

SCOTLAND

A new wave of growth

Having rapidly transformed its economy toward sustainable, future-focused sectors, the nation has become one of Europe's most attractive destinations for innovation and investors

Scotland is emerging as a role model for sustainable, future-driven economic transformation. Once reliant on its status as a hub for hydrocarbons and heavy industry, the northern-most part of the UK's gross domestic product rose by 1.2% in 2024 — despite a 25% fall in its offshore oil and gas extraction revenues — and its Fiscal Commission forecasts a 1.1% expansion this year and 1.8% in 2026. "Today, Scotland has a diverse and resilient economy, with strengths spanning sectors like green energy, tourism, food and drink, financial services, technology, life sciences and space," states John Swinney, First Minister in the nation's devolved government. "We faced the global economic challenges of recent years and rebounded strongly, with our growth outpacing the rest of the UK last year."

Cabinet Secretary for Constitution, External Affairs and Culture Angus Robertson adds: "Scotland's economy is not only diverse, it's innovative, which is why we're leading in sectors like fintech, renewable technologies and advanced manufacturing. It's an open, export-driven economy that's thriving thanks to a talented, highly skilled workforce, which includes valued residents from the US, European Union and beyond. Scotland's compelling economic success story is grounded in innovation, inclusion and global engagement."

The dominant driver of its evolution has been a focus on achieving net zero by 2045 — 245,000 people in a country with a population of just 5 million are now in jobs related to the green energy transition. "Since 2007, we've prioritized the development of renewables, successfully decarbonizing our electricity generation through onshore wind and hydro power. We then expanded into offshore renewables, positioning Scotland as a frontrunner in the green energy economy," says Swinney. The country's current capacity and huge pipeline of offshore fixed and floating wind farms put it on course to be a major exporter of clean electricity. "While oil and gas remain important to us, this surplus wind power also enables significant hydrogen production for export, which is crucial as Europe shifts from natural gas to hydrogen for manufacturing," notes Robertson.

JOHN SWINNEY
FIRST MINISTER

"The diversity and resilience of our economy is underpinned by world-class higher education and research."

The nation's progress in renewables has been empowered by its extensive expertise in precision engineering that stems from the hydrocarbon industry, and this experience has also supported the development of its flourishing space sector — it builds more satellites than any other European country, for example. "In addition, Scotland is home to Europe's fastest-growing tech hub outside London, with a rapidly expanding digital sector. We have a proud legacy of tech innovation, from Alexander Graham Bell to Charles Wilson's cloud chamber," notes Rodney Ayre, president of the Scottish Chamber of Commerce (SCC), which represents over 12,000 businesses. "Silicon Glen in the Central Belt is the heart of our high-tech scene, hosting giants like Microsoft, Amazon, Sky-scanner, Rockstar North and IBM. Edinburgh has over 100 software firms, and Glasgow, Dundee and Aberdeen are key centers for cybersecurity, fintech and Internet of Things. Through initiatives like the National Robotarium and National Manufacturing Institute, Scotland is advancing quickly in artificial intelligence (AI) and robotics too."

Adrian Gillespie, chief executive at economic development agency Scottish Enterprise, sheds light on an equally dynamic life sciences sector: "We have one of the world's most advanced medicine manufacturing innovation centers and brilliant young companies at the forefront of specialized and personalized medicines and treatments. Roslin Cell Therapies, for instance, is manufacturing a gene technology that offers over a 90% cure rate for sickle cell disease. Another strength is industrial biotechnology, where companies are turning industrial waste into green chemicals and decarbonizing manufacturing processes."

In tandem with the development of new sectors, the traditional pillars of Scotland's economy have retained their global relevance by adapting to changing markets: its respected financial services sector has embraced fintech and textile manufacturers have shifted to advanced technical materials, while food, drink, agricultural and fishing businesses — including the makers of iconic Scotch whiskies and salmon products — are using technology to become more sustainable and efficient, and introducing innovative portfolio additions to appeal to new audiences. In the creative sector, the nation has capitalized on its position as a worldwide center of excellence in visual and performing arts. "Scotland is now a hub for international film and television production, with major studios and



The world's first UNESCO City of Literature, historic Edinburgh hosts 12 major cultural festivals every year.



John Swinney
First Minister



Rodney Ayre
President
Scottish Chamber
of Commerce

streamers setting up operations here," Robertson reveals. "We also have a strong gaming sector that includes the creators of Grand Theft Auto and other large studios, and we're growing in animation."

Strong support for entrepreneurs

"The diversity and resilience of our economy is underpinned by world-class higher education and research. Our universities have long driven innovation," Swinney attests. "Our enterprise agencies work alongside universities to turn research into commercial success, ensuring innovation leads to real economic growth, and we've built a strong innovation ecosystem, supporting businesses at every stage from startup to scale-up."

Among those agencies is Scottish Enterprise, which has three missions: accelerating the energy transition, attracting foreign investment and scaling Scotland's innovation internationally. It is one of the UK's most active investors in early-stage companies, many of them developers of low-carbon technologies. The agency often co-invests in entrepreneurs with global partners, including US investors. "An illustration of this is Intelligent Growth Solutions, an agritech university spin-out decarbonizing food supply chains through vertical-farming technologies that has internationalized quickly. Like a lot of our entrepreneurs, they're sustainable in their practices and their customers

RODNEY AYRE
PRESIDENT

SCOTTISH CHAMBER OF COMMERCE

"Scotland is home to Europe's fastest-growing tech hub outside London."

are focused on net zero too," comments Gillespie.

In partnership with other public and private sector stakeholders, the government has also invested in cutting-edge innovation districts and hubs across the nation, established and funded the Scottish National Investment Bank that provides startups with patient capital and launched initiatives to help them scale. The most prominent of those is the Techscaler program offering workspaces, advice and other resources. "Scotland is made up of 90% micro, small and medium-sized enterprises (MSMEs) and we're seeing a real push to grow the entrepreneurial talent in that sector," discloses Ayre. "SCC is an advocate of Techscaler, which has supported over 1,400 entrepreneurs,

now has 2,700 members and has set up hubs in Singapore and San Francisco, demonstrating how Scotland is positioning itself for global growth." SCC uses its vast business network and governmental contacts to help link those startups with scaling opportunities. "The support, mentorship and connections they gain from our trade missions to the US, for instance, are invaluable for unlocking growth. In just our last few missions, we've helped generate over \$95 million MSME investment," he states.

The vibrancy of the nation's entrepreneurial ecosystem is drawing in international startups such as Launchpad Build, a Californian firm increasing manufacturers' productivity through AI and robotics. "It's very well backed in the US, but chose Scotland as its base for scaling up in Europe because of our strength in international networking," Gillespie explains. "Some of the most exciting young US companies see Scotland as a brilliant, culturally connected location with a welcoming environment for them to make investments."

Punching above its weight in FDI

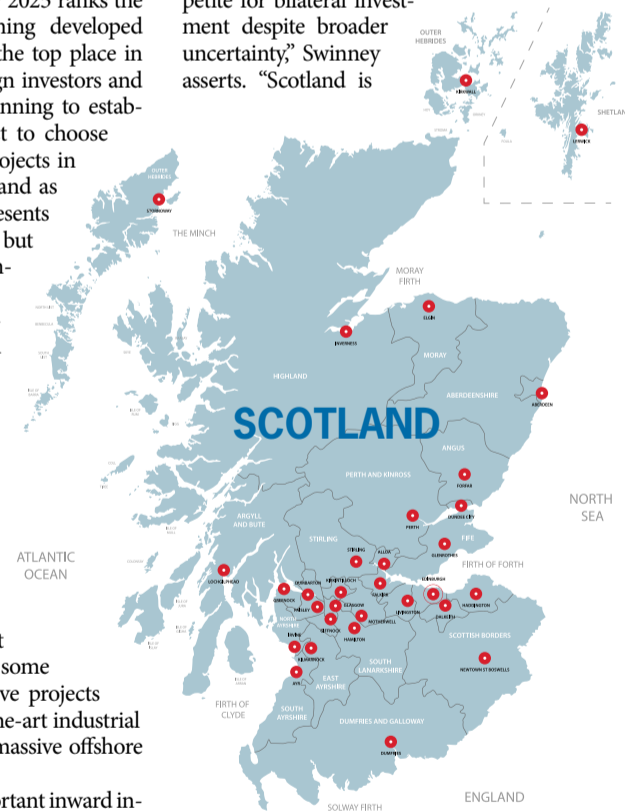
The EY UK Attractiveness Survey 2025 ranks the nation among the best-performing developed countries in inward investment, the top place in the UK outside London for foreign investors and reports that 25% of investors planning to establish operations in the UK expect to choose Scotland. "We've attracted 135 projects in the past year. EY described Scotland as punching above its weight, it represents about 8% of the UK's population but received 15.8% of its investment inflows," Gillespie declares.

The sectors seeing most investment were machinery and equipment, digital technologies, agri-food and utility supply chains, with two notable arrivals being Sumitomo's \$475-million high-voltage subsea cable plant at Inverness & Cromarty Firth Green Freeport and US-British ZeroAvia's hydrogen-electric air engine facility in Glasgow's Advanced Manufacturing Innovation District. "We're strong at attracting investors to get behind some of the nation's big capital-intensive projects like the development of state-of-the-art industrial clusters, port infrastructure and massive offshore wind farms," notes Gillespie.

The US is Scotland's most important inward investor. Over 700 American companies employing more than 115,000 people are based in the country and in 2024 it secured another 37 US projects, 37% up on 2023's number. "The US is also Scotland's largest trading partner outside the EU, accounting for 16% of exports. Beverages, especially whisky, make up 26% of that trade, and other key exports include machinery, minerals, fuels, chemicals and pharmaceuticals. The US's introduction of a 10% tariff had some impact on whisky exports, but a good deal was negotiated," Ayre reveals.

As well as SCC's regular trade missions to the US, collaboration between the two countries is nurtured by, for instance, the Scottish government's outpost in Washington; Scottish Enterprise's offices in Boston, Chicago, San Jose and Houston; and New York's annual Tartan Week celebration. "Events like Tartan Week receive strong engagement from the US Department of Trade, Scottish-American associations and our diaspora," says Ayre. "Scotland's success with the US is powered not just by companies but by people. Cultural ties, including our heritage and shared passions like golf, strengthen this bond."

