



AN EXCLUSIVE INTERVIEW WITH OCYAN

MAXIMIZING DEEPWATER INVESTMENTS & FPSO PROJECTS IN BRAZIL

Researched & Developed:





OVERVIEW

IQPC and the FPSO Network conducted an in-depth interview with Ocyan to explore the impact of the global COVID-19 pandemic on Brazil's deep waters and pre-salt developments. In this interview, we also look at various innovations and solutions industry leaders can harness to accelerate FPSO projects. We hope you will find this report useful.

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INTRODUCTION

As the FPSO market adjusts to the new normal, the entire industry will have to work closer than ever to recover from the impact of COVID-19 and the oil price crash. Oil producers adjusting to the current environment will have to strengthen their balance sheets to emerge in a stronger position in the post-pandemic period.

THE UNPRECEDENTED COVID-19 PANDEMIC & THE IMPACT ON OIL PRICES

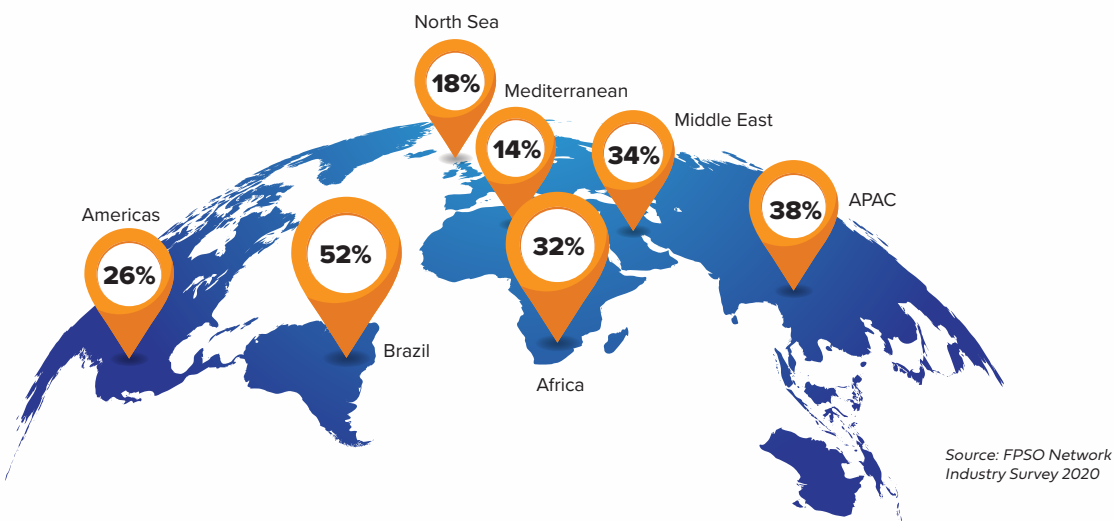
Since the start of 2020, the unprecedented COVID-19 pandemic has shaken the globe, resulting in factory closures, cease of operations, manpower shortages, travel restrictions and health scares. For the Oil and FPSO industries however, the oil price war hurt a whole lot more. On top of operations that were forced to stop, some FPSO projects that were on the table are now taken off, and some businesses are now scrambling to re-engineer execution plans in the hopes of driving project breakeven prices down.

DEEPWATER INVESTMENTS

Deepwater and ultra-deepwater oilfields represent significant opportunities for offshore operators —provided they can keep the cost of expanding further offshore sufficiently low to remain competitive. Despite the oil price volatility and the global pandemic, the start of 2020 is seeing oil producers already planning 30 deepwater floater projects in the Americas, with 21 FPSOs to be ordered for Brazilian deepwater oil and gas projects, three in Guyana and three in Mexico, and one on Canada’s east coast.¹

In the 2020 industry survey conducted by the FPSO Network, we uncovered that the bulk of FPSO project investments continue to lie in deepwater locations like Brazil and Africa.

Considering the great potential lying in deepwater and ultra-deepwater fields, investments into the costs and technologies to reap the benefits will increase in the coming years. FPSOs are well-established as the best way to produce such deepwater fields compared to all other methods, proving the fundamental demand for the market will sustain investments.



DIGITALIZATION

FPSO stakeholders who have previously cut costs using digitalization believe the current wave of cuts will mean more technology offshore. While reducing both CAPEX and OPEX is necessary in the current period to survive the losses, prioritizing the capital needed to drive long term value by way of investments in technology platforms will set the bar for the way the industry will operate post-pandemic as lockdowns ease and demand increases.

