Who We Are:
Quest is a boutique strategic advisory and consulting firm to the Oil & Gas industry worldwide. Quest is a leading source of market intelligence focused primarily on offshore oil & gas specifically technology-led solutions for deepwater exploration, development and exploitation activities.

Our Mission:
Through a dedicated team of sector specialists that focus on qualitative and quantitative data, Quest provides market expertise, strategic analysis, marketing communication and consultancy services to global deepwater oil & gas markets.

Our Clients:
All major participants in the deepwater oil and gas market utilize our strategic market intelligence products and services. International, national and independent oil companies subscribe to Quest data and services to better understand market conditions and supply chain dynamics when making key decisions for their offshore developments. Over 60 of the leading oilfield service companies rely on Quest’s market forecasts to provide insight into future revenue opportunities for their businesses. Over 50 global financial services companies subscribe to Quest data to further their research into strategic investment opportunities.

What We Do:
Research & Consulting: Quest provides expert industry advice to enhance our customers’ business strategies supplemented through valuable subscriptions to our proprietary market forecast databases.

Subscription Services: Quest Offshore offers a full suite of database subscriptions tailored to the major market segments for offshore oil and gas. Quest provides comprehensive market analysis and forecasting of key trends coupled with full transparency of working data and pertinent models, as well as downloads of the market-specific databases to maximize usability by our clients.

Consultancy Practice: Clients engage Quest’s Consultancy Practice form all business areas involved in deepwater oil and gas including oil companies, financial firms, engineering firms, key manufacturers and industrial conglomerates, trade groups, and law firms. Our clients contact Quest as they: branch-out into new areas of the market; further analyze the competitive landscape; gain knowledge of the current and future pricing environment; expand upon a market trend illustrated in a current subscription product or otherwise utilize the data and expertise of Quest.

Industry Events: MCE Deepwater Development is Quest’s major industry event (exhibition & technical conference) which travels between major European cities each spring attracting strategic representatives from the leading companies participating in the deepwater market to discuss the opportunities and technical challenges of meeting future energy demand.

Electronic Publishing: Quest offers one weekly and two monthly newsletters covering global, regional and market-specific activity. All available e-mailed newsletters include articles detailing major contract awards, corporate activity and high-profile market events.

Maps: Quest’s leading knowledge of the global deepwater market led us to produce our popular series of regional wall maps. Quest’s highly recognizable deepwater maps feature pertinent forecast field development projects and major exploration prospects. Quest maps provide an illustrative visual of subsea, FPS and pipeline infrastructure.

questquickcontacts.html
Slowed tendering activity in combination with an oversupplied Subsea Construction Market may lead to favorable day-rates for operators

Low oil prices and significant cuts in planned capital expenditures has led to some projects coming to a halt and others shifting further out in the forecast period as international and national oil companies review the economics of deepwater projects and explore ways of making their prospective investments viable in currently unfavorable market conditions. This has slowed down tender activities in the marine contracting segment leaving marine contractors dependent upon their strong backlogs. However, as these backlogs are worked off and tender activity remains muted contractors are expected to bid increasingly aggressively for work.

With new offshore project tendering activity slower in regions such as North America, Asia Pacific and the North Sea; the North and West Africa region is one of few promising regions with new opportunities in 2015 for projects such as Shell’s Bonga South West, ENI’s Block 15-06 & OCTP Sankofa SURF project and BG’s Burullus Phase IXB SURF project.

Quest expects global flowline & umbilical Installation demand to dip in 2016 before it begins to build at the latter end of the forecast period. The global pipeline forecast for 2015 to 2019 has fallen 20% from the previous forecast due to current market conditions driven by low oil prices. Low oil prices have had an impact on an already cost sensitive market causing final investment decisions by operators executing large SURF contracts to be delayed pushing installation market awards later into the forecast.

Decreased demand coupled with the increasing supply of vessels in the offshore subsea construction market segment could lead to low utilization rates in a deteriorating market pushing day-rates to a more favorable level for operators. In 2014, twelve newbuilds were delivered into the SURF market, five of which were are contracted to Petrobras. Quest is currently

Global Marine Construction Total Demand Worldwide Pipeline (KM)

Installation Year

Africa/Medit.  Asia Pacific - Other  Australasia  Middle East and India  N. America  N. Sea  S. America

KM

0  2,000  4,000  6,000  8,000  10,000  12,000

tracking twenty newbuilds to be delivered between 2015 and 2017 fourteen of which will be delivered to long term contracts in Brazil. Four of the newbuilds from 2014 are considered by Quest to Multi-purpose Construction assets targeting subsea construction work.

