

## EXECUTIVE SUMMARY

The objectives of this study were to analyse Sub-Sahara African offshore O&G markets in order to identify market opportunities for the industry in South Africa, and to assess the feasibility and commercial viability of enhancing or establishing an offshore supply base (OSB) with specialised services in South Africa, to target these markets. In this context, special attention has been paid to Nigeria, Angola, Namibia and Mozambique.

On the basis of a detailed desk study, a round of telephone interviews and a field trip with site visits to South Africa in October 2009, this report provide a detailed analysis of the current state of affairs in South Africa with regard to current and future challenges and opportunities.

### Challenges

- *Market situation* - While South Africa has limited domestic offshore O&G activities, the West African offshore O&G market is expanding strongly over the 5 year period 2009 till 2013, accumulated investments to reach \$79 billion for Nigeria and \$74.5 billion for Angola. The MMO (maintenance, modification, operation) market alone is projected at \$39.5 billion and \$37.3 billion respectively for these countries. The “emerging” O&G nations in East Africa are also picking up pace, experiencing strong growth in energy-related FDIs onshore and offshore. Mozambique alone expects to receive investments close to \$800 million in exploration between 2006 and 2011. The leading West African petroleum nations Nigeria and Angola are rapidly expanding their O&G infrastructure, either directly, through JV or favourable incentives for FDIs. These measures are coupled with government regulations that demand technology transfer and require development of local content. The strongest areas of growth in Sub-Saharan O&G exploration and developments are in deep water with complex fields, which have made this the fastest growing region in the world in the subsea and floating production markets. The type of field and field operation significantly influence infrastructure development and the establishment of OSBs with specialised product and services, whose location is largely dictated by the distance to field in operation. Walvis Bay in Namibia has sought to capitalise on this with regard to service offering, particularly for the O&G market in Angola. The developments in Walvis Bay are strongly supported by local and central government, a feature that is replicated in other West African countries by supporting operators and product and service providers. Although most nations still suffer from corruption, high levels of bureaucracy, lack of transparency, inefficient legal frameworks and operations, high cost levels, etc., all major IOCs, service providers and ship-owners have local operations in the major O&G nations, as closeness to market sand key-decision makers are among the keys for business success.
- *Industry cluster* – The South African O&G industry and its cluster is very fragmented, and is represented by a few dominant companies that more often than not are competing head on, supported by a number of SMEs. All in all, the cluster represents a strong pool of skilled and qualified workers and engineers, with significant engineering capability. However, the cluster is small, providing a small pool of specialised offshore O&G companies that are servicing the local and West African market, including shipping companies and agents. There is an obvious lack of cooperation beyond *ad-hoc* project-based activities, and little or no cooperation in

market activities; it makes the individual and the cluster vulnerable to market change and competition locally and in the region. Although it has been said that Western Cape, and Cape Town in particular, represent a strong OSB, the reality is that Cape Town is a centre for repair and maintenance services, supported by logistics and supply services, and thus by definition is not an OSB.

- *Infrastructure* – The available infrastructure in South Africa/Western Cape for the O&G sector is primarily located in Cape Town, with some basic service facilities in Mossel Bay and a manufacturing facility in Saldanha. None of the ports have the necessary facilities to host, or can be defined to be, an advanced OSB. In principle each has pros and cons. *Mossel Bay* is close to existing field operations, but offers a limited range of products and service and has limited potential for significant expansion at its current location. In some respects, *Saldanha* represent a green field situation with a deep water entry channel. It has a large jetty/terminal for iron ore export, but with little or no manufacturing and support infrastructure to support the development of an OSB and O&G cluster. The draft at the multipurpose terminal and just off the GrinakerLTA manufacturing facility would require dredging to enable it to service the needs of the modern O&G industry. Iron ore exports are causing significant emissions of dust and particles into the air, which could lead to contamination of the sophisticated mechanical and technical equipment installed on board offshore vessels berthed for longer periods of time, and a potential safety/security risk. Equally important is the question of health and safety and HRM standards for daily operations. Given the current size of O&G activities in South Africa and the limited offshore marine product and service industry, to justify needed investments in dredging, development of both operational and support infrastructure and containing the dust problem, it is not regarded as economically viable at this point in time to develop an OSB at Saldanha. This situation may change, however, if fields are to develop in or near Saldanha, e.g. Forest Oil, BHP Billiton and the recent block allocation to Shell International of Western Cape. *Cape Town* offers a relatively wide range of infrastructure, from the synchrolift, dry dock and repair quay to berths for O&G activities, all of which are situated within a relatively small area. However, a significant portion of the infrastructure is not in line with modern requirements, and is lacking in upgrades, maintenance and operational efficiency. Much of the support industry is spread across large parts of the city, providing inefficient repair and port operation in comparison with a state-of-the-art OSB. Conflicts with other commercial activities may sometimes also affect the overall size and potential for expansion and development of the O&G cluster on the Cape Town waterfront.
- *Government* – South Africa is the largest and most advanced economy in Sub-Saharan Africa, with a well-educated workforce, well-functioning banking sector, relatively stable political situation and level of transparency. However, the legal framework, government regulations, tax regime and regulation, customs system, operational framework and fees in ports and dedicated free port for the O&G sector are not in line with international norms and SA is not therefore the most advanced country in the region. The O&G industry is therefore suffering from a lack of prioritisation, government support and unfavourable regulations; the industry is falling behind other regional players that are strongly supported and whose needs are understood by its governments. One example is Walvis Bay, which is in direct competition with Western Cape. Moreover, marine, offshore and navel architecture training and education at universities

are limited or non-existent, which is a major challenge to the prospects of the South African O&G industry developing into new areas and expanding within its current areas of operations.

