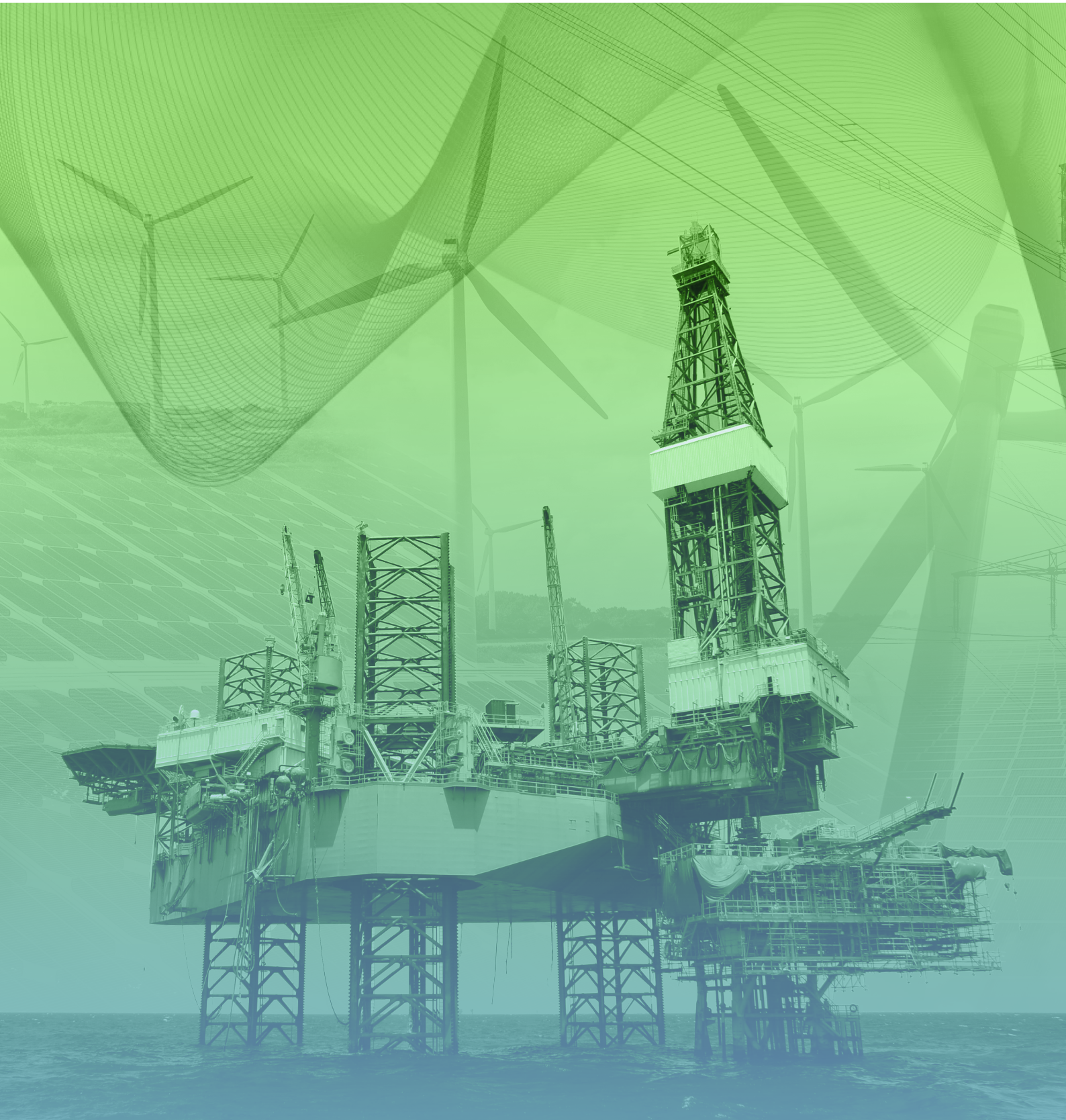


# Mapping the energy transition:

A survey of Scotland's international oil & gas activity  
2019/2020



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## Scottish Enterprise foreword



### David Rennie

Global Head of Energy and Low Carbon Transition – Trade,  
Scottish Development International

This survey was undertaken over the 2019/2020 financial year and was largely unaffected by the ongoing COVID situation. However, it is somewhat stating the obvious to say that in the subsequent months, the energy sector, alongside other sectors, has gone through a period of turmoil, shocks and challenges, the like of which I have certainly not seen in my lifetime. Nevertheless, the findings from this snapshot in time provide some very interesting insights in many areas.

The results from this survey clearly show a welcome rise in both total and international sales. It is particularly important to note that sales and international based sales continued to rise. Specifically, international based activity accounted for almost two-thirds of all sales, a strong indicator that the long-standing cliché, 'wherever you found an oil and gas-based project in the world you would find a Scottish accent' was indeed a cliché for a reason.

But of course, our world is changing. The focus on climate change and the move to a net-zero economy, the need to reduce emissions and the subsequent need to develop new solutions and technologies to those global challenges is clear and the survey reveals several interesting points in this context.

Currently, non-oil and gas sales account for a fifth of total sales; this figure, I believe, will rise significantly over the next few years. In addition, the fact that over half of those surveyed see the energy transition agenda as a positive opportunity for their business is a welcome sign of embracing climate change policy. Many of our supply chain companies are now in essence energy companies

operating in a range of sectors, in some cases, beyond energy. And much of the technologies, people and know-how that will provide the low-carbon solutions we'll need for the future, will come from our existing supply chain.

Within Scottish Development International, our support for the energy sector is also evolving with a bigger focus on the low carbon and transition agenda. Future global opportunities in this area are vast and I have no doubt that we can continue to play a global role for decades to come. The cliché of a Scottish accent being heard around the world can continue to be the case as we evolve our energy offering. Currently we support hundreds of companies each year in the energy sector and this support will continue to help them achieve their ambitions and to ensure that Scotland remains a global player in our fast-changing energy sector.

Finally, I would like to thank the Chamber and their team for all their hard work in undertaking the survey and of course my thanks to those companies who supplied the information, without whom we wouldn't have a report to present.





# 1. Introduction



# 1. Introduction

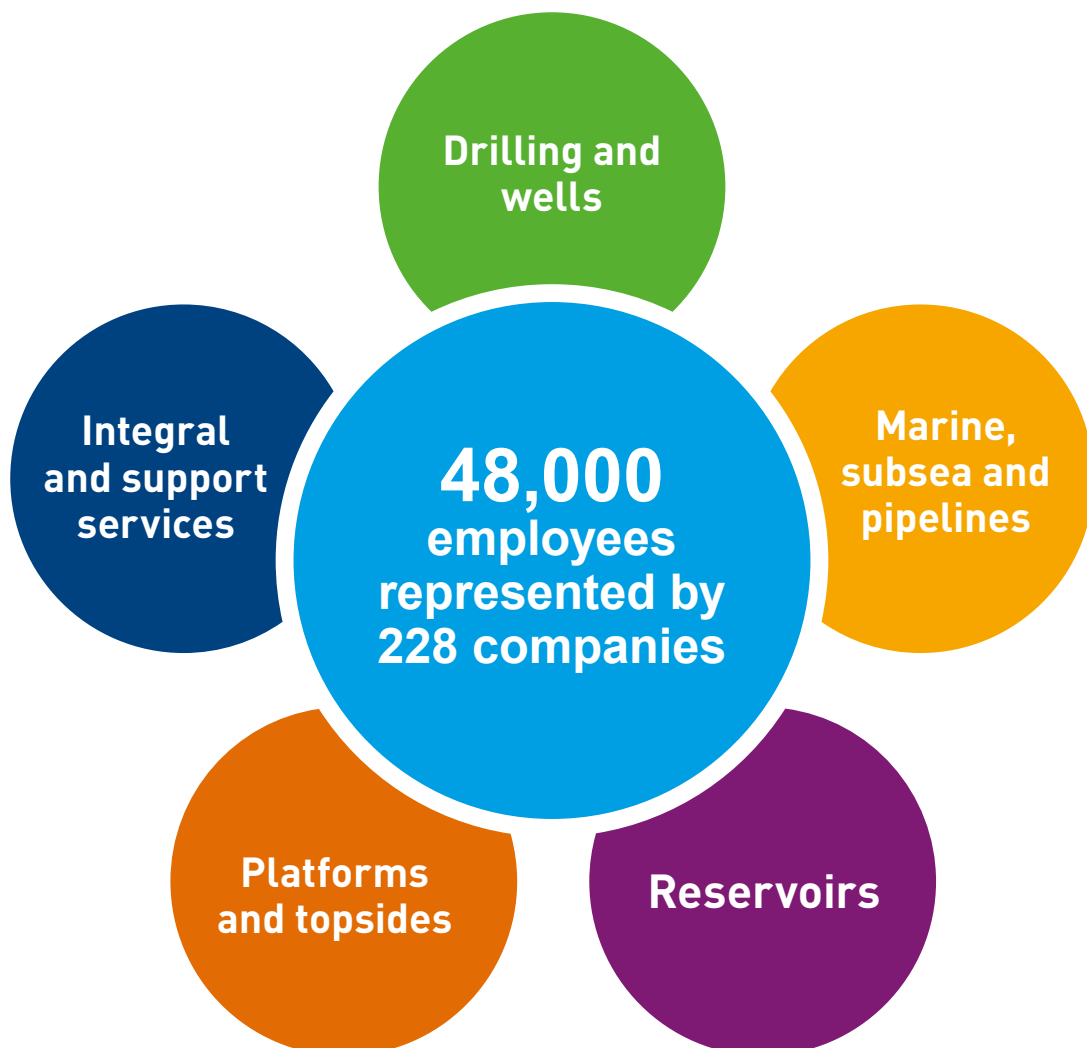
This is the 20th year that Scottish Enterprise has published an annual benchmark of international activity in the Scottish oil and gas supply chain. This research report is independently administered by the Research Chamber, the research team at Aberdeen & Grampian Chamber of Commerce (AGCC). The team used two methods of data collection: An online survey with businesses in the industry and desk research gathering financial data relating to the 2019/20 financial year.

This report provides an overview of Scotland's international oil and gas activity as the industry transitions/diversifies. Financial data on the industry has been used to assess the scale of the sector in 2019/20; largely pre-pandemic.

We would like to thank all the companies who have supported this research by responding to our survey. This year's respondents represent over 48,000 employees across the sector. Our surveys and desk research combined covers around 230 companies in the subsectors shown in the figure below.

