ISSUE 107 • FINAL

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A challenging market

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Collaborative approach
The importance of collaboration in achieving downstream success

Natural leaders
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THIS ISSUE: Decom North Sea

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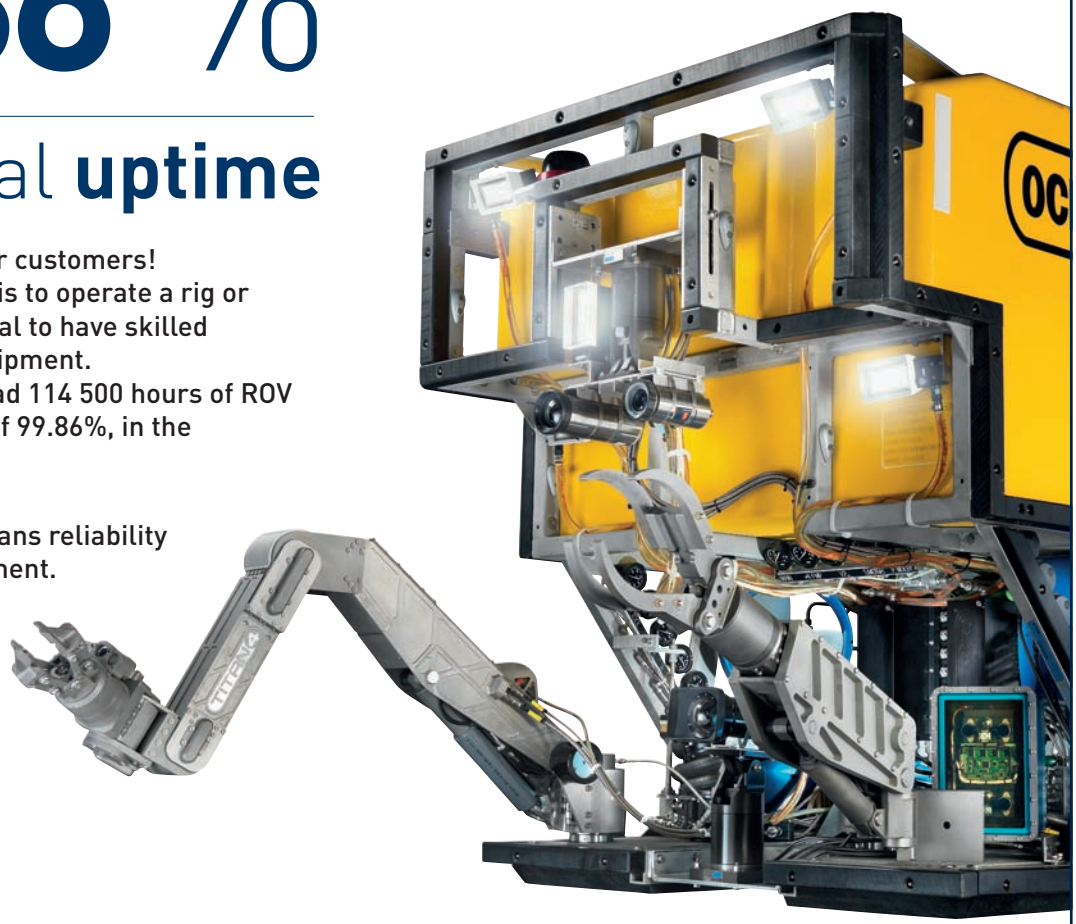

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> Russian oil and gas is a complex beast, with a multitude of challenges present for companies looking to do business in the country

Russian oil and gas

is a complex beast, with a multitude of challenges present for companies looking to do business in the country. At the same time there is little doubt about the resources that country holds, both on and offshore, and as mature assets will inevitably see a decline in production in the future the Russian offshore market will become increasingly important.

In this issue Louis Skyner of Clifford Chance discusses the challenges in exploiting the Russian offshore sector, whilst pointing out that the market is "viewed as a key course of available resource growth". From page four we look at the regulatory framework and state policies that could impact E&P operations offshore Russia.

While this may prove to be a difficult market to crack, there is little doubt that Russian oil and gas holds one of the keys to Europe's energy security. Read on to find your way through the regulatory minefield.

EDITORS LIBBIE HAMMOND & MATT HIGH

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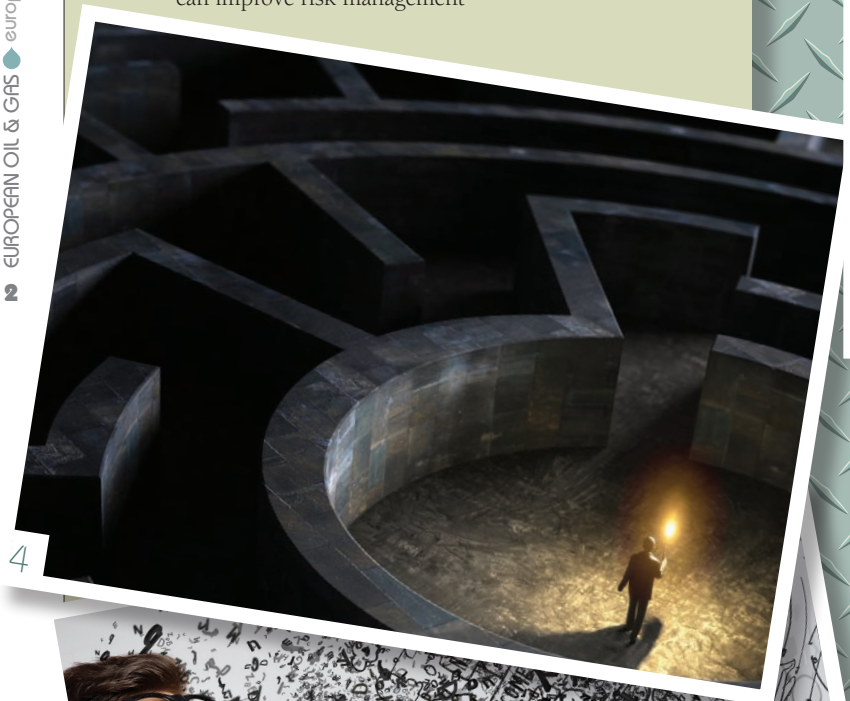
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A challenging market

LOUIS SKYNER OF CLIFFORD CHANCE DISCUSSES THE COMPLEXITIES AND CHALLENGES OF THE NEW RUSSIAN OFFSHORE MARKET

The forecasted decline in oil production beyond 2020 has generated discussion about the need to encourage exploration activity on the continental shelf, the promise of fiscal relief contained in government directive no. 443 of April 2012 seen as the key stimulus. The deals concluded by Rosneft with Exxon Mobil, ENI, and Statoil respectively in June underlined how the Russian offshore is viewed as a key source of available oil reserve growth. Further, they confirmed that, with the introduction of amendments to the fiscal framework, those reserves should be significant enough to offer hope of commercial discoveries even in a high CAPEX and OPEX environment.

On 30th September 2013 promise became law with the enactment of federal law no.268 amending provisions of both tax and customs legislation, and key provisions of the law On the Continental Shelf. This article analyses those amendments, and elaborates upon the 'model' for offshore exploration and production projects that they sanction. It also identifies the challenges that are likely to confront those projects, and concludes by asking whether further, more fundamental, legislative change is necessary for their successful realisation.

The regulatory framework and state policy

The comprehensive nature of the amendments introduced by federal law no.268 demonstrate that the government is intent on restricting its attempts to stimulate offshore development to enhanced fiscal relief within the non – equity participation structure for International Oil & Gas Companies (IOCs). Thus, in the aforementioned projects with Exxon, ENI and Statoil, Rosneft retains ownership of the license, the IOC partners limited to participation in the joint operatorship of a project on a risk service basis.

This risk service approach reflects developing global trends. In Russia, however, crucial questions remain as to whether IOCs will have the right to purchase the

hydrocarbons produced at a discounted price/take their share in kind, and as to whether the marketing and sale of the hydrocarbons produced will be controlled by the license holder or the operator. For oil such issues are the subject of the commercial model agreed between project partners. In contrast, if the Gazprom export monopoly on gas is not lifted then the structure of LNG projects will be complicated by the role they demand due to this fact.

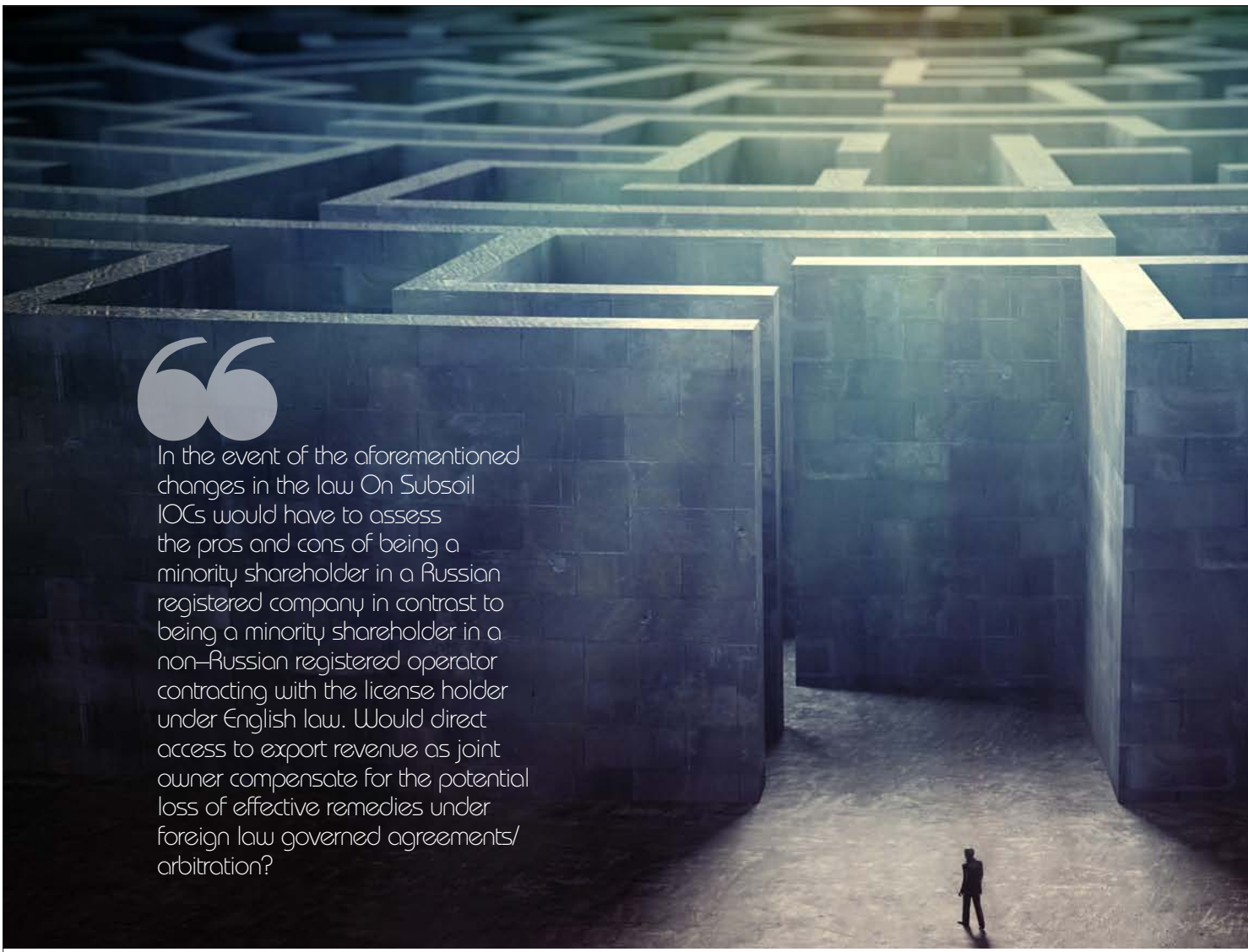
The 'risk service' model: key features and challenges

The 'risk service' model involves the establishment of a non – Russian registered joint venture, i.e. the 'operator', with the IOC as the minority and its Russian partner as the majority shareholder. An English law governed shareholder agreement is concluded between them with the key provisions of a typical joint operating agreement (JOA) contained, i.e. voting rights and thresholds, the adoption of work programmes and budgets, procurement strategy, marketing, the approval of a commercial discovery, sole-risk operations etc. In addition, a risk service agreement governed by English law is concluded between the operator and the Russian partner as license holder identifying their respective competence and functions in the development of the field and their obligations towards one another.

The amendments to the law On the Continental Shelf contained within federal law no. 268 expressly permit a license holder to enter into a contract with an 'executing company' "for the fulfillment of work in connection with the creation, operation and use of artificial islands, installations and structures", and expressly permit an 'executing company' to create and operate such an artificial island, installation and structure without obtaining a permit for as much (if their creation is stipulated by the license and project documentation). It is therefore rendered unlikely that the transfer of such authority over the development of a field to the operator would be deemed as effecting the transfer of the non-assignable authorities and functions of the license holder as has been previously speculated.

The key challenge, however, remains: to implement a project structure in which the respective roles and obligations of the operator and license holder are clear. The provisions of the risk service agreement detail the respective competence and functions of the operator and license holder. Such a contractual definition of the license holder's competence with regards to its obligations as license holder, however, remains just that as its restriction is neither envisaged nor defined in the law On Subsoil. Crucially, the law On the Continental Shelf does not refer to an 'operator' but an 'executing company', a term that could potentially be translated as 'contractor' and not 'operator'. It therefore remains unclear as to what course of action an IOC, as a shareholder in the operator, would effectively have in a dispute with the license holder in terms of asserting the authority identified in the risk service agreement as being that of the operator, particularly in cases where the provisions of the agreement attempt to provide a caveat to the license holder's obligations under the license.

The key challenge, however, in such a project structure is securing a right for the operator to restrict the license holder from terminating the risk service agreement. The operator, as a non-Russian registered company, is not permitted to directly receive the sales revenue from the project as in accordance with currency control regulations the sales revenue generated must be paid to the owner of the hydrocarbons. Only after being received by the license holder may such revenue be transferred to an account of the operator, i.e. after various costs identified in a cash waterfall have been paid. The IOC therefore will require that a performance guarantee be provided by the parent company of the license holder as a shareholder in the operator, i.e. procuring/causing, voting, not taking or failing to take actions. In addition, the parent company of the license holder would be required to provide a guarantee with regards to the performance of the cash waterfall payments under the risk service agreement. O&G



> In the event of the aforementioned changes in the law On Subsoil IOCs would have to assess the pros and cons of being a minority shareholder in a Russian registered company in contrast to being a minority shareholder in a non–Russian registered operator contracting with the license holder under English law. Would direct access to export revenue as joint owner compensate for the potential loss of effective remedies under foreign law governed agreements/ arbitration?

Finally, the use of an English law governed risk service agreement is seen as an essential ingredient in such project structures. It may not, however, alleviate all the risks associated with the use of a Russian law governed risk service agreement. Crucially, the risk element in such a risk service agreement does not correspond with a Russian law paid services agreement. There is considerable debate as to whether the interpretation of such an agreement as a paid service contract could lead to a Russian court supporting its unilateral termination by the license holder with only the actual costs incurred by the operator being compensated.

Tax concerns

The amendments to customs legislation contained in federal law no. 268 clarify that artificial islands, structures, and installations on the continental shelf are to form part of the customs territory of the Russian Federation. The 'import' of hydrocarbons to the Russian mainland from such structures will therefore be exempt from import duty as it constitutes delivery between two parts of the customs territory of the Russian Federation. With regards to export duty the amendments confirm that hydrocarbons produced by offshore projects shall be exempt from its application for a defined period dependent on a field's location: until first quarter 2032 for fields in the Pechora, White and South Okhotsk Seas; until first quarter 2037 for fields in the North Okhotsk and South Barents Seas; and, until first quarter 2042 in the Kara, North Barents and East Arctic Seas.

In a similar vein, the Tax Code is amended so that the mineral extraction tax (MET) rate on hydrocarbons produced shall also be applied in accordance with a field's location: for the first group an MET rate shall be 15 per cent; for the second group a rate of ten per cent; and, for the third group a rate of five per cent. These aforementioned tax holidays shall be limited in time: for seven years (or until the first quarter of 2032) for fields in the first group; for ten years (or until the first quarter of 2037) for fields in the second group; and, for 15 years (or until the first quarter 2042) for fields in the third group. The amendments to the Tax Code also introduce new rules for the application of corporate profit tax for such projects: it shall be payable at a rate of 20 per cent to the federal government; the profit and loss for a field shall be ring fenced; and, the normal ten year loss carry forward limit shall not apply.

The danger that the activity pursued by the operator and the license holder in accordance with such a risk service agreement be construed as a simple partnership for the purpose of making a joint profit has thus been minimised.

Further, the potential transfer pricing issue of the operator making an unwarranted profit has been resolved through the exemption of such service agreements for offshore fields from transfer pricing rules.

Conclusion

It has been widely accepted that only when adequate fiscal incentives and stability have been provided can project sponsors justify the CAPEX involved in any final investment decision. Opinion, however, remains divided as to whether more fundamental legislation is required for the development of such projects. Whilst some restrict their calls for change to the inclusion of an additional chapter to the Civil Code regulating risk service agreements, others advocate the amendment to the law On Subsoil: one, to expressly recognise the role of an operator as a subsoil user; and, two, to eliminate the requirement that the holder of a combined license for an offshore field have five years experience of work on the Russian continental shelf. The latter licenses could be transferred by either Rosneft or Gazprom to project companies, thus providing an optimal structure for project financing.

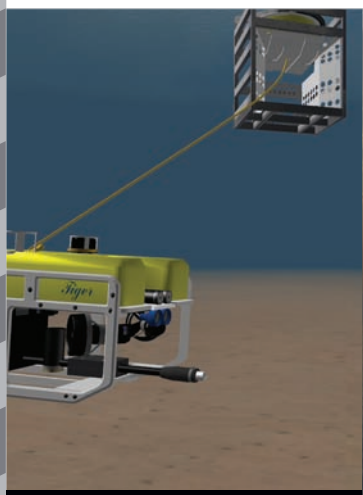
Indeed, although the IOC carries its Russian partner's share of the costs through the exploration phase project financing is recognised as being necessary in the development phase of each project. Lenders are likely to want: access to the revenue generated from the export of the hydrocarbons produced by a project as a source of direct repayment of any such project finance loan; and, to take security on the assets owned by a project. In the current circumstances what can be offered to them may not be sufficient. The ability of the operator, as a non–Russian borrower, to utilise export receivables for the repayment of project loans is restricted. Russian law permits, as an exception to the general law, export receivables to be kept offshore if they are to be used to discharge the obligations of a Russian company under a loan agreement with non–Russian lenders. This exception may not apply to the creation of a security over such receivables to support the obligations of a non – Russian borrower. In addition, the newly amended law On the Continental Shelf has failed to clarify whether the operator may own assets on the continental shelf. Finally, the license itself cannot be included as one of those assets.

In the event of the aforementioned changes in the law On Subsoil IOCs would have to assess the pros and cons of being a minority shareholder in a Russian registered company in contrast to being a minority shareholder in a non–Russian registered operator contracting with the license holder under English law. Would direct access to export revenue as joint owner compensate for the potential loss of effective remedies under foreign law governed agreements/ arbitration? As importantly, would they require that an offshore structure be built around any direct investment to mitigate perceived risk, a proposal unlikely to be accepted by the Russian government? O&G

CLIFFORD CHANCE

Louis Skyner heads the law firm Clifford Chance's Russia and CIS oil & gas practice. As part of this practice he currently advises international oil companies on their participation in upstream projects in Russia, and Russian oil companies on their activity outside Russian. Prior to that he worked as leading legal counsel at Statoil, a position in which he: participated in negotiations with Gazprom and Total concerning the development of the Shtokman gas field, from the structuring and financing of the project through to the development, production and sales agreements contemplated; advised on the various onshore and offshore exploration projects Statoil recently entered into with Rosneft, both with regards to the structuring of their joint activity and the development of the risk service arrangements adopted; and, having acted as lead in the negotiation of the joint operation agreement concluded between Statoil, Lukoil and the Iraqi North Oil Company for the development of the West Qurna 2 oil field, was seconded to Lukoil Overseas to assist with the negotiation of various project contracts. In addition to his legal practice he holds the position of adjunct professor at the New Economic School.

For further information please visit:
cliffordchance.com



Above: Seaeye Tiger performing CP inspection

Essential upgrades

Fugro is launching an important upgrade to its electric ROV pilot training simulators. With the introduction of a new electric ROV control pod and suite of electric ROV specific components, Fugro's DeepWorks simulation software now models all electric sub-systems with greater accuracy and enables failure cases to be simulated on individual sensors and circuits. This enables not just a wider range of training scenarios to be conceived, but also enables new vehicle configurations to be assembled in a way that reflects their true circuit diagrams for more transparent testing and validation in the simulator before the vehicle enters service.

A new overlay designer has been added to the ROV simulator's runtime tools. This allows both scenario builders and training supervisors to quickly configure and manage overlays. Crucial instrumentation data such as heading, pitch and roll as well as camera tilt angle reaches the overlay through the control pod.

A new Cathodic Protection (CP) measurement probe has been added. This contactless, half-cell probe provides real time CP measurement of both subsea pipelines and structures and can be deployed by either ROVs or divers. A virtual CP field is detected by the CP probe and continuously displayed via the overlay, and recorded within the simulation data for post mission analysis.

Above: Quasar ROV being launched

Fleet building

Bibby Remote Intervention Limited (BRIL), part of Aberdeen-based subsea installation contractor, Bibby Offshore, has further expanded its fleet by signing a charter agreement for an IRM (Inspection Repair and Maintenance) light construction vessel and adding an additional two ROVs (Remote Operating Vehicles) to its operations.

The charter agreement with Olympic Shipping is for a newly built MT6021 vessel for a three year period, with options to extend for an additional two years. The vessel will be mobilised with ROV's from BRIL and is expected to arrive in Aberdeen in early April next year.

Mike Arnold, Bibby Offshore's chief operating officer for the western hemisphere, said: "The business is now in control of a fleet of nine vessels and 15 ROVs. These new additions demonstrate our ongoing commitment to developing our current capabilities and expanding our offering of flexible services to clients on a worldwide basis, and this is a reflection of our significant growth over the past ten years.

"The charter of the MT6021 in particular is a significant investment as we look to build up a comprehensive range of assets, which we can tailor to the specific requirements of our clients."

Global ambition

Adrok Limited, developer of a pioneering deep subsurface scanner, which identifies energy resources and minerals without the need for exploratory drilling, is expanding its operations by opening a new facility on Prince Edward Island (PEI) in Canada.

Adrok will provide a base to service existing clients in the region as well as developing business within Canada's booming mineral exploration industry. Adrok chose its base on Prince Edward Island (PEI) after the company was awarded a sizeable incentive package from the Provincial Government's PEI Innovation Scheme.

The new base will create six jobs for geophysics and field technicians who will gather and analyse data on site before sending it back to its Edinburgh headquarters for further analysis. There will also be a sales and marketing function in order to build the company's client base in the region.

Gordon Stove, MD of Adrok, said: "Canada is fast becoming the top destination for mineral exploration and it makes sense for us to expand our operations given our continued work with Teck Resources. The incentive package from PEI is a major boost for us and we are looking forward to growing the company in the region."

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Remarkable achievement

Leading global oil and gas service company AGR has announced a major new achievement, with the drilling of its 500th well. A feat unsurpassed by any other independent well management company, the latest milestone in AGR's successful development represents an average of one new drilling project started every ten days since 2000.

In that time the company has delivered drilling projects for 106 clients in 25 countries, spanning six continents. The remarkable achievement was marked this week with celebrations at AGR's offices around the world, including Aberdeen, Oslo, Stavanger and Perth, Australia.

Åge Landro, AGR's chief executive officer, said: "Reaching this remarkable milestone of 500 wells around the world is a fantastic achievement for us and one of which we are all very proud. Among the list of the world's top ten operators we are the only well management company to have drilled such a high number of offshore exploration wells globally.

"Over the past 13 years we have worked continuously to develop and adapt our services to meet the needs of our clients and add value to their operations efficiently and safely. For example we have led the market by pioneering the multi-client, multi-well drilling campaign model."

Significant contract

ATR Group has entered into a multi-million pound contract that will see the global equipment and services provider take on the full management of portable plant and equipment across all of Wood Group PSN's (WGPSN) North Sea operations.

The three-year contract, worth in excess of £12 million per year with the option to extend, is a significant win for the ATR Group and comes after 18 months of sustained growth across the Aberdeen-headquartered group.

It will see lifting, tooling and portable plant and equipment provided for all WGPSN projects in the North Sea. The win is the latest in a string of recent contract wins for ATR. The company plans to invest further into its core activities in response to its clients' increasing request for additional equipment and services, whilst driving towards its £100 million turnover target in the next three years.

ATR chief executive, Keith Moorhouse, said: "This is a significant contract which will be serviced from our Aberdeen base and further develops our relationship with this hugely important client. In response to an industry wide shortage of key equipment, we will continue to invest in our UK operations to ensure we have both the resources to meet the requirements of this contract and to meet the ongoing rise in demand from throughout the buoyant North Sea region."

Above: Lubbers Transport Group chief operating officer, Tony Tailford

A strong network

Lubbers Transport Group (LTG) has signed a contract worth £3 million with Centrica Energy's exploration and production business. The deal will see LTG handle part of Centrica Energy's road transport needs in the UK for its exploration and production operations, including local roadwork in Aberdeen and Great Yarmouth, as well servicing routes between the two.

The initial contract between the two companies is over a fixed three-year period worth £3 million, with an extension option open for two further one-year deals.

LTG's chief operating officer, Tony Tailford said: "This is a significant contract for LTG as an organisation and one that underlines the strength of our position in the oil and gas logistics marketplace. We have grown significantly as a company over the past 12 months and we are now in a much stronger position to service larger oil and gas businesses such as Centrica Energy."

In recent years LTG has invested heavily in its fleet and expanding its European routes network, including the UK. It recently launched its overnight service from Aberdeen to Great Yarmouth, which has quickly become one of its most successful. LTG operates 120 trucks and 290 trailers through a pan-European network of 11 bases in key oil and gas locations including the UK, Netherlands, Denmark, Romania, Poland, and Norway.

Collaborative approach

ERIC PETELA OF ASPENTECH EXPLAINS WHY COLLABORATION IS VITAL TO DOWNSTREAM SUCCESS

With the current trends towards globalisation, markets in the oil and gas industry are getting closer together, increasing the need for tighter process integration and communication. The value chain and business dynamics in the downstream sector of the market have significantly changed over recent years. Historically, however, downstream organisations have been characterised by internal departments working in isolation. This occurs across the supply chain, the refinery and the logistics function in areas such as sales with the refinery planners, schedulers and plant operators. Rather than working to a common goal, each of these supply chain stakeholders has focused on trying to meet their own set of metrics. Today, it is often said that a lack of effective collaboration is the biggest barrier to enhanced profitability.

A single department delivering efficient performance in isolation will not benefit the wider supply chain unless its activities and, most importantly, goals are fully aligned with those of the entire chain. Various departments are often found to be each striving to maximise their own separate profit and loss (P&L) accounts, which does not necessarily lead to maximum profit for the organisation as a whole.

Culturally, in the past, there was also a lack of technical co-ordination. It was not uncommon to have a host of different groups across the petroleum supply chain working on the same project, but using spreadsheets that were locally developed in-department and not inter-connected. Consequently, each group had their own separate views of what was going to happen.

Making the cultural leap

Cultural issues around silo work-patterns must be consigned to the past and company departments need to demonstrate a commitment to operate with greater collaboration and integration. Change is good, although organisations typically need tools and enhanced business processes to help them make the change. So, how can organisations across the petroleum supply chain take their first steps on the road towards enhanced collaboration? The main challenge is that all stakeholders must be motivated to make it happen. The various departments and functions within a downstream oil company will today have various tools and technologies that are used to help each part of the business to do its job effectively. Unless, however, these tools promote collaboration, they merely serve to reinforce the silo concept.

Organisational change must be supported and enforced by senior management. Software vendors need to help by providing integrated suites of products and by coaching clients through the change process using tried and tested approaches gained from similar projects with other clients. For refiners to be successful, collaboration across the petroleum supply chain needs to be flexible, capable of adjustment to changes made because of external extenuating circumstances and shifts in the market rather than simply adhering rigidly to a pre-agreed approach.

Software vendors can help drive this end-to-end communication through process optimisation tools that will enable the supply chain to work more effectively. A starting point should be the gathering of information from the sales teams regarding the necessary products to sell, through to

feeding back to corporate planning groups. Refiners can then produce products and move them into the right places at the right time to meet market demand, using the most efficient transport methods, while also informing production teams what needs to be produced.

Driving agility

The creation of a shared model forms an effective platform for enhanced collaboration to ensure the supply chain organisation achieves greater operational agility. This agility has often been equated with responsiveness - the ability of the organisation to react quickly to external events. While speed of response is essential, business alignment is also of paramount importance. True agility is about all of the core constituents of the organisation being fully aligned, effectively working in unison to a common goal and acting according to the most accurate and up-to-date information available.

Of course, before an organisation can get everyone moving in the right direction, it has to have broad agreement on its direction and take a holistic approach. The goal should never be just about maximising the profitability of the logistics group. After all, the logistics team may need on occasions to incur significant expense carrying out an activity that helps save money for the overall business. The key is moving away from the 'local optimum' and focusing instead on the 'global optimum'. Again, communication and collaboration is an important element of the strategy for this 'holy grail' of operational alignment. This collaborative approach can also be extended to customers. Organisations could, for example, look at actively or passively sharing information with a customer to change order patterns or better scheduling of arrivals to avoid creating shocks in the supply chain.

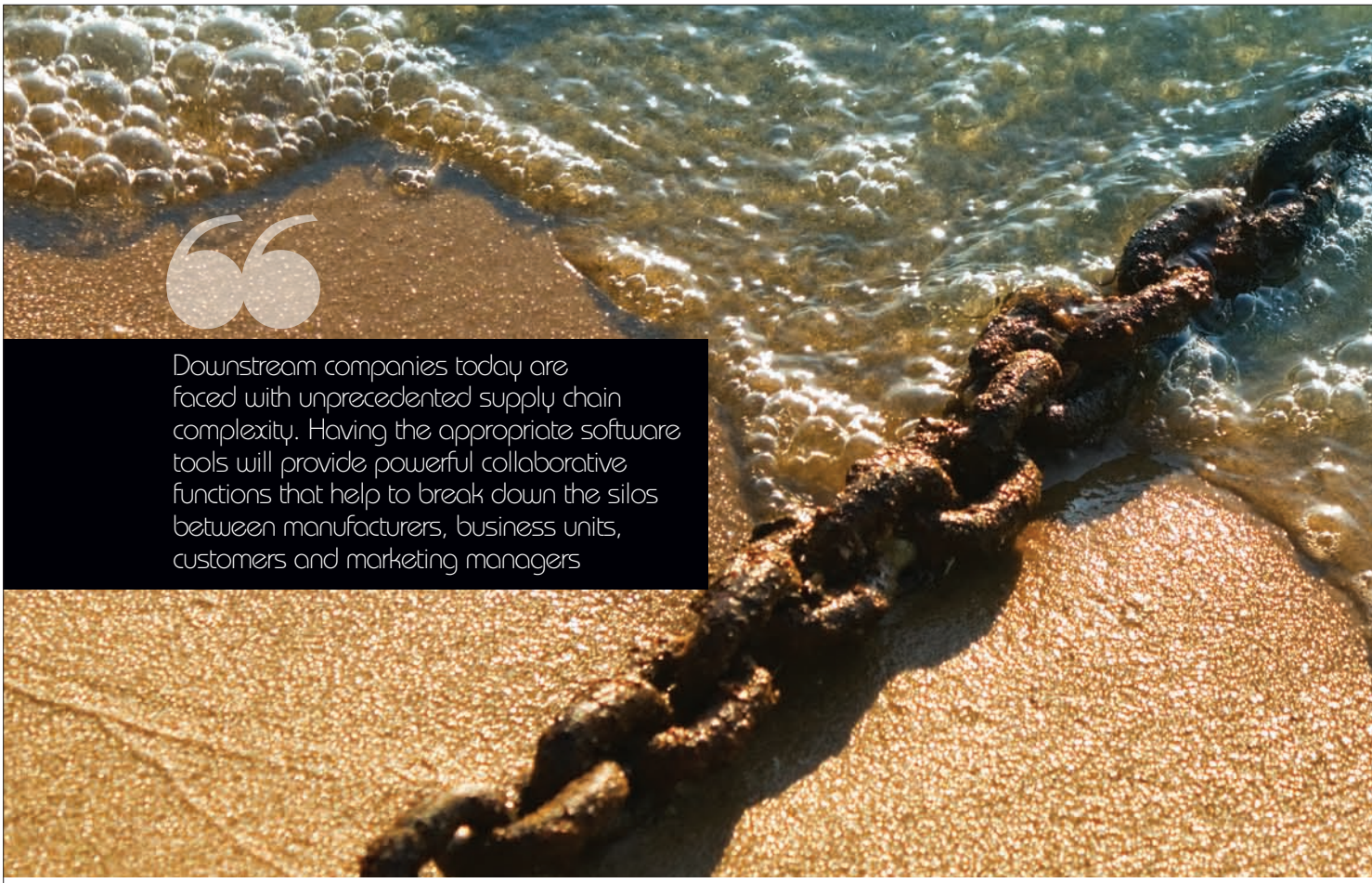
Driving efficiencies and profits

Real-time agility is essential as organisations need to be able to monitor and track progress towards achieving the plan and adjust where necessary to ensure the business remains on target. Those that manage to achieve enhanced collaboration stand to reap significant rewards. The potential prize can be tens of millions of dollars per year depending on the scale of the company. The bigger the company - the bigger the benefit.

In broad terms, there are three dimensions to consider. The first is having a complete view of those collaborating across the refinery network from refining to logistics, sales and marketing. The second is achieving real-time control through the timeline of planning through scheduling to operations. The third is being able to capture what has been identified from better planning across the company and use the acquired information to pinpoint opportunities to make more money. For companies to achieve this, it is critical that they address issues from internal organisational changes, as well as driving towards more demand-driven market-oriented methods.

Understanding risk

Equipping staff with leading-edge software helps to provide the appropriate tools to maximise skills and overcome critical obstacles within the operation. Better alignment of processes and equipment from the plant floor through



> Downstream companies today are faced with unprecedented supply chain complexity. Having the appropriate software tools will provide powerful collaborative functions that help to break down the silos between manufacturers, business units, customers and marketing managers

to executive decision-making levels will also provide the ability to distribute, visualise and analyse information more intelligently. It is critical that across the supply chain, everyone works to the same refinery operating model.

This is particularly important in terms of enhancing collaboration between the refinery planners who work on long-term plans and schedulers who schedule on a daily, hourly and even minute-by-minute basis. In this context, ensuring everyone is working on the same model will achieve enhanced collaboration in two main areas. First, it will make certain that the scheduler of daily operations is in line with the plan. Second, by guaranteeing that everyone is sharing the same model, it will ensure that the model is accurate and reflects the final operation at all times. In the past, this did not occur. Planners and schedulers would often work on separate spreadsheets with separate sets of figures. When issues arose, the schedulers would often reject the plan as unrealistic and continue working to a schedule that they had created working in isolation.

Scheduling provides the key bridge between an optimal plan and operational execution. A significant challenge for schedulers is to execute the plan profitably while respecting refinery constraints. Today's schedulers are dealing with a dynamic environment, fewer staff, and increasingly complex, flexible supply chains. Having the necessary tools to provide a link between the refinery planning process and operations will help refiners across the globe achieve better operational alignment with the plan, which prevents margin leakage in a volatile, competitive market.

Aspen Petroleum Scheduler, for example, is an event-based, single-blend optimisation application that supports the scheduling of all refinery activities for over 35 per cent of global refineries. It integrates with Aspen PIMS, a modelling tool that facilitates planning work processes, including crude and feedstock selection, production planning, operations planning and blending. The integration between these tools helps to achieve greater profitability through more accurate planning and scheduling. For optimised blending, Aspen Petroleum Scheduler integrates with Aspen Refinery Multi-Blend Optimizer. This comprehensive approach to planning, scheduling and blending yields customer savings. Aspen Petroleum Scheduler manages schedule changes and alerts all schedulers when a change is made.

Better forecasting to drive supply chain planning and scheduling

In the downstream market, there is a need for accurate demand forecasts to maintain customer service levels and efficiently manage production assets. Traditional demand management solutions rely solely on statistical forecasts. Unfortunately, this method of forecasting does not support today's more dynamic business environment nor does it consider the complexities of the process industry value chain. Generating demand forecasts, without systematic collaboration with marketing and sales, creates inaccurate projections resulting in increased stockouts, excess inventories and flawed purchasing decisions.

The challenge of generating accurate forecasts is exacerbated by the unique requirements of the energy industry. Energy companies today are faced with unprecedented supply chain

complexity with typical supply networks that must service hundreds of retail, wholesale and aviation customers. The sum of these customer demands defines the market and drives the entire supply chain, from crude trading and distribution, refining planning and scheduling, primary and secondary distribution and marketing

A typical market forecast expressed in monthly or weekly buckets, for example, is nearly useless in handling lumpy retail demand. Unlike solutions built for other industries, Aspen Collaborative Demand Manager, for example, is designed to forecast with daily granularity and manages the differences in demand between different days of the week and holidays. The resultant consensus demand plan serves as a primary input into downstream functions, such as production, distribution planning and detailed scheduling. An accurate demand plan at the appropriate level drives greater efficiency in the supply chain, decreases costs and increases customer satisfaction.

Conclusion

Downstream companies today are faced with unprecedented supply chain complexity. Having the appropriate software tools will provide powerful collaborative functions that help to break down the silos between manufacturers, business units, customers and marketing managers. Efficient information flow to and from key stakeholders is vital to achieve step changes in forecast accuracy. Better prediction of market demand is vital to obtaining the benefits of improved operations and bottom line profitability.

The other dimension to this scenario is for the organisation to look in detail at each vertical area, from planning through scheduling to operations, and make sure that different departments are executing according to one common and shared plan. This strategy will capture the full value identified in the process. If it is performed in isolation, by the end of the month there will be a big gap between planned expectations and actual results. Therefore, enabling integration and collaboration between planning through scheduling to operations will allow the supply chain organisation to capitalise on the identified value and adjust in real-time as new opportunities arrive. By integrating the overall business processes, companies can achieve significant improvements in performance with payback in months. The short-term return is operational optimisation – the long-term reward will be market competitiveness, improved profits and commercial sustainability. OEG

ASPENTECH

Eric Petela is director, business consulting at AspenTech, the world's leading supplier of software that optimises process manufacturing. The company has always been at the forefront of the process industries and today aspenONE solutions are used by virtually every leading company in the process manufacturing industry. aspenONE software represents the industry standard in process optimisation, redefining ease of use, helping companies achieve operational excellence, and driving profitability faster and more efficiently than ever before.

For further information please visit:
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Overcoming the hidden risks

THE PRE-DECISION PROCESS IS INCREASINGLY IMPORTANT AS PRODUCTION RISKS AND COSTS ESCALATE FOR BOTH LARGE AND SMALL PLAYERS, SAYS HIREN SANGHRAJKA OF UPSTREAM ADVISORS

The commercial landscape for oil and gas production has never been straightforward. Early stage planning has always been of paramount importance but today it has become increasingly vital to get it right as a range of factors continually transform the risk picture.

A study published at the end of 2013, into project execution and budget overruns by the Norwegian Petroleum Directorate (NPD), pinpointed insufficient planning at the front-end engineering and design (FEED) stage as one of the most critical failings of projects that had seen their schedules and budgets balloon.

All projects reviewed that had huge time and cost overruns had major shortcomings in the early design work, said NPD's Evaluation of Implemented Projects on the Norwegian Shelf report, referring to all engineering work before delivery of the proposed development option (PDO) and before procurement and construction starts.

Flaws and faults in the early planning will propagate further in the project. Time spent early in a project's life is crucial to the success of completing the project within time and cost estimate and according to quality standards, the report added.

So how and why does this happen?

One of the key reasons is pressure from shareholders. Many companies tend to rush into projects in order to demonstrate value creation to their investors. This in turn puts heat on project managers to make rapid progress and shorten project cycles because their reputations are at stake.

Furthermore, it's easy to underestimate the number of preliminary decisions that have to be made during the evaluation of a project and, as a result, get lost in the 'decision jungle'. As soon as that happens, the risk of a poor outcome obviously increases.

Effective pre-decision management is really about orchestration and leadership: knowing all the players, everything that is involved in making the best decision possible. It demands a properly structured pre-decision process, based on a lot of detailed experience.

There is always a way to make good early stage decisions, no matter how small or big you are, which fully takes into account all these developing risk factors and any others that may come down the track. At Upstream Advisors, we have collaborated with many clients in this field and have helped them through a management process that ensures that every option is considered in an equal and balanced way.

As advisors, we are driven by process, industry knowledge, understanding of current issues and perspective. What militates against these are things like gut instinct, bias, hunches and overly compressed timetables, all which tend to precipitate bad decisions.

Even the most scrupulous companies with the most sophisticated processes and systems in place can benefit from having an external eye. At Upstream Advisors, we have heard the majors saying they could have done with an outside view on things earlier.

Of course, attention to detail is key; it's so often the small things you don't think about that come back to bite you. But knowing what those small things might be comes with experience of many different early stage projects. Unfortunately, there is no one universal project tick list.

Given the sums involved in many major projects and the substantial knock-on costs and effects of a bad decision, an external audit can add significant risk management value for a relatively tiny cost.

There are many issues in play at the early stage of decision making, and subsequently many instances of where things can go wrong. The increasing complexity of exploration as frontiers are extended into ever more challenging environments and depths, and a background of a chronic skills shortage and tight supply markets, are all very real

Below
Hiren Sanghrajka, director/ development planning at Upstream Advisors

factors in today's market.

These factors are pushing for new technology not only to tackle the new scenarios but also to increase efficiency, particularly in production drilling, well completion, and floating production facilities with subsea wells. The implementation of this new technology has introduced significant new uncertainties that are not adequately considered in the budgeting and execution of projects.

Throw in the changing face of regulations to the equation and early stage decision-making suddenly looks a lot more challenging than it was in years gone by. This is especially true for the growing number of National Oil Companies and small and medium enterprises entering the scene, which, unlike super majors, simply don't have the experience or permanent in-house capabilities.

Unpicking a decision and building the case for pursuing another option should never be seen as anything other than a major 'win' saving an organisation from sometimes inestimable financial and reputational costs of going down the wrong road. The truth is that in most cases, in order to speed up, you need to slow down.

The following summarises common examples of shortcomings arising from the early field development planning phase:

- **Inadequate number of exploration and development wells to delineate the reserves**: This can lead to overly-optimistic forecasts on reserves and production rates. Best practice is to drill several more wells before forecasting reserves, or perform thorough reservoir engineering studies and proceed with caution.
- **Little or no flowing well data, fluid sampling or analysis**: Fluid analysis provides vital information for activities such as reservoir management and facilities design. Well flow data is essential for assessing potential production rates, while fluid analysis is necessary to ascertain whether there is a need for special materials in order to combat corrosive fluid properties. Such materials can be costly.
- **Incomplete cost analysis for operating facilities, and failure to establish attractive commercial agreements on tariffs**: Operating facilities and the transportation of saleable products to the market often prove more costly than initial quotes from suppliers. Such investigations and agreements need to be concluded, and the fine print scrutinised before project sanction.
- **Failure to perform a full inspection of low-cost facilities being offered for lease or purchase**: This is more an issue for tier two or tier three players, and risks either curtailed production or high costs on conversion of facilities to suit the need of a particular field. Choose the facilities to suit the proposed development, not the other way round.
- **Lack of adequate resources of all types to execute the project**: This is often assumed to be manageable by award of turnkey contracts to large international contractors, or a belief that money can overcome shortcomings. This is not the case due to the high cost of market entry. OEG

UPSTREAM ADVISORS

Hiren Sanghrajka is director/development planning at Upstream Advisors, a niche, and independent consultancy serving the exploration and productions sector of the oil and gas industry. He has over 30 years' experience in the oil and gas market, gained in oil companies as well as services companies performing senior advisory roles. Having advised companies such as Shell, BP, ExxonMobil, BG, Total and Chevron, Hiren has an acute awareness of cultural issues in and international business environment, with first-hand experience of developing and managing complex business relationships.

For further information please visit:
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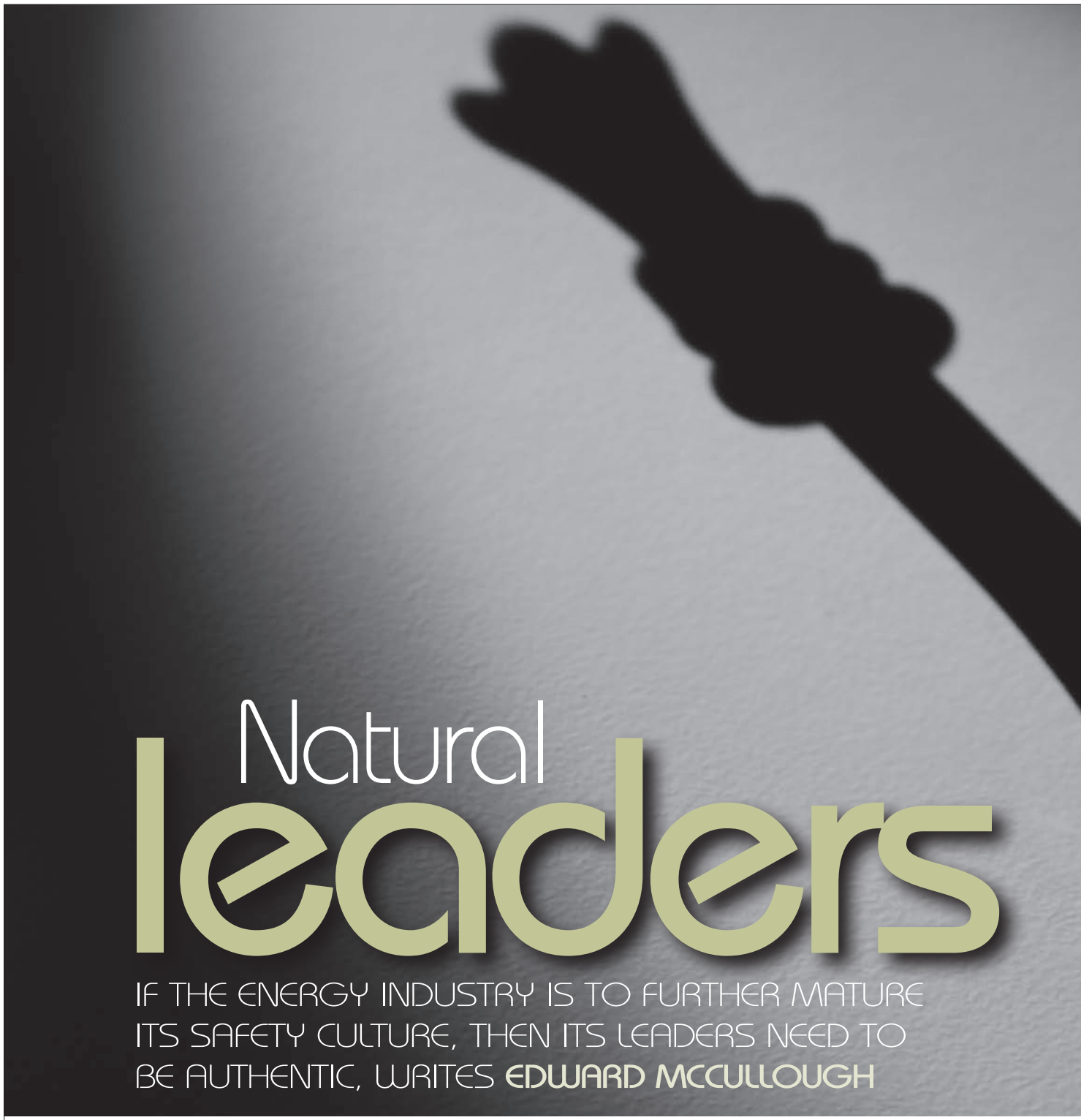

Natural leaders

IF THE ENERGY INDUSTRY IS TO FURTHER MATURE ITS SAFETY CULTURE, THEN ITS LEADERS NEED TO BE AUTHENTIC, WRITES EDWARD MCCULLOUGH

Recent research published in The Journal of Positive Psychology has demonstrated across two samples of offshore oil workers and seafarers working on oil platform supply ships that authentic leadership exerts a direct effect on safety climate as well as an indirect effect via psychological capital. This research shows the importance of leadership qualities as well as psychological factors in shaping a positive work safety climate and lowering the risks of accidents.

