

Asia-Pacific's Integrated Services Market

Jeremy Bowden, on behalf of Offshore Network, assisted author, Erin Smith, Offshore Network



Disclaimer:

Whilst every effort has been made to ensure the accuracy of the information contained in this publication, neither Offshore Network Ltd nor any of its affiliates past, present or future warrants its accuracy or will, regardless of its or their negligence, assume liability for any foreseeable or unforeseeable use made thereof, which liability is hereby excluded. Consequently, such use is at the recipient's own risk on the basis that any use by the recipient constitutes agreement to the terms of this disclaimer. The recipient is obliged to inform any subsequent recipient of such terms. Any reproduction, distribution or public use of this report requires prior written permission from Offshore Network Ltd.

Asia-Pacific's Integrated Services Market

Jeremy Bowden, on behalf of Offshore Network, assisted author, Erin Smith, Offshore Network

CONTENTS

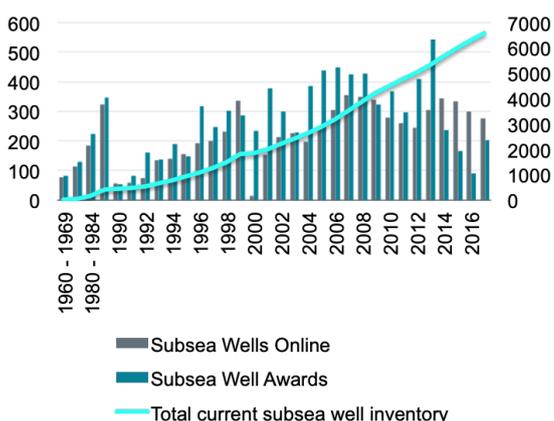
INTEGRATED SUBSEA WELL INTERVENTION MODEL GAINS TRACTION IN ASIA-PACIFIC	3
MAKING ECONOMIC SENSE	4
WHY INTEGRATED SERVICES ARE NEEDED IN APAC?	4
HOW TO SPREAD THE RISK IN AN INTEGRATED MODEL	5
TACKLING THE VOLUME PROBLEM	6
MORE INTEGRATED SERVICES?	6

Prospects for well intervention are dramatically improving following a lengthy downturn in the oil sector that began when prices fell in late 2014. The global well intervention market is expected to increase from its initial value of 8.75 billion USD to an estimated value of 13.37 billion USD by 2026 – this is hugely driven by the demand for energy. In addition, operational expenditure has also begun to rise, at least among NOCs and integrated companies. Combined, these provide a bigger pie from which funds for well intervention can be drawn. Asia Pacific is playing a huge part in this growing market as regulatory enhancements are forcing a drastically higher volume of decommissioning whilst also encouraging a new focus on production enhancement and integrity campaigns.

Integrated subsea well intervention model gains traction in Asia-Pacific

Subsea well intervention is on the rise around the world. It has already become established in Europe, where each subsea well now experiences an average of 1.5 intervention days per year, according to speakers at last year's OWI APAC conference. In Asia-Pacific, the market has yet to become fully established, but with a total of 700-900 subsea wells across 12 countries in the region, and the second highest forecast regional subsea well growth rate, it represents a significant opportunity: Based on the European rate of intervention, there is a potential 1200 hours of highly productive work per year to be done in the Asia-Pacific, as the region moves towards maturity (current average well age is 11 years).

Global Subsea Wells



Overall intervention days per year per Region to end of 2018
(1.5 days per well per year average)

Africa (including Egypt, Libya & Tun)	2,646
Asia	411
Australia	350
Europe	3,330
Latin America	1,983
Middle East & Caspian	117
North America	1,402
Global Intervention Days	10,239

This means the integrated intervention service model that's used in Europe could become a viable option in Asia Pacific as well, because a steady flow of work is a key element in ensuring quality and value for money from such an approach. In the North Sea, the steady work-flow available to integrated providers enables teams to stay together for many months, which builds strong working relationships, while ensuring lessons are learned and not forgotten. Until now, that volume of work had not been available in the Asia Pacific region, where wells are less numerous and mature. Stopping and starting all the time creates operational problems for integrated teams, and this has made it hard for service providers to ensure consistency of integrated intervention delivery in the region.