**Figure 1: The research responses**

Source: Research Chamber/Aberdeen & Grampian Chamber of Commerce model, 2021





## 2. Executive summary

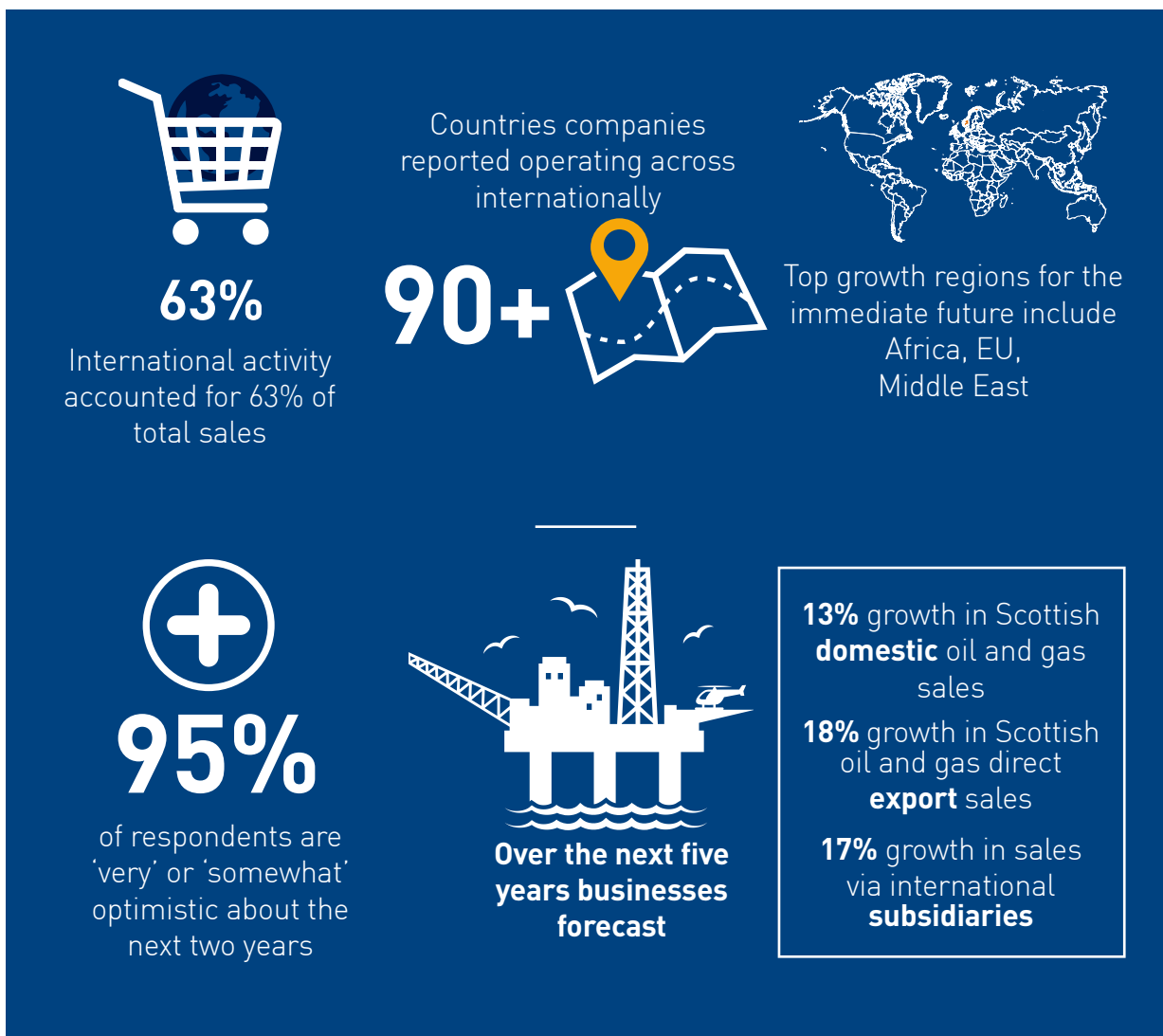


## 2. Executive summary

### Key findings

- Total supply chain international sales accounted for 63% of total Scottish supply chain sales, their highest level on record.
- Overall sales (pre-pandemic) were up £1.1bn, to £21.0bn, the highest level since 2015.
- This was driven by sales growth through subsidiaries, up £2.3bn to £13.2bn.
- Four fifths of sales are still oil & gas.
- There is a positive growth outlook, with growth forecast in markets across the globe.
- However, global markets are seen as a tougher, more competitive environment for Scottish businesses.
- Experience/skills are a barrier to diversification.

### Key Facts







### **3. The scale of the sector in 2019/20**

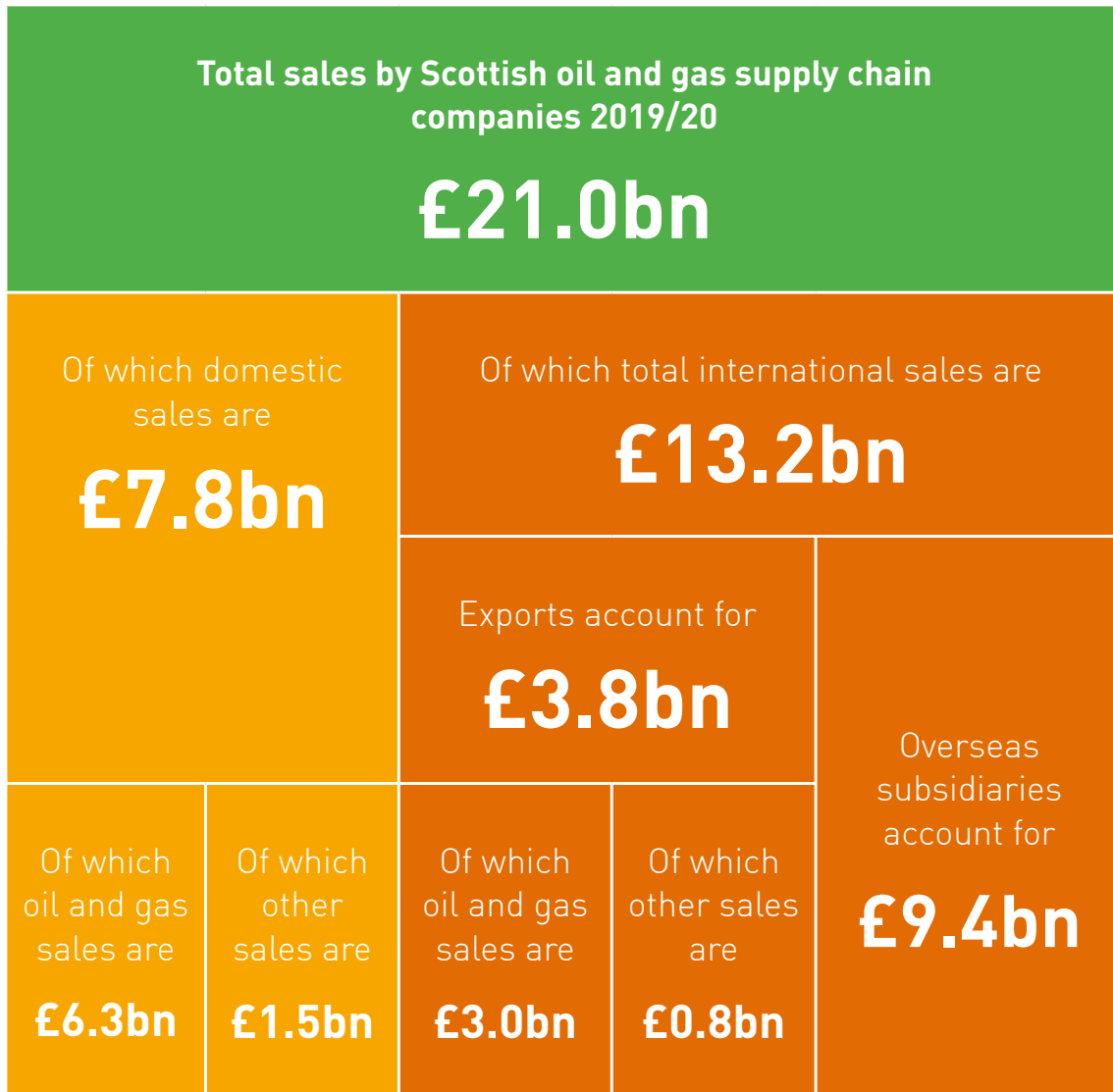


### 3. The scale of the sector in 2019/20

3.1 Total sales by Scottish oil and gas supply chain companies were £21bn. The key driver was sales from international subsidiaries.