Climate and, more often, culture are two words that have crept into common user language in relation to business only in recent years – often associated with explanations of unacceptable behaviour.

For example, in response to the global financial crisis, Antony Jenkins, appointed new CEO of Barclays Bank in 2012, immediately set about changing the culture of the business and told those who were uncomfortable with his approach that "Barclays is not the place for you".

In the oil and gas and wider energy industry we have talked for much longer about safety culture, the earliest references relate to the Chernobyl nuclear disaster. We have understood the importance of our safety culture but not always understood how we should set about achieving a more mature culture.

At Optimus Seventh Generation we weren't surprised by

Below
Edward McCullough

these research findings, as Edgar Schein said: "Leaders create and change cultures; managers and administrators live within them." The findings only served to further validate 'Authentic Leadership' as one of the dimensions alongside 'Workforce Engagement' in our Culture of Care Diagnostic® safety culture assessment that we have carried out in Europe and in a number of international locations, both onshore and offshore.

When we deploy our leadership and workplace safety coaches in the field our clients and their workforce often ask; what does an authentic leader look like? How will we know them when we see them? Our coaches encourage our clients to turn that statement on its head and ask; what do followers want? One of the principal roles of a leader is to create an engaged workforce or, more simply expressed, to create followers. Without an engaged workforce, there is no relationship and no leadership.

This is recognised in the oil and gas industry. For example, Step Change in Safety, the UK based partnership between industry, trade associations and trades unions, has promoted a workforce engagement strategy, it being well understood that an engaged workforce is not just safer but is more innovative and productive.

Our experience, too, has taught us that in the oil and gas industry an engaged workforce is led by a person and not by a bureaucrat. They want this person to have authenticity, to show whom they are, and to reveal some of their real human differences.

The oil and gas industry is fraught with hazards and complexity, as well as ever increasing demands on those who lead. The industry prides itself on taking a values led approach in an effort to de-clutter thinking and encourage safety biased decision making during potentially stressful situations. Statements such as "there is nothing so important that we cannot take the time to do it safely" or "we do it safely or not at all" are familiar within the language of the industry. An engaged workforce demands that their leaders are not only familiar with these types of phrases or values, but see them as their purpose and fundamental in their decision making.

Without a clear sense of purpose, leaders are at the mercy of stress, workload pressures and any number of competing priorities. If they lack a clear purpose and direction in leading, why would anyone want to follow them, let alone follow with any degree of passion?

It would be reasonable to suggest that there are very few times when a leader is confronted with a 'safety over production' situation. However, when they are, they can be assured that their followers are watching intently, probably in silence to see the response. The leader who has the self-discipline and consistency to make decisions consistent with their espoused values will, through their actions, both influence and shape the culture in which they operate. As Bill George said: "The authentic leader demonstrates high integrity by taking courses of action independent of pleasing their audience or political expediency. They walk their talk, and in doing so create a level of trust that allows others to follow."

As the oil and gas industry continues in its quest to get more from less, to innovate and to push the boundaries of technology, this makes us one of the drivers of the global economy. It is useful to reflect that all of this is delivered by people, in some of the harshest working environments on the planet - from the deepest seas to the driest deserts.

As organisational hierarchies flatten and there is a desire and need to have leadership at every level – 'from CEO to the valve', how do we build resilience in our safety culture? How do we move those who have a natural bias towards what gets done – the project goals or the production targets - towards having a bias on how it gets done?

It is clear that those organisations whose culture is

> Without a clear sense of purpose, leaders are at the mercy of stress, workload pressures and any number of competing priorities. If they lack a clear purpose and direction in leading, why would anyone want to follow them, let alone follow with any degree of passion?

underpinned by strong values will create a workforce willing to engage with new safety processes and will therefore be best equipped to protect both its people and its assets. If these values have been socialised within the business and are used by leaders at all levels in an authentic manner, then the safety culture in our industry will create the resilience it needs.

And this is true regardless of where we are in the world. I am often asked if authentic leadership is appropriate to all parts of the world – my answer is that in our experience, which includes construction crews in the Australian outback, drillers in the UK and Norwegian sectors of the North Sea, production platforms in North Africa, fabrication yards in mainland Europe and seismic crews in the Middle Eastern desert, engaged workforces are led by leaders who understand themselves and act in line with their values.

Our safety coaches have experienced workforces in all of these locations, where leaders have engendered trust and therefore workforce engagement for reasons other than just the authority given to them by their position in the organisation.

Indeed, as I write this article a further piece of research among Petrobras suppliers in Brazil published in Brazilian Business Review has concluded:

"…. authenticity could also be used as an objective criterion for succession planning and promotions to management positions

in the areas most accustomed to risk within a company; as well as in industries where risk is a strategic issue. In relation to leadership development, aspects of authenticity can be handled in training programmes…"

At Optimus Seventh Generation, we have recognised that this poses challenges for our industry to incorporate authenticity as an assessment criterion for our current and future leaders during selection, and to re-design our leadership training to establish authenticity as an outcome of such programmes. Working with safety leaders in individual companies or in our open course – Leading for Workforce Engagement™ – we have witnessed many 'light bulb moments' when leaders have realised what skills they require to be authentic and have left with a strong desire to be that authentic person and to lead based on their values.

As a consequence they have further matured their safety culture by creating the conditions where their workforce has engaged beyond compliance with safety and become participants in safety, actively caring for and intervening on their colleagues. O&G

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Authentic leader, safe work: the influence of leadership on safety performance

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OPTIMUS SEVENTH GENERATION

Edward McCullough is a director senior partner of Optimus Seventh Generation and has been with the company since it was formed ten years ago. His role at Optimus is to lead and manage a business that undertakes activities in Europe, Australia, South East Asia and the Americas. He has spoken at various international forums on implementing positive sustainable change through leadership and behaviour. Optimus Seventh Generation is a behavioural safety consultancy that focuses on helping clients to implement sustainable improvements through the application of care.

For further information please visit: optimus-she.com

Continuous control

RISK MANAGEMENT – MOVING TOWARDS INTEGRATED CONTINUOUS CONTROLS MONITORING, BY MATTHEW SMITH OF SOFTWARE AG

In a previous article in *European Oil and Gas Magazine* (2013, Issue 7) we looked at the importance of process in ensuring effective governance, risk and compliance (GRC), in a sector in which the emphasis has switched markedly from profit performance to managing and containing risk.

The oil and gas industry has regularly come under intense public and regulatory scrutiny in recent years. In response, there has been a growing need to move beyond straightforward access to greater accessibility of data, for example, enabling staff of all levels of technical ability to understand and deal with incidents in a way that is both competent and maintains public confidence.

An increasing number of companies have recognised that ensuring transparency of their end-to-end processes is central to a best practice GRC approach, one in which relevant and timely information is made available to key decision-makers in dealing with crises and other aspects of business management.

The concept of continuous controls monitoring (CCM) represents a next step in centralising control of process and offers a powerful example of how real-time flow of information sits at the heart of effective risk monitoring and management.

Below
Matthew Smith, CTO – UK, Germany, Nordics and South Africa, at Software AG

Fast-changing environment

CCM centres on the detection of risk issues around an organisation's financial and operational environment and acts as an over-arching management system for the entire enterprise, to ensure compliance and drive down cost. This is no easy task. In the case of one leading European oil and gas company, this includes managing more than 1400 workflows, nearly 8000 activities and monitoring 16,000 requirements.

To improve the situation, some forward-thinking and connected enterprises in the oil and gas sector have started to introduce automated CCM across all their internal processes, including safety checks, risk analysis and overall management.

Training for helicopter crews provides a typical example of what this means in practice. Training in harsh environments becomes out-of-date very quickly and must be refreshed on a frequent basis. This presents a challenge in ensuring that training takes place at the right time, in a large and complex staffing environment across multiple platforms.

An effective CCM solution ensures that processes are in place to double-check that all appropriate training sessions have taken place. If this hasn't happened for whatever reason – such as illness, injury or human error – it is picked up immediately and made a priority, in order to rectify the situation and maintain the safety record of the organisation.

One oil and gas firm has now extended its CCM control system beyond the enterprise to include partners and suppliers, ensuring compliance more broadly throughout the supply chain.

The concept of CCM is more firmly established in other sectors such as finance, where most large corporates have

solutions in place. However, the oil and gas industry presents a number of unique health and safety issues as well as security and environmental challenges in the area of risk management, which may in part account for slower adoption.

The consequences can be far-reaching. In its annual report, European energy giant Statoil highlighted the potential outcomes of a failure to effectively manage risk as including injury or loss of life, damage to the environment, damage to or destruction of wells, pipelines and other facilities likely to lead to regulatory or legal liability, reputational damage and significant increase in costs.

Sensor networks

As CCM moves towards mainstream adoption, a new opportunity is set to emerge with the potential to achieve even greater integration through real-time CCM and event analysis.

Oil and gas companies are witnessing a dramatic increase in the number of sensors across all parts of their operation – for example, in measuring how much oil is being produced, how much gas is flowing, or how hot the drills are running – resulting in an explosion in sensor networks.

This presents an ideal opportunity to integrate these real-time sensors into event streams and analyse the data against identified risks within the existing CCM environment.

Arguably, there are no businesses in the oil and gas sector that have yet reached this stage of development. Some may argue to the contrary, but the reality is that this is only being undertaken in isolated environments where sensors are already established. So, for example, while an individual rig may be subject to high-level monitoring and analysis, the resulting information does not yet relate to the company's broader enterprise-wide risk and maintenance management strategies.

This contrasts with the airline industry, where aircraft manufacturers, for example, are starting to take real-time telemetry information from engines operating in-life.

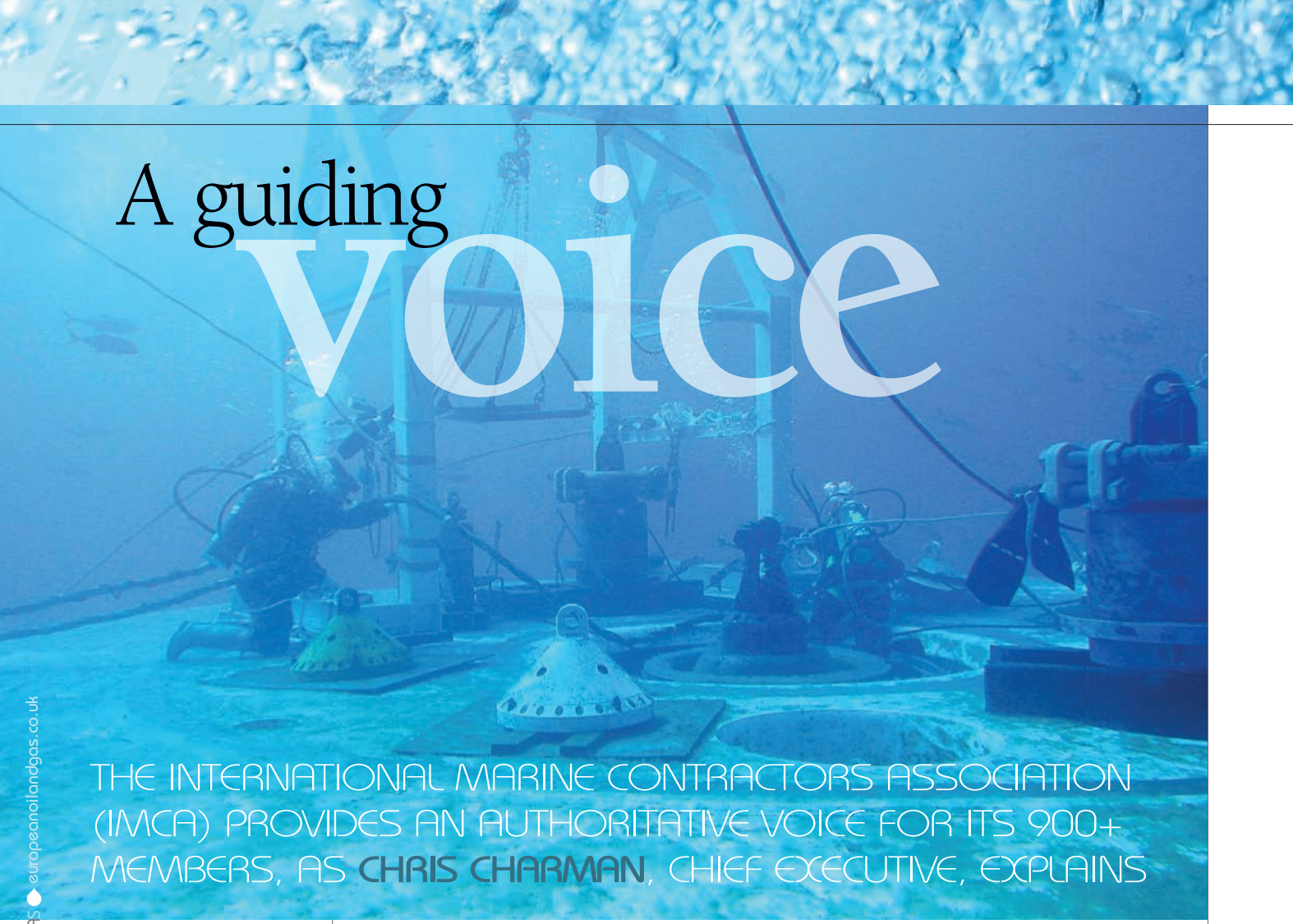
Adoption of standard service intervals is increasingly irrelevant and unnecessarily costly as engines react differently to a wide range of operating conditions. In response, by using real-time event analysis and historical performance models to dictate future maintenance patterns, this will be more efficient and effective, as aircraft will be subject to 'right time' maintenance rather than fixed maintenance schedules.

In the oil and gas sector, this has the potential to save huge sums of money in such areas as rig maintenance, which forms a large part of an oil and gas operator's annual operations bill. This approach also brings with it the added benefit that any savings are not at the expense of increased risk. Indeed, if anything safety levels may even be improved by aligning maintenance activity more closely with the actual condition of the equipment, which is continuously monitored and analysed in real-time.

An industry dimension

Such an approach clearly offers advantages to individual operators. Yet in the context of a sector constantly under the public microscope, safety is also an industry-wide issue, largely free of competitive considerations.

The emergence of advanced CCM processes which deliver a common set of advantages in cost, safety and security - to the benefit of all - could therefore act as a catalyst for a joint response, which may in turn enhance the reputation of the industry as a whole. OGC



A guiding voice

THE INTERNATIONAL MARINE CONTRACTORS ASSOCIATION (IMCA) PROVIDES AN AUTHORITATIVE VOICE FOR ITS 900+ MEMBERS, AS **CHRIS CHARMAN**, CHIEF EXECUTIVE, EXPLAINS

Above
A frame before ROV intervention

Below
Chris Charman, chief executive at IMCA

I am delighted to be asked to write this introduction to the section of *European Oil & Gas Magazine*, which has a strong link with the marine contracting sector. The International Marine Contractors Association (IMCA) represents the offshore, marine and underwater engineering industry with governments, regulatory bodies and clients worldwide, and has well over 900 member companies in more than 60 countries.

Between them it is estimated that they collectively turn over in excess of $150 billion annually and employ well over a quarter of a million staff across the world. What's more, their vessels account for four per cent of the global shipping fleet. Without their innovation and dedication it is a salutary thought that little or no offshore oil or gas would reach markets.

We work with our members in a collegiate and inclusive style to deliver safer working practices, pool knowledge and learn from each other in order to reduce risk, losses and damage to the environment.

IMCA does not set standards or regulations. It is not a legislative body. Our approach is that safe and efficient operations must be coupled with a good risk culture, guidelines and attitudes.

We therefore provide our members with guidance, allowing them to self-regulate rather than look to clients or governments for setting rules and procedures. While governments legislate on a range of issues in the public interest, they cannot produce legislation for every part of an industry's operations – nor may that be desirable. A key benefit of industry guidance is that it can be implemented and updated more quickly than legislation. This is vital in an industry such as ours with its rapidly advancing technology. Naturally, as a trade association we must also comply with international competition law (competition, antitrust and similar laws).

Our stated aims include our commitment to strive for the highest possible standards with a balance of risk and cost in health and safety, technology, quality and efficiency, and environmental awareness and protection. We also aim to help our members achieve equitable contracting regimes; and provide the framework for training, certification, competence and recruitment to support and sustain the industry globally. We seek to promote our members' common interests, to resolve industry-wide issues, and to provide an authoritative voice for our members.

Our members have made a conscious decision to set the most challenging goals possible, with the 'holy grail' being 'zero incidents' – after all, they are protecting their most valuable asset, their workforce. The objective, as an industry, is

to become the best we can at what we do, and motivate a process of continuous improvement.

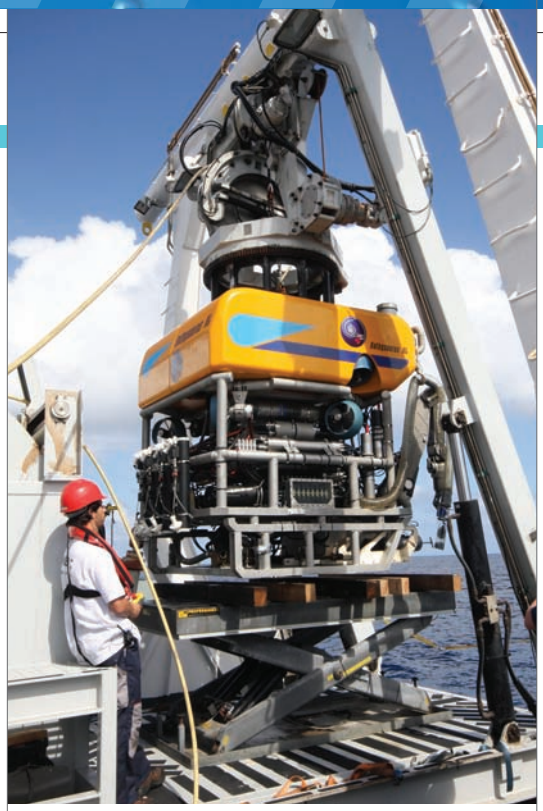
IMCA has four technical divisions covering marine/specialist vessel operations; offshore diving; hydrographic survey; and remote systems and ROVs (remotely operated vehicles).

We also have five regional sections – Asia Pacific; Central and North America; Europe and Africa; Middle East and India; and South America. These sections enable members to address issues specific to their region and local area, and ensure the global applicability of the association's worldwide activities. Regular meetings bring members together to discuss current topics and initiatives, often with guest speakers and opportunities for those interested in membership, clients, regulators and other interested parties to join members for presentations and briefing. We are very much an organisation serving the interest of our members; with member committees determining our technical work programme undertaken by our strong technical team headed by our technical director, Jane Bugler.

IMCA has two core activities – Competence & Training; and Safety, Environment & Legislation (SEL). Our Competence & Training activities include the provision of guidance on competence assurance and assessment. This guidance provides members with a framework for creating their own in-house schemes for assessing and recording the competence of people working in safety-critical and other roles. It is especially designed for members who need to demonstrate the competence of their staff to clients and regulators, and to adhere to standards such as ISO 9001. Certification by industry-recognised third parties, as well as our own initiatives in this area, gives IMCA members access to a global training and competence development framework.

SEL, our second core activity, promotes the sharing of experience and safety-related information among members with the aim of reducing incidents by continuously reinforcing good practice. We offer good practice guidance to industry by way of documents, seminars (our Annual Seminar is held in the late autumn and our Safety and Environmental Seminar in the spring) and dialogue.

The sharing of information on incidents and near-misses is a powerful enabler for IMCA members to achieve safe, reliable and efficient operations. Details of potential hazards at the worksite and lessons learned from follow-up investigations are collated, anonymised, circulated to members and posted online to create a growing database of invaluable information. The IMCA database on dynamically positioned (DP) incident reports dates back over 30 years.

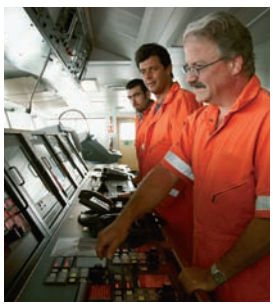


Occasionally incidents do happen, and that's when the IMCA safety flash system provides a fast, vital communications channel for the industry and helps prevent recurrence of the situation.

IMCA publishes some 200 guidance notes and technical reports. The vast majority are available for free downloading by members and non-members alike and, where applicable, are published in a range of languages. They are a definition of what IMCA stands for, including widely recognised diving and ROV codes of practice (often cited in clients' tender documents); DP documentation; marine good practice guidance; the Common Marine Inspection Document (CMID) – available electronically as eCMID; safety recommendations; outline training syllabi; and the IMCA competence (competence framework) guidance. In addition to the range of guidance documents, IMCA also produces safety promotional materials including pocket safety cards, posters and DVDs.

The international marine contracting industry is a strong and friendly 'family', mostly working at the cutting edge of an exciting and critical industry. There is no greater pool of collective knowledge of our sector than ours on the planet. We constantly share knowledge – to add depth to that pool – to improve the way those in the industry work and the quality of the service they are able to deliver. O&G

> Our members have made a conscious decision to set the most challenging goals possible, with the 'holy grail' being 'zero incidents' – after all, they are protecting their most valuable asset, their workforce. The objective, as an industry, is to become the best we can at what we do, and motivate a process of continuous improvement



Top
ROV Luso in action

Middle
Bridge of a dynamically positioned vessel

Bottom
Dive support vessel

For further information please visit:
imca-int.com

A stable partner

GFAM

Excellent supplies and service on the high seas

Working on offshore facilities and ships is an energy consuming challenge for everyone involved. That's why offshore companies such as HGO InfraSea Solutions rely on Good Food and More GmbH (GFAM) as an efficient and competent partner for their cleaning and catering services. Whatever your requirements GFAM offers a comprehensive one-stop catering solution to meet your offshore crewing needs. We adopt lean management principles to ensure a cost effective and robust solution for all parties concerned. The process starts with the procurement of quality goods and ends with the professional preparation of superior quality food and service by highly trained staff as defined and controlled by our certified standards, ISO and OHSAS respectively. The GFAM philosophy of 'Quality is the Key' is enhanced by our high degree of quality and transparency in the whole European logistics chain to guarantee a seamless and dependable operation, whilst leaving enough room for individual customer wishes.

The history of HGO

InfraSea Solutions can be traced back to 2008 when it was founded as Beluga Hochtief, a joint venture between the Beluga Group and HOCHTIEF Solutions. Following the insolvency of the Beluga Group during March 2011 its shares in Beluga Hochtief were acquired by GEOSEA, a subsidiary of DEME, a Belgian-based marine and environmental engineering group, which led to the creation of HGO InfraSea Solutions as it is recognised today. Since 2011 the company has developed a leading reputation in the field of offshore wind farm installation services.

Currently HGO manages a single vessel named the INNOVATION, which is a self-propelled, heavy-lift jack-up vessel. Although the company is relatively small in terms of manpower employing around 60-70 personnel, it packs a serious punch in terms of the market-leading services it provides. Core to the company's strength is that INNOVATION provides the largest lift capacity within the offshore industry, meaning that HGO is at the forefront in delivering world-class heavy-lifting jack-up services. As such INNOVATION has remained in operation constantly since it was delivered in mid-2012. Its first project was located at Germany's Global Tech 1 offshore wind farm in the North Sea, where it was active until January 2014. Immediately thereafter it was commissioned for service on the Westermost Rough project located near the coast of Hull, UK on behalf of GEOSEA, where it is expected to remain in operation until mid-2014.

"The INNOVATION was built with its premier market being offshore, where normally you would expect to see a gap between projects, but we have been very lucky in that the vessel has been kept busy and not had any downtime," says HGO managing director Patrick Vermeulen. "Inevitably however, there will be gaps in the occupation of the vessel and for that reason we have identified oil and gas, e.g. decommissioning as a secondary market. The timeframes for decommissioning jobs allow us to operate within the window of downtime and this is a very good complement to the primary business."

INNOVATION boasts a number of features that make it a market-leader in servicing offshore installations. For example, it is able to operate at depths reaching 50 to 55 metres depending on soil conditions on the ocean floor. In contrast to floating heavy-lift solutions, the INNOVATION is able to offer the stability and safety of a jack-up vessel, which greatly reduces the impact of adverse weather conditions, swell and movement. This then leads to an increase in available work-hours. O&G

As well as providing a stable platform from which to conduct operations, INNOVATION is also equipped with the necessary equipment to facilitate lifting operations that far exceed other vessels and jack-up ships operating in the same market. "The crane capacity of most vessels of this type is around 800 tonnes and crane capacities between 1100 and 1200 tonnes are very rare," Patrick explains. "INNOVATION has a crane capacity of 1500 tonnes, which we think will suit decommissioning jobs where work is split per module. Furthermore, the crane has an outreach of 32 metres, so there is a greater distance between the jack-up and the lifted object and this is fairly unique too. Another advantage for decommissioning work is that the large deck space aboard the INNOVATION will accommodate small to mid-sized modules. In this respect, because we can lift modules and accommodate them on-ship, HGO can offer clients an integrated, one-stop solution."

Although HGO is currently limited to a single jack-up rig it can rely on the support and resources of its parent companies to further expand the services it is able to supply, this makes the company relatively unique venture for a business of its size. Furthermore, owing to the strong order book that it has managed since 2012 and in anticipation of further charters well into 2015, HGO is currently in the early stages of the decision process for a new vessel of comparative ability to INNOVATION. Elaborating on this, Patrick says: "We have a conceptual design in place already, which will actually slightly increase on INNOVATION's capacity. The design is based on in-field experience where we have discovered operational limits and we are constantly attempting to decrease the limits on what is possible."

Even though HGO has maintained a strong order book since 2012, the offshore wind market has not reached its full maturity yet, as Patrick elaborates: "The offshore sector is a volatile market, because it is a new area that needs to prove itself. We see that the business will be driven by technological improvements, including the output of the turbines and also installation times. So there are challenges that the industry needs to tackle, but as a company we are great believers in the future of offshore wind. This is not only because it is where we are active but because of the environmental benefits and its sustainable nature.

"We as a business deliver value to clients through lower installation times and higher workability, therefore even within the challenging market we have been able to provide technical improvement to reduce costs. Moving forward the company's mission will be to focus on current contracts and completing them in a safe and responsible way. We are also looking for that first decommissioning job and that is something we would like to see happen by the second half of this year. It is a major objective." O&G

> The crane capacity of most vessels of this type is around 800 tonnes and crane capacities between 1100 and 1200 tonnes are very rare," Patrick explains. "INNOVATION has a crane capacity of 1500 tonnes

HGO Infrasea Solutions GmbH
hgo-infrasea-solutions.de

Services
Heavy-lift jack-up support

A growing industry

The decommissioning industry in the North Sea, although still a relatively new business, is continuing to grow at a considerable rate, with projected costs of between £30 and £35 billion estimated between 2010 and 2040. The key to ensuring that decommissioning in the North Sea succeeds is collaboration and co-operation between operators and contractors in order to promote knowledge transfer and minimise risk.

At the core of this ongoing growth in the UKCS is Decom North Sea (DNS), the dedicated North Sea decommissioning forum that was established in 2009 to represent the market by developing models, standards and guidelines for the sector, improving efficiency, containing costs and ensuring economic benefits, and promoting collaboration and the sharing of experience and learning. Today, the organisation, which was last featured in *European Oil and Gas Magazine* in January 2013, has a membership that has grown to over 200 members from the UK, Denmark, Germany, Norway, the Netherlands, and the US.

Previously, Brian Nixon, chief executive at Decom North Sea, highlighted a number of important initiatives that the organisation was spearheading, and as we recently discovered, the last year has continued to be busy. "There has been a lot of activity in terms of responding to the developing market conditions and ensuring that the efforts and emphasis of Decom North Sea are as targeted and effective as possible," he pointed out.

"Alongside this there has been a general increase in activity across the decommissioning sector, as there is a growing awareness of the inevitability of the necessity of decommissioning. Its not going to go away and companies, whether they have a direct responsibility to decommission a particular asset or are a business that can add value to a project, are reaching the conclusion that they really have to seriously start focusing on planning, preparing and investing in North Sea decommissioning.

"On this note, one of the trends we have witnessed since the last time we spoke is a growing number of operators understanding the necessity of making serious progress with the planning and preparation for their decommissioning programmes," he explained. "One of the first things they are doing, thankfully, is approaching us for assistance, guidance and to learn the models and standards that are available to help them understand the broad spectrum of what is actually involved in a decommissioning project."

It is this that reflects one of the key factors of the decommissioning industry thus far - O&G

collaboration and the sharing of knowledge and skills. It is a cornerstone of Decom North Sea's role and something that Brian believes is vital for success, telling us previously that "In our role as a facilitator at DNS we see that in the decommissioning industry there is a strong desire and willingness to share ideas and experiences." This collaboration has already helped drive a number of successful initiatives, including the development and introduction of a standard template for decommissioning programmes that is now used by operators to obtain approval for all decommissioning projects in the North Sea sector.

"One important development at Decom North Sea over the last year has been our introduction of training courses, one of which we are running at the moment," Brian said, highlighting DNS' ongoing promotion of knowledge sharing and learning. "They are proving extremely popular and are attracting interest from across the entire industry from operators and big contractors through to consultants. The course itself is a two-day programme that is run by three recently retired veterans who between them have more practical hands-on experience of offshore decommissioning that anyone I know in the entire industry.

"The course covers the full spectrum of a typical decommissioning project, which can have ten or 11 phases of activity overall, and if we're talking about a major Northern North Sea platform then those phases are stretched over a ten to 12 year period. During that timeframe an enormous amount of work of varying kinds takes place with numerous challenges, so the training courses are designed to cover the overall exercise looking at regulatory issues, possible environmental regulations, project stages and so on to assist all parties involved. We're really happy with how successfully they have been received and we hope that they can evolve depending on the requests and needs of our members, encompassing more specific aspects of a project like well plugging and abandonment in more detail."

The positive response to the training courses and to Decom North Sea's continuing dedication to the industry is a reflection of how important decommissioning will come over the coming years. "There's little doubt that growth will continue," said Brian. "Particularly having seen the latest economic survey from the industry, which demonstrated that the overall projected cost of the decommissioning programme over the next 25 to 30 years has grown from the previous estimate of around £31.7 billion in 2013 to £40.6 billion. I think there is an important message there that as each operator gets into more detail and understands the challenges and complications that they face they are realising that there is much more to the decommissioning process than they may have originally thought. So, each year there is a growing awareness of the challenges and complexities.

"Of course, we will only be successful in the North Sea and in the international markets if the industry as a whole becomes more efficient, cost-effective and innovative, and builds on this somewhat unique attitude to collaboration and co-operation that we have. From our perspective we have built DNS steadily and very effectively over the last four years. Naturally we're under no illusions that we have a considerable challenge ahead of us, which means that if anything our overall engagement with the industry will have to increase further. It's important to remember that this will extend beyond the UK. We're a European organisation and although a large majority of our members are from the UK we have Norwegian, Danish, Dutch, French and US members, and we are very serious about engaging with our European partners to ensure a strong and effective decommissioning industry for the future." OEG

"Of course, we will only be successful in the North Sea and in the international markets if the industry as a whole becomes more efficient, cost-effective and innovative, and builds on this somewhat unique attitude to collaboration and co-operation that we have

DECOM North Sea

Decom North Sea

For further information please visit decomnorthsea.com

Where passion becomes devotion

> In the field of decommissioning HMC can offer clients a full turnkey platform decommissioning and removal portfolio by using the heavy lift reverse installation method

The decommissioning sector

is one of the fastest growing in the offshore and oil and gas industries. At the same time it is a fledgling industry that requires experienced and highly skilled professionals to guide its development across the North Sea and the wider energy market. Heerema Marine Contractors (HMC) is one such company, widely reputed as a world-leading offshore contractor operating in the international offshore oil and gas industry.

Driven by excellence in management and engineering, a passionate workforce and a top-edge fleet that includes formidable heavy lift and deepwater construction vessels, HMC excels at transporting, installing and removing offshore facilities such as fixed and floating infrastructure, subsea pipelines and structures in shallow, deep, and ultra-deep waters.

The company is headquartered in Leiden in the Netherlands, belongs to the Heerema Group, and can trace its history back to the late 1940s/ early 1950s. Since this time it has gathered unparalleled experience, often operating in harsh or demanding environments and in a range of contracting models. While its early operations occurred largely under the Heerema umbrella, in 1997 HMC formerly commenced operations as an individual business unit of Heerema Group, operating three fully owned and operated SSCVs that had become in high demand in the North Sea in previous years.

As the offshore contracting industry continued to develop, particularly with the growing number of deepwater oil and gas operations, HMC converted one of its vessels, the Balder, into an advanced deepwater construction vessel with deep water mooring and pipelay capabilities to cope with this market demand. It is through this development that the company has become a recognised and leading expert in the field of deepwater operations, completing many demanding projects, setting a number of industry records and establishing itself as a leader in deepwater full field developments, including subsea infrastructure projects and SURF EPICs.

Today HMC operates a fleet of four vessels; the aforementioned Balder, as well as the SSCV Hermod, the SSCV Thialf and its latest DCV, O&G

Aegir. It also has access to a wide and varied range of supporting marine equipment including tugs, barges, and hammers. Operationally, its work can be loosely divided into four key product categories – fixed facilities, floating facilities, decommissioning, and subsea structures, flowlines and risers. HMC strives to have a balanced mix of the above products in its order intake.

In the field of decommissioning HMC can offer clients a full turnkey platform decommissioning and removal portfolio by using the heavy lift reverse installation method. For example, the company carries out topsides and jackets removal work, whereby the topsides and jacket sections are removed by reverse installation – a process where the modules and sections are lifted from the platform and placed on board the heavy lift vessel for transport to a designated quayside for offloading, disposal or storage. HMC's decommissioning services also include Platform Hookdown activities and management, large diameter pile cutting, soil removal and conductor removal operations.

Being a leader in its field means that HMC is involved in some of the major decommissioning projects currently ongoing in the NS. The company is presently working on the removal of platforms in the Greater Ekofisk Area in the North Sea, which is the largest removal contract ever awarded to HMC. For this project HMC was contracted to decommission, remove and dispose of/recycle nine platforms. The project, which commenced in 2008 and is due to be completed in Q4 2014 was originally scheduled to be executed by either Thialf or Hermod, but eventually was carried out by all three of its heavy lift vessels, Hermod, Thialf and Balder to cater for the inevitable schedule changes.

The area in which the project is being carried out is in particularly harsh conditions, with water depths that vary between 70 and 90 metres, and jacket weights between 3000 and 9000 metric tonnes. Each of the nine platforms has numerous topsides, varying between six and 16 per platform. As with all HMC's operations, safety has been paramount throughout the project, resulting in excellent safety statistics without LTI's, with all work being carried out according to the highest Norwegian standards.

While this project is ongoing HMC has already completed a series of other decommissioning contracts. Between 2008 and 2009 the company was contracted to carry out the decommissioning, removal and recycling, and disposal of the North West Hutton platform, the largest steel jacket platform to be removed from the North Sea to date. The project was divided into a number of smaller campaigns, commencing in 2008 with the removal of the topsides by the SSCV Hermod, which then transported them to a UK recycling yard in Teesside. In 2009 the jackets were successfully removed and cut into a number of major and minor sections, again by SSCV Hermod, and were then transported to the same yard for disposal.

For more than half a century HMC has excelled in offshore and marine contracting operations in Europe and beyond. With a firm reputation in the fields of deepwater operations and heavy-lift work, the company is continuing to serve the decommissioning market, establishing itself as a partner of choice in every area in which it operates.

The vast potential of the decommissioning market attracts a lot of new players, and more specifically new vessels entering the market. But no matter how smartly designed, it is not the big vessels themselves that remove platforms, it needs people with the right mindset and experience that prepare the work onshore and make it actually happen offshore. HMC, like no other marine contractor in the world, has a dedicated removal team with over 35 managers and engineers that have built up systems, tools and experience in removal since the late 1980s. There is little doubt that with that devotion HMC will remain a major name in the removal industry for many years. O&G

SPECIALIST SUBSEA SERVICES

Specialist Subsea Services (S³), a provider of vessel, ROV and survey services to the international oil and gas and renewable sectors has fostered a successful working relationship with Hereema Marine Contractors.

Building on this strong foundation for the future, S³ continues to embrace the increasing opportunities that are presented by the growing subsea sector, as it looks to maintain its strong track record in supporting these fields, alongside IRM and decommissioning.

A focus on partnership working is at the heart of S³s activity and the firm looks forward to strengthening its ties with Hereema in the months and years ahead.

ASK ROMEIN

ASK Romein has been active in the offshore market for many years and has serviced Heerema Marine Contractors ever since the early 1970s. During this period we have fostered our relationship with HMC, which now constitutes the basis of us being able to perform within short response and delivery times, thereby observing the required quality and adhering to the prevailing processes. Positioned in the Vlissingen harbour area, having its own loading facilities with direct access to open seawaters, ASK Romein is ideally located to take on fabrication works of sub-parts such as lifting assemblies, grillages and the like.

Heerema Marine Contractors
hmc-heerema.com

Services
Offshore contractor

A solid framework

Since its beginnings in 1955, AKD Engineering has been a name that its customers have come to rely upon. With the backing of its parent company, Camellia Plc, the business has been able to make heavy investment to progress its position as it moves forward. Having recently appointed a new managing director, Andrew Quayle, the outlook incorporates a promising vision on an ever-nearing horizon.

In an interview with Denise Farr, sales and marketing manager, addressing the direction of the business, she comments: "We intend to continue with our work with the long-standing clients that attribute to the core business surrounding framework agreements. Additionally however, over the past two years, we have been developing our business in preparation of entering the Norwegian market, and it is a key focus that we intend to move forward with. We hope to secure future fabrication and new build packages, which is a completely new direction for AKD."

Martin Jolley, managing director of Camellia comments: "Alongside supplying to the Norwegian sector on upstream projects, we have secured new dockside facilities which have already seen topside skid packages being fabricated and assembled ready for load out. We have also provided investment growing our machining capabilities, which can produce a broad spectrum of components." Through natural business progression, the company has adapted its approach to dealing with a range of contracts. "Historically, we wouldn't deal directly with Shell but recently they placed a large order with us for the Bacton Rejuvenation Project. The contract is going to continue until at least Q2 2014 with an extension for more pipework and structural work that will take us through to Q1 2015 at least, so the project could look to double," adds Denise.

The business has increased its employees alongside its expansion to additional dockside facilities in Lowestoft, UK. The crewing up of staff has come as a response to the new Bacton project, as Denise says: "We class Bacton as a special project, and we have crewed up directly for that, but as we continue to tender for future special projects we aim to establish the employees as a more permanent fix. We are not looking to

just hire and fire as and when it suits."

Aimed at steady and continuous growth, AKD has established longstanding framework agreements with Aker Solutions, operating out of Aberdeen. The agreement fulfils interests in the provision of subsea components, and with the capacity to bring in a lot of work into the east of England, the business additionally works with the global company GE Oil and Gas amongst others. "We are looking forward to securing contracts in Malaysia, providing fabrication in the UK, with export to Malaysia, and we are still working off the west coast of Africa for Rolls Royce and Total. For a relatively small company we work with a lot of key players within the industry and because of our philosophy in treating clients well, we benefit from their return with repeat business," explains Denise.

As clients begin to focus on aging assets, the decommissioning of nine platforms has been sanctioned, and on three the client is seeking the decommissioning to be complete by the end of 2015. Commenting on one particular tender, Denise says: "It is an ambitious time frame, but well within our capabilities if we have involvement from an early stage. We have already had a presence on the platforms in surveying and we are in the process of confirming a schedule with the clients. Having already carried out feed studies, we are fully aware of the full scope of the project. If our tender proves successful, our scope of supply will focus on topside. We feel positive about the project but it's still a long way off.

"We have had experience in the southern North Sea with AF Decom, and Shell, and we have since completed cost analysis and feed studies for Shell surrounding potential decommissioning interests. One of our key strategies is to become involved in projects as early as we can to be ready to develop a comprehensive and competitive tender. Our business actively plays a supportive role with key clients in pricing the removal of their assets." In respect to these contracts, Martin adds: "The partnership with AF Decom was a great success and the client was particularly satisfied. The outcome can be attributed to a high-level of expertise and clear lines of communication."

It is experience in the decommissioning sector that puts AKD in a competitive position, as Denise highlights: "Our engineers have worked on several decommissioning projects, and through looking after our employees we have been able to ensure that we have held on to the valuable experience. We have a training budget set aside and we invest a lot of time into our employees and give support to anyone who wants to further their career in a specific direction."

Supporting the drive, Martin explains: "I personally feel the lack of skilled engineers will play a challenge to future projects in the industry in general. It is this challenge that is the drive behind holding onto our core team of engineers, who have played key roles in decommissioning projects in the past."

Statistically, ten per cent of the company's workforce consists of apprentices training at Lowestoft College. Explaining the method behind ensuring a bright future for the business, Denise concludes: "We work from an early stage with the schools to inform pupils about the opportunities available to begin a future in engineering. Each apprentice on their fourth year is offered long-term employment, and many of the employees we have today have developed through this path." OEG

Our engineers have worked on several decommissioning projects, and through looking after our employees we have been able to ensure that we have held on to the valuable experience

AKD Engineering Ltd
akd-engineering.co.uk

Services
Engineering, manufacturing and offshore services

Group-wide network

With Decom North Sea

forecasting that £31.5 billion will be spent on decommissioning existing assets between 2013 and 2040, operators are keen to ensure they work with the most experienced contractors in the supply chain.

Established in 1973 as a painting and blasting firm on Balnagask Road, Torry before it moved to its headquarters in the Bridge of Don, Aberdeen, where it still resides, Bilfinger Salamis UK has grown to become one of the industry's leading providers of integrated industrial support to the oil and gas sector. Today its group-wide network has positioned the company as a leading decommissioning player.

As well as more than 40 years' fabric maintenance, inspection and specialist cleaning experience in the UK Continental Shelf, Bilfinger Salamis UK also has the expertise and service offering of the wider Bilfinger Group at its fingertips.

The Bilfinger Group employs over 70,000 people across the world, and was reorganised into 14 divisions at the start of 2014, with Bilfinger Salamis UK joining the group's newly formed Oil and Gas division.

Above
Graham Hayward, managing director Bilfinger Salamis UK

Graham Hayward, managing director commented: "The oil and gas division has 6000 full-time employees, a revenue of approximately 700 million euros and has three operating entities; Bilfinger Salamis UK, its sister company Bilfinger Industrier in Norway, and our downstream business Bilfinger Industrial Services UK in Runcorn.

"We aim to bring synergies out with these divisions and integrate products and services in each of these geographical areas so we can cross-sell and bring economies of scale. For example, there is cutting edge technology in Norway that we haven't applied in the UK offshore sector yet that we want to expose to the market place and across this side of the continental shelf. Similarly, we have some products and services in the UK that can help the division in Norway.

"We are a leading industrial services contractor in the UKCS, and we are confident in our ability to deliver a broad spectrum of decommissioning services enjoyed by our extensive range of blue chip client operators in the North Sea," said Mr Hayward.

Having grown four-fold over the last five years, the company has a proven track record

for providing multi-disciplined, integrated support services and maintenance solutions to a broad spectrum of returning customers within the petrochemical, industrial, energy and utilities sectors in both the UK and certain international markets.

One area where the company has seen notable demand over recent years is its ability to provide integrated decommissioning support. Bilfinger Salamis UK has a broad range of services which tie into various stages of the decommissioning process, including initial survey work, integrity management, alternative access, rope access, supply of deck crew, cleaning and handling of hazardous waste e.g asbestos.

The company recently won a significant contract which will see it provide access, including alternative system scaffold, multi-discipline rope access teams and fabric maintenance support on a major decommissioning project in the North Sea, with work expected to develop over the next 12 months to include added disciplines.

"Bilfinger Salamis UK fully understands the constraints and drivers involved in successful execution of such a project," said Mr Hayward.

"We understand the need to carefully plan the work, maximise output and productivity whilst maintaining agreed quality standards. We have successfully delivered several major projects and campaigns in the last five years and have many experienced managers, operatives and project tools immediately available to implement projects.

"We believe we are currently best placed in our market sector with both the capability and capacity to provide the extensive supervision and resources required to undertake major decommissioning projects.

"We work closely with operators to develop cost effective, fit for purpose work methodologies and systems supported by the latest modern materials, equipment, access methods and encapsulation that will accelerate the project schedule. We have proven estimating and planning systems, plus project management tools and cost control systems that provide our clients with live, accurate data to carefully manage all activities."

One of the key factors in Bilfinger Salamis UK's success is its workforce of over 2000 offshore operatives. The company holds competency in the highest regard, and staff are regularly trained at the Bilfinger Salamis Skills Centre, also based in Aberdeen's Bridge of Don. The centre was set up in 2007 to measure the competency of staff, but now has over 70 per cent of its business coming from external clients looking to gain industry qualifications in disciplines such as Working at Height, Confined Space Access, and Painting and Blasting. Indeed, the Skills Centre provides the only OPITO Painting and Blasting course in Aberdeen.

"Bilfinger Salamis UK provides fully competent multi-discipline teams with proven supervision and tradesmen. We are one of the largest employers of scaffolders and fabric maintenance technicians in the UK. All operatives are verified, trade tested, trained and fully briefed in the project expectations and targets prior to commencement," said Mr Hayward.

"Our supervision staff members are behavioural safety coaches and have worked closely with onshore and offshore management teams to ensure and maintain the highest level of safety performance. Bilfinger Salamis UK takes ownership for managing and driving productivity, and achieving any project milestones."

Having formed the foundations to continue growing in an industry that continues to boom, the future looks positive for Bilfinger Salamis UK over the coming years, as it focuses on constant improvement of its services to safely and efficiently meet the evolving demands of customers within the onshore and offshore sectors. O&G

RENTAIR OFFSHORE

Rentair Offshore has been working with Bilfinger Salamis for over a decade, supplying a range of containerised DNV 2.7-1 Zone II air compressors and experienced offshore service technicians to support Bilfinger Salamis with its rig fabric maintenance projects in the Northern and Southern North Sea.

Rentair Offshore continues to invest in new fleet adding Zone II product lines including Zone II DNV 2.7-2 high volume Air Compressors and Zone II DNV 2.7-2 Steam Generators to its portfolio to supply first class safety solutions to clients, including Bilfinger Salamis, supporting the production of oil and gas, rig fabric maintenance and well testing.

GEORGE ROBERTS

Having associations going back many years, George Roberts Ltd is pleased to support B.I.S. Salamis onshore and offshore with this feature, wishing them much success and looking forward to continuing support in the feature. Currently supplying the oil, gas, petrochemical, nuclear power and pharmaceutical industries, as well as servicing a range of leading industrial clients, George Roberts Ltd is proud in continuing to provide its renowned customer service with the back up and support of a vastly experienced team.

Bilfinger Salamis UK
salamis.bilfinger.com

Services
Integrated
industrial support

Meeting of minds

2014 OFFSHORE TECHNOLOGY CONFERENCE – 5TH TO 8TH MAY, HOUSTON, US

Founded in 1969, the Offshore Technology Conference (OTC) is the world's most important event related to the development of offshore resources in the fields of drilling, exploration, production, and environmental protection. The event, which is sponsored by 13 industry organisations and societies that work together to develop a highly unique technical programme, is held annually at Reliant Park in Houston, US. It remains the best way for industry insiders to gain advanced technical knowledge, understand market trends and developments, and to make valuable, lasting contacts through exciting networking opportunities.