Allseas has taken delivery of the Pioneering Spirit which has already signed its first contract with Shell for decommissioning activities on Brent field. Ceona’s Polar Onyx has been delivered and has mobilized to Brazil to begin its one year contract with Petrobras. The Ceona Amazon has been delivered this year and was awarded her first project in the Gulf of Mexico for Walter Oil & Gas on the Coelacanth Export Pipelines project. McDermott will add flexlay sister vessel Lay Vessel 108 in 2015 and a newbuild S-Lay vessel, DLV 2000, in 2016. EMAS AMC has taken delivery of the Lewek Constellation and it has finished its maiden project, Vaalco’s Etame Marin Field. The vessel has now been equipped with her Multi Lay tower which was installed at Huisman in the Netherlands and is currently mobilizing to begin work for Noble Energy in the Gulf. Technip and Subsea 7 both have construction vessels under construction at shipyards in addition to their newbuild vessels for Petrobras.

With Petrobras future activity levels in question due to financial and corruption issues and a large number of assets still to be delivered, it is questionable if Petrobras’ activity levels will require all of the assets ordered leading to the possibility that some of these vessels may bid for work in other regions. Quest expects to see contractors divest older vessels in the coming months and years. Subsea 7 recently announced the divestment of eleven vessels by relinquishing long term charter contracts and cold stacking of wholly-owned vessels. Technip has been divesting their fleet since 2013 releasing three vessels in 2013, eight vessels in 2014, two in 2015 and another planned divestment of two vessels in 2016 and 2017. Quest expects further divestment activity in the near future, with a high grading of the fleet leading to both increased vessel retirements and sales of vessels into less challenging markets. As with most other oil and gas sectors the offshore construction vessel market is facing near term challenges, exacerbated by the poor timing of newbuild deliveries. Current market conditions both create opportunities for operators looking to execute projects at reduced costs as well as lead to hope that the exit of older assets from the market coupled with increased future demand will lead to a balanced market in the future.

### Scheduled Newbuild Vessels 2015-2017 by Contractor

<table>
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<tr>
<th>Contractor</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
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<td>Petrofac</td>
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<tr>
<td>Sapura Navegação Marítima</td>
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<td></td>
</tr>
<tr>
<td>Subsea 7</td>
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<td>3</td>
<td></td>
</tr>
<tr>
<td>Technip</td>
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<td></td>
</tr>
<tr>
<td>Technip/DOF Subsea</td>
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<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Grand Total</td>
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</table>

### Scheduled Newbuild Vessels 2015-2017 by Category

<table>
<thead>
<tr>
<th>Quest Vessel Category</th>
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<th>2016</th>
<th>2017</th>
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<td>Intervention</td>
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<tr>
<td>Multi-Purpose Construction</td>
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<tr>
<td>Reel Lay</td>
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<td>2</td>
</tr>
<tr>
<td>Grand Total</td>
<td>7</td>
<td>12</td>
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</tr>
</tbody>
</table>
Lower deepwater drilling demand coupled with over-supplied market leads to interesting changes in floating rig market

Supply Summary

According to Quest’s Deepwater Drilling Analysis, there are 236 floating rigs classified as 5th-7th generation rigs that are currently in the global supply or under construction for future delivery. The 5th-7th gen group make-up just over 65 percent of the total global floating rig supply (inclusive of undelivered newbuilds). Approximately 90 percent of the 5th-7th gen rig group is less than 15 years old and just over 75 percent are drillships. Additionally, Petrobras has procured another 29 rigs to be built in Brazil. Many of these rigs are in jeopardy of cancellation and/or delivery delay. Final decisions regarding the fate of these rigs are expected to be reached in the second half of 2015.

Nearly 75% of the 5th-7th gen rigs are contracted (including rigs under construction). Among these 174 units currently with contracts, nearly 75% of the rigs are or will be working in the golden triangle region (Gulf of Mexico, Brazil, West Africa). Key drivers for the proliferation of newer high specification rigs to the golden triangle region include: deeper water depths, higher well pressures, deep well drilling beneath salt layers, active mix of development and exploration drilling, regulatory requirements, and large project developments. Twenty-four distinct operators currently have 5th-7th gen rigs working in the golden triangle including all six super-majors, four national oil companies, and 14 independent operators.