The US-Scotland governmental relationship appears to be deepening under the current administrations. In July, President Trump spent significant time with Swinney when he visited Aberdeenshire to open a second golf course at his Menie Estate, one of two substantial properties he owns in the country. That was followed by an invitation to meet Trump in the White House on 13 September, an unprecedented event for a Scottish First Minister. "During my recent visit to the US, I was struck by the continued appetite for bilateral investment despite broader uncertainty," Swinney asserts. "Scotland is



a highly attractive investment destination, with a stunning natural environment, first-class universities and a forward-looking economy. We offer a supportive business culture, a strong desire to attract investment and a welcoming attitude. I'm committed to maintaining and strengthening our US relationships, keeping open dialogue with US businesses and investors, and showcasing Scotland's contribution to the global economy."

KEY SCOTTISH FACTS



It has a population of about 5.4 million people, around a tenth of whom live in its capital Edinburgh



Main traditional economic sectors: financial services, oil and gas, food and drink, tourism



Its GDP expanded by 1.2% in 2024, 1.1% growth is forecast for this year and 1.8% for 2026



Emerging economic sectors: renewables, digital technology, biotechnology, film and TV, space

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Scotland's landscapes include heather-strewn moors and magical lochs.

Beyond castles and lochs, a culture giant

Tourism numbers are surging in a nation that offers what travelers want today: authentic, meaningful and immersive experiences

With its magnificent natural environments, millennia-old history and renowned heritage, Scotland contains a myriad of attractions for tourists. Its vast open landscapes include the green rolling hills of the Lowlands, breathtaking mountains and glens, moors covered in heather, ancient forests, mythical lochs, miles of pristine sandy coastline, other-worldly remote islands and majestic seas, which are home to iconic wildlife such as Highland cattle, eagles, stags, wildcats and whales. Just as engrossing is a built environment that spans Neolithic stone circles to cities packed with history like Edinburgh and Glasgow, countless castles from all eras, royal palaces, traditional fishing villages and whisky distilleries.

Then there is its famous culture. "Scotland is a cultural powerhouse, punching well above its weight for a nation of 5 million," asserts Cabinet Secretary for Constitution, External Affairs and Culture Angus Robertson. "For instance, Edinburgh, known as the world's festival capital, hosts 12 major summer events, including the International Fringe, Film, Television, Jazz and Blues, Science and Book Festivals. Beyond the capital, there's Celtic Connections, the Writers Festival and numerous smaller annual events like the Orkney Folk Festival and Wigtown Book Festival."

This wealth of experiences has long drawn global travelers to the nation's shores, but there has been a marked increase in their numbers over the past couple of years. "2023 was a milestone for us. It was the first time international tourism outpaced domestic tourism in value — while 71% of visitors still come from within the UK, international visitors stay longer and spend more," reveals Vicki Miller, chief executive of the VisitScotland tourist board. "In 2023, we welcomed 4 million international visitors who spent \$4.9 billion, and early figures for 2024 indicate this rose to a record 4.4 million tourists spending \$5.3 billion." That is



Angus Robertson
Cabinet Secretary for
Constitution, External
Affairs and Culture



Vicki Miller
Chief Executive
VisitScotland

27% more than the number who visited in 2019, with growth arising from both its biggest traditional source countries — the US, France and Germany — as well as places as diverse as Australia, Canada, China, India and the Gulf.

ANGUS ROBERTSON
CABINET SECRETARY FOR CONSTITUTION,
EXTERNAL AFFAIRS AND CULTURE
"Scotland is a cultural
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"The US is our top overseas market and hugely important to us, accounting for 20% of all international trips and 34% of spend," she says. "What truly resonates with American visitors is the deep, emotional connection they feel here. Traveler surveys consistently highlight the warm welcome and real bond they have with our people and places, that's what stays with them long after they leave."

Film and TV: An 'incredible opportunity'

In less than a decade, Scotland has become a screen-sector hub that can rival London

For years, Scotland was forced to export its screen talent, with actors like Sean Connery, Tilda Swinton, Alan Cumming and Ewan McGregor, as well as filmmakers and countless other professionals having to ply their trade in productions made elsewhere due to a lack of capacity for the sector in their own country.

"Today, for the first time, our top creators can work at home, producing world-class content in Scotland. The nation has transformed from a region overshadowed by London's film industry to a rapidly growing screen-sector hub," states Cabinet Secretary for Constitution, External Affairs and Culture Angus Robertson. "We host major Hollywood studios, repeat productions from global streamers and rising domestic productions from broadcasters like the BBC." Recent outputs from this hub include Netflix's detective drama *Department Q*, Amazon's *The Rig* thriller, Guillermo del Toro's *Frankenstein*, Lucasfilm's *Indiana Jones and the Dial of Destiny* and Starz's *Outlander* series.

The country's shift to a trusted center for film and television coincides with unprecedented government investment in the industry since 2018, when it set up Screen Scotland. As a result of the public body's funding and support for productions, development of wide-ranging skills and improvement of infrastructure, the industry's economic contribution doubled between 2019 and 2021 to over \$800 million and it currently employs

around 11,000 people. "Our ambition is clear: to see Scotland's screen sector surpass \$1.3 billion in gross value added by 2030," Robertson says.

Scotland boasts new or enlarged cutting-edge production facilities around the country, offering film and TV companies easy access to diverse stunning locations, crew, talent and an extensive production supply chain. "For instance, the Royal Scottish National Orchestra is internationally renowned for soundtracks and the Royal Con-

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servatoire of Scotland is one of the world's top-10 centers for drama, music and related studies," he comments. "With our thriving animation and gaming sectors, Scotland now has a full spectrum of creative media. It's hugely exciting."

That ecosystem is constantly expanding, with the latest arrival being Los Angeles' animation and visualization company Halon Entertainment, which is investing \$38 million in a new studio in



St Andrews Links is among the nation's most famous golf courses.

Scotland's increasing popularity as a destination is partly due to a post-pandemic change in what people desire from a vacation. "We've seen a surge in demand for experiential and transformative travel. Visitors want more than just a break — they're seeking meaningful, immersive experiences where they can connect with local culture, live like a local and learn something new about themselves. Scotland offers exactly that in abundance: authenticity, people with passion and the chance to truly engage with place and community," Miller explains. "Wellness is another growing trend. Scotland's natural beauty makes it easy to offer genuine outdoor wellbeing experiences surrounded by our landscapes and history."

Those landscapes also offer perfect sites for mountain biking, hiking, kayaking, diving and many more activities, while the country is developing an ever-stronger calendar of sporting fixtures. "These range from local highlights like the Orkney Highland Games to major events, such as the 2026 Commonwealth Games, The Open at St Andrews Links and the Tour de France in 2027, and soccer's UEFA Euro 2028," she describes.

There is also rising international interest in touring the locations of Scotland-set films and television productions, such as the *Harry Potter* and *Outlander* series, and the famous foods and drinks available in a nation that boasts 13 Michelin-starred restaurants. For instance, at least one of its 152 Scotch distilleries is now on the itinerary of two out of every three travelers to Scotland, making them, collectively, the nation's most-visited attraction.

Apart from whisky, highlights from its harvests include sparkling-fresh salmon, lobster and a plethora of other seafood, smoked fish, wild game, mountain berries, Aberdeen beef, artisan cheeses and indulgent ice creams. Among the unmissable heritage dishes to look out for are haggis served with turnips and potatoes, known as neeps 'n' tatties; the chowder-like cullen skink soup based on smoked haddock; and cranachan pudding made with soft cheese, cream, oats, raspberries, whisky and honey.

In addition, Scotland has bolstered its cultural festivals and other offerings, recognizing that culture "is our unique selling point — every bit as powerful as our landscapes and our food and drink," First Minister John Swinney said in a recent speech. As Robertson explains: "The gov-

ernment has announced the largest increase in public funding for culture and the arts since 1999 — an additional \$135 million approximately, over half of which has already been delivered. This investment has allowed us to introduce multi-year funding for cultural organizations, reduced bureaucracy and freed them to focus on creativity."

Increasingly accessible for travelers

Another reason more people are visiting Scotland is that it has become easier to get to — investments in ports is enabling over a million annual cruise passengers to arrive and flights to the country have expanded. "Since 2019, we've seen strong growth in transatlantic connectivity, for example. Between 2023 and 2024 alone, 100,000 airline seats from the US were added, a 30% rise reflecting demand and airline confidence, and there are now 10 direct US-Scotland routes," says Miller.

VICKI MILLER
CHIEF EXECUTIVE, VISITSCOTLAND
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feel here."

Once in Scotland, there is a rising amount of accommodation available for travelers, ranging from castles to agritourism farms and picturesque self-catering cottages. "Scotland is second only to London in the UK for hotel investment, with high-profile recent openings like the W and Virgin Hotels in Edinburgh. What sets Scotland apart, though, are our luxury resort developments, such as Gleneagles and Trump Turnberry, which highlight our golf heritage," she states.

"Tourism is vital to Scotland: it's our largest employment sector, a key foundation of our economy worth over \$14 billion, and attracting more foreign investment to the sector is championed from the First Minister down. Having said that, sustainable and responsible travel is central to our strategic outlook. Our focus is on regional and seasonal spread, understanding where there's capacity throughout the year and prioritizing the value of tourism over volume. We want Scotland to keep delivering unforgettable, warm and authentic visitor experiences."



The country offers thousands of unique locations for filming.

Glasgow, a city that already contains a third of all creative technology firms in the UK. According to Isabel Davis, Screen Scotland's executive director, "It has chosen Scotland as its UK base thanks to the depth of our animation and visual effects talent across film, TV and video games. Scotland's globally competitive offer is backed up by the UK's recently enhanced visual effects tax credit alongside a range of support from Screen Scotland."

Demonstrating the governments' commitment to film and television as a key element of the nation's future economy, it has just incorporated the sector as a practical subject in the Scottish school

curriculum for pupils aged three to 18. "Introducing screen studies in our public education system, giving young people formal training in filmmaking, is a groundbreaking initiative. Many already spend time on screens, but now they have a clear path from school to college and careers," enthuses Robertson. "Scotland's screen industry will offer thousands more creative jobs in the future, and many talented Scots who left are returning with projects, knowing the industry here is ready to support them. With Screen Scotland and government partners working closely, we're making the most of this incredible opportunity."

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According to the latest available figures, the Scottish green energy supply chain supported over 47,000 jobs and generated \$21 billion in 2022 — and it has expanded significantly since then. By the end of 2024, the nation had 17.6 gigawatts of renewable generation capacity, and 2.2 gigawatts of that came online in just the final quarter of that year.