This year OTC takes place between 5th and 8th May, and as ever there are a multitude of reasons why you should be attending. OTC provides visitors with access to some of the industry's latest, state-of-the-art technical information and innovations through a technical programme that is devised by knowledgeable and highly experienced professionals. Furthermore, the manner in which the event is organised means that in just four days those attending are able to see groundbreaking designs and meet leading providers of such products all in one convenient space. As both visitors and exhibiting companies arrive from more than 120 countries worldwide OTC also provides the ideal opportunity to network, with over 90,000 professionals meeting to discuss the industry's key topics.

For these reasons OTC ranks among the largest 200 trade shows that are held annually in the US, and it is also among the ten largest meetings in terms of overall attendance, which regularly exceeds 80,000 and more than 2700 exhibiting companies. Each year sees OTC grow, with 2013 attendance reaching a 30-year high of 104,800, which represented the second highest in the show's history and a 17 per cent increase from 2012. "We had a terrific conference with deep and broad technical coverage, supported by excellent panels an executive keynote presentations," said Steve Balint, chairman of OTC, speaking after the 2013 event. "Technology is at the heart of the offshore industry and it was all on display at OTC 2013." Last year's show featured nine panel sessions, 29 executive keynote presentations at luncheons and breakfasts and 298 technical papers, and this year promises to be equally as successful.

Starting with the annual OTC dinner on Sunday 4th May, OTC commences its scheduled programme over the subsequent days, with a range of discussions and conferences based around areas such as The Next Wave Programme, University R&D Showcase,

Technical Sessions and Topical Luncheons, Networking Events, and Energy Education Institute workshops and sessions.

The OTC 2014 Technical Programme this year covers a broad spectrum of topics related to offshore energy. For example, OTC showcases important project updates from key industry operations around the world, including Shell Mars B, as well as projects from leading companies like Pemex, Total, Petronas, BP, Chevron, Noble, CNOOC, Statoil, INPEX, Maersk, Marathon, and Anadarko. Other important topics include subsea engineering talent, new applications for underwater monitoring, process safety, and the economic future of the industry.

Another important aspect of OTC is the annual awards presented at the event. For example, OTC recognises innovative technologies each year with its Spotlight on New Technology Award, which is exclusively for OTC exhibitors and showcases the latest and most advanced technologies that are at the forefront of the industry. This year's winners are advanced technologies and innovative solutions for the industry from Baker Hughes, FMC Technologies, GE Oil & Gas, Geoservices, A Schlumberger Company, Halliburton Drill Bits and Services, SBM Offshore, Schlumberger, Weatherford, West Production Technology AS, and WesternGeco.

These are all technologies that have been considered to meet the five key criteria necessary for a Spotlight on New Technology Award: new, innovative, proven, broad interest, and significant impact. Both hardware and software technologies are applicable for the awards.

As well as recognising new innovations OTC also looks to celebrate industry accomplishments at the annual dinner through its OTC Distinguished Achievement and Heritage Awards. This particular aspect of the event has a charitable side as all net proceeds from the dinner are donated to a charity or organisation that is connected to the offshore industry or areas that the oil and gas sector operates in – the year the beneficiary is Medical Bridges Inc., a company that bridges the healthcare gap in developing countries and is a testament to the power of giving.

Essentially, OTC is a not to be missed event. The combination of inspiring, in-depth technical conferences and educational workshops enable everyone in the industry to better understand the future of energy, while the enormous exhibition is an ideal opportunity to take in the latest technology and network with like-minded individuals. Be sure to be in Houston at the start of May to not be disappointed. OSG

Essentially, OTC is a not to be missed event. The combination of inspiring, in-depth technical conferences and educational workshops enable everyone in the industry to better understand the future of energy

OTC 2014

OTC2104 runs from 5th to 8th May at Reliant Park in Houston, US.

For further information please visit:
otcnet.org

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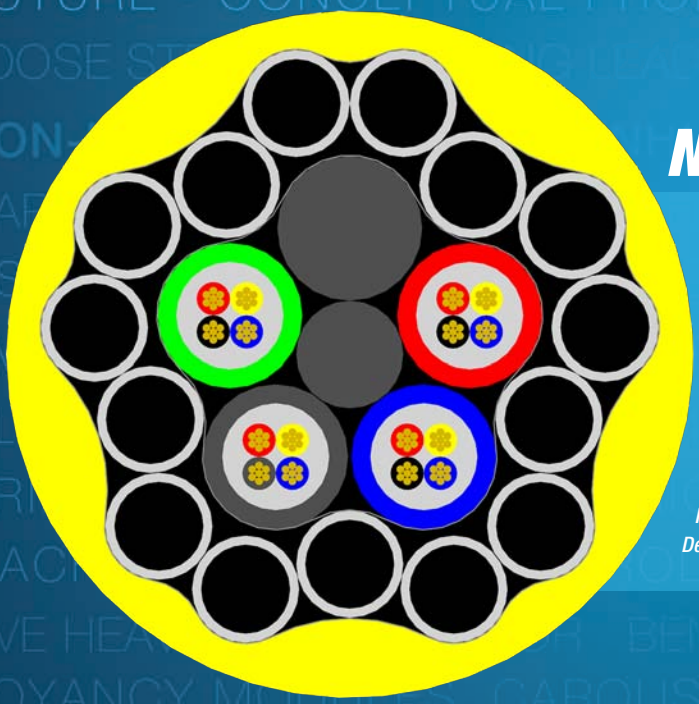

NHU non-helical umbilical

- **Ease of installation**
- **Manufactured anywhere**

The patented Deep Down concept is portable and easily transported for setup anywhere in the world. Full-sized steel tube infield umbilicals can be manufactured up to 10 miles in length, incorporating appropriate percentages of local content and installed on vessels in the vicinity of subsea fields. All using compact, portable Deep Down equipment.

Portable umbilical manufacture.
Deep Down can fabricate on site and then load your vessel for installation - almost anywhere.

THINK CAROUSELS - THINK ALL SIZES
THINK DEEP DOWN!

Deep Down, Inc. has designed an extraordinary fully scalable carousel system that can be manufactured to handle 1000 MT or up to 9000 MT.
Utilising the latest technology available, Deep Down Inc. engineers designed this unit with safety and flexibility in mind. This sophisticated, sectioned carousel is highly flexible allowing storage and deployment of several cables or umbilicals at the same time. The modular sections provide more compliance and relief against tolerance issues yet remain easy to ship. The ability to bulk transport standardized umbilical cross sections has the additional advantage of reducing delivery costs.The removable and moveable termination porches offer more flexibility in termination placement and handling. This feature allows the umbilical to be cut and terminated near the termination assembly supplier, again reducing costs.

For further information: Deep Down Inc. 15473 East Freeway, Houston TX 77530 USA
Tel +(1) 281-862-2201 Fax +(1) 281-862-2522 sales@deepdowninc.com **www.deepdowninc.com**

Get'er down

Established in 1997 by founder, chief executive officer, president and executive director Ron Smith, Houston headquartered Deep Down Inc. provides proven services and solutions to major oil firms operating globally in the offshore exploration and production industry. With a core focus on complex deepwater and ultra-deepwater oil production distribution system support services as well as the development of innovative technologies used between platform and wellhead, Deep Down's dedicated, expert team of project managers and engineers ensure the swift progression and safe, successful execution of all projects.

A lean, mean machine that is run by seniors who thrive in challenging situations, Deep Down is trusted by virtually all of the major oil firms and works for three groups of customers: operators/oil companies representing 52 per cent of the company's income, OEMs with 36 per cent of the company's income and installation contractors with 11 per cent. "We work for all of the oil companies, Chevron, BP, Exxon, Noble Energy, Statoil, CNOOC, basically everybody that is interesting to a company like us. We also work for umbilical manufacturers such as Nexans and Parker as well as installation contractors such as Technip, Subsea 7 and Hereema. Not only that, but we also supply some of our competitors in certain markets," highlights Ron.

Benefiting from Ron's offshore expertise and eye for opportunity, the company has developed and strengthened its services in line with market and customer demand since its inception. "We started managing installations and I realised the deck of vessels were lacking critical services or didn't have the right personnel or equipment on deck to deliver testing and monitoring services quickly and accurately. Deep Down began offering these services and then realised that at the end of these installations the contractors may not have the correct deck equipment to get the subsea equipment on and off platforms, so we set up a post commissioning services option. Basically our whole history has been about putting together solutions for customers and then adding these solutions to our own service range or product line," says Ron.

Indeed, Ron has been directly responsible for the invention or development of a diverse range of innovative solutions used in the offshore industry, such as the first steel tube flying lead installation system. Today, having successfully supplied loose steel flying leads (LSFLs) for more than a decade, the company is now known as a pioneer of the product's development and is a leading manufacturer of cost-effective, high

quality, hydraulic, electrical and fiber optic LSFLs. “Our new 215,000 square foot facility in Houston has been manufacturing a lot of steel flying leads as we speak. We recently received orders for steel tube flying leads and long-term associated services in the Gulf of Mexico and West Africa in 2013; these projects are proceeding perfectly. We also delivered a significant amount of flying leads to Australia, so there is a huge influx of deliveries going all over the world,” says Ron.

Another product to enjoy huge demand is the company’s patented non-helical umbilical (NHU), which combines its expertise in making miles of loose steel flying leads, of observing the installation behaviour of all umbilicals as well as terminating conventional steel umbilicals. The portable manufacturing and easily transported NHU System can be set up anywhere that full-sized steel tube infield umbilicals can be produced up to ten miles in length. Super-duplex tubes of standard number and size, the NHU can be additionally equipped with either electrical or optical components and is intended for both static and short-term dynamic service applications.

“The beauty of the NHU is its mobile manufacturing process. It can be taken over to any location that doesn’t have the Deep Down brand; thanks to our mobile capabilities, the manufacturing equipment can be installed with minimal mobilisation or demobilisation costs through the utilisation of local content. This gives back to local areas and is getting a lot of people excited,” highlights Ron. “This product has some unique concepts and will be a major part of our future in the mobile umbilical making process.”

Despite a relatively small number of personnel, for a publicly traded company, the company boasts an excellent reputation and long list of major oil customers that stems from its long-term expertise and ‘can-do’ attitude in the face of extremely challenging projects. “We are growing, working for multiple customers requiring subsea hardware and subsea services then coming up with solutions for installation, production or emergencies and situations like that,” enthuses Ron. “We have so much going on in regards to solutions that we aren’t allowed to talk about, but a whole lot of people in the industry know that if you are in a tight spot you go to Deep Down because we get things done.”

An example of the company’s ability to prevent an uncontrollable release of hydrocarbons are its Riser Isolation Valve (RIV) and Subsea Isolation Valve (SSIV) control systems, which are being installed onto platforms as part of Emergency Shutdown Systems (ESDS). By integrating Deep Down’s installation friendly subsea distribution system components, the control rooms on platforms can thus operate SSIVs and also monitor the valve position in open/closed circles. Designed to control and monitor up to 12 RIVs on a single platform, the single RIV systems can be installed both onshore and offshore in addition to installations on new or existing riser systems. This innovative technology is leading the way

in enabling a safer future within the oil and gas industry. “This product prevents a potential Macondo catastrophe where if the oil and gas gets past the BOP stack or the subsea tree the operators don’t want it creating a problem for the platform. Our highly robust RIV systems block off the flow at the bottom of the platform and are perfect for retrofit projects,” says Ron.

Boasting approximately $29 million in back log and $200 million in quotes, Deep Down is enjoying ongoing demand for its services and products that is certain to continue long into the future. With clear aims for the ongoing success of Deep Down, Ron concludes: “Our plan is to increase the installation of our flying leads then expand our NHU business to the point we can use more of our subsea distribution components and connect the dots within the market. We also want to work in parallel in several of these market areas without compromising on the quality of our services. Deep Down will expand into several teams of equal capability but still retain our mobile philosophy that will all be posted out of our Houston facility. Ultimately our aim is to increase our sales content in new locations through a potential new base facility and continue to demonstrate our expanded capabilities.” OSG

> We have so much going on in regards to solutions that we aren’t allowed to talk about, but a whole lot of people in the industry know that if you are in a tight spot you go to Deep Down because we get things done

Deep Down Inc
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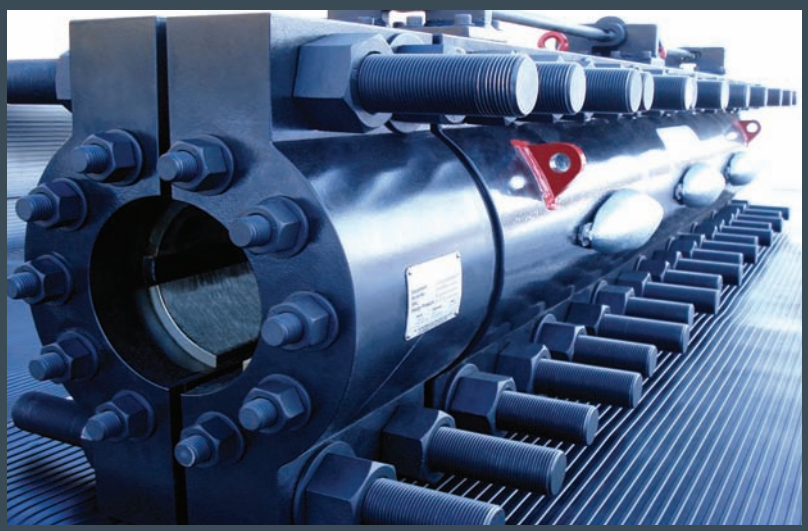
Services
Oil and gas support services



Expanding into the future

Above
Phil Heathcock, finance director at Subsea Innovation

Formed in 1985 by a team of experienced engineers and diving professionals Subsea Innovation is a company dedicated to delivering state-of-the-art engineering products to the offshore oil and gas, and energy industry throughout the world.

Phil Heathcock is finance director at the company and he noted that it was after relocation to Darlington in the North East of the UK in 1995 that the business really went from strength to strength, and has gone on to develop an extensive product range that can be split into the following categories: offshore equipment handling systems, pipeline repair/recovery systems and subsea sealing systems.

He gave more details on the products: "We have developed a range of ROV launch and recovery systems and tether management systems with over 100 of these operational all over the globe. Moon pool systems have been developed for use with a wide variety of subsea tools and all of this equipment is designed, constructed and tested according to DNV's Standard For Certification Of Lifting Appliances No 2.22."

In addition to product supply Subsea Innovation provides supervision services to oversee the successful deployment and installation of its equipment. The company provides an aftercare service and can supply spare and replacement parts for the full range of its products.

Much of the company's success can be attributed to a significant increase in orders of one of its products - the Launch and Recovery Systems (LARS). "These systems are used in the deployment of remotely operated vehicles (ROVs) into subsea environments all over the world. We completed the manufacture of 20 LARS in 2013, doubling the previous year and taking the company total to over 100 fabricated systems in service," said Phil.

To accompany the LARS, Subsea Innovation has also designed and manufactured numerous tether management systems (TMS). The TMS is deployed together with the ROV and provides power, hydraulics and communications with the vessel enabling the ROV to operate in the water at distances up to 1000m from the TMS and water depths of 3000m.

Thanks to innovative products such as this, Subsea Innovation achieved a record turnover of £10 million in 2013. It has also built up a reputation for excellent customer service and innovation. Phil identified what he sees as the strengths that set the company apart from the competition: "The major one is that we aim to produce a quality product first time," he said. "Clients are invited to the factory to complete factory acceptance testing and are given a warm welcome, a clean environment and staff that are willing to listen to their input and act upon it. We are a flexible organisation and are able to react to client queries and requests quickly to assist in resolving issues that they may have in the field. A complete aftersales, training and installation programme is available and we pride ourselves on not just supplying a product but assisting throughout its working life."

He was also keen to emphasise the company's dedication to employing highly skilled designers, engineers and technicians: "We have a staff training programme in place with staff studying towards NVQ, HNC, HND, CIPD and degrees at the Open University," he said. "We are dedicated

to attracting and retaining the highest quality of staff to our company and offer a fantastic working environment, so we see ourselves as an employer of choice in the North East engineering sector."

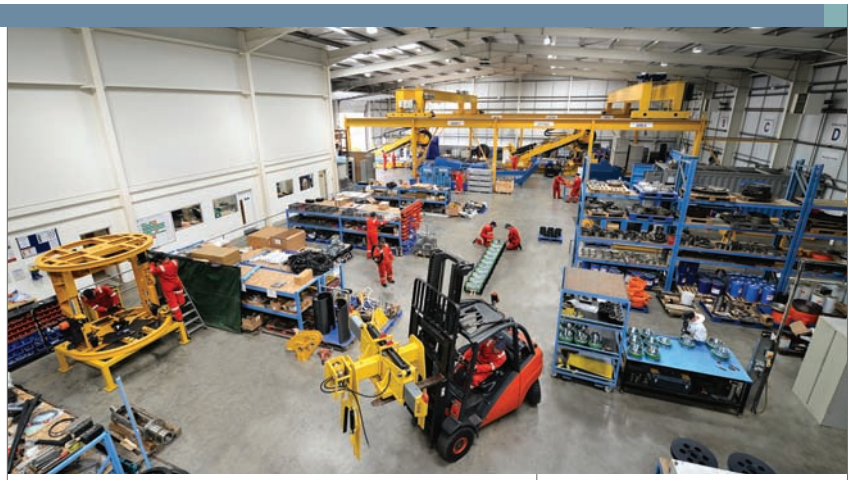
In January 2014 the business began work on the construction of a new HQ in Darlington and it is hoped that the expansion, due for completion in August, will see the workforce double to more than 70, equipping Subsea Innovation to meet the future needs of the oil and gas sector, as well as the wider energy industry.

"The new 40,000sq ft site will be twice the size of our current Faverdale North base and will include extra factory and office space," said Phil. "It has been designed by Darlington's Architects Design Group and is being constructed by the town's J & RM Richardson. The new building will allow us to build bigger machines and carry out increased testing, without the use of external facilities. It will have extra height allowing larger cranage, and will also enable us to dedicate space for research and development (R&D).

"Specific projects are already being set up with a dedicated manager to develop our existing products, and also to innovate and introduce new products and technologies to the market that will see us remain at the forefront of the subsea industry. An annual budget is allocated to R&D and managers are given targets to achieve within this budget.

"Investment in the new facility and tripling the working area will allow R&D projects to take place away from the main production and allow larger and additional contracts to be taken on where previously they would have had to be declined due to capacity."

The move to the new premises is a large project that will be completed in 2014 and Subsea Innovation regards this as a great opportunity to move into new markets and attract new customers, and over the next 12 months it is also looking to consolidate on the successes of 2013 and continue to develop and grow as a company. "A new operating system is being implemented during 2014 to improve the operational effectiveness of the company – another significant step towards establishing ourselves as a global force," added Phil. "We hope to complete accreditation for ISO 14001 and 18001 to back up our credentials as a safe and environmentally conscious company. Over the next five years we want to drive the company forward and develop additional income streams from our existing products and also bring new equipment to the market."



He concluded: "Overall the oil and gas market has been buoyant all over the globe. We are seeing new vessels being built to operate in the sector and additional pipelines being laid and extended to take advantage of the huge opportunities that exist. Oil remains the top provider of energy to the world and with growth in this arena set to continue we are pleased to be involved in this vibrant sector."

Subsea Innovation Limited
subsea.co.uk
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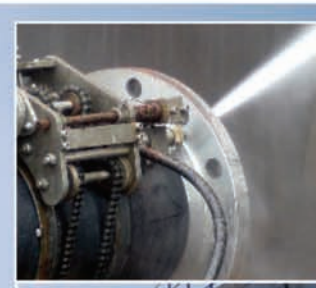
Services
Supplier of subsea equipment

Committed to Investment in People and Technology

COLT
25 Years of Service Excellence

Onshore

For over 25 years Colt management and staff have contracted nationally and internationally across a diverse range of industrial markets.
We offer a wide range of industrial services and operate the latest technology in the various disciplines we provide. Our cleaning techniques include both manually and automated systems and are supported by a fleet of modern ADR certified tankers with some of the most powerful vacuum pumps available.
Colt are at the forefront of design and innovation, with much of the technology we use developed in house within our own fabrication and maintenance shops.
We have an extremely low staff turnover and an extremely highly accredited workforce providing some of the most experienced staff available.
Our health and safety is continually audited by external sources setting ourselves extremely high standards. For first class references we operate as resident term contractor on a number of sites across the UK.



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Offshore

Colt operate a broad range of offshore services complimenting many of the major maintenance activities of our client's.
We have a highly trained workforce with RPS Supervisors and operatives covering all aspects of LSA/Norm activities.
Complementing a well trained and experienced workforce is some of the latest equipment in the market and again we utilise fully our extremely adaptable onsite workshops for all welding and fabrications requirements.
We manufacture a a large percentage of our own offshore equipment with full ATEX and CE approval.
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Specialist Vessel Cleaning

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Expertly handled

Leading European independent bulk liquid and gas logistics service provider Simon Storage has eight terminals based in prime locations in the UK, Ireland and Germany where it handles more than 250 products and blends for its diverse customer base. With a combined liquid storage capacity of 1.28 million cubic metres, or more than eight million barrels, the terminals are capable of providing complete intermodal solutions for many of its customers through the receiving and distribution of products via ship, truck, rail and pipeline.

Aware that effective asset development ensures a consistent ability to meet the current and future requirements of customers within the oil, gas and petrochemical sectors, Simon Storage has focused on progressive expansion since its inception more than 80 years ago. Since its early days, the company has grown both organically and through a multitude of strategic developments and acquisitions; an approach that has resulted in facilities and infrastructure that can adapt to the evolving needs of the markets it operates in. This dedication to consistent improvement also enables the terminal to provide wholly integrated, cost-effective solutions to specific storage and handling demands for products such as petroleum or potable alcohol.

An integral link in a long supply chain, Simon Storage offers flexibility to its returning and long-term customers through the adaptation of its systems. As an infrastructure owner and operator, Simon Storage has the engineering expertise to develop bespoke solutions for complex customer requirements. Previously in *European Oil and Gas Magazine* in May 2013, the company was then involved in a major contract with Centrica Storage Ltd (CSL), a 100

The construction of modern pharmaceutical and petrochemical facilities requires a vast range of specialist skills. Long-term efficiency and precise processing capability are paramount to ensure profitability, but the overriding concern has to be absolute safety for workers, residents in the surrounding locality and the environment in general. As a member of a wide range of professional bodies dedicated to safety and the environment, Tolent Construction Limited is well placed to deliver effective solutions.

Tolent

Tolent's performance on the Oikos Fuel Storage Facility at Canvey Island in Essex, pictured above, is at the forefront of petrochemical design and construction technology. Here, Tolent were Principle Contractor throughout the Project, undertaking the civil and tank construction under a Design & Construct Contract and delivering a state of the art facility constructed to the very latest 'Buncefield' standards, on time, within budget, recording zero lost time injuries and to the credit of all involved received due praise in the process. The dedicated Tolent team worked closely with Oikos, Simon Projects & subcontractors to offer the best quality, cost effective, value for money solutions, while still achieving the stringent regulatory requirements.

www.tolent.co.uk

COLT INDUSTRIAL SERVICES

Colt Industrial Services is proud to support Simon Storage in all operations and its continued growth.

As one of the largest tank storage facilities in the UK, with industrial servicing requirements as varied as the products they store.

Colt has developed a trusted, impeccable relationship over a 20 year history, with our Emergency Response Service we ensured minimal disruption to Simon Storage's operations throughout the recent natural flood disaster.

We clean some of the largest tanks containing the most volatile and sometimes unusual of products, on a daily basis. Simon Storage utilises our full range of Industrial Services within our portfolio.

per cent owned subsidiary of Centrica, for the receipt, storage and redelivery of gas condensate. As part of this agreement, Simon Storage built two new 3000 metre cubed carbon steel tanks on time and within budget that are based alongside dedicated pipelines for the handling of products and redelivery of condensate to the sea. Incorporating internal floating roofs to minimise vapour emissions and adding externally stiffened roofs to boost internal volume, the bespoke tanks are also wholly compliant with stringent safety standards and regulations.

Now fully operational, the contract comprises of Simon Storage receiving gas condensate, a bi-product of natural gas production, into storage at its Immingham West terminal from CSI's processing plant in Easington, East Yorkshire directly via pipeline. These developments coincide with the completion of Centrica Energy's multi-million pound York Project, a major programme for the construction of a gas platform and pipeline for the processing of raw gas extracted off the York Field, 34 kilometres off the York Coast. Once extracted, the condensate is stabilised for utilisation in an array of industries, such as fuels and petrochemicals.

With a high customer retention rate, Simon Storage announced the provision of a specialised storage and handling solution for Prayon Group in November 2013. A leading producer of purified phosphoric acid, Prayon has signed a long-term contract where 85 per cent of concentrated purified phosphoric acid produced at its Belgium based plant is received into storage via Immingham East's deep water jetty on the UK's East Coast.

Product will be stored in dedicated stainless steel tanks at the terminal before it is distributed by road to Prayon's customer base in the UK. To ensure customer satisfaction and absolute safety, Simon Storage refurbished two stainless steel tanks; both of which were fitted with overfill protection systems, heat conservation lagging, automatic tank gauging and external heating systems that are thermostatically controlled to maintain the required in-tank temperature. Furthermore, the quality conscious firm added a dedicated stainless steel import line for the purified phosphoric acid as well as dedicated road tanker loading facilities such as a completely closed road loading system, which incorporates metered batch controlled loading, and an associated remotely operated shut off valve that is capable of closing in the event of detected overfill.

Based on the south bank of the river Humber, Simon Storage's Immingham Terminal is strategically located to offer logistical advantages to customers operating in the North Sea. Offering shorter, more direct routes to and from Europe's major ports, Immingham Terminal is regularly expanded and improved to ensure superior handling services in line with customer and market demand. For example, in January 2014 the company announced the arrival of new

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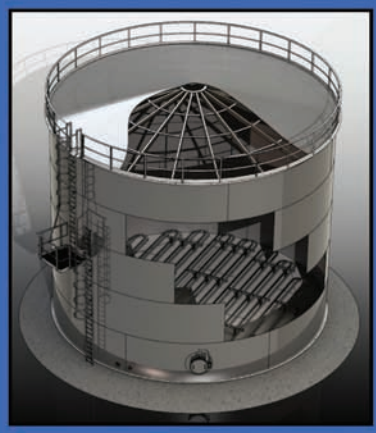
Fenelon Storage Tanks offer customers a unique one-stop shop service for all new build tank projects and repair/refurbishment requirements. Expertise from our in-house Design Department and fully equipped workshop/fabrication facilities provide support for our on-site construction teams.



- Technical advice and support for clients.
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- Calculations and drawings for all types of storage tanks.
- All designs carried out to the latest British, European or API tank codes.
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- Professional Project Management/HSQA Department.
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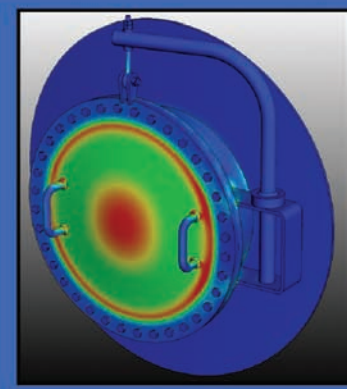

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Certification No LRQ 4004803

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Painting and Labour Services Ltd has introduced a more professional approach to shot blasting and painting by developing and providing clients with hands-on guidance in product and materials selection. On-site demonstrations are also available to ensure that the correct procedures and products are adapted before any contracts commence. As a well-known painting contractor, the company strives to provide service and quality at competitive rates and is fully conversant with the fast track programming requirements of today's industry.

All management and employees are fully trained in the use of the latest shot blasting and painting equipment. In addition, it is continually updating and improving its equipment and procedures to meet the needs of the industry.

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Tel: 01469 578103 (Accounts)
Fax: 01469 573341
Email: enquires@paintingandlabour.co.uk

BC&T CONSULTANTS

www.bct-consultants.co.uk

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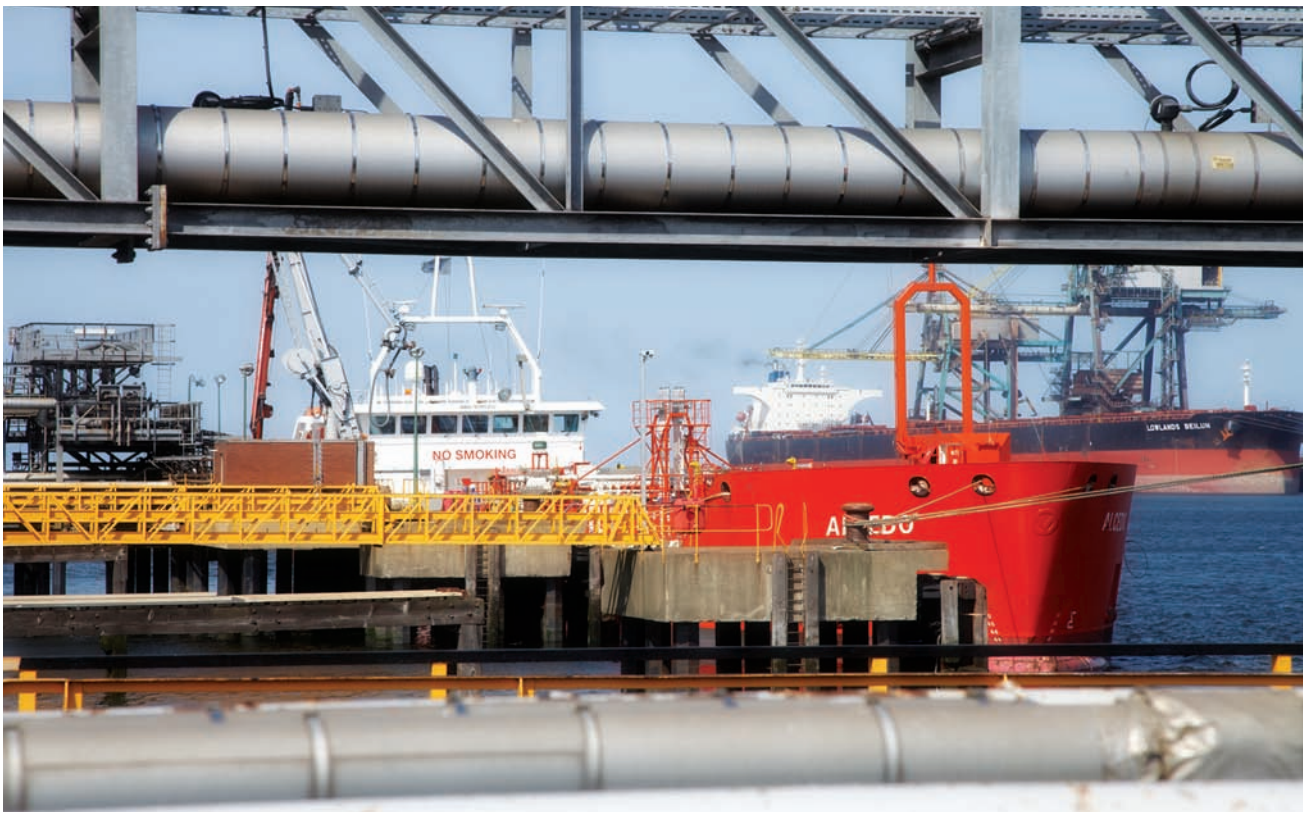
BC&T are a Multi-Disciplinary Consulting Engineers with an established track record in providing bespoke design solutions for the Petroleum, Chemical and LPG sectors. Including Project Management, Process, Mechanical, Civil & Structural Design Tank inspections, Underground & Bunded Chemical Storage

We are pleased to continue our successful long term working relationship with Simon Storage



waste storage and handling capabilities at the terminal complex, which was recently granted an Environmental Permitting Regulations (EPR) Part A permit for the handling of both hazardous and non-hazardous bulk liquid wastes. On top of this, the terminal was also granted Radioactive Substance Regulations (RSR) permits for the handling of NORM (naturally occurring radioactive material) products that tend to originate in the North Sea.

This development builds on the company's long tradition in the handling of bulk liquid wastes under permit. In accordance to regulations, the permission regime for storing hazardous bulk liquid wastes is stringent, and the wastes must be stored in tanks with impermeable bunding and must be managed under strict stock management systems and reporting regimes. A vital aspect of this is staff training, both to meet permitting requirements and also to uphold the company's commitment to personal and process safety. To achieve this the business has WAMITAB qualified staff located at each of Simon's East Coast terminals, and where NORM products are located employees hold an approved Radiation Protection Supervisor's (RPS) qualification. Simon Storage is also permitted to use a water treatment facility, developed in 2010, for the disposal of separated waste water.

Forming part of the UK's most comprehensive storage facility, the company's Immingham East and Immingham West terminals offer cutting-edge logistics infrastructure and a broad spectrum of benefits for exporters and importers aiming to optimise distibution. On top of this, both terminals are COMAH (Control of Major Accident Hazards) top-tier sites that are active participants in the CDI-T (Chemicals Distribution Institute – Terminals) inspection programme.

Now licensed for the storage and handling of NORM products, Immingham joins the company's other terminals at Seal Sands on Teeside and Velva Liquids in Tyneside in the handling of bulk hazardous liquid

> Based on the south bank of the river Humber, Simon Storage's Immingham Terminal is strategically located to offer logistical advantages to customers operating in the North Sea

FENELON STORAGE TANKS

Fenelon Storage Tanks leads the field in the design, installation and repair of above ground storage tanks. It ensures that all contracts are completed safely, on time, within budget and to all relevant design code requirements. Fenelon Storage Tanks has worked closely with Simon Storage on many new build and refurbishment projects across the UK and looks forward to offering its ongoing support for many years to come.

wastes, thus ensuring a more comprehensive portfolio of storage solutions and disposal routes for its customers. Included in this range are contaminated liquid wastes from offshore installations such as NORM waste streams stemming from the decommissiong programme in the North Sea, chemical wastes and recovered products like mono ethylene glycol and drilling fluids that emerge from a vast array of industrial activities.

As a company that thrives on diversification of its product handling services, waste management and industrial cleaning is just a small part of Simon Storage's overall business, which includes the blending and storage of a comprehensive range of petroleum and petrochemical products, refined products such as liquefied petroleum gases, chemical products, vegetable oils and renewable fuels. Indeed, it is this ability to respond to market requirements through operational diversity that ensures continued financial strength during turbulent market conditions in certain areas.

As commercial and environmental trends within the waste storage and recycling sector continue to develop at a swift pace, Simon Storage's strategic investments are a sign of continued growing demand for high quality, innovative waste management solutions. Boasting the capacity, licenses and long-term knowledge that is required to store an impressive multitude of recovered product and waste streams, the company's terminals on the East Coast lead the way in waste handling.

Looking ahead, the company is all too aware that the UK market, particularly the North Sea, is fairly mature and is therefore paying increased attention to opportunities in and around Germany and Denmark, where its parent company acquired facilities last year. Searching for energy infrastructure development opportunities in Europe, Simon Storage will utilise its tried and tested strategy of acquisition and organic development to ensure ongoing provision of cost-effective, innovative solutions to the tank storage market. O&G

TESTEX NDT LTD

TesTex NDT is a market-leading inspection company in the bulk storage and petrochem industry. Services include tank and pipeline integrity assessments to API and EEMUA. From a single tank to a whole terminal, our highly qualified and dedicated staff work all over the UK, Europe and beyond. Working in partnership over the past ten years, we are extremely proud to be part of the success at both the Simon Storage Immingham Terminals.

Simon Storage
simonstorage.com

Services
Support services, storage

Piping success

Founded in August 1996, Automated Machinery and Equipment (AME) is rapidly approaching two decades of successful operation within the shipbuilding, oil and gas, power generation, construction, technology and pharmaceutical industries. Its ongoing fortune can be attributed to continued investment and its ability to provide bespoke solutions to a broad customer base across a host of sectors.

From its base in Singapore the company has positioned itself at the forefront of the region's market though a combination of over a decade of organic growth and pivotal defining developments throughout its history. During 2006 AME was privatised and renamed Automated Machinery and Equipment Pte Ltd and the company was further enhanced in 2007 with the investment of further capital and incorporated as AME International Pte Ltd, which allowed AME to again increase the scope of its activities and in turn achieve greater turnover. As the company ambitiously continued to expand within all of its targeted market sectors it saw a rapid increase in customer demand, this was addressed in 2008 through the investment in a new factory and the acquisition of brand new, state-of-the art equipment including powerful overhead travelling cranes (EOTC).

The company was last featured in *European Oil and Gas Magazine* in April 2012, during which time AME founder and managing director Mr. Steven Toy was able to elaborate on the market-leading services that AME International offers: "We provide steel fabrication and CNC machining services to our clients and can be considered a turnkey solution provider to major oil tools and equipment makers, as our services range from procurement of materials, fabrication, CNC machining, automated cladding services, assembly work, non-destructive testing (NDT), secondary finishing and all the way to delivery. AME International is one of the few companies in the industry with more than 20 CNC machines that are capable of processing large oil and gas parts. With a fleet of machines comprising of horizontal boring machine, vertical and horizontal lathe and various milling machine with maximum swing up to three metres, maximum length to four metres and maximum 15 tonnes handling capabilities. The company is capable of handling small to large-scale parts ranging from subsea blocks, wellhead housing, stem, diverter components, tubing hangers, and valves etc. We are also able to machine complicated profiles such as seat pocket, cavity bore, gun drills and angular holes with our extensive range of tooling."

Today, the company is fully ISO 9001:2008 and OHSAS 18001:2007 certified, and AME remains dedicated to its mission to become and continue to be the provider of choice within the industries that it services, through providing the highest quality products and services on time and by exceeding the exacting standards of its clients. During the course of its endeavors it is the passion of AME to honour and respect its clients' and its stakeholders' interests by accomplishing its stated commitments through teamwork, dedication, integrity, responsibility and total operational excellence.

From its sizable workshop, AME designs and creates the turnkey solutions that allow it to complete its mission and define the values under which the company operates. Within the oil and gas and offshore sectors it provides large-scale structures in all varieties of steel, including stainless steel. The company's expertise extends to the fabrication of cabinets, chassis, enclosures, frames, mechanical components, panels, sculptures, tanks, weldments and many other parts. Naturally within the offshore and oil and gas environment piping is a vital area and AME International well placed to provide a crucial service in this area. The company is able to apply well over a decade of skill and experience in the fabrication of piping of all descriptions including carbon steel, duplex material and stainless steel 304, 316 and 316L.

As well as ensuring that it provides bespoke solutions to meet the individual needs of its clients, AME has the credentials to ensure that its products speak for themselves in terms of quality and design. AME provides a comprehensive package of welding processes such as, shied metal arc welding (SWAW), electrode welding, flux-cored arc welding (FCAW), metal inert gas (MIG) welding as well as gas tungsten arc welding (GTAW) and many others. The expertise of its welders ranges from relativity simple 2G through to difficult 6G positions, allowing AME International to service some of the oil and gas sectors largest players.

"Our major clients are in the oil and gas sector such as GE Oil and Gas (Vetco Gray), FMC Technologies, Cameron etc.," says Steven about the companies that make use of AME International's service. "They produce a range of oil tools and equipment for upstream extraction of oil or transport of oil through pipelines from an oil well. We have maintained a very close relationship with our clients, as we are their full turnkey supplier. Training and seminars are held regularly with them to allow our engineers to interact with the client's engineers and in the process learn from each other. We also help in the development of fixtures for complicated parts, and these technologies are shared with our client. In return they will also share with us their methods and process flows. This is all done in the name of achieving higher levels of efficiency and productivity, and is beneficial to both parties."

The success story of AME International is set to continue into 2014 and beyond as the company builds on the strong foundation it has developed through 18 years in operation. It enjoyed strong order books throughout 2012 and 2013 and as a result has invested more than 15 million SGD to expand its facilities with further CNC machines. In addition to this, it has expanded its operations to include a manufacturing base in Malaysia meaning that across its business, AME International is increasing its momentum and solidifying its reputation as an ambitious market-leader. O&G

AME International
ame-st.com

Services
Steel, pipe fabrication, machining

Globally local

Atlas Copco Rental is a global leading provider of compressed air, steam, power and on-site generated nitrogen rental equipment and services that prides itself on delivering the right equipment every time, no matter how large or challenging the project. The business, which is a world leader in 100% oil-free air rentals, has an industry-leading vast compressor and generator fleet, coupled with a global networks of rental depots and service centres in over 50 countries that allows it to meet any possible planned or emergency compressed air needs efficiently and effectively. Innovation is key for the company, and its highly experienced specialists are available to work with clients to design the best possible solution for each specific need, regardless of how diverse the requirements.

Discussing the extensive history of the highly successful company and the establishment of Atlas Copco Rental, country manager Michel Jasica begins: "Atlas Copco was established in 1873, which today has 40,200 employees in 90 different countries around the globe. In 1964, the first rental project was a fact in Africa and the establishment in 2007 of the Specialty Rental division in the Atlas Copco Group increased the focus on industrial rental. Today, the Specialty Rental division has approximately 700 employees and over 130 locations around the world, 44 of which are in Europe and two of which are in the Netherlands where I am based."

Working according to three core values: commitment, interaction and innovation, ISO certified Atlas Copco Rental can reassure its customers of high quality products and services wherever they are operating. Operating as part of a global entity means that Atlas Copco Rental has strong financial support and more than 140 years of expertise to ensure it provides high quality, reliable equipment in an industry that is increasing its focus on environmental and safety regulations. "The reliability of equipment is very important in the offshore sector; if you send out a compressor and the vessel is costing 500,000 euros a day, it would be incredibly costly if a customer can not operate because the equipment provided is unreliable. Safety and reliability are far more important than cost in that respect," explains Michel.

Having developed its state-of-the-art offshore rental fleet in accordance with client expectations, Atlas Copco Rental offers instant advantages to major oil and gas players such as Dutch Shell. These include significant cost savings in comparison to acquisition, elimination of the need for storage areas of warehouse buildings, a reduced down time, no repairs and inventory control.

With a unique product range and service offering Atlas Copco Rental aspires to be the supplier of choice to its customers. It aims to deliver innovative solutions in a safe and competent way, and being customer and applications driven it has a strong focus on research and development, allowing it to provide a best in class service solution to its customers. Oil and gas manager John Spink elaborates: "We will continue developing products that are market leading as a way to differentiate ourselves from our competitors, and provide a solution to our customers' needs. Key to our future success, will be the ability to deliver multiple products and services in a competitive market where quality and reliability becomes paramount."

Indeed, innovation and expert service are integral parts of the division's success so far, with 40% of the business' revenue coming from services and customer retention rates stemming from a reputation for high quality products. "The aftermarket approach will grow further, especially when it comes to midstream projects that require full responsibility from us and full accountability on the operational side of our equipment. The service aspect of our business is always expanding, which is a welcome development because it means we can offer real turnkey solutions and ensures we are stronger than some of our competitors," says Tom Deckers, general manager of Atlas Copco Rental Europe.

"We expect this trend for increased customer service to continue, particularly because the

equipment we send out is more technical due to safety requirements and customers then have little knowledge as to how to service this equipment. In the past it was a generator or compressor with basic technology, but these days it is state-of-the-art equipment that needs skilled personnel to maintain and operate it," adds Michel.

Elaborating upon the company's commitment to R&D, John further emphasises: "As a member of the Atlas Copco Group, we have all of the engineering capabilities within our portfolio. We already have a number of innovative rental products, such as our TwinAir®, which is effectively two individual diesel driven compressors in one container. This is unique in the market as it generates a market leading high volume of air for the site 'smallest footprint' while also saving customers valuable on site space."

Supported by its competent and experienced people, along with its strategic international presence the company aims to be 'First in Mind, First in Choice' with its customers and prospects alike. To cement this strategic plan, Atlas Copco Rental will focus on the training of its personnel to boost competence in an industry that has higher customer demands for enhanced performance and reliability. "Over the long term we are looking to establish a competence centre; because we have been in the business a long time, we have all the competence and expertise we need to get across the company and also to our customers," says John. "On top of this, we now offer four-year apprenticeships and further education options and university placements to make up for a skills gap in the oil and gas industry."

"Our long-term goal is to remain a number one reference when it comes to quality, operating in an environmentally friendly manner and delivering safe equipment. Plans for the business are more or less the same, we are the strongest in downstream all over Europe when it comes to the refinery business, but we aim to become number one for midstream and upstream too," concludes Tom. O&G

> With a unique product range and service offering Atlas Copco Rental aspires to be the supplier of choice to its customers

Atlas Copco Rental
atlascopcorental.com

Services
Provide specialised equipment to refineries

Under Lock and Key

For over 150 years VingCard Marine has provided vital locks and access control systems that have ensured the safety of crew and valuable equipment in a variety of marine sectors. The company operates underneath the umbrella of the ASSA ABLOY Group, which grants VingCard the support of the global leader in secure locking solutions. VingCard Elsafe revolutionised the hospitality sector with the invention of the world's first recodable card lock during 1979, and over the following 30 years this subsequently led to nearly all new-build vessels implementing electronic locking systems. "Any company that operates and manages floating objects in the offshore industry and has passengers embarking and disembarking is considered as a potential partner," explains sales director Offir Karni.

"VingCard co-operates with the industry to create an integrated 'zone card ISPS solution' that allows individuals to access cabins and offices, while registering if they are aboard the vessel or ashore during operation and during emergencies (muster stations). Furthermore, ASSA ABLOY allows us to access a large organisation and gives us the flexibility to offer complete solutions to satisfy our customers' needs.

Since the company was last featured in the *European Oil and Gas Magazine* during April 2013, VingCard has further developed its presence in a variety of very important segments. As per today we have installed our solution onboard nearly 1000 vessels and rigs worldwide. This been done through strengthening our collaboration with other entities operating underneath the brand of the ASSA ABLOY parent company to mutually enhance the complete solution to specific segments' requirements. Today VingCard Marine is well placed to meet the needs of operators undertaking projects within the offshore environment throughout the world, and is extending its collaboration with the wider ASSA ABLOY Group to offer targeted market solutions.

"One exciting company within the ASSA ABLY Group that we are co-operating with is Traka, based in the UK," says Offir. "Traka is developing a key management system outside of the marine sector and VingCard Marine has

exclusive access to deliver the system to vessels and floating installations."

Intelligent key management systems allow clients to manage effectively who has access to its keys, who has access to them, and to track and log the location of the keys at all times. The problem with conventional keys is that they are very hard to manage and track. Often the best protection on offer is to store keys behind a manned security desk from which they are issued. Together, Traka and VingCard Marine are able to offer a simple solution to the problem of effective key management.

When it comes to operation within the harsh offshore environment, the added safety of personnel and equipment is paramount. "We sell door locks in many areas. However, in some specific segments when locks may not be required, we provide customers with solutions that are designed to provide security to our clients even without locked doors," Offir elaborates: "We have a card system for cupboard locks so that clients have a safe place to secure their goods and personal possessions that is based on RFID (radio-frequency identification) technology." This solution has been installed successfully onboard a number of production platforms. Another integrated solution is VingCard Marine's RFID safes, which can provide protection for the crew's belongings.

The development of electronic locking and control systems within the marine environment was in response to feedback from operators. Through the use of electronic alternatives that incorporate technologies including RFID, it is possible to provide locking solutions that are trackable, secure and more economical to replace if lost. Additionally, VingCard Marine supplies overriding emergency cylinders and traditional master key systems. The expertise that VingCard Marine is able to supply has attracted a number of customers from throughout the marine and offshore industries. To name a few, VingCard Marine has supplied (in 2013) control and access solutions for semi-submersible rigs for Axis Offshore and PaxOcean, floating LNG facilities for Shell, Pieter Schulte (platform installation/decommissioning and pipe laying vessel) and 4 x CSS (MacOffshore) vessels, one of which (CSS Olympia) was named vessel of the year during 2013.

Over the coming years VingCard Marine will continue to develop market-leading access and control technology and seek to increase its market in new regions. This year, the company

will be exhibiting again, as a regular attendee, at Cruise Shipping Miami and will be keen to highlight the strengths provided by its association with Traka and the wider ASSA ABLOY Group. Additionally, it will highlight the ever-changing demands of its client base as control and access technology increasingly incorporates online elements, demonstrating that as the market evolves so does VingCard Marine. OSG

> Any company that operates and manages floating objects in the offshore industry and has passengers embarking and disembarking is considered as a potential partner

VingCard Marine
vingcardmarine.com

Services
Marine locks and access control systems

Flying high

With a trading history of more than 140 years (having been established in 1870) Blackburn Starling & Company Limited is one of the oldest UK manufacturers of LV Products covering Power Distribution, Motor Control Centres (Intelligent & Conventional), Package Sub-Stations, Control & Instrument Panels as well as offering full Systems Integration Services for SCADA/PLC/HMI solutions.