Industry stakeholders will have to closely collaborate in seeking alternative suppliers, seeking viable storage solutions and planning for successful shutdowns and turnarounds to resume FPSO operations efficiently when the pandemic is over. Learning from this pandemic and oil price crash will also help stakeholders solidify long-term investment themes such as remote monitoring, digitalization and low-manned FPSOs that help to bridge the manpower gap and pave the way forward for the industry. There is no better time than now to re-examine plans for digital transformation to cut costs and accelerating savings to tide over the pandemic period and also focus energies that will generate the most return on investments.

¹ <https://www.offshoreenergy.com/news-content/news-content/news-content-combined-bjan-30-qeebwafel-foafel-biolecte-in-aweficaz-2y8a>

THE GLOBAL PANDEMIC & FPSO PROJECTS IN BRAZIL



THE GLOBAL PANDEMIC & FPSO PROJECTS IN BRAZIL

JORGE MITIDIERI
Executive Vice President, **Ocyan**



The FPSO Network spoke with Jorge Mitidieri, Executive Vice President at Ocyan to find out more about the impact of the global pandemic on FPSO projects in Brazil; and more importantly different strategies industry leaders can adopt to successfully maximize deepwater investments in Brazil.



IN YOUR OPINION, HOW HAS THE GLOBAL PANDEMIC AFFECTED FPSO PROJECTS IN BRAZIL?

Any view of the effects in Brazil cannot be taken separately. The nature of the Oil and Gas sector works on a global footprint, the restrictions to personnel travel alone has created significant logistical challenges for the operations and for projects in execution, where we the delays of 9-15 months are now being a problem.

The COVID-19 pandemic has devastated global oil and gas project sanctioning this year and Brazil has not escaped this effect. We are facing a slowdown in the larger Brazilian Projects through decision-making, for example, looking at Sub Sea potential for offtake instead of FPSO, the potential to cancel Itapu, Mero 4 and more recently, re-bids (Petrobras Whales Park).