Figure 3.1: The scale of the sector in 2019/20

Source: Research Chamber/Aberdeen & Grampian Chamber of Commerce model, 2021



### 3.2 Total sales by Scottish oil and gas supply chain companies were up £1.1bn to the highest level since 2015.

Figure 3.2: Total sales by Scottish oil and gas supply chain companies

Source: Research Chamber/Aberdeen & Grampian Chamber of Commerce model, 2021

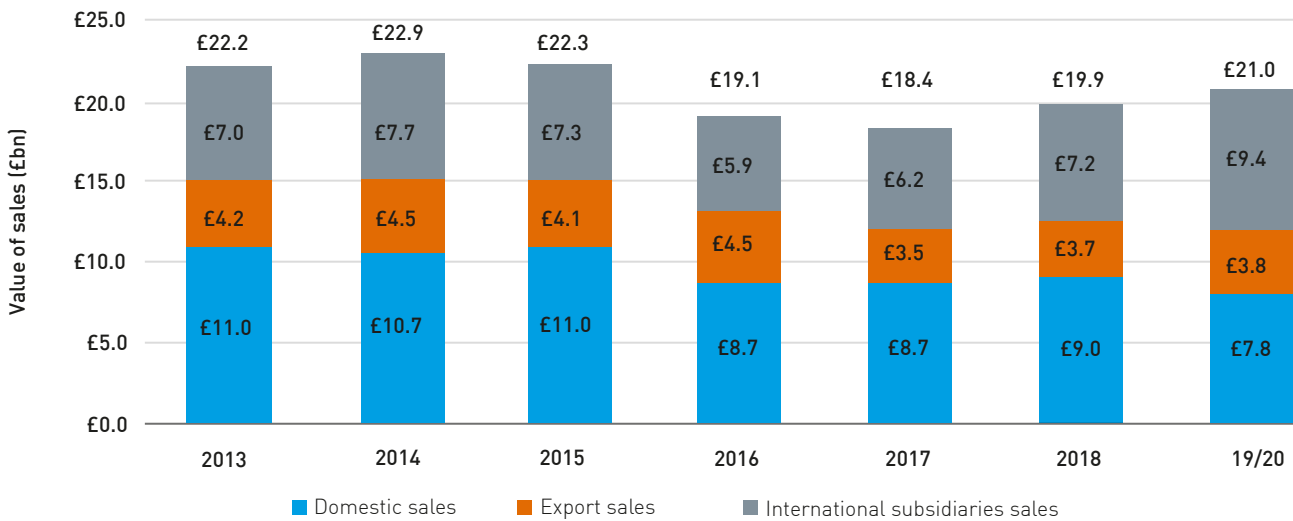


## Total sales by Scottish oil and gas supply chain companies 19/20

# £21bn

Total sales by Scottish oil and gas supply chain companies

Source: Research Chamber/Aberdeen & Grampian Chamber of Commerce model, 2021





### 3.3 Total supply chain international sales were up £2.3bn to £13.2bn.

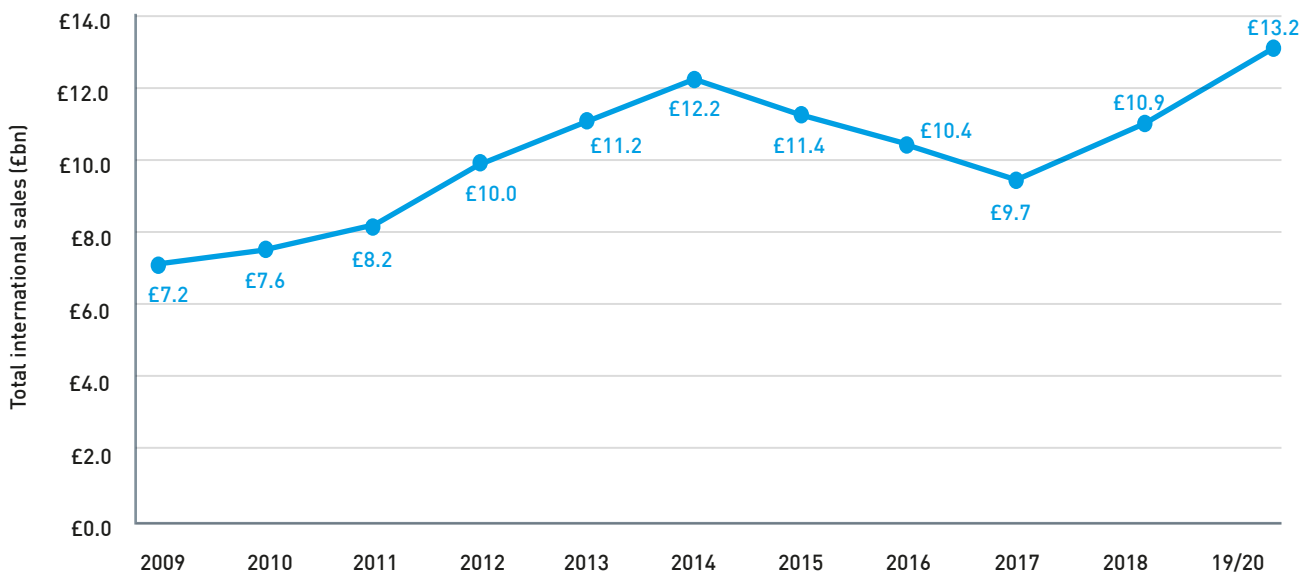


## Total international sales by Scottish oil and gas supply chain companies 2019/20

# £13.2bn

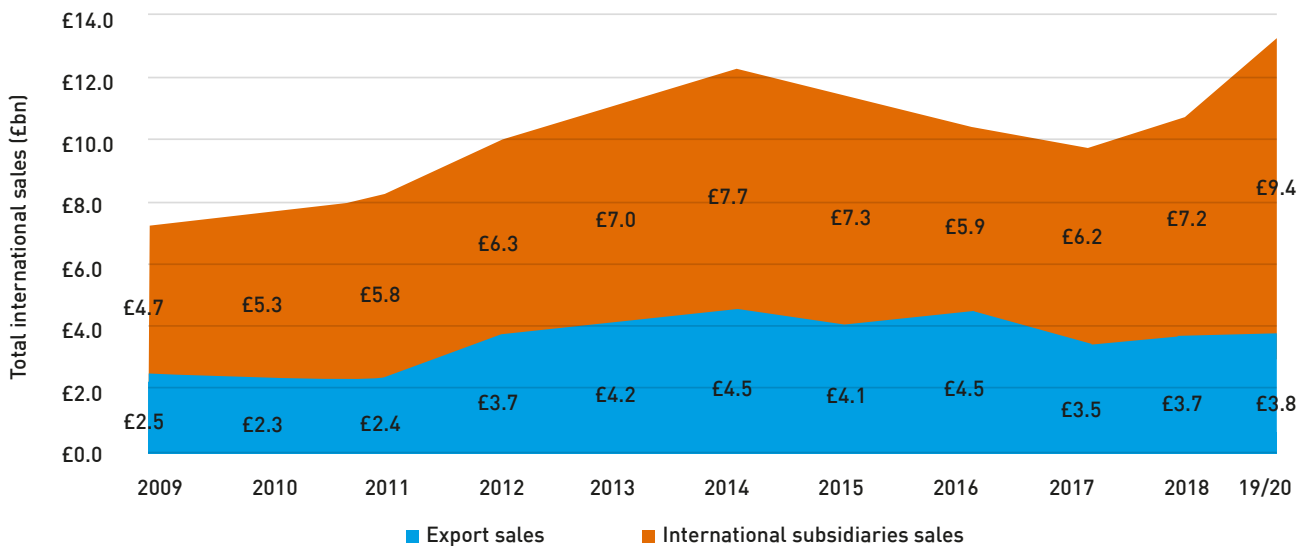
**Figure 3.3: Total international sales (exports plus subsidiaries) by Scottish supply chain companies 2019/20**

Source: Research Chamber/Aberdeen & Grampian Chamber of Commerce model, 2021



**Figure 3.4: Total international sales (by sales type) by Scottish supply chain companies 2019/20**

Source: Research Chamber/Aberdeen & Grampian Chamber of Commerce model, 2021



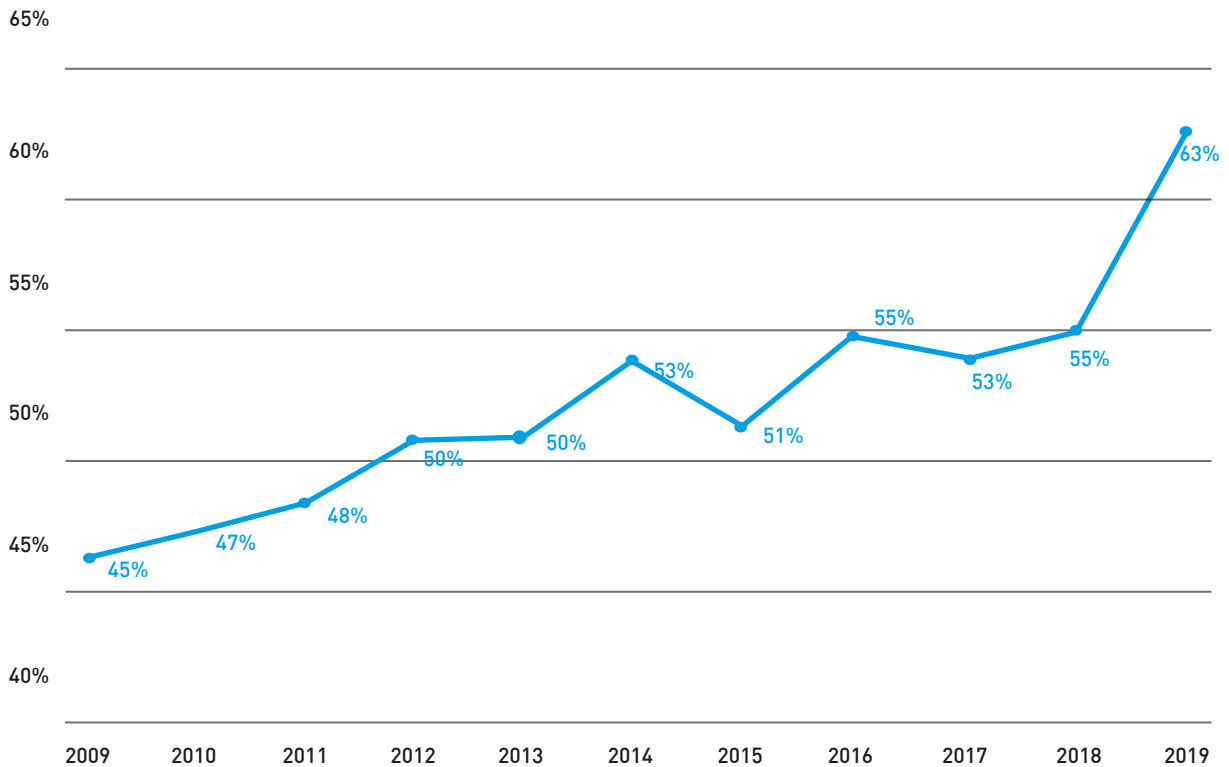
**3.5 Total supply chain international sales accounted for 63% of total Scottish supply chain sales, their highest level on record.**



International sales accounted for **63%** of total Scottish supply chain sales

**Figure 3.5: International sales as a percent of total sales**

Source: Research Chamber/Aberdeen & Grampian Chamber of Commerce model, 2021



## Key fact

International sales came from over 100 countries that supply chain companies report working in across the world.





# 4. Transition/ diversification



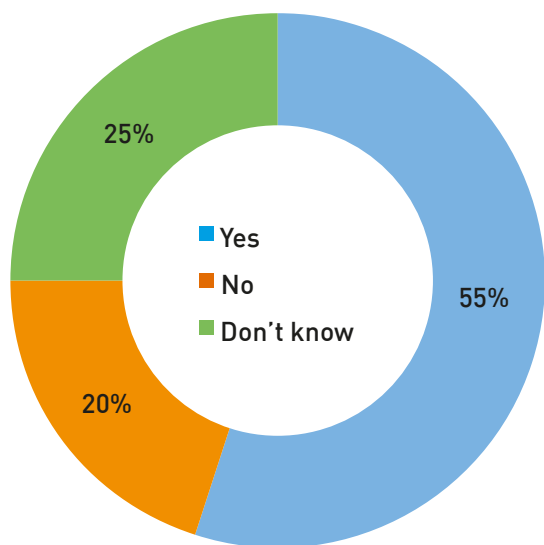
## 4. Transition/diversification

### 4.1 Over half of oil and gas businesses saw energy transition as a positive opportunity.

We asked businesses the question: "Do you see the energy transition agenda as a positive opportunity for your company?" Over half said yes, they saw energy transition as a positive agenda. One in five said they did not.

**Figure 4.1: Do you see energy transition as a positive agenda?**

Source: Research Chamber/Aberdeen & Grampian Chamber of Commerce survey, 2021

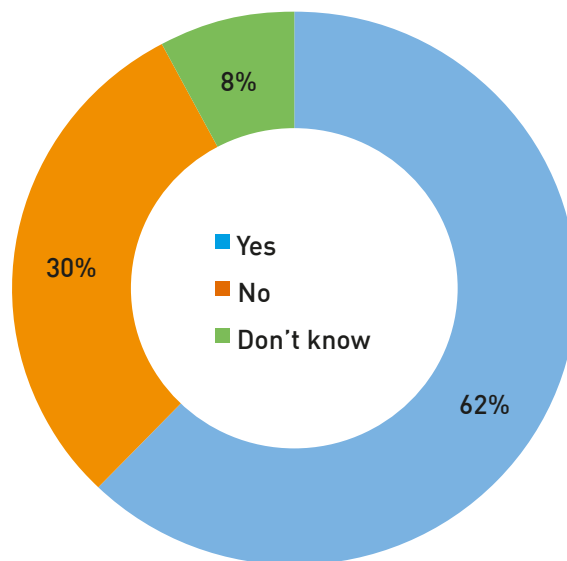


### 4.2 Three in five of oil and gas businesses in the survey had an active strategic plan to reduce their carbon emissions.

We asked businesses the question: "Within your company, do you have an active strategic plan to reduce your carbon emissions?" Over three in five said yes, they had an active strategic plan to reduce carbon emissions. Three in ten said they did not.

**Figure 4.2: Do you have an active strategic plan to reduce carbon emissions?**

Source: Research Chamber/Aberdeen & Grampian Chamber of Commerce survey, 2021



### 4.3 Four-fifths of sales are still from oil & gas.

Although this survey predominantly focuses on oil and gas, there has been increased focus on diversification in recent years. However, the latest survey is similar to last years with one fifth of sales from non-oil and gas.



