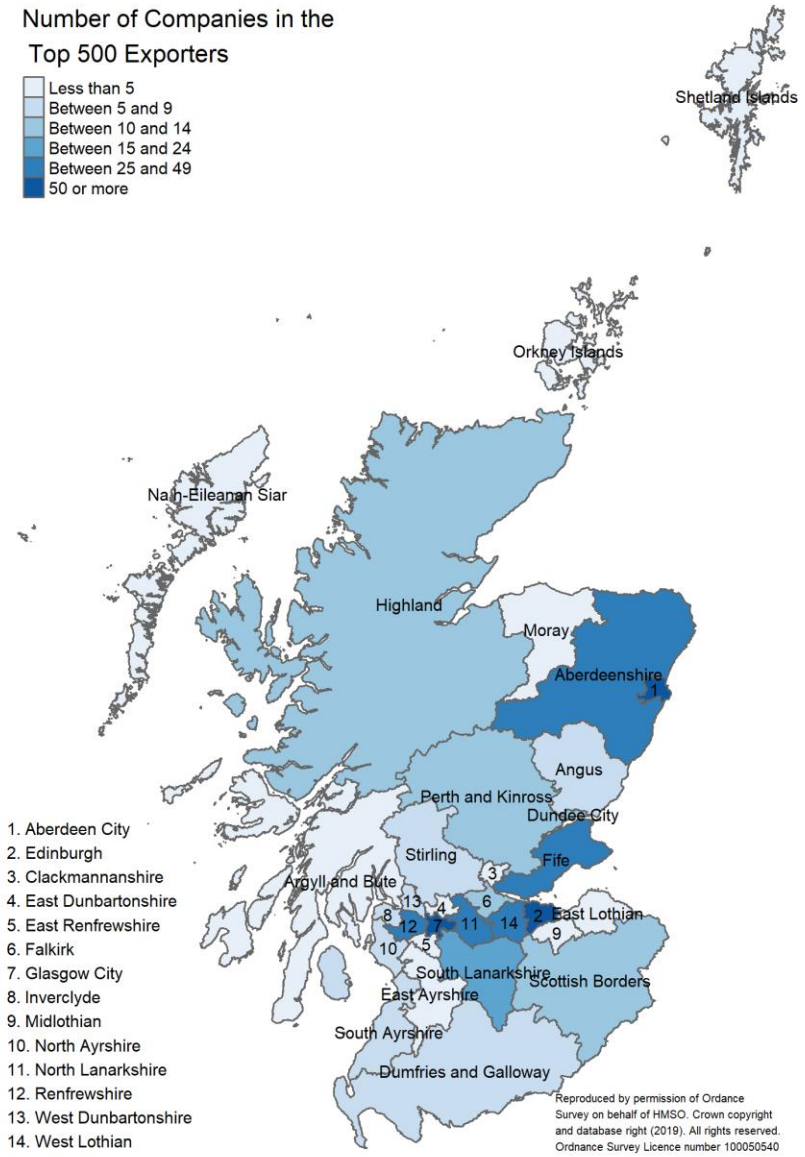


The distribution of high growth enterprises in Scotland is also unequal, although a number of weaker regional economies (Ayrshire and Stirling & Clackmannanshire) seem to perform much better on this measure. Overall, however, high growth firms seem to be more concentrated in larger cities.

International Exposure / Competitiveness

While there is variation in international competitiveness/exposure across regions (based on international exports as % of GVA), with the exception of Aberdeen City regions, the weaker regions in terms of general economic performance (the Ayrshires and Clackmannanshire & Stirling) appear to perform better. However, the weaker regions account for a very small proportion of Scotland's exports.

The top exporters are concentrated in the central belt and Aberdeen/Aberdeenshire



- Edinburgh, Glasgow and Aberdeen are each home to 50 or more of Scotland's top exporters.
- Surrounding areas such as Renfrewshire, North Lanarkshire, West Lothian, Fife and Aberdeenshire also perform strongly on this measure.

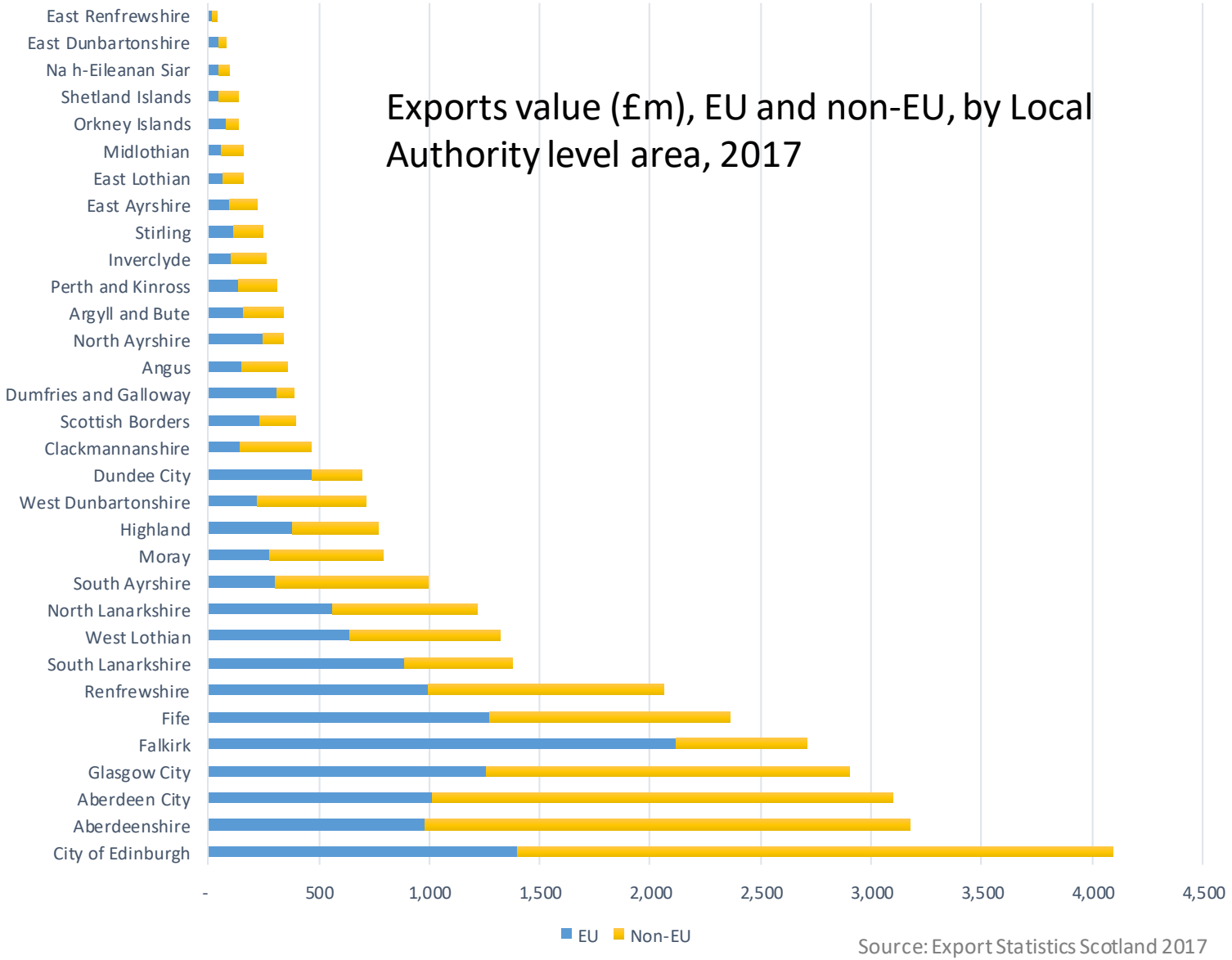
Source: OCEA internal analysis

Some Local Authority areas' exports are more EU focussed than others

- In 2017, City of Edinburgh's total exports value substantially exceeded that of any other Local Authority at £4,090m, as compared to £3,175m for Aberdeenshire as the second highest ranking Local Authority.

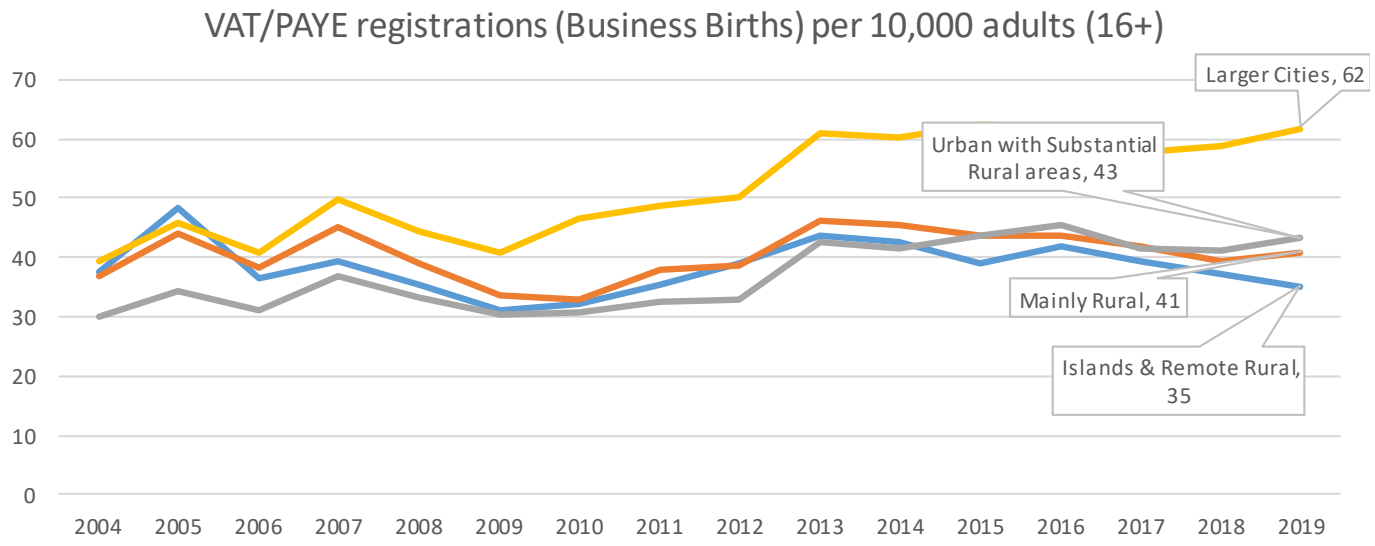
- However, City of Edinburgh sits comfortably within the 10 Local Authorities with the lowest proportion of the exports (by value) going to the EU.

