

SUPPLY CHAIN REPORT 2023



Building a competitive offshore energy supply chain for a net-zero future

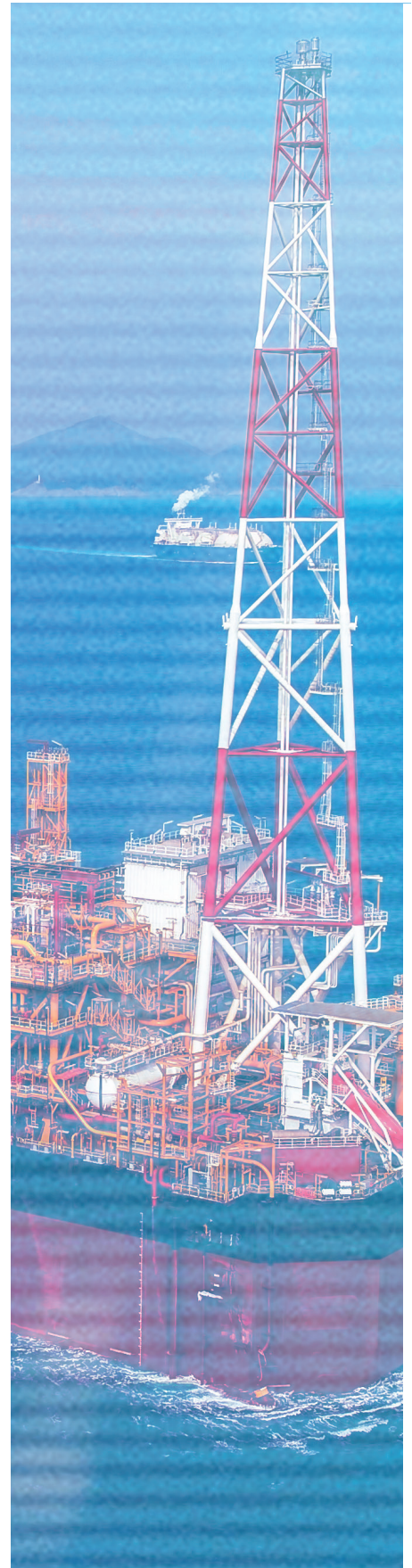




An integrating offshore energy industry which safely provides cleaner fuel, power and products for everyone in the UK.

Working together, we are a driving force of the UK's energy security and net zero ambitions. Our innovative companies, people and communities add value to the UK economy.

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SUPPLY CHAIN REPORT 2023

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Foreword

Katy Heidenreich, Director
Supply Chain & People
Offshore Energies UK



An amazing array of supply chain companies has developed over the past 50 years to support North Sea operators throughout the lifecycle of oil and gas production. They encompass companies of all sizes ranging from operators to large contractors delivering integrated oilfield services and includes small to medium enterprises (SMEs) with specialist capabilities. They are all supported by those with expertise in providing commercial, logistics and other services.

In 2022, the UK oil and gas industry contributed £28bn gross value added (GVA) to the economy, providing jobs for more than 200,000 people across the country. The sector's skills and capabilities have helped industry successfully execute activities on everything from searching for oil and gas deep below the seabed to building immense offshore platforms from concrete and steel.

UK companies continue to evolve to support emerging low-carbon energy systems, while ensuring we have electricity, transport and heating fuels. However, OEUK's engagement with the sector reveals that many businesses are under severe pressure, and we must do all we can to sustain supply chain companies and help them build capabilities to deliver a home-grown energy transition.

This report reassesses the supply chain in light of the UK's integrating offshore energies industry as companies diversify into offshore wind, carbon capture and storage and hydrogen.

It sets the rapidly changing context in which these companies operate, outlining both internal industry challenges and external pressures. Our aim is to identify both where stronger focus is needed and where change is required to ensure the UK is an attractive place for the supply chain.

We share feedback from our member companies and outline the risks that impact their business growth. And we consider the changes we need to make if we are serious about creating a competitive energy supply chain with globally exportable expertise – a key part of the North Sea Transition Deal we agreed with the UK government.

The Scottish government has published its own draft energy strategy. As our report makes clear, while the supply chain is UK wide, Scotland is at its heart, being home to over 90,000 of the total number of jobs. It is therefore vital that its government works with the sector and recognises the Deal as a vehicle for delivering net zero emissions and the just transition. We need all levels of government to work collaboratively to ensure success for the supply chain during the transition.

There's been a storm brewing for some time: businesses have come under pressure from a powerful and expanding catalogue of negative factors.

Our supply chain management sentiment survey reveals the sector has little confidence in its ability to invest in future growth and the energy transition.

Many companies say that cost inflation is squeezing their profit margins.

The government's Energy Profit Levy further reduced confidence. In May more than 30 organisations in our offshore energy supply chain warned government that speculation on this windfall tax was undermining their recovery from the pandemic and associated recession. In September, a further rise cemented our position as the most highly taxed industry in the UK.

We're proud to pay our taxes and support the UK government and consumers, but unpredictable changes like this affect the confidence of those looking to invest in North Sea offshore activity, operators and supply chain alike. The UK needs to be competitive in a global context and we are seeing investment, equipment and resources being diverted overseas. This is already impacting the supply chain's ability to plan and our ability to service activity in the near term.

Alongside these financial constraints, we recognise our industry's need to improve commercial behaviours. OEUK's Supply Chain Principles set out what good procurement behaviours look like. Our Working as One survey, which measured how companies are adhering to these, showed there is greater focus needed on improving on-time payment, encouraging the adoption of innovative contract models and ensuring a fair balance of risk and reward between buyer and supplier.

With the support of our Supply Chain Champion, Sian Lloyd-Rees, we are working to grow the confidence of companies and engage with governments, politicians, and other stakeholders whose support we need to build a competitive energy supply chain here in the UK.

Our 2022 *Economic Report* estimates that over the next decade, the UK offshore energy sector could spend over £200bn, providing jobs for over 200,000 people, as it expands low-carbon energy production. This industry is already developing a world-leading, offshore energy supply chain but the race is on. The UK needs to catch up with faster-moving countries. To anchor our supply chain in the UK, capture at least half of future project activity and secure jobs here, we need urgent action from both government and industry to ensure the UK supply chain has the support to seize the great opportunities ahead.



**Katy Heidenreich, Director
Supply Chain & People**

1 Introduction

Our UK energy supply chain is made up of a network of companies providing a huge range of products and services. This extensive ecosystem provides the offshore industry with almost everything it needs, from seismic acquisition and interpretation of reservoir data, exploration and appraisal drilling, through to field developments and production operations and ending with decommissioning at the end of a field's productive life. Robert Gordon University's UK Offshore Energy Workforce Transferability Review highlighted that most of these skills and capabilities are directly transferable, or easily adapted, to new energy industries including floating offshore wind, hydrogen and carbon capture and storage. Indeed, many UK supply chain companies are already active in these emerging sectors. They will be critical in our efforts to deliver a carbon neutral basin by 2050.

Through a variety of forums and workgroups, OEUK aims to ensure the voice of the supply chain is heard. These include the Supply Chain Forum, SME forum and workgroups focusing on topical issues. As the energy environment is never still for long, OEUK conducted two major surveys to gain a deeper insight of the challenges faced by the supply chain and these form the basis of this report. The Working as One (WaO) survey measured adherence to OEUK's Supply Chain Principles (SCP, *see below*), offering a unique insight into contracting behaviours and relationships between organisations. And the Supply Chain Management Sentiment survey revealed the factors threatening the welfare of supply chain organisations.

This report communicates the key findings, highlights the challenges facing the UK supply chain and proposes recommendations.



2 Calls to action

For government:

The government needs to demonstrate their ongoing commitment to delivering net zero by 2050, while recognising the role of domestic oil and gas production during this journey. For the supply chain to transform into new carbon energy, we ask the government to create an internationally competitive and level playing field to encourage supply chain innovation and sustained investment for a net zero future.

The government must provide a stable regulatory and fiscal framework which provides the supply chain with a predictable and attractive business environment to continue investing in supporting the UK's energy security.

Government must work closely with industry to inform decision making and policies which ensure visibility and certainty of opportunity for the supply chain. This will help generate the confidence required for the supply chain to build the capability and capacity required to help deliver energy projects.

We ask for the government's support to help ensure that the local UK supply chain accounts for 50% of the inputs into new energy projects. Leveraging the skills and technologies of new and existing UK companies will be crucial to realising our net-zero goals.

For industry:

Greater focus is needed on support for OEUK's Supply Chain Principles from the whole sector and we encourage more supply chain companies to participate in the 2023 Working as One survey

Purchasing organisations including operators & tier 1s must improve adherence to OEUK's Supply Chain Principles to develop and maintain strong business relationships with the supply chain. Priority areas include ensuring the fair allocation of contractual risk and reward, paying invoices on time, and encouraging innovative ways of working.

Operators must provide more visibility, predictability, and certainty of upcoming work scopes, otherwise supply chain companies will lack the confidence needed to invest in future activity.

Industry should continue to strengthen its commitment to driving earlier, more open, strategic engagement between operators and supply chain companies. Through greater collaboration on demand planning, project scheduling and resource sharing, the industry can improve its competitiveness, and ensure the resources are available for the supply chain to effectively support long term energy supply.