Blackburn Starling made significant investments in the 1990s to develop new products to be specifically aligned to the oil & gas industry. The company has been established in this sector for over 15 years and continues to see significant growth in its market share. Over the past five years Blackburn Starling has experienced double digit growth as its name and reputation within the industry sector becomes more widely established and better known.

Blackburn Starling's product range is of modular design, compact, adaptive and flexible (which is of particular importance for asset replacement schemes requiring a product to fit existing footprints) and meets the relevant British Standards (BS EN 61439-1:2011). The company provides LV equipment that is fully ASTA Certified, fault rated up to 100kA for one second, fixed or withdrawable pattern, ingress ratings up to IP54 and options for either conventional or intelligent functional units can be provided. The company is ISO 9001:2008 and ISO 9001:2008 TickIT accredited for its Quality Management and Assurance Systems.

Talking to *European Oil and Gas magazine*, Dave Whelan (technical director) highlighted the following about the company: "We are first and foremost an engineering company that is able to offer bespoke products and solutions to meet all of our customer's technical and business requirements. We employ approximately 140 personnel on a purpose built 10,000m² production facility utilising modern manufacturing machinery and production techniques. Everything is undertaken in house and this enables us to maintain control and respond quickly to our customer needs. We are an independent manufacturer that is large enough to cope, but

SOCOMEC LTD

Socomec's Power, Control and Safety division is an undisputed leader in power switching and change over functions. Combining a rich heritage in low voltage electrical power with market leading technology we offer some of the most advanced power control, safety and energy efficiency solutions for the oil, gas and refinery industries available today.

Socomec, Power Control and Safety - helping you monitor and control your energy requirements.

more importantly small enough to care about our customers." Dave Whelan credits the company's success to its dedicated workforce and innovative/ adaptive product range.

Blackburn Starling was featured previously in *European Oil and Gas* in July 2013 and over the past eight months the company has invested in enhancing its product range further by offering products that fully comply with BS EN 61429-1:2011 standards. The company has developed products that are suitable for a large number of markets including; oil & gas, power, nuclear, water, rail and other industries (e.g. paper, steel and food etc.).

Blackburn Starling has been recently involved in a multi million pound project covering LV products and PLC systems for three new platforms. The project required communications systems between the LV switchgear and equipment on the platform, and required full compliance to BS EN 61850. This standard defines the protocol standard for the overall operation of the main incoming control and protections systems. The system was designed by Blackburn Starling in conjunction with the other stakeholders to meet this standard. The system involved hot standby PLCs with I/O, complete with Ethernet TCP/IP, Modbus, Profibus DP and communication to third party ICSS, DCS and EPS systems. The company employs 25+ engineers involved in the design and implementation of such systems.

With customer demands in control applications becoming increasingly sophisticated and complex and the need for more management information at all strategic levels, Blackburn Starling offers a totally integrated solution from plant sensor throughout to high level management information systems. Specialising in programming a wide range of SCADA / HMI/ PLC control systems, the company is a systems integrator partner for Siemens, Rockwell, Mitsubishi and many others.

Presently working in the oil and gas market with major companies such as Shell UK, GDF Suez, BP, Amec, Wood Group Engineering, CNR International, Costain Oil & Gas and many others, Blackburn Starling has a multi million pound portfolio of offshore projects. "We work with the major players in the oil and gas industry undertaking projects as small as offshore site surveys to major multi million pound overseas installations. We have a team of experienced installation and commissioning engineers who are MIST & BOSIET accredited and available for mobilisation when required by our customers."

Blackburn Starling is able to offer tailored solutions and continues to increase its profile in the oil & gas market. "We continue to see increased growth in the oil and gas sector which is attributable to the company having the right products, being able to offer a tailored solution and being an extremely customer oriented company. We believe we have the potential for a further significant amount of growth in this area, which we can achieve without losing our level of customer focus," concludes David. O&G

Blackburn Starling & Company Limited
blackburn-starling.co.uk

Services
Design, manufacture, test, installation, commissioning, maintenance and training – LV Switchgear, Motor Control Centres, Electrical Control Systems, Asset Replacement, Refurbishment Schemes, Site Surveys (including offshore) & System Integration Services

Solutions provider

> We are very dedicated to supporting and assisting clients in whatever way we can, and we will continue to develop and expand on that by unrelenting attention to customer care and creating the right product solutions

Headquartered in Dunleer,

Ireland, Suretank is the world's largest manufacturer of cargo-carrying units for the offshore oil and gas industry. Last featured in *European Oil and Gas* Magazine in September 2013, the company has seen several important developments over the ensuing seven months, including new appointments, the opening of a modern corporate centre and the launch of a five-year strategic plan.

The magazine spoke to John Fitzgerald, CEO, to get a full update on the company's recent activities: "We have taken on several staff, with Philip Murphy taking the brand new position of 'director of customer care'," he began. "This is based on the philosophy that happy customers keep on coming back, and therefore we have created a dedicated customer care team with representatives who will manage the whole relationship with clients from first contact to aftersales service.

"In fact, the materialisation of a customer care department is at the vanguard of what we are trying to do as a business and it is at the centre of our strategic plan," John continued. "Putting the customer at the heart of what we do is a huge theme running through the business and so that appointment, allied to other appointments in the customer care and sales area have been solid evidence of what we are committed to."

In addition, Suretank has been working on product development, product portfolio management and engineering solutions through its research and development (R&D) team. Said John: "We have a dedicated R&D group that exclusively works on product development and we actively use the 'stage gauged' process to manage innovation and product development. Through this we have created, commercialised and launched new products such as reefers (refrigerated containers), A60s (fire and explosion rated containers) and heated mud skips."

Perhaps the most recent development for Suretank [at time of writing] was the opening of a new multi-million euro corporate centre at the Group's head office in Dunleer, Ireland. Opened with a customer appreciation day, by Ireland's Minister for Jobs, Enterprise, and Innovation Richard Bruton, the facility marks an important stage in the company's history. "We are aiming to create a world-class centre of excellence here, to support our vision of being the world's leading provider of engineered solutions to the offshore oil and gas industry," explained John.

"The investment in the new building fits within that vision because we have now housed all our engineering, design, product development and R&D teams under one roof, which is the first time that we can say that. Our employees

are all highly qualified and are working together on a whole range of customer-led projects. Really we are moving away from just making products, into creating whole engineered solutions that include design, construction, validation and approval, which ultimately culminates in a product offering that has a lot of value added at the front end. This new building allows that to take place.

"Furthermore, for the first time in the company's history we have put a lot of focus on our marketing approach in order to raise the profile of the business. So we have engaged an external marketing advisor, and we have employed marketing personnel here and their job is both tactical and strategic. Strategic in the sense that we are trying to understand where our markets are going, what the opportunities are, and how we can align ourselves to those opportunities; and tactical in the form of developing higher profile activities for Suretank, through PR, e-marketing, social media and online. Again the new facilities allow those people to sit together in a dedicated area to promote and drive the market visibility and recognition of our business forward."

All of these activities are being performed alongside an active growth strategy, through both organic means and targeted acquisitions. "On the organic side this involves strengthening our sales presence on the ground in places like Brazil and the US, and aligning that to our existing sales presence throughout Europe and Asia," John noted. "On the M&A side we have been actively seeking out acquisition opportunities throughout the globe to extend both our geographical reach and our product offering. We currently have a number of exciting discussions underway, which will lead to new entrants to the Suretank family over the coming months. The intention is that the acquired businesses will fit under the Suretank branding and we will use our existing customer relationships to leverage our positions there."

This M&A activity is supported by Suretank's majority shareholder HitecVision. "They have

IJS GLOBAL

IJS Global is at the forefront of an emerging new breed of logtistic companies. IJS Global is proud to be a Suretank chosen worldwide logistics partner. The IJS Global dedicated O&G team provide flexible, tailored solutions that add value to Suretank's business by reducing costs, increasing productivity and improving reliability. The company's business philosophy is built around its customer specific requirements for streamlined forwarding solutions. Thus allowing Suretank to focus on their core business objectives whilst IJS Global provides a seamless logistics and business solution.

proven to be a very proactive and supportive investor, who are willing to promote and canvas M&A opportunities for Suretank through their own global network," said John. "They have introduced a number of acquisition candidates to us, and are very supportive in our evaluations of those candidates and in putting a potential deal together. They have also brought a great discipline to our business through their 'plan to work, work to plan' attitude, and at their behest we have created what we call 'Suretank 2018', a strategic plan that sets out the road map for our business over the next five years."

He continued: "Suretank 2018 calls for us to treble the size of this business over the course of the next four to five years and that is not an option, it is a requirement. This will be achieved by both organic and acquisition led growth, which are two of our central pillars going forward.

"Looking more short-term, in 2014, we will be continuing to invest in customer care and sales and marketing, and developing our presence on the ground in new locations. My vision is that wherever there is offshore oil and gas being drilled you will find Suretank - we will be there alongside our clients supporting their requirements by having our feet on the ground beside them, not managing them from miles away. We are very dedicated to supporting and assisting clients in whatever way we can, and we will continue to develop and expand on that by unrelenting attention to customer care and creating the right product solutions. We are a real market and product specialist and the leader in our field and so our focus is on further increasing our visibility and brand recognition and expanding our global footprint." O&G

BRUNEL LOGISTICS

It's how we handle the unexpected that defines our service
With our own offices located in the United Kingdom, India, Nigeria, the United States and South Africa, along with associated offices in 88 countries, our highly trained staff tackle any project we are tasked with. Our 24/7, customer-focused policies allow for an unmatched level of service.
We make use of the latest freight technologies, allowing customers total vision on up to date movements for all shipments. It is because of these outstanding characteristics that we have become Suretank's preferred supplier for its global transportation requirements.

NIKAL STEELS

We at Nikal Steels are proud to be associated with the continued success enjoyed by Suretank. Nikal Steels is one of Europe's largest stainless steel flange stockists, with ANSI 150lb-2500lb in sizes ranging from ½" up to 24" available from our distribution centre located in the West Midlands.
Our modern well-equipped machine shop utilises conventional CNC equipment and this, together with our extensive stock of flange forgings and base materials, allows us to manufacture special items on a quick turnaround.
Other in-house facilities include turning, milling, threading, bar sawing, grooving and slotting.
Nikal Steels operates QMS to BS EN ISO9001:2008

Suretank
suretank.com

Services
Provides engineered solutions to the offshore oil and gas industry

Flexible service

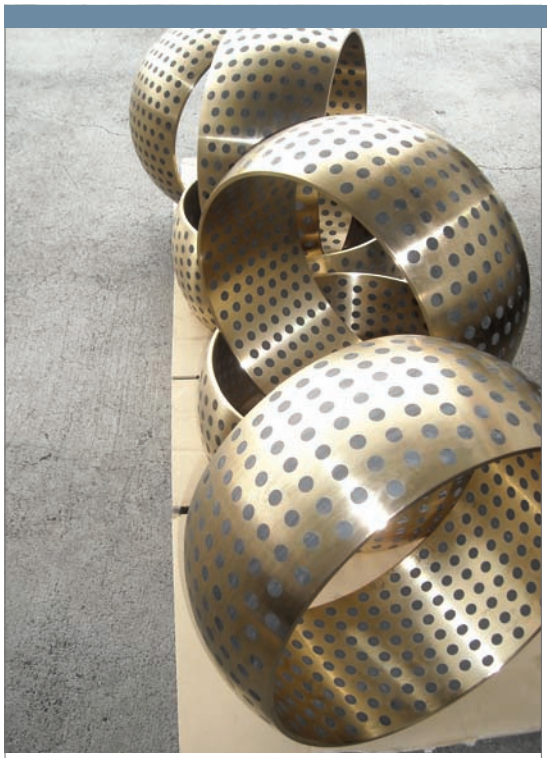
Founded in 2005 as part of LHG and GLT's strategic expansion into Asia, SBS-Singa Bearings Solutions® Pte Ltd (SBS) has developed an excellent reputation as an expert in sliding bearing technology in the South East Asian Region. Dealing exclusively with the distribution and manufacture of pre-finished sliding bearings, sliding bearing components and engineering plastics, SBS also offers superior design and engineering services for bushing applications to support customers with new concepts or machine upgrade requirements.

Focused on delivering high quality specialist services to customers in Singapore, the company caters to original equipment manufacturers (OEMs) and the aftermarket within the marine, offshore, dredging, hydro-power, mining, manufacturing and agriculture industries to name a few. Working alongside its partner company GLT-GleitLagerTechnik® GmbH & LHG-GleitlagerKomponenten® GmbH & Co.K, the company has a vast range of engineering resources and available stock to ensure fast and efficient global deliveries. "For SBS, customer service is caring for the customer from A-Z. We prefer to develop a personal relationship; hence why we always put emphasis on meetings to introduce ourselves. This commitment is not restricted to customers in Singapore as we regularly visit our business partners in Malaysia, Indonesia, New Zealand and Australia and also go to Europe," says Daniel Hallauer, managing director at SBS.

He continues: "At SBS we always check the requirements of our clients in terms of technical issues, materials, used sizes and so on to ensure 100 per cent satisfaction. As a company with a selection of more than 30 different materials, we also check if the requested material is really the most suitable for our client's application and if necessary will advise on other options that will improve performance." In addition to these services, the company also uses its in-depth knowledge to offer advice to engineers that design bushings too large, making recommendations that will result in cost efficiency.

Priding itself on the consistent provision of a high quality service, the DIN EN ISO 9001 certified firm has the skills and knowledge to meet the most challenging of demands through a flexible approach and fast response times. "Flexibility is a big advantage for our business partners as everyone is a high priority to us, regardless of whether they inquire for 1000 pieces or just one piece," states Daniel. "Most of our jobs are customised to meet the needs of our clients; with a stock of close to one million parts we can successfully provide solutions to special requirements for nearly all of our materials."

Out of the broad spectrum of materials available to clients, the three products most in demand from SBS are BRO-MAS®, LUB-MET® and COM-KU®/D. BRO-MAS® is the firm's series of solid turned bronze sliding bearings; offering nine different alloys to cater for diverse demands, SBS is thus able to customise performance and ensure optimum



quality through this DIN 1850/ISO 4379 range. Meanwhile, the (flexible) LUB-MET® bronze series is maintenance-free and uses graphite plugs to act as a solid lubricant; on top of this, the series can be combined with any of the bronze alloys within SBS' product range.

Discussing the COM-KU®/D range, Daniel highlights: "This material is a fibre reinforced composite and it has great advantages; for example, it is maintenance-free due to friction modifiers (PTFE & MoS2) within the resins. It has no swell when used in water, and extreme high load capacities that are similar to a high strength bronze. The material's flexibility allows edge loads and slight misalignments, protecting shaft and equipment from damages. Its insulating properties avoid corrosion, 'seizing' or cold welding of shafts in the bush."

In addition, the company has also witnessed notable demand for its self-lubricating, bronze sliding bearing GAP-MET® series, which is produced through a sintering technique that has graphite powder incorporated within its matrix. This maintenance free series also boasts high load capacities and high temperature resistance. "I would also like to highlight our FER-MAN® series, which comprises of special surface treated steel materials. The surface is plasma hardened in a vacuum to achieve a surface micro hardness of up to 900 VH! This is a problem solver for any application having short service life due to extreme abrasion wear; an example of this is in the dredging or mining industry, where we are able to improve bushing life by five to eight times," enthuses Daniel.

With a large warehouse in Germany, a huge amount of material stock in Singapore and a flexible manufacturing site that can hold production to focus on urgent deliveries, SBS has a strong reputation for meeting requirements, both on time and on budget. Lead time is viewed as an integral part of the company's service, particularly in the offshore and shipping industries where delays can quickly become costly, as Daniel highlights: "Our standard, even for big bushings, is around three weeks for clients in Singapore, but if needed we can reduce it to a couple of days for certain materials. Super-fast lead time is needed in the industries we operate in, as is fair, competitive pricing and close working relationships to fully solve problems."

To continue meeting the evolving demands of customers, SBS is soon to obtain an ERP software, which will offer the opportunity to have an interface with major clients and automatically receive alerts when these customers' stock counts are becoming low. "The ERP software will also give us improved traceability for our smaller and mid sized clients for drawing and part numbers," says Daniel.

Moving forward, the strong reputation SBS has acquired over the years is certain to hold it in good stead against challenges such as competitive costs, as Daniel explains: "We regularly get compared to Chinese prices, however these customers often come back after they have encountered a bad experience either in terms of product quality or false promises on lead times. Another challenge is that some clients only simply compare the prices without ever looking into the offered product's features. This opens up the opportunity for 'education'; if we are able to convince potential customers to try our products, they will see the quality and accompanied future savings for themselves and will then become a regular client."

Focused on increasing its customer base in Singapore and neighbouring countries that have relevant burgeoning and booming markets in the South East Asia region, the company has a strategic vision for its ongoing growth and success over the coming years. "SBS has just opened an office in Jakarta, Indonesia, due to the great potential in this country. Following its success, we plan to open branches in Malaysia and Thailand in order to have a stronger and better representation as well as a faster, more personalised service in these countries," concludes Daniel. O&G

> Flexibility is a big advantage for our business partners as everyone is a high priority to us, regardless of whether they inquire for 1000 pieces or just one piece

SBS Singa Bearings Solutions Pte Ltd
sbs-bearings.com.sg

Services
Sliding bearing technology specialist

Bellows from beneath

Operating from its location

in Etzel, Northwest Germany, IVG Caverns utilises an enviable geographical position to offer salt cavern storage. “Cavern development is a business built on demand. We work with companies in the oil and gas market that require additional capacity,” begins managing director, Friedrich Foltas. “We have a number of each type of cavern in operation, all of which are built in a salt dome. Additionally to those in operation, we are offering rental agreements for future caverns,” he advises.

Originating as a fully state owned company, in 1971 IVG received a contract from the German government for the construction of 33 caverns for oil storage, forming the beginning of strategic oil stocks in Germany. In a two-stage movement between 1986 and 1993 the business was completely privatised. The operation today calls upon its main strength, employing the small but highly experienced IVG crew to co-ordinate the sophisticated process in a schedule that typically spans three years, as Friedrich discusses: “We have all the key know-how within our organisation. We work together with engineering companies such as DEEP and KBB, who have developed expertise in the construction of the caverns.

“In close proximity to the North Sea we have two 44” pipelines that work in unison importing water for the leaching process and returning saturated brine back to the sea.” Salt cavern capacity is standardised between 600,000 and 900,000 cubic metres at depths of more than 1000 metres. The deep caverns are favourable for gas storage, offering maximum pressures of 200bar and the large working gas capacity of 75 million cubic metres is of great benefit to its clients. “We are flexible with our range of geometrical volume stores, offering a variety of sizes to suit customers needs. There are currently 75 caverns under contract, positioning us as one of the largest cavern fields in Europe, with 65 already completed and in operation and ten caverns under construction,” he says.

The current site has in place permits for a further 24 caverns and there is potential within the salt dome to comfortably house more than 140 caverns in total. Clients are comforted by IVG’s experience in developing the site, positioned over high quality salt. Importantly, Etzel benefits from a large oil pipeline network connecting the site to Nord-West Oelleitung GmbH (NWO), Germany's joining point for transshipping, storing and conveying mineral oil. “In the case of a crisis we have an

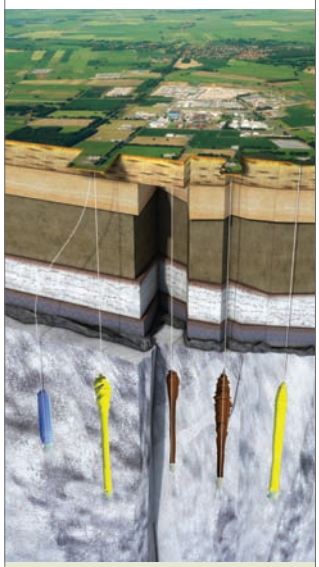
excellent connection to the refineries. Some of our customers include companies from the Netherlands, Belgium and Portugal, beneath the German stock holding agency who, based on national law, is holding crude reserves, with some of their strategic stocks in Etzel," Friedrich announces.

Complementing the excellent salt quality and the size and shape of the caverns, the successful growth can be attributed to the logistical positioning. The connection to the refineries in the Northern part of Germany promotes the advantages of storing stocks at Etzel. Gas pipeline connections link directly into the European gas grid, expanding from Siberia to Portugal, and connections within Germany extend to Emden and Bunde, located on the Dutch border and connecting the grid to the Netherlands. Friedrich points out: "It is important for trading, and it has attracted tenants such as EON Gas Storage, Gazprom, EDF France, BP, Dong, EnBW, OMV, Statoil, and Etzel.

"When we began operation over 40 years ago, neighbours were not concerned with the very small consumption of land surface for storing such a huge capacity of oil. This began to change in 2005 when the utilising of gas caverns became much more popular, with tenants constructing their own process facilities." Rental contracts generally last 30 years, and due to the prolonged nature of the agreement, the tenants undertake the responsibility of the topside with each tenant building the process facilities according to its own requirements. "Surface construction has an effect on the flat land that historically contained little more than houses and trees. An increase of light and noise during the construction phase is common, and the topside facilities include chimneys, flares and dehydration columns, which are new to the area, and neighbours have raised concerns," he adds. The business has implemented an InfoBox scheme as a communication point for people in the area, providing information about the caverns, from construction to operation and the importance of storage.

Under the current agreements, the business remains active in the construction of caverns until 2017. As focus blends from development to operation, discussions within the industry have highlighted a returning demand for more storage within five years. Providing an insight into the future as the progress of 'energiewende' drives forward wind and solar power generation, Friedrich concludes: "Power to gas is a solution in combining renewable production with security of supply. By taking electrical power, producing hydrogen and combining it with CO2 it is possible to create artificial methane. The surplus capacity could be stored into the caverns and put it into the grid on demand. Connection to offshore wind production fields is feasible due to our location, and over the next decade we expect this to become a more prominent development."

> The deep caverns are favourable for gas storage, offering maximum pressures of 200bar and the large working gas capacity of 75 million cubic metres is of great benefit to its clients



SOCON

SOCON Sonar Control Kavernenvermessung GmbH is the leading engineering company for the surveillance of caverns, particularly for sonar surveying. Its own research and development department, with joined test facilities and more than 40 years of experience, has enabled the company to achieve the most advanced technology in this sector in the world. With its reliable and precise sonar survey results SOCON contributes to successful cavern development for the IVG project Etzel.

IVG Caverns
ivg.de

Services
Caverns for storage of oil and gas

Instrumental solutions

"2013 has been the most successful year for Michell with continued growth in sales and profitability of the company," says Peter Kubietz, group head of marketing, at Michell Instruments. "We can see that the consolidation year we had during 2012/2013 with investments into our infrastructure, R&D and manufacturing systems really paid off. We had excellent growth from our subsidiaries in North America and China as well as Australasia. This growth has been across almost all our product ranges with significant seven digit orders from major companies in the oil and gas industry."

As Peter explains, the period of consolidation that Michell Instruments went through was important in allowing the company to readjust its organisation and procedures to suit the increasing market demand. As well as adding several highly qualified staff in key positions and looking for opportunities in new market sectors the company also established new facilities, including a new subsidiary in Brazil, as well as improvements in its German and Italian operations.

"Michell Group continued investing into the manufacturing facilities in our HQ in Ely but also into our plants in Lyon, France and Oosterhout, the Netherlands, focusing the efforts on increasing capacities in manufacturing and calibration," he says. "Some of our subsidiaries outgrew their offices and in Germany as well as Italy we moved into new and larger offices. With the move of both subsidiaries we also responded to the rapid increase in demand for calibration service and service support, which partly is the consequence of the Group expansion from previous years.

"Generally speaking, the growth that we have experienced over the last year or so has been across the board," Peter continues. "For example, we doubled our Oxygen business and gained further market share and established Michell Instruments as one of the leading innovators in the gas analysis market. Also, our Industrial Hygrometry division gained additional momentum with the extension of our Easidew product range for compressed air dryer applications. Here with our advanced ceramic and new capacitive sensors we are able to offer precision hygrometers fitting customer requirements in terms of the range, accuracy, sensing technology but also any size of budget."

Innovation and development is a key factor in Michell Instruments' product range, with the company regularly introducing new products as well as developments of existing solutions. This is aided by 40 years of experience, making the business a global leader in the field of moisture and humidity measurement solutions. For example, it provides a wide range of transmitters, instruments and system solutions,

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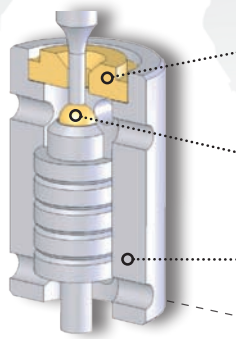

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all designed and manufactured in-house, that are capable of measuring dewpoint humidity and oxygen in a wide range of applications and industries including compressed air, power generation, petrochemical, and oil and gas.

"Our mission statement is to offer the customer the best moisture measurement technology for their application," Peter explains. "Michell Group is the only instrumentation company that offers the full selection of moisture detection technologies that fit different situations, applications and customer's size of budget. To achieve that we spend well above the industry average on R&D, and we are currently working on a range of exciting new products and sensor technologies. In the upcoming months we will see brand new products in both the Industrial Hygrometry Division but also in the Process Instrumentation Division."

One recent development Peter is keen to highlight is the company's OptiPeak series, a spectroscopic principle based analyzer, which is designed to measure moisture content in natural gas. "The Tuneable Diode Laser Absorption Spectroscopy (TDLAS) for moisture measurements offers the customer a number of advantages, and being in line with our maxim to offer the customer the optimal measurement tool we will also be presenting a new instrument soon. Traditionally TDLAS disadvantages are, if we forgo the higher price, the limited ability to measure in unknown backgrounds and the need to fit the instrument for purpose by selecting the right laser for the analyte. We will be approaching these issues with our products to offer the customer a reliable analyzer that meets the expectations and lasts longer than other comparable spectroscopic solutions."

This pattern of continuous development, coupled with the knowledge utilised by experienced and highly skilled personnel has given Michell Instruments a strong reputation in the industry. The company's position as a respected global brand also comes from its exceptional global presence, supported through a network of sales, support and service centres.

"We believe that the Michell Instruments Group is one of the few real specialists left in the instrumentation industry," Peter highlights. "We understand our products and know how to apply their strengths for the benefit of our customers. This isn't common these days. While our solutions are often the hidden champions of specific applications we are dedicated to employing people who understand the challenges of our customers and are able to offer technical advice. This isn't a popular cost reduction exercise. Furthermore, in a world where customers are cutting costs in personnel the remaining instrumentation engineers rely on access to advice, fast on-site support and service. Thanks to Michell Instruments' global organisation we can offer that directly without delay."

Bearing this in mind the coming years look strong for Michell Instruments. In terms of the market Peter pointed out growth in US as being of interest to the business, despite a slight decline in other market sectors in some regions of Europe. The company is still working on a number of important contracts, including one with Petrobras and UOP, which was a result of the company's continued support and the reputation of its Condumax 2 product, which is the most reliable hydrocarbon dewpoint analyzer on the market. With projects such as this, there's little doubt that the reputation of Michell Instruments will continue to flourish.

"Michell Instruments will continue to grow in both the Americas and other regions, with a special focus on communicating the brand in the process instrumentation community in North America. There we have been active for many years but have not been present with our own brand until recently. We will intensify our efforts and challenge local competitors so our customers in the US and Canada can also benefit from our experience gained from hundred thousands of installations and 40 years of serving various industries with humidity and oxygen instrumentation," Peter concludes. O&G

"Furthermore, in a world where customers are cutting costs in personnel the remaining instrumentation engineers rely on access to advice, fast on-site support and service. Thanks to Michell Instruments' global organisation we can offer that directly without delay

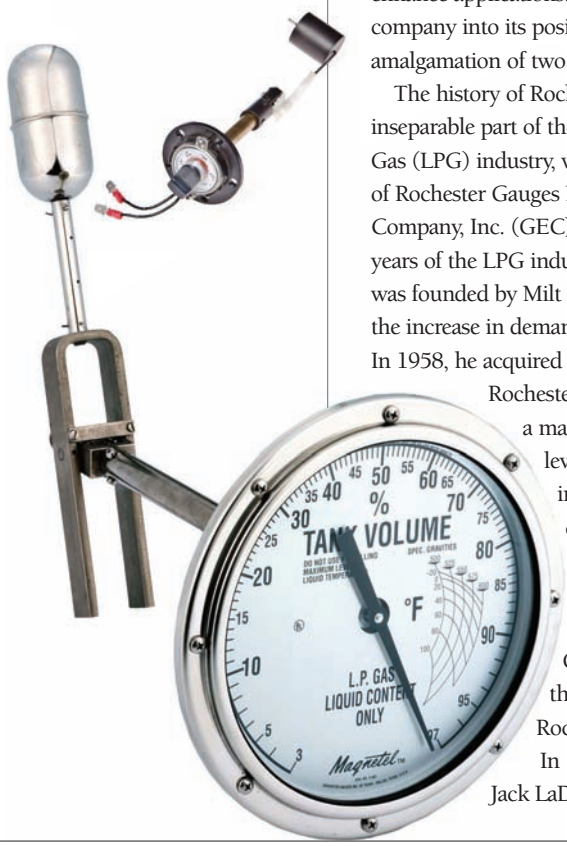
PRESSURE TECH

Pressure Tech have developed a range of subsea pressure regulators to operate at depths up to 3000m/10,00ft using the external seawater pressure as a reference pressure with the ability to vary the set-point relative to the ambient pressure conditions. Alternatively we can offer a completely sealed spring chamber to ensure the set pressure is not affected by the external conditions. Our most recent sub-sea application is a hydraulic system operating at 1300m for several weeks at a time. Due to the growing demand Pressure Tech have invested in a 19.5 litre hyperbaric chamber to simulate external seawater pressure up to 300 bar whilst pressures up to 1034 bar/15,000psi are applied to the internals of the regulator. This will enable Pressure Tech to maintain complete control of not only design and manufacturing, but also in-house testing prior to ship.

Michell Instruments
michell.com/uk

Services
Moisture and oxygen analysers

Gauging excellence



Rochester Gauges International S.A is a manufacturer of float level gauges and remote reading accessories for liquid level measurement. Its products are built with quality, accuracy and reliability, benefitting from its vast experience. It provides tailored solutions, innovative designs and technologies that further enhance applications. The development of the company into its position today is through an amalgamation of two separate histories.

The history of Rochester Gauges is an inseparable part of the Liquified Petroleum Gas (LPG) industry, with the parent company of Rochester Gauges Inc, Gas Equipment Company, Inc. (GEC), dating back to the early years of the LPG industry in 1937. The business was founded by Milt LaDue, recognising the increase in demand for LPG equipment. In 1958, he acquired the float gauge line of Rochester Manufacturing Company, a manufacturer of liquid level gauges for the LPG industry amongst many other products, forming Rochester Gauges Inc of Texas. In 1963, having achieved great success, GEC negotiated to obtain the majority of the remaining Rochester product lines.

In 1967 Emeric Kroch and Jack LaDue, president of Rochester Gauges Inc, founded the company Rochester Gauges International S.A. and the following year began manufacturing float level gauges in Brussels to face growing demand in the European market. Through servicing and building up a strong and confident distribution network for its product, Rochester started a new production line in 1984 providing float level gauges for the agriculture, earth-moving, marine, leisure industry and industrial sector.

Introducing a new range in 1986, Rochester began manufacturing electronic remote systems for mechanical float gauges in order to indicate the liquid volume at a remote location and to control the filling and the unloading of the tank by means of level set points. As a result of constant expansion, three years later the company moved to a new factory located in Wavre, 20km south of Brussels, where it introduced the production of remote systems for propane domestic tanks.

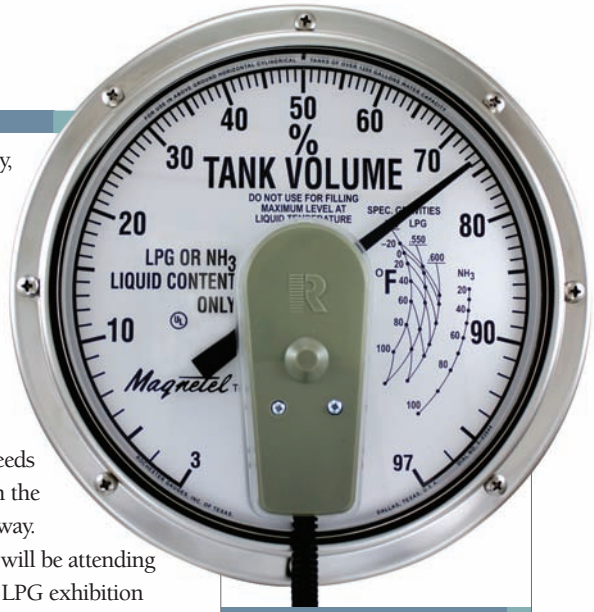
A pioneer in the supply of equipment for LPG in Europe, Emeric Kroch had established a number of businesses, including Kroch Equipment in 1931. In 1999, Kroch Equipment became part of Rochester Gauges International, and today distributes Rochester products but also pumps, compressors, valves, regulators, couplings and any product related to the LPG industry, being the key supplier in LPG equipment and solutions in terms of supply and engineering worldwide. With ISO 9001

certification, Rochester Gauges International constantly develops products to the highest quality standards, which has been proven over the years, selling gauges and associated solutions through a strong and confident distribution network all over the world. It has a client base that includes tank manufacturers, gas companies, telemetry networking management suppliers and retailers.

Through its wide range of products with a robust and stable design, and a strong engineering team with a pragmatic approach, Rochester can supply tank gauging solutions from cylinders to large storage tanks ranging from diameters of eight inches up to 17 feet, including domestic tanks, LPG delivery trucks and trailers. With electronic sensors and receivers, which can be easily retro-fitted on existing gauges, Rochester also provides products for telemetry or automated applications, providing the opportunity to keep a local direct reading with an extra resistive current or voltage output.

Its range of associated receivers offer remote reading with digital display, alarms, adjustable set points, relays and communication ports for networking management, meeting the actual and future market requirements for domestic tanks, service stations, storage tanks, delivery trucks, containers and the automotive industry. In 2000, Rochester became CE approved according to the pressure equipment directive (PED), and later certified by other European regulations such as TPED, R67 and ATEX. Several years ago, Rochester launched the R3G gauge with proven and certified benefits, such as high mechanical resistance to strong vibrations and handling. The spring steel construction float arm and aluminum flange and body design, ensures a constant calibration and accuracy and is available with any required options such as a metal/window lid, inert liquid filled dial or brass head according to a customer's requirements.

The group's popular and high quality products, notably its Magnetel rough rider gauge, Junior or Senior four inch gauge and Hall Effect Twiniste, ensures it remains the market leader in the LPG market. The 500 strong workforce of the Rochester Gauges group, and its experience equally supports its position at the forefront of the sector. The company has established a clear commitment to its future through its focus on the vision, mission, engagement and quality. As an enthusiastic, dynamic and positive company, its products are recognised for high quality, manufactured using the most advanced engineering techniques. Beyond manufacturing, it maintains quality control through detailed selection of raw materials. Working hand in hand with customers the business understands their needs and is able to address them in the most effective and beneficial way.



In May 2014, the business will be attending AEGPL in Genoa, the largest LPG exhibition and conference in Europe. The AEGPL Congress is the event of the year for the European LPG industry, bringing together European and global LPG leaders, buyers and suppliers to discuss the latest opportunities and challenges facing the sector. Recognising the benefit to showcasing its latest products, services and innovations, Rochester is looking to establish new clients to support the continued growth of the business. OEG

Rochester Gauges International S.A
rochester-gauges.be

Services
Manufacturer of float level gauges and remote reading accessories

Rising above

Above
Castor Inline
Compensator design

"We established Castor Drilling Solution AS (CDS) in 2011 and have been operative for more or less two years; today we are focused on the offshore market and all types of equipment related to drilling, and well intervention vessels," begins Oyvind Vaagland Reiten, chief executive officer at CDS. "We are mostly active with IMR operators and drilling companies. We have until now been working with developing a strong product base of different tailor-made equipment for various drilling and IMR operations such as plug and abandonment, top hole drilling and module handling. All of our engineering is carried out internally to deliver customised solutions for our customers."

With a vision to become the preferred partner of customers requiring drilling equipment, solutions and engineering services within the global offshore market, CDS offers rig solutions and modifications, riser analysis, failure analysis, dynamic simulations and mechanical integrity services to rig operators, ship builders and oil companies. Based in Kristiansand, in the centre of the NCE NODE cluster (Norwegian Offshore & Drilling Engineering) CDS is run by a team of experts, boasting long-term experience within the offshore drilling systems industry. The innovative firm is focused on niche markets that require custom-made products within heave compensation, riser tensioning, hoisting and handling systems.

CDS is well prepared to deliver complete heave compensation packages and riser tensioner packages to the offshore market, as well as ensuring a full range of aftersales support services. CDS' core product range includes drill string compensators (Castor Drill string Compensator (CDC)) and heave safe systems (inline heave compensators and coiled tubing lift and compensating frame (CCTLF)), as well as riser tensioning systems including conductor tension units (CTU), wireline riser tensioners (WRT) and production riser tensioners (PRT). Other products available include a variety of niche rotating equipment, pipe handling equipment, drillfloor equipment, air and nitrogen systems and well intervention systems. Flexibility is the key word here; CDS can tailor all products to successfully meet the demands of its customers.

Furthermore, CDS uses its extensive engineering knowledge to carry out services such as product developments, system modifications, engineering studies, multi-discipline simulations, dynamic modeling, damage analysis, material analysis and mechanical integrity assessments.

"Establishing us in a mature market is a challenge because we have to prove our unique capabilities in order to be pre-qualified for the different customers. This is time consuming, but we are so far making good progress and have been embraced by several large customers also together with our co-operating partners. Our achievements in the work of mechanical integrity analysis, multi-discipline system simulations and multi-body dynamic analysis, means that we can work in-house to fully understand the characteristics and verify how the overall tensioning and compensation systems will perform i.e. all the way from the baseplate on the sea bed to each hydraulic component and sensor comprising the complex systems," highlights Oyvind.

CDS provides Riser Analysis for better insight into the dynamics of riser systems and other load configurations connected between the sea bed and a floating DP vessel in various offshore environments. The software used for the Riser Analysis is Orcaflex

CDS also uses Simulation X for 3D to accurately account for how all the sub-systems interact, these analysis services offer system visualisation at various modes of operation ensuring impressive benefits such as, enhanced engineering efficiency, cost reduction during product developments and early system testing. The simulations provide a valuable tool during the validation of the multitude of drilling, hoisting and motion compensation systems and sub-systems in accordance with specific requirements and or regulations during the engineering process.

Typical examples of simulation and analysis projects includes forces on well heads from the riser system and tensioning system, global riser analysis, anti-recoil control settings, landing and retrieval of BOP, accuracy of active heave compensation (AHC) systems; WOB variation for both passive and active drill string compensators, tension variation for

FINCANTIERI

Fincantieri, the fourth largest shipbuilding group in the world after the acquisition in 2013 of Stx Osv, renamed Vard, owns through Vard and Seaonics a participation in Castor Drilling System (CDS) and through its Offshore Business Unit has started a new joint development with CDS for a new drillship codenamed 'Gemini', around this innovative drilling system.
The project will be presented at the next OTC in Houston. Fincantieri is designing a fully integrated and very efficient vessel which will enable the client to achieve 'a new way of drilling'. Benefits of the vessel will include increased operational speed, high levels of efficiency, improved safety and more comfort for the crew on board.

inline compensators during a well test, 'what-if' analysis of systems, wire rope endurance analysis, material selections and failure analysis due to breakdown of protective coatings and corrosion damage.

In 2012 Seaonics AS entered into an agreement to acquire a 34 per cent share in the company from an unrelated party. Seaonics AS, is a joint firm between ICD industries AS and Vard AS (former STX OSV). By giving Seaonics a new insight into the demands of the offshore market, the acquisition provides both firms an opportunity to merge their knowledge and develop innovative integrated solutions.

"I think the two companies fit together well, we are a strong team, especially towards the well intervention and top hole drilling market. Our core competence is within offshore drilling systems, while ICD and Seaonics have a lot of experience in marine operations; by working together we have products to offer these new sophisticated operations on smaller ships as well as integrating products to maintain subsea installations," says Oyvind. "We are strategically located, CDS is in the midst of the drilling cluster of Kristiansand, while Seaonics is based in the maritime cluster in Alesund on the west coast, so we are hoping our complementary knowledge will be a perfect match for developing integrated solutions."

At the forefront of the market for using 3D design and simulation tools for multi-discipline multi-body dynamic analysis, CDS has the knowledge to generate operational input that can be used as a research platform for future product designs. "Our focus is on customised solutions for drilling through the development of specialised products for the existing drilling market; we are now introducing a new and highly improved drilling hoisting tower and compensation system with potential of being the future preferred drilling solution in the coming years. Based on this we hope to be one of the new and innovative players in this market with focus on optimised solutions for offshore drilling and IMR equipment," Oyvind concludes.

> At the forefront of the market for using 3D design and simulation tools for multi-discipline multi-body dynamic analysis, CDS has the knowledge to generate operational input that can be used as a research platform for future product designs

Castor Drilling Solution AS
cds.as

Services
Offshore engineering and drilling equipment provider

A leading consultant

ILF Consulting Engineers has a proven track record in delivering comprehensive design and construction solutions across a broad selection of market sectors and geographical regions. The company was founded during the late 1960s and since it was last featured in *European Oil and Gas Magazine* (EOG) during January 2013 it has continued to develop the highly regarded and successful solutions that it supplies to its clients.

Today it is a group of international and independent engineering companies with more than 30 branches and support offices throughout Europe, the Middle East, Asia, Africa and North America. These are co-ordinated from its main offices in Munich, Germany and the Austrian city of Innsbruck. All ILF companies work within an Integrated Management System (IMS), which is certified according to ISO 9001, 14001 as well as OHSAS 18001. Presently ILF employs a combined workforce of over 1800 people serving an international client base. Broadly speaking, ILF organises its business into four areas made up of oil and gas, water and environment, energy and climate protection, and transport and structures.

The company's dedicated business areas are further sub-divided into smaller business units that offer targeted services to clients in specific areas. Within the oil and gas market for example, it manages pipeline systems, underground storage facilities, tank farms and terminals, refineries and petrochemical plants as well as a newly established upstream division. The upstream activities undertaken by ILF were previously managed by the director of process engineering, Rolf Szczepanek, who was interviewed during the company's last appearance in EOG, and are now overseen by Helge Hoeft as director of upstream. Commenting on the decision to establish the new business unit Helge says: "By setting up the new upstream business unit we deliver a clear message to the market that we are a serious player in upstream, rather than treating it as a side business to the company's gas storage and pipeline services. The success of the recent three years has proved that we are on the right track."

Along with a significant upstream business growth ILF delivered a number of world-scale projects including the Samotlor, the sixth largest oil field in the world, brownfield redevelopment conceptual design to optimise its OPEX base as well as the Halfaya Phase 1 oil field development in Iraq, for which ILF successfully executed project management consultancy (PMC) services, are part of this major achievement.

As well as moving to further define its position within the upstream market sector, ILF has transitioned into new geographic areas with the opening of ILF Calgary, Canada, and ILF Amman, Jordan. The contrast between the two new ventures is representative of the diverse regional and technical base that ILF serves, which allows the company to develop bespoke project solutions and to constantly develop its sizeable knowledge base. "If you follow the industry news you can see that there are some engineering challenges with the region's pipeline systems," Helge elaborates. "We see major potential for ILF to gain a strong footprint in Canada and to extend our business in the Middle East. The projects in Jordan are currently dealing with significant oil and LPG storage facilities. These are again PMC services that have helped ILF grow during the past year."

Although ILF owes at lot of its early success and development to the pipeline area of its business, today it has incorporated all of the knowhow accrued by its various divisions in all business areas to offer wide ranging cross-business solutions. "On the technology side we have made major progress on solar

power, specifically in photovoltaics (PV) and concentrated solar power (CSP)," Helge explains. "We have had major breakthroughs in these and have seen considerable work in Dubai, where we have executed one of the Middle East's biggest PV power plants as owners' engineer. This is also an important step for upstream, as often operations are in remote locations and there is a need to provide well sides with a cost effective power supply. This is a good cross-business development in a number of ways."

Over the course of its history ILF has successfully managed contracts for a host of companies within the oil and gas market, including some of the sector's biggest operators such as ADCO, ExxonMobil, Gazprom, OMV, PetroChina, Sinopec, TNK-BP and Wintershall, as well as marginal field operators around the world.

When it comes to defining its position within the wide range of projects that it tenders, Helge identifies three main areas that mark ILF Consulting Engineers' most prominent strengths: "One of the most important advantages that we have is that we are still privately owned. It makes us a fully independent engineering company without contractual ties with any contractor, equipment or technology supplier. This gives us the opportunity to tailor optimised project solutions to our clients' needs, ranging from asset operators to EPC contractors.

"The second strength that we have is our one-stop-shop strategy that allows ILF to deliver complex interdisciplinary industrial and infrastructure projects. ILF's recent focus on supply power technologies, i.e. solar power and thermal power plants, strengthens the upstream business by selling cross business area capabilities to deliver projects in remote areas as well as enhanced oil recovery (EOR) brownfield developments. Last but not least, ILF is continuously striving for market leadership through quality. Combining our key strength with our high HSE standards forms the basis for ILF's top priority to establish long-term business relations with our clients." OEG

> One of the most important advantages that we have is that we are still privately owned. It makes us a fully independent engineering company without contractual ties with any contractor, equipment or technology supplier

ILF Consulting Engineers
ILF.com

Services
Project management, design and construction, and commissioning consultancy

Coupled up

HTS Maskinteknikk was established in 1981 from the remains of a mechanical company that delivered components to the medical/technical sector and local firms that required fittings. Evolving its early product range with more sophisticated items for the offshore industry, the company has been an integral part of the development, roll-out and serial production of hydraulic couplers for subsea equipment.

"The direction of the company has always been high-quality/precision machining, which is why we were quick to adopt the use of CNC (numerically controlled) equipment and advanced measuring equipment," says Lars Harvik, marketing manager of HTS Maskinteknikk. "Today HTS is among the largest coupler manufacturers in the world in our business segment and has raised the bar in finding high quality solutions. Our competitive advantages are found in our competence and technology, as well as our close co-operation with engineers and production sites in order to see connections and potential upcoming needs. Furthermore, we like to stay informed on market developments and potential macroeconomic influences so we can efficiently make strategic investments at the right time, which ideally is prior to ramp up periods.

"Also, cutting-edge technology, capacity, human resources, flawless quality, time to market, and a willingness to rapidly adapt to changing environments have all contributed to a strong position in a very competitive market place."

Having successfully met the demands of customers over the last three decades, HTS Maskinteknikk has a vision for becoming the best in its line of business through a continued awareness on customer expectations and a fast response to new market information. Dedicated to optimum quality, efficiency and logistical performance, the company has expanded its 6200 square metre workshop four times over the last 20 years; strategic developments that have ensured a broad range of tailor-made departments have been established. Presently, machining, welding, assembly, materials handling and verification/inspection are the in-house services provided by HTS Maskinteknikk at its Drammen-based facility.

"HTS Maskinteknikk is among the largest mechanical suppliers in Norway, with our 50 plus CNC machines and a modern turning department that features a good mix of advanced machines for serial jobs, as well as machines for running prototypes and smaller series products. Furthermore, we have a very advanced milling department; on the ground floor of our new bulding we have six Deckel-Maho stations, of which two are linked to a Fastems system, and a Matsuura machine with 17 pallets. HTS Maskinteknikk can also easily move prototypes to efficient serial production," says Lars.