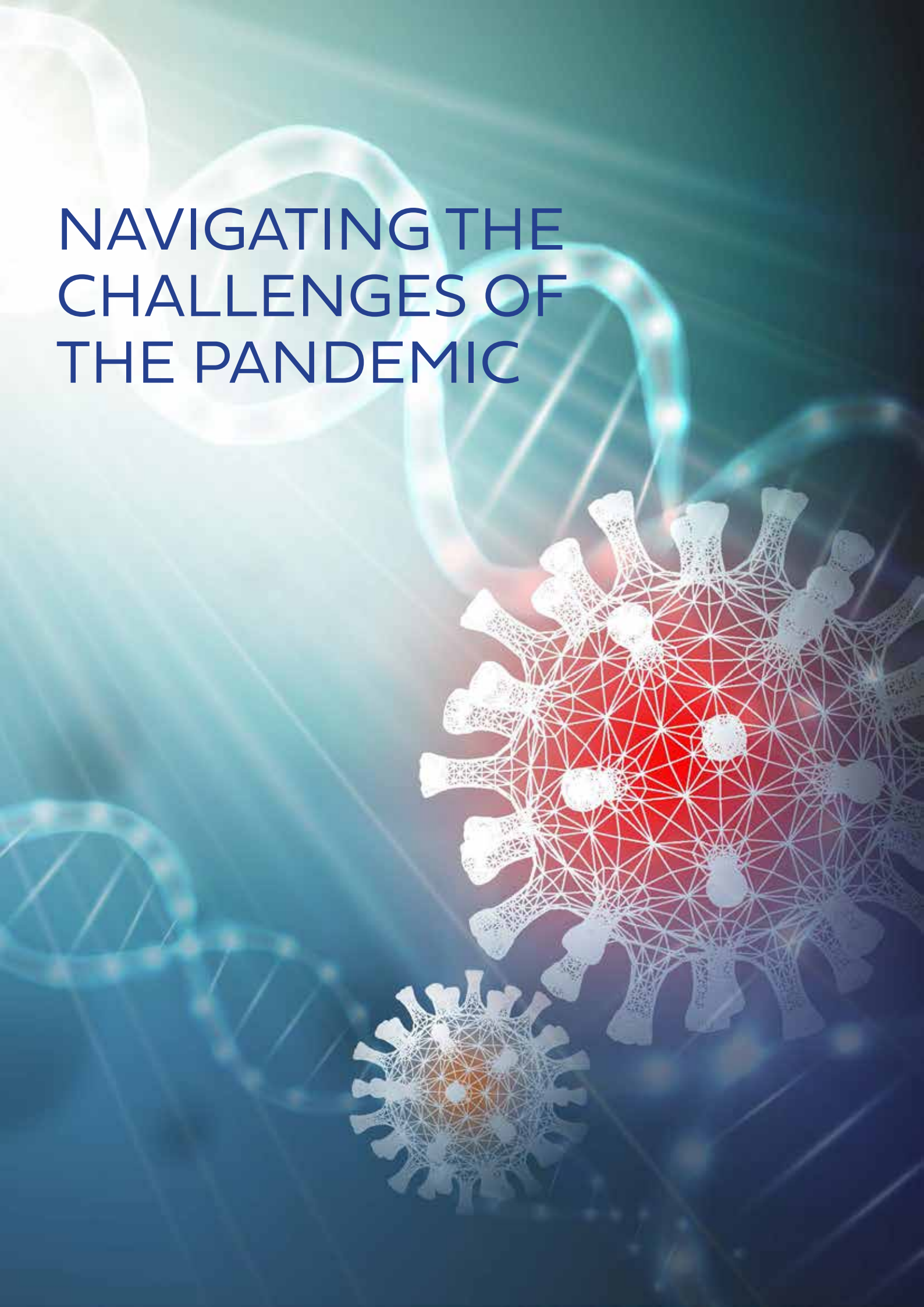


HOW HAS THE MARKET SENTIMENT CHANGED? HAS THIS IMPACTED PRE-SALT DEVELOPMENTS?

The market is still under evaluation and clearly a little frightened by this significant work reduction and it is not happening only in Brazil, but worldwide. Publicly, COVID-19 is forecasted to cause total committed spending to drop to around \$53 billion, from \$190 billion in 2019. Postponed plans will, however, cause the total worth of final investment decisions (FIDs) to double in 2021 and exceed pre-pandemic levels from 2022 and Offshore commitments are now expected to reach \$34 billion in 2020, compared to \$101 billion in 2019. Onshore sanctions are expected to drop from \$ 89 billion last year to \$ 19 billion this year.

That said, we do not believe this will impact the pre-salt development, especially at Petrobras, where they had the chance to move on with Buzios prospect.

NAVIGATING THE CHALLENGES OF THE PANDEMIC



NAVIGATING THE CHALLENGES OF THE PANDEMIC



WHAT ARE THE DIFFERENT STRATEGIES OR PRACTICES FPSO INDUSTRY LEADERS CAN ADOPT TO NAVIGATE THE CHALLENGES OF THE PANDEMIC AND THE DROP IN OIL PRICES?

As project delays mount and sanctioning of Projects are delayed, this will allow some normalization in manufacturing capacity giving room to fill dwindling order books at major suppliers and shipyards.

A coordinated risk approach to tendering and project commitment is the first move that has to come into play in order for Engineering and Procurement activities to better dovetail with shorter execution models. There is a move within Petrobras in that direction and we at Ocyan are discussing this shift in execution now.



HOW CAN INDUSTRY LEADERS CONTINUE OPERATIONS WHILE PROTECTING THE SAFETY AND WELLBEING OF THE OFFSHORE CREW? DO REMOTE MONITORING SOLUTIONS COME INTO PLAY?

We in our JV have a perfectly documented example of how our JV is managing Operational Risk under our existing regime.

Future remote monitoring built into our FPSO designs to achieve maximum results is a step that we are already taking and should, where feasible and practical, be adopted.

A challenge in this "Step Change" is a required flexibilization of contractual reporting giving rise to penalization, the "Normal" can no longer be such, we have to create a "New Normal" and to do that our Clients have to come with us on that journey



EXCELLENCE PURSUING THE ENERGY THAT BOOSTS THE WORLD.



Operating Offshore Production Units and drilling rigs alongside maintenance and subsea services are part of our growth strategy.

Our experience with performance excellence focused on quality, safety and sustainable practices are together the basis for our constant solid progress in the oil & gas market.