Over the next 20 months (through 2016) 32 percent of 5th to 7th generation rigs currently working will be rolling off contract. Among these 54 rigs rolling off contract 30 are working in the golden triangle region. Drilling activity in these regions over the next two years is pivotal to utilization amongst the 5th-7th gen fleet. We have already seen some rig contractors offer rate reductions for term extensions or new contracts to keep these newer rigs working.
Supply Demand Outlook

Just over 1,030 wells are forecasted to be spud from 2015-2017 in areas where there is a chance that 5th-7th gen rigs would be competing for the work. Just over 75 percent of the wells are in North & South America and the Africa and Mediterranean region.

Overall conclusions indicate that deepwater well demand is expected to drop 10 percent, year over year, in 2015 and again in 2016 resulting in a ~ 25 percent decline in rig demand compared to 2014. For 2017 we are expecting the market to begin to recover as demand increases and more rigs are taken out of supply enabling a more balanced market. Rig demand for the 5th-7th gen fleet in 2017 will still be below 2014 demand by over 15 units but around 18 percent up from 2016 demand.

Our lowest case assumes full attrition through 2017 (all rigs rolling off contract go idle and do not return until after 2017). In this case supply would meet demand in 2016. The highest case is the Forecast Contract Supply which takes into account current supply and demand dynamics, market conditions, and regional demand assumptions. Contracted supply naturally exceeds demand because not all rigs contracted are utilized for drilling wells. The third case is the forecast drilling supply which represents the percentage of rigs needed to meet well demand (rigs drilling wells) which varies by region but globally is ~80 percent of the contracted fleet. The latter case indicates that supply will meet demand in 2017.

Quest Deepwater Drilling Supply and Demand Outlook

[Rig Demand] - Number of rigs needed to meet total well demand
[Forecast Contracted Supply] - Number of rigs forecast to be under contract globally (takes into account estimated attrition and/or new additions to contracted supply)
[Forecast Drilling Supply] - Number of contracted rigs forecast to be used for drilling (~77% of Forecasted Contracted Supply Globally)
[Full Attrition Supply] - Number of rigs forecast to be under contract globally (assumes all rigs currently contracted stay on contract through forecast period - in other words zero attrition)
Deepwater exploration slump and long-term development opportunities

Since deepwater exploration’s global activity peak in 2012, Quest has observed a significant decrease in overall spuds and subsequent success rates that may have a limiting effect on long-term development opportunities in the next decade. An expected, and much needed, recovery in deepwater exploration around 2017, and increased success in established and frontier regions, would help curtail negative implications on the backlog of discoveries.

A Shift in Priorities

According to Quest’s coverage of the global deepwater exploration market (exploration and appraisal wells drilled from floating rigs), from 2009 through 2012, exploration activity climbed to record highs. Quest followed almost 1,300 exploration spuds during that time period, the majority of which took place in the North Sea and Brazil. The overall success rates of deepwater exploration activity peaked in 2010 and began to decline in the following years. A number of factors may have contributed to this observed trend, including a peak in frontier exploration drilling in 2011-2013 which is inherently more risky.

After 2012, Brazil’s exploration activity declined materially as they approached completion of their exploration and appraisal campaigns around their pre-salt reserves. Africa, Asia and North America also experienced a slowdown in exploration drilling that is expected to last through 2016.

As such, Quest has seen a shift in drilling commitments away from exploration and focused more on non-drilling activities (including workover, completion, etc.) while development levels have stayed relatively flat.
Long-term Deepwater Execution Outlook

How will this dip in deepwater exploration activities affect the future opportunities for deepwater development? Without a doubt, the reduced activity coupled with lower success rates has provided fewer additions into the backlog of un-developed discoveries.

According to Quest’s Deepwater Development Database, the current backlog of discoveries is sufficient to last through 2021. The forecasted peak of deepwater project executions is driven, in large part, by the highly depressed level of sanctioning in 2014-2016. Quest expects the current efforts between the operating community and the supply chain to enable a higher number of project sanctions starting in 2017, at which point operators will be rapidly working through the accumulated backlog of discoveries.

On average, there is seven to ten years between discovery and project sanction for deepwater developments, depending on region, operator and development scenario. With that average in mind and based on Quest’s projection, 2022 is the key year where the deepwater industry will likely start to feel the effects of lower exploration drilling. As such the long-term health of the global deepwater industry will require a material recovery in the deepwater exploration market in the next two to three years to ensure its’ long term health.

Opportunities Ahead

Quest anticipates significant deepwater potential in all global basins throughout the future. Market events and continuous adjustments to the timeline to reach this potential have been a consistent aspect of the industry and are expected to help drive the necessary innovative solutions. While finding the most efficient and successful way to bring global reserves to production is key for all parties to realize maximum returns, the importance of replacing those reserves through risk-managed exploration cannot be undervalued.