Building a competitive local supply chain, and achieving local content targets, will require investment in building supply chain capability and capacity ahead of the projects (minimum of three years pre-final investment decision).

Offshore supply chain

UK energy operators rely on hundreds of other firms for equipment and services

1

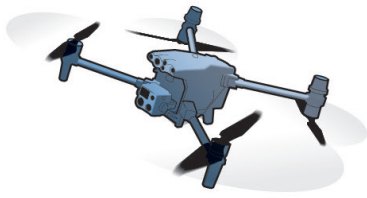
Aviation contractors transport people and equipment



5

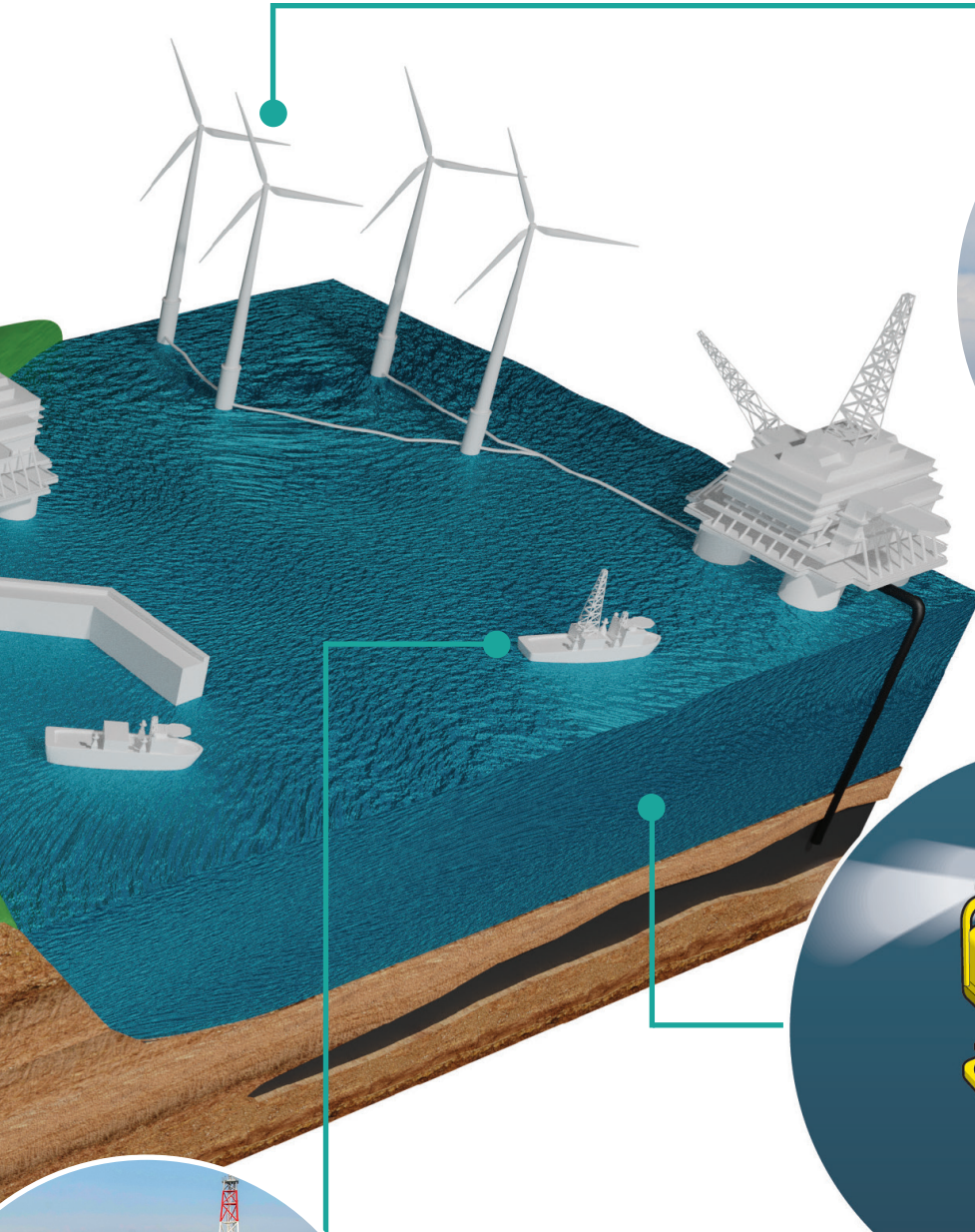
Pipes, cables and other vital kit comes from offshore contractors





2

Wind energy contractors build turbines on shore



4

Support vessel contractors ferry kit and supplies offshore

3

Subsea contractors maintain underwater equipment



Summary Information

Energy security

- With demand recovering from the pandemic, the Russian conflict in Ukraine has sparked an energy supply crisis.
- The supply chain has played a crucial role in shocks to energy supply.
- The supply chain is diversifying its offerings to support energy security and drive the energy transition.

UK competitiveness

- CPI inflation reached **11%** in 2022.
- Supply chain contract margins are being eroded.

11%

Product and service delivery

- Competition for resources including equipment and people has intensified.
- **78%** of organisations have experienced an increase in overall product and service lead times and a fall in on-the-shelf availability.
- On average, product lead times have increased by **30%**.

78%

Contract behaviour

- A **10%** improvement in Supply Chain Principles adherence demonstrates more collaborative effort throughout the supply chain.
- Risk is being passed down the supply chain to those least able to absorb it.
- There are inefficiencies in the ways 'accounts payable' are processed.

Labour shortages



- Supply chain organisations, particularly tier 2s, expect to grow their workforce considerably (**15%**) over the next two years.
- However, there is strong competition for skills within and across sectors.
- Specific disciplines affected include reservoir, mechanical and electrical engineers and supply-chain management roles.



Visibility of work

- A fifth of supply chain organisations stated that their 2021 forecasts were less than **25%** accurate while only a similar proportion had very accurate forecasts.
- There is poor visibility and low confidence in relation to the dimensions of their pipeline of work.
- Improving visibility and more certainty of work will ensure the supply chain retains and invests in resources in the UK.

<25%

Definitions

Tier 1: Direct providers of the final product or services to the operator. They are often large organisations with a global presence providing integrated project solutions.

Tier 2: Supplier or subcontractor to the tier 1 supplier. These organisations can vary greatly in size and presence.

SME: An organisation that has fewer than 250 employees and a turnover of less than €50mn or a balance sheet total less than €43mn. These organisations make up most businesses providing products and services to the UKCS.

3 OEUK's Ten Supply Chain Principles



Risks and costs should be borne appropriately, proportional to the work scope and the opportunity for good performance should benefit everyone.



Contractual terms and conditions will seek to utilise industry standards including mutual payment terms.



All parties should ensure they have the competence and skills to deliver the work being tendered.



Contract cancellations should not be without good reason or cause. If buyers and suppliers must have the ability to terminate a contract, the circumstance or risk should be outlined, explained and understood.



Purchasers shall endeavour to optimise their tendering and audit requirements to respect the supplier's time and resources.

Supply chain champion

The appointment of a Supply Chain Champion is a key deliverable for the North Sea Transition Deal. Since 2021, Sian Lloyd-Rees has been championing the industry as it works to support the government's ambition to achieve net zero emissions by 2050. Ms Lloyd-Rees promotes supply chain innovation, expertise and capabilities to ensure UK firms are in a strong position early on to compete and win contracts for new energy projects at home and abroad. These companies will be needed to deliver the clean and innovative energy technologies that will help move the UK towards a low-carbon future.



Tender processes and evaluation should be based on value-added rather than unit rates and be flexible to evaluate alternative offers as part of the bidding process.



An alternate bid (either technical or commercial) which a buyer sees as a winning proposition should be selected for award on its merit.



Buyers and suppliers should discourage the practice of “low-ball” bidding which will lead to contracts being renegotiated early on.



Buyers should agree clear rate escalation mechanisms and move away from the practice of fixing labour rates for several years.



Where a supplier (or potential supplier) feels unfairly treated, it should notify the buyer’s CEO to ensure that speaking up is not held against it.

Supply chain principles awards

oeuk
Supply Chain Principles

This is to certify that

_____ has achieved
the OEUK Supply Chain Principles

Gold Award



Date: *2nd of February 2023*

Valid for one year from date of issue

OEUK Supply Chain Principles Awards, based on results from our Working as One survey, celebrate companies who are committed to good procurement practice and who show positive collaborative behaviour. There are three categories: Gold, Silver, and Bronze. Additional points are awarded for adherence to Payment Performance, Risk & Reward, and Innovation.

OEUK 'Working as One' survey

The health and prosperity of our supply chain and the full realisation of the North Sea Transition Deal is dependent upon sustainable contracting and a collaborative approach. This will be achieved through greater adherence to OEUK's Supply Chain Principles. They were written by industry for industry and describe what good procurement practice looks like. OEUK's WaO survey is a bi-annual survey launched in 2021 and has been designed to measure how companies – both operators and supply chain companies – are adhering to the Supply Chain Principles.

The Working as One (WaO) 2021 survey garnered over 420 individual responses from 58 companies split evenly between operator, tier 1 and tier 2/SME organisations. The survey respondents represented 98% of total UKCS production.