Wind accounts for most of this: 10.3 gigawatts are onshore and 4.3 gigawatts are offshore, an area in which Scotland is among Europe's most substantial hubs and an innovation leader. For example, it is home to the world's deepest fixed-bottom offshore wind facility and two of the biggest floating wind farms. A further 42 gigawatts of offshore wind is upcoming, and there is still plenty of untapped potential.

"This March, Edinburgh hosted the Global Offshore Wind Investment Forum. 40-50 of the top investors in offshore wind worldwide attended to find out about the opportunities," notes Adrian Gillespie, chief executive of the economic development agency Scottish Enterprise. The nation's seas also host the largest tidal stream project and most powerful tidal turbines on the planet, while its ecosystem of hydrogen initiatives and infrastructure is expanding rapidly. "We have the strongest inward investment pipeline I've ever seen in renewable energy," asserts Gillespie.

Scotland has first-mover advantage in the sector, particularly offshore, for various reasons. One is the transferable expertise it has amassed from oil and gas. Another is geography: the North Sea has some of the best conditions for offshore wind worldwide, plus the 11,200-mile Scottish coastline is peppered with world-class deep-water ports. A third factor is the shared commitment of all stakeholders, says Jim McDonald, co-chair of the Scottish Energy Advisory Board (SEAB), which is made up of industry leaders, consumer groups, academics, public agencies and ministers. "This forum drives policy and investment to support Scotland's energy transition, from decarbonizing energy, transport and industry to ensuring a just transition," he explains.

In June, the UK government released an industrial strategy that has clean energy as a priority and sets out its plan for attracting more investors to the sector. The new framework is "a vote



Jim McDonald
Co-Chair
Scottish Energy
Advisory Board

of confidence in the enormous economic growth potential of Scotland's renewable energy industry," according to Claire Mack, chief executive at the trade body Scottish Renewables. "We're pleased to see the ambition outlined in this strategy, including measures to build a grid fit for the future, drive competitive supply chains and grow exports."

McDonald points out: "The UK must invest over \$50 billion annually for the next five years to build the energy infrastructure it needs. SEAB is driving collaboration to create the right conditions for private investment, with a focus on regulation, planning and consenting."

New solutions for decarbonization

"Scotland is attracting energy investment from Asia, Europe and North America, and its capabilities in research, innovation and talent are vital to this," says McDonald. The nation hosts the world's largest renewables research group, numerous dedicated research institutes and 14 of its 19 universities have specialisms in the field. "For example, the University of Strathclyde graduates around 1,000 engineers annually. Among many other

JIM McDONALD
CO-CHAIR
SCOTTISH ENERGY ADVISORY BOARD
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things, its advanced power electronics and materials technology help scale offshore wind turbines and improve blade efficiency, and it has spinouts developing smart grid technologies," he reveals.

Scottish entrepreneurs are pioneering solutions in all aspects of the energy transition: from Fenex's artificial intelligence-based safety assurance platform for offshore wind to IES's simulation and analysis tools for decarbonizing buildings, Celtic Renewables' industrial-scale production of green chemicals from food and drink waste, and The Carbon Removers, which is capturing biogenic carbon dioxide from fermentation industries. The UK government considers carbon capture and

A nation of engineers and innovators

Scottish engineering firms are seamlessly transferring the extensive skills and capacities they have built in the oil and gas industry to other global sectors

Scottish engineering's rich history encompasses groundbreaking innovations like James Watt's steam engine and John Logie Baird's television. It is still a pillar of the nation's economy today: engineering employs over 135,000 people, while more than 19,000 people are studying it in universities where about 1,100 researchers are innovating in fields such as advanced manufacturing and infrastructure.

The nation also contains a wealth of market-leading companies in the sector that have grown out of Scotland's preeminence in hydrocarbons, with one excellent illustration being Jbs. Based in the North East's Peterhead, it has evolved from an industrial fabricator into a global engineering solutions provider that is growing quickly: in 2024, it recorded a turnover of around \$15.5 million, nearly 40% up on the previous year.

"We acquired Jbs about eight years ago when it was focused solely on Scotland's oil and gas sector. Since then, we've diversified the industries we operate in, expanded our products and we're now active in over 80 countries," states Jo McIntosh, director of sales and marketing.

She adds: "Oil and gas has given us a strong foundation in procedures, compliance, health and safety, and engineering rigor — skills that we've transferred seamlessly into sectors like space, renewables, defense, marine and subsea. In all sectors, our reputation and success have been built on two things: our innovative made-in-Scotland products and our skilled, committed team."

Alongside its traditional strengths in precision-engineered structural and pipework fabrication, Jbs has become a go-to supplier for unique products such as its subsea control flow excavation tool.

"Sea Axe uses seawater to create a highly controllable erosion effect. It's the most environmentally friendly way to excavate the seabed and safe to use around live pipelines and cables. It's in high demand for offshore wind farms, fiber optic cables, and decommissioning oil and gas facilities," explains McIntosh. "Traditional dredges are still common in the US, for example, but they're disruptive and noisy. We see real opportunity for our technology there, particularly for more complex, sensitive projects."

Two of its other design and manufacturing specialties are blast containment solutions with



Jo McIntosh
Director of Sales and
Marketing, Jbs

patented lightweight, non-flammable blast curtains and blankets, and screw conveyor systems for bulk material handling.

"All our solutions are bespoke: clients come to us with specific risks, and we model, design and adapt systems. Our technologies are used by the US military on the latest naval ships and submarines, extensively in space and in the electrification of aircraft, for instance. To be part of these cutting-edge projects, we keep pushing innovation forward," she reveals. "Equally important is our highly skilled workforce. Over 60% of our staff started as apprentices, and our strong retention reflects the career growth we offer and our staff's pride in their work."

According to McIntosh: "Our teams consistently receive positive feedback worldwide, especially in the US. There's a strong connection between Scotland and the US, founded in oil and gas, and our business is closely tied to that country, where we have two key American partners, one in Dallas Fortworth and one in New York. We truly understand and enjoy the US market."

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DIRECTOR OF SALES AND MARKETING, JBS
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The group's US client list includes all the major space companies, leading oil and gas operators, service enterprises and renewable energy firms, as well as defense, military, dredging and marine contractors.

"The US space industry is one focus for us at the moment. Oil and gas also remain important, and we're currently involved in a major offshore wind farm," says McIntosh. "We're exploring additional potential in subsea excavation too. For example, introducing the US Army Corps of Engineers to our advanced dredging technology could be a huge opportunity for collaboration. Looking ahead, we plan to establish a facility in the US, supported by Scottish talent — Scotland has top-tier technologies and teams, making the nation and Jbs ideal partners for US companies."



4.3 gigawatts of offshore wind have been installed, 42 gigawatts are in the pipeline.



Jbs' patented Sea Axe is in high demand for environmentally friendly seabed excavations.

storage to be crucial for reaching net zero and, as well as supporting innovative startups in that sector, it has recently awarded \$270 million in funding to the huge Acorn project. This aims to collect vast quantities of CO₂ from industries in the heart of Scotland, transport it via a legacy gas pipeline to Aberdeen and store it below the North Sea.

The pipeline starts at Grangemouth, once the site of a large refinery, which is being transformed into a low-carbon manufacturing cluster through the UK and Scottish governments-funded Project Willow. "It's a model for transitioning well-established industries and capabilities to industries of the future like sustainable aviation fuel, industrial biotechnology, plastics recycling and hydrogen production," explains Gillespie.

Grangemouth is one of a number of flagship initiatives the Scottish government is backing

that are expected to create 44,000 green jobs. For example, it is spending up to \$675 million to incentivize offshore-wind investors, with part of this sum going toward expanding ports and other industrial hubs, such as Aberdeen's Energy Transition Zone and Inverness & Cromarty Firth Green Freeport, the UK's biggest green engineering development area. "A lot of developments are happening in ports utilized for fossil fuels. Now they are being reborn around the renewable energy opportunity — it's a big success story," Gillespie declares. McDonald believes the nation has what it takes to remain a green-revolution spearhead: "Just as Scotland built pioneering railways, cities and utilities 100–200 years ago, with bold, consistent leadership from government, the private sector and academia, we can create the technologies for a sustainable future."



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Universities: Shaping the future of Scotland and the world

Thanks to acclaimed education and cutting-edge innovation, Scotland has carved out a reputation for academic excellence

Scotland contains 19 public universities, the largest concentration per capita in Europe. “Our universities are globally respected, with our nation ranking fifth in the world for the number of top-100 institutions,” states Claire McPherson, director of Universities Scotland, the sector’s representative body. “The diversity of our offering — from ancient universities to modern institutions and small, specialist centers — combined with their strong geographic spread has created a vibrant, collaborative environment.”

A recent report from the consultancy firm London Economics calculated that these universities bolstered the national economy by around \$23.3 billion in 2022. “They play a vital role in Scotland’s competitiveness and social and economic development,” she says. “We see ourselves as an enabling sector, central to delivering the Scottish government’s strategy for economic transformation. At the UK level, the government’s industrial strategy highlights key growth sectors that align well with our universities’ strengths, which lie in areas like life sciences, artificial intelligence (AI), data, innovation in creative industries, renewable energy and financial services.”

CLAIRE MCPHERSON
DIRECTOR, UNIVERSITIES SCOTLAND
“Our universities are globally respected, with our nation ranking fifth in the world for the number of top-100 institutions.”

McPherson asserts that the sector’s reputation is built on outstanding research and teaching. “Every one of our universities conducts research rated as world-leading, according to the UK’s Research Excellence Framework. 85% of research from Scottish institutions is world-leading or excellent, higher than any other part of the UK,” she notes. “We also generate more papers per researcher than anywhere else in the UK and, although Scotland makes up just 8% of the UK population, we host 10% of its researchers and produce around 12% of its research output. This research has global impact, making Scotland a partner of choice for international collaboration.”

The nation is also a prime destination for people considering moving to the UK for education. “A distinctive feature of Scottish universities is the four-year undergraduate degree, which allows students to study a broader range of subjects. This structure aligns well with the expectations of US and European students and offers flexibility that is less common in England’s three-year model,” explains Dame Sally Mapstone, principal and vice-chancellor of the University of St Andrews, one of Scotland’s most prestigious institutions that was named the UK’s best university by The Times, Sunday Times and Guardian in 2024.

“Recently, the National Student Survey also ranked us first in the UK for teaching quality and student satisfaction,” she adds. “We offer highly personalized tuition that is deeply research-informed, reflecting Scotland’s outward-looking, high-quality education. We provide an outstanding student experience in a beautiful, safe, coastal setting an hour from Edinburgh.”

Every year, the East Coast university is home to around 8,400 undergraduates and nearly 2,000



Edinburgh Napier University ranks as Scotland’s best modern university.