- Just 34% of City of Edinburgh exports value was EU exports, while for Dumfries and Galloway, Falkirk and North Ayrshire, this figure was 79%, 78% and 71% respectively.



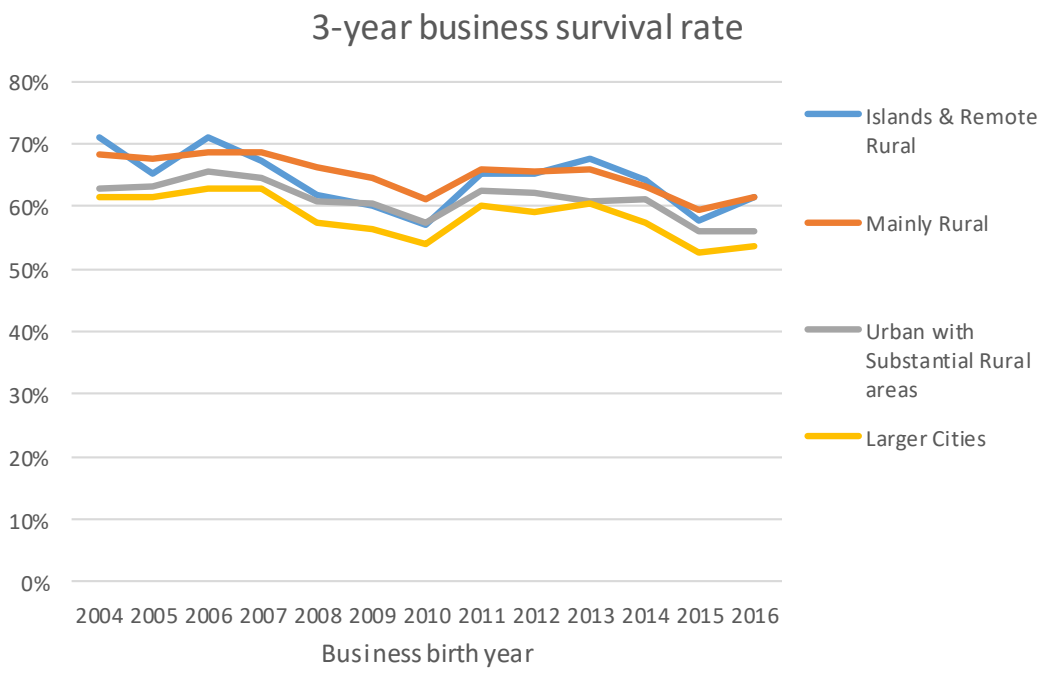
Source: Export Statistics Scotland 2017

Larger cities are pulling away from other areas in creating new businesses



Note: Rural / Urban Economy Areas (Using Scottish Government Fourfold RESAS Classification 2018) - (defined by combined local authority areas)

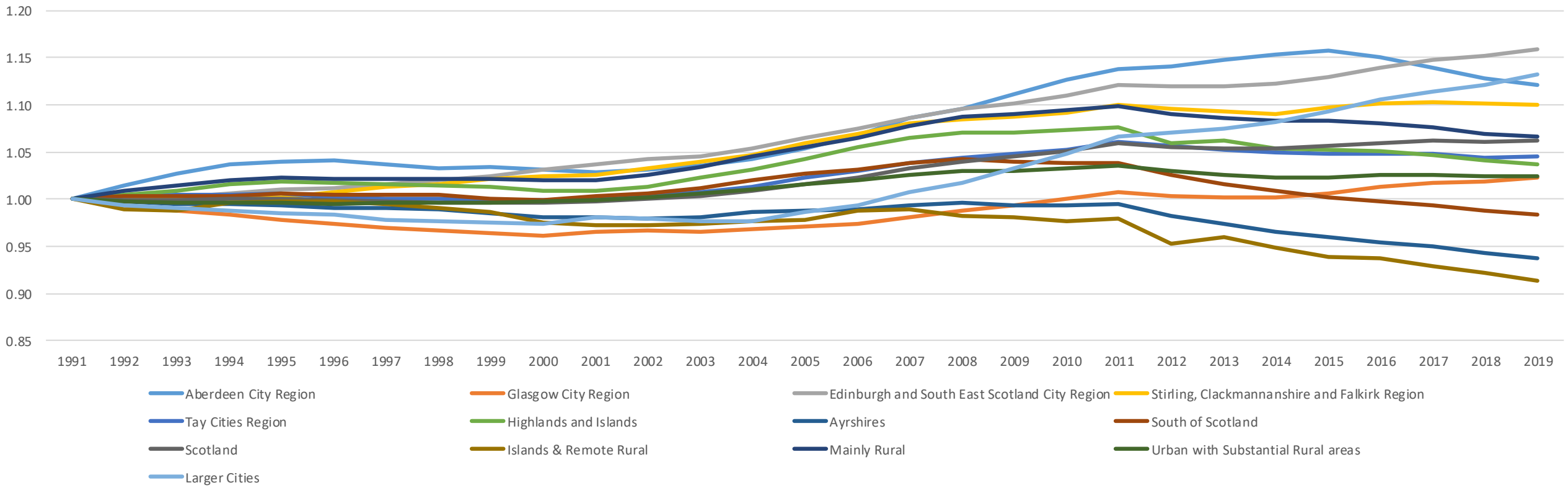
- Numbers of business births per 10,000 adults were similar across rural/urban areas in 2004, but since then larger cities have been pulling away, reaching as many as 62 business births per 10,000 adults while other types of areas remain nearer to 40.



- 3-year business survival rates are more comparable across rural/urban areas, with the difference between best- and worst-performing area types never exceeding 10 percentage points throughout the period 2004-2016.

Source: Business Demography – Office for National Statistics

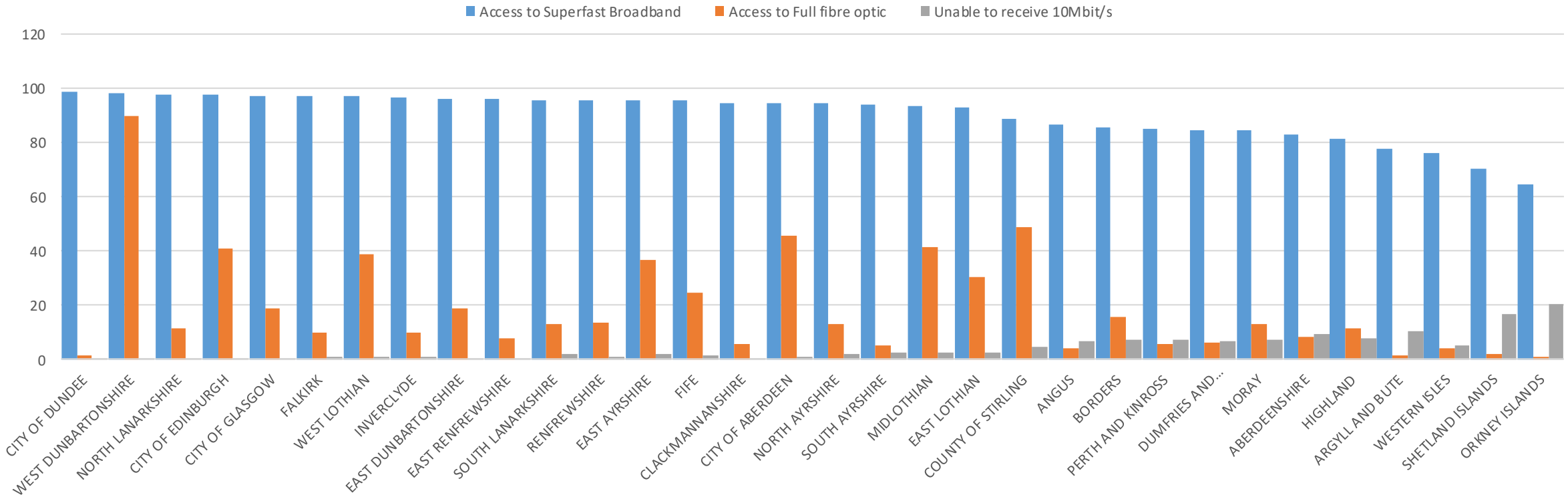
Long Term Workforce Trends (Working Age (16-64 years) – Population Estimates



Based on population aged 16 - 64 years, labour supply has grown across regions of Scotland in the last 30 years. The only exceptions are the weaker economies of the Ayrshires and South of Scotland, and also the Islands and Remote Rural Areas.

Digital Infrastructure - Fixed Broadband

Percentage of premises with access to superfast broadband, access to full fibre optic, or unable to receive 10Mbits/s



- In 20/32 of Scotland's local authorities, at least 90% of premises have access to superfast broadband. There is a clear drop in access in the Highlands and Islands to below 90%, with the Shetland and Orkney Islands performing least well.
- We also see a drop in access in Stirling, Angus, the Borders, and Dumfries and Galloway.
- A similar pattern exists for premises 'unable to receive 10Mbits/s'. Argyll and Bute, the Shetland Islands and Orkney Islands perform least well with 10%, 17% and 20% unable to access this speed respectively.
- West Dunbartonshire is a clear outlier for access to full fibre-optic at 90% access. Surprisingly, Dundee City has poor access to full fibre-optic and falls slightly below the Shetland Islands.