The WaO survey showed a 22% increase in the awareness and recognition of the Supply Chain Principles and a 10% improvement in adherence, however there was no meaningful change in the three areas causing most pain for supply chain companies, namely fair

sharing of risk and reward; timely invoice payment and open-ness to innovation. OEUK continues to drive greater support for the Supply Chain Principles from across the whole sector and encourages more Supply Chain companies to participate in the 2023 WaO survey. You can read the summary of the 2021 survey results on OEUK's website: oeuk.org.uk/product/working-as-one-survey/ Based on the survey, OEUK has prioritised three areas of focus related to the supply chain principles:

- Fair sharing of risk and reward between clients and supplier in their contracts;
- Improving on time invoice payment performance; and
- Willingness to consider innovative or alternative ways of working.

Three task finish groups have been created to share good practices and new ways for organisations to work better with their supply chains.



3a Fair balance of risk and reward

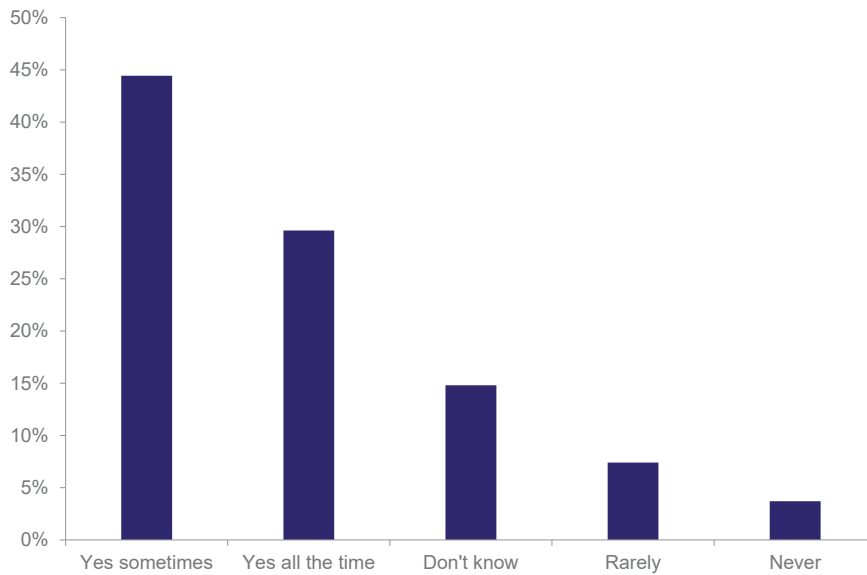
Are potential risks and rewards objectively discussed and evaluated before the contract starts and thereafter shared appropriately? (See figures below.)

Generally it is a positive story, with over 70% agreeing that risks and rewards are discussed before the contract starts. Over 65% agree they are reviewed during

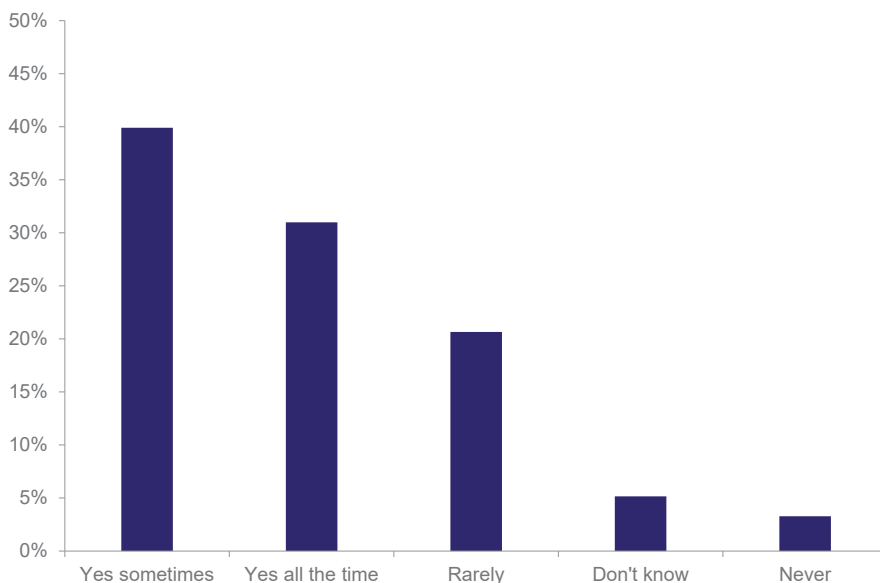
the contract's life. However, the results produced a slightly different story further down the supply chain, showing the two are not fairly balanced: there is more focus on the short-term costs than on the long-term value that healthy commercial relationships can create.

Over a third of tier 2/SME companies said risks and rewards were never reviewed during the contract's life-cycle and 30% said potential risks and rewards are rarely

**Figure 1:
Combined (all responses)**



**Figure 1a:
Operators**



or never evaluated or shared proportionally before the contract starts up. Some Tier 2 organisations have proposed their own commercial models that better balance the relationship, but their pleas have seldom been heard. Tier 2/SME organisations may walk away from contracts if they feel the rewards do not offset the risks of failing to meet the requested targets.

The survey also showed, for the first time, that risk reduction was ranked higher

(when considering commercial contractual agreements) than cost reduction. Over 70% of the responses cited lower risk while 59% picked cost reduction as a 'top three' priority when considering commercial contractual agreements.

A focus on cost reduction without considering the full value proposition of a commercial proposal can deprive the supply chain of the healthy margins it needs to invest and offer more innovative solutions.

Figure 1b:
Tier 1

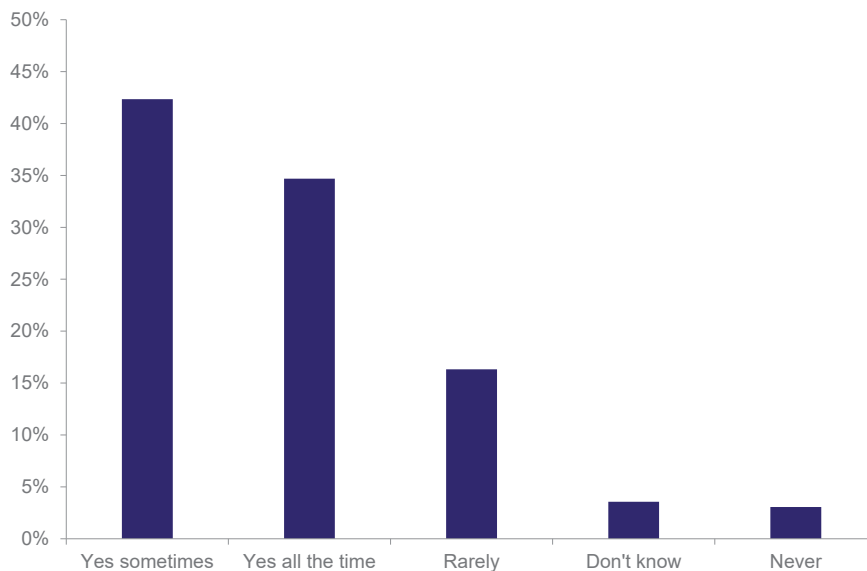
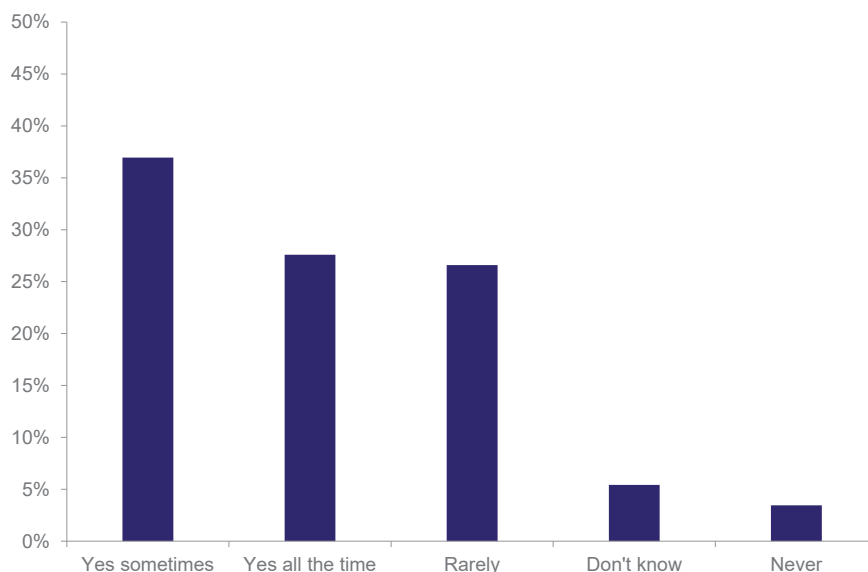