Making economic sense

According to research done by Norway's state-owned Equinor relating to its cost of production data, an incremental barrel of oil from well intervention costs about \$9/barrel in capex, compared to about \$25/barrel for output from a new well – so it makes far more commercial sense to opt for well intervention, rather than drilling new wells – underlining the truth of the old adage “the best place to find oil is in an oil well”. With a steady flow of work, an integrated intervention model can bring those costs down even further.

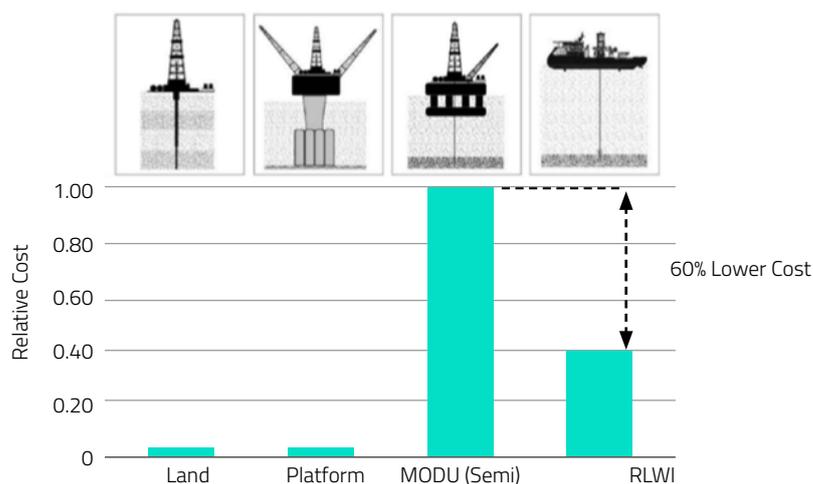


Figure 1: Relative intervention cost per well. After Fjaertoft and Sonstabo, 2011.

Why integrated services are needed in APAC?

As assets in the region begin to age, the requirement to complete pricey campaigns is forever growing, putting a large amount of pressure on both service companies and operators alike to complete well intervention projects as efficiently and cost effectively as possible. Across Asia Pacific as a whole there are changing regulations and greater focus on the decommissioning of aging assets, driving the desire for new technology and integrated service models.

As one of the key regions in Asia Pacific, Malaysia are seeing a huge change to their industry framework as Petronas MPM advance their Integrated Idle Well Restoration (IIWR) framework from 2015 to the Integrated Well Service Contract (IWS) moving into 2020. This contract provides a project structure of 3 integrated wells packages (2 platform 1 subsea), with any future well intervention, stimulation or P&A campaigns in Malaysia being completed by the 3 elected service companies on the 'Pan Malaysia' panel.

Similarly, increasing regulatory pressure in Thailand is driving the focus for new technology and clarity of best practice as they emerge into an increase of P&A activity across the region. EMAS Energy services have already successfully plugged and abandoned over 430 wells however the focus on decommissioning continues to grow as Chevron hand over the Erawan gas field to Thai state oil firm PTTEP.

Indonesian state-owned oil company Pertamina intends to invest around US\$7.8 billion for business development, most of which is to go into the upstream sector next year. Having taken over assets from majors such as Chevron and Total E&P, Pertamina focus on increasing production across their assets or at least trying to maintain the production levels they currently hold. However, as assets age, it is ever more important to focus on efficient intervention solutions and how regions such as Indonesia could benefit from an integrated services framework.