Global Deepwater Project Execution Forecast
Global Offshore Fabrication

South Korean Yards – it can’t get much worse

HHI was the only Tier-1 yard to finalize a contract in Q1 2015 with Bardegg-2 while SHI works towards finalizing Stampede and Appomattox. 2015 awards from the companies look aggressive once again in 2015, as Quest expects declines to continue due to increased competition and decreasing workloads. As previously stated, the best case scenario will revolve around the development of the FLNG market, as large newbuild FPSOs continue to remain cost constrained and the drilling market is oversupplied through the forecast. Quest is forecasting a decline in tonnage through 2016 for Korean yards, where the market will pick-up into 2017-2019, although still 50% lower than the 2014 highs.

FLNG Demand – the growth opportunity

FLNG demand appears to be the one silver lining in the offshore fabrication market at present. The outlook on FLNG orders through 2019 remains positive at nine units, although a 25% decrease from the previous forecast due to market conditions. Current LNG prices in Asia have fallen 40% since December to around $7 mmtbu putting the economics of gas projects in question – many projects require stable long-term commitments. Never the less, there are several large gas projects that are likely to go through requiring one or many FLNG units to fully develop the field and will support a growing demand for FLNG units and a greater energy balance within the natural gas market.

U.S. Gulf of Mexico Subsea Installations

Subsea installations will remain dominant through forecast

New deepwater dry tree wells will be limited by an aging portfolio, as well as the growing use of semi-submersible floating production units which are not capable of supporting dry trees for technical reasons. Chevron’s Big Foot unit, which is currently under construction, remains the only major new dry tree production system through 2020 within Quest’s forecast, while the majority of new dry-tree demand comes from the development drilling of established fields.

Long-term subsea installations likely to lag as awards are delayed and projects re-assessed

Subsea installations are likely to continue in
Deepwater Market Highlights

the near-term through pent up demand from projects that start up in 2014 and 2015. Farther out, start-ups will likely see a decline in 2019 due to the read-through of award delays and pushes in 2015 due to the long cycle time of deepwater projects. 2020+ could trend downward in similar fashion if oil prices remain suppressed longer than expected.

Global Subsea Market

Near-term forecasts reduced as industry re-assesses approach

Operator’s concerns about development cost and the lower oil price of the past few quarters have led Quest to reduce its near-term forecast by ~30% over the same time period. The majority of this is concentrated over the next 24 months as projects are delayed due to concept re-evaluation. Other factors such as natural gas demand concerns in Asia have pushed some stranded gas developments out of the current forecast period. Operators continue to engage with the supply chain to find the best path forward that enables the continued development of deepwater reserves at return rates that are acceptable by those involved.

1H 2015 subsea sanctions – muted, but meaningful

The major subsea project sanction count is up to four for the first half of 2015, which is probably at or above what others may have assumed for the whole year. Although the lower oil price and other leading drivers will definitely reduce the subsea expectations for the next ~24 months, it is important to understand that not all projects will react the same way to the same influences. As such, we saw bp and Eni lead Africa into a strong start for the year in terms of major project awards. Eni executed their OCTP project off Ghana and their second phase of Bahr Essalam off Libya to GE Oil & Gas and OneSubsea, respectively. OneSubsea was also awarded bp’s two large subsea awards off Africa, one for Shah Deniz in the Caspian and the other for the West Nile Delta project off Egypt.

Global Subsea Tree Demand
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Quest data subscription products stem from the Quest Enhanced Deepwater Development Database where our team tracks deepwater exploration and development opportunities globally. We start tracking development opportunities from the pre-exploration stage and continue to follow through discovery, engineering, procurement, installation, startup through to decommissioning. Key data including operators and working interest owners, location, water depth, milestone timing and scope of project are interrogated on a daily basis to provide the most up-to-date information possible.

Quest applies proprietary forecasting methodologies as well as our intrinsic market knowledge to this project-level data to provide historical and forecast trends on award, installation and startup activity of major offshore equipment. Extensive working files are provided to our clients containing all data driving the graphs seen in the Market Overview. With the working files, our clients can extrapolate figures to apply to internal models or company presentations. Quest offers great flexibility to our clients with respect to your subscription. If one product does not fully answer your market intelligence questions, we can bring in components of other subscriptions to provide the most valuable solution for your company.
Quest is your source for strategic insight on the global deepwater oil and gas industry.

Quest Offshore is a leading provider of industry analysis, tactical data, news, influential market intelligence reports, consulting and technical conferences to the offshore oil and gas industry. Our niche canvases subsea technology, FPS fabrication, umbilicals, risers & flowlines, and marine construction segments globally.

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