Figure 1c:
Tier 2/SME



3b Improving payment performance

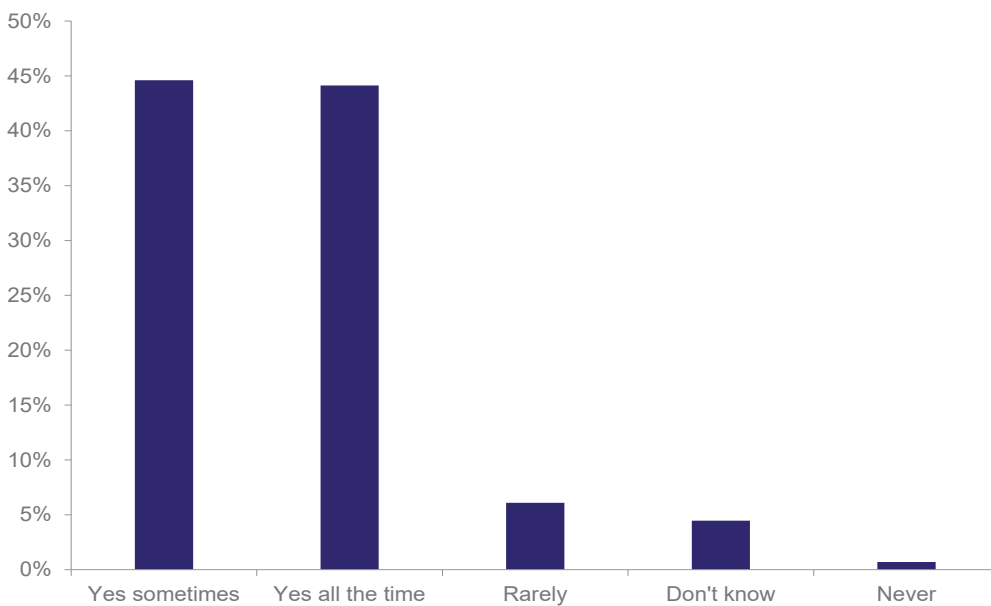
Are invoices paid on time? (See figures below.)

Payment performance is an important metric in assessing the health of business relationships. It is core to sustaining healthy cash flow throughout the supply chain tiers

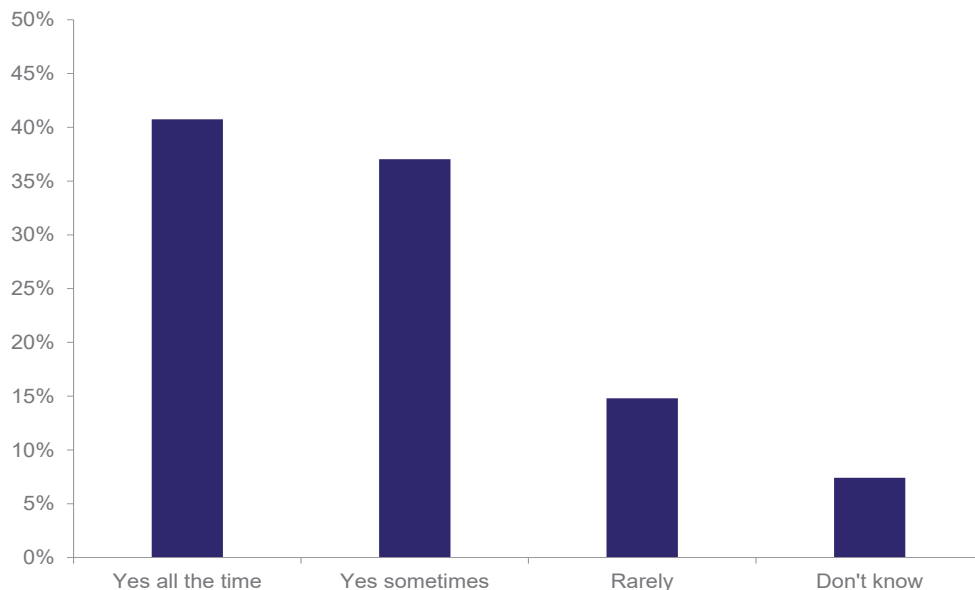
and is vital for SMEs with low cash reserves. Cumulatively, under half of responses said payments were always made in full compliance with the contract. Another 45% said they sometimes were.

From a procedural perspective, counterparties agree that the 'accounts payable'

**Figure 2:
Combined (all responses)**



**Figure 2a:
Operators**

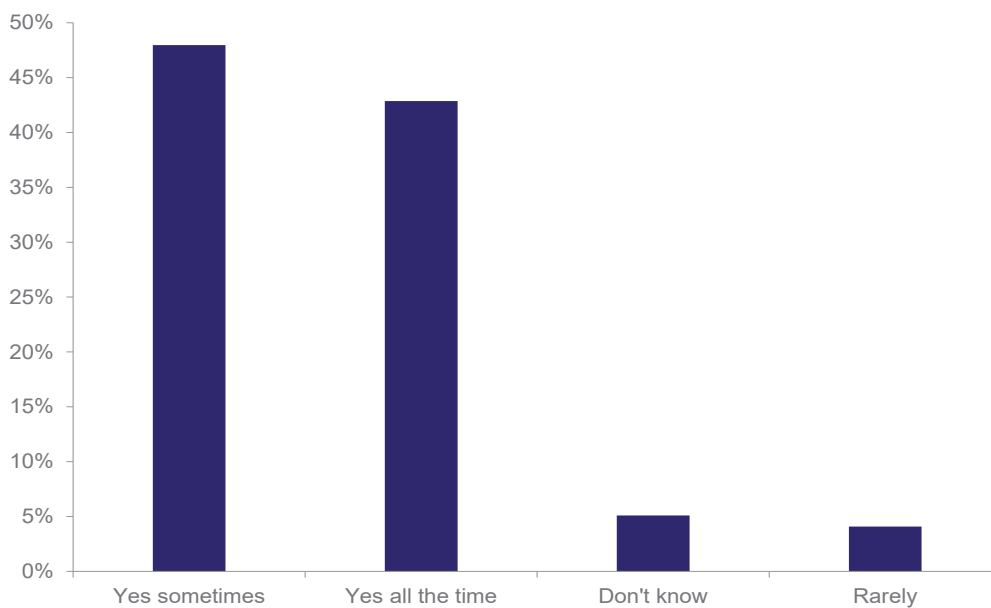


and invoice dispute resolution procedures are explained 59% and 48% all the time respectively before the contract starts.

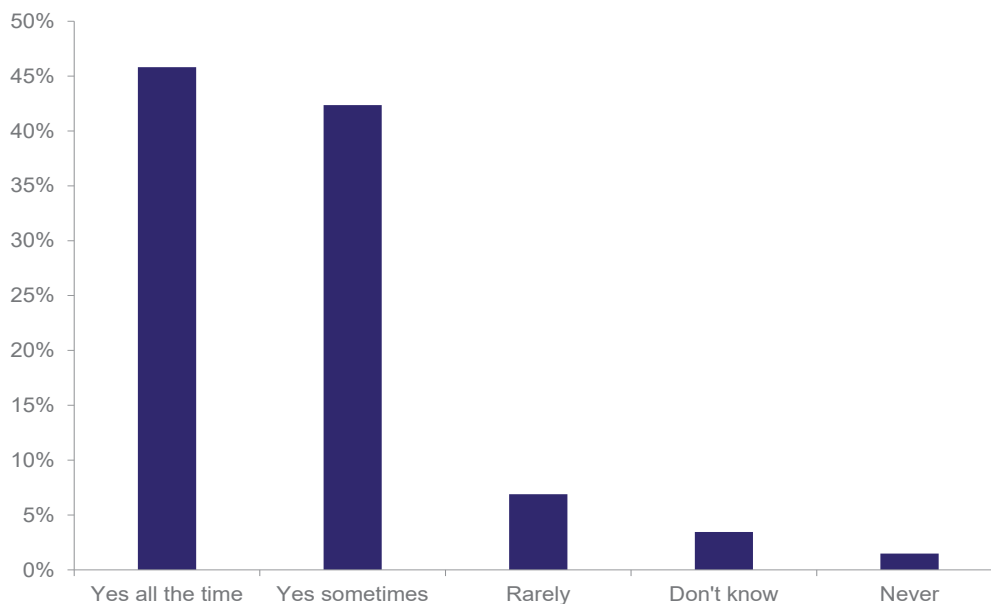
OEUK is developing a 'good practice' document on the 'procedure to pay'. This will help organisations streamline their supplier invoice payment procedures. As it

stands, the survey showed that only a third of respondents expedite payments to tier 2/ SME companies. Adding up the totals for each category (tier 1, tier 2 and SME), 75% of responses have payment terms of 30 days but only 45% of total payments comply with the terms and conditions all the time.

**Figure 2b:
Tier 1**



**Figure 2c:
Tier 2/SME**



Most recently, the OEUK Board has supported an update to the Supply Chain Principles to include 30 day payment as good practice.

3c Innovation/alternative ways of working

Do you request and/or provide new ideas as part of the tendering process? (See figure 3.)

Are suppliers encouraged to discuss work scopes outside the tender process and come up with innovative approaches? (See figure 4.)

Encouragingly, the WaO survey shows that industry is supporting innovative thinking. More than four fifths of respondents request and/or provide new ideas as part of the tendering process; and four fifths say the tendering process allows consideration of such ideas.

As highlighted above, any inefficiencies are felt further down the supply chain, where 35% of Tier 1's and 38% of Tier 2/ SME organisations say that the goal of cost cutting discourages innovative thought during the tendering process, however much the bidder may believe in the importance of value adding.