Almost half of the University of St Andrews’ student body is international.

of excellence for sustainable technologies enables academics, researchers, businesses and startups to collaborate on green innovations.

St Andrews is currently planning another substantial modernization of its estate. “We’re combining our renowned School of International Relations with our new Business School at New College in the historic heart of St Andrews. This will uniquely connect global perspectives with modern business challenges,” she discloses. “Another major project is our Digital Nexus building, a new home for our School of Computer Science, allowing us to expand our strong work in artificial intelligence. In all our developments, we aim to stay distinctive: combining tradition, quality, safety and a forward-looking student experience.”

Meeting local and global challenges

The university’s intention to invest almost \$250 million in these two facilities comes at a time when many institutions in the UK are facing financial challenges. “Our university systems have suffered from underfunding, with government funding for teaching and research failing to keep pace with costs. As a result, universities have become reliant on fees from international students — especially in Scotland, where local students don’t pay tuition fees. This international funding has helped sustain the sector for the past decade but creates a vulnerability: if international student numbers fall, the financial model is at risk,” explains Mapstone.

Each of 19 universities is putting strategies in place to address this issue and the Scottish government has committed to support the sector as a whole. In the case of St Andrews, “We run a prudent, well-managed budget and have a strong tradition of effective fundraising, supported by loyal alumni, donors and royal associations. This helps us invest in major capital projects, endow

DAME SALLY MAPSTONE
PRINCIPAL AND VICE-CHANCELLOR
UNIVERSITY OF ST ANDREWS

“We aim to stay distinctive: combining tradition, quality, safety and a forward-looking student experience.”

academic chairs and offer scholarships,” she states. “We’re currently running a \$400 million campaign — ‘Making Waves’ — for our estate upgrades. My role is to lead that campaign, securing a strong foundation for the next 600 years. We aim to keep the university attractive, relevant and with a happy community that contributes to solving today’s global challenges.” Mapstone is well on her way to achieving these ambitions, with the campaign having brought in over \$160 million before it was officially launched in September last year.

In addition, the university is expanding its revenue streams. This February, for instance, it launched an Executive Education unit that delivers high-impact short courses, sector-specific programs developed with industry and custom courses for individual organizations. It is also introducing more online courses, micro-credentials and lifelong learning opportunities. “Traditional degrees will always have a place, but flexible and high-quality online learning are essential for the future,” she comments. “We want to reach professionals worldwide who need new skills. For example, we were one of the first UK universities to offer a full degree in sustainable development, and we’re now developing online modules from this to support people adding sustainability to their careers. Other areas, such as medicine and infectious diseases, also offer opportunities for us to share our strengths through flexible courses. Like many universities, we’re focused on matching our expertise to real needs — locally and globally.”

As well as promoting workforce development, St Andrews has nurtured a dynamic startup and spinoff ecosystem through its Entrepreneurship Centre at the Eden Campus, which helped 16 early-stage prospects — most of them student-led — to advance their ideas last year. “Entrepreneurship is now an integral part of Scottish universities,” says Mapstone. “At St Andrews, embedding entrepreneurship across all disciplines is central to our approach. It’s vital that students gain practical skills, work collaboratively and see entrepreneurship as a mindset open to everyone.”

World-changing innovation

Two more illustrations of how entrepreneurship and innovation are increasingly at the core of Scotland’s university sector are based in the capital: Queen Margaret University and Edinburgh Napier University. QMU is opening its new Edinburgh Innovation Hub this year, a \$39-million facility that will include workspaces for small businesses in industries like food, technology and life sciences, encouraging knowledge sharing between them and QMU’s academic networks.

Edinburgh Napier University’s impressive entrepreneurial efforts are centered on its Bright Red Triangle hub that provides free lifelong enterprise guidance and resources to its staff, students and alumni. Established in 1964, ENU is Scotland’s top modern university, according to the 2025 Times Higher Education World University Rankings, and it has an extensive track record in fostering startups.

“One of our strengths is cybersecurity — our professor, Bill Buchanan, is a global leader in



Sue Rigby
Principal and Vice-Chancellor, Edinburgh Napier University

the field and his research has led to strong spinouts like LastingAsset and Cyacomb,” says Sue Rigby, ENU’s principal and vice-chancellor. “Our biggest success is Celtic Renewables, which produces biofuels from whisky byproducts. It started in a small lab and now operates on a 30-acre site in Grangemouth, a refinery near Edinburgh that is being transformed from non-renewable to renewable energy. Celtic Renewables shows the kind of impactful spinouts we aim for — turning our research into industrial change.”

ENU’s research strength has grown considerably over the past decade due to its dedication to projects with purpose and practicality. “As an example, our work on sustainable construction has helped shift Scotland’s housing sector toward timber-based buildings, which store carbon and reduce emissions. We took this from theory to proof of concept to mainstream — now over half of new Scottish homes use timber frames, compared to less than 10% in England,” she enthuses.

The university’s research is closely linked to the education that stems from its three state-of-the-art campuses in Edinburgh: one that houses its Business School; another for engineering, built environment, computing and creative industry programs; and a third that contains its Schools of Applied Sciences, Health and Social Care. The campuses deliver a broad range of over 250 undergraduate and postgraduate programs to about 21,000 students, on top of which ENU offers short and online courses.

“Much of our strength as a university comes from excellent teaching. Here, students don’t just attend lectures — they are inspired by staff who are leaders in their fields and specialists in teaching. 87% of our academics hold teaching qualifications and we treat teaching as a profession, not a sideline,” she insists.

ENU’s reputation for education and research quality has resulted in it forming more than 200 partnerships with international institutions, while it hosts students from over 100 countries and teaches on every continent except Antarctica. Rigby notes that ENU’s connections with the US are particularly robust: “US universities and companies value our research that focuses on practical challenges like improving industry, cybersecurity and policing — areas every society needs to get right — and American students are our fourth largest group, with around 200 currently enrolled. They are drawn not only by Edinburgh’s beauty but also by our applied, career-focused master’s degrees.”

The 2025 Guardian University Guide ranks the university among the top five in the UK for career prospects. “As well as making a tangible difference through our research, ENU exists to help people with the capacity to learn move into professional work,” discloses Rigby. “Our Scottish curriculum balances broad learning in the first two years with specialization later, preparing students for jobs that may not even exist yet and helping them step straight into graduate employment.”

Inclusive, lifelong learning ecosystem

A major priority for all the nation’s universities is promoting access to education for students from all backgrounds. ENU is no exception. “Many people don’t thrive at school but do at university — we actively look for them and our staff are deeply committed to tackling inequality. However, it only works if our graduates enter professional jobs — with over 90% doing so, we know we are completing that journey,” she affirms.

At present, ENU is co-developing a comprehensive toolkit that aims to address the root causes of exclusion from higher education with QMU and City of Glasgow College, Scotland’s largest

SUE RIGBY
PRINCIPAL AND VICE-CHANCELLOR
EDINBURGH NAPIER UNIVERSITY

“Here, students don’t just attend lectures — they are inspired by staff who are leaders in their fields.”

technical and professional skills college. Each region of the country contains respected further education institutions that provide students with a seamless path to universities and ENU has connections with many of them, particularly those in its region. One illustration is its work with Borders College in the south of Scotland, where it is supporting the local economy through research and knowledge exchange in, for instance, mountain bike performance, manufacture and safety, as tourism is a major industry in that region.

“A more urban example is our partnership with Forth Valley College on the government’s transformation of the Grangemouth refinery, where we are upskilling the workforce for new green industries. One thing that sets Scotland apart is how much it values higher and further education as a single, connected system. It’s common for students to move from college to university, into work and then back into learning, with lifelong learning being widely encouraged. This focus on ongoing skills development creates a more resilient workforce compared to, for example, England’s,” Rigby points out.

“Scotland is a remarkable nation — socially cohesive with clear purpose — and ENU’s mission fits perfectly with its place. Scotland is great for studying, business and exploration, from tourism to innovation.”

An outstanding student experience

Globally impactful teaching and research, great career prospects and a vibrant creative economy attract international students

Every year, more than 73,000 international students from over 150 countries study in Scotland. “At the heart of that is the outstanding experience. Scottish higher education transforms lives with world-class teaching and research, an international outlook and pathways to successful careers,” explains Claire McPherson, director of the representative body Universities Scotland. Anton Muscatelli, principal and vice-chancellor of the University of Glasgow, concurs: “Scotland is a great place to study and launch a career. We’re an innovative nation with big ambitions and excellent education designed to empower students to make a real difference.”

In recent years, around 6,000 people a year have traveled from the US for education. In 2025, however, “We’ve seen a big rise in US student interest, partly due to issues and tensions on US campuses. Scotland provides them with a peaceful, safe environment,” Muscatelli states.

For Richard Williams, Heriot-Watt University’s principal and vice-chancellor, Scotland’s history of diverse excellence in education and innovation is a huge attraction for global talent. “We offer everything from arts institutes to universities like Heriot-Watt, which is a leader in business and technology,” he says. Established in 1821, it is one of the most international of Scotland’s universities and has a unique global model. A third of its 27,000 students are based at its Scottish campuses in Edinburgh, the island of Orkney and Galashiels in the Borders near England. The rest study through the pioneer in transnational education’s modern campuses in Dubai and Malaysia. A standout feature of the university’s model is that students can move between all those locations through its inter-campus transfer program.

ANTON MUSCATELLI
PRINCIPAL AND VICE-CHANCELLOR
UNIVERSITY OF GLASGOW

“We’re an innovative nation with big ambitions and excellent education designed to empower students.”

Heriot-Watt’s highly rated education programs are delivered by seven schools: the Edinburgh Business School; the School of Energy, Geoscience, Infrastructure and Society; the School of Engineering and Physical Sciences; the School of Mathematical and Computer Sciences; the School of Social Sciences; the School of Textiles and Design; and the Heriot-Watt Global College. Williams points out that “about half our students are postgraduates and 40% study while working or from home, echoing our roots as the world’s first night school.”

The university has ramped up its capacities in the past two decades, with its scale and reputation for excellence in education, research and innovation contributing to its Edinburgh campus being chosen to host the UK’s National Robotarium, a world-leading center for robotics and artificial intelligence (AI), in 2022. “We have four multidisciplinary Global Research Institutes: the National Robotarium, plus hubs dedicated to healthcare technologies, net-zero living, and marine and earth sciences. Each brings together education and research across disciplines to tackle major global challenges in partnership with industry,” he explains. “Whether it’s using quantum tech to develop cancer sensors or advancing net-zero solutions, we stay mission-driven, collaborative and focused on delivering benefits to society.”