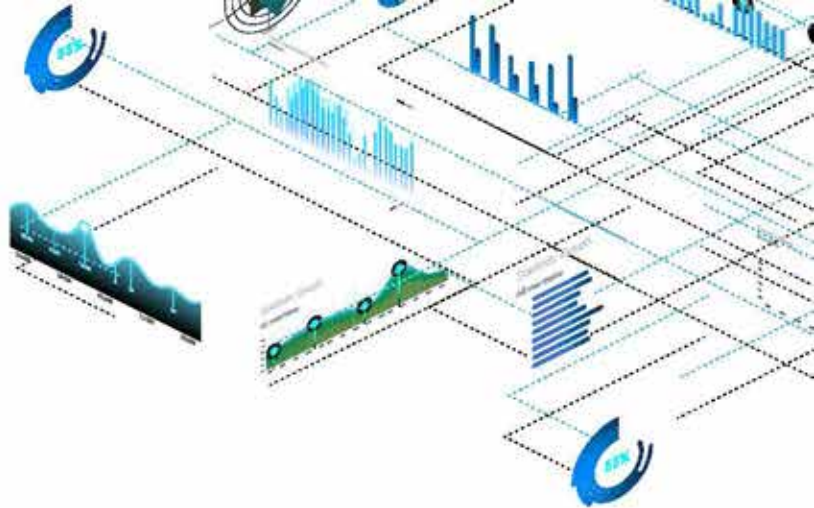
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TECHNICAL SOLUTIONS & INNOVATIONS



TECHNICAL SOLUTIONS & INNOVATIONS



WHAT AVAILABLE TECHNICAL SOLUTIONS AND INNOVATIONS ARE THERE TO SUPPORT FPSO PROJECTS IN BRAZIL?

By using International Contractors, Brazil has always benefitted from Global advancement in Technology Topsides upwards as it is the International Contractors and International Oil Companies (IOCs) that bring global innovation more or less continually, generally below the water line Petrobras and other Operators tend to look after that aspect of CAPEX and OPEX themselves.

Therefore, retrofitted into existing assets occurs on a case by case basis, for newly built and newly tendered FPSO Projects these include latest advances in proven Technology. Capturing the use of alternative offshore energy and integrating subsea offtake solutions through "Hubs" is the next progression along with Carbon Capture to reduce emissions.

When comparing Operational advancement in a "Technology and Innovation arena" OPEX is a key driving factor, average OPEX per barrel of oil equivalent has more than halved in 8 years, from roughly \$26bbl to \$12.7bbl in 2020, the region also enjoyed the largest cost decline globally this year, in both absolute and percentage terms.

One of the factors that have helped Brazil save in OPEX is Petrobras progressively switching out its floating FPSO fleet, country's shift from leased to owned vessels and vice versa.

Technology shift aside, a very important driver for the reduction in OPEX in Brazil is the drop in the value of the Brazilian real (BRL) against the US dollar (USD) exchange rate which has reduced OPEX per barrel as the costs are incurred in BRL but paid in USD. This is also linked to increased oil and gas production, which has driven the OPEX down further thanks to economies of scale.

Newer fields require much less maintenance than mature fields that generally have higher operational costs where the production share from fields that have passed half of their lifetime has decreased drastically.

THE FUTURE OF FPSOs IN BRAZIL



THE FUTURE OF FPSOs IN BRAZIL



WHAT DOES THE FUTURE OF FPSOS IN BRAZIL LOOK LIKE OVER THE NEXT 5 YEARS, ESPECIALLY WHEN IT COMES TO DEEPWATER FIELD DEVELOPMENTS?

Looking towards the future, it is expected that deepwater OPEX per barrel will stay relatively flat through 2020 to 2022. However after 2021, it is predicted that costs per production will increase by roughly \$4 per boe, staying at that level through to end 2024 and maybe more.

The COVID-19 inflicted uncertainty means that service companies, operators and investors will continue to watch their budgets and stay clear of any non-profitable or high-risk projects in the months and years ahead.

Due to the generally low and turbulent Brent spot price this year, investments and projects that do not meet the cost and risk criteria set forth by the companies are likely to be delayed.

Attaining the lowest possible cost per production will therefore be more vital than ever, even though cost reductions like the ones seen in 2014–2016 are unlikely as many of the possibilities have already been exhausted.

To find out more information on how Ocyan can help in your FPSO project, visit <https://www.ocyant-sa.com>