Source: Ofcom Connected Nations Report

Digital Infrastructure – Rurality

Fixed Broadband					
Rurality	**<10Mbit/s DL or <1Mbit/s UL**	**>=30Mbit/s**	**>=300Mbit/s**	**Gigabit capable**	**Full Fibre**
Rural	17%	73%	16%	15%	14%
Urban	0%	98%	62%	50%	21%
Total	3%	94%	54%	44%	20%

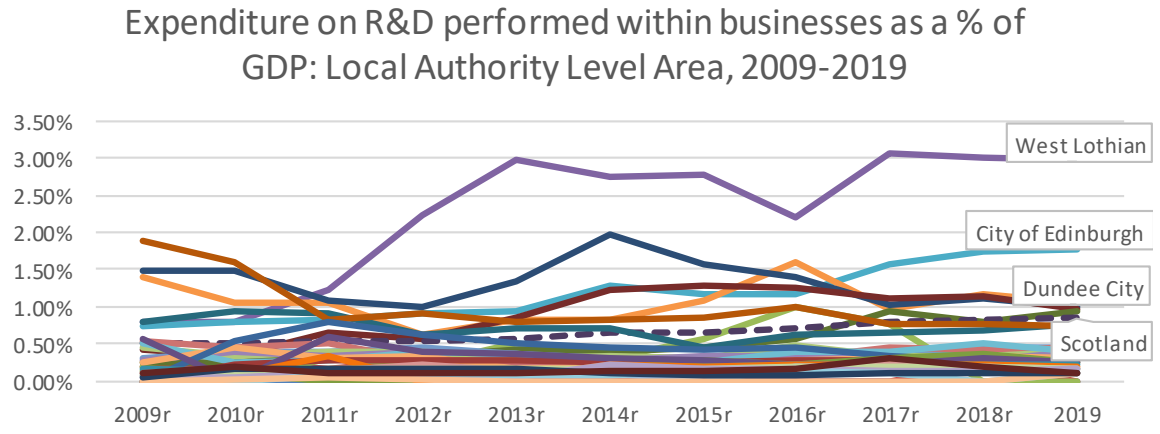
Mobile Coverage from at least one operator				
Technology Rurality	**Geographic**	**4G Premises (Indoor)**	**Geographic**	**Voice Premises (Indoor)**
Rural	81%	96%	88%	98%
Urban	100%	100%	100%	100%
Total	81%	99%	89%	100%

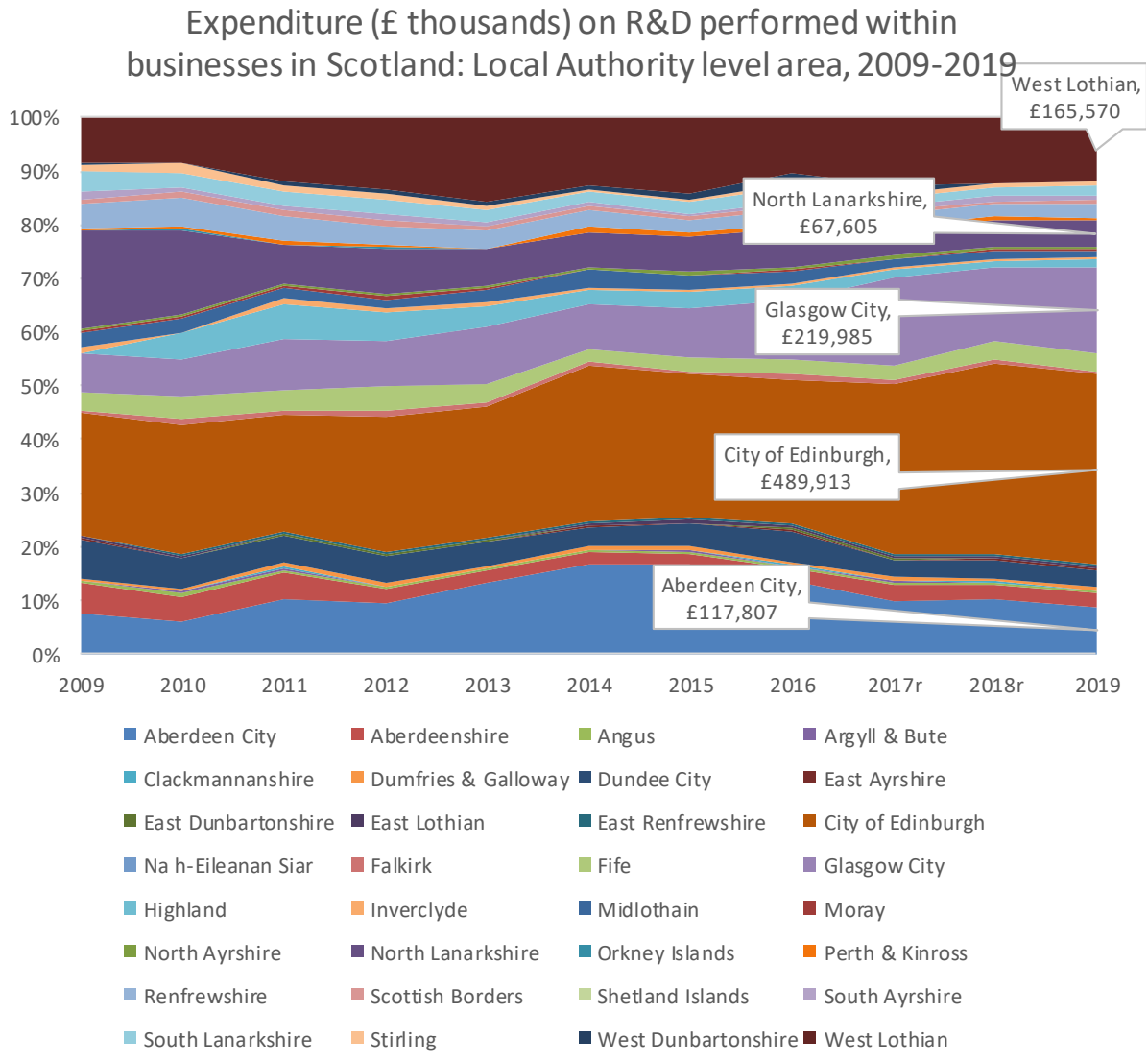
- Urban areas outperform rural areas on fixed broadband access and mobile phone coverage.
- 17% of rural areas still don't have access to fixed broadband speeds of 10Mbit/s or less.
- Mobile coverage in rural and urban areas is high, with urban areas outperforming rural areas only slightly.

Source: Ofcom Connected Nations Report

Over the last 10 years, Edinburgh has continued to dominate Scotland's Business Enterprise Research and Development

- In absolute terms, Edinburgh has been the front running Local Authority in terms of expenditure on BERD throughout the period 2009-2019.
- However, looking at BERD as a percentage of GDP[1] the picture shifts slightly.
- In 2019, BERD in West Lothian is estimated ot have been 2.98% of GDP, with City of Edinburgh noticeably lower at 1.77% and all other Local Authorities at 1.07% (Dundee City) or lower.

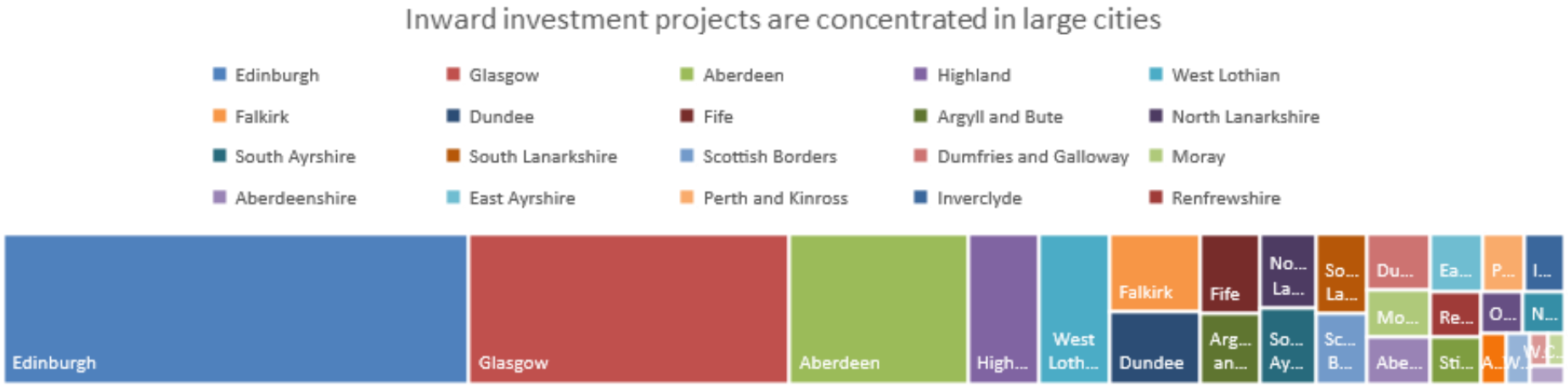




Source: ONS and Scottish Government

[1] Market price GDP for Scotland sourced from Quarterly National Accounts Scotland. Market price GDP for Scotland allocated to Local Authority Areas according to Annual estimates of balanced UK regional gross domestic product (GDP) from the Office for National Statistics (ONS).