How to spread the risk in an integrated model

So, while integrated models are more efficient, the question is who takes the risk if something goes wrong. In the past, service companies have traditionally been keen to pin down the scope of work and understanding exactly what that scope is – a non-integrated approach. They have worked independently to a model where everything was reimbursable, and if something broke or went wrong the operator would pay the contractor to fix it. Service companies don't take much of the risk in that situation. If a more collaborative integrated and risk sharing approach is adopted, there can be more benefits to all involved – provided the structure of the working relationships is right, and that all of the companies involved are carefully incentivised to do the right thing.

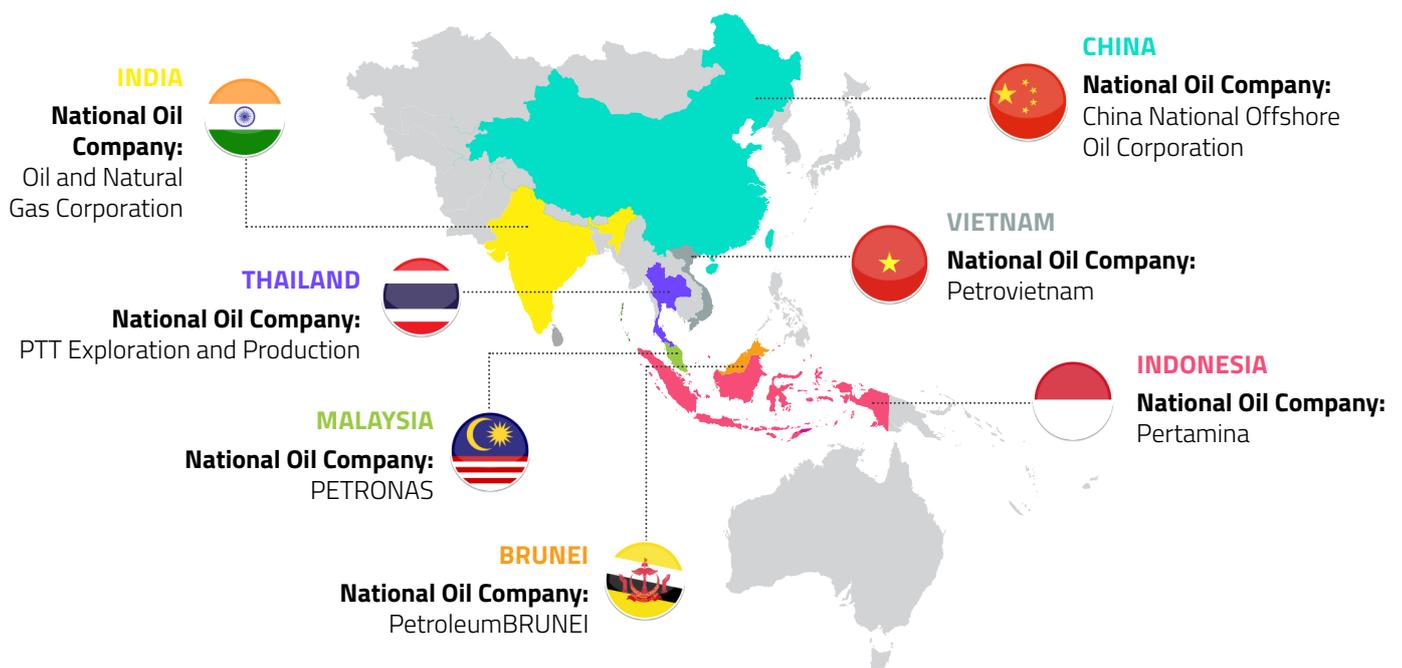
From an operator's perspective, an integrated approach must simplify the project, otherwise the operator might as well do it themselves. Operators are keen to see outcome based (around timing, safety and output) integrated service models, which shifts as much of the risk as possible to the main contractor, with the outcome including a specified volume increase. To be feasible, this requires a steady volume of work, along with some significant risk mitigation on the part of the main contractor.