Heriot-Watt is a noted powerhouse in quantum technology and lasers. “We’re leaders in optical physics, applying it in fields like radar, defense and advanced engineering, and spinning out technology that has attracted international interest,” Williams reveals. “One of our unique strengths is brewing and distilling, which we’ve been teaching



The Royal Conservatoire of Scotland offers degrees across all performing arts.

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Heriot-Watt’s National Robotarium is the UK’s research hub for robotics and AI.



Glasgow School of Art has nurtured 12 Turner Prize winners to date.



Anton Muscatelli
Principal and Vice-Chancellor, University of Glasgow



Richard Williams
Principal and Vice-Chancellor, Heriot-Watt University



Jeffrey Sharkey
Principal, Royal Conservatoire of Scotland



Penny Macbeth
Director and Principal, The Glasgow School of Art

for over a century. Many industry leaders, from BrewDog founders to master US brewers and distillers in Scotland, China, Japan and India trained here. We’re now expanding this area to help the industry become more sustainable in energy use, packaging, cooling, transport and the full lifecycle of production.” Other specialisms include energy transition engineering and marine renewables, sustainable fishing technologies and finance.

RICHARD WILLIAMS
PRINCIPAL AND VICE-CHANCELLOR
HERIOT-WATT UNIVERSITY

“One of our unique strengths is brewing and distilling, which we’ve been teaching for over a century.”

The university’s network of connections spans over 190 countries and contains more than 166,000 alumni. “We’re proud to have thousands of alumni in the US, many of whom come from finance and engineering backgrounds, while brewing and distilling also attracts a lot of US students,” he notes. “We value the US for research partnerships too — for example, we’re currently collaborating with the University of Houston on exploring the hydrogen economy’s impact in the US and UK.”

As well as unbeatable education and research, a significant draw for international students are the career prospects Scottish universities open up — almost 87% of them are in employment or further education 15 months after graduation. “At Heriot-Watt, employability is central to what we do. That focus has made us second in the UK for postgraduate employment, and first in Scotland for graduate employment, with the highest-paid graduates and leading in corporate C-suite roles,” reveals Williams. “We have partnerships with over 1,400 companies covering education, research and skills development, and we’re a pioneer in graduate apprenticeships. This keeps us connected to employers’ needs.”

Dynamic cities that value the arts

Another attraction is the nation’s rich history, stunning countryside and cultural cities. Glasgow in particular is packed with art and performance spaces. “Glasgow has an exceptionally high concentration of art institutions — it’s a creative supercluster,” confirms Jeffrey Sharkey, principal of the Royal Conservatoire of Scotland (RCS), which QS ranked as the world’s sixth-best performing arts school this year. It’s the ninth time it has been placed in the top ten since the ranking was established in 2016.

Indeed, within a two-mile radius of RCS’s state-of-the-art campus are The Glasgow School of Art and world-class national theater, film, television, classical music, piping, ballet and opera companies. RCS collaborates with all these institutions, as well as ones slightly further afield, such as the Edinburgh International Festival, and it has strong connections with many partners in North America, Europe and Asia. “This ecosystem fuels our artistic excellence and research,” he believes.

RCS was founded in 1847 and is among only a few institutions worldwide to offer degrees across the full range of performing and production arts. “We bring together three schools: Music, including classical, traditional, folk, opera and jazz; Stage and Screen for actors, musical theatre, production design, lighting, stage management and filmmaking; and Dance, which covers modern ballet and commercial dance,” Sharkey explains. “These schools don’t exist in silos. Students collaborate on projects, which helps them grow as more complete artists.” RCS’s student body consists of around 1,240 undergraduates and postgraduates, and it also runs one of the UK’s largest pre-higher-education programs. As well as nurturing a continuous pipeline of talent from Scotland, RCS welcomes students from around 60 countries worldwide.

The institute’s internationally influential re-

search is focused on inspiring new directions for its art forms. “For example, we’re spearheading a project with our cultural neighbors, tech companies and entrepreneurs to explore how the arts can use AI to aid creativity and performance. It’s important we embrace AI’s possibilities in a constructive and entrepreneurial way,” he insists.

Fostering entrepreneurialism is a priority for RCS. For instance, it operates a biannual seed fund for its staff and students, it opened a new Creative Enterprise Development Office in 2024 and it is now developing an innovation space to showcase work and opportunities. “RCS is highly entrepreneurial — we launched more small businesses last year than any other Scottish university,” Sharkey states.

JEFFREY SHARKEY
PRINCIPAL, ROYAL CONSERVATOIRE OF SCOTLAND

“Glasgow has an exceptionally high concentration of arts institutions — it’s a creative supercluster.”

As a result of that focus and the quality of its performance-based education, many of its graduates become stars in their field, enjoying successful careers on the global stage or in Scotland. “The creative industries are a crucial driver of Scotland’s economy. To give just a few illustrations, our alumni are creating original work for theaters across Scotland, are shaping the next generation of musicians and performers, and are performing nightly in local venues,” he discloses. “The creative arts are vital — not just economically, but socially, as they bring people together. A concert, play or dance performance offers a shared experience and Scotland deeply values that.”

Fueling Scotland’s creative industries

“In June, the UK government published an industrial strategy and aligned Creative Industries Sector Plan, reinforcing the creative industries as one of eight key growth sectors for the UK. This is good news for Scotland — Glasgow, Edinburgh, Dundee and the wider country are strong hubs for creative production,” states Penny Macbeth, director and principal of The Glasgow School of Art. “The GSA actively contributed to the strategies, ensuring Scotland’s strengths were recognized.”

Currently 12th in the QS World Rankings for art and design, the GSA has been at the heart of Glasgow’s creative economy since 1845. “We champion purpose-led arts, craft, creativity and innovation for the benefit of people, the environment and the economy. We have four schools: the Mackintosh School of Architecture, the Fine Art School with alumni including 12 Turner Prize winners, the School of Design and our School of Innovation and Technology, which brings together digital, simulation and innovation disciplines,” she details. “As well as education, we’re strong in research and have a thriving PhD community alongside world-leading and impactful research. Our alumni have global impact in top arts organizations and many other sectors worldwide.”

The GSA teaches around 2,700 full-time and 1,000 part-time students annually, who are supported by 600 staff, many of whom split their time between teaching and working as artists, designers, architects and innovators. “This keeps our teaching rooted in the real world and Scotland’s creative community,” notes Macbeth. About a third of its students are from outside the UK, with many coming from the US. “Some courses, including those in fine art, silversmithing, jewelry and innovation design draw students because of our reputation and opportunities,” she says. “Glasgow is one of Europe’s leading cities for creative industries and contemporary fine art. It has a critical mass of creative producers, makers, galleries and curators that few cities globally can match.”

Glasgow’s creative ecosystem is also supportive of entrepreneurs, which helps explain why the GSA graduates are three times more likely to start businesses than the Scottish university average, and why over 60% of them stay in the city after their studies. However, “What really sets us apart is how our curriculum builds creative inquiry, research skills and the confidence to test, prototype and refine ideas,” says Macbeth. Robust industry partner-

PENNY MACBETH
DIRECTOR AND PRINCIPAL
THE GLASGOW SCHOOL OF ART

“Scotland’s creative and cultural economy is rich and diverse, full of thinkers, experts and imaginers.”

ships instill confidence in potential entrepreneurs too and the GSA also has strong faculty connections across Scotland, Europe and the US. “Our research extends into augmented and virtual reality collaborations, including with the University of Strathclyde on pharmaceuticals and the University of Glasgow on cancer care, showing how we blend creativity with cutting-edge science,” she illustrates.

Demonstrating the variety of its cooperative programs, through its small campus and Rural Lab in the Highlands, the GSA is partnering with the Open University and Scotland’s Rural College to strengthen the craft sector — a women-led industry concentrated in remoter areas that generates about \$95 million a year. The project aims to develop talent and research in situ, reducing regional inequalities. “Scotland’s creative and cultural economy is rich and diverse, full of thinkers, experts and imaginers, and this project is an exciting step for our sustainability mission, which is central to everything we do,” asserts Macbeth.

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A soaring food and drink sector

Scotland's largest manufacturing sector is being driven by innovation and rising sustainability in whisky, seafood, dairy and meat production



152 whisky distillers generate 74% of Scotland's food and drink exports.



Scotland's top-quality salmon is the prime ingredient in Thistle Seafoods' wellingtons.



Mark Kent
Chief Executive
Scotch Whisky
Association



Iain Baxter
CEO
Scotland Food
& Drink



Ryan Scatterry
CEO
Thistle Seafoods



Ewen Wardman
CEO
iLivestock

In 2024, Scotch whisky exports were valued at \$7.3 billion, with 44 bottles being shipped abroad every second. The spirit accounts for 22% of the UK's food and drink exports and has a bigger global market than US, Japanese and Irish whiskies combined. "It's a premium, highly desirable product exported to around 180 countries. 90% of our production goes overseas and our largest market is the US, which is worth nearly \$1.3 billion annually," states Mark Kent, chief executive of the Scotch Whisky Association (SWA) trade body, who was previously a British diplomat for 34 years. "During my diplomatic career, I never met anyone who didn't like Scotland. There's a genuine warmth toward the country and Scotch plays a big role in that. It's part of Scotland's soft power," he insists. "It's a protected geographical indication rooted in communities. Each distillery has a rich history, often set in Scotland's most stunning landscapes."

RYAN SCATTERRY
CEO, THISTLE SEAFOODS
"We heavily invest in the latest technology to ensure we have the most sustainable operations possible."

A major driver for the nation's 152 distillers at the moment is sustainability. "We're an energy-intensive industry with ambitious sustainability targets," says Kent. "Our sustainability strategy has four pillars: emissions reduction, responsible land use, water stewardship and packaging innovation." Another focus is product innovation. For example, Angus Dundee Distillers, which has a heritage going back 200 years, regularly creates new expressions made in experimental cask finishes. New innovators have successfully entered the market too, including Kingsbarns Distillery in Fife, which celebrated its tenth anniversary this year. Wee Smoky seeks to be more disruptive. Founded in 2020, its single grain malt has already picked up awards. "We want to make Scotch more accessible and appealing to a broader, younger audience," says its marketing manager Felix Bottomley. "We focus on cocktails to encourage people to enjoy Scotch in new ways."

