

# Benefits of partnerships to the local industry in terms of competitiveness, transfer of technology & Innovation

by

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There is mounting pressure on our industry to better manage the social impacts of its operations. The social performance of our industry is being increasingly measured by its ability to protect community welfare and increase the social benefits. The need to identify areas of greater local capture of wealth and to find innovative ways to develop and refine operational activities and community investment programs is ever more pressing. It's no wonder then why the theme of **benefits of partnerships to the local industry** appears increasingly in industry conferences. It is a reflection of the interest of both international oil companies (IOCs) and national oil companies (NOCs) to find new contractual frameworks to work within. However, there are difficulties in agreeing what is sufficient to satisfy the other's expectations within the current scopes of contracts and the means by which contracts are tendered.

The sustainable development of the host nation involves maximizing the benefits for the economy as a whole and optimizing the development of resources for the benefit of future generations. Many host nations face serious development challenges and governments count on the hydrocarbon sector to provide more than oil revenue. Many of the Middle East region's oil professionals feel that IOCs care about finding mutually satisfying agreements, but that they are not as concerned about the long-term prosperity of the country. Alirio Parra, a former Minister of Energy and Mines in Venezuela, explained that there is a difference between revenue maximization, which is a short-term concern, and value creation, which is long-term. IOCs tend to be motivated by revenue maximization. While this is a concern to both NOCs and governments they are both, to varying extents, also concerned with value creation. These different drivers make it more difficult to align interests in a partnership.

Furthermore, NOCs harbour some discomfort about the IOCs' corporate social responsibility programs; and some NOC managers give contradictory views on what the IOCs' responsibility should be.

This paper addresses four pre-requisites which, in my opinion, constitute the necessary steps to establishing effective partnerships which benefits all parties including the local industry. I conclude with examples of success stories of how various forms of partnerships have fostered competitiveness, transfer of technology and innovation.

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## **Start with a clear vision of what the national interests are**

Before I talk about the benefits of partnership, it is important to realize that successes stories are a result of focused efforts of both parties to meet each others long-term objectives. The need to create a clear framework of potential economic and socio-economic needs and capabilities is therefore the 1<sup>st</sup> step towards defining the nature of the partnership.

The parties should cooperate in conducting a systematic 'scoping' exercise at the country and/or project level, with the aim of prioritizing the themes for economic and socio-economic performance. The themes should be credible to the internal (business) and external (wider society) stakeholders. A thorough understanding of the sector characteristics and strategies, and the country's policies and incentives for this sector should not be undermined. Collaboration with NOCs, relevant government authorities, and international organizations to help build the institutional capacity is a strategic imperative.

The scoping exercise will serve as a starting point to identify potential benefits beyond the traditional areas of charitable giving, and community investment. Its real aim is to foster a preferred partner relationship. Such an exercise was made by Chevron in 1994 when it signed its first Technical Services Agreement with KOC. The results and benefits of that exercise have served as a clear reference for cooperation between the parties to date.

Our industry has always been resourceful in discovering ways to overcome technological, commercial and political obstacles. It is once more time for us to explore innovative models of partnership. A model which includes not only an IOC and the NOC, but also local private enterprises. Such partnerships have successfully been applied in the petrochemical and refining sectors, and could be developed for upstream and midstream development. A model for such partnerships is the Equate joint venture, successfully developed in Kuwait, with PIC, the petrochemicals subsidiary of KPC, joining forces with Dow Chemical Company, as well as local private companies (taking up a 10% share). The company is independent from the state and from the NOC and functions like any other commercial entity. Its international partners have instilled the company with efficient, Western-style management practices as well as technical expertise and know-how.

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## **Ensure that the NOCs & government's interests are aligned**

In the past there has frequently been little separation of power between Ministries and NOCs. This has meant that the NOCs have assumed a greater role than that of just a commercial entity responsible for exploiting hydrocarbon resources. There is no doubt that NOCs have facilitated the achievement of frequently extraordinary

benefits for their societies, including the acceleration of technology transfer, development of human capital, and the transfer of wealth and income from others to the sovereign shareholders.

A single NOC responsible for all aspects of the sector can facilitate planning and implementation of petroleum policy, enables control of country's main source of export revenue, allows development of integrated hydrocarbon infrastructure. KPC, a fully vertically integrated NOC, has managed to enhance co-ordination of activities within the Kuwaiti petroleum sector and achieved closer alignment of objectives of government and the NOC. Governments have been able to use their NOC as a means to achieve wider socio-economic policy objectives, such as economic diversification and raising educational levels of the national population.