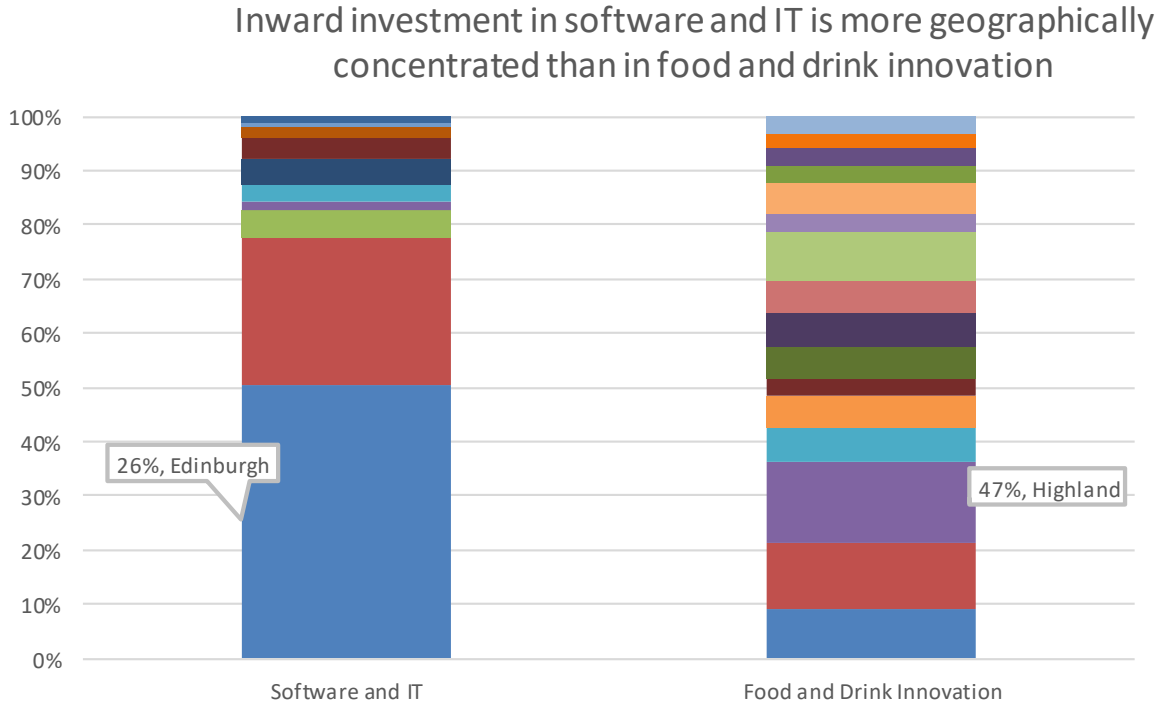
Geographic focus of inward investment



Number of inward investment projects by destination local authority, Jan 2015-Dec 2020

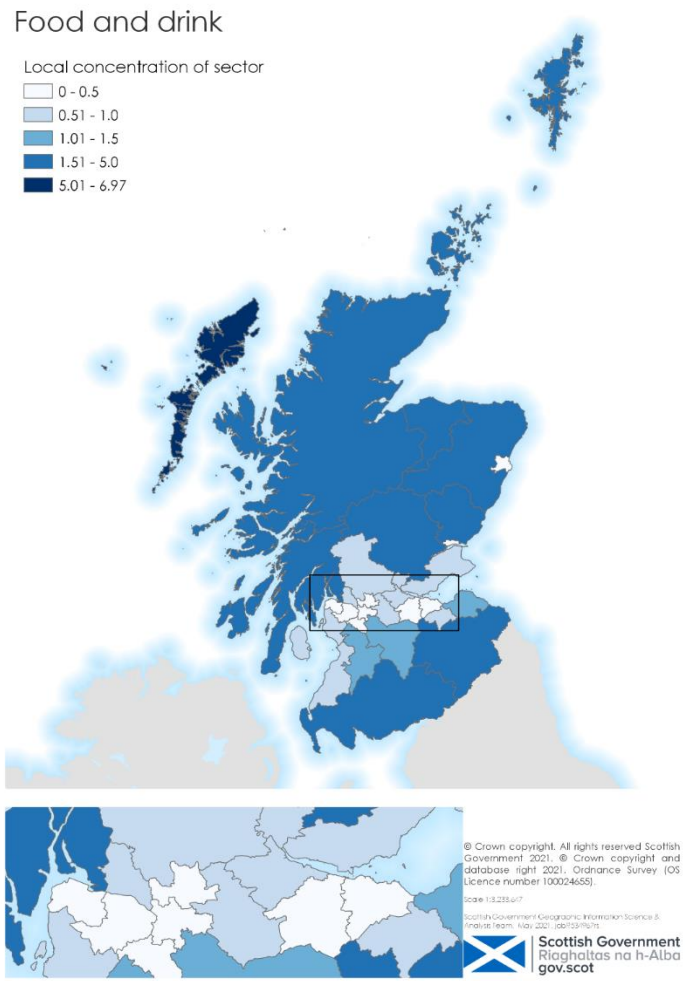
- Unsurprisingly, Scotland's major cities (Edinburgh, Glasgow and Aberdeen) received a large proportion of inward investment projects over the period 2015-2020.

- Projects relating to the ten opportunity areas were more geographically concentrated in some cases than others.
- For example, Edinburgh received half of all "Software and IT" projects, but for "Food and Drink Innovation" the leading authority (Highlands) received only 15% of projects with the remainder spread across 15 other authorities.
- Energy transition projects were spread across 17 authorities, whereas space projects were concentrated in just 5.

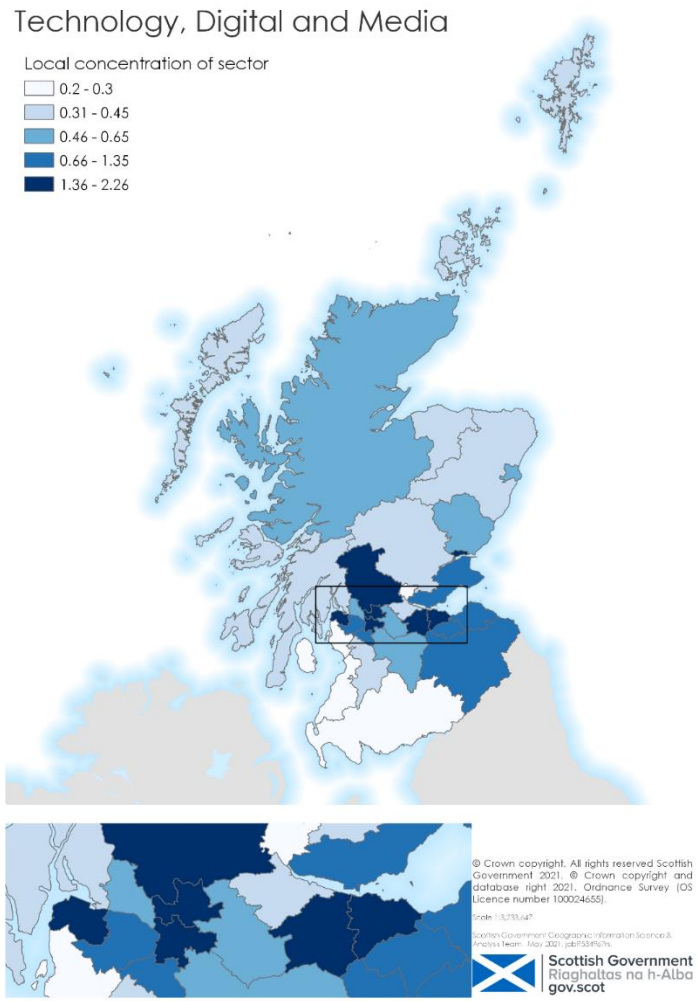


Source: © fDi Markets, from the Financial Times Ltd 2021. Data subject to terms and conditions of use

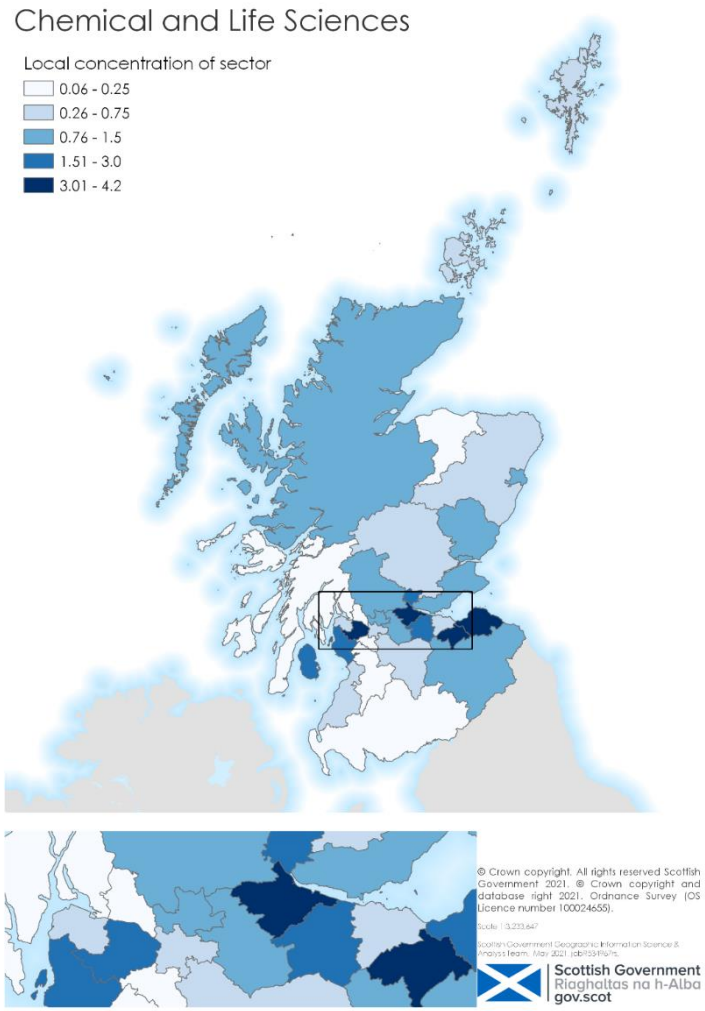
Regional sectoral strengths & opportunities (1/3)