The star of the Scottish economy

According to Iain Baxter, CEO of the trade body Scotland Food & Drink (SF&D): "Whisky's global success and fun on sheep and provenance has helped pave the way for other high-quality premium Scottish segments like salmon, seafood, red meat and dairy to thrive." As a result, food and drink is now the nation's largest manufacturing sector with annual revenues of around \$20 billion and exports that have doubled in a decade. "We're targeting \$5.4 billion in further growth by 2030, over half of that from exports. India offers huge opportunities and we're also seeing growing exports to the Gulf states. In the US, dairy exports like ice cream show great promise," he states. "The issue isn't demand, it's ensuring we have the capacity, skills and workforce to meet demand."

Scottish agritech goes global

Livestock farming is the latest area to benefit from groundbreaking made-in-Scotland tech

Scottish agritech is highly advanced, with strong government support for developing and adopting technologies. Until recently, however, most innovations had been directed at the dairy sector. "Digital technology hadn't caught up in sheep and beef farming. The challenge in Scotland is vast, remote landscapes, limited internet connectivity and wet, windy climate. If you can build agritech that adds real value for farming families here, it's likely to succeed anywhere," states Ewen Wardman, CEO of iLivestock, a Scottish startup that has done just that.

It has developed a unique software platform available on iOS, Android and online focused on legislative compliance and performance tracking, from breeding to weighing, which allows farmers to capture information about their animals, analyze it and sync it with regulatory databases. What sets it apart is that the software is integrated with hardware — such as rechargeable Bluetooth-based electronic weight indicators, weigh bars and crates, and electronic identification (EID) tags — in a software-as-a-service subscription model that collates all a farm's data in one seamless system. "Our product targets farmers who currently don't use

technology and new legislation — like mandatory EID tags or deforestation-free supply chains — means they need to," asserts Wardman. "By capturing data as simply as ordering a pizza, we help farmers make smarter decisions, improving their profitability and sustainability. Strategic partners can also see how products like medicines affect animals in real time. Our approach has the potential to transform traditional farming globally."

Business experts and the sector agree. Since July 2024, iLivestock has raised \$3.1 million in funding, grown its revenues by 700% and won multiple awards, including the KPMG Tech Innovation and Scotland's Life Sciences Awards. It has also started exporting to Argentina, Paraguay, Uruguay, Canada, South Africa, Spain, France, Serbia and Romania through exclusive partnerships with major players in those markets. "We're considering a US entry carefully because we want to do it properly. iLivestock's growth is happening fast, but ensuring we have the resources to maintain support in markets like the US is key before entering. Our SaaS model isn't just about the product, it's about supporting farmers and distributors over the long term," says Wardman.

vate-label supplier — our focus is on quality, sustainability and responsibly sourced Scottish seafood, rather than promoting our own brand. We only use the finest Scottish seafood, both farmed and wild-caught — from salmon, haddock and langoustines to monkfish," Scatterry asserts.

The company's workforce of about 800 people transforms this natural wealth into an ever-expanding portfolio of innovative frozen, chilled, coated and value-added gourmet products. "Our strong research and development team sets us apart. We're probably the only seafood company employing four Michelin-star chefs globally. They explore food trends worldwide — from Moroccan spices to Southeast Asian flavors to Texas barbecue — and blend the best tastes with our seafood," he reveals.

"Our range includes salmon wellingtons, world-class fishcakes and oven-ready dishes in terracotta pots from Spain — our coquilles Saint-Jacques are especially popular and growing steadily worldwide. All our coated products are air-fryer friendly for convenience and we're tapping into the growing demand for healthier processed foods. Thanks to Scotland's high-quality ingredients, our products are made with real, natural components, delivering great taste and quality."

Thistle generated around \$215 million in global revenues in 2024 and is on target to reach close to \$250 million this year as purchases of its restaurant-inspired innovations continue to surge. "With rising food costs, dining out has become more challenging for many, especially in the US, where a meal for two can cost \$150 in restaurants. We offer easy-to-prepare, tasty, premium-quality seafood products for a fraction of that price," explains Scatterry.

The company has been a trusted supplier to UK retailers such as Sainsbury's, Marks & Spencer and Aldi for over 20 years. "We're also proud to be a Scottish-British company exporting quality products worldwide and our focus now is expanding exports," he says. "Scottish logistics are efficient, and we have a proven track record exporting fresh products to markets like Europe, Australia and the US. North America has long been a key market for us: in the US, especially the northeast corridor from Washington to Boston and the West Coast, there's a market of about 180 million people who appreciate quality seafood. Our products fit perfectly with their tastes and expectations."

EWEN WARDMAN
CEO, ILLIVESTOCK

"Scottish families produce some of the world's most respected beef and sheep products. I see agritech as a co-pilot for traditional farmers."

Thistle supplies foods tailored to the US across that country in collaboration with fast-growing retailers and innovative partners. "One notable success is with Rastelli, selling through the QVC channel, through which our products are bringing a restaurant-quality experience to consumers at home. Once consumers taste our seafood, they want to buy it again and again," enthuses Scatterry.

In March, the company formed a new strategic partnership with Aquamar, the California-based leader in premium surimi and seafood products. "It was impressed by our unique, cost-effective products and is now distributing them under its brand throughout the US," he discloses. "With the current US administration's favorable stance toward Scotland and the UK, we see a strong opportunity to grow our US sales significantly in the next two to three years. We have a foothold and aim to expand, ultimately manufacturing in the US to become a truly global champion. We're open to all opportunities and have no limits on our ambitions — we have a strong platform for growth and are just getting started."

Technology enhances dairy traditions

Scotland's dairy industry is also emerging as a frontrunner in sustainable innovation. For instance, researchers, farmers, food businesses and tech firms are working together in the new Dairy Nexus research and development facility near Dumfries. Their tasks are to accelerate decarbonization and productivity, create products and enhance animal welfare. Further up the chain, innovations from butter-based brands like Border Biscuits and Walker's Shortbread have dramatically reduced their carbon footprints. At the head of the herd though is Mackie's, which makes its ice creams at a Highlands' farm where grass-grazing cows milk themselves when it suits them with robotic technology. It also makes low-carbon packaging on site, uses emissions-free refrigerants and is powered by its own green energy.

Due to Scotland's vibrant agritech ecosystem, meat farmers can now access technologies that make their operations more sustainable and efficient too. The best illustration is iLivestock's all-in-one management platform. "Scottish families produce some of the world's most respected beef and sheep products. I see agritech as a co-pilot for traditional farmers, helping them make better decisions," states its CEO Ewen Wardman.

For Baxter, Scotland's exceptional foods and drinks reflect the nation's rich heritage, crafts, traditions and innovative capabilities: "We're incredibly proud of what we make. Try Scottish products — you'll be delighted by their quality and taste."

By 2023, Scotland's space ecosystem contained 246 companies generating annual revenues of over \$500 million and employing more than 7,000 people. Together, they cover the whole satellite value chain, from manufacturing to space-based data and analytics services used by sectors as varied as agriculture, communications, environmental monitoring, disaster response, logistics management, energy, defense and security; plus mission operations systems and launching. The ecosystem is underpinned by support in innovation and workforce development from world-class local institutions with extensive space-research expertise like the Universities of Edinburgh, Strathclyde and Glasgow.

One vital contributor to Scotland's space ambitions is Skyrora, a rocket designer and manufacturer. "We set up in 2017 to bridge a gap in the Scottish end-to-end satellite-solutions value chain: launching and deploying them," says its director of government affairs Alan Thompson. "A key milestone for us came in August, when we secured a launch license from the UK Civil Aviation Authority. With this, we can conduct suborbital launches in Scotland and it puts us on track for orbital launch services. We're helping to grow the next phase of the UK space sector."

Another is SaxaVord spaceport on the northern island of Unst, Europe's first fully licensed vertical-launch facility that hopes to host the UK's first successful rocket takeoff this year. The UK has seven spaceports under development and five are in Scotland, reflecting the maturity of its sectoral ecosystem and the fact that the nation's high-latitude remote coastal regions are among the best places in Europe to release satellites: their skies are relatively free of air traffic, and it is easier and cheaper to reach some prized orbital positions.

The UK government wants to capitalize on Scotland's potential in the fast-growing small satellite market. It has already invested around \$130 million in its launch capabilities alone, and there are plans in the pipeline for it and Scotland's government to co-fund a new \$135-million space systems research, development and manufacturing hub in Glasgow City Innovation District. According to Clark, it will include "places for inward investment companies to land in Scotland, and to build payloads and satellites at a much greater scale and volume."



Scottish craftspeople have centuries of experience in high-quality textiles.

Quality textiles, made in Scotland

Textile companies are focused on sustainable innovation and advanced manufacturing

For centuries, Scotland's textile industry has been a prominent exporter, with its luxury cashmères, tweeds, plaids, linens and leathers being regarded as among the best in the world. In 2022, the 600-odd companies operating in the sector generated around \$1.1 billion in revenues and they aim to raise that to \$2 billion by 2030. A substantial part of this growth will come from experts producing far more modern materials that are equally admired internationally.

"Scotland has a long proud heritage in textiles, but over the past decade, the sector has undergone a remarkable transformation. We've seen a purposeful shift from traditional manufacturing toward high-value technical textiles, sustainable innovation and advanced production processes," says Hamish Rowan, CEO at Wilkie, a worldwide leader in technical textiles.

Several factors have fueled that segment's growth. "Global demand for sustainable high-performance textile solutions has risen sharply, and Scotland has responded through significant investment in research and development, new technologies and sustainable materials. In addition, the pandemic exposed the risks of long, fragile supply chains, prompting many businesses to reevaluate reliable, geographically closer manufacturing partners," he reveals. "Scotland has competitive strengths in textiles, including an extremely skilled workforce, technical expertise, and a reputation for quality and innovation. With unmatched international ties, world-class connectivity and more renewable energy than we can consume, Scotland is well-positioned on the global playing field."

Wilkie epitomizes both the sector's transformation and the nation's wider transition to advanced manufacturing. Founded as a linen manufacturer in 1868, the family run group is now a global business, with approximately \$70 million in annual turnover and over 400 employees worldwide.



Hamish Rowan
CEO, WILKIE

"Our focus is on delivering innovative textile solutions across core sectors such as automotive, aerospace, medical, energy and defense," says Rowan. "Wilkie is recognized as a market leader and trusted technical partner. We 'Make Extraordinary Happen', with our blend of deep textile expertise, family culture, high-performance operations and a vision to be a world-class innovator. We're a solutions-driven business, working closely with customers to develop highly technical products that solve complex challenges."