The lack of commercial focus of the NOC and their resistance to change, combined with limited numbers of skilled technical professional, has tended to result in NOCs retaining functional organizations.

Additionally, non-core obligations have imposed costs upon NOCs and may have diluted the incentives to maximize profits. Also, without the separation of accounts of a fully vertically integrated NOC, it is difficult to determine the profitability of the various operating parts of the organization. It is therefore difficult to determine if such a structure has resulted in sub-optimal performance and inefficiencies.

With the pressures of globalization, the drive to lower costs and become more efficient, the aspiration of becoming world class performers (competitors), and the mounting burden to meet reserve and production growth targets; NOCs are finding themselves having to make decisions that may not be totally aligned with that of the state. In the past NOCs and the state were virtually the same entity, however that is changing. This may pose a risk to IOCs which may assume that by satisfying an NOC's needs, they would automatically obtain the states approval. As NOCs are becoming more efficient and trying to internationalize, their drivers have become similar in many respects to that of IOCs; notably the drive to maximize the value. It does so by finding ways to reduce costs or grow production, which may contradict with the states interest of increasing job opportunities and capping its production output. IOCs therefore must be vigilant to such conflicts and need to maintain good government relations, and continually demonstrate that their business plans contribute to maximizing the longevity and economic value of the national resource.

The simple solution to the conflict of interest issue is to transfer policy and regulation roles from the NOC to government, ideally to a ministry and a quasi-independent regulatory agency respectively, leaving the NOC with a primarily or purely commercial role. This is more easily said than done. The "Norwegian Trinity Model" is proving effective in a number of countries. NOCs in countries adopting the model appear to be performing better than those in countries where roles are blurred.

NOC reform programs also face serious obstacles: ideological opposition, nationalism, entrenched interests, complacency, suspicion, etc. IOCs can be a catalyst in this transformation process, if they and the NOC can secure support from the top, and, at the same time, from a wide range of public opinion. This implies

that partnerships with the state / NOC will have to be part of a broader package of economic, political and social reform.

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## **Ensure that NOCs articulate their expectation**

In a report entitled 'INVESTMENT IN MIDDLE EAST OIL: WHO NEEDS WHOM?' by Valérie Marcel issued in February 2006, a comparison of the assets, needs and constraints of five NOCs are made. What is evident is that no two NOCs are alike. That is particularly apparent in the drivers and needs of each

NOCs must therefore clarify what constraints they face and how IOC could contribute in making a difference.

The crucial issue for NOCs is one of trust. The lack of it is a serious obstacle to developing IOC-NOC partnerships. This legacy will need to be overcome to meet the industry's investment challenge over the next 10-20 years. New contractual arrangements may be needed to define new types of relationships between producers and IOCs. Breaking with the legacy of the past includes rethinking equity-based contracts. For this, private companies must be evaluated on more than their reserves by shareholders and financial analysts. Building partnerships will also require some good old human skills. Partnerships can be built on chemistry between people and their relationships. On the IOC side, it requires cultural sensitivity and good listening. IOCs shouldn't underestimate the knowledge of NOCs; the Middle East NOCs have, after all, kept their industry running with little help from the IOCs for the past 30 years – the Iraqi oil professionals who kept the oil flowing during 12 years of UN sanctions gave a dramatic illustration of ingenious self-reliance.

KOC, Kuwait's upstream state oil company and a subsidiary of KPC, faces many challenges related to meeting national objectives that are shared by similar resource and capital wealthy NOCs. I will confine myself to the top five challenges, namely:

- 1. Developing national management capacity and talent**
- 2. Development of national human capital**
- 3. Transfer of technology**
- 4. Technology and R&D capabilities**
- 5. Increasing the share of local content**

### **1. Develop management capacity and talent**

IOCs can play an important role in improving NOCs' ability to attract, develop and retain top talent. Saudi Aramco, Petrobras, Petronas, Statoil, PDVSA are just a few examples of how IOC-NOC partnership fostered the creation of talented oil executives. Secondments, international postings, joint study teams, and joint

projects or ventures have a proven track record of successfully developing management capacity.