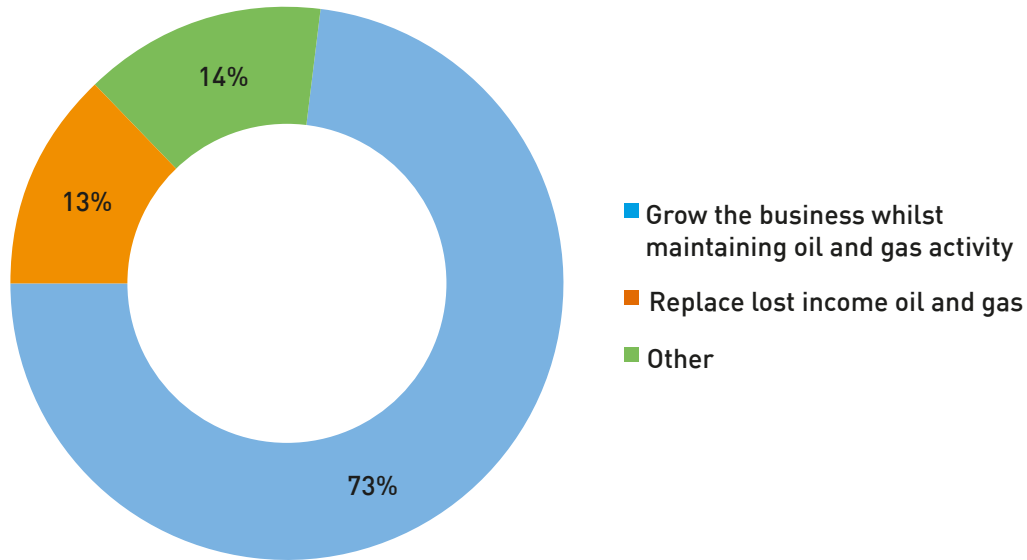


#### 4.4 Nearly three in four companies (73%) said the reason for diversification was to grow the business while maintaining oil and gas activity.

This is up ten percentage points in two years (from 63% up to 73%) and suggests that diversification is being considered as a profitable route to business growth. Those saying the reason was to replace lost oil and gas income dropped 11 percentage points, from 24% two years ago to 13% now.

**Figure 4.4: Reasons for diversifying from oil and gas**

Source: Research Chamber/Aberdeen & Grampian Chamber of Commerce survey, 2021



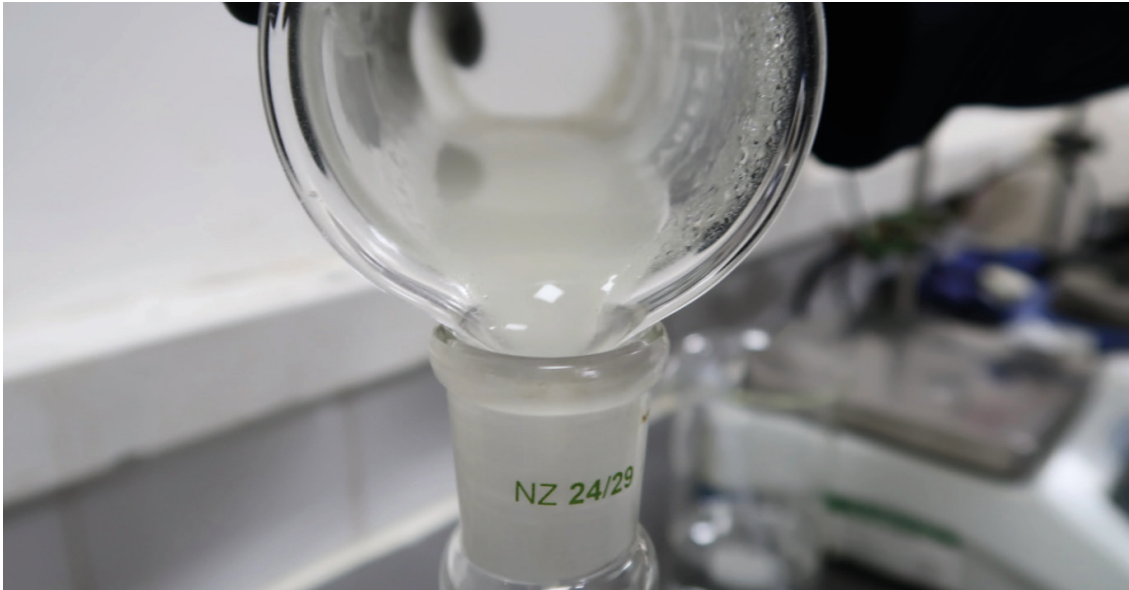
#### 4.5 Adapting their existing expertise/service offer to another sector was the most common form of diversification reported by businesses.

There was a notable drop in companies saying they had diversified into new regions/countries (down 8 percentage points)

**Figure 4.5: How have companies diversified? Share of reasons, based on companies who had approached diversification**

Source: Research Chamber/Aberdeen & Grampian Chamber of Commerce survey, 2021





copyright of Aubin Ltd

## Case Study: **Aubin Ltd**

### **Tell us a little bit about your company, what do you do and what makes you different?**

Aubin has been around since the mid-1980s and specialises in designing developing chemical solutions. Most of our work has been with the oil and gas industry until relatively recently and we have a strong export presence. In some years we have exported up to 70% of our sales. We pride ourselves in being able to work collaboratively with customers and suppliers to provide cost effective high quality solutions to industry challenges and we are one of few companies who have an independent cement laboratory. One of our other differentiators is our ability and willingness to innovate where necessary. This is all supported by a well-qualified and empowered team who work together to provide and end to end solution for our customers globally.

### **Where do you have offices based and since when?**

We have offices in Scotland and Dubai but through our network of strategic partners, distributors and agents we are able to manufacture and deliver products almost anywhere they are required.

### **Can you tell us about how your company has diversified internationally?**

Initially we relied on following existing customers and contacts into new markets and we have used Scottish and UK government agencies to help us at all stages. We have participated in several SDI trade missions, for example. Our business model helps us to export without necessarily having to set up in-country which is helpful.

### **What made you decide to do this? What market research did you conduct beforehand?**

We conduct detailed market research to see where our products can be most successful and then try to target a small number of key customers.

### **What have been the main benefits for your organisation of operating internationally?**

Generally operating internationally has made us a bit more resilient during the cyclical nature of oil and gas. Basins tend to move at slightly different speeds so when one is down there is often an upside somewhere else.



**What has been your biggest business challenge when working internationally and how have you overcome this?**

One of the biggest challenges of working internationally is the ever increasing complexity of the regulatory environment. This cost can be disproportionate when you are in the early days of activity. It is very important to understand the environment before you start doing business as remedial compliance can be very challenging and may increase your cost base way beyond what you were expecting.

**Has your organisation enjoyed any advantages as a result of operating internationally whilst being based in Scotland?**

Scotland has a reputation for sound business competence, high quality technical and engineering personnel and a willingness to travel. This ensures that Scottish companies are welcomed wherever they go.

**Has Scottish Enterprise assisted you with your international activity, and if so how?**

We have used SDI trade missions and Global Scots many times. They can be tremendously helpful and help you avoid the pitfalls. We have recently made use of market research resources too.

**How was your experience of participating in the Scottish Enterprise Future Industry Leadership Programme?**

We have had several participants now and they have all found it useful. The networks they have created have also helped them be more effective for Aubin too. I think it also builds their confidence as they get a wider knowledge of the business world.

**What one piece of business advice would you give to companies who might be looking to get into an international market?**

I don't think that I can boil it down to one piece of advice. Do your research carefully, make sure you check the competence of any advisers and don't forget that cultural awareness is really important. Business is conducted differently all around the world don't assume that everything will work the same way in every environment.





# 5. Sector Outlook



## 5. Sector Outlook

To assess future growth aspirations, we asked companies several questions on optimism for the future and forecast growth.

**95%**  
of companies are optimistic about international growth over the next two years

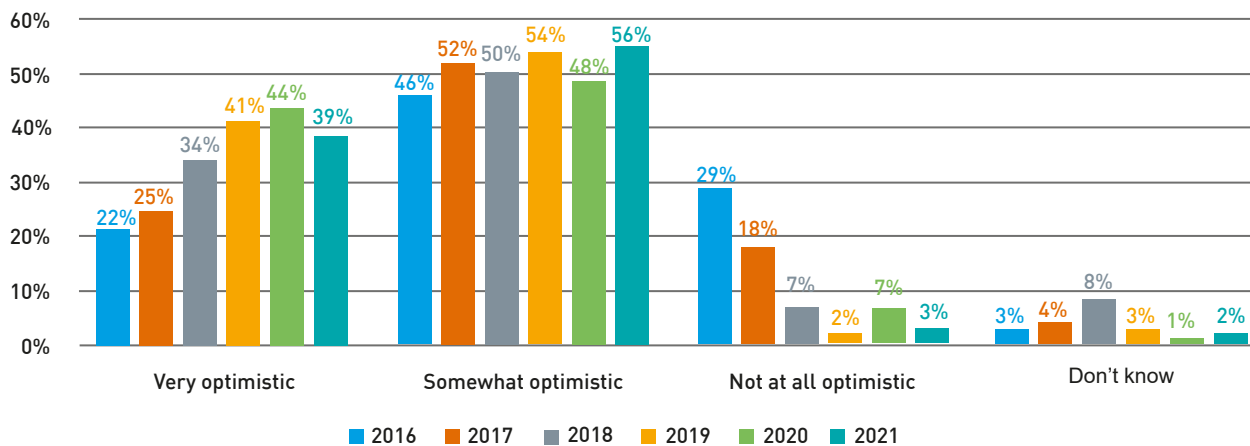
### 5.1 95% of businesses are optimistic about the future.

Business optimism over the next two years remains high, with 95% of companies reporting that they are 'somewhat' or 'very optimistic' and only 3% reporting that they are 'not at all optimistic'.

Optimism over the next five years is similarly high, with 95% of companies reporting that they are 'somewhat' or 'very optimistic'. This high level of optimism continues the trend seen since 2016, with a slight dip in 2018.