The group is constantly expanding its diverse portfolio of innovative products and technological base, which covers spinning, weaving and multiple coating technologies, including advanced technical coatings, polyurethane, polyvinyl chloride, silicone, high-solids coatings and eco-friendly formulations. "These capabilities allow us to develop bespoke textiles that meet demanding performance and environmental requirements," he notes. "We reinvest a significant portion of our turnover into innovation and by co-developing solutions with customers, we ensure we're always innovating in the right direction to meet future market needs. We also work with universities in Scotland, the UK and the US, partnerships that help us explore everything from new materials to advanced process engineering."

Rowan considers innovative production practices to be essential: "Companies from regions with traditionally higher manufacturing costs must be world-class in efficiency, quality and responsiveness to compete globally. Smart manufacturing tools help us gain that competitive edge. We're investing in real-time monitoring systems, Internet of Things sensors and data analytics. Looking ahead, we're excited about technologies like artificial intelligence-driven demand forecasting, advanced robotics and further digital twin development. These innovations are transforming how we operate and deliver value to customers."

Satellite sector is primed for blast off

Scotland is a leader in Europe's space race, with an expanding industrial ecosystem that runs from manufacture to launch

This year, Scotland aims to become the first country in Western Europe to successfully launch a rocket into space — and it is one of very few places in the region with the skills and infrastructure to achieve this feat.

The nation's journey to becoming a continental hub for space technologies began in 2014, when the first Scottish satellite systems were designed and built in Glasgow by Craig Clark's Clyde Space. That startup's successful production of innovative small satellites led to a merger with the Swedish operator AAC Microtec to form AAC Clyde Space, which has made the Scottish city its nucleus for satellite manufacture. Many others have done the same, including the homegrown modular-unit specialist Alba Orbital and US-based Spire Global. As a result, "Glasgow is now basically the home of small satellites in Europe. We build more satellites in Glasgow than anywhere else in Europe," Clark revealed at a recent Royal Society of Edinburgh event.

By 2023, Scotland's space ecosystem contained 246 companies generating annual revenues of over \$500 million and employing more than 7,000 people. Together, they cover the whole satellite value chain, from manufacturing to space-based data and analytics services used by sectors as varied as agriculture, communications, environmental monitoring, disaster response, logistics management, energy, defense and security; plus mission operations systems and launching. The ecosystem is underpinned by support in innovation and workforce development from world-class local institutions with extensive space-research expertise like the Universities of Edinburgh, Strathclyde and Glasgow.

One vital contributor to Scotland's space ambitions is Skyrora, a rocket designer and manufacturer. "We set up in 2017 to bridge a gap in the Scottish end-to-end satellite-solutions value chain: launching and deploying them," says its director of government affairs Alan Thompson. "A key milestone for us came in August, when we secured a launch license from the UK Civil Aviation Authority. With this, we can conduct suborbital launches in Scotland and it puts us on track for orbital launch services. We're helping to grow the next phase of the UK space sector."

Another is SaxaVord spaceport on the northern island of Unst, Europe's first fully licensed vertical-launch facility that hopes to host the UK's first successful rocket takeoff this year. The UK has seven spaceports under development and five are in Scotland, reflecting the maturity of its sectoral ecosystem and the fact that the nation's high-latitude remote coastal regions are among the best places in Europe to release satellites: their skies are relatively free of air traffic, and it is easier and cheaper to reach some prized orbital positions.

The UK government wants to capitalize on Scotland's potential in the fast-growing small satellite market. It has already invested around \$130 million in its launch capabilities alone, and there are plans in the pipeline for it and Scotland's government to co-fund a new \$135-million space systems research, development and manufacturing hub in Glasgow City Innovation District. According to Clark, it will include "places for inward investment companies to land in Scotland, and to build payloads and satellites at a much greater scale and volume."

The Scottish space industry as a whole aims to capture a \$5-billion share of the global market and expand its workforce to 20,000 by 2030. Thompson thinks it can achieve this. "We're at an exciting stage and growth is starting to accelerate. Scotland is well positioned to grow its space sector and attract more space companies. It has the overall capabilities, expertise and strong universities. The country is also agile and responsive, providing support for programs and skills development," he states. "To understand Scotland's space ambitions, you need to see the next generation — the students and schoolchildren being inspired by companies like Skyrora. They represent the future of the space industry."

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ALAN THOMPSON
DIRECTOR OF GOVERNMENT AFFAIRS
SKYRORA

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Wilkie's Michelin Scotland Innovation Parc in Dundee is powered by green energy.

Driving the textile sector's sustainability is another priority for a group aiming to reach net zero Scope 1 and 2 greenhouse gas emissions by 2035. "We're leading the way in developing ecological alternatives and innovative solutions that reduce environmental impact while maintaining the high-performance standards our customers expect," asserts Rowan. "Skills development is crucial to this journey. As we adopt new technologies and sustainable practices, we're investing heavily in training and upskilling our workforce. We're also partnering with local colleges and universities, which — alongside the Scottish government and the economic development agency Scottish Enterprise — are doing a great job of supporting sustainable manufacturing."

Wilkie is also focused on expanding its global footprint. At present, it operates two manufacturing facilities in Angus, two in China and one in Lowell, Massachusetts, which it purchased from Bradford Industries in 2024. "Our vertically integrated model, spanning spinning, weaving and advanced coating processes, gives us end-to-end control over our supply chain, allowing us to

Scaling up global operations

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HAMISH ROWAN
CEO, WILKIE

"We're investing around \$70 million in our new site. This is our show of faith in Scottish manufacturing and the opportunities that lie ahead."

guarantee quality and exceptional flexibility for customers," he states. "The acquisition of our Lowell facility brings new capabilities into the group, particularly in technical coatings. This enhances our ability to serve existing markets and opens doors in our core global sectors."

Rowan describes the purchase as one of the group's most important milestones to date. "Lowell and the greater Boston area have a hugely rich textile heritage. Wilkie, as a Scottish textile manufacturer with our own long history, is now part of that legacy," he observes. "While we've been selling into the US market for about ten years, this is the first time we've established local manufacturing there. It offers us supply chain resilience, faster delivery times and the ability to customize products more closely for North

American customers. We have ambitious plans to grow our Lowell site and are also exploring further international opportunities."

Wilkie is extending its capabilities in Scotland too. Last year, it became the main shareholder in Michelin Scotland Innovation Parc (MSIP), a 79-acre site in Dundee that was a tire factory and is now a cutting-edge hub for sustainable innovation. MSIP is a public-private partnership with Scottish Enterprise that is powered by green energy and is already home to some smaller tenants, an innovation campus and a skills academy. Wilkie intends to move its Scottish operations into the site next year. "Being based at MSIP will place us right in the center of Scotland's push for sustainable manufacturing and collaboration. We're excited about building a new home that will house Wilkie for another 150 years plus," enthuses Rowan. "We're investing around \$70 million in our new site. This is our show of faith in Scottish manufacturing and the opportunities that lie ahead. Scotland offers an incredibly compelling proposition for manufacturing investors. We have technical expertise, a skilled workforce, strong government support, and a clear focus on sustainability and innovation."

That focus is equally evident in traditional textile segments. The UK's largest leather manufacturer Scottish Leather Group, for example, produces the world's lowest-carbon leather and is on track to be the first in its global sector to achieve net zero this year. SLG's worldwide client base includes many of the biggest names in luxury automobiles and over 100 airlines. "Customers value our quality and traceability," explains its CEO Nicholas Muirhead. "We manufacture all our leather on a single Scottish site and only source high-quality raw materials from the UK and Ireland. Our cattle graze freely on green pastures and there's 100% traceability back to the farm." Clients also value SLG's innovations. In recent years, for instance, it has developed groundbreaking biodegradable leathers that contain bio-based materials and fire-resistant cushioning biofoams.

In 2023, SLG invested nearly \$19 million on a major expansion of its facilities. "I want our leather business to grow as a complete solutions provider for automotive and aviation clients. We aim to be the go-to for ultra-luxury integrated interiors while maintaining leadership in sustainability, traceability and innovation," Muirhead says. "Don't underestimate leather's potential, it's a luxury product that is highly sustainable — you can't beat it!"



SaxaVord spaceport in the Shetland Islands: an ideal place for satellite launches.

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Aberdeen: From oil and gas to low carbon

North East Scotland has become a hub for innovative solutions in sustainable growth sectors like renewable energy

North East Scotland's economy is flourishing, with over 22,000 businesses generating 18% of the nation's private sector revenues in its capital — Aberdeen — alone. The region's status as one of the UK's wealthiest areas is founded in North Sea hydrocarbons, but in recent years it has become a poster child for sustainable transformation, establishing itself as the country's leading hub for renewables and building up other future-focused sectors.

The UK government considers the region to be so important for economic growth and decarbonization that it is one of Scotland's two Investment Zones — about \$215 million in targeted investments and investor incentives are available to bolster its green and digital industries. Aberdeen will also host Great British Energy, a new state-owned company with over \$11 billion in funding for renewable generation and supply chain projects. "It could only really ever be based in one place," Prime Minister Keir Starmer announced last year. "The future of British energy will be powered as it has been for decades, by the talent and skills of the working people in the Granite City."

"North East Scotland has the UK's largest concentration of energy supply chain companies and over 50 years of offshore oil and gas expertise, making it a global leader in energy that can accelerate the shift to renewables. Its advantages are: knowledge from oil and gas, particularly world-class subsea engineering capability; an ambitious supply chain; and a plethora of clean energy projects that are ready to move forward," explains Maggie McGinlay, chief executive of ETZ Ltd, Scotland's largest dedicated energy transition complex, which occupies a 618-acre site in Aberdeen.

Not-for-profit ETZ Ltd was launched in 2021 with \$71 million in funding from the Scottish and UK governments plus private sector partners. "We're focused on helping North East Scotland remain a global leader in energy excellence. Oil and gas still account for 70% of the UK's energy needs, so it's about gradually shifting energy sources while supporting supply chain companies to transition to renewables," she states. "We aim to ensure a managed, seamless transition by taking a cluster approach: investing in our land, infrastructure and supply chain companies, attracting foreign investment, and supporting research and development to scale pioneering technologies. Our integrated approach leverages public and private investment, along with world-class local university and research expertise, to ensure Aberdeen is as successful in green energy as it has been in oil and gas."

According to McGinlay, the biggest investment opportunities are in offshore wind, hydrogen and carbon capture and storage (CCS). "There's a pipeline of over 42 gigawatts of offshore wind in Scotland, with about 58% being in the North East," she reveals. "Floating offshore wind is a major opportunity. Globally, this technology is still emerging, but our region already has Kincardine, the world's largest grid-connected floating wind project, and soon Green Volt, the largest commercial farm. Around 80% of Scotland's floating wind projects are within 100 nautical miles of Aberdeen."