In Kuwait, the return of IOCs in the form of technical services agreements has resulted in fast tracking the development of middle management in KOC. Successive KOC chairmen have repeatedly praised the influence of influx of IOC secondees on fostering the transfer of good practices and enhancing the business and management skills of its staff and management.

## **2. Development of human capital**

The Hydrocarbon sector in most oil exporting countries represents a significant percentage of the country's economy. Fortunately employee turnover has not been an issue yet for the GCC nations, although it is an issue in Libya which faces a turnover of the order of around 20%. However, the capacity to rapidly develop world class professionals and executives has been slower amongst NOCs as compared to IOCs or the services sector.

IOC's need to examine the role of NOCs within the local industry; analyze the NOC's strategy, current and future market challenges, and assess NOC's impact on the domestic industry and its workforce. It then needs to identify gaps in workforce skills and competencies, succession planning processes, supply and demand, key human resources challenges, and the impact of technology and the business environment on human resources issues. Our industry is becoming more knowledge based, and the characteristics of speed, quality, flexibility, knowledge, entrepreneurship and networking are becoming more prominent in the development of nationals.

The role of local training centers and institutes of higher learning should not be forgotten. Sponsorship programs of university students, the sponsorship of schools, national museums & scientific centers, improving university relations with industry are but a few area an IOC can contribute to developing, training and enhancing the skills of the national workforce.

Managing the supply of qualified professionals is critical to the industry's ability to sustain itself and grow. The main influences on its management practices are:

- Globalization and the mobility of investment capital;
- Cyclical economic conditions;
- Operational excellence business model;
- Government regulatory requirements;
- Stakeholder expectations for involvement;
- Technological advances;
- Changing demographics; and
- Workplace skills.

All of these influences affect industry's ability to attract, retain and deploy a skilled workforce.

NOCs should mandate a minimum number of nationals in the workforce and built a sustainable system for developing talent so as to be an effective enabler of

development of nationals. NOCs need to ensure that IOCs and contractors alike are properly incentivized by rewarding them for rapid staff development, and demonstrable improvements in skills and capabilities. A problem for some contractors with stringent local 'employment-related' content requirements is that of reduced overhead income, i.e. where higher earning expatriate staff is replaced by lower earning nationals. For unit rate contracts the losses are real, and an NOC must consider a solution.

### 3. Transfer of technology

An idea pursued by several host governments to develop their industries is to put in place measures and legislation that enable, encourage or enforce transfer of technology and expertise to their countries.

In addition to benefits to the community, a partnership model might involve the NOCs gaining competencies from the joint development and application of technology.

Can technology and expertise be transferred successfully? Or more critically, *can the ability to innovate be transferred?* And how successful have been the measure to transfer technology? More importantly: what measures, in terms of innovation and technology, are most suitable to increase the prosperity of a country?

In practice, it is difficult to transfer skills and technology. NOCs are not all well equipped to take on new skills because of weak management practices and a change averse corporate culture. Some NOCs appeared to be resistant to technological transfer as their corporate culture tends to be too risk adverse to accept significant technological changes in its operations. Conversely, IOCs face a challenge in accessing a country with a high capacity NOC, like Aramco in Saudi Arabia. Whether working for a high or low capacity NOC, a number of national oil experts exhibit a residual resentment of foreign oil companies, an inheritance from the time prior to nationalization.

To understand the dynamics of technology transfer and economic enhancement it is perhaps useful to view technology in the context of its *competitive advantage*. A *base* technology is something, which is usually mature – with a clear set of design standards, and its underlying knowledge widely available. Securing transfer of base technology is rarely difficult. A *key* technology is the one, which provides a firm or a country with *competitive advantage*. Key technology (or technologies) can quite easily be made up of several base technologies combined in a non-obvious (i.e. innovative) manner. It is the key technologies that the host governments usually like to secure for obvious reasons. However key technologies are not easy to source. Host governments need to prepare their industries and country to be able to secure technologies or set of capabilities that provide them with some form of competitive advantage.

There are also two important dimensions to think about when looking at host government's desire to enhance the prosperity in their country through sourcing and securing technology and capabilities:

- 1- Competitiveness of their companies.
- 2- Competitiveness of their country.