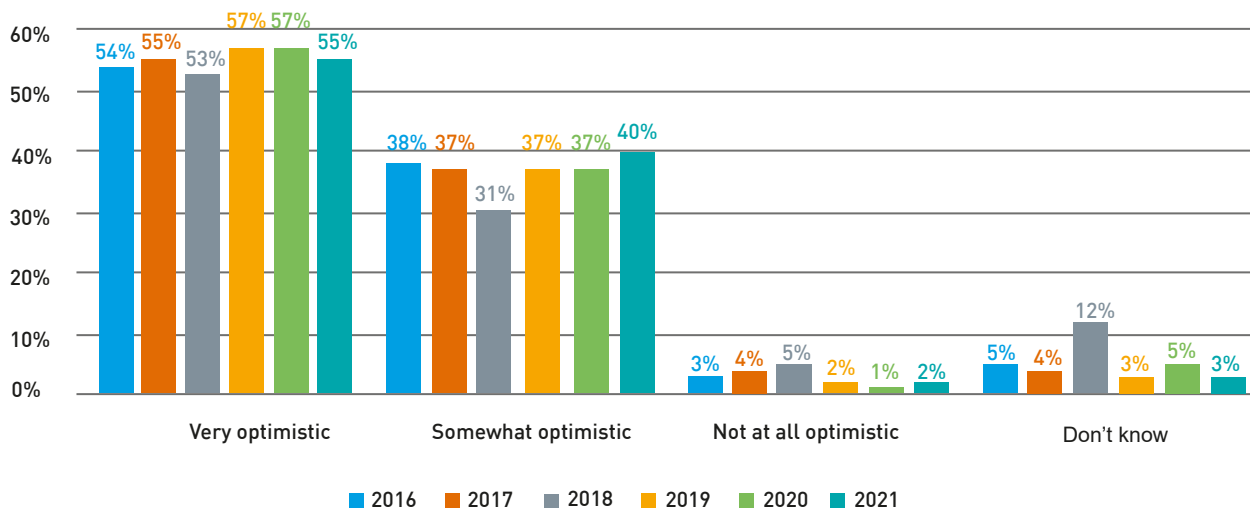
**Figure 5.1a: Optimism within supply chain companies – next two years**

Source: Research Chamber/Aberdeen & Grampian Chamber of Commerce survey, 2021



**Figure 5.1b: Optimism within supply chain companies – next five years**

Source: Research Chamber/Aberdeen & Grampian Chamber of Commerce survey, 2021



### 5.2 Businesses are forecasting growth in domestic and export sales, and via subsidiaries, but marginally lower than last year.

We asked businesses for an assessment of growth in sales for domestic, export and subsidiary business over a five-year period. As the table below shows, all three areas forecast double-digit growth, but at a lower rate than last year.

Business five year growth forecasts			
	This year	Last year	% point change, this year v last year
Domestic	+13%	+14%	-1pp
Export	+18%	+22%	-4pp
Subsidiary	+17%	+20%	-3pp

**Figure 5.2: Business growth forecasts**

Source: Research Chamber/Aberdeen & Grampian Chamber of Commerce survey, 2021

### 5.3 Existing customer requirements, referrals and networking events are the main ways businesses intend to identify international markets.



**Figure 5.3**

Source: Research Chamber, Aberdeen & Grampian Chamber of Commerce survey, 2021



## 5.4 Africa ranked as the number one growth market in the immediate future.

To consider future markets, businesses were asked to state where they viewed as their top growth regions for the immediate future.

The table below shows that Africa has become the top region for growth in the immediate future. The Middle East, which has consistently been number one, has fallen to fourth, behind Europe (EU and non-EU).

Region	2017 report ranking	2018 report ranking	2019 report ranking	2020 report ranking	2021 report ranking
Middle East	1	1	1	1	3
Africa	2	4	2	2	1
North America	4	5	4	3	=5
Non-EU	5	6	5	4	=5
Asia Pacific	3	3	=6	5	4
EU	6	2	3	6	2
South America	8	9	=6	7	7
Caspian	7	7	8	8	10
Australasia	9	8	8	9	8
Latin & Central America	10	10	10	10	9

■ Rank up v last year    ■ Rank down v last year

= represents joint equal position

**Figure 5.4: Change in growth regions – Immediate future**

Source: Research Chamber/Aberdeen & Grampian Chamber of Commerce survey, 2021

## 5.5 Wide spread of countries ranked high for future growth.

Once again, businesses are expecting growth from a wide range of countries across the globe. The top international country for future growth in the immediate future is Brazil, followed by USA, Nigeria, Norway, UAE and Australia.

Region	Africa	EU	Middle East	Asia Pacific	North America	Non-EU	South America	Australasia	Latin & Central America	Caspian
<b>Lead countries</b>	Nigeria Angola Ghana	Netherlands Germany	UAE Qatar Saudi Arabia	Malaysia	USA Canada	Norway Russia	Mexico	Australia	Brazil	Azerbaijan

**Figure 5.5: Lead countries within the regions**

Source: Research Chamber, Aberdeen & Grampian Chamber of Commerce survey, 2021

## 5.6 Spread of regions identified as growing in the next five years.

As well as asking about where they viewed their top growth regions for the immediate future, they were also asked about the next five years.

There are a spread of regions identified as growing in the next five years, with Middle East, Africa & the EU again prominent

**Figure 5.6: Spread of regions identified as growing in the next five years**

Source: Research Chamber/Aberdeen & Grampian Chamber of Commerce survey, 2021

Region	Middle East	Africa	EU	North America	Asia Pacific	Australasia	Non-EU	South America	Caspian	Latin & Central America
<b>Percentage of companies reporting the region as a growth opportunity in the next five years</b>	39%	37%	33%	31%	27%	14%	18%	18%	12%	10%
<b>Key Countries</b>	UAE Saudi Arabia Qatar	Nigeria	Netherlands Germany	USA	Singapore	Australia	Norway Russia	Brazil	Azerbaijan	Mexico





# 6. Challenges and constraints to growth

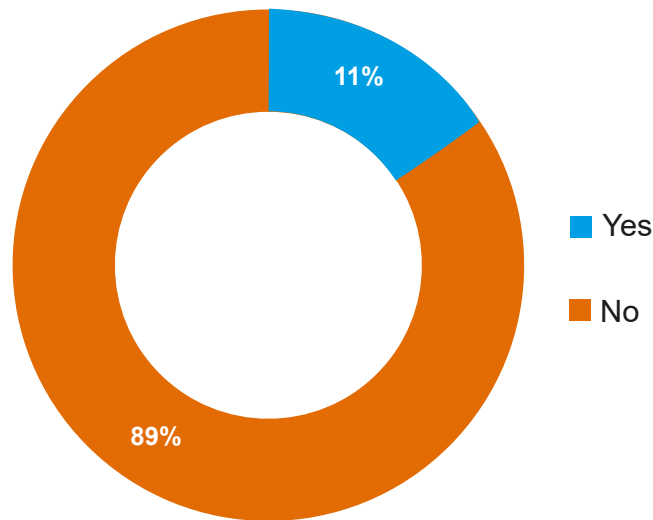


## 6. Challenges and constraints to growth

6.1 We asked if, in the last year, have you withdrawn from any markets? 89% of companies reported maintaining their market presence last year, in line with the previous survey.

Figure 6.1: Market withdrawal

Source: Research Chamber/Aberdeen & Grampian Chamber of Commerce survey, 2021



### Reasons for market withdrawal – example comments (2021 survey)

#### Travel / COVID-19 restrictions

*"We can't travel there."*

*"International markets as Covid lockdown or isolation restrictions prevent international work. We have declined many projects overseas for this reason."*

*"It's too expensive to compete internationally with Scotland's tough lock down measures."*

#### Government relations and competition issues

*"Not worth the hassle of dealing with the government there."*

*"Nationalisation and localisation of industry has created an uncompetitive market."*

*"Too much local competition. Market less technology focused."*

## 6.2 Compared to last year, more businesses think the Scottish supply chain has become less competitive over the preceding twelve months.

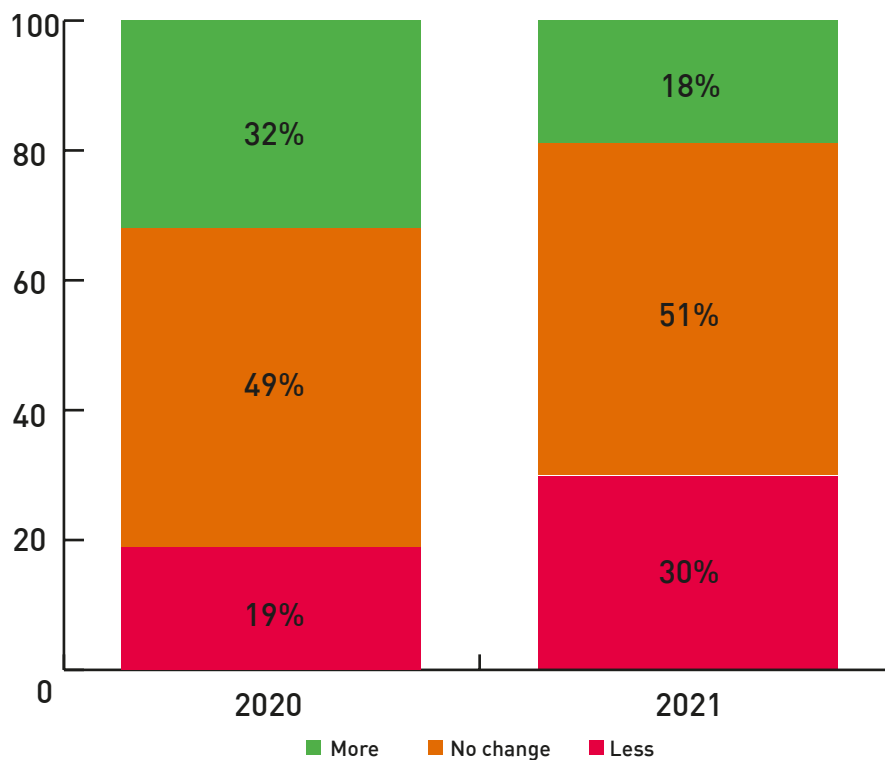
When asked about supply chain competitiveness, 30% of companies believe that the Scottish supply chain has become less competitive in an international context over the past twelve months, up 11 percentage points since last year.

Approximately  
**70%**  
of companies stated that the supply chain has either maintained or improved its competitiveness over the past twelve months."

### Has the Scottish supply chain become more or less competitive in an international context over the last 12 months?

Figure 6.2

Source: Research Chamber/Aberdeen & Grampian Chamber of Commerce survey, 2021



The majority think there has been no change in Scottish supply chain competitiveness. Three in ten think Scottish companies have become less competitive in the last 12 months. There were a combination of factors including Covid, Brexit, less demand, squeezed margins and lack of government support. One in five think Scottish companies have become more competitive, that there has been more of a focus on quality/knowledge and that companies had been compelled to become more flexible.

Some example quotes from businesses on supply chain competitiveness are:

*I don't see a large influx of innovative companies*

*coming out of the UK which are capturing imagination and market share in the international Oil and Gas market. Seems a bit like business as usual to me.*

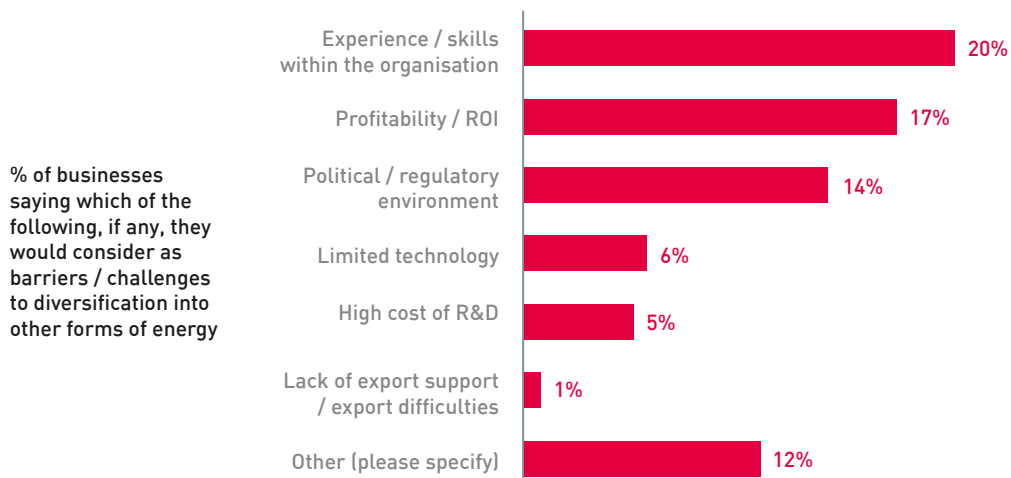
*The whole Brexit period over the last four years has significantly hit Scotland as a place to do business. The pound is weak against foreign currencies and the uncertainty in the economy has taken their toll.*

*Capacity has shrunk and a lot of expertise has been lost to the industry through downsizing*

*All companies have had to be flexible in their outlook on business and have been driven to change how they do business with local in international firms in the last 18 months.*



### 6.3 Biggest barrier to diversification is experience/skills within the organisation.



We asked businesses if there were skills currently in short supply within their organisation which will be required in the next five years in order to succeed in alternative energy markets?