Angus
Dumfries & Galloway
Orkney Island
Shetland
Na h-Eileanan Siar

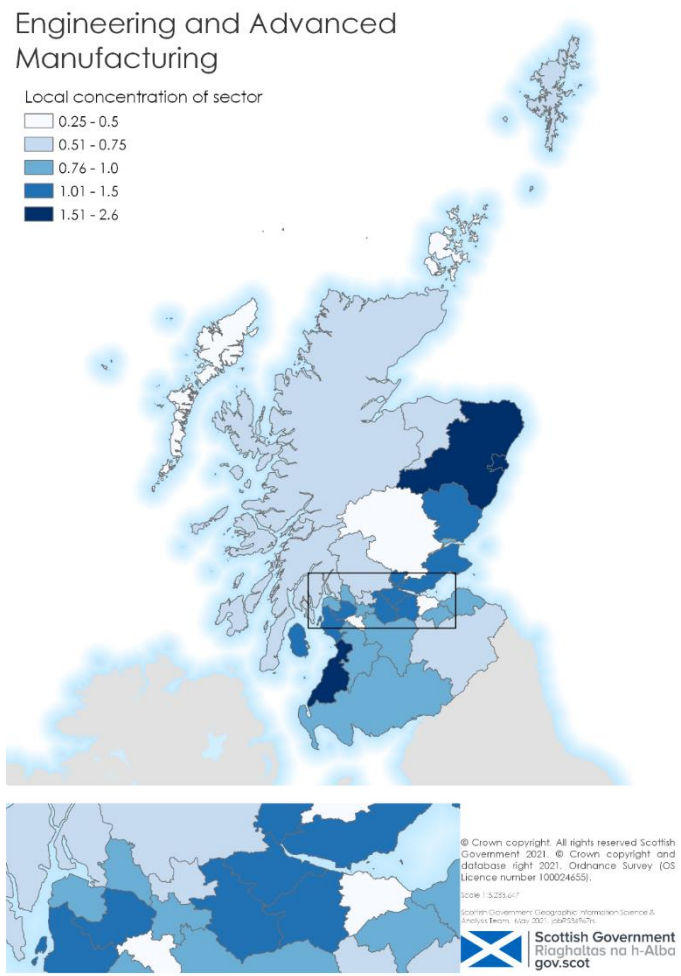


Glasgow
Stirling
Edinburgh City
Inverclyde
West Lothian

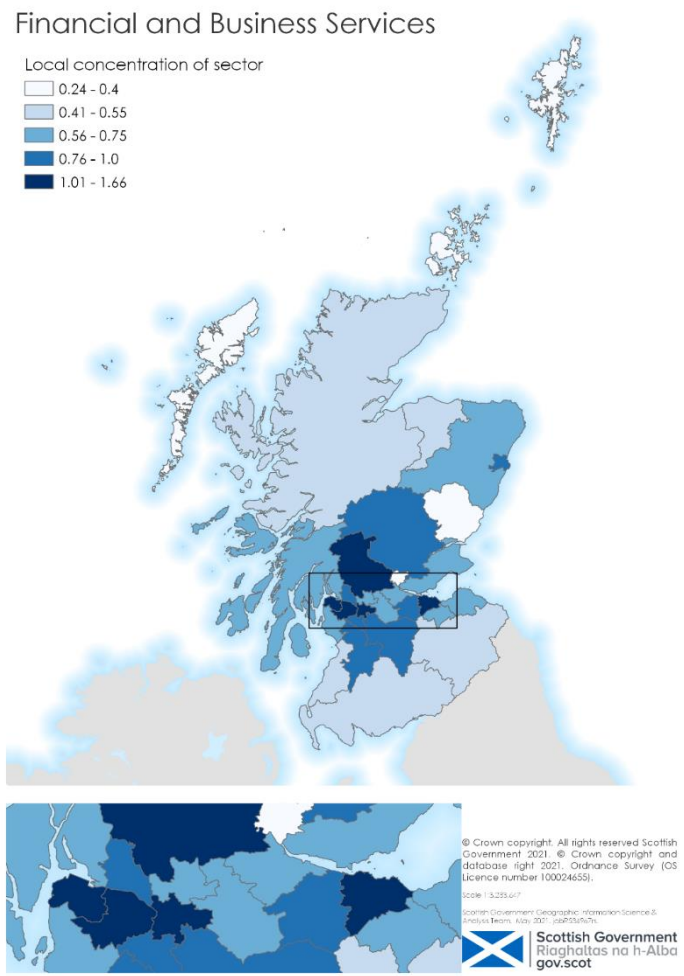


North Ayrshire
East Lothian
Renfrewshire
Mid Lothian
Falkirk

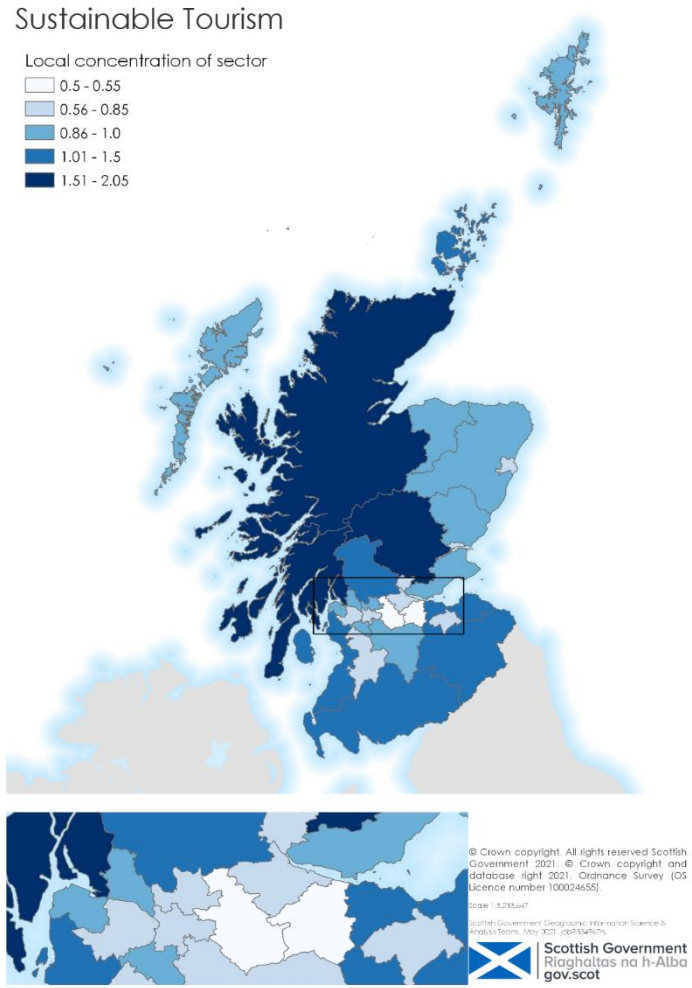
Regional sectoral strengths & opportunities (2/3)



Angus
Fife
South Ayrshire
Aberdeenshire
Aberdeen City

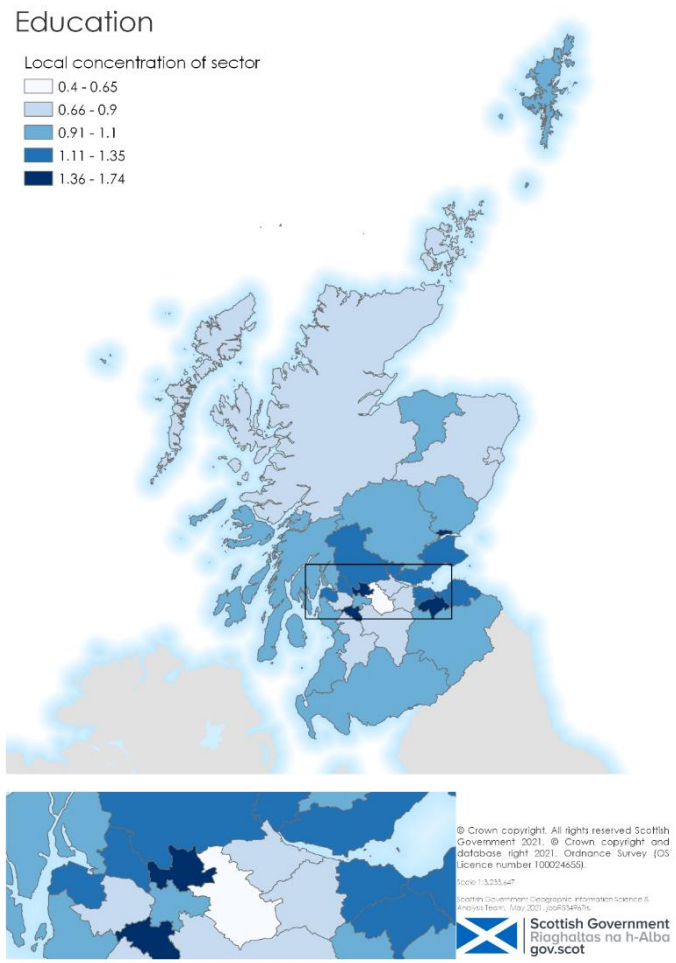


Inverclyde
Renfrewshire
Stirling
Edinburgh City
Glasgow City

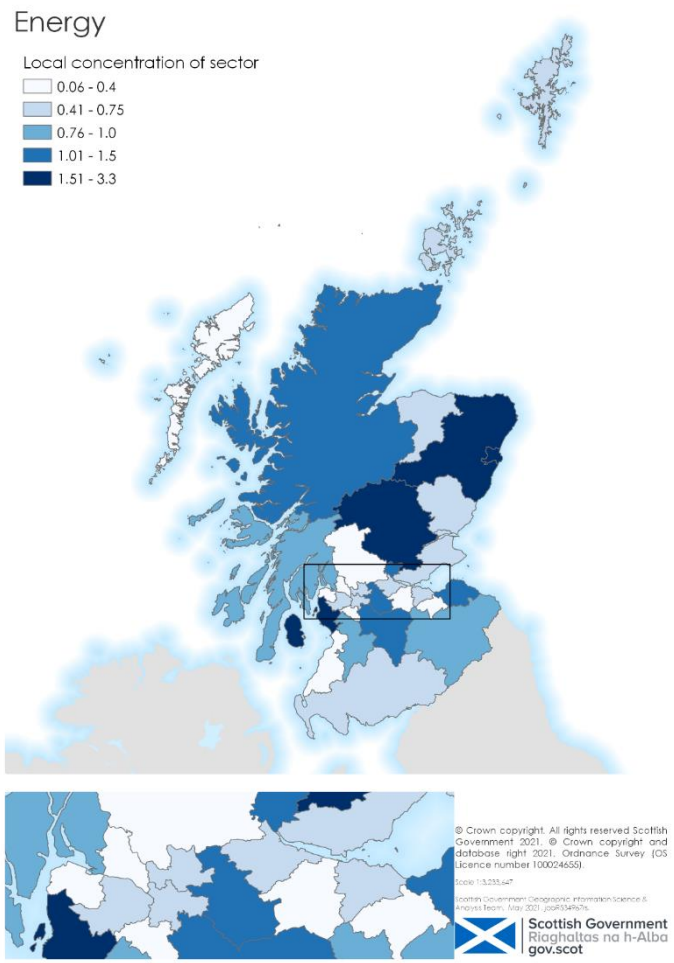


Stirling
South Ayrshire
Perth Kinross
Highland
Argyll & Bute

Regional sectoral strengths & opportunities (3/3)