Working as One survey

The Working as One survey encourages suppliers to rate the cooperative behaviours of their customers according to their adherence to the Supply Chain Principles. These principles outline how companies can drive continuous improvement in business collaboration and good procurement practice. The Working as One survey will be issued again in 2023 with supply chain companies encouraged to participate.



Figure 3:
Combined (all responses)

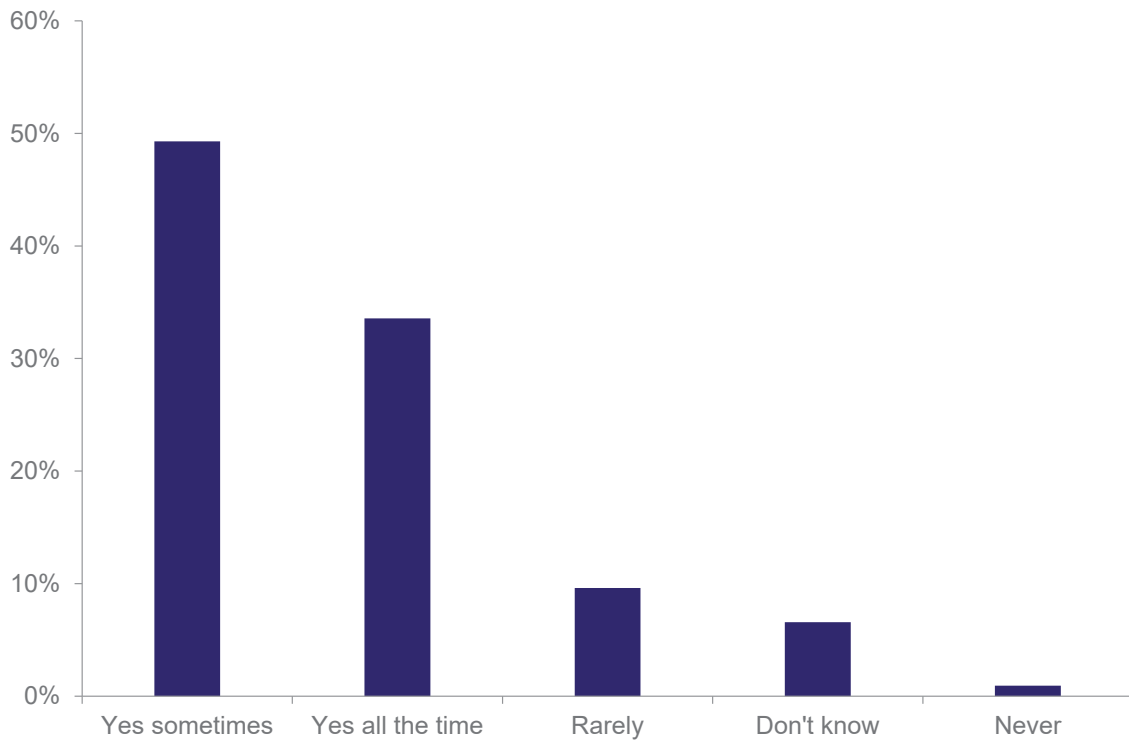
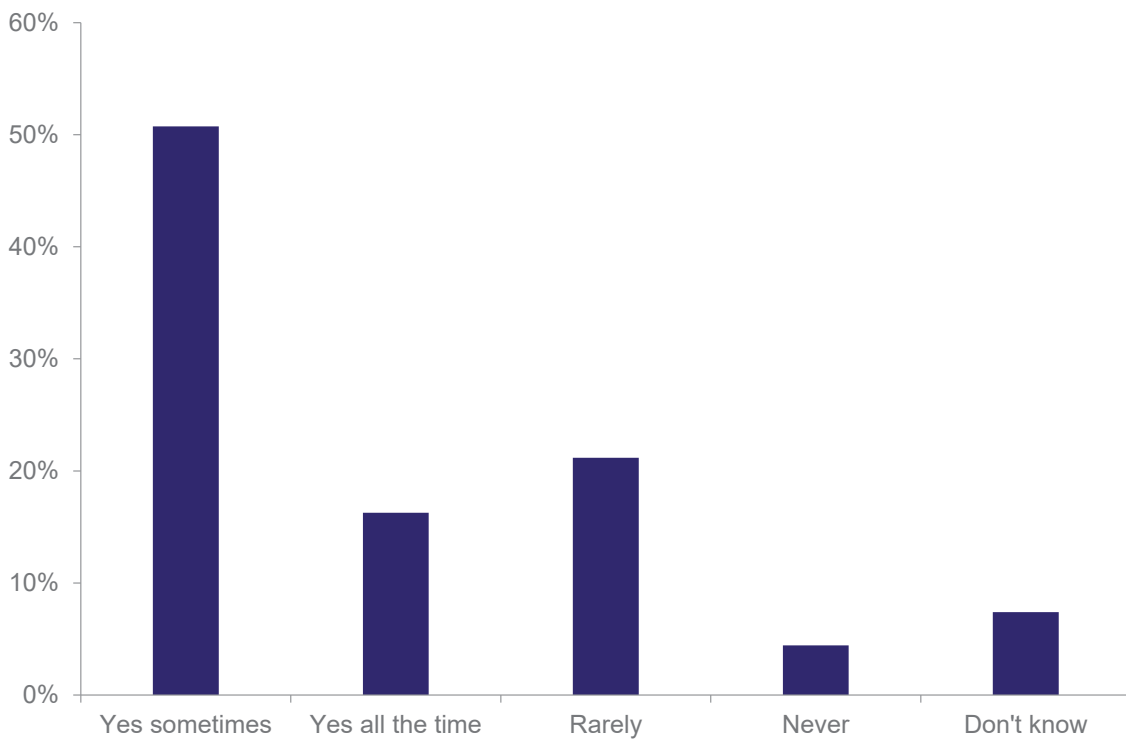


Figure 4:
Combined (all responses)



Katoni Engineering's partnership with Dana Petroleum: why it works

Katoni Engineering and Dana worked together initially for five years on a small scale, with procurement undertaken through competitive tendering. Over the next three years Katoni tendered for around 21 scopes and won 19 of them.

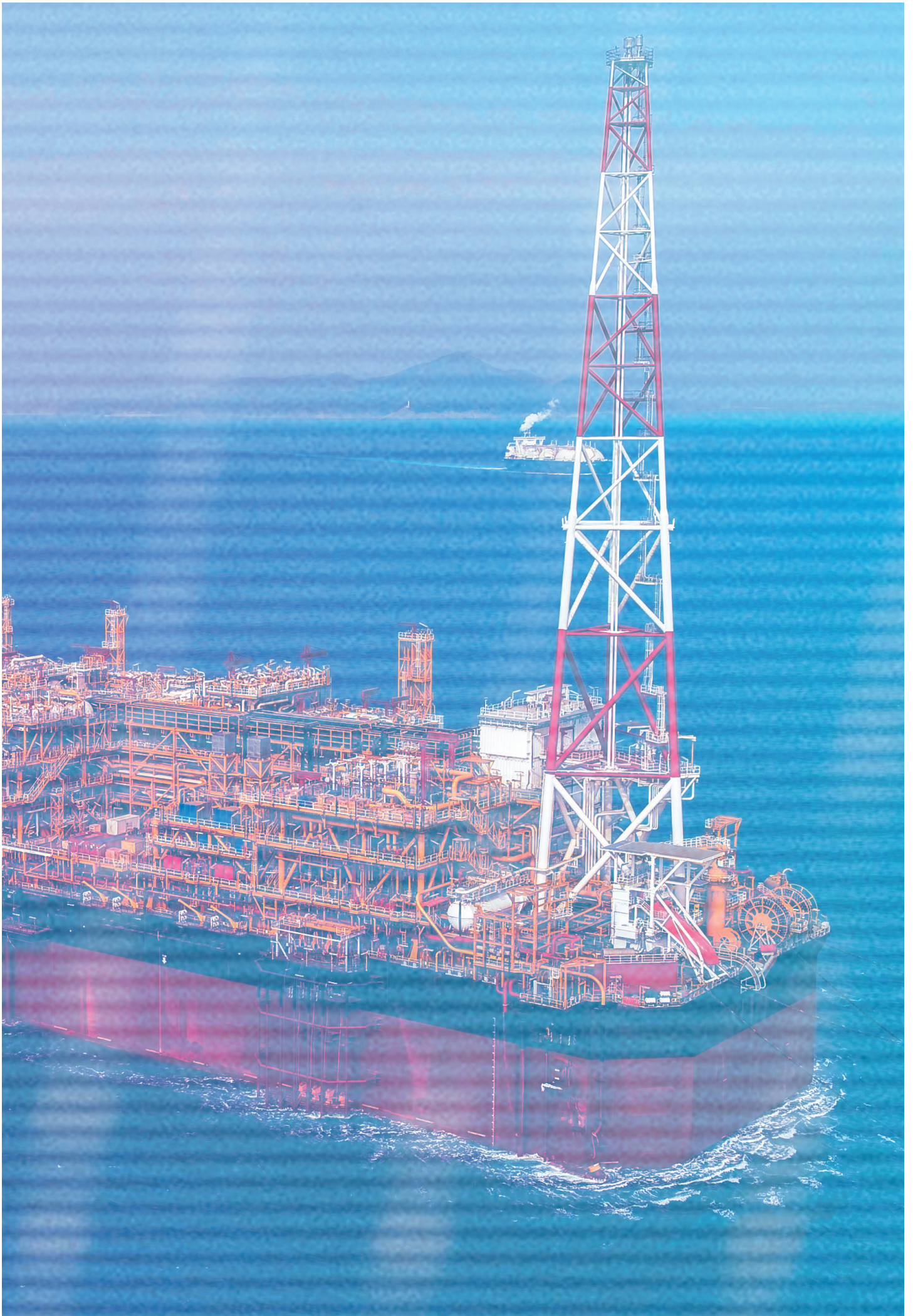
Around 2020, Dana Petroleum reviewed the outcome of these tendering processes and decided to award Katoni an updated frame agreement and now the two companies operate on a partnership basis. While the agreement is non-exclusive, the trust and transparency it has created have reduced the need for competitive tendering exercises, saving both companies time and money.