ETZ Ltd's complex contains campuses for offshore wind, hydrogen, innovation, skills and a marine gateway, each of which offers market-ready net-zero locations for tenants and an anchor project to catalyze the ecosystem. In the case of the wind campus, ETZ Ltd and research organization Offshore Renewable Energy (ORE) Catapult have invested in the National Floating Wind Innovation Centre. "By supporting technology, people and commercial-scale projects, we aim to build a floating wind supply chain that exports expertise globally," notes McGinlay.

The hydrogen campus' flagship is the Green Hydrogen Test and Demonstration Facilities, which is at the feasibility study and front-end engineering design stage. "It will test key components using on-demand hydrogen," she says. "Aberdeen has over a decade of green hydrogen experience, hydrogen buses and fleet vehicles operate in the city and production capabilities are strong." The region's hydrogen economy is growing quickly. For example, development of the BP Aberdeen Hydro-



Jennifer Crow
CEO, Opportunity
North East



Maggie McGinlay
Chief Executive
ETZ Ltd

gen Energy production, storage and distribution project is underway on ETZ Ltd's site and Statera Energy plans to build the UK's biggest green hydrogen facility nearby.

CCS is also emerging faster here than elsewhere. 75% of the UK's 86 billion tons of carbon storage capacity lie in the north and central North Sea, and a group of industrial, power and hydrogen firms in the North East and Central Belt regions are capitalizing on this through Scotland's only current CCS project, Acorn. This seeks to capture megatons of carbon dioxide from industries and store them in legacy subsea oil and gas infrastructure.

Competitive advantages for energy firms

ETZ Ltd's Marine Gateway campus for manufacturers in offshore renewables is next to the new \$560-million South Harbour at the Port of Aberdeen, a vast facility that has always been a huge advantage for the region's energy firms. Port of Aberdeen has also installed some shore-to-ship power connectivity recently and aims to be the UK's first net-zero port. As its CEO Bob Sanguinetti said in a press release: "We're driving and supporting the energy transition in the North Sea. That's why it's so important that we're leading from the front."

MAGGIE MCGINLAY
CHIEF EXECUTIVE, ETZ LTD

"North East Scotland has the UK's largest concentration of energy supply chain companies and over 50 years of offshore oil and gas expertise."

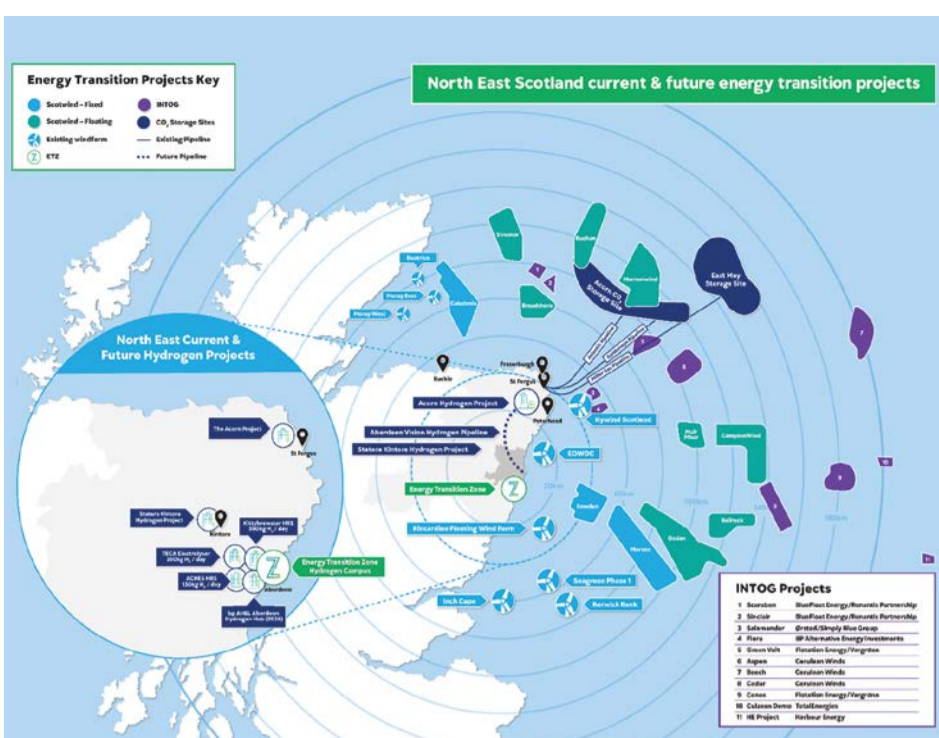
Another advantage is the North East's innovative capacities. As well as ETZ Ltd's centers for wind and hydrogen, it has two universities and research bodies like ORE Catapult, the Net Zero Technology Centre, the Global Underwater Hub, the National Decommissioning Centre and the National Subsea Centre. This year, the UK's first low-carbon energy incubator and scaleup hub ETZ EnergyWorks will open in ETZ Ltd's Innovation Campus, offering office and industrial space, as well as business support to innovative entrepreneurs.

Developing skills is an equally crucial part of the organization's mission. "Scotland has the talent to meet the opportunities in green energy. A report from Robert Gordon University (RGU) shows that 80-90% of oil and gas skills are transferable to low-carbon and green energy," McGinlay discloses. To help align those skills to current and future industry needs, ETZ Ltd has established the National Energy Skills Accelerator with the University of Aberdeen, RGU and North East Scotland College (NESCol). Its training capacity will ramp up further this year when it launches the Energy Transition Skills Hub in partnership with Shell, the UK and Scottish governments and NESCol.

Asked to sum up in a sentence why investors in green technologies should consider ETZ Ltd's complex, McGinlay replies: "It's a unique chance to be part of a pioneering energy transition."

Building a diverse low-carbon economy

ETZ Ltd is a spinout from the region's economic development catalyst Opportunity North East



A plethora of clean energy projects are ready to move forward in the North East.



ETZ EnergyWorks, the UK's first dedicated energy incubator and scaleup hub.

(ONE), which developed the concept, invested in it and secured its funding. ONE was set up in 2015 with an investment of about \$86 million from the Wood Foundation, a local philanthropic body. Since then, it has steered over \$200 million into advancing the North East's growth industries and supported more than 600 entrepreneurial firms.

"Our goal is to create a resilient, internationally focused regional economy for the post-oil and gas era. While energy remains important, we're equally focused on strengthening sectors such as food and drink, digital tech, life sciences and tourism," explains its co-founder and CEO Jennifer Crow. "We're a private sector-led organization. Industry leaders volunteer time, knowledge and expertise to shape projects and investments that drive transformational change. Our model works at the industry level, identifying opportunities, challenges and constraints, and bringing public and private sectors together to co-invest in initiatives."

ONE's transformational projects include three entrepreneurial ecosystems in Aberdeen, where startups are given space, mentoring, business education and investor connections. "For example, ONE Tech Hub is home to the digital tech community, from pre-start to scaling businesses. We focus on soft tech and deep tech — artificial intelligence (AI), software-as-a-service and products that make companies more efficient and investment-ready," she states. "Our largest segment is energy tech, although many solutions are transferable across sectors." Thanks to ONE's contribution, digital technology is the region's fastest-growing industry, with over 300 companies employing 4,500 people. Extensive AI expertise within this cluster makes the area a prime candidate for hosting Scotland's upcoming AI Growth Zone, part of the UK government's \$1.3-billion program to boost AI capacity that will expedite investment in infrastructure like data centers. As Crow also points out, "AI data centers need direct green power, which North East Scotland offers."

Through ONE BioHub, the organization aims to double the number of life science firms in a region that already boasts one of Europe's largest concentrations of life scientists. "In this field, our strength lies in research excellence and close collaboration with universities to spin out smart science into commercial solutions, whether therapies, treatments, diagnostics or drug development. We have particular expertise in biologics and antimicrobials," she reveals. "Our life sciences community is ambitious, focused on accelerating growth, attracting investment and bringing innovative solutions to market faster."

The organization's newest hub — ONE SeedPod — is dedicated to the region's food and drink sector, which brings in around \$950 million a year and employs more than 22,000 people. The North East is home to Europe's largest white fish port and Scotland's biggest shellfish port, as well as renowned products such as Aberdeen Angus beef and whiskies, and brands like the unicorn BrewDog. "There's a close-knit ecosystem linking

agriculture, fishing, manufacturing and research, creating a 'virtuous circle' that delivers quality products for global markets," observes Crow.

ONE SeedPod consists of 11 manufacturing-ready units where businesses have access to manufacturing expertise, development chefs, technical managers and entrepreneurial support. Outside of the hub, ONE provides long-term assistance to dozens of other companies. "Food and drink is a vital part of our regional growth strategy. In seafood, for instance, we work to ensure sustainability, market access and value-added processing. In manufacturing, our focus is growth and automation, transforming natural products like haddock into high-quality goods using advanced manufacturing," she describes.

ONE is also investing in tourism. "We're supporting the VisitAberdeenshire agency and investing in adventure tourism, particularly cycling infrastructure," she explains. "We're developing the region as an outdoor lifestyle destination." Its adventure-packed landscapes include awe-inspiring mountains and a glorious coastline. "The North East offers remarkable heritage too, from maritime history to more castles than any other Scottish region," details Crow. "Aberdeen has excellent accommodation and an international airport. For golfers, the East Coast draws many Americans, including President Trump, whose Menie estate in Aberdeen has just added a second course."

JENNIFER CROW
CEO, OPPORTUNITY NORTH EAST

"It's a welcoming environment with an international community built on oil and gas, strengthened by university research, medical science, digital tech and green power."

Ties between the region's growth sectors and the US extend beyond tourism. "For instance, Massachusetts is as connected to our life sciences sector as London. In energy, legacy oil and gas relationships support innovation, tech transfer and access to global customers; and our food and drink brands often start to internationalize with the US Scottish diaspora, then expand through strong US distribution networks," she discloses, adding that the North East is also attractive to US investors. "It's a welcoming environment with an international community built on oil and gas, strengthened by university research, medical science, digital tech and green power. That makes the region a great choice for setting up and scaling quickly."

Steve Olivier, vice-chancellor and principal of RGU in Aberdeen, would encourage US students to pick the region too: "It's not only a wonderful place to work, it's a world-class place to study. Currently, most US students choose St Andrews or Edinburgh, but I want to raise Aberdeen's profile — it's a friendly city and a true hidden gem."



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