**There were four main areas identified:**

Main Skills Area in short supply	Example comment
a) Engineering/electrical	Generally skills are available but if demand grows it will tighten demand for experienced electronics/subsea engineers.
b) Sales/business development	Business development expertise, or industry experts for diversified markets.
c) Renewables	Greater expertise of renewables especially hydrogen development usage.
d) Specialist skills	The marine sector has an ageing issue with experienced rig movers.

Source: Research Chamber/Aberdeen & Grampian Chamber of Commerce survey, 2021

### 6.4 The Brexit transition period has had limited impact on most businesses, but it has had a higher impact on some.

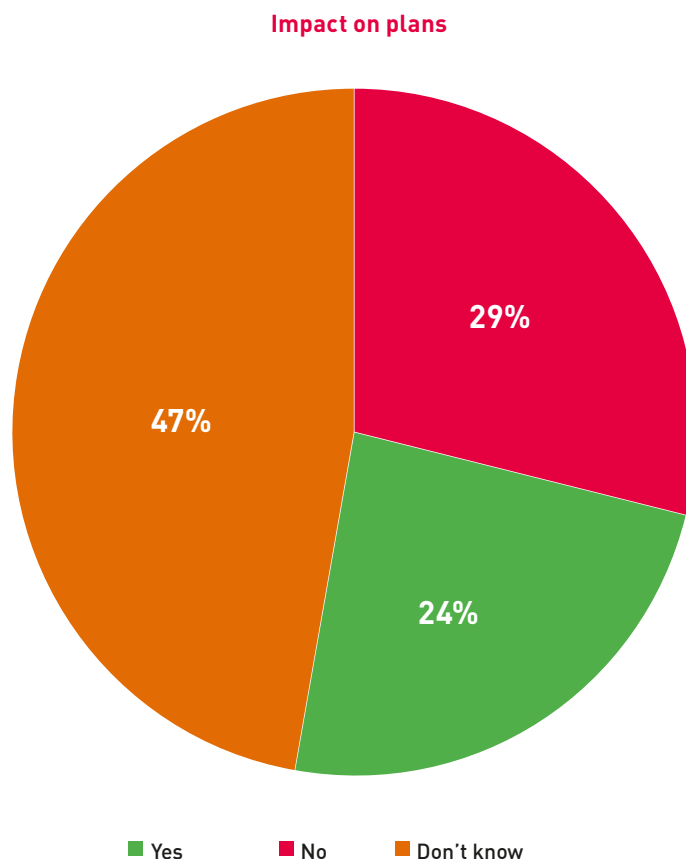
Following the end of the Brexit transition period, how have your organisation's international operations changed?

Business response	Limited/no change (30 comments)	Admin, delays (19 comments)	Higher impact (6 comments)
Example comment	No, we moved into local content development prior to Brexit and Covid which work well for us	No change other than longer transit periods and higher transport and customs charges.	Very hard to move equipment around, have become less competitive in Europe. We've had to look at employing more EU workers not based in UK. This will negatively effect employment in UK.

Source: Research Chamber/Aberdeen & Grampian Chamber of Commerce survey, 2021

### 6.5 One in four businesses think that the withdrawal of UK Government support will have an impact on their international activity and growth plans.

We asked businesses, "as of 31 March 2021 the UK Government no longer provides support for the fossil fuel energy sector overseas, other than in limited circumstances, to align its support to enable clean energy exports. In January 2021, the Scottish Government indicated that they would implement a similar policy this year. Will this have an impact on your company's international activity and growth plans?"



**Figure 6.5: Impact on Plans**

Source: Research Chamber/Aberdeen & Grampian Chamber of Commerce survey, 2021



## Case Study: Roemex Limited

### Tell us a little bit about your company, what do you do and what makes you different?

Roemex Limited provides Specialty Chemicals and Consultancy Services for the Global Energy Industry. We support activities such as the development, provision and utilisation of bespoke drilling and completion chemicals which enable safe and efficient drilling operations. We provide production chemicals to ensure safe, efficient, and sustainable operation of energy producing assets, and pre-commissioning and hydrotest chemicals to allow for the safe construction and preservation of production system infrastructure.

### Where do you have offices based and since when?

Office in Dubai – covering sales function in MEAP. No operational presence out with UK. Blending partner in KSA, Oman, Perth Aus. Agents/partners/distributors in Brazil, Norway, Nigeria, Angola, Sudan.

### Can you tell us about how your company has diversified internationally?

Through network of strategic partners in key geo markets. Has been of particular value during covid travel restrictions.

### What made you decide to do this? What market research did you conduct beforehand?

Yes – market intelligence and multinational service companies bringing us into their projects internationally

### What have been the main benefits for your organisation of operating internationally?

Market growth, sustainability, increased revenue, increase resilience, increased employment for staff.

### What has been your biggest business challenge when working internationally and how have you overcome this?

Local chemical registrations & environmental compliance. A problem compounded by Brexit.

### Has your organisation enjoyed any advantages as a result of operating internationally whilst being based in Scotland?

As above, increase resilience to global market upsets, job security, increased employment and opportunities for our team

### What are your company's goals for the next couple of years?

Survive the current post Brexit / covid climate & grow international renewable energy markets

### What one piece of business advice would you give to companies who might be looking to get into an international market?

Get your home market running perfectly first. The level of complexity in internationalisation in orders of magnitude is higher than working in the UK. Don't assume it will be easier elsewhere.





## **7. Concluding remarks from industry**



## Comment from the Chamber of Commerce



**Russell Borthwick**  
*Chief Executive*  
*Aberdeen & Grampian*  
*Chamber of Commerce*

This report comes at a pivotal time for Scotland's energy sector.

COP26 brought the global imperative that is climate change into sharp focus. The targets are clear, but how will they be achieved?

Being at the heart of the drive to develop and deliver green energy solutions is, perhaps, a bigger and longer-term economic opportunity for Scotland than when oil was discovered in the North Sea in the sixties.

We are in a transition. But as we embark on this exciting and vital journey, we must not forget the meaning of the word transition; 'A change of state over time'. We have a collective responsibility to maintain our country's energy security. Ensuring our homes are warm, the lights are on, and that the goods we consume are coming off production lines and keeping our country moving.

73% of our national energy needs are provided by oil & gas today but this will reduce significantly as we head towards 2045 and beyond.

The offshore energy sector supports 160,000 jobs in the UK today with roughly 80% in traditional oil and gas. A recent study by Robert Gordon University shows that by 2030 this could increase to 200,000, two thirds of which will be in low carbon activities. A remarkable shift inside a decade.

This will need huge investment, much of which will come from major operators beginning to

move their business models into offshore wind, hydrogen technologies and carbon capture and storage. But they need long term investor confidence, visibility of income streams and capital to do so.

And the collective expertise, innovation and skills built up over the last 60 years across supply chains, universities, agencies and other partners will be vital to ensuring we are, once again, at the vanguard of innovation and change. We must not let the opportunity pass.

The report tells us that this expertise is in high demand across the globe, reflected by strong performance in overseas markets and projects. This must be protected and further supported.

The survey results closely mirror many of the findings of the recent Oil & Gas Transition Survey undertaken by Aberdeen & Grampian Chamber of Commerce in partnership with KPMG and the Fraser of Allander Institute.

When it comes to general industry conditions, the research illustrates a mixed picture, with confidence and activity in the domestic sector trending below levels observed in international markets. This despite a sense that the Scottish supply chain has become less competitive in the last 12 months and a sizeable number of respondents saying that the withdrawal of Government support will have an impact on their international activity and growth plans. We must ensure they are supported going forward.

The story is of a sector that was making progress in recovering from the price crash of 2015 just as it was rocked by the pandemic. Despite these challenges, current performance and the future outlook are still promising.

It's clear that the oil and gas sector is pressing ahead with diversification but skills shortages could create blockages for these ambitions. It is our view that more action is needed to support firms in the sector to attract and retain the key talent which will drive the transition.

In summary, we need industry, our governments and politicians of all parties to get our transition steps in the right order to provide retraining opportunities, protect jobs, and create new ones. Doing so will ensure that the Scottish supply chain maintains its position as a world-class exporter of energy expertise, supporting countries around the world to meet our shared net-zero ambitions.

This project was carried out by the Research Chamber, an independent research and insight agency within the Chamber of Commerce that helps organisations make better decisions and unlock growth through understanding staff, customers, markets and competitors.

Find out how they can support your business:  
[www.researchchamber.co.uk](http://www.researchchamber.co.uk)

## How Scottish Enterprise and Scottish Development International can assist businesses to diversify

We asked businesses how SE/SDI can assist them to diversify. Some business said SE/SDI were already helping. The two main areas businesses flagged were understanding markets and funding/grants support.

Question: Are there any services that Scottish Enterprise or Scottish Development International could offer to assist your business to diversify, either into new sectors or into alternative energy?

### Understand new markets

We believe that Scottish Enterprise/Scottish Development International may be able to assist us in better understanding the needs of the renewables and hydrogen markets for our offerings.

Assisting us with understanding the profitability / ROI and stability of these new markets going forwards.

Awareness sessions of what these new markets are and how supply chain can interact with these new markets and services.

Help me research international markets.

Identify lists of products that small engineering companies might be able to manufacture for these sectors.

We really need to research if what we currently offer is likely to be of use in the alternative energy sector.

### Funding/Grants support

Financial support to recruit and employ business development expertise, for investment in new equipment for product development and testing, for plant expansion and modification to meet requirements of new industries.

Funding towards new products/technologies would help us to employ more people here and to deliver improved value to the Scottish economy.

Grants for R&D to enter new markets.

Provide support during the transition rather than just pulling the rug away. We need time to access offshore wind for example as many of these projects will not give us substantial revenue until 2025. How will we pay people until then?

### SE are helping already.

Very pleased with support given.

We are account managed and I will discuss this with my account manager.

We are already receiving support from SE.

Source: Research Chamber/Aberdeen & Grampian Chamber of Commerce survey, 2021.