The relationship has worked for several reasons but fundamentally because both parties are committed to the partnership. Dana has shown significant flexibility around contractual and payment terms, particularly for major packages. Katoni has shown a willingness to go the extra mile and has consistently delivered. An important element of this has been continuity in the Katoni workforce and senior level commitment.

Dana has contributed to the success of Katoni's work by delivering high quality scopes of work. Where required, Katoni has been involved in the development of those scopes. In addition, for almost all scopes a consistent approach to delivery and pricing has been adopted. Both teams have allowed small scale studies initially moving through Define and Select Phases to tighten definition, costs and scheduling. This has driven transparency and ensured ownership and has put accountability both commercially and in a delivery sense in the right hands.

The glue holding the relationship together has been regular informal and formal meetings and discussions. Katoni has offered support to Dana from across the business, not just engineering, where particular projects require IT and Procurement and Management support. Dana has allowed access to forward plans and involved Katoni to support good workforce planning too.

- Use of competitive tendering to prove commercial savings;
- Lower Capex thanks to new/different solutions to engineering projects;
- Business growth for Katoni, following confidence in Dana's behaviour;
- Payment consistently less than 29 days.
- Strong workforce planning opportunities afforded by open communication / sharing of each other's plans



4 Headwinds

Many supply chain companies are in crisis, with contracts in poor health and inflation eroding margins. In recent surveys, almost all OEUK supply chain members reported operating costs that were typically 10% or 20% higher than in early 2021. Price volatility in materials such as fuel and steel means that many supply chain companies continue to face spiralling costs particularly affecting manufacturing.

To support the UK supply chain competitiveness and unlock new opportunities, it is important that the industry prioritises efficiency gains and focuses on building strategic and sustainable partnerships to optimise and generate value across the entirety of the value chain.

The operator community must support where it can by providing as much visibility, predictability, and certainty of upcoming work scopes. This will give the supply chain companies the confidence needed to grow. The pressure on the supply of resources risks the sector's ability to expand into low-carbon energy. One example is in offshore construction vessels (OCV) used to install offshore infrastructure including subsea construction and pipelaying. Norwegian consultancy Rystad points out that as of 2022, the demand for OCV's was 94 vessel years. But the competition for OCV's is set to intensify over the next five years, thanks mainly to new offshore wind projects.

By 2026, the European demand will increase to 147 vessel years across energy sectors, representing a 56% increase (+53 OCV

vessel years) on the current levels. The global draw on these vessels is high, with longer term stable contracts available in other regions. Through greater collaboration for example companies coming together to share vessels and to create longer more attractive scopes of work, will increase the UK's ability to successfully compete against other basins with comparatively higher activity levels.

To support this, in November 2022, OEUK hosted the first Vessel Collaboration workshop, providing a unique opportunity for operator and supply chain communities to improve the ways in which they collaborate and share project schedules.

OEUK has also refreshed its inventory-sharing network, providing a tool to encourage the industry to embrace equipment sharing, to improve efficiency, reduce waste and avoid downtime and associated costs. For example, organisations have used the tool to address requests for a variety of equipment including tubulars, compressors, valves and spare parts.

OEUK's paper 'Building Back Better: The Business Case for Multi Operator Well Campaigns in a Diverse Basin' showed that continuity of work is the key to helping the supply chain retain personnel and equipment. In today's commercial environment, industry should be collaborating more than ever to deliver long-term, continuous work activity for the benefit of all.

Case study

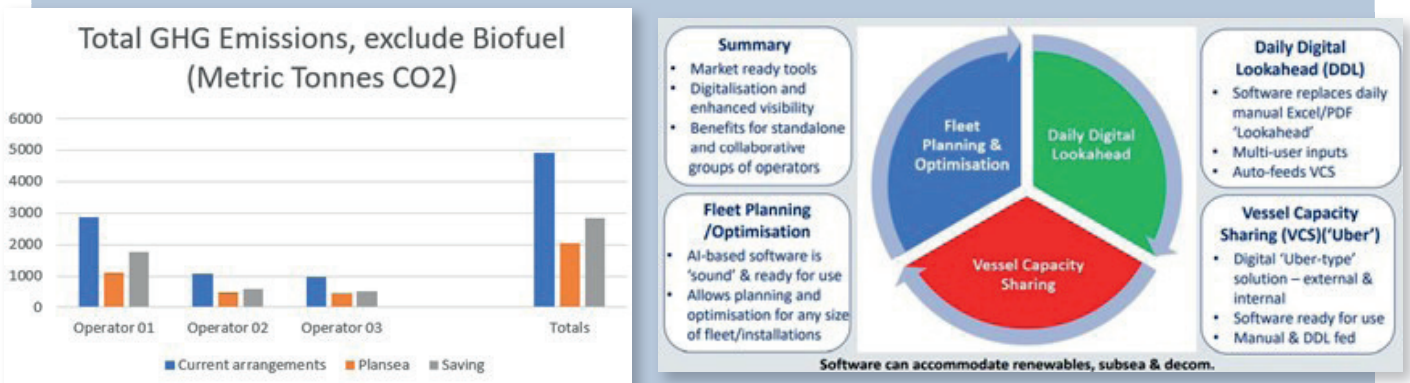


PlanSea: logistics and emissions optimisation

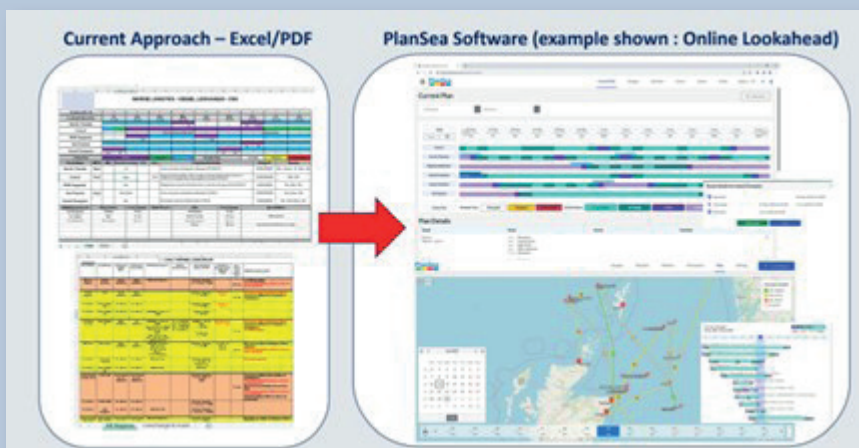
PlanSea Solutions, Vysus Group and SICCAR - a blockchain-based enterprise data-sharing platform - are collaborating, using AI-based software, specialist emissions management and blockchain, to forecast and improve sector operating efficiencies and achieve reductions in Scope 1, 2 and 3 emissions from marine logistics. A digitalisation of the process is also achieved.

The UKCS needs to continue recent good work on emissions and cost reduction with a logical evolution to a more collaborative approach in areas like marine logistics where cost savings and CO₂ reductions are sought. The increased complexity of such operations and the need for monitoring and reporting has brought PlanSea, Vysus and SICCAR together in a logical service sector collaboration to provide the industry with a comprehensive solution that at its core, deploys artificial intelligence to optimize operations and at the same time provides an integrated, digital marine logistics and emissions management solution. This solution will also contribute towards ameliorating the impact of marine resource shortages now being predicted.

Comparison of vessel activity data using the PlanSea AI software vs baseline vessel figures shows a clear reduction in CO₂ emissions per tonne fuel burned (see GHG chart)



The digital transformation provides enhanced/realtime visibility for stakeholders.



The collaboration also has applicability in subsea operations, decommissioning and offshore renewables. The full case study can be viewed on the websites of the three companies :



PlanSea
Vysus Group
SICCAR

www.plansea.co.uk
www.vysusgroup.com
<https://siccar.net/>



4a Products & services delivery

The supply chain's ability to do business is being tested in this prolonged challenging environment. Pressure on resources, including people and equipment, is mounting as demand recovers across the energy sector following the Covid pandemic. One OEUK member conducted a detailed analysis which revealed that their average purchasing lead times across all products and services have risen by 30%.

With international growth outpacing the UK, many supply-chain companies are unable to secure the resources and equipment needed to service UK contracts.

The results of OEUK's Supply Chain Management Sentiment survey identified several factors influencing the ability and readiness of supply chain organisations to continue to invest and secure the material and resources required to support with UKCS activity (*see below*).