"One aspect that also is important as part of

Below
Lars Harvik, marketing manager of HTS Maskinteknikk

the milling department is the programming," he adds. "Our performance is measured in the efficiency and capability to deliver correct products in a timely and cost efficient manner. Hence, the capability to programme our sophisticated machines and get the new milling parts quickly from a 3D file on the computer, through correct setup and production in the machine onto the first article control in the inspection department, all the way through serial production. This has been a crucial path to us maintaining leadership in the market.

"After our third expansion was finalised, we were able to organise our logistics for production in a smooth manner. All operations from then on, including NDT and pressure-testing could be performed in-house, which has had a major influence on our capability to stay competitive in the market."

With its current export share above 50 per cent of the turnover and a significant number of orders on its books, the company is keen to retain its competitive edge in the market. "We want to stay at the forefront of development," states Lars. "Production in Norway is normally considered as expensive – thus there are incentives to be rational, effective and quality orientated to ensure a 'right first time' and 'zero defect capabilities' approach. HTS Makinteknikk has close collaborations with leading machining producers and tools suppliers, which has contributed to performance improvement and finding solutions to machining related challenges."

In addition to programming and machining, the company took advantage of an intensely growing interest in welding performance enhancement over recent years and now specialises in high performance welding within the subsea sector. "Imperfections in welding are generally very costly, so it is of the utmost importance that products are welded correctly the first time. To offer a world-class performance we weld under laboratory-like conditions, where all parameters are identified and controlled to ensure the outcome is a close to zero capability as less than 0.5 per cent of the production is taken out in following NDT and pressure tests," highlights Lars.

Not only is HTS Maskinteknikk focused on technological advancements, it also believes in the development of its 100 skilled and dedicated personnel, who help the firm supply its parts to customers around the globe annually. "We base a lot of training on mentoring and close follow-ups; the operators are skilled with a formal background, but most of our production is done in challenging alloys and we need to secure the understanding related to such production. We also work closely with our machine suppliers who are training our personnel," says Lars.

With parts produced by HTS Maskinteknikk found anywhere from the deepest subsea installations to outer space, the well reputed company's dedication to constant improvement has paid off and looks to continue long into the future, as Lars concludes: "Throughout 2014 HTS Maskinteknikk has decided to implement Process Orientated Steering as a step in our continuous improvement programme. POS enables us to manage our organisation from a set of standardised processes, where activities, requirements, performance management and risk assessment are all integrated in one tool. Further ahead, the prospects related to the subsea hardware business look promising so we will continue to look for upcoming opportunities to smoothly and efficiently serve our customers' needs." OEG

HTS Maskinteknikk AS
htsm.no

Services
Leading global coupler manufacturer

Ambition to succeed

MAATS TECH LTD

MAATS Tech Ltd is a marine engineering consultancy with naval architecture, design and Finite Element Analysis capability. MAATS services range from special ship design for new-build or conversion, FE analysis, design and build of pipe and cable lay/storage and project management. MAATS is the world leader in the supply of underdeck carousel systems with in-house designs for carousel, tensioner and overboarding systems. MAATS is currently supplying a 3000te underdeck carousel with spooling system to Ocean Installer for its new-build vessel, Normand Vision.

Below
Ocean Installer CEO, Steinar Riise

When it comes to rapid growth coupled with in-depth industry experience and market ambition, there are few companies that can compete with Ocean Installer AS. The company was founded in January 2011 and in just over three years it has made an impressive impact, growing from a fledgling business in 2011 to an internationally recognised and successful industry player today. As of 2014 Ocean Installer is headquartered in Stavanger, Norway as well as further offices in Aberdeen, Scotland and Houston, Texas, US. It has grown to around 240 members of staff and an annual income of $200 million with a forth backlog of close to $400 million within an impressively short amount of time. Furthermore, its employees are expected to grow to around 300 during 2014 and the company has also invested in two fully operational subsea construction vessels during its history, with a third also expected for delivery during Summer 2014.

Ocean Installer enjoyed an extremely positive year during 2013 with its carefully executed growth resulting in the consolidation of its facilities and the completion of several expertly executed projects, as CEO Steinar Riise explains: “Carefully balanced, yet rapid growth has placed Ocean Installer in a position where it now bids on, wins and successfully delivers subsea projects in competition with major global subsea contractors. Since October 2013, we have further strengthened our organisation in Houston, staffing up for both tendering and project management activities. Moreover, we have sent our first vessel, the Normand Clipper to the Gulf of Mexico. Also, during the later summer and autumn of 2013, the company’s Aberdeen office became a fully operational branch of Ocean Installer, executing its first four major projects in full.”

From its Aberdeen office, Ocean Installer has earned a stellar reputation following the successful projects undertaken during 2013 for major operators including Shell and Talisman. Both the Normand Clipper and Normand Mermaid saw operation within the UK sector of the North Sea through the year with the Normand Clipper undertaking umbilical installation work in the Bittern field, which covered the installation of two new static umbilicals of 20.7 km and 18 km in length. The Normand Mermaid was responsible for the installation of a 1.5 km umbilical between the Arbroath platform and the Arkwright subsea manifold. “These projects represent two of the four projects executed from the Aberdeen office last year, in fact the job on the Arkwright field for Talisman was the very first,” says Steinar. “I am very happy with the high standard of these Aberdeen managed operations and with the good client relations we are building through such high quality operation performance in the UK.”

Not content to rest on its current success, Ocean Installer is keenly following the construction of its third vessel to allow the company to further expand its reputation and operational reach over the coming years. Charting the progress of the construction of the Normand Vision, Steinar comments: “The work is progressing according to plan and in January the hull arrived at the VARD yard in Søviknes, Norway for outfitting. Throughout the building process we have worked closely with our marine partner, Solstad Offshore, as well as key subcontractors, such as National Oilwell Varco and Huisman and we are very satisfied with the outcome of this process so far. Now we are very much looking forward to introducing the vessel to the worldwide market and our clients. The first planned offshore campaign is with Norske Shell at the Draugen field, then for Statoil on a subsea lines modification project slated for summer 2014.”

The Normand Vision is scheduled to undertake a subsea umbilicals, risers and flowlines (SURF) contract with Statoil, valued at $55 million with options in excess of $95 million. The project will include SURF operations across various Statoil-owned fields within the Norwegian continental shelf and was finalised and agreed during September 2013. Project engineering and management is already well under way, with operations due to start during Summer 2014 and set to continue into 2015, 2016 and potentially 2017. The Normand Vision will enter the market as the

main installation vessel for the project with the possibility of a small support vessel in operation to assist in the undertaking. "Normand Vision was designed exactly with this type of challenging North Sea contract in mind," says Steinar. "So we are very much looking forward to employing her on this project."

Ocean Installer has expanded impressively during the past three years and is set to continue in this tradition through a combination of exciting upcoming projects, like that of Statoil and a strong determination to become a key service provider within the global SURF market. "Ocean Installer is founded on high ambitions and since the company's inception in 2011, we have successfully met the demanding milestones we have set, one by one," Steinar elaborates. "We are naturally very happy with this achievement and the performance of the entire organisation. The company's focus has been and is still, to consistently build an ever more solid and robust company. I believe a key to Ocean Installer's success is its ability to attract and retain the right people; that is people with drive and ambition who take personal pride in and motivation from the development of the company."

Concluding on the company's aspirations for the future, Steinar reflects: "In 2014 we aim to achieve further organisational growth and we continue to build the company in all established regions by contracting and delivering complex projects. In terms of assets, we are focusing on a successful introduction of the Normand Vision as well as exploring sustainable solutions for further expanding our capabilities. The company's overreaching vision is to become a key service provider in the global SURF market and this will be our guiding objective over the next five years. In more concrete terms it implies further consolidating our position in the regions we currently have operations, as well as systematically working towards a broader global presence. Moreover, we will focus on further developing our asset base so as to include additional SURF capabilities, such as diving and rigid pipelay." OGG

Ocean Installer has expanded impressively during the past three years and is set to continue in this tradition through a combination of exciting upcoming projects, like that of Statoil and a strong determination to become a key service provider within the global SURF market

Ocean Installer AS
oceaninstaller.com

Services
Subsea construction

First-class standards

For close to 70 years KRAL AG has delivered market-leading solutions in liquid handling applications. Today the company continues to innovate in the field of pump and flowmeter technology, providing world-class products that assure its customers' competitive edge. As such, from its headquarters in Austria KRAL services clients operating on a global level. Alongside this it operates a second business within the US named KRAL-USA. Furthermore it employs a global network of representatives that ensures that wherever its products are required, KRAL is on hand with the appropriate solution.

The company was originally founded in 1950 with a product range that included domestic water pumps, electric motors, industrial water pumps and gear pumps. Throughout the years as the company has grown, it has developed its product range to meet the needs of five targeted market sectors. These are marine, chemical engineering, mechanical engineering, oil and gas, and power generation applications. With dedicated branches focusing on each of the company's specified market sectors, KRAL delivers bespoke products and services to meet the specialised requirements of its clients.

Within the oil and gas sector specifically, KRAL manufactures a comprehensive range of American Petroleum Institute (API) compliant pumps, pump stations and pump systems as well as precision measuring instruments. The company understands that safe operation is paramount within the sector with regards to personnel, equipment and the environment. Additionally, KRAL recognises that every drop of product is important and therefore strives to deliver innovative solutions of the highest quality for the processing of petroleum and other liquids. An important application in which KRAL is able to enhance the performance of its customers' operations is in fuel consumption.

The KRAL Volumeter re-measures the diesel fuel that is delivered to engines to ensure that they run at their optimum operating point. Furthermore, Volumeter also measures the flow of fuel from the storage tanks so that throughout multi-engine systems a full spectrum of measurement is taken to eliminate costly waste. Measurements include engine-related fuel consumption, the quantity of fuel within storage tanks and the amounts extracted from tanks.

KRAL also provides the means to display, log and store flow data, enabling customers to evaluate the measurements and further facilitate efficient operation. The company's systems provide a centralised display of the fuel consumption of all of the engines within a multi-engine system. Furthermore, systems can be further expanded in accordance to the client's needs, meaning that a bespoke solution is available for every application. Complex measuring tasks are made possible through the integration of individual flowmeters throughout the system.

When it comes to handling and directing fluid, KRAL has the right solution with an extensive portfolio of screw pumps with operational pressure capacities ranging from between 87PSI to 1740PSI. With a wealth of focused experience that dates back to the company's inception, KRAL is able to deliver some of the best pumps on the market. All of its screw pump products are designed and manufactured in-house and the company's certified quality assurance system is fully EN ISO 9001:2008 compliant to guarantee the highest quality and consistency. KRAL screw pumps are designed with long-term operation and reliability in mind and are coated with a special surface treatment that further ensures problem free performance.

The first-class standard of KRAL fabrication is achieved through the selection of optimum materials from trusted suppliers such as MUZ, which represents an important strategic partner to the company. Finally, every screw pump is certified with a performance test at the company's production facility before shipment and distribution through its partners worldwide. KRAL screw pumps are then delivered to the oil and gas sector with applications in compressor lubrication, turbine lubrication and booster module separators for offshore platforms. Its pumps are also employed within the sector as transfer and burner pumps, meaning that the company's product portfolio enjoys a wide footprint throughout the market. Operationally KRAL screw pumps provide a host of benefits that differentiate them from alternative products, for example they offer high delivery rates

JAQUET TECHNOLOGY GROUP

The aim for better performance and improved efficiency - especially for engines in maritime applications - requires measurable results about fuel consumption. Jaquet Technology Group AG congratulate KRAL AG for manufacturing the best-in-class instrument which reliably measures the instant fuel consumption of large engines. We are proud to contribute to this achievement by providing an important component which ensures excellent results. The JAQUET speed sensors used in the KRAL volumeters are designed to operate under very high temperature and vibration conditions to deliver precise and consistent, pulse-after-pulse signals which provide information on engine fuel consumption.

with relatively small space requirements in comparison to other pump types. Further to this, KRAL screw pumps offer exceptional control capabilities and low-pulsation transporting. The delivery rate of a screw pump is strongly dependent on speed; in contrast to other pumps KRAL screw pumps have linear delivery rate characteristics, meaning that they can be controlled inexpensively and with ease through the use of a frequency converter.

When transporting liquids pressure pulsations represent a danger to operations that can damage pumps, systems and even the pumped liquid. A further advantage of the screw pump design is that it feeds product conserving and therefore causes considerably less pulsations than piston and gear pumps. The pumped liquid is not pressed and there are no pressure pulses that can damage the piping and other components or trigger vibrations. An additional advantage of the KRAL screw pump design is that the solution operates very quietly.

KRAL AG is also highly committed to aftersale service as well as delivering world-class fluid handlling solutions. The service that the company provides begins from the moment a client chooses KRAL as its operational partner. Its highly competent engineers are on hand to offer assistance in installation and commissioning to facilitate an efficient and smooth start up on site. Furthermore, its staff are always on hand to carry out or oversee routine maintenance and a constant supply of spare parts is always maintained to ensure that client's needs can be met at a moments notice. Repairs and maintenance can be carried out both in-house and onsite, and all work with KRAL Volumeters can be verified and tested at the company's in-house calibration facility that is fully ISO/IEC 17025 compliant.

With a long and consistently innovative history and strongly established support network of distributers and agents, KRAL AG is on track to continue to supply market-leading fluid handling solutions well into 2014 and beyond. With a broad range of market segments and clients, the company is able to adapt to changing market conditions to ensure that while one market becomes slow it is able to grow and expand in other areas where business is more buoyant. This delivers a turnkey package that makes KRAL AG an established market leader. O&G

KRAL AG
kral.at

Services
Pumps and fluid handling solutions

A clean solution

Above
SLCE has a worldwide network composed of proactice partners

Below
Training is proposed to all customers as a key part of the success

Top right
All equipment, from the smallest to largest, is tested at the factory before shipment

Established in Lorient, France in 1989 SLCE Watermakers specialises in the manufacture of desalination and water treatment equipment using the reverse osmosis process. During the early days of the company's history it was focused on the pleasure boat market in France, producing a range of desalinators with a capacity of under ten m3/day. Later, as the company became increasingly successful it began to supply its products to the export market.

As SLCE entered the later half of the 1990s it was in a position to diversify its range and expand further in new areas. During this time development was directed towards the naval defense markets in its native France and abroad, as well as into the Mediterranean and Middle East. These areas brought with them demands for equipment that could operate at higher capacities and as such, the SLCE product portfolio evolved progressively to reach capacities of up to 250 m3/day.

By the 2000s SLCE had established itself on the world stage with a highly positive reputation and a presence in many regions throughout the globe. During the early years of the new millennium the company continued to develop its focus and incorporated a strategy comprised of three complementary areas. Its range of desalinators and water treatment equipment was further enhanced to exceed capacities of 750 m3/day, which allowed the company to enter into segments for land-based installations as well as much larger vessels. On top of this, a branch of products was introduced that included an energy saving device that resulted in the saving of an impressive five kilowatt hour per m3 of treated fluid.

In tandem with the continued evolution of its desalinator range, SLCE also commenced commercial deployment within the Asia-Pacific zone. During the following years, the region would remain a key strategic area of the company's development. The third strand of its strategy throughout the 2000s was the return to the pleasure boat market. This was thanks in part to the introduction of the new Aqua-Base range of products, incorporating energy efficient systems as well as the strong reputation and experience that SLCE had earned in previous years.

Today SLCE offers a comprehensive portfolio of equipment that covers capacities that ranges from 30L/h to around 1500 m3/day. The company boasts one of the broadest collections of products on the market, which allows it to operate within a diverse spectrum of sectors. Its marine market includes applications for boating and yachts, merchant vessels, cruise ships, oil and gas, offshore and naval vessels amongst others, while SLCE products have also found applications in land based operations such as municipalities, hotels, holiday camps and industrial areas. Commenting on its broad market coverage and the benefits of this presence, SLCE president Gilles Gury says: "The SLCE standard range of products is made up of

multipurpose equipment.
Actually, having a business that is active in many sectors enables us to receive feedback from a wide sample of very demanding customers, which ultimately helps to make our products efficient and reliable. In addition to this, the company's design office develops and adapts our standard equipment to meet the specific specifications outlined by the client. Because of this dedication we have already had many customers within the oil and gas sector including Total, Perenco, CNOOC, Bumi Armada, Bourbon, McDermott, Great Offshore, Keppel and many others."

The company's far-reaching market footprint has proven to be a great strength as well as a financially rewarding strategy in the face of the volatile market created by the global economic downturn. "After the 2008 crisis the segment of the marine market linked to leisure or transportation of goods has been very quiet," says Gilles. "Only the navy and oil and gas markets have remained very active. Fortunately, based on the economic development of booming areas like Asia and Brazil, the marine business has now recommenced a growth trajectory."

During 2013 SLCE experienced a significant growth in its turnover based largely of the development on its export market, which accounted for 85 per cent of its total earnings. The Asian market was particularly buoyant, providing 40 per cent of the export business that SLCE enjoyed throughout the year. As it moves into 2014, the company is showing no signs of slowing down and is gearing to further develop its strategy in Asia as Gilles elaborates, "The permanent focus of the company is to improve product and service quality. From a market point of view, it will focus on the offshore sector and Asia as key areas of its development strategy. SLCE has several opportunities in Malaysia within the offshore sector, which should turn into firm contracts very soon. In Croatia, the focus is on the leisure market including hotels and pleasure boats."

By building on the success generated by the company during the proceeding years, the future of SLCE promises to be very bright indeed. The positive financial results of 2013 for example, will allow SLCE to continue to invest permanently in its research and development sector to bring new bespoke products to market. Its team of 30 reliable and experienced staff, incorporating seven engineers and eight technicians are on hand to lend their support to both the company and its clients. Finally through its modern fabrication facility and through trusted agents throughout the world, SLCE Watermakers is able to deliver world-class products, technical documentation and training wherever they are needed. OSG

> Today SLCE offers a comprehensive portfolio of equipment that covers capacities that ranges from 30l/h to around 1500 m3/day. The company boasts one of the broadest collections of products on the market, which allows it to operate within a diverse spectrum of sectors

SLCE Watermakers
slce.net

Services
Desalination and water treatment equipment

Culture of excellence

Four years ago just north of the Cairngorms National Park in Scotland, James Gregg found inspiration to take a step that would change many futures. With 14 years of intensive industry experience, James established Motive Offshore as a manufacturing and rental company that specialised in high capacity winches, wire rope spooling and inspection, umbilical deployment equipment including tower drive systems and tensioners, and specialised subsea equipment such as subsea baskets, subsea winches and test weights. Today the company's services encompass in-house design engineer, fabrication, machining, assembly, testing and highly competent personnel for offshore operations.

Over the past two years the business has significantly grown and today employs 81 people. James is supported at Motive Offshore by two other directors, Dave Acton and Bob Smit, who also have previous experience within the industry.

"Our products and services are focused around marine solutions, in particular, winches and associated equipment, and are available for rental and for sales. We also have a service division with all our staff available to work both offshore and onshore, servicing, operating and installing equipment," says James. The core aspect of the business is the design and manufacturing of equipment in accordance with its sales catalogue of standard equipment, he explains: "We offer products that have been tailored around what the industry demands, taking into consideration modern health and safety and other legal requirements. As a result, we only supply up-to-date, modern and new equipment.

"Much of the equipment in the oil industry is crude and old fashioned, and although it is fit for purpose, as time goes on the industry looks for more efficient and safer ways for completing tasks. Our research and development department consisting of engineers and draughtsmen takes a lot of existing technology and seeks to develop and improve it." Motive Offshore is committed to serve its customers, meeting their needs and expectations, but also striving to exceed them. Having adopted the principles and requirements, it gained ISO 9001: 2008 accreditation, signifying a major milestone in the company's history. The comprehensive, co-ordinated quality management system has been implemented across the whole company and embraces all of the activities that impact upon its customers.

The design, development and provision of equipment is an asset to the industry, but it is the people that really make the difference. "One of our major unique selling points is our focus on staff. The core value for us is being serious about our people, and this is client driven. We have completed various studies and feedback has been, from a sales and technical point of view, that clients want to be dealing with people that know what they are talking about," explains James.

Consistency throughout projects with minimal staff changes is an attribute that has supported the success of the company and James remains committed on this path: "We are very focused on maintaining our high level of staff retention, making sure the right people are suitably qualified and competent for the position they are in, and generally we are creating a positive culture within our organisation. That is driven from the very top, and it is our core belief that if we focus on our people the other aspects of our business will function considerably smoother.

"All our staff undertake legislative training and are competent to do the work, but we also concentrate on social and cultural coaching and training, which we feel sets us apart from the

Below
James Gregg, founder of Motive Offshore

Inset
The Motive Offshore team

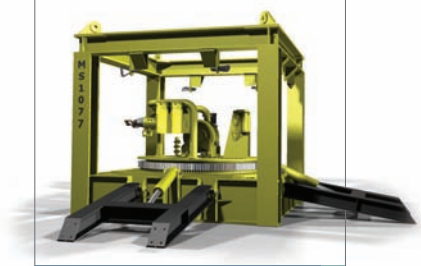
competition and provides us with a competitive advantage." In support of this, the business has established an organisation called Team Motive, explains James: "The purpose of Team Motive is to reinforce our corporate and social responsibility, encouraging staff and other stakeholders to engage in team building exercises. As a community the business focuses on raising money for charity through a variety of challenges, and our staff feel stimulated and rewarded."

Commenting on the marketing focus for the business, marketing and PR specialist Vivien Rae explains: "We initially grew organically and utilised a number of James' contacts within the industry, but we quickly reached a point where we needed to concentrate on marketing ourselves further in the oil and gas industry. One of our focuses is looking towards promoting our business at exhibitions, and this year hope to be attending ONS in Norway. Exposure is the main importance of such events, supporting brand awareness of our products and services, and to establish more business. It is also an opportunity to be face-to-face with our clients."

James adds: "In October 2013 we established an organisation in Norway, trading as Motive Offshore AS. Our role in Norway is still in its infancy, but it is growing. Over the last 18 months, the market has been extremely buoyant, and generally the industry is booming. We see that this growth is due to a number of factors, namely the drive in the industry to operate in deeper waters, coupled with the tendency to go for subsea production and processing rather than traditional topside investigation. Any equipment that goes subsea needs winches and such products so the market is growing."

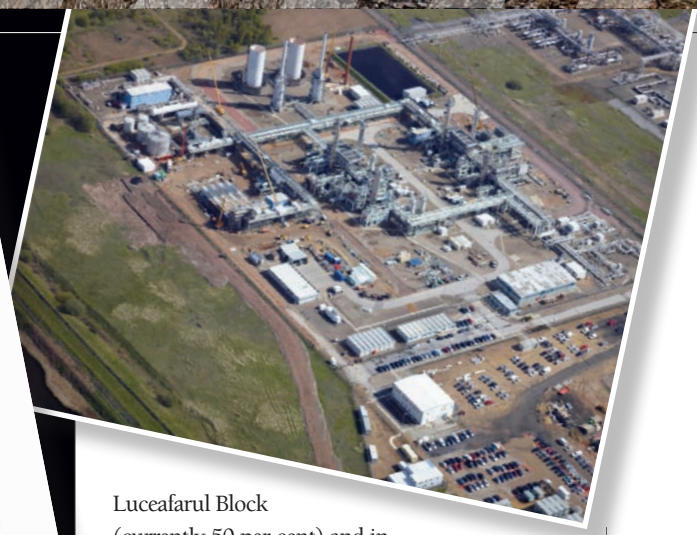
In November 2013 the business opened up a sales office in Aberdeen, enhancing its position in the UK domestic market where, combined with Norway interests remain high. However, with the motivation to keep on progressing James is already looking ahead: "Our next strategic move will be into Brazil, having already established a business partner there, and further ahead we will branch into the Middle East." The energy and oil and gas industry worldwide is growing with an increased focus on health and safety particularly after the oil spill in the Gulf of Mexico. The world-leading safety regimes in the North Sea are being implemented across the globe, which has led to the increased demand as old equipment is scrapped and replaced with new. "There are a limited number of companies offering our services, and we are filling a gap in the market. Our work is mainly with Tier 2 marine contractors but also other emerging marine contractors worldwide," he adds.

Following the two-year period of aggressive growth, the business looks set to increase turnover and appoint additional personnel. "Our main focus is becoming more established in the UK and Norway over the next 12 months. Long term we are targeting the growth of the business with an international footprint, whilst extending our portfolio of services. We are very innovative, continually developing new products, and it is a trend that we will move forward with, developing off-shoots of our products utilising the same skill sets and manufacturing facilities that have led to our success so far," concludes James. OSG



Motive Offshore
motive-offshore.com

Services
Provider of high quality marine equipment and associated services



Developing opportunities

Sterling Resources was last featured in *European Oil and Gas magazine* during 2011, which was a very busy time for the company as it was taking its Romanian gas fields through to production. As Jake Ulrich, CEO explained, there were some challenges along the way, and he gave an update on progress: "During early 2011 Sterling encountered regulatory headwinds, which deferred the drilling programmes on the Midia and Pelican Blocks on the Romanian Black Sea into 2012. During late 2012 wells were drilled at Ioana on the Midia Block and Eugenia on the Pelican Block; the Ioana well encountered hydrocarbons but no reservoir structure, while the Eugenia well was a gas discovery. During late 2012 Sterling announced the sale of the deepwater portion of the Midia Block to ExxonMobil/OMV Petrom and this sale was closed in January 2014 with the net proceeds of the sale amounting to approximately $23 million. More recently an extensive 3D seismic programme was completed over key parts of the Midia shallow, Pelican and Luceafarul Blocks with the intention to reduce the equity interests in the Midia Shallow and Pelican Blocks (currently 65 per cent), in the Luceafarul Block (currently 50 per cent) and in the Muridava Black (currently 40 per cent) to approximately half of the current levels by the introduction of a new partner."

The Breagh field is another of Sterling's assets and significant progress has been made on this since the magazine last reported on the company. Said Jake: "This has included construction of an offshore platform, 100 km pipeline and processing facility at Teesside. Although there have been a number of challenges including cost overruns and delays, gross production of over 100 MMscf per day at Breagh (30 per cent to Sterling) began on a sustained basis late in 2013 with production coming from wells A01 to A06 inclusive.

"An optimisation process is also underway at Breagh in order to increase well productivity and manage carbon dioxide levels, and plans during 2014 are to complete well A07 using hydraulic stimulation, bringing the well on-stream in mid-2014 and then to drill and complete well A08 with production from this well expected to begin in the third quarter of 2014. Well productivity has varied widely at Breagh and with the optimisation process underway, more consistent production levels are expected. Once well A08 is drilled, the ENSCO 70 rig will be relocated to drill a well at Crosgan, some 25 kilometres northeast of the Breagh field. With success at Crosgan this production could eventually be routed through the Breagh infrastructure." In addition, Sterling has recently won a license to explore traditional and new plays in regions close to its existing Breagh infrastructure.

Sterling Resources is also active in other locations, possessing assets in onshore France and offshore Netherlands, however the primary areas of focus remain the UK North Sea and the Romanian Black Sea. "In Romania a well in which Sterling has a non-operated 40 per cent interest on the Muridava Block is expected to spud in April 2014 and a further well on the Luceafural Block is expected to be drilled in the fall of 2014. The Cladhan oil field in the

Northern North Sea (in which Sterling will hold a 13.8 per cent interest) is currently being developed by the operator and gross production of over 15,000 barrels per day is expected to come on-stream in early 2015," added Jake.

Sterling has a lot of activity underway, but Jake noted that the market for junior international E & P companies is challenging and the company made some changes in 2013 designed to provide more certainty for the marketplace: "Substantial changes were made to the Board of Directors at the AGM, with the Board choosing to make management changes since that time. The appointments of Jim Coleman as chair and myself as permanent CEO (having served as interim CEO since August 2013) will allow Sterling to focus on achieving operational excellence," Jake explained.

In order to achieve its ambitions the company needs to play to its strengths, which Jake identified as: the quality and prospectivity of the asset base and its internal technical skills. "We see tremendous opportunities for drilling and development in the Romanian Black Sea, as well as further expansion of the Breagh footprint in the UK North Sea. We have a very seasoned group of technical management who are very familiar with all of the basins in which we have a presence.

"Therefore the focus at Sterling during 2014 will be upon well completion and optimisation of the Breagh field, as well as confirming the feasibility of Breagh Phase 2 and with the operator applying for the FDP, and the drilling of two wells in the Romanian Black Sea and the reduction of our equity interests in the company's assets offshore Romania."

He added: "Like many others in the sector we are currently trading at a significant discount to our net asset value based on third party estimates. With our exciting prospects in both the UK North Sea and Romania we intend to move forward to de-risk these assets and further limit our long-term financial exposure. If we manage to de-risk the assets, while retaining substantial upside, the share price should reflect this." O&G

> In order to achieve its ambitions the company needs to play to its strengths, which Jake identified as: the quality and prospectivity of the asset base and its internal technical skills

Sterling Resources
sterling-resources.com

Services
Exploration, development & production of crude oil and natural gas

Well covered

For close to 40 years the VENKO Group has delivered high quality independent coating solutions to clients representing a varied pool of industries and applications. The group was founded in 1975 and began its life offering services for outdoor applications including high-tension pylons and substations. Today VENKO still actively provides solutions in these areas as well as for offshore platforms, transmission masts, railway bridges, pipe spools and sluice gates. To accommodate its diverse client base and ensure that it offers the very best targeted solutions, VENKO operates three dedicated divisions comprised of VENKO Outdoor, VENKO Offshore and VENKO Indoor.

VENKO has developed a diverse base of specialist services that it is able to offer its clients, the most numerous of which are its comprehensive coating systems. These include solutions for portable water, fire protection, roof and insulating coatings.

Furthermore the company is an expert in rope access techniques and service preparation at height, which is of particular importance for pylon and transmission mast preparation projects. Its coating solutions are supported by a range of blasting applications that are comprised of machine, sponge and nevel-jet blasting types with a wide spectrum of blast media and materials.

Since it was last featured in *European Oil and Gas Magazine* during July 2013, VENKO has continued to deliver market-leading solutions across all of its targeted sectors including the offshore market. During that feature, VENKO Offshore business unit manager Tom Herok discussed a new base that had been established in the UK located at Great Yarmouth to support a barge intended to move from platform to platform. “The main reason we are setting up a presence in the UK is to support our activities on the Shell contract for 35 platforms,” he said. “But of course we also want to expand our business in the UK and that is planned for 2014. In 2013 our focus was purely on the successful start of the barge campaign working in the UK waters.”

Less than a year later and the VENKO Offshore office in Great Yarmouth is operating successfully in carrying out operations for Shell and has even found a second reliable client, operating from inside the UK. “We have established ourselves well in Great Yarmouth and we have some good personnel in the office, primarily to assist our current maintenance project with Shell,” Tom says. “We have also gained a new client named Perenco and that has helped develop the office even further. This has transformed the Great Yarmouth office from being a support office for the Shell project to becoming a self-supporting office for the Perenco contract.”

This latest development entails a guaranteed three-month project for maintenance operations for one Perenco platform with the potential for others to follow, as Tom elaborates: “We have a contract for the first platform and options for two more this year. This is for full maintenance including scaffolding, painting and insulation services. The time of operation for each platform will be roughly three months per location and the first people went offshore in March and we are now in operation. The client was very happy with our first wave of mobilisation and was

very complimentary about how we approached it. We've had a good start, so our focus in the UK now will not be to find a new client but to ensure that we execute our current contracts to the client's complete satisfaction."

Outside of the UK, since July 2013, VENKO Offshore has completed a further four plaforms throughout the globe and was recently awarded a contract for fabric maintenace of a 40,000m2 platform by Total in the Netherlands. "This project will share a lot of similarities with our current Shell contract, so we will be able to apply our experience and unique way of working to this new endeavour," Tom says. The ability of VENKO to attract blue-chip companies such as Shell, Total and others is reflective of the highly respected reputation that the company has developed through a portfolio of successfully completed projects. Further to this, VENKO Offshore has demonstrated that it is able to operate in a flexible manner and deliver cost-effective results without compromising on quality.

Unlike competing companies within the same field, VENKO offers its clients cost saving benefits within its pricing structure that enables its customers to clearly identify the final cost of work and avoid any unexpected costs, as Tom explains: "We offer a unique contract in the offshore industry, the standard is an hourly based contract but we offer fixed prices. This gives us a better relationship between VENKO and the client, which we see as another strength of VENKO Offshore."

As VENKO looks to the rest of 2014 and beyond its main aim will be to ensure that it consolidates its investment in new facilities by executing its current contracts to the total satisfaction of its clients. "During 2014 the focus for our offshore operations will obviously be to carry out the work that we have been awarded," Tom says. "We are convinced that if we perform well this will generate its own business. So we are not looking to actively approach clients, we are focused on meeting the needs of our current customers and through positive execution more work will follow," he concludes. O&G

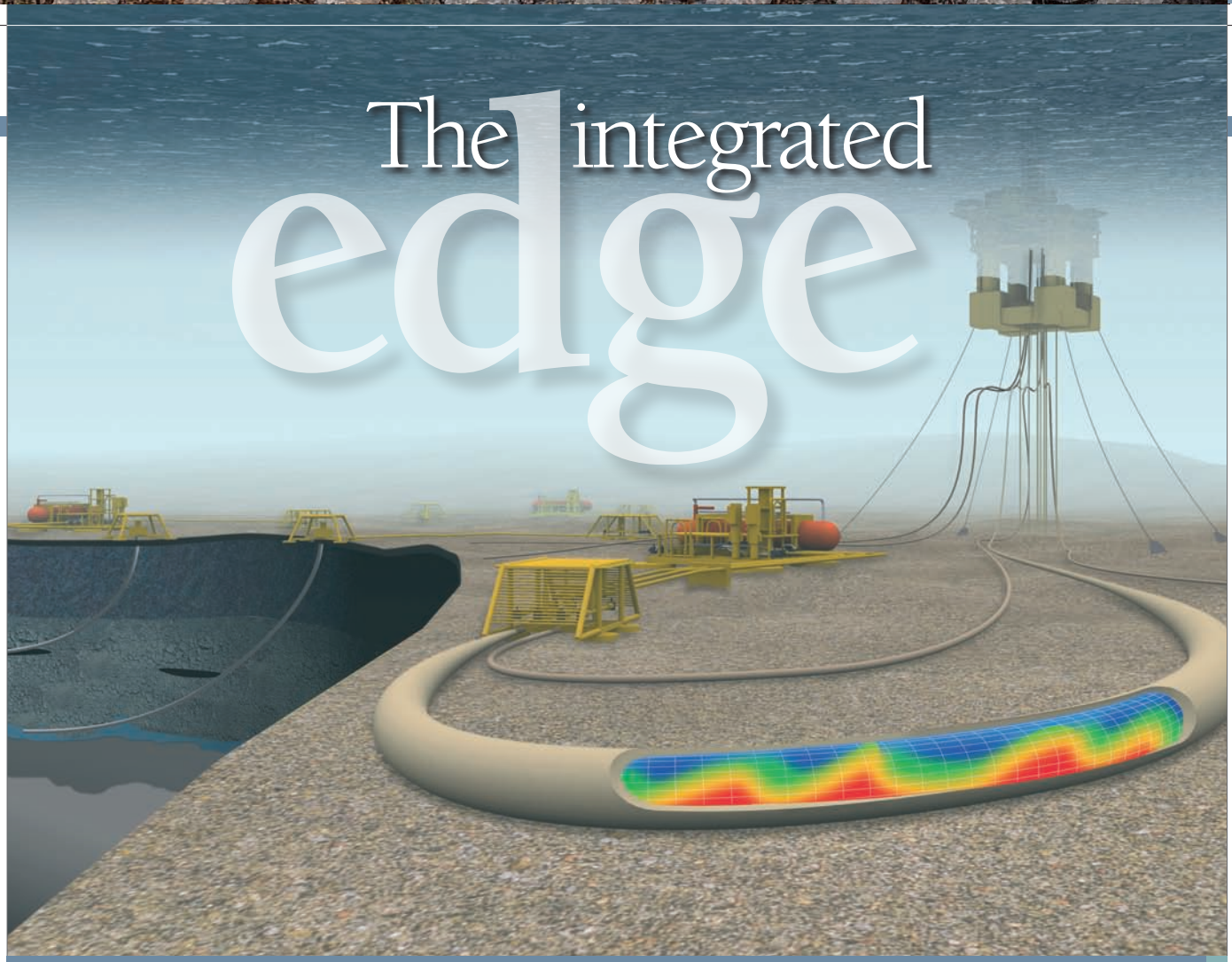
VENKO Offshore BV
venko.nl

Services
Independent
coating specialist

Westcon Group is a leading provider of the best and most innovative solutions, services and products within onshore and offshore/subsea, energy and maritime industries. Westcon Group consists of the companies Westcon Yard, Westcon Løfteteknikk and Westcon Power & Automation. Our operations are located mainly in the Haugesund, Stavanger and Florø region, with branches also in Helgeland and Poland. Turnover in 2011 was NOK 4.4 billion and we have over 1100 employees. Cost-effective productions, well-developed facilities and highly qualified workers are the key to satisfied customers who comes back again and again.
Please contact us: subsea@westcon.no

WESTCON®
www.westcon.no

The integrated edge



WESTCON

Westcon provides EPC solutions for the subsea market with large fabrication facilities located strategically along the Norwegian coast, serving the entire NCS. Examples of products include templates, manifolds, PLETs, PLEMs, spools, lifting arrangements and other specialised SPS and SURF specific equipment. Westcon offers efficient fabrication with on-quay delivery for swift load-out close to the oil fields on the Norwegian Continental Shelf. Westcon is currently delivering PLETs and Spools to KOGT for use on the Statoil operated Smørbukk Field.

Kongsberg Oil & Gas is a wholly owned subsidiary of Kongsberg Gruppen (KONGSBERG), and is the fastest growing business area within the company. KONGSBERG celebrates its 200 years anniversary this year, with a proud history going back to the establishment of Kongsberg Weapons Factory in 1814.

Kongsberg Oil & Gas has grown due to both acquisitions and organic growth. Established in 2010, the business area reached revenues of over NOK one billion in 2013. The recent acquisition of Apply Nemo in January 2013 added significant expertise and experience to its Subsea Division, with a reorganisation performed in 2013 that resulted in full integration of previous acquisitions, such as Nemo, Seaflex, Seagear and Havtroll. Today, the company represents a broad range of technical services with more than 20 years' experience in delivering solutions for the subsea field. Solving problems and overcoming challenges in close co-operation with clients and finding the optimal solutions for a field is key to ensuring safe and reliable operations. The company is dedicated to helping customers move into deeper, colder and more extreme seas.

Kongsberg Oil & Gas recognises that field development is a considerable challenge for both operators and contractors. With its strong subsea background and capabilities, the company supports its customers with the services they need to optimise performance in all phases of the field development process.

Whether clients are planning a new field development, lifetime extension or a brownfield upgrade, they are able to offer a full suite of products, equipment and solutions. With its in-depth knowledge of multiphase flow and process simulation, combined with subsea product experience, it can design a field with all clients' requirements in mind. The proven ability to deliver subsea products from the flange of the tree to the hang-off topside riser base enables the company to solve challenges at any stage of subsea production operations.

The suite of solutions provides a knowledge base with the benefit of simplifying tie-back field developments meeting the challenges of riser limitations, topside weight challenges and flexibility to add in future tie-backs to an existing host. With the customer in mind, collaboration with other suppliers to integrate products and solutions ensuring that the end goal of the

optimal solution is achieved is vital.

A full range of repair solutions for operations is offered, including services for defining the appropriate repair method, providing procedures and delivering the subsequent repair solutions for equipment, components and tools. Offshore management and technical supervision are also parts of the service.

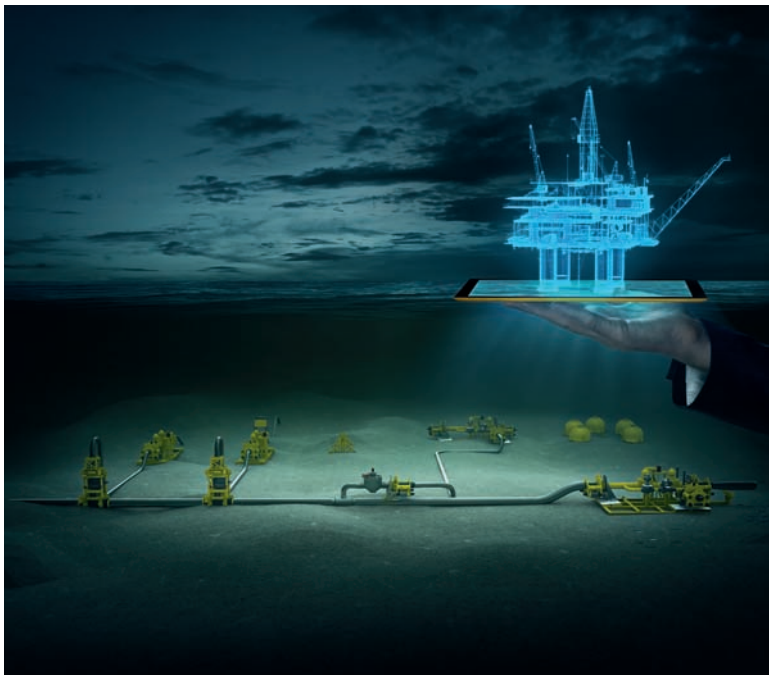
When it comes to riser technology, the company has detailed knowledge of the structural design of rigid and flexible risers and umbilicals, which is instrumental to ensuring safe and efficient operation. Careful and comprehensive analysis of riser and/or umbilical systems can reveal whether they are optimised and consequently determine if there are improvements that can increase clients' return on investment.

In field development, the company's engineering studies can reveal a system's current level of operation as well as ways to improve its cost-efficiency. Its engineering services include route selection and field layout of pipelines and cables, material evaluation, design analysis, cost estimations, installation analysis and more.

Furthermore, as offshore field developments are now taking place further from land, in deeper waters and in harsher environments, flowlines are becoming longer and larger. In order to gain both real-time and offline analysis of these, Kongsberg Oil & Gas uses virtual flow metering systems and multi Flow Simulations.

When it comes to manifolds and structures, production wells are typically connected into a manifold that commingles the wellstream from multiple wells into a single flowline. The manifold design can accommodate any tie-in and connection system and is particularly suited for the field proven horizontal Thor Tie-In system. This system is easily installed and provides the optimal mix of reliability, robustness and safety. It uses a unique and patented method of transferring parts of the external moments into the supporting structure, reducing loads on connectors, piping and adjacent valves. During the tie-in installation, the system is operated by a number of WROV tools, available for rent or purchase, that require only one supervisor per shift.

For pipeline components Kongsberg Oil & Gas delivers in-line tees, hot-tap tees, wyes, subsea isolation valve (SSIV) and pipeline supports, and it can also offer pipeline weak links, which are incorporated into subsea pipeline systems and are designed to separate the pipeline in the event of accidental loads such as iceberg impact or dragged anchors.



A dedicated department is focusing on special products for the subsea market with an excellent track record of delivering hundreds of solutions to challenges that can't be solved with standard products.

It is clear that Kongsberg Oil & Gas is no stranger to innovation, and this continues with its subsea storage unit and pig launcher technology. Also, the company is presently finalising the qualification of an active subsea cooler. The cooler is based on forced convection and offers a compact, light and cost efficient cooler with well-controlled cooling performance. The key element of the cooler is an adjustable subsea pump purpose-made for this application.

Finally, Kongsberg Oil & Gas is dedicated to helping its customers to understand the integrity of their products. As a result it offers integrity monitoring systems to give its clients the ability to make the right decisions during operations. The riser monitoring system and wellhead fatigue monitoring solutions support clients at every stage.

Kongsberg Oil & Gas is regarded by its customers as a trusted advisor for intelligent improvements. It works in partnership with clients within drilling, production and subsea to make operations safer and more efficient. With an international footprint, Kongsberg Oil & Gas is proud to help its blue chip clientele solve problems and increase efficiency worldwide, on land and at sea. OEG

WILTON ENGINEERING SERVICES LTD

Wilton has a 50 acre site served by two large river load-out quays and incorporating over 10,000sqm of covered fabrication workshops and a further 7000sqm of dedicated undercover blasting and coating facilities. It specialises in the fabrication of subsea structures and topside modules along with the design and construction of specialist decommissioning and vessel equipment, and recently completed a number of important projects for Kongsberg Oil & Gas Technologies. With stringent adherence to both operator and Norsok requirements, Wilton fabricated the Talisman Varg PLEM and PLET structures incorporating both 22 per cent Cr Duplex and 25 per cent Cr Super Duplex pipework, and more recently fabricated SAT and DUTA Subsea Structures for

Under control

Above
The recently delivered IMR module handling tower for DOF Subsea. Capacity is up to 70t at 200 metres water depth in Hs:=4.5m operating conditions. The tower was fabricated and delivered at AXTech's partly owned facility nearby Molde, Norway

Below
Artist's impression of the 400t SHS module handling tower installed on the North Sea Giant

AXTech is an engineering and service company, and supplier of heavy-duty lifting and material handling equipment in a capacity range of 25 to 1000 tonnes and more. It develops, designs, delivers, tests, commissions and carries out service on heavy lifting and material handling equipment for use in harsh and corrosive marine environments.

In 2013 AXTech appeared in *European Oil and Gas Magazine*, and Richard Myhre, MD noted then that a new project with Technip Norge had caused a lot of worldwide attention. The company is supplying a special handling system (SHS) of 400t capacity to be used during the installation and intervention of Statoil's Asgard Subsea Compression system, and this project is still a main topic of focus. "That project is still growing and it still takes most of our capacity," confirmed Richard. "On top of that in January we completed the delivery of a big inspection, maintenance and repair (IMR) tower for DOF Subsea, which is also quite an achievement because it was built very quickly and it was of a very large size.

"Interestingly we are now also involved in the second ship-shaped FPSO in the Gulf of Mexico, in which we are supplying the pulling system. This features a big winch with compensated heave for the buoy pull in." AXTech also supplied the large 850 tonne pull-in winch system for Petrobras Americas' Cascade Chinook field, which was the very first time an FPSO-type vessel platform (ship-shape) was used in this region.

When it comes to module handling and lifting systems for IMR operations, AXTech delivers various products for handling subsea equipment between vessel and seabed. Richard explained that its SHS (special handling system) is a huge step up in IMR of subsea structures because it allows the safe positioning of modules of up to 400 tonnes.

"The challenge is that these modules need to be repaired and handled in any sea condition," he said. "If the sea states are bad then it requires special attention and a deep understanding of the dynamic properties of the module, with areas to consider including weight, vessel performance and equipment performance. O&G

> To handle modules up to 70-80 tonnes in significant wave heights over five metres is a task we are generally interested in

"Even a large subsea construction vessel such as the North Sea Giant heaves around nine meters vertically, and a regular crane cannot cope with a 400 tonne module in such conditions – the module may start to swing dangerously. Our whole concept has been developed to handle an object safely and in a very controlled way from the ship to the seabed and vice versa."

As demand increases for structures to be put onto the seabed, AXTech foresees that there will be further need for even better solutions for the IMR market, with safety always being key. "To handle modules up to 70-80 tonnes in significant wave heights over five metres is a task we are generally interested in," added Richard. "There is always a demand for operating more safely and being able to operate in conditions where people cannot be on deck – this requires more automatic functions and the creation of a safe way of using equipment on deck. The old way of thinking – regular crane handling - is not really an option anymore. You need to have a controlled way of handling this equipment without people and without free suspension. You need to develop methods that keep the valuable loads safe in any condition, as well as keeping people safe."

These handling systems are not the only area of interest for AXTech: "The other area where we are focusing is combining heavy pulling solutions and dynamics to give better performance," said Richard. "There is a need in the market for a higher performance on such winch systems."

Richard is keen for AXTech to be able to meet the demand it sees in the future: "We are still quite ambitious and we are increasing our capability on taking onboard larger projects because we still see a big demand to deliver those," he said. "There seems to be steady market demand for FPSO systems, and for the IMR market we see an increase in the North Sea, probably due to the weather conditions. We also see a lot of interest for those kinds of projects in different areas, such as Brazil.

"To meet these demands, we have plans to expand our workforce by around 15 per cent, but it is not easy to find the right staff. Human resources are our key assets. This company is based on competence and knowhow and to develop that is a critical factor for success. We also have high expectations of our staff, as we like to see initiative and the ability to be innovative. Our industry is somewhat different from putting a traditional product to the market, and we believe a proper engineered solution will be far better for the operator as it is designed to perform the task with more efficient equipment and in a safer way."