Further information can be found at [www.scottish-enterprise.com](http://www.scottish-enterprise.com) or by contacting [enquiries@scotent.co.uk](mailto:enquiries@scotent.co.uk)





# 8. Appendices



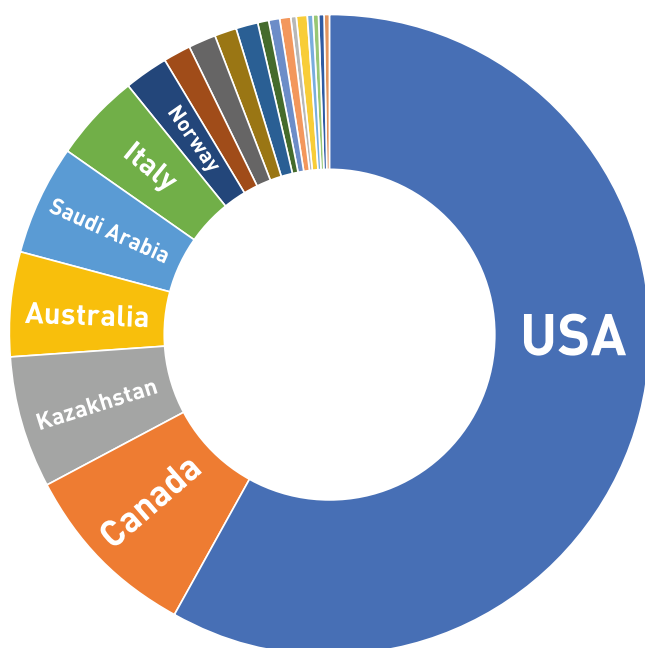
## 8. Appendices

### Appendix A - Country level analysis

The table below shows where the £13.2bn of international sales come from around the globe.

#### Sales by country (top 20)

Source: Research Chamber/Aberdeen & Grampian Chamber of Commerce survey, 2021 & model



Top 20 Countries	Overseas sales
USA	£7.5bn
Canada	£1.2bn
Kazakhstan	£0.84bn
Australia	£0.70bn
Saudi Arabia	£0.69bn
Italy	£0.59bn
Norway	£0.29bn
Malaysia	£0.18bn
Kuwait	£0.18bn
Rest of world	£0.14bn
Eire	£0.13bn
Oman	£0.09bn
UAE	£0.08bn
Netherlands	£0.06bn
Brazil	£0.05bn
Russia	£0.05bn
Azerbaijan	£0.04bn
Angola	£0.04bn
Algeria	£0.03bn
Singapore	£0.02bn

## Appendix B

#### Country rankings 2019 vs 2020

Source: Research Chamber/Aberdeen & Grampian Chamber of Commerce survey, 2021 & model

	USA	Canada	Kazakhstan	Australia	Saudi Arabia	Italy	Norway	Malaysia	Kuwait	Rest of world
2019/20 financial year ranking	1	2	3	4	5	6	7	8	9	10
Top ten last year	YES	YES	YES	YES	NO	NO	YES	NO	NO	NO

Please note that country and regional level sales data is by nature more approximate than the overall sales level analysis and so extra caution should be taken when interpreting and utilising this data.

## APPENDIX C

Countries that respondents reported international activity for are listed below.

Albania	Germany	Papua New Guinea
Algeria	Ghana	Peru
Angola	Greece	Philippines
Argentina	Guatemala	Poland
Australia	Guinea-Bissau	Portugal
Austria	Guyana	Qatar
Azerbaijan	Iceland	Romania
Bahrain	India	Russia
Belgium	Iraq	Saudi Arabia
Bolivia	Ireland	Senegal
Botswana	Israel	Sierra Leone
Brazil	Italy	Singapore
Brunei	Ivory Coast	Slovakia
Cameroon	Japan	South Korea
Canada	Kazakhstan	Spain
Cape Verde	Kenya	Sweden
Chad	Kuwait	Switzerland
Chile	Libya	Tanzania
China	Malaysia	Thailand
Colombia	Malta	Trinidad and Tobago
Congo	Mexico	Turkey
Croatia	Morocco	UAE
Cyprus	Mozambique	Uganda
Denmark	Myanmar	Ukraine
Dominican Republic	Netherlands	United States of America
Ecuador	Namibia	Uruguay
Egypt	New Zealand	Uzbekistan
Equatorial Guinea	Nigeria	Venezuela
Finland	Norway	Vietnam
France	Oman	Zimbabwe
Gabon	Pakistan	

## APPENDIX D - International Sales by region

The table below shows sales by geographical region in 2019/20 compared to the previous three years.

### Sales by region

Source: Research Chamber/Aberdeen & Grampian Chamber of Commerce survey, 2021 & model

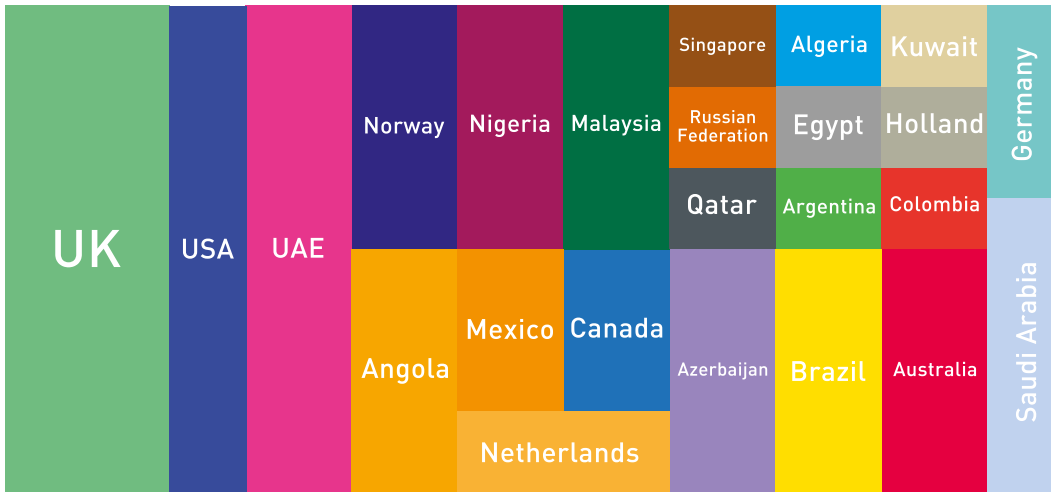
Rank	Region	Value £bn 2019/20	Value £bn 2018	Value £bn 2017	Value £bn 2016
1	Americas	8.8	3.8	3.8	3.2
2	Europe inc non-EU	1.1	2.3	2.6	1.6
3	Middle East	1.1	1.0	0.6	0.9
4	Caspian	0.9	0.4	0.2	0.7
5	Australasia	0.7	0.4	0.2	0.4
6	Asia Pacific	0.3	0.9	0.7	1.2
7	Africa	0.1	1.1	0.7	1.4
8	Other	0.1	1.2	0.8	1.1
	<b>Total</b>	<b>13.2</b>	<b>10.9</b>	<b>9.7</b>	<b>10.4</b>



## APPENDIX E – Growth Ambitions

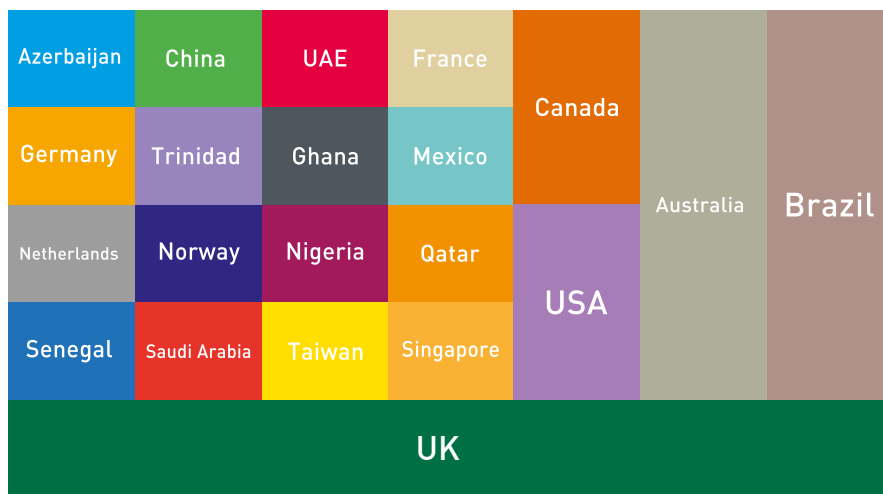
### Drilling and wells growth ambitions - country mentions

Source: Research Chamber/Aberdeen & Grampian Chamber of Commerce survey, 2021 & model



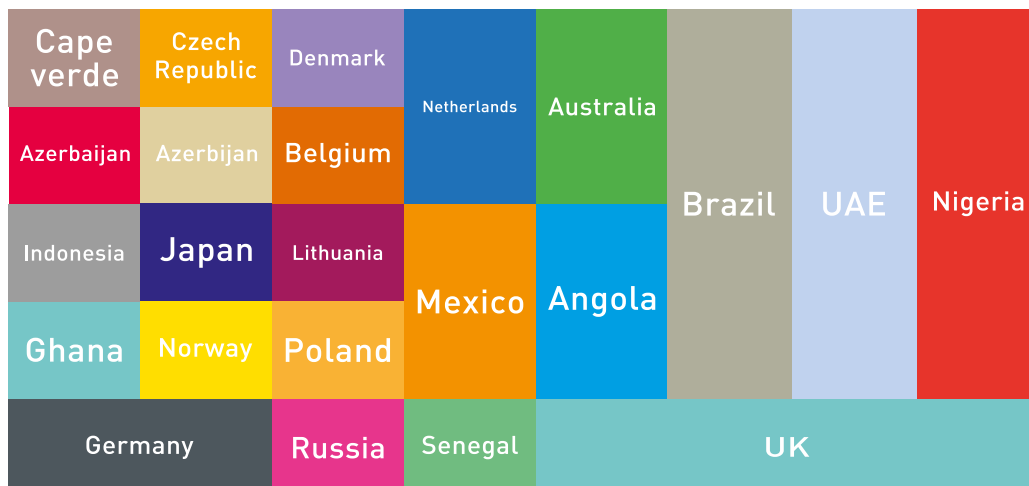
### Marine, subsea and pipeline growth ambitions - country mentions

Source: Research Chamber/Aberdeen & Grampian Chamber of Commerce survey, 2021 & model