Products/services delays/raw materials scarcity

Over two thirds (**69%**) of companies said that supplier delivery delays had directly impacted operations and/or customer service (**91%** of tier 1s).

69%

78% of organisations have experienced an increase in overall product/service lead times and lower off-the-shelf availability.

Almost all OEUK supply chain members reported operating costs that were typically **10%** or **20%** higher than in early 2021.

Price volatility for goods and services has made it harder to agree long-term pricing, the survey showed. SMEs are the most likely to agree (**79%**) with that statement, of which almost half (**36%**) strongly agree with it.



82% of organisations and **100%** of operators have been negatively affected by the high cost of raw material costs. This has had a very negative impact on the supply chain's cash flow.

Three quarters (**76%**) of organisations have experienced an increase in third-party labour rates which has negatively affected their business. Competition for skilled labour has increased.

Commodity price volatility has made it harder for most (**71%**) organisations to agree long-term supplier pricing. The supply chain has voiced this as a significant factor with half of Tier 1s and just over a third (**36%**) of SMEs significantly affected.

To gain a clearer understanding of the challenges facing supply chain companies, what can be done to address them, and identify supply chain management improvement opportunities, OEUK conducted a Supply Chain Management Sentiment Survey in March 2022.

The survey highlighted a broad range of challenges impacting the supply chain ranging from the impact of Brexit on doing business in the UK to the impact of increasing commodity prices and product lead times. The following pages summarise these insights and highlight some of the work that OEUK is doing to address the challenges.

4b The post-Brexit effect

On January 1, 2021, the UK left the single market and customs union and began a new trading relationship with the EU. This significant shift has made it harder for UK companies to import and export products and services.

The UK no longer has the same trading relationship it enjoyed with the member states of the European Union, ending the free and easy cross-border flow of personnel, not to mention goods and services.

Most supply chain organisations stated that the changes implemented after the end of the transition period have had a negative impact on their organisation.

Administrative burden

81% of respondents suffered higher administrative costs, with a high proportion (**38%**) describing them as “significantly” higher. Including, almost half said their commercial contracts had become more complex as a result of Brexit.

81%

81% of supply chain organisations had experienced an increase in paperwork and workload associated with the importing and exporting of goods, with **71%** of Tier 1s experiencing a significant increase. No respondents had seen any benefits.

71%

The additional burden has affected transactional costs with nearly **60%** of respondents experiencing an increase in customs taxes including duty and VAT payable on imports. Again, Tier 1 contractors were most affected with **86%** saying customs-related costs were higher.

60%

A change in customs practices with the EU has meant that organisations have experienced delays in products crossing borders, with 73% of supply chain companies seeing an increase in country-to-country transit times during 2021 and 30% experiencing significant increases. This has had a negative impact on project delivery schedules. However, it should also be noted that delays as a result of sourcing and customs issues have not all been Brexit related. The highly competitive market globally has also restricted the supply of materials.

4c Fewer business opportunities

The ability to access new opportunities is another cause of concern for supply chain organisations looking to grow their customer base and expand into the EU market. The sentiment survey revealed that this affected over two thirds of tier 2 and SMEs. This is a key challenge for UK industry, particularly moving forward into the energy transition. The supply chain needs to be able to benefit from overseas demand for its highly exportable products and expertise.

Overall, 62% stated that their organisation had adapted well to the changes implemented after the post-Brexit transition period. This supports the view that the industry continues to demonstrate resilience and remains flexible in addressing challenges whilst working to seize business opportunities, Brexit notwithstanding.

The Energy Profits Levy has also damaged investor confidence and the pipeline of projects that is so important for the supply chain is now under question. Sentiment collected by OEUK indicates that the levy

threatens future projects. Organisations are revisiting their long-term plans for the basin in the light of the latest hike and considering whether to invest in more fiscally predictable regions instead. This is a cause for concern for the UK supply chain and it will affect the speed and scale of the investment required to deliver the strategic objectives for energy security.

4d New UKCS Border Operating Model

January 1st, 2022, saw the introduction of the latest iteration of the UK government's 'Border Operating Model', including the establishment of a new HM Revenue & Customs 'Customs Control Model'. HMRC has decided that the simplified UKCS import and export processes, currently enjoyed by the majority of the oil and gas industry, is no longer sustainable and legal change is required.

The proposed change directly impacts the physical movement of goods to and from the UKCS, and associated customs requirements. These new legal obligations require (a) that traders make their declarations electronically and (b) that they present their goods at the border within a three-hour window.

HMRC, following direct lobbying from OEUK and the UK Oil Industry Taxation Committee (UKOITC) acknowledged and recognised the unique position of the UKCS and granted a series of temporary exemptions from the new legislation. This allows the current practices to continue until June 2023. OEUK is working with HMRC with the support of UKOITC to develop a bespoke operating model fit for offshore.

This is a fundamental change if the basin is to remain an attractive place to do business and delivers goods efficiently for the benefit of wider UK energy security.

4e Labour shortages

People and skills are the lifeblood of the UK offshore energy industry. As part of the North Sea Transition Deal, the industry is committed to securing, stimulating and creating tens of thousands of high quality jobs in industrial heartlands across the UK.

The industry aims to support energy jobs today and enable people to play a key role in the diverse energy mix of the future.

However, recruiting and retaining skilled people is becoming harder. OEUK's 2022 Workforce Insight report shows, there are hurdles to overcome. Specific disciplines that are particularly difficult to recruit for include reservoir, mechanical and electrical engineers, electricians, and supply-chain management roles.

On average, organisations expect their workforce to increase by **11%** over the next two years.



Supply chain organisations, particularly tier 2s, expect to grow their workforce considerably (**15%**) over the next two years.



However, there are several challenges companies encounter when growing their workforce.

- Respondents picked the lack of skilled applicants and competition from within the oil and gas sector as the leading two reasons for difficulty in filling vacancies.
- Half the respondents said competition from other sectors outside oil and gas were also a reason.

Amid a rapidly changing energy landscape with high demand for the skills of the supply chain which include national infrastructure projects, members are finding it increasingly hard to find the people needed. Several members have requested OEUK support with short term mitigations, including input to the Migratory Advisory Committee's call for evidence and review of the Shortage Occupation List. Further detail is available in OEUK's 2022 *Workforce Insight* report.

Well-Safe: cost-efficient North Sea well decommissioning

Well-Safe Solutions collaborated closely with the operator and the supply chain to realise a safe, smart and efficient well decommissioning project in two North Sea fields. It used its Well Decommissioning Delivery Process (WDDP), guiding operators efficiently through the design, planning, engineering and operational delivery stages of the process.

Well-Safe Solutions' winning proposal provided an all-inclusive price for the on and offshore project team – including contracts, procurement and well engineering staff. This removed the complexity of providing day rates split individually by discipline, increasing budget forecasting accuracy for the client.

The majority of subcontractors were managed on behalf of the client by Well-Safe Solutions, creating a single point of contact and streamlining response times. Well-Safe Solutions worked to keep expenditure as low as possible, as there was no financial or operational incentive for cost overruns.

The savings were shared between the client and Well-Safe Solutions as part of an incentive programme agreed ahead of the start of work. Well-Safe Solutions received reliable bimonthly payments, enabling the business to effectively manage cashflow so that it was paid by the client before paying out to subcontractors.

In typical scenarios, wells are abandoned sequentially, with wireline-based intervention carried out to install barriers and remove any hydrocarbons present in the wellbore (stage AB0). The tubing is removed with the blow-out preventer installed, with abandonment barriers set in place (stages AB1 and AB2). Conductor cutting and recovery is then performed as a batch operation as part of stage AB3.

Well-Safe Solutions proposed a programme of SIMOPS batch digital slickline operations to boost efficiency and reduce the cost of abandonment. This enabled eight of the 11 wells to be abandoned to AB0 status, with two digital slickline units operated simultaneously from the drill floor and weather deck to support SIMOPS.

Efficiencies came from the avoidance of additional rig-ups between conventional slickline and e-line/wireline equipment. Third-party pressure wave valves enabled an additional run to be removed from the scope, following deployment of the blow-out preventer and valve pressure-cycling.

This scope was also affected by the Covid-19 pandemic, necessitating the redeployment of the team to another rig and an adjustment of the working protocol. Both were managed with no adverse effect on critical path operations. Relief management was exemplary and deployed rapidly whenever a case was reported. This minimised downtime and safeguarded personal health and wellbeing.

4f Visibility of future business opportunity

Demand visibility is a key factor for identifying resource gaps and ensuring supply chain organisations can invest with certainty to build at scale and remain competitive.

Respondents to OEUK's Supply Chain Management Sentiment survey said it was difficult to plan business activity and build accurate demand forecasts, with a fifth

stating that their 2021 forecasts were less than 25% accurate. This has a direct impact on the supply chain's ability to adequately plan and effectively resource to meet the demands of their client base.

Nearly two thirds of tier 1 contractors expressed concerns about the lack of visibility regarding UK offshore energy business opportunities and its negative impact on confidence.

Quotes taken from tier 1 contractor interviews held in June 2022



"Visibility is horrendous, the worst I have seen."



"With the exception of one contract, my forecasts are only on a 4-week lookahead basis."