Recruiting the right staff is a top priority for the company in 2014, as is increasing its expertise. "I think we will develop our capacity through competence, which means our ability to perform even better for the client," concluded Richard. "Basically our projects are decided on trust. The client knows they will get what they want and we are known for being able deliver reliably on notable projects, but we have to maintain this confidence and build our capacity to be able to meet the demand." OEG

EUSKAL FORGING, S.A.

Euskal Forging is proud and excited to be associated with Axtech in support of its winches for this project.
The supply of four gears in a record time, ranging from Ø3.220mm to Ø790mm is another milestone for Euskal Forging, which has been the preferred supplier of Tier 1 customers since 1969.
Our customers value our fast delivery time (eight weeks in many cases), outstanding quality and the support provided throughout the project life.

AXTech AS
axtech.no

Services
Design, manufacture, delivery and installation of heavy lift equipment

Bright future

Volstad Maritime AS is a privately owned Norwegian company, which both owns and operates vessels in seismic exploration and offshore IRM and construction. It also controls a subsidiary called Volstad Management AS, which offers marine and technical management.

The company built its first vessel back in 1952, and over the course of the following six decades it has evolved into an international operator. Located in the maritime capital of the Norwegian Northwest, Aalesund, Volstad Maritime has experienced continuous growth and development ever since it was established.

The most recent development from Volstad is news that Bergen Group Fosen, a yard that Volstad has used in the past several times for vessel construction, has sold its shipbuilding contracts for NB 90 and 91 to Kleven Maritime.

The outfitting will be performed at Kleven Myklebust and Volstad Maritime was part of the negotiations and is very satisfied with the outcome. There will only be minor changes to the shipbuilding contracts, and as Kleven is a highly competent yard the company is confident that the vessels will be delivered at the highest quality.

These may be the newest vessels that Volstad has on order, but its fleet's history actually began in 1952, and has seen many new additions along the way. In 1982 Volstad entered into seismic exploration with the Geco Tau, which was built together with Geco AS, and in 1999 Volstad took delivery of the Geco Bluefin, a DP-II Q-seabed seismic exploration vessel on long-term time-charter with Western Geco.

The company also undertakes activities within oceangoing fishing vessels and built-to-purpose offshore vessels, including ROV/DSV. The company took delivery of its ROV/DSV new build vessel, the Bibby Sapphire, in 2005. This vessel operated on long-term charter with Bibby Offshore Ltd. up to April 2010, when it was then sold to Bibby Offshore.

Volstad Maritime also charters the Bibby Topaz to Bibby Offshore. Bibby Topaz was delivered from the Fosen Shipyard to Volstad in 2007. The ship is 107 metres long, and is equipped with two diving bells. This gives it the ability to operate with 18 divers, in depths of up to 300 metres.

Volstad is always looking to expand its operations, and accordingly, at the beginning of 2008 the company took delivery of the Volantis from Fosen Shipyard. Volantis is a multi-role subsea support vessel, which is operating under a long-term time-charter with CTC, a subsidiary of Deep Ocean ASA and supports CTC's latest trenching developments.

Volstad's fleet also includes the Oceanic Endeavour, which was added in 2008, and has performed exceptionally since that time, with her capacity to carry 70 crewmembers in very high quality accommodation standards earning her an excellent reputation within the Volstad Fleet. She is on a long time-charter with CGG and was previously named Geowave Endeavour.

In 2009 the Deep Cygnus, a 122 x 22 metre multi-role subsea support vessel, was delivered from Fosen Shipyard to Volstad. This vessel is chartered by Canyon Offshore and performs operations such as cable laying from carousel, trenching, ROV operations from hangar and so forth.

NORWEGIAN ELECTRIC SYSTEMS

NORWEGIAN ELECTRIC SYSTEMS (NES) designs and manufactures diesel electric and hybrid electric systems for the maritime sector. NES has developed front running electrical propulsion systems and products that are world leading when it comes to environmental friendliness, by reducing fuel consumption, Nox, CO_2 emissions and keeping maintenance costs to an absolute minimum.

Amongst NES` deliveries is the world's largest DE system for Volstad Management, 'Grand Canyon' with total 23,000kW installed generator capacity and a newly developed 'twin-in-and-single-out' propulsion system. During 2014/2015 'Grand Canyon' 2 and 3 will be ready for delivery, with a repeat of the successful diesel electric system from NES.

> Thanks to the versatility and diversity of this fleet, Volstad is able to work in a broad range of fields, with its vessels operating in a number of different regions, and subsequently environmental conditions

The Geo Caspian, a 108 x 24/28 metre seismic streamer vessel, equipped to tow up to 16 streamers, and eight gun strings was obtained in 2010. The vessel can take a crew of 70 persons in single high standard cabins. She was on a long time-charter with Fugro Geoteam - in 2013 Fugro Geoteam was taken over by CGG.

Finally, in 2012 the Grand Canyon, a 128 x 25 metre OCV was delivered from Fosen Shipyard to Volstad, and this is the sister vessel of the two new ships now being constructed by Kleven that were discussed previously. Grand Canyon was purpose built, and is designed for operation in severe weather conditions, with high manoeuvrability and station keeping capabilities.

Thanks to the versatility and diversity of this fleet, Volstad is able to work in a broad range of fields, with its vessels operating in a number of different regions, and subsequently environmental conditions. Bearing this in mind, the company firmly states that the health and safety of its employees, both on and offshore, is its first priority regardless of the type of operation or project in question. As would be expected, the company complies with all of the latest national and international regulations, as well as all relevant industry standards and guidelines.

In fact, Volstad has implemented the International Safety Management Code (ISM), as well as the International Ship and Port Facility Code (ISPS) and both ISO 9001:2000 and ISO 14001:2004. While it strictly monitors all its own safety aspects, Volstad Maritime's management systems are approved according to the requirements of the International Maritime Organization (IMO) and the latest Norwegian requirements relating to in-house quality, health, safety and environmental management.

As we advance into 2014, Volstad has more grand plans for development and expansion. With all of the company's vessels working on long-term charters for the foreseeable future, and further business due to arrive along with the delivery of its latest vessels, the future at Volstad looks to be as full of opportunity as the past 60 years. O&G

Volstad Maritime
volstad.com

Services
Owner and operator of seismic exploration and offshore vessels

The right balance

Established in 1999, Balance Point Control (BPC) is one of the leading providers of hydraulic workover, snubbing, wireline and well control services, providing the industry with innovative and tailored solutions for well intervention operations and projects for all well types. For clients requiring maintenance and decommissioning services in the E&P sector, the company's balanced pressure and wireline services are the ideal engineering solutions, wherever and whenever they are needed.

"We are a specialised hydraulic workover, snubbing and well control services company capable of carrying out a wide range of operations, and over the last three years we have developed innovative equipment, improved on our safety standards and procedures, and have developed and built a new unit. This is a CSU160, and we are currently in the process of expanding from mainly European operations to become a worldwide organisation with operations in Australia, Argentina, Gabon and Thailand, so we are really spreading our reputation throughout the industry," says Lammert De Wit, technical manager at BPC.

The new unit that Lammert describes, the CSU160, is just one in a long line of continuous innovative developments from BPC. Announced in May 2013, the Concentric Snubbing Unit (CSU) 160 is the first fully remote-operated snubbing unit on the market. Alongside the unit BPC developed and built a complete Zone-1 electric-driven hydraulic powerpack with four seperate drive banks, certified under NORSOK, which sets a new safety standard in the oil and gas industry by the manner in which it minimises personnel's exposure to pressurised hydraulic lines. The CSU160 sits through the rotary table, which leaves the rig floor clear for operation without any limitations from installed snubbing equipment.

"We were working with a client who was carrying out a lot of balance drilling from producing wells and was looking for a contingency plan or backup systems for if something failed," says Lammert. "Using our experience with live wells, we put our engineering teams on the case and designed a unit that would integrate into the client's drilling rigs in a very simple, quick and

safe way, and which would ensure that they had very little downtime or problems and thus could maintain productivity.

"As we were integrating into a jack-up rig, which generally speaking are very complex, remotely controlled units we looked to design something that would have minimum interference with the rig. There were safety challenges as well because with this type of hydraulic workover unit, the more systems you add the more hydraulic hoses you have in the work area, which can be a hazard. Therefore we designed the CSU160 to be electronic rather than hydraulic and to be remotely controlled to minimise safety issues. It proved to be very challenging, not so much making the system work, but rather to ensure that all the safety features are correctly incorporated and working together, but it has proved to be a very successful and innovative design that allows the unit to be safely operated from three different positions. I think this really represents a key innovation in the industry and is the next standard for operating this type of unit."

This type of innovation is a key aspect of BPC's success, and stems from the company's dedication to innovation. "We have a very strong engineering team," Lammert points out. "This has allowed us to consistently carry out a lot of R&D over the last couple of years, and this is largely developed from an initial customer request for a specifically tailored design. Our engineering team, works out in the field with the client gaining a lot of hands on experience, and then we often work with a specialise company that can aid us with our R&D and in building the equipment according to our specifications.

"I think this innovation is something that sets us apart, but I think that our customers are really attracted to the good combination of a total service that we can deliver," he continues. "We have a very strong team of highly competent individuals, from management level people who liaise with clients, through to our engineering team. It's a fairly simple formula really; we have easy and transparent quotations for our clients and then provide the kind of competency and quality of equipment that is expected in the industry. That is our main driver and it is a total package-type service that we aim to continue to provide."

Providing such a service has seen the company achieve expansion in recent years, with it moving outside of its more established region in the North Sea to more locations worldwide. This has included operations in harsher environments such as the desert of Argentina and offshore in Gabon, where, regardless of the challenging conditions the company's equipment has performed excellently. Similarly, its innovative approach means that BPC is regularly contacted to carry out operations in locations where a minimal footprint and impact to the local environment is required.

In terms of the coming years, this expansion and growth is planned to continue, as Lammert concludes: "We have full order books until the end of 2014 and we have a unit recently shipped to Africa, so we are looking at that market for further opportunities. We are part of the larger Superior Energy Group, which is a business that does similar work to BPC, so for the coming years we are aiming to further integrate these two companies to get increased expansion globally."

HYCOS

Hycos was approached by BPC to develop the HPU for its new Concentric Snubbing Unit based on our experience with diesel- and electrically driven HPU's certified under NORSOK. The jointly developed HPU for the CSU 160 is suitable for use in Zone 1 and certified under NORSOK, built in a DNV 2.7.3 container. The HPU uses four electric motors to drive a multitude of functions in the CSU, delivering a total flow of 1800 LPM.

Balance Point Control
bpc.nl

Services
Workover, snubbing and wireline services

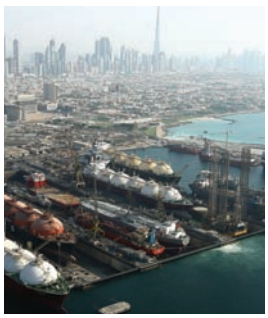
AMG

AMG (Al Mufaddal Group), which operates from its custom built state-of-the-art 40,000 sq. feet sprawling corporate headquarters in Al Quoz Dubai, has two flourishing entities under its umbrella. Golden Harbour, the trading arm, and Al Mufaddal Engineering & Marine Services Company, the specialised engineering services division, both of which are ISO 9001:2008 certified and operate independently and autonomously.

- Golden Harbour was established in the late 1980's is a recognised agent, importer, distributor, stockist and supplier of a wide range of marine, offshore, oilfield and industrial products. With a 100,000 sq. feet warehousing facility in Al Jadaf, a retail showroom in Deira-Dubai, a branch office in Abu Dhabi and a representative office in Bahrain, the company today with its 15,000 line items, caters to all major oil and gas companies, offshore platforms and shipyards in Middle East, Africa and Asian region, offering all types of marine engineering spares, non ferrous metals, pipes, tubes and fittings, valves, gaskets etc.

- Al Mufaddal Engineering & Marine Services Co. was established in Dubai in the year 2004. Today, Al Mufaddal Engineering is well known as one of the UAE's premier engineering and marine services company, serving the marine, offshore, oil and gas and power industries, specialised in providing services like inspection, repair and maintenance of boilers, heat exchangers, condensors, including steel fabrication piping and other mechanical works and allied activities. The company is now fully accredited with ASME certificates "U", "S", "PP" and National Board "R". Al Mufaddal's state-of-the-art workshop at Al Quoz and similar facilities at Al Jadaf, Fujairah and Bahrain, helps the company undertake and execute complex and sensitive industrial and ship repairs and other vital jobs easily. Al Mufaddal's teams of qualified and experienced professionals, engineers and technicians competently execute critical and time-sensitive industrial and ship repair jobs, provide round-the-clock services, assist and advice customers anywhere in the world.

Technical capability



Since the company was last featured in *European Oil and Gas Magazine* during February 2013, Drydocks World has continued to nurture its reputation as a leading name within the maritime sector. With over 30 years of industry experience behind it, the past 12 months have seen further success for the company, with new multi-million dollar contracts, world-class construction projects and history-defining lift operations.

The Dubai based company is a subsidiary of its parent firm Dubai World and is located in a prime position within one of the world's fastest developing regions. Its flagship Dubai shipyard is the largest facility in the Middle East and has developed a prolific reputation for its execution of new build projects, conversions and offshore construction. Drydocks World is an impressive facility that handles some 350 vessels per year, the majority of which are ultra-large crude carriers (ULCC) and very large crude carriers (VLCC). However, the yard can boast an eclectic portfolio of completed projects including refit and refurbishment for classification checks for the iconic MS Queen Elizabeth 2 (QE2) from January 2013.

Within the final month of 2013 alone, Drydocks World was able to win prestigious contracts and execute industry-leading lift projects. By the opening days of December 2013, Drydocks World announced that it had signed a letter of intent (LOI) with Offshore Innovation Management Ltd for the construction of a series of AJ 62-X135, multi-purpose jack-up rigs, with projects slated to commence in 2014. Commenting on the significance of the project via press release, H.E Khamis Juma Buamim, chairman of Drydocks World and Maritime World said: "This is an extension on winning 'Expo 2020.' Congratulations to our leadership on achieving this landmark event, which is bound to have a significant impact and will substantially boost returns for the economy of the UAE. We are delighted to have signed this LOI to construct these high performance rigs, which can provide a broad range of services including the provision of accommodation and construction services, heavy lift support for hook-up and commissioning activities during installation of new topsides or in the installation of subsea structures. We have considerable experience in catering to the specialised requirements and exacting quality standards of the offshore oil and gas industry and have made deep and meaningful inroads into these rapidly evolving sectors in recent months. This is in line with our business strategy to target this market segment aggressively with added value services."

The 86m by 95m AJ 62-X 135 rig design stands a towering 185m in height and weighs an imposing 26,000 tonnes. The three-leg design offers multi-purpose functionality and will provide both accommodation and facilities in accordance with NORSOK European standards

for between 208 and 490 people in single cabins depending on rig configuration. The rig is able to operate in waters of up to 135m in depth with an air gap of 25m and boasts the significant advantage that it is able of undertake 100 per cent up-time regardless of weather conditions, unlike semi-submersible accommodation and construction rigs. The design also features a 3000 ton Huismann crane for offshore heavy lifts, a large free working deck with full crane coverage, a heli-deck for use by AW 101 helicopters and provision for a full helicopter crew of 21 personnel and full safety equipment for all onboard employees.

Similarly, the award of the Dubai Expo 2020 mega jack-up rig is a major milestone for Drydocks World. Gusto MSC, which is one of the major partners in this project, has designed the CJ 80 rig and it will be the first of this design and will the largest jack-up rig ever built. Designed to be operated in harsh environments including the Norwegian Sector of the North Sea at a maximum water-depth of 175m with a 25m air-gap. The 101m X 110m, 5500 m sq unit will be classed by DNV and will meet all rules and regulations in force within the Norwegian and UK sector of the North Sea. The design draft is 8.5m, minimum operational water depth is 20m and length of legs is 232m. It is designed to accommodate a total of 160 persons preparing the unit to be used as a drilling and production unit. The rig will be equipped with the latest available state-of-the-art drilling equipment to be able to drill to 40,000 ft drilling depth. The rig will be equipped with a total of four high-pressure (7000 psi) mud pumps.

As well as winning sizable new contracts, Drydocks World has distinguished itself through the execution of several high-profile projects. One of which, was the 10,000-ton topside lift of the first gravity base of the world's largest offshore semi-submersible HVDC platform structure, DolWin beta. The massive structure was lifted a total height of 52.8 m from the bottom of the dock. The ambitious lift was part of the mating operation of the topside components with the unit substructure. The operation consisted of lifting the topsides via strand jacks and floating the substructure in the dock before carefully moving it under the lifted topsides. These were then lowered with precise guidance and subsequently locked with the underlying substructure. Dedicated teams from Drydocks World, Aibel, ABB and TenneT worked tirelessly for months to achieve this engineering and docking spectacle. "We have taken our engineering excellence to greater heights through this unique and remarkable feat," said H.E.Khamis Juma Buamim. "It is a significant first and speaks volumes of our strengths in terms of technical capabilities. I am sure that the future will bring even more challenging assignments and we will handle them with equal ease. This heavy lift is a hallmark anywhere in the world, and in our involvement with offshore projects. In the months ahead we look forward to greater achievements in our operations that will place us on par, if not ahead, with the best in the business."

Moving into 2014, Drydocks World is in a prime position with a strong order book throughout the year and beyond. Furthermore, the company can expect to expand its business following in-depth talks with Foresight Ltd to help the company develop its rig business. Commenting on this and the future of Drydocks World, H.E. Khamis Juma Buamim says: "We are delighted that more and more companies are acknowledging the emerging clout of UAE in the maritime and energy, oil and gas arena. We are emerging as a strong contender in building drilling rigs and jack-up barges for the offshore oil and gas sector, and have proven our mettle with some highly successful projects of great international significance in recent times. Moreover, there is sustained interest from companies across the globe in the world-class Dubai Maritime City, which holds a cornucopia of businesses with maritime interests, creating vital synergies for the growth of the industry, which is emerging from the global financial meltdown." OSC

> Its flagship Dubai shipyard is the largest facility in the Middle East and has developed a prolific reputation for its execution of new build projects, conversions and offshore construction

Drydocks World
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Services
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With 15 years of successful operation and a client base incorporating some of the most recognisable entities within the oil and gas market, Pipeline Technique has developed a commanding reputation for delivering world-class solutions in the field of subsea pipeline construction. Following its foundation in 1999 as a welding specialist in the niche area of automatic pipeline welding, it has gone on to deliver premier project management, engineering, fabrication, welding, testing and coating services for the offshore installation of J-lay, S-lay and Reel-lay pipeline projects.

Pipeline Technique was founded by individuals with significant experience of pipeline construction from engineering to commissioning. From their experience they identified the greater added value of automatic welding services to clients in a number of areas. The company has since worked to comprehensively deliver these services, and between its inception and the present day Pipeline Technique has enjoyed rapid growth.

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Today the company employs around 180 personnel and expects this number to expand as it moves into new geographical areas. "As the narrow gap automatic welding sector is a relatively niche market, the pool of people who are available to carry out the work is a relatively small group," says group commercial and business development manager Peter Coward.

Presently Pipeline Technique maintains offices and facilities in Aberdeen UK, Houston US, Perth Australia, KL Malaysia, Batam Indonesia and Porto Amboim Angola, which enables it to better deliver dedicated construction services to its global clients. Its customers include major industry operators such as Shell, Total, Statoil, Petrobras, Anadarko and BP. The majority of projects are performed together with its parent company Heerema Marine Contractors; however it does operate as an independent company to installation contractors such as Ceona, Saipem, SapuraAcergy & Monadelphous KT. Additionally the company can demonstrate an impressive portfolio of completed projects with references including Technip, Acergy, Helix ESG and Subsea 7.

Although the majority of the company's projects have been located in Western Europe, West Africa and the Gulf of Mexico the reach of Pipeline Technique's services are essentially unlimited due to the global coverage of its operating facilities. In addition to its UK, US and Asia Pacific offices the company is currently seeking to strengthen its relationships with clients in growth regions throughout the world. O&G

S/P/A WELDING SYSTEMS GMBH

S/P/A Welding Systems GmbH is a Munich based company, specialised in welding equipment for the pipe welding industry. Especially in the field of narrow gap welding, S/P/A offers a wide range of customised solutions. Using a high performance copper alloy, DHCA, in combination with special current insulating and spatter repelling coatings, the service life of MIG and SAW nozzles is increased and short arcs are avoided. Our worldwide operating customers appreciate S/P/A's flexibility, creativity and speed.

"We have currently established a partnership with the Brazilian company Ogramac, so we are focused on business development within Brazil," Peter elaborates. "With the Brazilian elections coming up in October we expect to see more investments within that region for 2015, 2016 and 2017, which could be very interesting for Pipeline Technique."

Since it was last featured in *European Oil and Gas Magazine* during February 2011, Pipeline Technique has continued to develop its manufacturing tools to enable it to deliver highly competitive solutions to the market place. Today Pipeline Technique is focused on further developing its welding technology with its HALO automatic welding system, and on expanding its footprint within the drill riser market. Engineers within the company's innovation department work in collaboration with the teams of its clients to offer market-leading welding solutions, and the HALO system provides solutions for ever-growing pipe diameters and lengths. The system has performed admirably on several projects and established a proven track record of quality, reliability and repeatability.

Peter says: "The HALO automatic welding system has worked well in several harsh environments. In Australia it was able to tolerate the heat and it has also demonstrated its ability offshore when we undertook a job offshore Vietnam, where HALO withstood a very hot and humid environment."

Pipeline Technique will seek to build on the reputation that it has formed through successful turnkey pipeline solutions throughout the world. Similarly it has a demonstrated capacity to deliver high quality drill risers for companies including GE and Cameron and hopes to expand on this market sector to strengthen its overall market position. "Our current core business is in pipelines, and although the market moves in peaks and troughs Pipeline Technique has remained at the forefront of that market. We are looking to further establish ourselves in the drill riser market where we can offer the same quality, productivity and reliability to our clients," Peter concludes.

OPTICAL METROLOGY SERVICES (OMS)

Optical Metrology Services (OMS) Ltd specialises in oil and gas pipe measurement systems and consulting services. OMS provides a range of services to Pipeline Technique, including pipe end dimensioning and fit-up. Automatic, laser-based measurement tools are used to measure the geometrical features of pipe ends, performed onshore or offshore. This data can then be made available to pipe optimisation software, which analyses, predicts and controls pipe fit-up, before the pipes are brought into the bead stall for welding. This averts production issues relating to poor fit-up and manages assembly of problem pipes to maximise weld productivity. Fit-up of double/quad joint pipes is also possible.

Pipeline Technique
pipelinewelders.com

Services
Pipeline and riser construction

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KH ENGINEERING

KH Engineering performed multidisciplinary studies for the expansion of Rubis. Within the project, KH Engineering created various budget scenarios, which are tailor-made to the desired business planning. KH Engineering has continuously provided the market with flexible and constructive solutions since 1949. With a group of 435 colleagues in the Benelux, KH Engineering accomplishes multidisciplinary projects for the production and process industry, ranging from initial concept studies to integral project management and accompaniment during construction.

The Rubis Terminal, formerly the Compagnie Parisienne des Asphaltes, was founded in 1877. The recorded storage capacity in 1992 totaled over a million cubic metres at its locations in Rouen and Dunkirk. The seafront location and connections to the main French pipelines offered major strategic assets for business development in oil products and chemicals on the French market. The Group is an independent, international operator specialising in the downstream petroleum and chemicals sector through two subsidiary organisations; Rubis Terminal, and Rubis Energie.

Between 1995 and 2002, the Group acquired almost one million cubic metres of additional storage in France by taking over strategic terminals in Brest, Saint-Priest, and Strasbourg Pétrole and the Propetrol Company. The acquisitions raised the total storage capacity to two million cubic metres. In a period of twenty years, Rubis Terminal had successfully become the number one independent operator in France and the fifth in Europe. As Rubis Terminal, the company maintains 2.6 million cubic metres of bulk liquid storage capacity across a total of 11 sites in the Netherlands, Belgium, Turkey and in France, where it is the largest independent third party operator. With headquarters in France, in recent years it has undertaken targeted growth outside its home market. In 2007, Rubis Terminal expanded with the formation of its Rotterdam terminal and then in Antwerp, the second busiest port in Europe, in partnership with the Japanese group Mitsui in 2010.

The facility in Rotterdam in the Netherlands is a new addition to the tank storage market. The busy port is Europe's biggest, and the third busiest in the world. Construction of the greenfield terminal began in 2007, with Rubis Terminal BV opening for business a year later with a storage capacity of just over 85,000 cubic metres. Since operations at the site began, its storage capacity has increased to 160,000 cubic metres, with much of this growth driven by the chemical side of the business. Implementing a development plan to substantially increase the capacity of the site to 300,000 cubic metres, phase one included the construction of a total of six tanks, consisting of four mild steel and two stainless steel tanks that are now fully operational. In preparation for phase two, the business acquired 4.5 hectares of neighbouring land, and with preparations to construct the first 14 tanks on the site, a completion date of early 2016 has been set.

As a specialist independent provider of storage and transhipment services for minerals and chemicals, its core products are chemical components and fuel oil. However, its jetty facilities and multimodal access to the site offer solutions for additional products. The relatively new terminal is equipped with state-of-the-art equipment, and with a fresh organisational approach, the business can undertake further added value services such as blending for fuel oil. The company is not the largest operator, and uses its size as a supporting angle to its customer service. With short decision lines, it is able to act quickly, delivering exactly what

the client wants in a very short timeframe. Committed to being a zero-emission terminal, it is regulated by a very strict environmental permit, ensuring that processes such as vapour recovery are standard for all products. The business is heavily focused upon safety in all of its operations, continuously upgrading compliance to the very latest standards, and it is this approach that ensures Rubis Terminal remains highly regarded in the industry.

Further afield, in January 2012, the group pursued international development acquiring 50 per cent of the Delta terminal in Ceyhan, Turkey. Major investments have been planned, increasing the storage capacity to one million cubic metres, as well as designs to construct a jetty able to receive Suezmax tankers. The joint venture in Turkey was made through the secondary arm of Rubis, Rubis Energie, an LPG and petroleum product distributor with a presence across three continents, where it specialises in niche markets.

In December 2013, Rubis announced that through another subsidiary Vitogaz Switzerland, the country's leader in LPG distribution, it was acquiring Multigas, a company specialising in the packaging and distribution of high purity ammonia and specialty gases with an additional presence in LPG cylinder distribution. With a strong reputation in this niche market, the profitable business extends and complements Rubis' LPG business. Due to the physical-chemical properties of these gases, the marketing imposes compliance with special safety requirements and the use of logistics tools is very similar to those needed for propane and butane. The acquisition broadens Rubis' portfolio, which could be extended to geographic areas where the Group is already in operation.

At a time of major changes in the European petrochemical sector, the strategically located terminals offer maritime access, with connections to the main networks of pipelines proving a major asset in the logistical chain for its industrial customers that wish to maintain and develop strategic models. Furthermore, ongoing investments and training programmes ensure the company continuously complies with ever-stricter regulations, providing the quality of customer service that is expected. As Rubis Terminal continues to grow in the field of chemicals and related products, it is also in a position to store niche products as required. As a demonstration of its adaptability, in 2013, the business recorded eight per cent growth across the group. The investments and plans for the immediate future demonstrate Rubis Terminal BV's confidence in the storage markets in Europe.

Local storage support is needed by fuel and chemical businesses that service northwest Europe, and as renewable forms of energy, such as biomass liquids, replace fossil fuels the business is ready to adapt to those needs. As a relatively young market player, the experience and mindset of the wider Group has been beneficial in helping build its reputation. Moving ahead, the company continues to promote itself in the industry by the speed with which it can provide tailor-made services and specialised solutions. One of the key aspects of the business is the focus on customer service, and the drive to find the optimal solution. Although target markets and content are subject to change, the aptitude of the business remains constant, with the ambition to remain a strong player in the tank storage market, growing alongside future opportunities as they arise. O&G

“Local storage support is needed by fuel and chemical businesses that service northwest Europe, and as renewable forms of energy, such as biomass liquids, replace fossil fuels the business is ready to adapt to those needs

Rubis Terminal
rubis-terminal.com

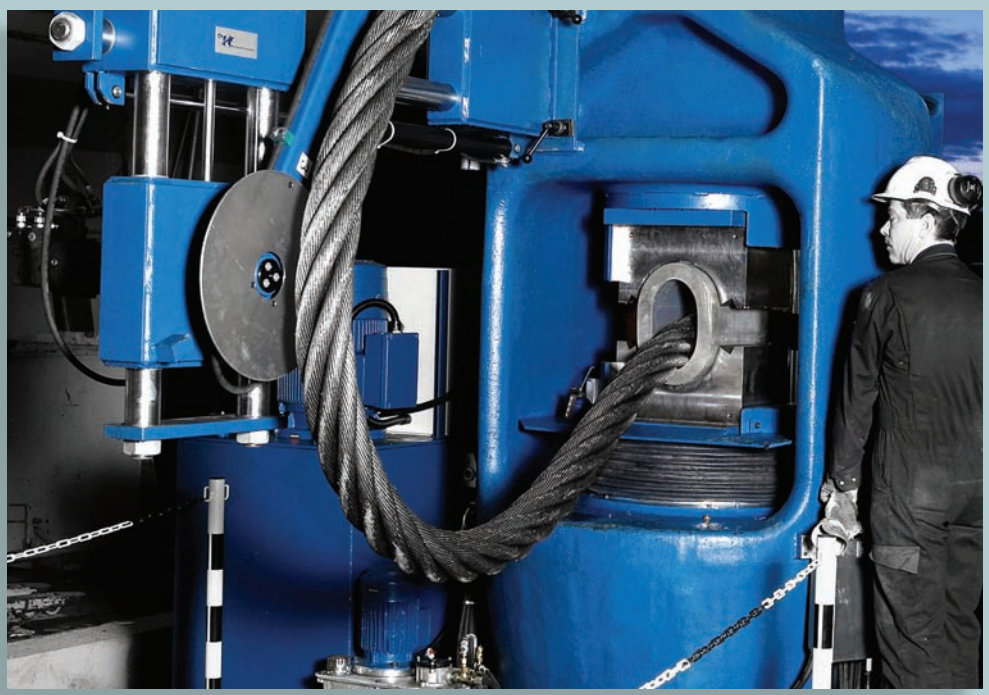
Services
Storing petroleum products, chemicals, agro products and fertilizers

Safety first

Originally established in 1997, Aberdeen headquartered First Integrated Solutions Ltd is a manufacturer and provider of five high quality safety critical services; Lifting Equipment and Inspection Services, Crane Maintenance and Management, Lifeboats and Marine Safety Equipment, Plant and Tooling and Winches and Deck Machinery. Designed to help customers enhance their safety levels, boost productivity and provide significant operational and fiscal savings, these services have been developed and improved throughout the company's history to ensure a superior integrated service offering. They were acquired by the First Group of companies at the end of 2013 and boast operations in Aberdeen, Great Yarmouth, Trinidad, Nigeria and Egypt.

Discussing the history and strategic developments of First Integrated Solutions with *European Oil and Gas magazine*, group commercial director Michael Gough states: "We were founded in 1997, initially under the name Global Lifting Services Ltd, and started life as a manufacturer of wire rope slings and assemblies, a supplier of lifting equipment and provider of inspection and test services. The company changed hands in the last quarter of 2011 and expanded its services during this short-term acquisition to include lifeboats and marine safety equipment as well as plant and tooling. Following fairly dramatic growth over the last two years, the company was acquired by Ian Suttie, owner of the First Time group of companies, which includes First Oil, First Marine and First Subsea. Ian came in initially in early 2013 as an investing shareholder, but across a complex process he acquired the remainder of Global Integrated Services at the end of 2013 and the company was rebranded to First Integrated Solutions during February of this year."

He continues: "Ian saw that, in terms of our company structure and global client base, we had considerable potential. We have one of the most respected and efficient rigging workshops in the country with the capacity to press wire ropes up to 128mm in diameter, a rare facility as only a handful of companies throughout Europe can offer that width of scope. Furthermore, we are DNV 2.7-1 type approved for the manufacture of wire rope slings. Above and beyond our strong manufacturing base, we have some of the most qualified and technically competent people in the industry working for us, including the heads of our five divisions who are some of the most respected people in their individual fields." OEG



With 105 employees in the UK, the firm is certified to BS EN ISO 9001:2008, BS EN 14001:2004 and OHSAS 18001:2007 with accompanying approvals from DNV, International Marine Contractors Association (IMCA), Lifting Equipment Engineers Association (LEEA) and Bureau Veritas (BV).

As a provider of safety critical solutions, First Integrated Solutions' core focus is on prioritising safety standards in all operations, a commitment that resulted in the company reaching a milestone of one million man-hours without an LTI in September 2013. "We are very proud of reaching this milestone; we have a strong work ethic driven from every level of management for conducting our business safely, our health and safety performance and our objectives are the first item on our agenda at every board meeting," says Michael.

First Integrated Solutions prides itself on its ability to proactively respond to customer and market demands; for example, being competent to offer a multi-skilled integrated service package to clients. "Effectively controlling an efficient supply chain can prove costly for our clients and being able to combine five product/service categories into one integrated offering can provide significant savings for these clients," highlights Michael.

Alongside the change in trading name, First Integrated Solutions has undertaken a complete corporate rebranding exercise and has secured new additional and strategic freehold premises on Broadfold Road, Bridge of Don, Aberdeen, which will enable the company to push forward with its expansion plans. The company will retain its existing works on Silverburn Crescent but has relocated all offices, training centre, lifting equipment and tooling workshops and lifeboat workshops to the new premises. On top of this, a new site has been secured on Harfrey's Industrial Estate in Great Yarmouth which will open in March and which offer all services to those Aberdeen clients operating in Southern North Sea as well as supporting fabric maintenance and wind energy clients located in the area.

Michael discusses: "The Great Yarmouth site is in the process of opening as we speak and will provide a rigging shop, a team of inspection engineers, a lifting and tooling inventory and hire fleet and also support services for lifeboats, winches and cranes from Aberdeen."

Having set the foundations for continued growth and expansion through the acquisition of new sites and the addition of new divisions and extra skills, the company is keen to continue offering customers an integrated solution while also focusing on organic growth and international developments, as Michael concludes: "We have a very aggressive business plan in place which covers organic growth as well some potential acquisitions to complement our existing services. We are also actively committed to significant international location development as well." OEG

As a provider of safety critical solutions, First Integrated Solutions' core focus is on prioritising safety standards in all operations, a commitment that resulted in the company reaching a milestone of one million man-hours without an LTI in September 2013

TALURIT GROUP

Talurit has been the pioneering company in the field of mechanical splicing since the company was established in 1948. Talurit splicing systems and related machinery are manufactured to the highest standard and are used for the offshore market worldwide. Talurit has been a full mechanical splicing system supplier to First Integrated Solutions for many years.

Talurit is delighted to have supplied First Integrated Solutions with the largest swaging press in the UK. Capable of swaging up to 6" diameter wire rope.

First Integrated Solutions Ltd
firstintegrated.co.uk

Services
Manufacturer and provider of safety critical services

Clean spirit

Batrec Industrie AG is a recycling company headquartered in Switzerland and operating on a worldwide scale. Focused on the economic, environmentally friendly and sustainable disposal of hazardous waste, it has specialist interest in batteries, mercury and the reactivation of carbon. Twenty years ago Batrec entered the market as the first battery recycler in the world, and remains the technology leader. Although today, batteries are free of mercury, at that time the product contained 500ppm, and a process was established to recover that mercury. This led to the construction of the mercury-recycling centre, and the beginning of the company's interests in the specialist field.

In November 2011 the company made a large 12 million euro investment into a new plant focusing on the removal of mercury. The element is present in many of the world's natural gas fields and process plants with brazed aluminum heat exchangers, including LNG facilities and nitrogen rejection units, which are particularly susceptible to corrosive attack by mercury, and assets often require a complete removal of mercury as a result. As a solution, a mercury guard acts as a capture agent, absorbing the

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For further information please contact:

David Snodgrass
Managing Director
No Heat Resources DMCC
Middle East & North Africa
HEAD OFFICE UAE: +971 (0)50 3513860
Australia +61 (0)426117498
Oman +968 97103966
dsnodgrass@no-heat.com

Andrew Holmes
Corporate Legal
No Heat Resources DMCC
(971) 50 6355793 (Mobile)
(971) 48848873 (Office)
anaruholmes (Skype)

RISAL Saudi Arabia
Mark McSorley
General Manager
Tel: +966 (0) 138343343
Mobile: +966 (0) 504841062
Fax: +966 (0) 138342937
Email: markmcsorley@risal.com
www.risal.com

Oman Industrial Coating Centre L.L.C
Sivaraj - Contracts Manager
T+ 968 22004623 | F+ 968 24698413
GSM +968 94053301
PO Box 1160, Ruwi, P.C. 112,
Sultanate of Oman
sivaraj@oiccoman.com

No Heat Resources

> The company has established plans to increase the size of its plant further and produced designs that increase the capacity for the mercury process from 1000 to 3000 tonnes, and to double the capacity for dealing with activated carbon to 6000 tonnes

mercury from the natural gas in production.

"We treat batteries from the Swiss market and special batteries from abroad that are high in mercury. We are also able to process and treat lithium batteries. It is common in drilling devices and primary lithium batteries throughout the oil and gas industry and represents a big problem," explains managing director Dieter Offenthaler. The company's main partner in the mercury removal process is Johnson Matthey, a leading specialty chemicals company. "We developed the plant and capacity together with Johnson Matthey, who were the first ones to bring the product to market. It has been a growing partnership since the beginning. They deliver all their guards to our plant, where we decontaminate and recover the mercury before the next stage of the process. We are able to deal with every kind of mercury waste coming from the petrochemical industry," he continues.

Batrec has interests in the reactivation of activated carbon from wastewater treatment or air purification applications. The product is decontaminated, reactivated and put back on the market. "We are also capable of treating mercury-contaminated carbon and are recognised as the only plant in the world able to reactivate this kind of spent carbon," says Dieter. The business is focused on the highest quality, safety and environmental standards. The hazardous waste is turned into valuable raw material that can be returned to the production cycle.

"Our main market, particularly for activated carbon is central Europe as the transportation restrictions do not allow a larger footprint. However, for mercury and mercury loaded carbon, our market is worldwide. As well as our partnership arrangement with Johnson Matthey, we also work directly with the big petrochemical companies. Although our competitors have larger capacities, our plant is specifically designed for the treatment of mercury guards, and we can guarantee the lowest mercury content in the output material, as well as handling the sulphur products that are associated. Importantly we can give a second life to the carbon from mercury-loaded carbon," Dieter points out. O&G

MERCURY MATTERS

Everyone's favourite in science class and a potent medicine in a number of regions, mercury has enjoyed a place in our society since the pre-historic era. However, the effects of mercury on human, health, the environment, oil and gas infrastructure and product have until recently been overlooked.

The dangers of mercury stem from the toxic vapour it emits at room temperature and above. Approximately 70 per cent of inhaled mercury vapour is retained by the body. Mercury vapour enters the blood stream and is able to cross the blood brain barrier with harmful long-term effects.

For members of the oil and gas industry, this poses a serious issue. Mercury imbeds itself in steel and collects in volume in various parts of oil and gas infrastructure. This contamination results in health and safety issues for all those persons downstream of the wellhead and mercury remaining in the product can be a source of contention with customers.

Fortunately, within those areas traditionally affected by mercury (Mid-East, Asia, Australasia) there is a new focus on the management, reduction and disposal of mercury with discussion and action being undertaken at all levels including sales, HSC, and turn around/ shutdown.

Initiatives that deal with the mercury problem include the expanding use of Mercury Recovery Unit's (MRU) and absorbent beds along with comprehensive & periodic mercury decontamination of oil and gas infrastructure.

Petroleum Development Oman (PDO) is the Middle East Region's leader in discovering, mapping, capturing and disposing of mercury across its oil and gas plants. Over the past few years PDO has developed a sophisticated 'Mercury Management Plan' and has outsourced the implementation of such plan as part of its overall plant maintenance contract to Oman Industrial Coating Centre (OICC).

Instrumental to the effectiveness of the Mercury Management Plan is the combination of certain mercury fighting chemicals supplied under contract by Dubai based mercury decontamination leader, No Heat Resources DMCC.

The below represents the two chemicals most commonly used under PDO's Mercury Management Plan.

MeDeX 80, a chelating agent able to remove mercury from the atmosphere and convert it to a mercury salt in water. MeDeX 80 is a water-based chemical that is biodegradable, non-toxic, and non-corrosive.

HyDeX 100, a specifically formulated chemical that eliminates toxic gases and hydrocarbon vapour during plant turnaround and storage tank decontamination. It is effective across all temperature ranges. HyDeX 100 is water-soluble and contains an alcohol ethoxylate based compound with special enzymes cultured in the complex detergent system. It is effective in removing contaminants produced by various systems in oil/gas production and petrochemical plants. It is fast acting and works by converting hydrogen sulphide, carbon dioxide, benzene and hydrocarbon vapour into water-soluble compounds with very low Chemical Oxygen Demand (COD).

No Heat Resources has been working with PDO and OICC since the inception of PDO's Mercury Management Plan. Along with the supply of its unique mercury fighting chemicals, No Heat Resources assists producers and refiners to develop workable mercury removal procedures taking into account the clients location, climate, diversity of the workforce, HSC and other factors.

> Our main market, particularly for activated carbon is central Europe as the transportation restrictions do not allow a larger footprint. However, for mercury and mercury loaded carbon, our market is worldwide

The operational success of the new plant has been a major milestone for the business over the last 24 months. The scale-up investment was made around the pilot furnace in the battery plant, and was fully designed by its own engineers. Operational for a period of two years, it is now performing at full capacity and the business has eliminated the initial glitches. For a business that has a turnover of 15 million euros, the 12 million euro investment was particularly important. "It is a growing market as the catalyst is becoming more common. It is a significant issue for the companies that have mercury in natural gas.

"The biggest challenge that we are confronted with is not a technical one. It is to build trust with customers across numerous regions such as Asia, Australia and Latin America, and to move the waste from those locations to our plant. We have recently been dealing with imported material from Oman, which was the first importation from a Middle Eastern country. We have been confronted with numerous paperwork issues and developing solutions to

difference maker

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address the competence in shipping, negotiation and communication with the authorities. We fully take care, on behalf of the customers, of all the necessary paper work to legally export waste around the world to our plant. To better attend, commercially and administration wise all these challenges on the benefit of both its customers and Batrec, an experienced work force has been contracted recently, " says Dieter.

As a technologically driven business that operates in an extremely niche market, its competence and know-how is in-house, and as the business grows organically it passes this knowledge across the spectrum of employees. The company has established plans to increase the size of its plant further and produced designs that increase the capacity for the mercury process from 1000 to 3000 tonnes, and to double the capacity for dealing with activated carbon to 6000 tonnes. Dieter explains: "We can add another two furnaces with a very small investment, tripling the capacity for mercury. It is a reaction to what the market is demanding. Mercury is a growing issue that represents the future for our business. Our main focus is to provide a mercury solution for the petrochemical industry, so our next step is looking towards ensuring that investment permission is received for increasing the capacity."

European legislation prohibits the export of mercury and stipulates that liquid mercury coming from the petrochemical industry in Europe must be safely stored and not sold on within Europe. However, as a Swiss based organisation, Batrec is not part of the EU, so it can sell the recovered mercury into allowed uses. "We are however, governed by what our customers choose, and for the customers that request it, we offer a stabilisation solution to

them, transferring the mercury into an amalgam or sulphide prior to reaching a dedicated landfill salt mine in Germany. So for our clients requiring the mercury to be safely withdrawn from the market, we can offer this, or if desired, we can also reuse it in safe and accepted forms. Our long-term vision is to significantly grow within the mercury market and to be recognised in the petrochemical sector and in the industrial world in general as a mercury specialist. Technically, we are capable of covering the full range of mercury issues for our customers, and as we increase our capacity we can become a major player in mercury recycling for the industry.

"We are part of Veolia group and as such are able to offer the full package for the petrochemical industry. We have a very close relationship with Veolia ES Field Services Ltd. in the UK, which is a specialist in handling, transporting and treating hazardous waste from anywhere in the world. Working together we are able to provide customers with a full package service that includes the labelling, containerisation and transportation of the material to our facility, which essentially eliminates the requirement for hands on involvement by the customers," Dieter concludes.

SAFI

SAFI is specialised in corrosion-resistant thermoplastic valves solutions. For more than 50 years it has supplied innovative solutions for highly demanding and hazardous industries including water treatment, chemical, nuclear, marine and logistics

SAFI's long experience has lately served Batrec for its high-tech battery recycling plant (Switzerland). Such process includes pyrolysis and melting (1500°C) in bases (cadmium, mercury or nickel) and therefore needs high quality and reliable products. SAFI provided manual and actuated ball, butterfly, non-return valves, and dampers in PP, GRPP and PVDF offering lifelong corrosion free service.

Batrec Industrie AG
batrec.ch

Services
Recycling of batteries, mercury and carbon reactivation

Products for life

Viper Subsea was founded in 2007, offering consultancy services to the subsea controls and umbilical market. With 24 years of experience in the industry, managing director Neil Douglas was one of three founding members. Outside of the consultancy services, the focus of the business was on the design and supply of subsea equipment for the distribution of electrical power and hydraulic fluids. "All profit was re-invested into the business and has been ever since. Our focus is on technology and product development, and as a business we are recognised as being innovative in the subsea domain with a total of 14 individual patents filed. As the business developed we moved from operating as a consultancy and hardware supplier to providing integrity management services of subsea control systems. We provide engineering support for a number of subsea control systems in the North Sea, and to strengthen this service, some of our most recent product development has been in the integrity management of subsea hardware," explains Neil.

The business launched its first product, the V-LOCK hydraulic stab plate, into the market in 2010. Commercialisation of the V-LOCK and a variety of other products has driven an impressive 40 per cent year on year growth. The outlook is even greater, as Neil says: "We are expecting to improve on that growth rate as we realise the early investment in product development. By defining challenges faced by the industry we have been able to generate solutions to those problems. Rather than coming up with an idea and then trying to find an application, we focus on real problems and develop the technology to resolve them. A high percentage of our personnel are engineers recruited for their innovative ability. We are also working closely with universities. This year we will open our own electrical, hydraulic and mechanical workshop, having already secured the facilities. This workshop will be focused purely on research and development activities."

Whilst Viper Subsea is a relatively young company, the individuals within have a lot of industry knowledge. Its team have experience and close relationships with tier one vendors and operators, subsea production system providers and EPC contractors, as Neil explains: "We regularly get exposed first hand to problems and we aim to generate a resolution. Of

course, we accept that there is not a solution to every problem but this approach has put us in good stead for our products." One of the biggest challenges the subsea industry faces is water ingress into electrical components and cables, initiating the failure of equipment. The commercial consequences can be extensive with time spent in subsea interventions and possibly loss of production or early field abandonment. Historically, once equipment such as a subsea umbilical has suffered water damage, there has been no option other than to replace at high cost and loss of production.

"We decided to work on the basis that water will eventually, despite precautions, ingress into the electrical components, and assessed what we can do to mitigate the effects. Having generated a number of ideas, we concluded the best solution was V-LIFE. It is a scientific breakthrough in terms of the technology used," Neil highlights. Acting as a preventative measure and an active healer to low insulation resistance, it deploys an electro-kinetic and electrochemical process that minimises the effect of water ingress. "We have had a 100 per cent success rate on all our installations and it has saved our clients from installing new umbilicals, and bringing production back on line. In over 20 years of subsea technology development this is probably the most exciting technology that I have ever

been involved in in terms of its impact to the industry," he adds.

In a press release in March 2014 Viper Subsea announced the signing of a Joint Industry Project (JIP) agreement with energy giants BP and Total to further develop its Subsea Line Insulation Monitoring (V-SLIM) Technology for identifying and locating cable and connector faults in remote subsea electrical distribution systems. "This has been facilitated by the Industry Technology Facilitator (ITF) and the Regional Growth Fund. Development of the next generation of subsea integrity monitoring equipment is underway and field trials targeted for 2015," reveals Neil.