Clackmannanshire
Midlothian
Dundee
East Dunbartonshire
East Renfrewshire



North Lanarkshire
North Ayrshire
Perth & Kinross
Aberdeenshire
Aberdeen City

Net Zero, Natural Capital & Circular Economy: Overview

Net Zero, Natural Capital and Circular Economy: summary of key emerging challenges from the analysis (1/2)

High-Level Theme	Challenge / Opportunity
1. Buildings	1.1 Only around 11% of households have a low carbon heating system and just over half of our non-domestic building stock has heating from low or zero carbon sources. To reach net zero we will need to change the heating systems of over 2 million homes and almost 100,000 non-domestic buildings by 2045.
2. Electricity	2.1 We need to continue our progress, and move from a low to a zero carbon electricity system. Operating a zero carbon electricity system will mean finding new ways to provide a range of technical services and qualities currently provided by fossil fuel and nuclear generation.
3. Transport	3.1 In 2019 Scotland recorded the first fall in transport emissions since 2013, and the CCPu includes measures that will further reduce emissions while stimulating the economy. Many of the technological solutions needed to achieve net zero, such as in aviation, maritime and heavy goods vehicles, are in the early stages of development, and substantial innovation is required to bring them to market. However, alongside technological advances, managing transport demand and embedding behaviour change will also be vital.
4. Industry	4.1 Emissions in this sector predominantly come from manufacturing, as well as mining and construction. Combined, these sectors are fundamental to the Scottish economy, contributing £26 billion annually and employing over 300,000 people. There are wide-ranging opportunities in decarbonising this sector, including the development of CCS and use of hydrogen to displace fossil fuels.
5. Waste and circular economy	5.1 We recycle over 60% of Scotland's waste; the amount of waste going to landfill in Scotland is at its lowest since records began; and in 2018, waste and resources sector emissions were over 70% lower than in 1998. Achieving our milestones will require meeting our ambitious waste reduction and recycling targets, including: (a) ending landfilling of biodegradable municipal waste and significantly reducing food waste; (b) accelerating efforts to address legacy emissions from closed landfill sites; and (c) ensuring a more rapid transition to a fully circular economy in Scotland.
6. Land use, Land use Change and Forestry	6.1 Recent years have seen some success in these areas: for example 22,000 hectares of new woodlands have been planted in the last two years, and, as of March 2020, over 25,000 hectares of peatland have been put on the road to restoration. However, around 80% of Scotland's peatlands are degraded and Scotland remains heavily deforested compared to many other European countries.

Net Zero, Natural Capital and Circular Economy: summary of key emerging challenges from the analysis (2/2)

High-Level Theme	Challenge / Opportunity
7. Agriculture	7.1 Agriculture and food production rely on natural processes, and will therefore always cause some degree of greenhouse gas emissions. The majority of the emissions in the agriculture sector come from livestock; however, it is important that all farmers and crofters, not just those with livestock, increasingly adopt low carbon technologies.
8. Negative emissions technologies	8.1 Our pathway to net zero is focused on reducing emissions from across Scotland's economy. However, we also need to bring forward key technologies which will compensate for residual emissions. There is substantial potential for developing Negative Emissions Technologies (NETs) in Scotland, and the potential to secure existing jobs as well as delivering new ones. NETs pathways with the potential to contributed to net zero in Scotland include: (a) Bioenergy with Carbon Capture and Storage (BECCS) for electricity (b) Biomass/Waste Gasification and Carbon Capture and Storage for hydrogen BECCS in industry (c) Biofuel production with Carbon Capture and Storage; and, (d) Direct Air Carbon Capture and Storage (DACCS)

The NSET Challenge: Mainstreaming the ‘Planet’ theme

Tackling the Climate and Nature crises will depend on urgent, **transformative economic and social change**.

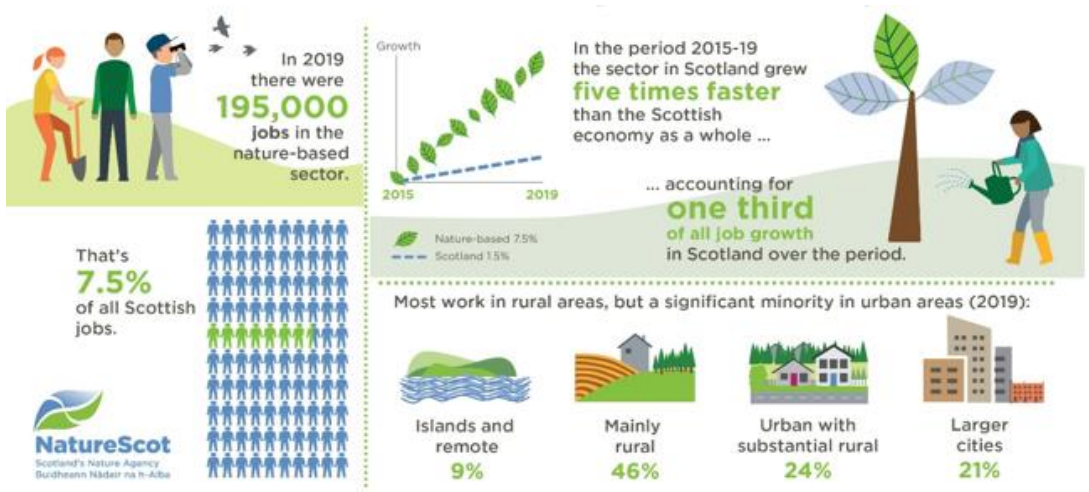
This will mean transitioning to an economy which is:

- **Nature-based -** Supporting nature’s recovery by building natural capital and driving a shift to sustainable production and consumption.
- **Net Zero -** Rapidly decarbonising across sectors to reach net-zero by 2045 and investing in nature-based solutions to climate change.
- **Circular -** Shifting from a linear ‘take, make, waste’ economy to a circular economy which is regenerative and minimises waste.

Scotland is well-positioned for this economic transition through its leadership in developing a wellbeing economy, with potential first-mover advantages in developing new industries and securing international investment.

Delivering new, good, green jobs

There are already around **23,100 jobs** in the **low carbon and renewable energy sector** in Scotland, and this will grow substantially as progress towards net zero accelerates.



- Around **7.5% of Scotland's workforce** are employed in **nature-based jobs** (**195,000 jobs**).
- The sector is growing at more than 5 times the rate of all jobs in Scotland between 2015-19 and accounting for one third of all job growth in that period.

- Around 8% of jobs in Scotland are linked to the **circular economy** (**207,427 jobs**). The future growth in circular economy business models will increase demand for existing roles e.g. in resource management, logistics and engineering, and create new roles, such as urban miners.

Opportunities for job creation in all parts of a Circular Economy

The “Planet” theme - supporting NSET priorities

Delivering new, good, green jobs

Investing in education, skills and capacity building to increase the already large numbers of green jobs :

Developing skills, jobs, expertise and supply chains to deliver the scale of land use transformation required to meet net-zero targets (woodland creation, peatland restoration, bioenergy, renewables, sustainable food production).

Delivering across Scotland in a national and regional way

Supporting national and regional delivery of a wellbeing economy by integrating and funding environmental objectives in local and regional initiatives, and mission-oriented approaches to net- ero and place.

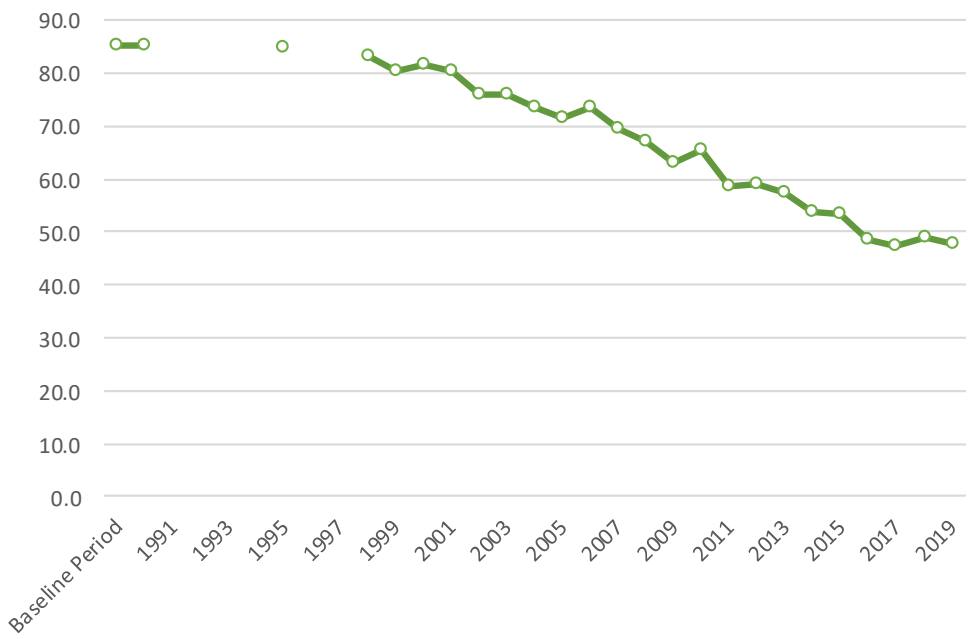
Investing in and supporting the industries of the future

Mainstreaming net-zero and circular business models and using a broader set of multi-dimensional indicators to measure success and progress towards a wellbeing economy.