### Integral and support services growth ambitions - country mentions

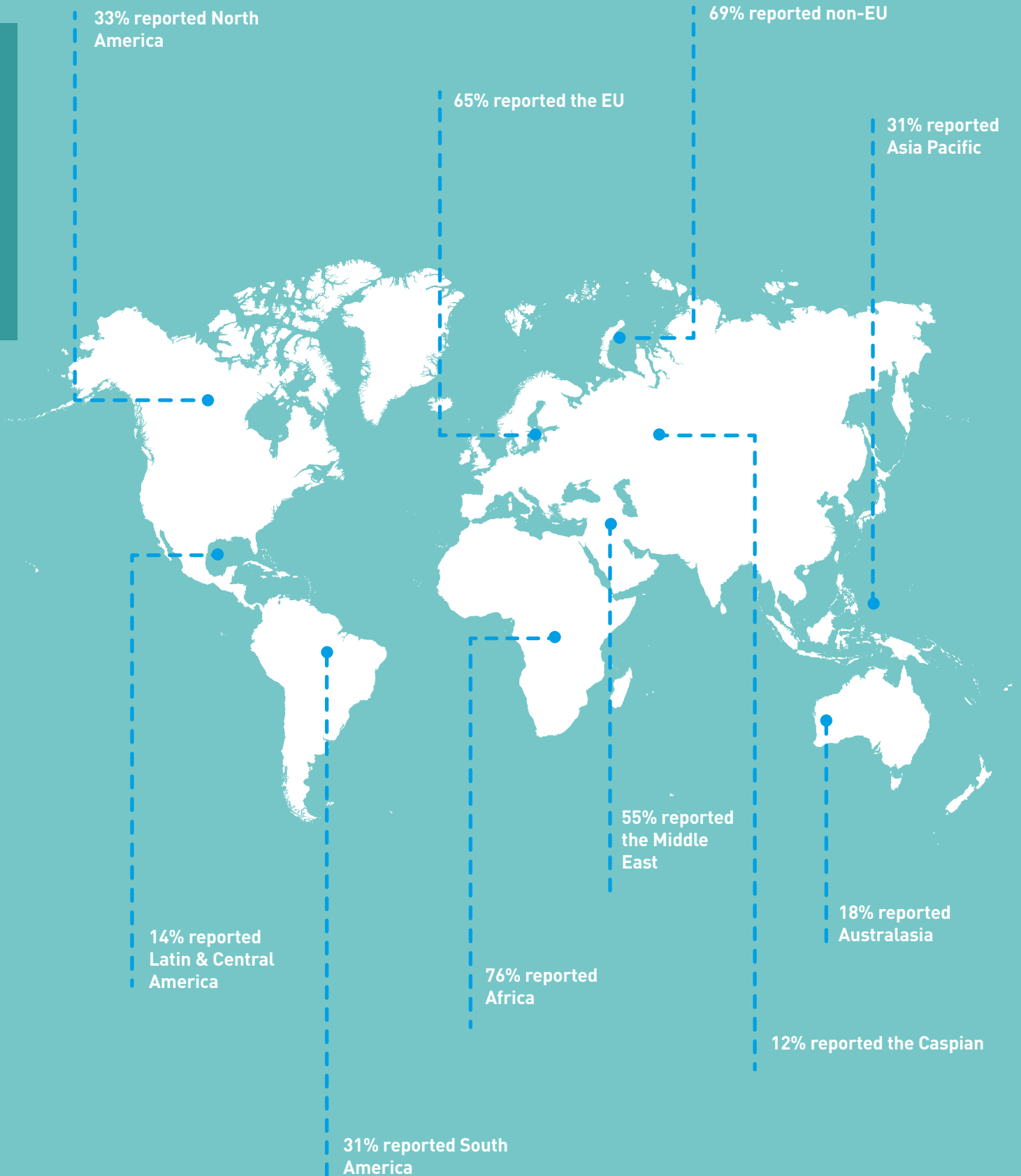
Source: Research Chamber/Aberdeen & Grampian Chamber of Commerce survey, 2021 & model



## APPENDIX F

### Top regions named for growth in the immediate future

Businesses who expect growth in the immediate future see that coming from a wider range of regions. The rises were notable, for example EU +30pp, non-EU +28pp and Africa +26pp. Only three regions went down (North America -10pp, Middle East -7pp and Asia Pacific -4pp)



## Appendix G – Description of the sector

### The oil and gas supply chain

Source: adapted from Oil & Gas UK

Operators arrange the financing, licensing, and organisation of a project. They vary in size and in-house capability and thus in how they use the supply chain.

This segment provides support and services directly to both operators and contractors. This can range from the specific (e.g. offshore catering and specialist training) to the generic (e.g. recruitment and IT support).

Services and products provided to the upstream oil and gas industry can generally be segregated into 5 sectors. It should be noted that many multi-service companies straddle more than one category.

The supply chain includes all companies involved in a project including the end user (e.g. the operator). The nomenclature typically refers to the operator as tier 1, the main contractors as tier 2 and sub-contractors as tier 3. Companies can straddle more than one tier.

		<b>Operators (Tier 1)</b> All types of exploration, development and production companies: integrated majors, large and small independents, energy utility companies, non-operating companies, exploration companies				<b>Integral and Support Services</b>
		<b>Reservoirs</b>	<b>Drilling and Wells</b>	<b>Platforms and Topsides</b>	<b>Marine, Subsea and Pipelines</b>	
<b>Tier 2</b> Main contractors and consultancies		Reservoir engineering/management consultancies Seismic data acquisition & processing contractors	Well services contractors Drilling contractors Well engineering consultancies Cement contractors	Engineering, operation, maintenance and decommissioning contractors Engineering consultancies Structure and topsides design and fabrication	Marine/subsea contractors Heavy lift contractors Pipelay contractors Floating production storage units	Catering facility management Sea/Air transport Warehouse/logistics Communications Recruitment Training Health, safety and environment services Medical services Banking/finance Legal Insurance Accountancy Energy consultancies
	<b>Tier 3</b> Products and services suppliers, components sub-contractors and sub-suppliers	Geoscience consultancies Data interpretation consultancies Seismic instrumentation Data storage IT/Hardware software	Drilling & well equipment design and manufacture Drilling tubulars Laboratory services	Machinery/plant design and manufacture Engineering support contractors Specialist engineering services Inspection services Specialist steels and tubulars	Subsea manifold/riser design and manufacture Marine/subsea equipment Subsea inspection services	



## About Scottish Enterprise

Scottish Enterprise is Scotland's main economic development agency and aims to deliver a significant, lasting effect on the Scottish economy. Our role is to help identify and exploit the best opportunities for economic growth. We support ambitious Scottish companies to compete within the global marketplace and help build Scotland's globally competitive sectors. We also work with a range of partners in the public and private sectors to attract new investment to Scotland and to help create a world-class business environment.

There is an opportunity to increase Scotland's impact in overseas markets and by aligning our trade and investment activities with the work of our partners, we can maximise Scotland's international presence and visibility.

We achieve this through Scottish Development International (SDI), which is a partnership between the Scottish Government, Scottish Enterprise and Highlands and Islands Enterprise and its work is guided by the Scottish Government's strategy for economic development in Scotland.

### SDI International Activities and Support

SDI works to attract inward investment and knowledge to Scotland to help the economy grow. It also helps Scottish based companies to trade overseas and promotes Scotland as a good place to live, work and do business.

SDI has a network of over 40 overseas offices in over 20 countries across the globe, staffed by a mixture of local and expatriate staff. Its offices are a key entry point and interface into local companies and economies within a country or region. SDI also collaborate with its partner organisation, the Department for International Trade, in regions where SDI does not currently have an office to ensure that in-country support is available in those areas.

For companies that engage with us in the energy sector, SDI undertakes a series of targeted oil and gas focused missions and exhibitions that are designed to match company capabilities within country opportunities.

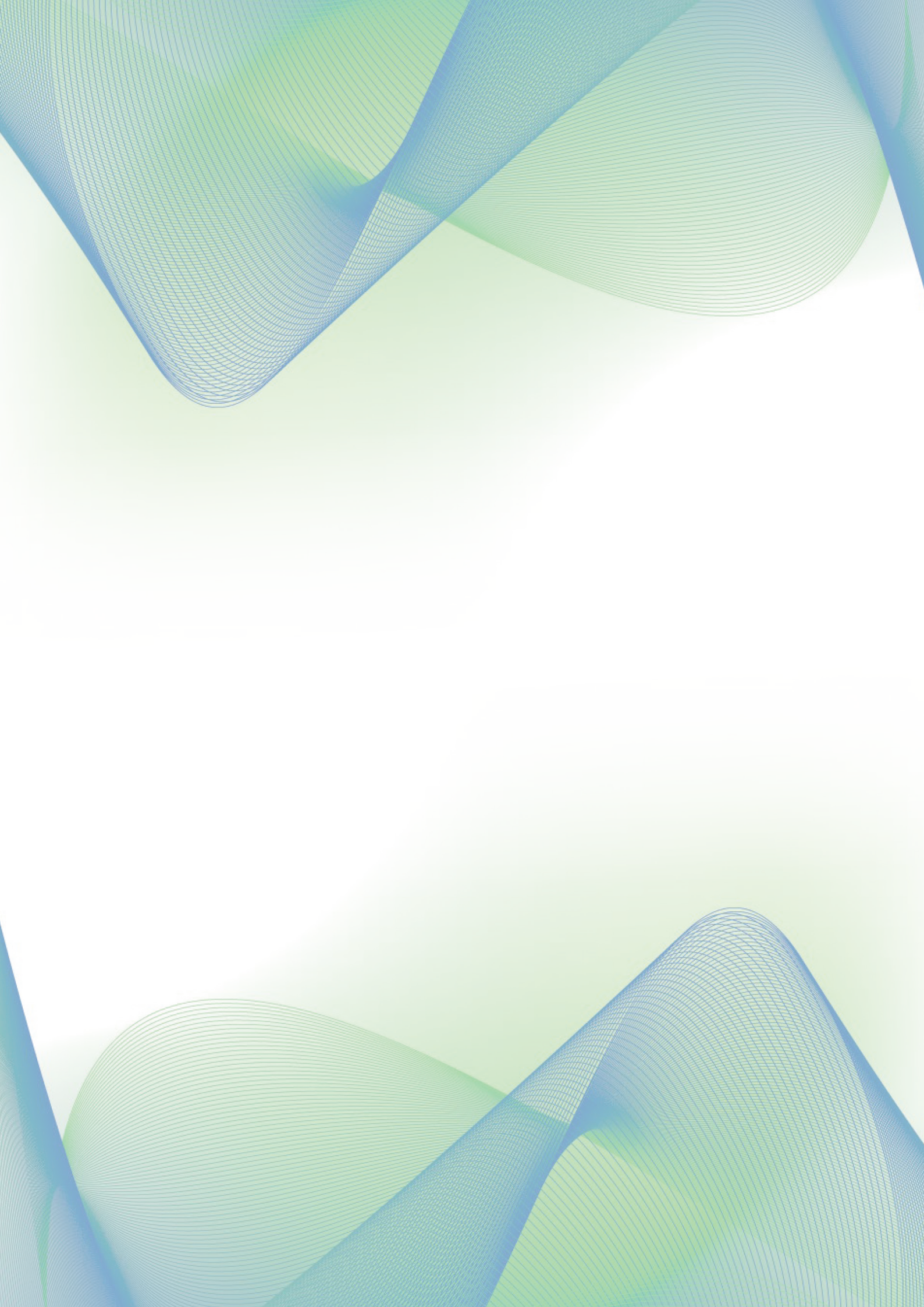
If detailed information is required on the business environment in a particular region, then we can rely on the support of a network of GlobalScots who hold positions of influence within international companies. They can provide valuable insights into the operating landscape in their respective regions and industries.

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**Scottish Enterprise**  
Atrium Court  
50 Waterloo Street  
Glasgow  
G2 6HQ

[www.scottish-enterprise.com](http://www.scottish-enterprise.com)

**Scottish Development International**  
5 Atlantic Quay  
150 Broomielaw  
Glasgow G2 8LU  
[investment@scotent.co.uk](mailto:investment@scotent.co.uk)

[www.sdi.co.uk](http://www.sdi.co.uk)