The business applies in the region of 30 per cent of its engineering effort into R&D, equating to 12 per cent of its revenue. Neil explains that reinvestment is the underlying reason for success: "It is a significant investment and because we are a small company it enables us to be dynamic, flexible and deliver new solutions far quicker than our larger competitors. We continue to supply services and products to an array of clients, and through delivering these on time we have built up a positive reputation."

With much of its hardware targeted at new green-field products, its focus now is on asset integrity. Supporting and maintaining the equipment already installed, pursues an active revenue stream and its broad product and service range mitigates the 'peaky' revenue challenges faced by other companies. "We are looking at another year of significant growth in sales and project delivery, which will intensify our financial position and personnel numbers. The growth we are seeing now is from the products we have taken to the market a couple of years ago. It is essential to keep the pipeline of products developing to continue growth," Neil concludes. OEG

Above
Neil Douglas, managing director Viper Subsea

Viper Subsea
vipersubsea.com

Services
Innovative engineering products for subsea

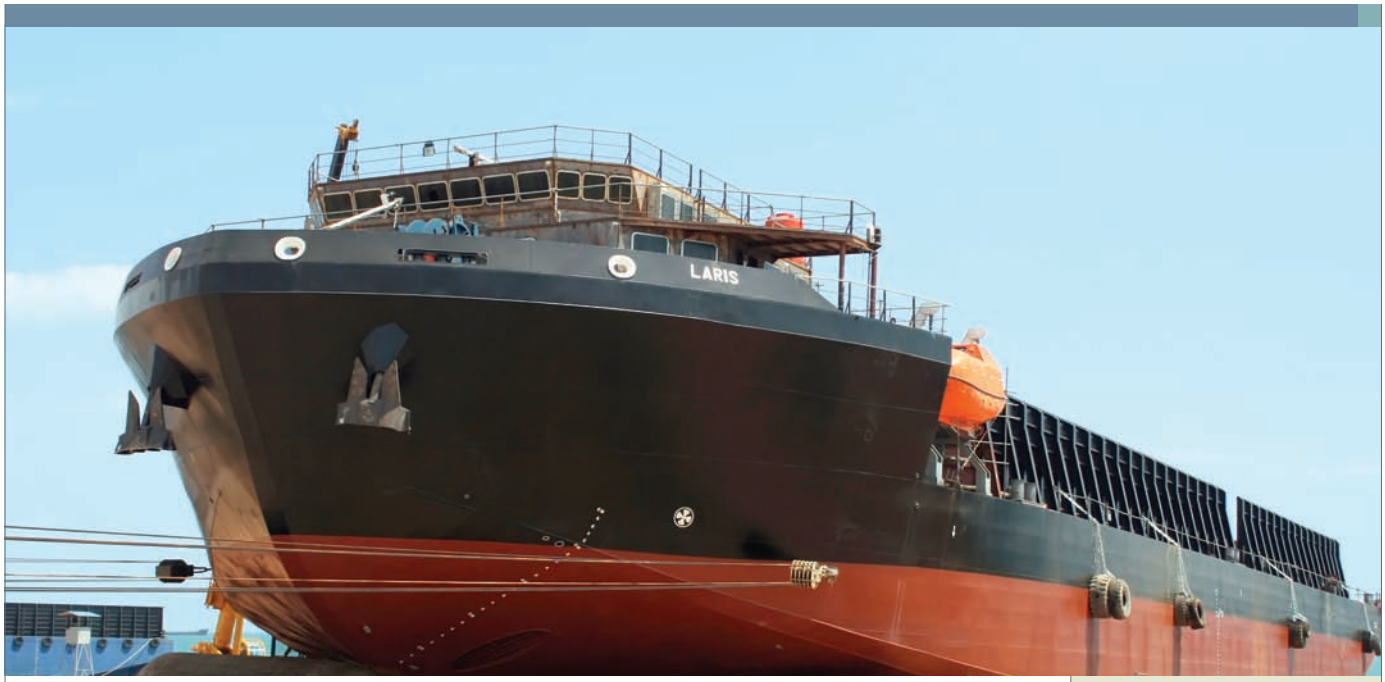
Impressive growth

PT. Anggrek Hitam was established in 2008 as a subsidiary of Holotan Pte Ltd (Singapore) to develop a shipyard, which it now owns and operates. The development of the shipyard commenced in 2008 when the company acquired roughly ten hectares of land on Batam Island, near Singapore, that had a deepwater frontage of 300 metres.

Over the last six years Anggrek Hitam has constructed a modern, highly effective shipyard comprising of workshops, offices and jetty. The shipyard is designed for a production output of 25,000 tonnes of steel each year and its facilities have been calibrated for the construction of self-propelled deck carriers up to 20,000 DWT, as well as floating cranes. Batam Island is the ideal location for Anggrek Hitam's operations, being located only 20 km from Singapore and having been declared a Free-Trade Zone in 1989, which has seen subsequent major industrial development.

In addition, the company benefits from being part of the logistics hub of Singapore, from which it can source expertise and equipment quickly and efficiently. Anggrek Hitam currently owns 26 years' leasing over the land in Batam, which is due to expire in February 2034, but can be extended for a further 20 to 30 years. The business uses local expertise throughout its company, which has created a team that consists of great people with great dedication. This allows it to tackle and solve any challenge a customer may present.

The company specialises in the building of a variety of ship and marine solutions, such as floating cranes, accommodation barges, work



barges, tug boats, self-propelled barges, and supply vessels. Although it is yet to complete a decade of operations Anggrek Hitam already boasts an impressive project portfolio in the ship-building arena. For example, in 2009/2010, just a year after it was established, the business completed the construction of three deck cargo ships – the Laris, Laju, and Lurus. Weighing 10,000, 12,000 and 15,000 DWT respectively, these vessels were a significant project for the new business, all completed successfully and delivered to clients. Boasting two 1998 bhp engines and designed to BKI and ABS class, the vessels were capable of a range of operations offshore.

Floating cranes is another area in which Anggrek Hitam specialises, and in 2011/2012 the company completed the construction of the Quito Tarakan 1, a floating crane on a pontoon measuring 55 x 24 metres. The crane on this unit is a Liebherr 25T @ 40 metres crane, and the vessel is fitted with two 800 KW engines for optimal performance. The Quito Tarakan 1 is capable of accommodating 40 men when working operationally and is designed for GL class operations.

Most recently the company has been working on, and subsequently completed the construction of the Pelangi Escort-2, an advanced anchor handling tug supply vessel (AHTSV)of ABS/BKI class. Equipped with two 2575 bhp engines the Pelangi Escort is capable of 60 tons bollard pull and speeds up to 30 knots, whilst accommodating 40 men in very high standards.

The company's in-house integrated workshop means it is able to carry out all operations in one place to ensure minimal delays and disruption. To maintain these standards Anggrek Hitam regularly invests in the latest technology and equipment throughout its facilities, including:

- Four building berths
- Large fabrication areas
- CNC plasma cutting machines
- Auto-blasting and shop priming workshops
- Bending machine
- Numerous cranes from seven ton lorry crane to 100 ton mobile cranes
- Stick welding machines
- Automatic welding machines
- Automatic cutting machines
- MIG welding machines
- TIG welding machines
- Two units of flashing modules

Through this investment the company is also able to offer a range of ancillary services aside from ship building and ship repair projects. These include steel cutting using plasma cutting machines, which gives the company a capacity of 1000 tons per month output. It also offers steel painting and blasting to clients as well as steel bending services.

Despite being a young company Anggrek Hitam has developed at an impressive rate during its short operational life. Situated in an ideal location, particularly as the growing industrial market in and around Singapore presents a number of exciting new opportunities, the company offers an ideal regional partner for companies requiring ship building and ship repair services in the marine and offshore industries. O&G

HEMPEL ASIA PACIFIC

Hempel Asia Pacific covers all of South East Asia, including Australasia, Indonesia, Malaysia, Singapore, Taiwan, Japan, Korea, Vietnam and China. Hempel Asia Pacific supplies quality coatings through three factories in China and factories in Singapore, Malaysia, Indonesia and Vietnam. With our large production and distribution network, Hempel Asia Pacific is able to supply to all countries in the region. The progressive and significant investments made in this region over the years illustrate Hempel's belief in the potential and growth of its Asia Pacific market.

Pt Anggrek Hitam
anggrekhitam.com

Services
Ship building, ship repair and marine services

Your flexible service partner

In 2006 a group of individuals with more than 20 years of industry experience saw that the conditions were right to establish a new venture that would service the growing pipeline and process sectors within the oil and gas industry. This resulted in the birth of Pipeline Nitrogen Services (PNS) a merger between itself and its partner company Coil Services BV in 2009, PNS BV today boasts more than 350 employees worldwide and an excellent reputation for safety, efficiency, innovation and quality.

The company is today part of Well Services Group BV and provides a comprehensive portfolio of services that extends into process-, pipeline-services, bolt working, on-site machining and LNG services. This includes pigging, chemical cleaning enhanced reactor cool-down and Pipeline Hydrostatic and strength testing, as well as many other services.

"We constantly focus on new services to support our clients in the best possible way, which has resulted in a new joint venture for Mercury Solve solution. The objective is that in 2014 the first Mercury projects will be performed and we expect a huge demand for these services in the future.

"The development of the company and the services that PNS provides has been a steady response to the changing demands of the oil and gas sector as a whole," as general manager Michael Dufrasnes elaborates: "With the demand for further efficiency and new technology there have been some significant changes in the oil and gas industry and the need to develop new ways of working and types of equipment has been great."

As such, from its very beginning the company has worked to ensure that it provides the targeted services that its clients require, as Michael observes: "PNS has dealt with pipeline and process services since the company began, however in 2012 we decided to enhance the deviation between pipeline and process services, because we often see that companies will look for targeted services in each area. In terms of quality, we do not want to be the company that is the cheapest option, as sometimes the company that is the cheapest is not the most cost-effective option in the long-term. Even if your operating prices are not the lowest, you can still be the cost efficient option if you do a proper job and understand fully what needs to be done. More clients see the benefits of our approach, which result in long-term relations for the future and give us the ability to support the client on a tactical level."

This philosophy has enabled PNS to cultivate an impressive reputation and track record with major clients in Rotterdam, the North of Holland and many offshore clients in the oil and gas industry. Furthermore, the company has recently invested in new facilities at Rotterdam's

Europoort to enable PNS to better serve its customers from one of Europe's major entry points, as Michael explains: "Europoort is a good location as we are in the centre of the port area where there is a lot happening with operators, tank terminal, the refineries and petrochemical plant. The complete Rotterdam upstream industry is connected with pipelines from the Maasvlakte to Europoort and Pernis and eventually to the end clients like Schiphol for the supply of jet fuel."

As well as its strong presence throughout Europe PNS boasts a truly global footprint through its network of bases and support offices, including those provided by the autonomously operated PNS Asia Pacific subsidiary. PNS currently maintains key locations within the Netherlands, UK, Germany, Italy and Singapore as well as sales offices registered worldwide. While PNS UK and PNS Asia continue to operate independently through a firmly developed relationship with local engineering talent, PNS Continental Europe will look to Turkey as a possible area for further growth, as well as at strengthening its operations in Germany. "Turkey is a growing market and is well located as it is right between Asia and Europe, and also next to Kazakhstan and Russia," Michael says. "Within Europe we tend to focus on the offshore side of pipeline services because unlike some of the larger competitors, we can be quite flexible so we can transition between onshore and offshore projects in the North Sea, for example. On the continent there are a number of smaller, flexible competitors so we do a lot of offshore work in conjunction to inland pipeline services. Germany is still a growing market and we would like to further focus there as we are keen to be active wherever there is potential to grow."

The flexibility enjoyed by PNS is one of the strengths that have enabled the company to weather the onslaught of the volatile global economy and changing market conditions. "Within Europe refinery capacity is going down, because you see that in other areas of the world companies will build their own refineries and bring their product to Europe, rather than European operators refining the product," says sales and marketing manager Mick Modderman. "This has an influence on our work, but the other side is that we see a lot of development in small wells where large operators sell their plots and smaller companies move in and make them successful. In producing more oil and gas they need their pipelines to be in good shape so we do a lot of work with them. We also do a lot of work with installations throughout the whole of their life cycles, so when companies like BP do renewals we are able to service them."

As 2014 reaches the conclusion of its first quarter PNS will remain focused on steady growth and maintaining close longer-term relationships with clients old and new. Throughout the year and beyond the company will be engaged in the development of technologies for niche markets as well as considering further moves into global markets including Saudi Arabia and Abu Dhabi. With a broad base of diverse, steady growth the future of PNS is set to be very exciting indeed. O&G

> The flexibility enjoyed by PNS is one of the strengths that have enabled the company to weather the onslaught of the volatile global economy and changing market conditions

AIR LIQUIDE GROUP

The Air Liquide Group is a world leader in gases, technologies and services for industry and health. The Benelux organisation supplies its customers in extremely diverse industries. Its specific OPEX team (EXceptionnal OPerations), has the know-how, expertise and assets needed to carry out exceptional projects. Spot deliveries of liquefied air gases are one of its core activities.
As PNS provides services in the pipeline and process industry, it frequently needs nitrogen deliveries. The safe, reliable and accurate on time liquid nitrogen supplies make Air Liquide a privileged partner. Our common vision on excellence and safety is key for our customers.

PNS Nitrogen Service BV
pns-services.com

Services
Process, pipeline, LNG and bolting services

A maritime and logistics partner

With roots dating back to 1825, Ben Line Agencies Limited (BLA) has proven itself a robust and versatile partner to its clients, enabling it to deliver a comprehensive range of services across several key divisions within the shipping and oil and gas industries. The company has survived the ravages of two world wars and the challenges of the volatile marine marketplace to become a leading round the clock marine service provider.

Today BLA operates exclusively within the Asian market and is the shipping services partner of choice to many within the region. With over 180 years of experience and a dedicated network of offices throughout the Asian region, the company delivers an extensive portfolio of services to clients from over 110 offices in 16 countries. Its divisions are comprised of liner agency, port agency, offshore support services, project logistics and broking services. BLA's success is further strengthened by working relationships with the InterBulk Group and the Port of Houston Authority, which are designed to mutually consolidate the footprint of each respective partner.

Since BLA was last featured in *European Oil and Gas Magazine* during 2013 it has continued to strengthen its operations by further developing the portfolio of services that it provides. March 2014 saw it officially open its new ship broking and commercial services division at its Singapore office. Similarly the company's reach has also been expanded with a new setup unveiled in South Korea including

offices in Seoul and Busan, which are able to offer supporting services to all of the major ports within the country. In addition, BLA has increased its footprint significantly with two new office openings in India, as director Kristian Vandermeer elaborates: "The new office at Surat is to cover the Gulf of Khambat region, which has gas, chemical, bulk and project terminals between Hazira and Dahej. The expansion of the LNG terminal at Hazira is a landmark development and 2014 is likely

to mark the renewal of serious exploration and production in existing and new oil and gas fields on both coasts of India, with new blocks likely to be announced."

Within the oil and gas sector generally the company's offshore operations team provides specialist marine agency and logistics support services to some of the market's most recognisable operators. At present BLA is supporting sizable projects with Subsea 7, Prysmian, Polarcus, Leighton Offshore and McDermott. Drawing on its previous experience as a drilling contractor the company is able to meet the unique requirements of the oil and gas sector with services varying from arranging operational permits, bunkers and fresh water, crew handling, work permits, rig towage services, surveys, helicopter charter arrangement and spares delivery amongst many other operations. As such, BLA is prepared to deliver the required services to operators as the oil and gas market within Asia continues to develop. As Kristian observes: "We continue to see increasing levels of enquiries and activity in Southeast Asia, particularly in Indonesia, Thailand and Malaysia, as well as large mobilisations and demobilisations in Singapore. Myanmar is another country where more and more enquiries are being fielded. The country is opening up to foreign investment and although developments are moving slowly, we expect to see strong growth in the level of offshore oil and gas work in the coming years, with the 19 deepwater and 11 shallow water blocks that are up for tender now."

From an organisational point of view BLA has taken steps to ensure that it is fully integrated with the wider maritime community. Similarly it has striven to further enhance the cohesion between its separate divisions. At the beginning of 2014 BLA joined the Maritime Anti-Corruption Network (MACN) as an associate member. "MACN is a global business network of major vessel owners and other companies in the maritime industry working towards a maritime industry free of corruption," Kristian says. "Ben Line Agencies takes compliance and proper business ethics within our business very seriously and we have found that MACN has provided us with a very effective way to engage in some collective action on such issues, whilst also allowing for best practice sharing and incident reporting amongst a group of like-minded companies.

"In order to better realise the synergies between our main divisions, we now have a director in charge of these products, effective from Q3 2013. This new position reflects the growing demand in the market for integrated shipping services, and we as a company have been tasked with ensuring that our service offering across the various divisions is co-ordinated, with a more consistent level of service being delivered across the company's entire network," he continues. "We expect to see further growth in our one-stop-shop solutions within our marine agency and logistics services. Retaining our flexibility to offer tailor-made solutions to our customers is paramount to our business strategy, and being able to offer a cost efficient and high quality service is key to our further growth in this area. BLA will always retain a long-term view of our business relationships with our customers and this will guide us in ensuring a high rate of repeat customers." OSG

> With over 180 years of experience and a dedicated network of offices throughout the Asian region, the company delivers an extensive portfolio of services to clients from over 110 offices in 16 countries

Ben Line Agencies Limited
benlineagencies.com

Services
Specialist marine agency and logistics support

Ocean of opportunity

Established in 1983, the legacy that is the PaxOcean Group today has spent the last 30 years enhancing its services to become a leading international player in a wide range of sectors; these include offshore and engineering, ship repair and maintenance, shipbuilding and conversion, rig building and refurbishment, offshore fabrication, FPSO/FSO conversion, maritime clusters as well as dedicated offshore platform facility fabrication. A subsidiary of Kuok Singapore Limited following a 67 per cent acquisition of DDW Sea by Pacific Carriers Limited, the organisation has enjoyed healthy growth over the last few years and boasts facilities in both North Asia and Southeast Asia.

The PaxOcean group comprises of six facilities; these include its main facility in Singapore, the three facilities in Batam, Indonesia, and two in China. The yards are strategically positioned along the major trading routes from North Asia to Southeast Asia. These locations offer shipowners and managers a wide range of choices to suit their trading patterns and minimise their downtime for drydocking and repairs.

PaxOcean Zhoushan is a mere 27 nautical miles from Yangshan Port, Shanghai, and is easily accessible from Busan, South Korea as well as Hong Kong and Japan within three sailing days. Measuring 400m by 106m, PaxOcean Zhoushan has one of the largest graving docks in the world and has successfully docked jack-up rigs and ultra-large container carriers for customers such as APL, UASC, COSL and the Shanghai Offshore Group. PaxOcean Zhuhai itself is an ultra-modern and well-equipped facility specially designed for the construction of specialised offshore vessels.

As four of Southeast Asia's premier shipyards, PaxOcean Graha, PaxOcean Nanindah, PaxOcean Pertama and PaxOcean Singapore have collectively built and repaired over 2000 vessels.

Boasting an impressive track record of offshore newbuildings, the PaxOcean Group has delivered 13 jack-up rigs, liftboats and tender barges with two more GustoMSC CJ46 rigs due for delivery in 2015; and over 130 anchor handling tug supply vessels and offshore support vessels.

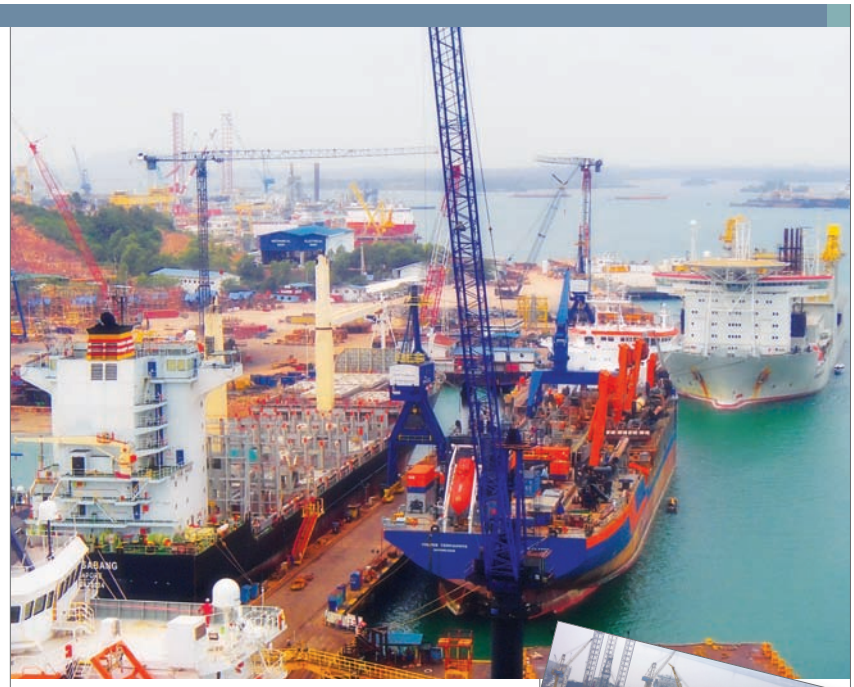
Starting with the delivery of 17,864 BHP anchor handling tug supply vessel Pacific Defiance in February 2013, the company launched sister vessel 17,864 BHP anchor handling tug supply vessel Pacific Discovery in the final quarter of 2013 at the group's Singapore facility in Tuas. Both vessels are built

to class ABS, are Singapore flagged and have been designed and constructed with advanced technical capabilities that can support the very latest generation of semi-submersible rigs. Equipped with DP2 systems and a maximum bollard pull of 230 tonnes, the vessels have a clear deck space of 650 square feet and offer versatility, safety and flexibility through added features such as 500 MT RRM Brattvagg winches, the latest dynamic positioning technology and anchor recovery frame. A major success, the project has recorded an impeccable record of zero LTI to date.

In 2013, PaxOcean Zhuhai delivered four units Rolls Royce UT755CD DP2 platform supply vessels along with one unit 8,000 bhp AHTS and eight units ASD harbour tugs of up to 4,400 bhp. Currently under construction at the facility are three units 88m light construction vessels with 238-man accommodation capacity; with the third unit additionally equipped with Active Heave Compensation (AHC) on a 100-tonne crane, a moon pool and a High Precision Acoustic Positioning (HiPAP) system. Also on track for delivery between 2014 and 2016 are another six units ASD harbour tugs, two units 8,000 bhp anchor handling tug supply vessels and one unit 70m diesel electric DP2 platform supply vessel.

PaxOcean Zhoushan is building two units of semi-submersible accommodation vessels (SSAVs). When completed by the end of 2014, the DNV-classed SSAVs are capable of accommodating 750 personnel in 390 cabins with the highest comfort Class COMF-V(2), COMF-C(3). The SSAVs are powered by eight units of generators producing over 30MW electricity and nine units of thrusters with DP3 capability. The 38 metre +/- 8 metre telescopic gangway coupled with RFID technology allow for state-of-the-art walk to work capability. The two large offshore cranes of 150 mt and 100 mt SWL provide ample heavy lifting capacity for offshore maintenance, hook-up and commissioning work.

In addition, the PaxOcean group has successfully launched the 115 metre freezer trawler vessel Mexahuk Cepteu Atanob in August 2013 for owner Robinzon Ltd. Built to DNV class, the vessel launch took place at the PaxOcean Nanindah yard in Batam. Newbuild deliveries in 2013 include two units anchor handling tug supply vessels, of 12,000bhp and 9,000bhp. Other notable projects currently being completed include the conversion of



livestock carrier Awassi for Al Khalaf Trading & Transportation and construction of the state-of-the-art compact semi-submersible offshore vessel CSS Derwent for Hallin Marine. The CSS classed by American Bureau of Shipping, is equipped with four fixed-pitch Azimuth thruster units and full DP3 capacity, which enables automatic as well as manual dynamic positioning and heading control in harsh environmental conditions, and has a multiple inherent fail-safe capability. Designed by STX Canada Marine Inc, the CSS vessel has a semi-submersible hull making it a cost-effective alternative to large diving support vessels (DSV) and traditional semi-submersibles in providing subsea services as well as light well interventions operation.

To meet the stringent demands of the industries it operates in, the PaxOcean Group has focused on consolidation and continuous improvement in the last 18 months. The group is also ready to expand their facilities in Singapore and Batam to cater to the oil and gas segment. "It has been a time of consolidation and strengthening our core capabilities and assets. High operating and safety standards are of the utmost importance at our yards and our staff and sub-contractors work very hard to strive towards accident-free records," PaxOcean management reveals, "For example, PaxOcean Singapore has so far been awarded the British Safety Council 'Sword of Honour' five-star notation twice, which attests to our rooted commitment to excellence and safety. With these core values, we are confident that the organisation is strategically well-positioned and ready to seize the opportunities ahead." O&G

The PaxOcean Group
paxocean.com

Services
Offshore engineering, ship repair/maintenance, rig building and conversion

Sea sense

Specialising in emergency response services, both on and offshore, Brazilian firm OceanPact has worked with virtually all major oil companies operating in Brazil. Involved in many of the most notable critical environmental response operations over the last decade, including the largest ever oil spill in the Gulf of Mexico, OceanPact is a trusted provider of exceptional support in the biggest emergencies.

Backed by reliable, efficient and innovative solutions, OceanPact has developed a strong reputation for superior services; these include consultancy, Nautical Institute certified training programmes, vessel charters and operation and emergency response management. Furthermore, the company offers the provision of specialist crews and competent, highly qualified personnel as well as marine survey services such as oceanography, geotechnical and geophysical studies. With ready-to-hire specialist crews and personnel based in Brazil and abroad, the OceanPact team consistently delivers innovative, safe and efficient solutions.

A provider of world-class emergency response, OceanPact offers 24/7 availability via its standby alert teams and fully operational emergency response centres. It also offers an integrated solution that includes oil spill response and clean up services for Tier one, two and three incidents; oil spill recovery vessel (OSRV) operations, preventative booms and oil recovery equipment maintenance and systems. Furthermore, as a company operating in dangerous environments, OceanPact operates in compliance with all relevant environmental, marine and coastal protection policies; a commitment that has partly been developed through close relationships with environmental agencies. On top of this, the company has a strong reputation for adhering to stringent QHSE regulations and delivering projects without incident or impact, both on time and on budget.

Aware that a company is only as good as its last project, OceanPact is dedicated to continued improvement in all areas of the business and invests huge sums of money into the development of technological innovations. For example, it has created a qualification programme to comply specifically with Brazilian legislation and client demands within the oil and gas industry. It has developed and patented the spiral configuration boom, developed the oil spill contention vessel operation simulator and improved environmental protection and safety through design and technology enhancements.

To deliver these innovative solutions and provide high quality services OceanPact has recruited, trained and managed an expert team of professionals within a number of business segments. Following the implementation of safety procedures by customers such as Petrobras, the company has established a group of HSE supervisors and assistants to operate onboard seismic vessels. Moreover, the company also has specialist crews of helicopter landing officers, oil spill co-ordinators and radio operator crews.

Keen to expand its presence in both Brazil and further strategic locations around the world, the company has developed complementary joint ventures and partnerships with well-renowned organisations; these include O'Brien's do Brasil, a joint venture between EnvironPact, OceanPact and O'Brien's Response Management, a North American global leader in emergency response. Focused on supplying companies operating in Brazil with superior world-class practices in the management and execution of emergency response services to environmental incidents and disasters, O'Brien's do Brasil integrates the core strengths of each company in relevant areas such as consulting and emergency management.

O'Brien's do Brasil's comprehensive structure of services ensures clients achieve maximum resilience so they can further increase efficiency during preparation, response, communication and recovery. More specifically, the services include regulatory plan preparation, literacy training for crisis and emergency, assisting management with incident response and conducting exercises. Indeed, by merging the knowledge and experience of three renowned

companies, all of which boast an excellent reputation in Brazil, the partnership can offer best-in-class services and take advantage of a booming Brazilian market.

In addition, the company has further expanded its presence in Brazil through a joint venture with specialist survey services provider Gardline. Announced in April 2013, Gardline Marine Sciences do Brasil SA is a 50/50 strategic partnership between the two companies and will involve the integration of both firm's marine competence and resources to take on marine survey projects in Brazil. Focusing on the provision of wholly integrated survey packages that will include geophysical, hydrographic, oceanographic, geotechnical and environmental surveys, the joint venture's services will include 2D seismic exploration, shallow gas hazard analysis, seabed mapping and 2D/3D high resolution data acquisition. Having worked together previously on a ground-breaking project for Petrobras in 2012, which involved mini-CPT data and vibrocorer samples being acquired for pipeline route design for the very first time, the two companies anticipate high levels of success.

Committed to adopting the best possible business practices in a wholly compliant and innovative manner, OceanPact's joint ventures and partnerships not only surpass the expectations of customers, but also satisfy the demands of shareholders, collaborators and partners within the industry. Moreover, the company ensures ongoing explorative developments and the exploitation of coastal and marine resources while maintaining its focus on safety and sustainability.

In line with these recent strategic partnerships, OceanPact has signed a contract with Wilson Sons Limited for the construction of four OSRVs, with a recovered oil storage capacity of 1050 metre cubed, a length of 67 metres and a beam of 14 metres. Built in Wilson Sons' shipyard complex in Sao Paulo, the vessels will be due for delivery in 2016 and will ensure OceanPact has the fleet in place to respond to any incident or emergency. OSG

> A provider of world-class emergency response, OceanPact offers 24/7 availability via its standby alert teams and fully operational emergency response centres

OceanPact
oceanpact.com

Services
Seismic survey and marine environmental services

Best in class

CRESSALL RESISTORS

Cressall Resistors has worked closely with Cummins Middle East to supply Neutral Earthing Resistors (NERs) for many of its international projects – including installations in the UAE, Saudi Arabia and Asia. We have supplied NER systems for use with up to ten generators at one time and for system voltages up to 13.8kV. We have a range of standard products but regularly adapt these to meet customer specific requirements.
In addition to our NERs, Cressall offers pre-insertion, dynamic braking and filter resistors and has developed a new range of water-cooled resistors for marine use.

The first regional wholly owned subsidiary of Cummins Inc., a global power leader and group comprised of four complementary businesses that design, manufacture, distribute and service engines and related technologies, Cummins Middle East FZE was established in early 2000 as a distributor for the region. Covering more than 12 countries in the Middle East has resulted in major growth opportunities for the subsidiary as infrastructure developments and a booming oil and gas industry continue to dominate the markets. Keen to take advantage of this, Cummins Inc. has invested billions in its R&D facilities and has strategically expanded its services in 2014, including in the Middle East.

Elaborating on the history of Cummins Inc. and its developments in the Middle East, Rachid Ouenniche, managing director of Cummins Middle East FZE begins: "Cummins Inc. has been in operation since 1919 and was the first company to successfully market large diesel engines in North America and today is the biggest independent large diesel engine manufacturer in the world. We are active in 190 countries, are publically listed on the New York stock exchange and had a global revenue of just above $17 billion in 2013. We are structured in four business segments, the largest being our engine business, followed by power generation segment, a components business unit and finally distribution. Historically Cummins Middle East FZE has been a distribution organisation, but since early 2014 we have expanded this part of Cummins Middle East by bringing to market the commercial leadership from each other business segment to ensure we can support our customers and distributors more efficiently."

This renewed commitment to the Middle East market follows a number of investments within the Cummins Inc. group, as it strives to continue meeting the demands of existing and potential customers in a number of industries. "Our main customers are power generation customers in the Middle East," says Rachid. "We also work with OEMs, particularly in the UAE and have a foothold in the marine industry as well as a growing presence in the oil and gas market."

As a supplier of engines for drilling operations within the stringent oil and gas industry as well as engines for other industrial applications such as mud pumps or dredging pumps, Cummins

Middle East FZE benefits from being part of a major global business with direct access to its factory and expert personnel, as Rachid highlights: "The engineers who are developing these products gain constant feedback from the field that they can then act on to enhance a product and thus ensure we have leading technologies in the market. Research and development is one of the most important aspects to our business because we regularly sell products to our customers who are also our competitors, so for us to stay successful we have to offer the very best products. In order to survive as a business its not enough to be as good as others, we need to be better; this is why Cummins Inc. continues to invest."

Another recent service offering for the Middle East market is the High Horsepower Master Rebuild Centre; part of a global network of purpose-built facilities that provide high quality, high volume rebuilds of Cummins Inc.'s 19 litre and above engines. "The high horse power engines all require rebuilds at some point in their life cycle, so we moved away from a work shop environment into a manufacturing environment that has a production line and enables us to provide a complete rebuild in one location," says Rachid. "We have one of the best rebuild centres within Cummins Inc., which is benchmarked by other distributors around the world as best in class. Volumes have increased significantly over the last year by three times and we are getting ever closer to full capacity as customers return to us, so in that regard this is probably one of our most successful initiatives for our business in the Middle East."

As the company continues to grow it has begun collaborations with three universities with

the aim of hiring engineers through internships before converting these training schemes into full time work opportunities. "We have a focus on increasing the representation of women in the work force and have had a lot of success in the UAE, Saudi Arabia and Afghanistan. We are also working with universities to ensure they use the right curriculum so their programmes meet the needs of industries out there," says Rachid.

Having set the foundations for continued growth in a region rich with promise, the future looks bright for Cummins Middle East FZE as it looks to take advantage of upcoming projects, as Rachid concludes: "We have a presence in 14 countries here; this is one of the fastest growing markets in the world and when I look at different local government plans I see the upcoming World Cup in Qatar and the Expo in 2020 in Dubai. These significant infrastructure investments will require power generation products and also a huge amount of machinery with Cummins Inc.'s engines in them. We have aggressive plans in place, to not only grow, but to also gain market share from the competition with the products and people we have; we have a vision to be a preferred supplier for all of our customers and to be a key destination for employment and talent. With recent developments and our core values, we believe we are on the right track to achieving this."

> The high horse power engines all require rebuilds at some point in their life cycle, so we moved away from a work shop environment into a manufacturing environment that has a production line and enables us to provide a complete rebuild in one location

Cummins Middle East FZE
cummins.com

Services
Power generation

OFFSHORE GRADES in stock 15 - 100 mm

- S355G10 +M acc. EN 10225 (NORSOK)
- S355G10 +N acc. EN 10225 <=200mm (NORSOK)
- API 2W-50
- S460G2 +M acc. EN 10225 (NORSOK)
- S420G2 +M acc. EN 10225

Competitive competence in steel plates and flame cutting

Over 35.000 tonnes of quality plates in stock

Flame cutting

- reliable highly experienced partner for heavy parts / high thicknesses
- thickness 6-300 mm: 5 oxy-fuel cutting machines; 2 plasma cutting machines
- authorised by DNV, LRS, TUV for transfer of markings (restamping)
- 150 x 6 meter cutting tables
- automatic two-sides deburring line
- bevelling robot, shotblasting / painting, additional tooling

Steel plates

- over 35.000 tonnes in stock: 22.000 m² roofed suface
- offshore grades S355G10+M, S460G2+M, S420G2+M acc. EN 10225
- high strength fine grained plates Dillimax 690 – 1100
- fine grained construction plates in S355NL acc. to EN 10025-3
- shipbuilding grades Gr.A LRS, DH36 LRS, EH36 LRS, NV D36, NV E36
- structural grades in S235JR, S355J2+N en S355K2+N acc. 10025-2
- pressure vessel grades: P265GH/P295GH/P355GH acc. EN 10028-2 P355NH/NL2, P460NH/NL2 acc. EN 10028-3; acc. ASME SA516 Gr. 60/Gr. 70
- exclusive worldwide HIC-resistant DICREST stockholder
- wear resistant plates Dillidur 400V/450V/500V, Dillidur Impact

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The vital component

Breman Machinery is a family owned, private company that makes components for the builders of machinery, engineering bureaus and industrial end equipment users. With clients that operate offshore, in the heavy machine industry and within the aerospace community, its database of industrial customers is extensive as well as serving the large players in the offshore market and international offshore companies. "We specialise in complex mechanical components. These are work pieces of high precision, often with extreme dimensions and weighing hundreds of tonnes but made to a precision of 100th of a millimetre. The key factor in our business is having the right people, and our workforce of 120 personnel is complemented by the complex machinery at our extensive premises," says managing director Henk Breman.

In recent years the business has progressively evolved into a role as a complete turnkey solution provider as Henk explains: "At the moment we are working on a project manufacturing large handling equipment for users in the wind farm industry. The equipment is designed to assist in the process of installing monopiles into the seabed but we have developed into a complete turnkey player in the wind farm market, the offshore oil and gas market and the heavy machine building industry. As a result, we are also busy manufacturing winches. Currently we are working on a 200 tonne abandonment and recovery (A&R) winch and a 25 tonne storage winch. We are involved in these projects from the earliest stages of developing the blank sheets of steel through to the complete and final delivery. We undertake all aspects from the co-ordination of the assembly

such as rolling, welding, machining, milling and turning to function acceptance tests of the fabric. This is all completed in-house, under one roof before delivery to our customers." In a very customer driven market the business is serious about fulfilling all its clients' needs and thoroughly investigates all specifications before commencing any project.

"We aim to please our customers, and have built up a reputation for delivering difficult projects, with a short lead-time to a high quality. Our order books and project history demonstrates this market position with orders for large handling equipment, winches and locking systems for jack-up barges. The market for jack-up systems and motion compensated systems on the sea is busy for us," points out Henk. Last year the business made two very different kinds of investments, each with the common goal of placing the business in a future proof position. The RX18 is a very sophisticated machine with high-speed and very high accuracy, which is of benefit to the market as a whole with Breman Machinery equipped to provide very efficient machining work. "Working efficiently can significantly reduce lead times, and for us this is a very important issue. We also opened up a new facility at our site in IJmuiden, Breman Offshore bv, and for us it is a new opportunity to provide service to a new market. The location benefits from its proximity to the sea, and with a quay that is 12 metres deep and 300 metres in length, it is appropriately sized to accommodate large sea ships, opening up a new market from which we can provide new services to our customers," he continues.

The family run business has a wealth of strengths that keep customers returning. "The key strength is how you make the products. We have a lot of knowledge and experience in skilled manufacturing. Our customers design engineer most of the work but what is important is that we know how to make the products, we have a lot of experience across a wide variety of projects. Our company has existed for 150 years and that experience is essential," explains Henk. Utilising its experience, the company has produced an upending tool for monopiles up to 1000 tonnes. Having completed the envelope of activities in-house, it further demonstrates the company's capabilities as a deliverer of new, single and innovative one-off specialist products to the market.

"We can bend up to thicknesses of 250 millimetres, but that depends on the width of the rolling work. You don't see many workshops in Europe with the combination of machines that we have and it is this combination that makes us stand out. The variety of functions assists us in producing special products in house. All the knowledge that we have is retained in-house and facilitates us in providing unique products to the field. Because our market has such a short lead-time and demands a high quality product, this position makes a difference and delivers an advantage over our competitors," Henk emphasises.

At the company's premises, it has the facilities to

hoist up to 240 tonnes in four large construction and machining holds. Commenting, Henk says: "We have the capabilities to do the right job, the main challenge is delivering each job at the right time. Sometimes the work pieces are 750 to 1000 tonnes, and it is a very big challenge that we meet the delivery time and critically, the specification. Manufacturing large equipment to a very high accuracy of 100th of a millimetre, to a delivery of six months poses a potential hurdle."

To remain at the forefront of the industry, its workforce undertakes constant training as part of in-house schemes that maintain and improve the high level of workmanship. The training schemes cover welding, machining, programming, and logistics and is seen as a part of everyday employment to ensure success. As the business enters the second quarter of 2014, it continues to work towards becoming an established complete turnkey solutions provider with a greater international footprint. "Europe is our main market and we are looking to increase our presence and activity in Scandinavia, UK, Germany, Belgium and France. As a business that is still growing, we are very confident for the future. We don't have the goal to get bigger, but we do have the goal to get better. In the future we will invest in the newest technologies of machining for steelwork or composites, becoming even more of an efficient player, but right now we have a good level of machines and we are ready for the market," concludes Henk. O&G

Breman Machinery
breman-machinery.nl

Services
Manufacture
of components

Waves of development

Above
Mr. Nasser Al Shamsi,
Chairman of PME GROUP

Above
Mr. Jamal Zaher
the managing partner
at PME GROUP

Above
Mr. Yasser Al Alami
the assistant general manager
project development

Above
Mr. Nur Yachou
the group business developer
& administration manager

For close to two decades,

Petro Middle East (PME) has faithfully served the oil and gas market within its home country of UAE and neighbouring Gulf States, providing world-class equipment and corresponding support services that extend from the oil and gas to petrochemical and utility sectors. The company was founded in 1995 and has a proven track record in collaborating with trusted, high-end manufacturers to deliver robust front-line services. When PME was last featured in *European Oil and Gas Magazine* during May 2012, it had made significant strides in expanding its services portfolio by extending its capabilities in HSE, integrity studies, MLF-free swimming intelligent pigging and UT inspection.

The core of PME Group is divided into two distinctive businesses: Representation and Joint Venture, yet fundamental areas that offer the eminent services that have made PME an invaluable partner to operators operating within the Gulf Co-operation Council (GCC). Its engineering services division provides contracting, integrity and projects services as well as dedicated aftersales support. The company's engineering products section supplies components for electrical and power applications, instrument and control apparatus, laboratory and analytical equipment as well as solutions in material outsourcing, mechanical flow control and process division. Furthermore, the expertise on offer from the company is further bolstered by its membership of the PME Group, alongside PME's several joint ventures such as Press Bolt Middle East (Manufacturer of Stud Bolts, Nuts, and Washers), ACIS (Automation and Control Industrial Systems), TSS4U Middle East (Off Grid Solar Power) and RRC Middle East (Special Services). Together these companies are able to share synergies and support mutual growth, while forwarding first-

class service options to the group's clients.

Having successfully integrated new service packages into its portfolio of support options, PME is ready to begin a fresh round of development to further expand the company's sphere of operation. "During the past two years we have developed the services department, which has progressed very well and we have carried out some impressive jobs within the UAE and gained a lot of experience," says group business development and administration manager Nur Yachou. "We have enjoyed good relationships with ADNOC and its affiliates such as ADCO, tendering contracts where with Exprosoft, which is our business partner from Norway, we have succeeded in providing the first consolidates solution for Wellhead Integrity Management System (WIMS) in the Middle East."

Petro Middle East has also solidified its capabilities within the offshore marine sector through the acquisition of technology from some of Europe's leading subsea entities, including One Subsea for multi phase solutions and several others. As part of its expansion into the offshore marine market, PME has participated at several trade exhibitions including the Offshore Arabia Exhibition in Dubai with an aim to introduce oil spill recovery systems to the UAE and to meet potential customers.

"Two short years ago we were embarking into the services market and now that is well established we are moving into the engineering market and intend to be firmly established in this area too. We intend to be able to do the front engineering design (FEED), engineering detailed solutions with a specialist company from the US. So, when we next speak to *European Oil and Gas Magazine* we will be reporting on the successful implementation of our engineering division.

"The engineering division will come under our projects department, which I am currently heading," Yasser Al Alami elaborates. "This is because engineering companies are more closely involved with projects. We will be targeting small to medium size projects."

The company will remain focused on a strategy of responsible growth in terms of both the services that it provides and also the geographical regions in which it operates. To date much of the work carried out by PME has been for companies operating within its native UAE however, in conjunction with the development of its engineering division and PME joint venture companies, representatives from the company will be travelling to Saudi Arabia, Oman, Qatar and Kuwait to develop these markets and build further relationships with prospective clients. In taking these progressive steps, PME can rely on close to two decades of operational experience as well as a strong operational base as key strengths going forward.

All of the four companies within the PME Group are situated inside of the PME facility located in the Mussafah Industrial Area, encompassing 3000 square metres of workshop, warehouse and office capabilities. Included within the company's impressive infrastructure is its Automation Centre, which operates as an authorised service and repair centre in the UAE for Biffi Actuators and various other products. At the heart of the business PME Group has 130 dedicated and highly motivated workers. Around 50 employees are employed by PME, of which 15 are qualified engineers who are supported by an inside sales team and a separate division (Business Development) that acts in co-operation with the company's sales engineers by carrying out prequalification work for companies entering the UAE. The rest of the PME group employees are working within its JV companies.

By looking to expand its footprint within the GCC by entering into countries outside of the UAE and by aiding business that are making their first tentative steps into the region, PME can rightfully be considered as an invaluable partner in the area's rich oil and gas market. As 2014 progresses PME will work to consolidate its recent success before launching into the next wave of development in the company's growth as it develops it engineering strength and seeks out strong, yet stable and responsible expansion. O&G

GULF SCIENTIFIC CORPORATION

Gulf Scientific Corporation was established in 1990 with a mission to inspire scientific research through delivering the highest quality complete laboratory solutions across the MENA region. Our unrivaled support structure centered on innovative technologies, education and service, makes GSC a preferred choice for research and diagnostic customers alike. Through adopting a systems approach and strategically partnering with leading industry providers, GSC strives to offer complete laboratory solutions ranging from molecular and cell biology studies to in vivo imaging of animal models. Our esteemed partners include Merck Millipore, Waters, Affymetrix, Chromsystems, ASI, CEM, Perkin Elmer and GE Analytical.

ORION S.P.A

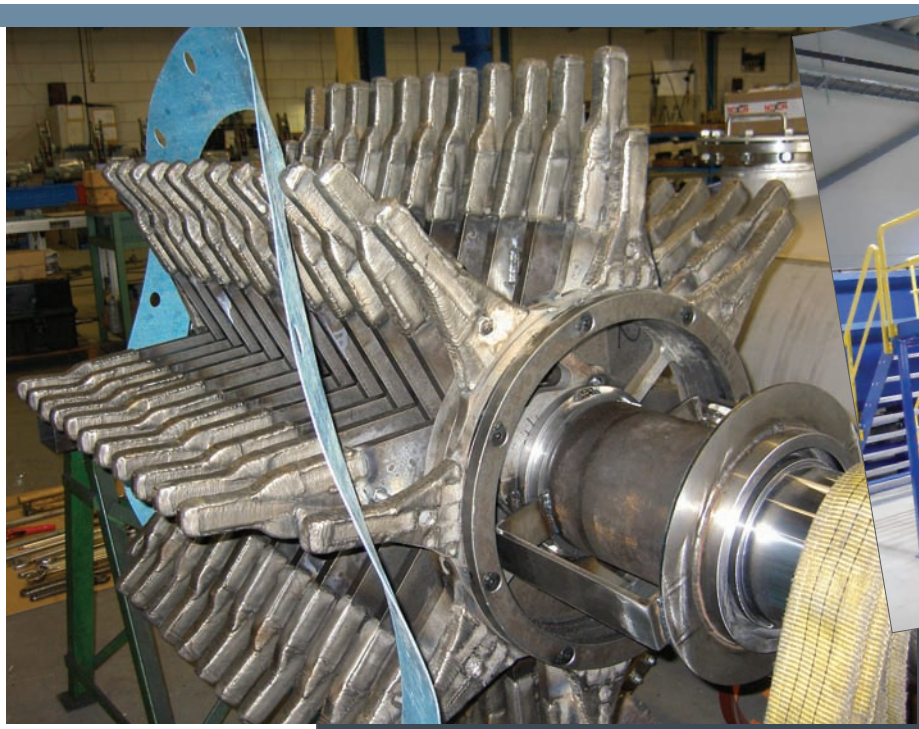
As a result of its ongoing commitment to a local presence, ORION has established a number of regional Representative Agencies Worldwide.
Thanks to its successful long business relationship with ACIS (Member of PME Group of Companies), ORION has supplied its products to all major oil and cas companies in UAE such as ADCO, ADMA-OPCO, ZADCO, ADNOC, TAKREER, BOUROGE , GASCO, ADGAS.
Some of its main projects are:

- EPC FOR BATCH1 - AT BU HASA
- NEB PHASE1 ADDITIONAL INJECTION WELL TIE-INS
- BAB HABSHAN1 DEVELOPMENT PROJECT
- BOROUGE PETROCHEMICALS JVP-EU-003

Its strategic co-operation with ACIS continues in order to bring ORION always closer to its valuable clients.