For an effective integrated intervention provider, this comes down to how best to incentivise best-in-class performance among every player in the team. An integrated provider may bring well known first-in-class service in some key areas (which is one factor that makes the approach attractive to operators), but there is often one subcontracted area where it falls down – the integrated model is only as good as its weakest link. The skill is in knowing what the team's strengths are and how to collaborate with others to fill in the gaps.

One way of addressing the issue, which is favoured by many operators, is to integrate skill sets between all players involved in the intervention; by doing this effectively, the risk of a single entity disrupting operations can be mitigated. And to ensure all entities are contributing to the outcome, they must all own the outcome and therefore the risk.

Incentivisation or a performance-based contracts can help ensure that all parties are working towards the same goals, as well as pricing some risk into bids. The best outcome is assumed to be the base outcome, and anything down from that must be managed. To ensure all contractor and subcontractors are involved in the common purpose, close working relationships are required with the operator as well as the main contractor.

If things do go wrong, the pain needs to be spread among all those involved, rather than falling entirely on the main contractor. To ensure relationships are not damaged, a middle ground alignment through an incentive programme may be the best option. For example, in the UK, when it comes to P&A, collaboration is the buzzword, but it is not a transitory relationship that achieves best in class service – that requires long build-up of relationships, often underpinned by contractual understandings. This, and other factors, can mean a significant upfront cost associated with enhanced integrated solutions, which may need to be recognised by clients.



Well Intervention Market Map

Tackling the volume problem

Above all, for the integrated model to work in the Asia Pacific region, it needs to have volume – many wells, one after the other, to fully realise the potential efficiencies. On the other hand, without the volume, integrated intervention will always be operating below par. Whenever providers have to re-crew and start again, much of what has been learned is lost. Avoiding a stop-start environment is important.

In any one of the separate Asian regions – including Vietnam, Thailand, Malaysia, Indonesia, Philippines and Australia - there is not the volume to sustain an integrated model. However, linking different basins is one way of overcoming this lack of volume and expand the pool of work. Together, Malaysia and Australia have a large well base. Intervention vessels can be shared between contractors operating in the different regions in 'Red clubs' or vessel clubs. However, proactive negotiations are important in unlocking cross-country opportunities to keep volumes high in this way.

Another approach is to ensure the intervention vessel used is as versatile as possible, so it can take on the widest range of jobs. By using a "Swiss army knife" type of vessel, that can do any task - top haul; plugging and abandonment, light well intervention as well as subsea well intervention, and so on, then that's a way of creating volume work in multiple different environments at a reasonable cost. By bringing together a number of intervention types, enough work could easily be accumulated by a lead contractor in the Asia-Pacific region to ensure a steady stream across a range of clients for an integrated intervention team.

P&A is clearly an area where an integrated approach would work from a service company perspective, as the scope is often limited and well understood. As the P&A market begins to gain pace through 2020, particularly throughout Thailand and Malaysia, this could expand the volume of well intervention work available, which would help sustain integrated well intervention crews.

Widening it out still further - the platform market is larger and older than subsea in the region, so there's more work there than in subsea, and always something going on that can expand the utilisation times. One speaker from OWI APAC 2019 noted that the IIWR operating model in Malaysia, put in place by Petronas MPM is particularly good for an integrated intervention package approach, because it is centrally driven, and a lot of work is available; whereas building a steady flow of work in smaller, less centralised operating areas is less easy. As previously mentioned, this is being enhanced to further streamline integrated well intervention within the region.

More Integrated Services?

Opportunities for an integrated approach to well intervention are on the rise in the Asia-Pacific region, and with innovation and collaboration from providers and operators, remaining obstacles such as integrating local service providers, especially in terms of QA and QC, into well-established integrated teams are likely to be overcome. This should pave the way for lower cost and more productive well intervention – helping to slow field decline rates and support overall production levels. We expect the Malaysian, Australian and Indonesian regions to react to this market dynamic first – followed by Thailand, India, and other areas within Asia Pacific going into 2020.