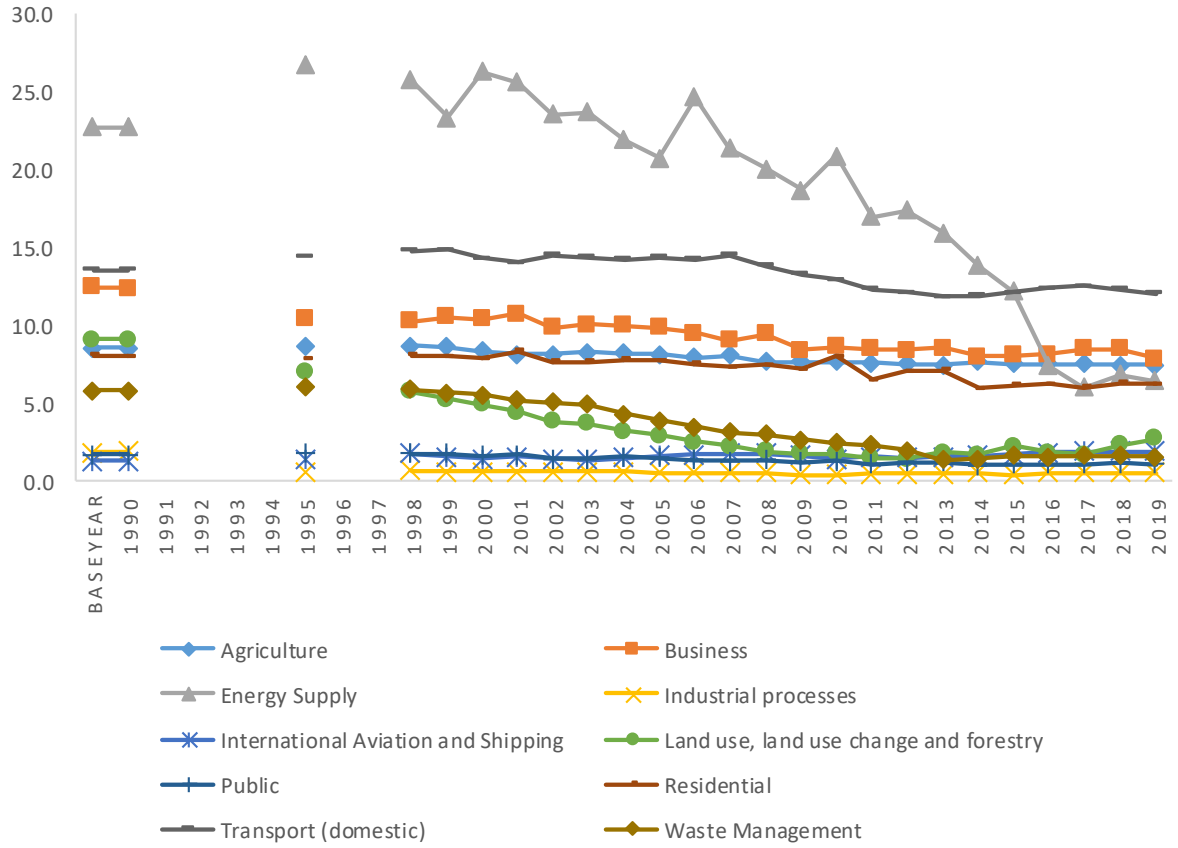
Net zero land use transformation in Scotland is estimated to require £12 billion of investment (UKCCC). There is significant interest in this large scale investment opportunity from private investors because of Scotland’s positioning on natural capital in terms of our assets and supportive policy environment.

Net Zero: Emissions Reductions: progress so far

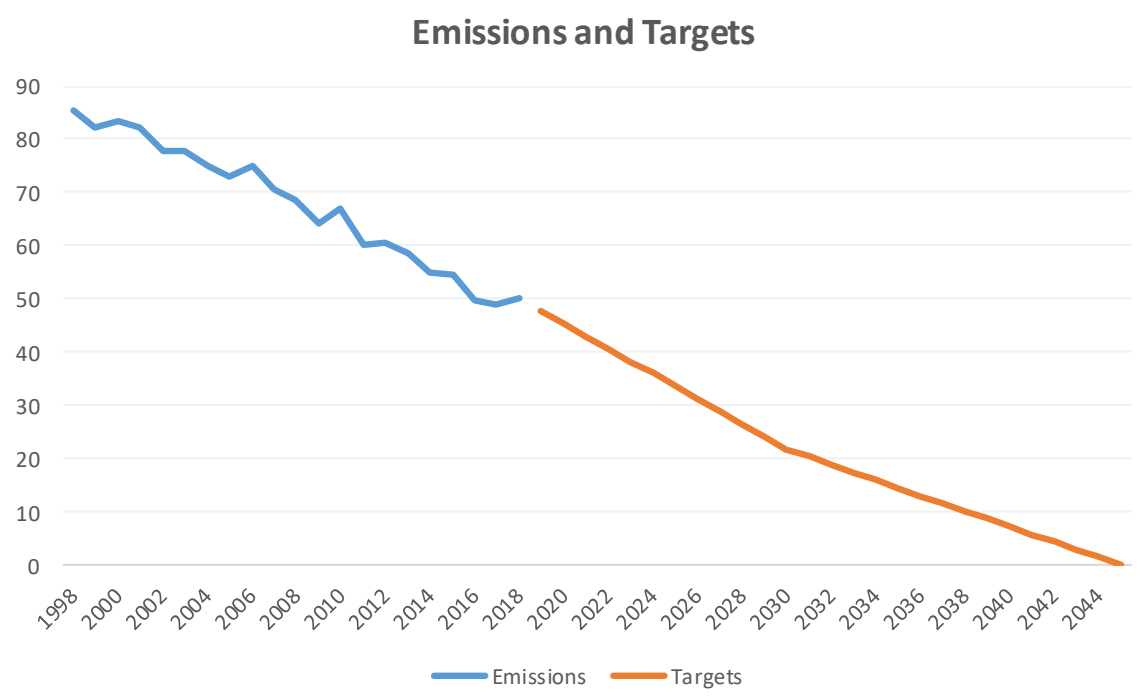
Scottish Greenhouse Gas Emissions, 1990 to 2019. Values in MtCO2e

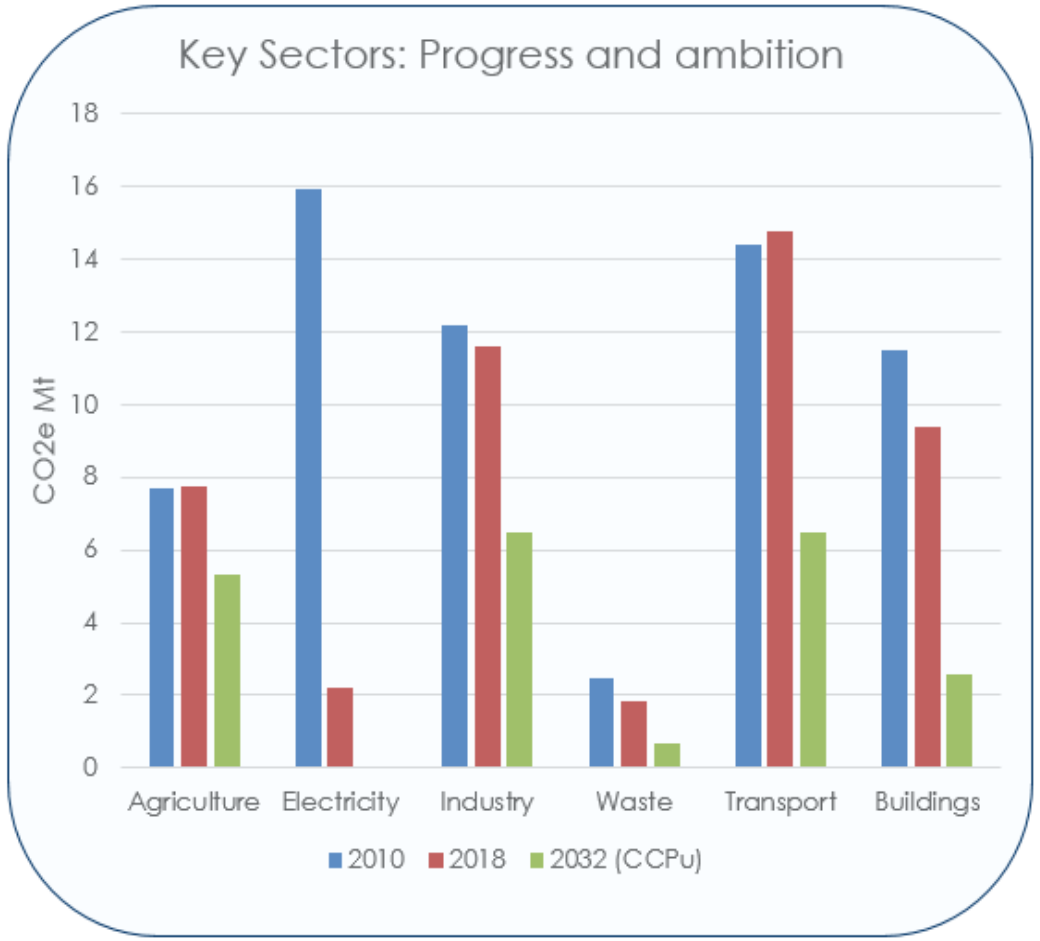


Main Sources of Greenhouse Gas Emissions in Scotland, 1990 to 2019. Values in MtCO2e



Net Zero: The Climate Change Plan Update (CCPu): progress and targets





Net Zero: Sectors: Context, Challenges, Opportunities

Buildings:

- Currently, heat in buildings accounts **for 20% of Scotland's greenhouse gas emissions, 24.6% of households are fuel poor, and 12.4% are in extreme fuel poverty**.
- As well as reaching net zero emissions by 2045, by 2040 our statutory fuel poverty targets require: that **no more than 5% of households are fuel poor**; that **no more than 1% of households are in extreme fuel poverty**; and that the **fuel poverty gap is reduced to £250**.
- We have made good progress so far, with **45% of homes now achieving Energy Performance Certificate Band C or better**. But only around 11% of households have a low carbon heating system and just over half of our non-domestic building stock has heating from low or zero carbon sources.
- To reach net zero we will need to change the heating systems of **over 2 million homes and almost 100,000 non-domestic buildings by 2045**
- Our target of a 75% emissions reduction by 2030 means we must rapidly accelerate heating system conversions, **doubling every year to at least 64,000 homes in 2025, peaking at over 200,000 in the late-2020s.**

Electricity:

- Scotland is a world leader in renewable energy. 2020 was a record year for renewable electricity in Scotland, with the equivalent of 97.4% of gross electricity consumption generated from renewable sources.
- We need to continue our progress, and move from **a low to a zero carbon electricity system**.
- **Security of supply -** Operating a zero carbon electricity system will mean finding new ways to provide a range of technical services and qualities currently provided by fossil fuel and nuclear generation.
- Key levers – electricity policy and regulation – are reserved. Achieving our targets **critically depends on the UK government urgently taking the right actions**.
- **Importance of renewable technologies in a green recovery eg** analysis by National Grid estimated that **50,000 jobs in Scotland will be required in the net zero energy workforce**.

Transport:

- Transport continues to be Scotland's biggest emitting sector, accounting for **around 29% of emissions.** It is particularly stubborn to decarbonise. The derived nature means that where people live, work, learn and access goods and services all play a part in their need to travel. And many transport choices people make are particularly ingrained and have become habitual over time.
- In 2019 Scotland recorded the **first fall in transport emissions since 2013**, and the CCPu includes measures that will further reduce emissions while stimulating the economy.
- The measures in the CCPu align with those in our National Transport Strategy (NTS2), published on 5 February. NTS2 sets the direction for Scotland's transport over the next two decades and embeds taking **climate action as a core priority** while also prioritising **reducing inequalities**, helping to deliver **inclusive economic growth**, and improving our **health and wellbeing**.
- Many of the technological solutions needed to achieve net zero, such as in aviation, maritime and heavy goods vehicles, are in the early stages of development, and **substantial innovation is required to bring them to market**.
- However, alongside technological advances, **managing transport demand and embedding behaviour change will also be vital**. Cars currently account for almost 40% of transport emissions, so the predominance of car use cannot be overlooked.

Net Zero: Sectors: Context, Challenges, Opportunities (2)

Industry:

- Scotland's industrial emissions **fell by over 45% (9.5 MtCO2e) between 1990 and 2018**; however, emissions from industry continue to constitute around 20%, of total Scottish emissions.
- Emissions in this sector predominantly come from manufacturing, as well as mining and construction. Combined, these sectors are fundamental to the Scottish economy, contributing **£26 billion annually and employing over 300,000 people**.
- **Progress is often dependent on UK Government and/or international policy and markets**, and there also remains a significant risk that decarbonising faster than the rest of the UK and Europe could lead to carbon leakage. We therefore require support for investment and a level regulatory playing field.
- There are wide-ranging opportunities in decarbonising this sector, including the development of CCS and use of hydrogen to displace fossil fuels. It's estimated **that by 2030 anywhere between 7,000 and 45,000 UK jobs** could be associated with Scotland securing 40% of the carbon storage element of a European CO2 management market. **By 2050 this could rise to between 22,000 and 105,000 jobs.**

Waste and the circular economy:

- Scotland has made significant progress in the waste sector in the last 20 years. **We recycle over 60% of Scotland's waste**; the amount of **waste going to landfill in Scotland is at its lowest since records began**; and in 2018, waste and resources sector emissions were over **70% lower than in 1998**.
- Achieving these milestones will require meeting our ambitious waste reduction and recycling targets, including:
  - **ending landfilling of biodegradable municipal waste** and **significantly reducing food waste**;
  - accelerating efforts to **address legacy emissions from closed landfill sites**; and
  - ensuring a more **rapid transition to a fully circular economy in Scotland**.
- As part of a green recovery from the pandemic, we have an opportunity for **renewed impetus in building a fully circular economy** in Scotland, which will also **stimulate job creation**: research has shown that 10,000 tonnes of waste can create 1 job in incineration, 6 jobs in landfill, 36 jobs in recycling or up to **296 jobs in repair and reuse**.

Land use, land use change and forestry:

- The capacity that Scotland's land has to deliver **nature-based solutions to climate change**, including through increased tree cover and restoration of degraded peatland, is unique within the UK.
- Recent years have seen some success in these areas: for example **22,000 hectares of new woodlands** have been planted in the last two years, and, as of March 2020, over **25,000 hectares of peatland** have been put on the road to restoration.
- However, around **80% of Scotland's peatlands are degraded** and Scotland remains heavily deforested compared to many other European countries.
- Improving this situation presents both a challenge and an opportunity. Through significant increases in tree cover and widespread peatland restoration, we can **reduce emissions**, increase **carbon sequestration**, enhance and **protect our biodiversity**, improve **flood mitigation** and **climate adaptation**, and also **support new jobs** as part of a green recovery.

Net Zero: Sectors: Context, Challenges, Opportunities (3)

Agriculture:

- In 2019 Scotland's agriculture industry contributed around **£1.3 billion worth of GVA** towards to the Scottish economy, **employed 67,000 people** and generated a **gross output of around £3.3 billion**. The Scottish Government supports Scotland's food and drink Ambition 2030 targets of **doubling the value of the food and drink sector by 2030 to £30 billion**.
- As we recover from COVID-19, there is an opportunity to develop new policies in the agriculture sector aimed towards **environmental outcomes and emissions reduction**. Examples include: restoring biodiversity; improving water, soils and air quality; and encouraging natural flood management and climate adaptation.
- Agriculture and food production rely on natural processes, and will therefore always cause some degree of greenhouse gas emissions. A fine balance must therefore be found to ensure **greenhouse gas reductions take place while Scotland continues to produce high quality food**.
- The majority of the emissions in the agriculture sector come from livestock; however, it is important that all farmers and crofters, not just those with livestock, increasingly **adopt low carbon technologies**.

Negative emissions technologies:

- Our pathway to net zero is focused on reducing emissions from across Scotland's economy. However, we also need to bring forward key technologies which will compensate for residual emissions.
- Through the detailed modelling and evidence building that we have undertaken to identify pathways to meet our climate change targets, we know that NETs will play a particularly important role in emissions reductions in Scotland during the 2030s and 40s.
- There is substantial potential for developing Negative Emissions Technologies (NETs) in Scotland, and the potential to secure existing jobs as well as delivering new ones.
- NETs pathways with the potential to contributed to net zero in Scotland include:
    - Bioenergy with Carbon Capture and Storage (BECCS) for electricity
    - Biomass/Waste Gasification and Carbon Capture and Storage for hydrogen
    - BECCS in industry
    - Biofuel production with Carbon Capture and Storage
    - Direct Air Carbon Capture and Storage (DACCS)

International Comparisons

Drivers of Productivity: performance improving

	Longer term trend (5yr)	OECD/UK Quartile
Economic Growth (compared to 3 year average)		4
Entrepreneurialism		2
Research & Development spend, £m		3
Number of businesses per 10,000 adults		2
International exporting, £m		4
Young people's participation		1
Access to broadband		2

Key: Improvement | No change | 2 Worsening | Number indicates Scotland's OECD ranking | UK comparison

Drivers of Productivity: performance stable

	Longer term trend (5yr)	OECD/UK Quartile
Productivity (OECD rank)		2
Scotland's reputation		2
Skill profile of population, adults with low/no skills		3
Educational attainment		2/3

Key: Improvement | No change | 2 Worsening

Number indicates Scotland's OECD ranking

UK comparison

Drivers of Productivity: performance worsening

	Longer term trend (5yr)	OECD/UK Quartile
High growth businesses, % of all		
Innovation active businesses		4
Work place learning		3
Skills shortage vacancies, % of establishments		2
Skills under-utilisation, % of establishments		2
Economic participation*		2

Key: Improvement | No change | 2 Worsening | Number indicates Scotland's OECD ranking | UK comparison

Equality

	Longer term trend (5yr)	OECD/UK Quartile
Gender balance in organisations, (difference in employment rates)		2
Gender pay gap		3
Income inequality (Palma)		4

Key: Improvement | No change | 2 Worsening

Number indicates Scotland's OECD ranking

UK comparison

Wellbeing

	Longer term trend (5yr)	OECD/UK Quartile
Earning less than Living Wage		1
Mental wellbeing		3
Employee Voice		2
Social Capital		1

Key: Improvement No change 2 Worsening

Number indicates Scotland's OECD ranking

UK comparison

Sustainability

	Longer term trend (5yr)	OECD/UK Quartile
Natural Capital Asset Index		
Renewable sources		1
Carbon Footprint		
Greenhouse Gases		1

Key: Improvement | No change | 2 Worsening | Number indicates Scotland's OECD ranking | UK comparison

Advisory Council for Economic Transformation

3rd Meeting – 22nd Sept 2021, 10:00 – 12:00
Venue: MS Teams Meeting

Agenda

Time	Agenda item	Lead
10:00-10:05	**1. Introduction**	Ms Forbes
10:05-10:35	2. Deep Dives What would transformation in Scotland by 2032 look like? What is the biggest blocker to delivering that ambition?	Sub-group leads
10:35 – 11:15	**3. Where do we want to be as a country in 2032?**	Ms Forbes
11:15 – 11:50	**4. How will we get there? – breakout groups**	Ms Forbes & Mr McKee
11:50 – 12:00	**5. Close and Next Steps**	Ms Forbes

For any queries please contact: BESTCovidHub@gov.scot