"It is difficult to project and invest, it is a very reactive environment in the UK."

"Energy transition opportunities are not as visible as they should be. In real danger of losing competitive edge in terms of skills in the UK."



"Struggling to understand why UK isn't seeing an increase in activity."



"Visibility is very poor. Projects have been ongoing with no fruition for years and causing extreme uncertainty."



As a result, supply chain organisations are moving resources into different markets, which offer greater predictability. Large companies with a global presence have difficult decisions to make in sending their skilled people and equipment to the most attractive and profitable areas. A lack of visibility and certainty for supply chain companies presents a significant threat in ensuring the basin retains the resources required to successfully deliver on key projects. Operators and developers of new energy projects must work closely with the supply chain to provide visibility and certainty of work. Leveraging and utilising existing tools such as the NSTA's Pathfinder provides a central platform for the supply chain to find information about the pipeline of projects and the opportunities they present.

OEUK aims to encourage early and focused engagement between suppliers and potential clients to help them work collaboratively on future energy projects on the UK Continental Shelf.

To further support supply chain companies in developing their businesses, OEUK holds its annual Share Fair event in Aberdeen. Organised with the support of North Sea Transition Authority, the event focuses on giving supply chain companies and technology innovators access to invaluable market intelligence plus opportunities to network with key industry buyers. For operators and major contractors looking to issue contracts for projects Share Fair aims to raise awareness of the expertise, innovative products and specialised services offered by suppliers across the UK.

With the UK offshore energy industry focused on delivering the UK's net zero carbon emissions goal, Share Fair 2023 will include organisations with an interest not only in oil and gas but also offshore wind, carbon capture and storage and hydrogen.

Further insight for the supply chain will be covered within OEUK's annual *Business Outlook* which will next be published in late Q1 2023.



This annual event showcases upcoming business opportunities to the energy supply chain and enables operators and energy investors to increase their awareness of the expertise, innovative products and specialised services offered by suppliers across the UK.

Imrandd: extending asset life through digital tech

Imrandd provides a full suite of digitised integrity and inspection asset management services, combining traditional engineering expertise and tactical implementation with commercial understanding and smart data science. We support asset life extension and deliver safe, efficient, environmentally focused solutions for our customers. The company goal is for all our customers to recoup their cost within the first 12 months of engagement.

Imrandd's proprietary analytics software suite, AIDA (including EXTRACT and EXACT), has saved UKCS operators over £8mn in inspection enactment during the past six years and helped customers to avoid a considerable amount of previously unidentified loss of primary containment risks. This has stopped potentially major accident hazards and made managing integrity on their assets inherently safer.

Imrandd's digitised automated tool REFLEX optimises bed space, man-hours and deadline dates to illustrate how poor prioritisation can impact cost over many years. From there, the knowledge and information gained can be used to reshape plans and make the most economical, sustainable and cost-efficient savings. For one customer, the team provided visibility of upcoming scopes to aid risk management and supported prioritised and risk-assessed backlog liquidation.

Imrandd's EXACT tool prioritises the work scopes based on the management of critical tasks compared with the best achievable commercial outputs. This enables quick access to accurate data which may then be used for several purposes such as optimising an inspection strategy, optimising production or delaying or bringing forward cessation of production.

Imrandd also specialises in fit-for-purpose engineering services which look beyond traditional answers for creative solutions to age-old integrity problems. This was recently demonstrated with an in-service assessment of internal wall condition of slops tanks on board a UKCS floating production, storage and offtake vessel. Imrandd's unique solution mitigated the requirement to shutdown and take the vessel off-station, saving millions of pounds.

Asset life extension

In the case of one UKCS client, Imrandd extended asset life by 5-10 years. Initially, the team created a digitised, prioritised repair plan, then ran different scenarios and variations of resourcing and campaign profiles to predict the most time-efficient and commercially viable resource methods required to complete the required work.

For another international operator, the focus was to remove unnecessary inspection activities with a combination of robust engineering activities and large-scale analytics to drive a late-life review, ultimately saving thousands of hours on the existing plan.

Data analytics

A recent scope analysed and trended 3,500 lines in 182 corrosion circuits (including over 90,000 wall thickness and corrosion measurements). The work resulted in 10% reduction of inspection backlog, aiming to eliminate it completely in 2023 and 26% reduction in pipeline inspection activities until CoP, saving £2.56mn (operator's own calculation); the average saving was 26 tonnes of CO₂/asset/year.

For more case studies on specific projects, visit <https://imrandd.com/case-study/>

5 Enabling the supply chain to decarbonise energy

Energy security and the transition to a lower carbon economy will require a range of innovative technologies. We need to ensure the UK supply chain develops the means to deliver a diversified energy system.

Reaching net-zero greenhouse gas emissions while preserving UK energy security remains a serious challenge. But it is one we believe the North Sea Transition Deal will help us achieve. The Deal underlines industry's commitment to halving upstream emissions by 2030 and investing heavily in electrification, carbon storage and hydrogen.

It is an amazing opportunity to transform our world-class supply chain into an industry capable of supporting the new low carbon energy mix, powered by oil and gas, alongside offshore wind and emerging technologies such as hydrogen production and carbon capture and storage. Transforming the supply chain requires new engineering, manufacturing, services, and technology expertise to support the energy transition and create a competitive energy supply chain of international repute.

An exciting development in early 2022 saw several oil and gas operators and supply chain companies secure bids in the Scotwind leasing round announced by Crown Estate Scotland. We've seen some of our member companies including BP, Shell, TotalEnergies and OceanWinds become lead applicants in the round, representing almost half the leases awarded. They have partnered with renewable energy companies to lease areas of the seabed around Scotland for offshore wind farm developments. These will add many gigawatts of clean energy capacity.

Projects like these will be important in building a world leading all energy supply chain and achieving the voluntary commitment to 50% local UK content across the lifecycle for all related new energy transition projects and decommissioning, and 30% technology content. By 2030 OEUK sees the potential for over £140bn of the total £200bn potential spend by the end of the decade to be in low-carbon energies. But this can only be achieved if we sustain the existing supply chain now and support early investment to build capacity and capability.

OEUK is focused on readying the UK offshore energy supply chain for 2023-2033 – the decade of delivery. Together with Robert Gordon University, OEUK has developed a Supply Chain Roadmap: a tool intended to provide practical insight to support companies in planning, researching, and developing our world class offering in offshore energies as the transition to the low carbon economy evolves.

The Supply Chain Roadmap will have seven elements, with the first comprising the Supply Chain Visibility Tool which provides granular insight into future offshore energy supply chain spend across oil and gas, offshore wind, carbon capture and storage and hydrogen. It is designed both to help supply chain companies determine new business opportunities and to identify where support and intervention will be needed to successfully grow a domestic all energy supply chain. Further details on the Supply Chain Roadmap report will be published in the spring.

We need to work together constructively with the unions, industry, and regulators to manage this process, ensuring energy communities around the UK and the hundreds of thousands of people who rely on oil and gas for their livelihoods are with us on this journey.

Apollo: decarbonising marine operations

Apollo Engineering, an Aberdeen-based consultancy, is leading an industry wide study which seeks to decarbonise maritime operations in the North Sea. The coming years will see a significant increase in marine traffic associated with offshore wind developments and oil and gas asset decommissioning on top of continuing oil and gas production. At the same time, maritime technology will need to introduce measures to decarbonise with clean fuels and electrification of vessels in the mix.

By combining its knowledge of oil and gas production, marine operations and what it takes to deliver an offshore windfarm, Apollo is developing the concept of a system of Floating Fuel Depots (FFDs). The FFDs will be a means of facilitating the supply of fuels to fleets of vessels, while optimising transit distances, reducing emissions and easing pressures on port facilities. FFDs comprise modular moored platforms fitted out with plant and storage equipment to support the servicing of marine vessels at optimal locations, which will be close to operational sites or those undergoing construction. To deliver detail around aspects such as environmental, societal and economic benefits of this project, Apollo has joined forces with Aquatera and EMEC.

Through this project, Apollo, EMEC and Aquatera will thoroughly explore the technical and economic potential of the FFD concept, with a focus on strategic locations to support Scot Wind and ensuring that future fuel types including hydrogen, e-methanol and ammonia are all fully considered. Through the reduction in standard diesel use, and the removal of unnecessary movements back to ports and harbours purely for refuelling purposes this study aims to demonstrate both reduction in carbon emissions and that this makes good business sense through delivering operational efficiency.

Apollo is developing a concept which draws on experience around repurposing existing plant and assets, with the aim of redeveloping existing asset infrastructure. This involves balancing key drivers of supply and demand, forecasted traffic, technology availability now and in the future and initial and through life costs. The project is also engaging key stakeholders to assess timing, supply chain availability and capability, legislative requirements and commercial benefits across the whole value chain.

This project will provide support to the rapid expansion in offshore wind (ScotWind and INTOG), support sustainable decommissioning activities of North Sea assets and will provide benefits to life extension projects. It is also investigating its role in freight and tourism sectors.

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 @OEUK_

 Offshore Energies UK

Working together, we are a driving force of the UK's energy security and net zero ambitions. Our innovative companies, people and communities add value to the UK economy.

Join us today and help strengthen the UK offshore energy industry and your business.

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