Petro Middle East
pme.ae
pme-group.ae
youtube.com/watch?v=A275D2AslXU

Services
Supplies specialised service solutions



Environmental care with financial return

Top left
The rotor of the hammer mill

Top centre
Another stationary TCC46E

Top right
TCC46E-M installed on the well site

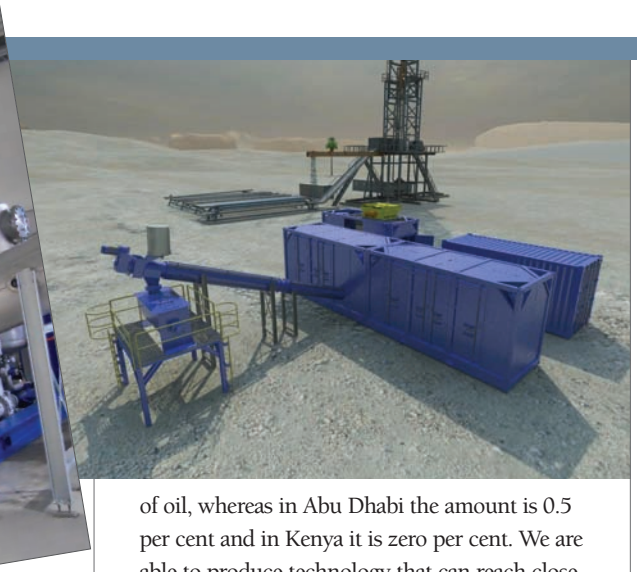
Above
The hammers in the hammer mill

Right
The new compact mobile TCC unit, TCC12E-M

Since the company was founded in 1999 Thermtech AS has become an industry leader within the waste separation sector. The business has doubled in size during the past five years and developed a forceful reputation for innovation, which was further underlined when it was ranked number one on Deloitte's Fast 50 in Norway in 2008. Thermtech was last featured in *European Oil and Gas Magazine* during July 2013, which according to sales and marketing director Rocco Valentinetti was the company's most successful year, with its highest production and sales figures to date. "Thermtech has progressed steadily since 2013 and we have hired more engineers, presently the number of staff in the company is greater than 35," he says. "This has been in response to an increase in turnover because 2013 has been the company's most successful year to date. We have sold and built more Thermomechanical Cuttings Cleaner (TCC) units, which has kept the entire organisation busy, so the trend is certainly positive in terms of growth."

Thermtech was founded with a vision to become the market-leader and to set the standard in drill cuttings treatment. The success of the company in establishing itself as a leading name in this market is built on its unique TCC solution, which has continued to attract new customers and retain existing clients who come back to Thermtech time and time again. TCC technology is based on a completely different principle compared to indirect thermal technologies, which use high temperatures to reclaim or destroy hydrocarbon-contaminated material. Instead of incineration the TCC converts kinetic energy into thermal energy by generating friction and heat in the drilling waste.

There are several advantages to treating drill cuttings in this way, which makes TCC a highly attractive solution to clients looking to improve the environmental footprint of drilling operations and eliminate waste as Rocco explains: "The objective of our technology is to clean the solid component of drilling waste. The drilling waste is made of solids, oil and water and the objective is to clean those solids while following and complying with environmental regulations. So in Norway for example, the solids must contain no more than one per cent



of oil, whereas in Abu Dhabi the amount is 0.5 per cent and in Kenya it is zero per cent. We are able to produce technology that can reach close to zero per cent and this is something that is really outstanding in our business. This is done without burning anything, whereas normally it would be achieved by burning 100 per cent of the oil.

"The advantage of this technology is firstly environmental, because the waste is not burned, consequently there are no gas emissions and there is no risk of explosion. While the input is waste, the output is represented by re-usable elements. This is not recycling; it is re-use and this is one-step higher then recycling. The oil and water that were in the waste are separated and can be reused in the drilling fluids, while the solids are so clean that they can be reclassified as building material or thrown away if the operator prefers because they are inert and free of pollution."

The technology employed in TCC is both patented and highly advanced, as well as being highly flexible and adaptable. It can be deployed in both onshore and offshore operations and represents the best blend of environmentally sound and cost-effective benefits. By the end of the process there are essentially no waste materials as everything that is produced can be re-used, the oil to mix new drilling fluid, the water and the solids as building material. This makes the process unique within oil and gas operations, in that as well as helping operators to meet the environmental requirements it also provides a significant cost benefit by greatly enhancing the efficiency of drilling operations.

While TCC is at the heart of Thermtech's operation, it is its dedicated engineering team and the firm relationships the company develops with its clients that drives the business forward. "The number of clients that we have has continued to increase. We have many returning customers and the number of new company's that we work with has increased every year," Rocco says. "Many of our clients maintain constant contact with us because they see the advantage of our technology and the benefit of continued, smooth operation. We occasionally struggle with manpower because our engineers are in such high demand, very often clients will ask for our engineers to be onsite to do training and maintenance. New customers naturally want operations to run smoothly and we work with them for as long as they feel it is necessary. This is because the technology looks simple, but once you begin to use it you can see that it is a little more complicated."

Throughout 2014 and beyond Thermtech will continue to work with clients old and new to deliver market leading waste management solutions. The obvious advantages provided by TCC make the technology an attractive solution for any operator looking for an effective treatment of the drilling waste, while Thermtech is on hand to ensure its support to its clients all over the world. OSG

> Many of our clients maintain constant contact with us because they see the advantage of our technology and the benefit of continued, smooth operation

Thermtech AS
thermtech.no

Services
TCC technology and engineering

pipeline works

pushing back borders /

DENYS participated as main contractor in the Gazelle project. Our scope (106 km of 56") was finished in time thanks to the use of state of the art technologies, such as automatic welding (main line and tie-ins) and automatic sand blasting, new and adapted equipment and last but not least, an international network of contacts to get the right skills at the right place. This combination allowed to achieve average productions of 800m a working day, and this for all activities! Cutting edge: faster but with full respect for safety, quality and environment.

Photo / Primda station

www.denys.com

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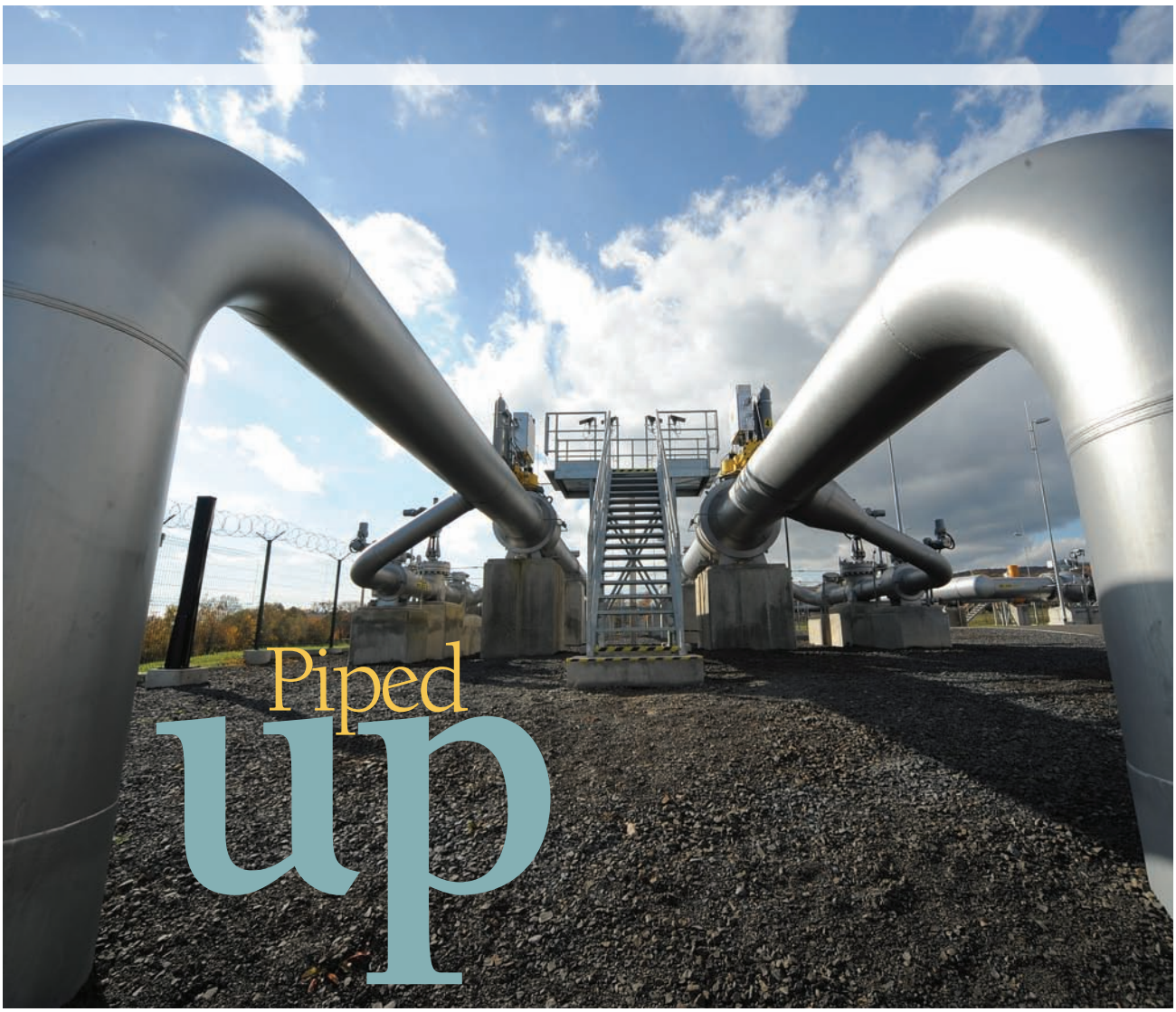
PIPELINE WORKS / TUNNELLING WORKS / CIVIL WORKS / WATER WORKS / RESTORATION WORKS / BUILDING WORKS / DREAM WORKS



Piped up

The holder of the exclusive gas Transmission System Operator (TSO) license in the Czech Republic, NET4GAS s.r.o. provides safe and reliable gas transport services on a non-discriminatory basis to all natural gas traders 24 hours a day, seven days a week. Guaranteeing transparent access to its transmission system and transmission capacities, the company satisfies both domestic and foreign demand by transporting 45 billion cubic meters of natural gas annually; approximately 20 per cent of which is for domestic consumption, while the majority is transported internationally into neighboring markets.

Chief executive officer Andreas Rau gives a brief history on the company: "NET4GAS is the legal successor of the companies Tansitní plnovod, n.p., Transgas a.s., and RWE Transgas Net, s.r.o. and has more than a 40 year history in international gas transit and domestic gas transmission. Committed to conducting business with a view to ensure the independent, reliable and safe operation of the Czech gas transmission system, NET4GAS provides both national and international partners with gas transmission services. The company was acquired by a consortium of Allianz Capital Partners and Borealis Infrastructure in the summer of 2013."

With a team of 500 highly qualified employees covering the operation of more than 3800 kilometers of pipeline, NET4GAS currently connects markets in all directions through cross-border interconnectors and capacity products. The company also focuses on developing long-term relationships with its partners, and champions further market integration via projects and products that boost co-operation between European TSOs. Keen to remain a relevant fixture in delivering solutions to Europe's gas needs, the company recently made a strategic decision to take a pro-active role in shaping the European gas markets. This enables it to play a part in developing the future European Gas Target Model (EGTM) and to develop strategic plans in line with the EGTM's vision, which is to efficiently manage its transmission system and meet the demand of its customers through cutting-edge gas transport O&G

Below
Andreas Rau, chief executive officer NET4GAS

services that minimise environmental impact.

Other infrastructure operated by NET4GAS includes five compressor stations located in Kralice nad Oslavou and Kourim on the northern branch and Breclav, Hostim and Veselí nad Lužnicí on the southern branch; three border transfer stations based in Lanžhot, Hora Svaté Kateriny and Brandov, almost 100 transfer stations for national distribution systems and eight gas storages.

Previously in *European Oil and Gas Magazine* in March 2013, Andreas discusses the market conditions over the last 12 months: "Last year was very important for designing the rules of the next regulatory period, which should start in January 2015. This process, which is the responsibility of the Czech Energy Regulatory Office and comprises of several consultation steps that also involves other stakeholders, will continue in 2014. The outcome of this process will also have a major impact on whether the Czech Republic will provide a stable regulatory framework and thus continue to be an attractive destination for foreign investment in the energy sector."

He continues: "Furthermore, at the European level we supported the development of several new network access rules, together with the other European gas TSOs and the Agency for Co-operation of the European Regulators, ACER. This process is aimed at further market integration in Europe, thus increasing competition and decreasing end consumer prices. As this can not be achieved without additional investment into cross-border transmission capacities, it is of utmost importance to have a stable and sound investment environment."

Currently providing transmission services to almost 50 shippers, ranging from smaller traders to major gas producers, the firm's core target throughout 2014 is to ensure the parameters are set in a way that enables ongoing investment into transmission capacities and therefore continued market integration throughout Europe.

Another way to expand further in the gas sector is to focus on projects that reinforce this integration, as Andreas highlights: "Naturally for us, the starting point will be closer co-operation with the neighbouring CEE countries, especially with our Polish and Austrian partners in order to make available sufficient cross-border capacities. In the context of the interconnector project between the Czech Republic and Poland, we also need to upgrade the domestic pipeline system in the Moravia region. This is an important area for regional industrial development and could potentially become the nucleus for real integration of the Polish and Czech gas markets." However, with the cost of this planned investment estimated at 200 to 250 million euros, the refurbishment of the existing pipeline is highly dependant on an adequate regulatory framework.

Major projects for the company include 'Gazelle', which was put into operation in January 2013 and highlights its commitment to increasing transmission capacity and flexibility to benefit the European gas markets. Interconnecting the Northern and Southern routes, the Gazelle pipeline further ensures secure and reliable gas transport by connecting the Czech Republic to Russian gas supplies coming into Europe via the Northern route before connecting with the OPAL pipeline, which runs the gas down as far as Brandov, on the German-Czech border. "Gazelle connects the pipeline system of Nord Stream and OPAL with the traditional East-West route at Waidhaus in Germany and is thus part of the new strategic transport corridor for supplying Russian gas to Western Europe," highlights Andreas. "This project was implemented by NET4GAS on time and on budget; with a total investment of almost 400 million euros it is one of the biggest gas infrastructure projects implemented in the CEE countries recently.

"Furthermore, in 2013 we successfully completed the last of our projects co-financed by the EU under the European Energy Programme for Recovery (EEPR). Three projects have been implemented under this programme: Reverse Flow in Direction West-East, Czech-Polish Interconnector (STORK I) and Connection to the Storage Facility UGS Tvrdonice," he adds.

Firm in its belief that national and European regulators should get more aligned and focus on EU market integration instead of focusing on short-term interests in decreasing energy prices through tough infrastructure regulation, NET4GAS wants to stimulate the development of truly competitive gas markets over the coming years. "This is our vision," says Andreas. "We believe this is the most efficient and effective way of decreasing energy prices for end consumers in the medium and long-term perspective. It is clear though that regulators need to support this process by giving reasonable investment incentives to infrastructure operators." O&G

VIB

VIB supported NET4GAS during the GAZELLE project with project management and project controlling services. VIB started the services with the establishment of a new project organisation and implementation of project guidelines, which were applied for all project phases. These measures ensured that the project could be successfully completed in time and even under budget. VIB was not only recognised as a professional partner in NET4GAS management, but also developed a strong reputation towards supplies and contractors. The role as project controller was conducted by VIB with strong technical and analytical skills. VIB's commitment to the project was conducted in a very co-operative and structured manner.

NET4GAS
net4gas.cz/en/index/

Services
Gas transmission

The bigger picture

Mahakarya Geo Survey (MGS) was established in 2005 with initial focus on small-scale hydrographic surveying, started its activities in non-oil and gas industry projects such as port development. During the first year, the business operated as a subcontractor for several projects before its development into a complete offshore survey provider for pipeline route and site survey. The first significant project undertaken by the business was surveying for the pipeline route survey of South Sumatera to West Java (SSWJ) Phase 2 project in Indonesia.

Upon successful completion, several other surveying contracts followed, cementing MGS' transition into an integrated survey solution provider with offshore surveying as its main scope of work. "Commitment and quality are mandatory in our business. Throughout our operations we have proven that we are capable and qualified, gaining trust and growing a positive reputation. As opportunities widen we continue to grow," says company director Henky Suharto.

During the initial stages of the business growth, MGS' focus was on investing in human resources development, investing in assets of survey equipment and building up the system to strengthen its capabilities. At this early stage, the company spot chartered the vessels for all of its operations. The services support pre-drilling operations, pre-engineering design for platforms and pipeline development, post pipe lay survey and inspection and offshore construction works. Since 2006 MGS has conducted these services fully under its own team of skilled personnel, before deepening its interests as Henky points out: "In 2010 we began to perform our services with our own vessel, including dedicated onboard digital equipment. Our survey vessel MV. MGS Geosurvey was first launched and operated by MGS in May 2010 as the first private Indonesian Flag vessel performing the majority of operations within Indonesian waters.

The company's main services today are providing 2D high-resolution geophysical survey, soil investigation, and navigation services for construction support, hydrographic survey, metocean and geodetic survey. With numerous geophysical and geotechnical survey and consultancy projects, MGS is committed to becoming the industry's leading company through a series of ongoing investments in the latest technology applications and service quality improvements. Further focus is directed at continuous personnel development, infrastructure and facility expansion and

generating a wider network of partners and clients. Through understanding the importance of its quality and improvement being recognised, in 2009 it began the certification process and now holds ISO 9001, ISO 14001 and OHSAS 18001.

"Our vision is to be the Asia Pacific's major player and we aim to strengthen the market within South East Asia. In 2009 we started the regional survey project for India, Turkmenistan, Malaysia, Timor Leste and Vietnam," notes Henky. The client base for the business encompasses major companies such as TOTAL E&P Indonesie, Chevron, INPEX, ENI, Pertamina, Petronas, AWE, Mitra Energy, Kris Energy, Genting Oil and many more. Its entire customer base is drawn to MGS for its punctuality, accuracy, quality, coverage and provision of reliable information.

In July 2013, the company launched its second vessel, MV BNI Geomariner for the purpose of conducting shallow water 2D seismic surveys. Henky explains the importance of having a twin fleet: "As part of our commitment to strengthen our performance and lead in 2D seismic projects, we worked on extending the 2D seismic capability for the deeper coverage as well as offshore geotechnical survey."

Another strength of MGS is its position as a local entity with the international standard of quality recognition. Its customers benefit from an integrated solution with accuracy, efficiency and flexibility. Its attributes have positioned MGS as one of the top market leaders in Indonesia. The constant growth of the business is achieved with strong commitment and effort to accomplish the company's objectives, fully satisfying its customers with no accidents in operations or pollution to the environment.

To attain its goals, MGS implements its Quality, Health, Safety and Environmental Management System (QHSE-MS). The structured system is integrated into managing the business and QHSE performance is regulated, ensuring the satisfaction of the purpose, vision, mission and values. Driven to maintain the skill levels of its employees, MGS provides training across several topics ranging from basic first aid training up to the many and varied advanced training programmes that are required by the industry.

With the aim to become a market leader for Indonesian territory, MGS is seeking to extend to the South East Asia region as well as South Asia region. "We are always looking to improve the quality in all aspects of our activities to reach the vision of becoming a leader in the Asia-Pacific region. Client satisfaction and the welfare of our own personnel, in particular their health and safety, are the primary goals of our activities. We also focus on our people development to enhance their expertise by promoting them with new technology and on duty training from around the world," concludes Henky. O&G

FUGRO SATELLITE POSITIONING

Fugro Satellite Positioning (FSP) is the market and technology leader in the provision of DGNSS augmentation services delivered via satellite offering a range of redundant, reliable and high precision positioning solutions tailored to meet the requirements of offshore exploration, engineering, and support operations globally.
Mahakarya Geo Survey relies on Fugro Satellite Positioning for high performance DGNSS services. Fugro Satellite Positioning services are used on MGS's geophysical vessels, including MGS Geo Survey and BNI Geo Mariner.

Mahakarya Geo Survey
mahakarya.co.id

Services
Hydrographic survey services as an integrated survey solution

Controlling the system

Hitec Products is a Norwegian company that employs approximately 150 staff, focusing on operations that have involved the manufacture and supply of electro-hydraulic control systems since its establishment in the 1990's. Today the business is organised into four divisions with the newest, oilfield systems, being formed last year, complementing the sister divisions, topside systems, subsea systems, and customer support. "We are a project based organisation," begins sales and marketing manager David South. "Each of our projects is run with a dedicated project manager and project team, and we deliver around 80 projects each year within the area of electro-hydraulic control systems and chemical injection systems," he continues.

Supplying to all the major oil companies, its customer base also encompasses smaller, independent oil companies, subsea control system suppliers, and the leading engineering companies and rig and FPSO builders. Through the introduction of the new division, it now supplies systems to the oil service companies and directly to rig owners. Located in impressive modern fabrication facilities at its headquarters in Stavanger, the company has an additional branch in Telemark, focusing on engineering practices. Three years ago, the business established roots in Asia, opening a facility in Singapore from which it is able to efficiently serve the needs of its local customers.

"From our three fabrication facilities in Norway, we implement a serial production approach. Essentially we have standardised our modular system so that 80 per cent of the design is fixed, allowing for the remainder to be customised specifically to the customers' requirements," explains David. Through this approach, it builds and tests its products, remaining in close dialogue with its clients who are involved in the final decisions surrounding the design of the system. "We have a very efficient assembly line, having established a good rapport with our sub-suppliers, who deliver well-known, field proven components," he adds. With strong customer relations, Hitec's customer support division offers continued service, maintenance and modifications at the request of its clients.

One of the significant company developments over the past few years has been the introduction of its Singapore facility. Promoting a large capacity, the unit is equipped to perform the final assembly and testing of the products. However,

all project management and project engineering practices are carried out from locations in Norway. Adding to the achievements, David notes: "We are very proud of the early success of our oilfield systems division. We have established a good client portfolio, which we expect will be further strengthened this year, securing several new contracts and creating a real presence in this market. It is also significant that we have achieved substantial growth in the last financial year and there has been a lot of focus on the sales process, securing large contracts and essentially laying a good foundation for 2014."

The business has been present in the topside and subsea industry since its establishment. With the experience gained in these fields, it was able to transfer this knowledge and value added technology into oilfield systems. The efficient production assembly and construction of the modular units to a high level of quality has been something that its clients have appreciated, returning positive feedback from the early projects. "We have marketed ourselves to the main oilfield services companies and have secured references from the majority, including some of the rig owners themselves who have purchased directly from us," David says.

The expansion into Singapore and the Far East has been rewarded by comfortable and stable growth in the region, as David explains: "In the three years that we have been operating in the region we have seen many interesting opportunities. The fundamental reason for the permanent move into Asia was to be close to our clients and this still plays a very important role. There are emerging opportunities in both the topside and the subsea markets, and the growing potential for new projects in both Asia Pacific and Australia signifies a very interesting time ahead."

Growth of Hitec Products has led to the involvement in some major projects in Indonesia, Australia, Malaysia, and China, which has ultimately created the requirement for the business to increase its staff levels. "Each year we take on quite a high number of apprentices. They complete a programme of internal training and schooling and also attend third party courses. On-the-job training is a key area of candidate growth, and we offer further training to employees to become qualified engineers. We also take in experienced and newly qualified engineers, which forms the basis of our strategy for managing organic growth.

"We have been in the market for a long time and developed well-established and lasting relationships, a thorough knowledge of products and technology, and efficient assembly lines. The new modular approach is interesting for our clients as it offers flexibility and competitiveness, regarding both price and lead-time, and this has been a major factor in the growth," highlights David. "The year ahead for the market on a global scale looks positive, but we do see some areas of concern in certain local markets where there has been pressure on price. It is possible that we could see some segments of that market slow down, but generally we see a large quantity of subsea projects and potential of increased work on the topside projects."

Concluding, David summarises: "We have been very good at working at a strategic level and managing the market, ensuring that we are talking to the right clients. It is important for us that we remain focused on the industry and products that we know best, avoiding the attraction of projects that are outside our scope. As a business, it is our vision is to develop and build attractive systems and we remind ourselves of this every day. Over the next five years, we are going to be staying within the industry that we know, which is control systems and chemical injection systems for topside, subsea and oilfields and continue with organic growth, staying close to our existing clients but also looking for new possibilities within our product portfolio. We have increased capacity both in terms of facilities and resources, and have positioned ourselves in a prominent position to tackle the future market." OEG

> The new modular approach is interesting for our clients as it offers flexibility and competitiveness, regarding both price and lead-time, and it this has been a major factor in the growth

HYSTAT SYSTEMS

Hystat Systems specialises in the design and in-house manufacture of piston accumulators and hydraulic cylinders for the oil and gas industry.
As a major supplier to Hitec Products, Hystat has built on its reputation for quality, reliability and customer support.
Throughout the years Hystat has developed and expanded its product range and is experienced at designing in accordance with third party approvals, DNV, Lloyds, ABS, Germanischer Lloyd, Bureau VERITAS etc.

Hitec Products AS
hitecproducts.no

Services
Control systems supplier

A firm hold on the future

Below
Rupert Hare, chief executive officer Houlder

Houlder delivers design, analysis, engineering, innovation and project expertise across the maritime sector, specifically oil and gas, renewable energy, marine and gas ships. Employing 140 in-house engineers, designers and project staff across locations in London, Aberdeen, Portsmouth and Tyneside, in late 2013 it set up an office in Houston, US. The core business is naval architecture and marine engineering and having built a reputation over the last 30 years for independent consultancy; it constantly expands its skills and capabilities. "We have followed the growth of the marine and offshore energy sectors into new markets, geographies and technologies. This has given us a breadth of expertise and depth of understanding that shapes all our work," says chief executive officer, Rupert Hare.

Houlder's clients include oil and gas majors, offshore vessel owners and operators, drilling contractors, pipe and cable layers, subsea inspectors, maintainers and repairers. In the last few years this has included BP Exploration, Shell Trading and Shipping Company, Ensco, Technip, Dolphin Drilling and others. "Essentially our customers are those companies that require marine equipment, offshore project engineering or marine design services. Recently the list has expanded to include those investing in offshore renewable energy and small-scale LNG infrastructure.

"We succeed by fully understanding our clients' requirements. Whatever market they are in, customers are looking for trusted partnerships, dependable technical support and innovative solutions," Rupert points out. Houlder has differentiated itself by delivering all three of these client requirements. Its engineers, naval architects, designers and project managers combine forces, forming joint project teams and work together with clients, to bring clarity to industry challenges, offering solutions with intellect, experience and practical knowhow. "Our engineering capability is our core business. We have a growing pool of talent and a continued commitment to recruit the brightest and the best in the industry from graduates to chartered engineers," he adds. O&G

Houlder is part way through a three-year contract delivering project management consultancy services to Libya's Mellitah Oil and Gas B.V. including design, construction, delivery and hook-up of a new floating storage and offloading system (FSO) and associated subsea systems. The contract highlights a significant success for the company, which has helped secure 30 high value marine industry jobs. "Our biggest investment has been in people creating fully integrated teams that operate from our locations," says Rupert. The company also continually invests in tools and technology, as he explains: "All our investment gives our clients access to increased capability and resources when and where they need it."

Expansion into the US signifies Houlder's position as a global operator, providing support to the world's leading offshore operators and service providers. The ability to deliver local support is important to the business, which has a strategy to recruit and retain a knowledgeable and capable local workforce. However, it has a history of successfully working internationally with a significant presence in South Korea, and a portfolio of previous projects in regions from Norway to Singapore and South Africa. Closer to home, Houlder received Manufacturer of the Year in the 2013 South Tyneside Business Awards, in recognition of expansion in the North East of the UK and significant project successes. On receiving the award, project manager Andy Lovell described the relationship with clients, suppliers and workforce: "All the work has been done locally, with local suppliers and local fabricators." It is an approach that has proven successful for the business and is mirrored across its sites in the UK and the US where local links drive the business forward.

Addressing the challenges poised by the expanding market, Rupert says: "Offshore wind infrastructure is getting bigger and more difficult to handle as construction work goes further offshore and into deeper waters. On the other hand our involvement in LNG is looking at smaller scale bunkering and ship-to-ship transfer. The race is on to prove LNG as a fuel is economically viable. Our oil and gas clients are also always looking for more efficient and effective equipment. Our commitment to fulfilling these requirements while achieving sustainable growth has meant adopting new systems and processes in all areas of the business, whilst continuing to achieve financial and business targets.

The business has several major projects to fulfill throughout 2014, including vessel design, equipment supply and project management consultancy, as well as attending Gastech 2014 in Korea. "We've invested significantly in the LNG market with interests in supporting LNG as fuel, LNG bunkering and feeder vessels, conversion to LNG burning propulsion, cargo handling and transfer and boil off gas management. We expect to see that have an impact in the market place this year, and our oil and gas business shows no signs of slowing up either. New people will be joining the team across the business and we'll be rolling out new systems related to our expansion. It's going to be busy; the company's five-year plan to double growth and capacity is well on track, and we're looking at the following five years for more ambitious growth. It would be easy for us to rest on our laurels, but that's not our style," he concludes. O&G

TME HYDRAULICS

TME Hydraulics have worked with Houlder on bespoke and complex hydraulic projects to facilitate the development of large scale equipment for offshore and marine applications. TME Hydraulics offer a forward thinking approach to design, manufacture and installation of hydraulic systems providing engineering and workshop support for recent Houlder projects from original concept through to extensive commissioning of the final build.

APEX HYDRAULICS

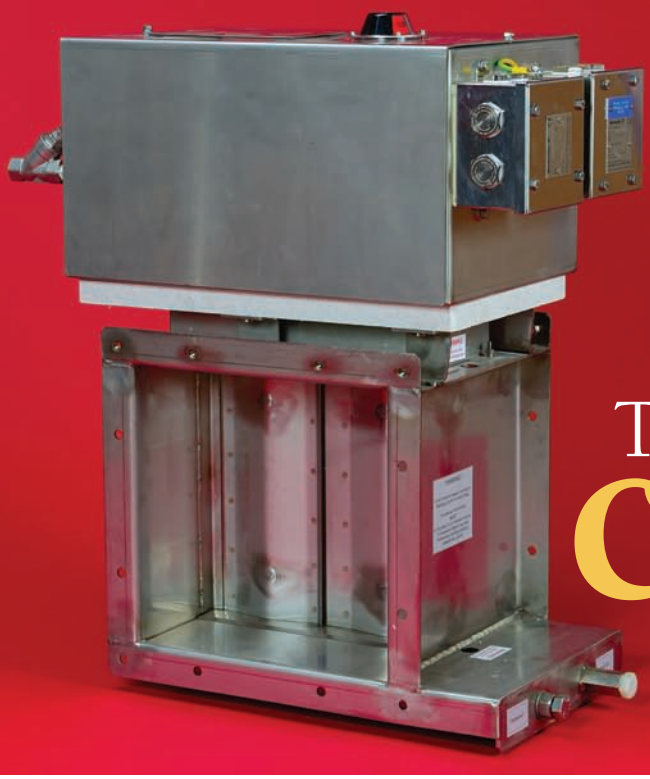
Apex Hydraulics offers a comprehensive service for the design, manufacture, supply and repair of a wide range of hydraulic equipment for the oil and gas industry.
The company prides itself on understanding its customers' needs and respects the absolute need to deliver quality products and services on time.
With the launch of Corex Apex Hydraulics leads the market in innovative solutions to prolong equipment service intervals, making it a natural choice for quality driven customers like Houlder.

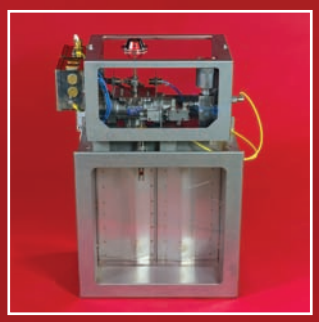
IMH

Technical hydraulic specialist, IMH, played a key role in the 650T Pile Gripper Arm Project for Houlder. It successfully delivered a significant turnkey project, installing the pile gripper arms onto the vessel, MPI Discovery. IMH is unique in its longstanding hydraulic service to the offshore, subsea, and energy sectors. The 30-year-old company has grown to having a global presence and cementing its reputation as a leading provider of customer-focussed, technical hydraulic solutions.

Houlder Limited
houlderltd.com

Services
Provider of design, engineering services and equipment





Technology with control

Flamgard has been manufacturing and designing high quality ventilation products since 1981 and these are targeted at the worldwide petrochemical, oil and gas, industrial, nuclear, tunnel and power generation markets. In 2007 the company acquired Calidair, a major competitor in high integrity ventilation, to create Flamgard-Calidair, and this combination of skills and expertise today provides security to customers, who know they are receiving exceptional quality and support, ensuring employee safety and the long-term success of their assets.

From design to manufacture, Flamgard-Calidair prides itself in assisting and selecting the most cost effective solutions for all HVAC projects. The organisation has a large installed base in the North Sea, where the majority of its equipment has already exceeded the original estimates for its working life. To make sure its products are of consistent quality, the company provides a refurbishment or replacement service to the service operators in that sector, thus decreasing downtime and also proving its reliability to clients.

Another way that Flamgard-Calidair addresses the robust quality requirements of these customers is by implementing a continual product development programme, as well as investing significantly in new CNC and IT machinery at its facilities. It also offers a complete design and build service and through these and many other strategies, the business has gained a loyal customer base that utilises Flamgard-Calidair products.

Dampers form a significant part of the Flamgard-Calidair product range. A damper is a valve or plate that stops or regulates the flow of air inside a duct, chimney, air handler or related equipment. A damper may be used to cut off central air conditioning (heating or cooling), or to regulate it for room-by-room temperature and climate control. The range of dampers from the company includes:

- **Fire dampers** (Create a barrier to the spread of fire within ventilation systems)
- **Shut off dampers** (Low leakage isolation of hot or cold air)
- **Volume control dampers** (Ventilation system balancing, shut off or auto pressure control)
- **Pressure control dampers** (Mechanical control of ventilation air pressure and airflow recirculation)
- **Blast dampers** (Prevent blast forces entering ventilation systems)
- **Inlet vane dampers** (Energy saving fan inlet air control)
- **Inert gas retention dampers** (Energy saving fan inlet air control)
- **Nuclear dampers** (Zero leakage type dampers for the nuclear market)
- **Tunnel/metro dampers** (Specifically designed set of dampers for the tunnel/metro markets)

These high integrity dampers are designed to meet the highest safety requirements (BS

476 (20), IMO 754 pt (18), EN1366:2) and are approved by Lloyds, DNV, ABS, BV and SIRA with the company accredited to BS EN 9001:2008 by the Lloyds Register of Quality Assurance. All products are third party accredited to SIL2.

Continued innovation and a dedicated research and development (R&D) programme gives Flamgard-Calidair the opportunity to offer this wide range of dampers in various materials, such as stainless steel and mild galvanised steel. It specialises in ventilation systems for fire protection, which is where it first earned industry-wide recognition, leading to its systems being sent worldwide to all of the major oil firms. With a proven record of reliability and high performance in a marine environment, Flamgard-Calidair's dampers are designed to operate in the most extreme climate conditions offshore. All Flamgard-Calidair dampers are based around a number of key features, such as low leakage in accordance with BS EN 1751, BS EN 15138 and NORSOK compliance when requested. Safety at sea is the main priority for ship and oil rig operators, contractors, and consultants and Flamgard-Calidair's products form an integral part of the ventilation system. They are primarily installed to prevent smoke or fire spreading in an emergency situation.

As technology develops and becomes more sophisticated, modern ventilation and fire control equipment increasingly has to be compatible with state-of-the-art control systems for integrated fire protection and energy management schemes. With this in mind, Flamgard-Calidair has taken steps to keep abreast of updated and implemented regulations concerning safety; for offshore use, the company has a control system that conforms to the regulations of the Department of Energy's Offshore Installations Guidance on Fire Fighting Equipment and Statutory Instrument 611. The control system has features that include the ability to close the damper automatically during a fire emergency, whatever the condition of the electric and pneumatic signals, and a facility for automatic operation from fire or gas detection systems.

Samples of all Flamgard-Calidair fire dampers have successfully passed the minimum 60 minute fire tests, with offshore fire divisions usually classed as 'A60', along with "H60" and "H120" fire test certification, and also the onshore test BS746 (20) for a four hour duration.

For 33 years Flamgard-Calidair has manufactured high integrity stainless steel dampers for use in offshore petroleum and heavy industrial ventilation systems, gaining a loyal customer base along the way. These three decades of experience, and a dedication to maintaining its leading position will ensure that Flamgard-Calidair remains at the forefront of ventilation and fire safety control for many years to come. O&G

> With a proven record of reliability and high performance in a marine environment, Flamgard-Calidair's dampers are designed to operate in the most extreme climate conditions offshore

Flamgard-Calidair
flamgard.co.uk

Products
Ventilation products, specifically dampers

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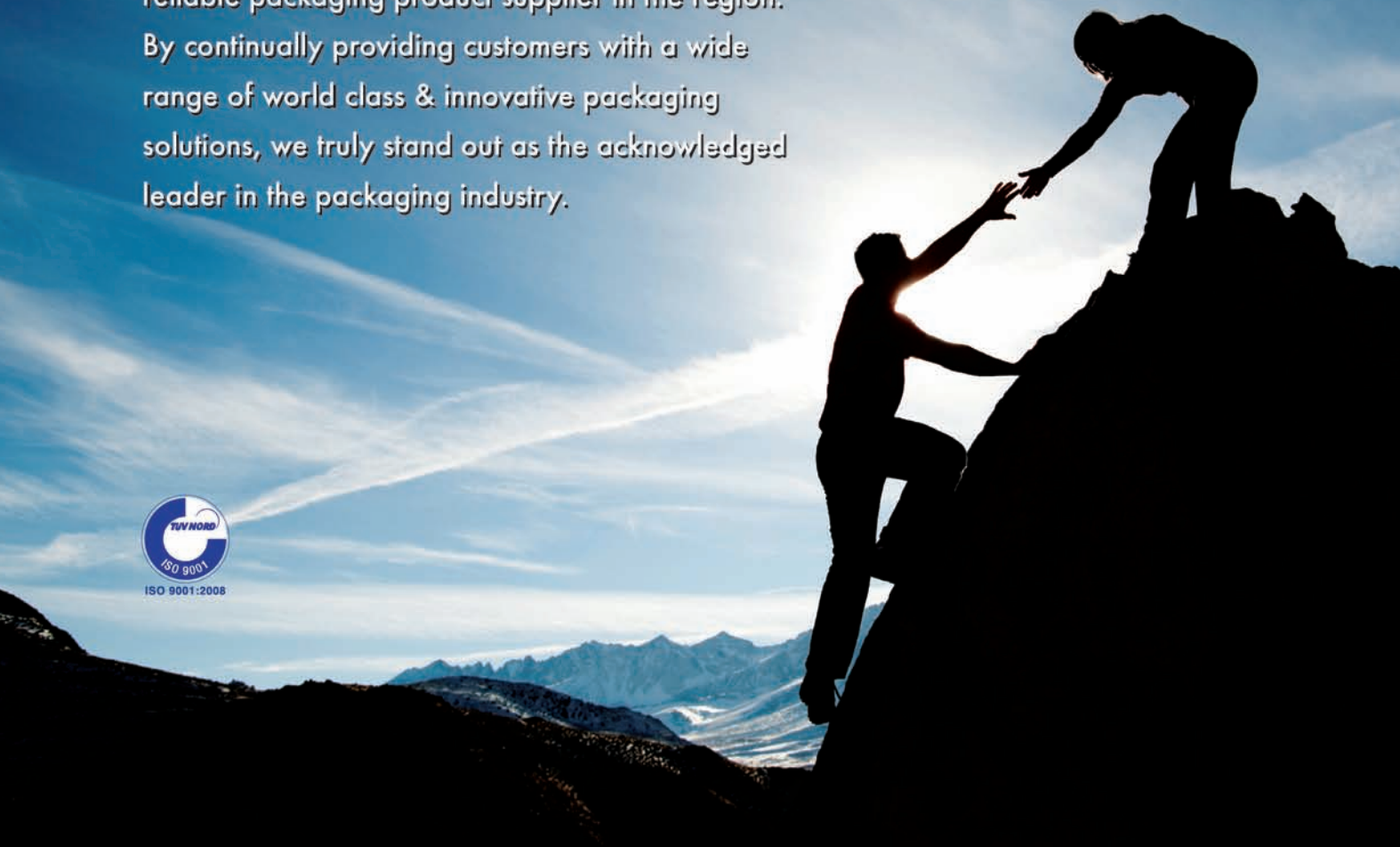

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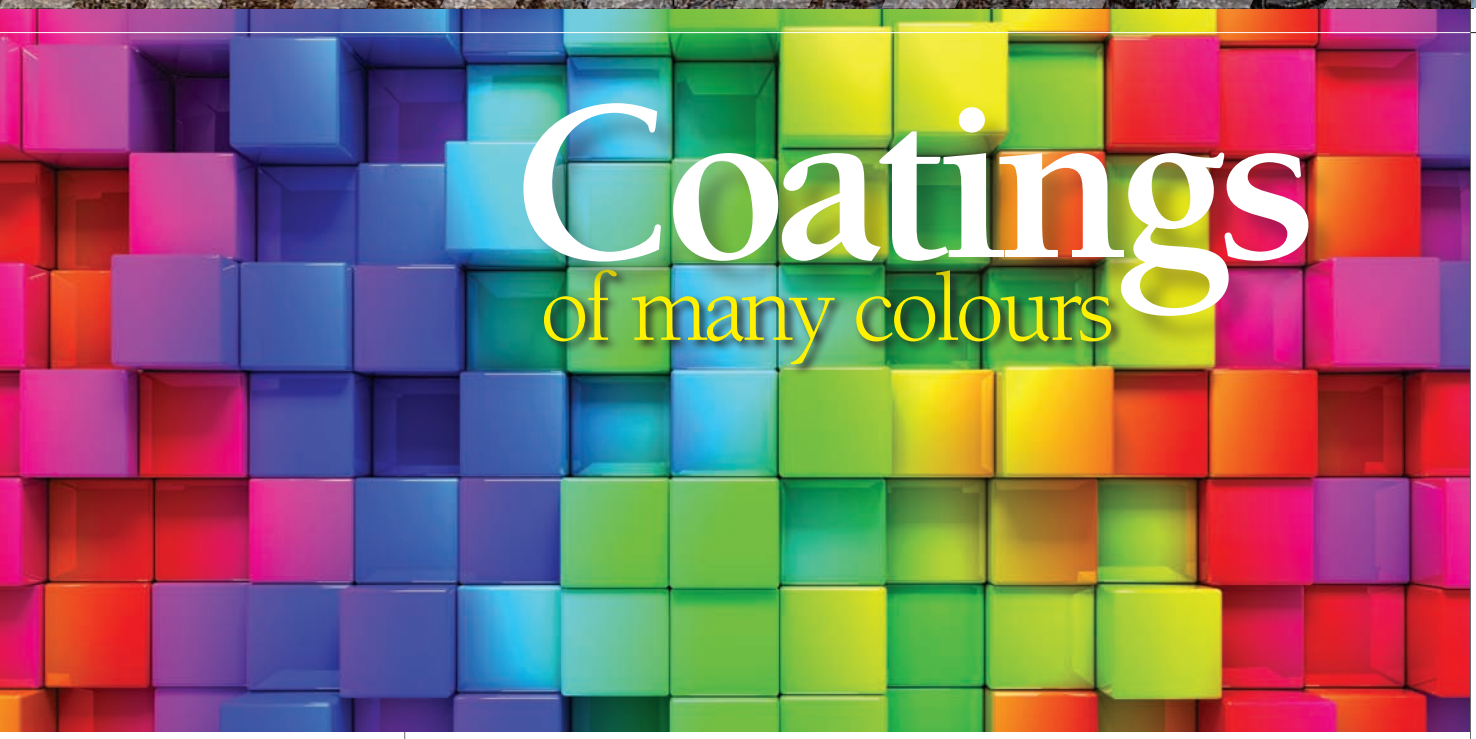

Coatings of many colours

Beginning operations with an old coffee grinder back in 1916, Jorgen Christian Hempel became Denmark's youngest licensed wholesaler when he established Hempel Marine Paints a year earlier in 1915. Despite humble paint mixing equipment in these early days business was highly successful and the factory was soon producing enough paint for the company to become the key supplier of ships in the quays of Copenhagen. Over the next almost 100 years, the group focused on strategic acquisitions, joint ventures and market opportunities to develop a presence in more than 80 countries, accumulate 24 factories and 48 sales offices.

Today Hempel is a world-leading coatings supplier for the decorative, protective, marine, container and yacht markets. From windmills and bridges to hospitals, ships, power stations and homes, its coatings protect man-made structures from the corrosive forces of nature.

The upstream and downstream oil and gas industry is one of the main market sectors for Hempel's high performance coatings and it has been working in this area since 1915. Oil and gas falls under the Protective coatings division, and as a result of its hard work and dedication, Hempel's coatings are known worldwide to provide extensive corrosion protection, even in the world's harshest environments.

In fact, as stated in Hempel's 2013 company report, Protective is its fastest-growing segment and the company as a whole is seeing the benefits of a strong and established global Protective platform. Over the last few years, the organisation has expanded in key geographical markets and established leading positions in well-established markets to become one of the industry's strongest global suppliers with the capability to serve customers throughout the world.

One location where Hempel is seeing a lot of success is Qatar. Hempel Qatar has been producing high quality coatings and services to market sectors including oil and gas for more than three decades and has a capacity of more than six million litres per annum.

Given that the oil and gas industry is a big customer for Hempel Qatar, it is no surprise that this part of the company is keen to promote the recently launched Hempacore One, Celluosic Intumescent Fire Protection coatings range.

All commonly used building materials lose strength when exposed to high enough temperatures. In extreme cases, even steel can buckle and collapse in a matter of minutes. Hempel's HEMPACORE range of intumescent coatings insulates structural steel to ensure a structure remains sound for longer.

The HEMPACORE intumescent coatings can be used on a wide range of structures - from the steel frames of sports stadiums to airports and skyscrapers - and can ensure structural integrity in the case of fire for up to two hours.

All of Hempel's intumescent coatings are thoroughly tested to ensure reliable and lasting performance, both in its own labs and by independent specialists and international standards boards.

Indeed, at Hempel, a team of expert staff is committed to providing better and safer solutions for customers - and that means staying at the forefront of coating technologies. Research and development plays a key role in realising this commitment. With ten research and development facilities located around the world, Hempel not only meets customers

where they conduct their business, but also develops solutions specifically for their needs. This international set-up also enables Hempel to employ the best people, regardless of nationality and location, in its state-of-the-art paint research, development and testing facilities.

Furthermore, over the coming years, Hempel is planning to significantly increase spending within marketing and R&D in order to ensure it can deliver solutions and support that enable it to gain market share in all its business segments.

It is clear that Hempel works on a global basis with many of the world's major corporations. But alongside the company's extensive range of protective coatings and technical services, it also supplies low-solvent paints so homeowners can bring colour to their homes safely; and it also supplies provide a full range of protective and maintenance products for yacht owners. In short, if a client has something to paint, then Hempel most likely has a solution for it.

Looking further ahead, Hempel's strategy of 'One Hempel – One Ambition' is certain to place it in the top ten leading coating suppliers in the world by 2015. By focusing on three

core aims, to quadruple sales in decorative, double sales in protective and become a leading marine maintenance player, this new strategy will ensure Hempel is fully prepared for the upcoming demands of the evolving industries in which it operates. O&G

Hempel
hempel.com

Services
Leading coating supplier

Schofield Publishing Ltd
10 Cringleford Business Centre
Intwood Road Cringleford Norwich NR4 6AU

T: +44 (0) 1603 274130 **F**: +44 (0) 1603 274131

Editor Matt High
mhigh@schofieldpublishing.co.uk

Sales Manager Rob Wagner
rwagner@schofieldpublishing.co.uk

europeanoilandgas.co.uk