- SAOGA represents the South African O&G cluster and works closely together with the government to facilitate and promote the cluster at regional and international level. Its members come from a range of industries and sectors, representing various interests, ambitions and geographical locations. Politics at local level and between members appear to affect the operational efficiency of SAOGA, undermining its mandate to work for the best interests of its members and the O&G industry in South Africa. There may be a need to define SAOGA's mandate, role and areas of focus more clearly.

### Opportunities

- *Market situation* - The offshore O&G market in Sub-Saharan West Africa and emerging markets in East Africa are developing particularly strongly in deep to ultra-deep waters. This significantly affects the exploration, field development and operational phases, with making extremely high technical demands of all of them. The deepwater and subsea segments could present new, expanding business opportunities for South African-based suppliers of engineering services and specialised products, with growth in logistics and supply services. Based on the existing mode of operation in South Africa and the strong growth in the maintenance, modification and operation (MMO) market, there ought to be good opportunities for South African companies to expand their activities in this segment. However, this will require a more coordinated and holistic approach due to the technical requirements and overall complexity resulting from the type of fields involved, possibly with a sharper focus on specialised competence in addition to general engineering capability. Within the region, there is a growing need to develop a regional training centre or hub with state-of-the-art facilities that provide training, skills and competence development for offshore deepsea and subsea operations. In one sense, East Africa offers a green-field opportunity, with regard to the MMO market, since no suitable infrastructure is in place as yet. OSBs are under development, but are still at an early stage, providing opportunities for South African shipping and supply services.
- *Industry cluster* – The South African O&G cluster needs to develop a more co-operative culture and business environment, in which companies jointly pursue business opportunities through alliances, JVs and close cooperation with government agencies. We recommend developing a strategy and action plan to strengthen Western Cape and South Africa's position and its capabilities as a potential a) regional supply hub for fabrication, repairs and maintenance, b) logistics and supply hub for the Sub-Saharan offshore oil and gas industry, c) Sub-Saharan training centre for offshore operation of crews, d) regional operational centre for IOCs, major service providers and shipping and rig operators. Cape Town should capitalise on its prime location, infrastructure and well-functioning society to attract key decision-makers to locate and operate out of Cape Town, somewhat like Singapore.
- *Infrastructure* – Our analysis shows that none of the locations inspected can be regarded as hosting an advanced OSB today, nor are they ideal locations for such a base. At present, Cape Town primarily acts as a repair and service centre. A split solution could be an option, whereby knowledge-based products and services are located in Cape Town, while marine and offshore engineering and construction services could be located at Saldanha. However, this would not be an ideal situation in view of the level of investment required and the problem of pollution at

Saldanha; moreover, it would also have a negative effect on operational efficiency. The size of the O&G market puts limits on a split approach in the short term. In order for Cape Town to expand its current operations in order to cater for the expanding deep-sea MMO segment, the existing infrastructure will need to be upgraded and receive necessary maintenance, with particular reference to draft, width of dry dock and crane capacity. The cost of upgrading or expanding the current infrastructure, in view of the potential challenges in Cape Town regarding the expansion of other commercial activities in and around the harbour area, may not justify such investment in the medium to long term. However, any expansion of O&G activities in Cape Town or Western Cape in general would require an infrastructure upgrade, and we recommend that international OSB, dry-dock or shipbuilding/ship-repair operators/companies should be invited and encouraged to invest in such upgrades. These would encourage the professionalism, state-of-the-art facilities, in-depth knowledge of the industry and the networking and independence that are somewhat lacking at present.

- *Government* – In order for South Africa and Western Cape to expand the O&G industry and regional cluster, the government must play a key role. Under the current regime, the industry is suffering from an unfavourable regulation climate, and the government’s “low” prioritisation of this segment is believed to be due to its modest size and socioeconomic impact. It is essential to bring the customs and tax regimes into line with international norms, in order to expand the regional O&G industry and to promote South Africa and Cape Town in particular as a prime location for international IOC and service providers. In this respect, South Africa should look at the favourable business environments that exist in Singapore, Hong Kong, Shanghai, etc. as a factor in developing industry clusters, attracting FDIs and establishing regional HQ. We regard it as essential that the government take an active role in establishing a dedicated free port(s) and/or IDZ(s) for the O&G cluster, as it is currently falling behind regional competitors. It is necessary to professionalize the port operation to meet the O&G sector’s requirements, and private operators should therefore be allowed to invest and operate the necessary infrastructure independently of Transnet/NPA. Port fees need to be in line with international norms in order to be able to offer competitive terms. FDIs from international operators such as OSBs, dry-dock, ship-repair operators, etc. would help to avoid conflicts of interest and encourage efficient operation and management, as well as building on existing and recognised expertise and experience of working with the international O&G industry.
- As an interest organisation SAOGA is working hard to promote the O&G industry in South Africa. However, due to lack of resources and limited capacity, it is clear that SAOGA will have to focus its efforts on a few priority areas if it is to achieve measurable results, otherwise its efforts will at best have small incremental results. The O&G industry cluster needs major changes, but if SAOGA is given the necessary mandate, we believe that it will be capable of both supporting and delivering on behalf of the O&G industry cluster in South Africa.

To conclude, the South African O&G cluster is at a crossroads. The window of opportunity in the region is closing rapidly, and major changes are needed within the industry and at governmental level. The infrastructure needs to be upgraded and developed, as failure to do so will mean that the O&G cluster will stagnate and that South African players will expand and relocate elsewhere.