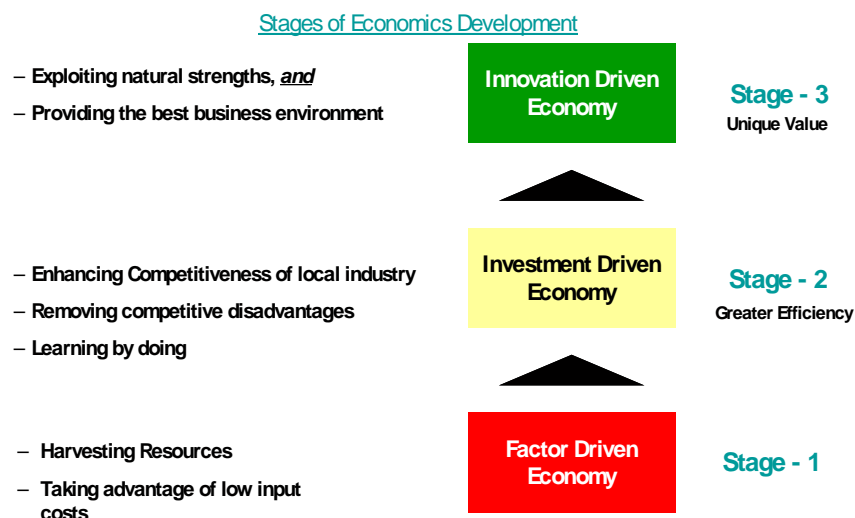
There is often an emphasis (in some cases misplaced) to create legislation that provides the local companies with unfair advantage over other companies doing business in that country. Whilst in many cases it can be shown that legislation can help local industry a great deal, there is a time of maturity when a more sustainable approach would be to enhance the competitiveness of the country rather than just its companies. Put in other words – a company's competitive advantage comes from how it chooses to do business. But it can (and does) also come from where it chooses to locate its business.

Competitiveness of a country comes from its productivity with which it uses its people, natural resources and capital. The productivity of a country in turn depends on what local and foreign firms choose to do in that country. The location of ownership of the companies choosing to do business in a country is usually not the primary driver of prosperity of that country.

Let us now see what has worked or not worked in developing local industry in the context of oil and gas exporting countries.

Developing local industry is part of overall economy of a country. Several countries have developed the local industry successfully through either protectionist policies or through a closed country culture. Example include Korea, Singapore, China and to a certain extent Malaysia. Each of these countries (with possible exception of China) built their economy centred around 5 to 10 large local companies who had an advantaged positions as compared to any foreign firm wishing to do business there. However as seen in case of Korea – there is a time when the local companies, who were once protected and became very profitable, eventually have to face the competition.

There are countries, which have succeeded in developing and enlarging the local industry successfully on the back of oil and gas resources. Before we go into an example perhaps it is worthwhile to think about the maturity stages of economy in a country (oil & gas based example):



Most major oil and gas producing countries have gone through, or successfully going through stage-1. Stage –2 is typically where countries such as the ones in the Middle East currently are in. Quite a few have been successful in value adding manufacturing industries, essentially with licensed technology. However the real aspiration for all these countries has to be to move on to stage –3. To be successful in stage –3 they not only have to exploit their natural strengths (i.e. natural resource position) they must also nurture innovation in their respective countries and economies.

It is likely that the present terms of investment are not well designed to facilitate joint development and application of technology. The buybacks in Iran or the joint study agreements in Kuwait have disappointed the partners in this respect.

IOCs should not only aim to meet legislative obligations, but go further in adhering to their own codes of conduct and act as an exemplar to driving change and improving standards.

Furthermore, there is a pronounced need for co-ordination and collaboration among educational institutions, all levels of government, private and government training service providers, and industry.

#### **4. Technology and R&D capabilities**

Investment in R&D activities can help in building the intellectual capital of the state and the NOC, promote the development of local talent and provide a local resource at competitive prices. It can also provide support to local universities.

IOCs need to recognize that NOCs can become considered potential joint venture partners in technology developments.

KPC aims to use the latest technologies throughout its businesses, develop skills and expertise to use these technologies, and to strengthen relations with local and international research institutes and organizations.

Similarly, Saudi Aramco has shown a strong commitment to R&D, becoming a world leader in certain elements of oil and gas sector technology. It has developed industry-specific modeling tools, is investing in a major new R&D Centre and has established an Intellectual Asset Management Group to protect its intellectual rights.

Areas of specific interest to KPC include water management, effluent disposal and re-use, CO<sub>2</sub> EOR, Clean Fuels, Oil to Hydrogen, Oil to Power, and desalination.

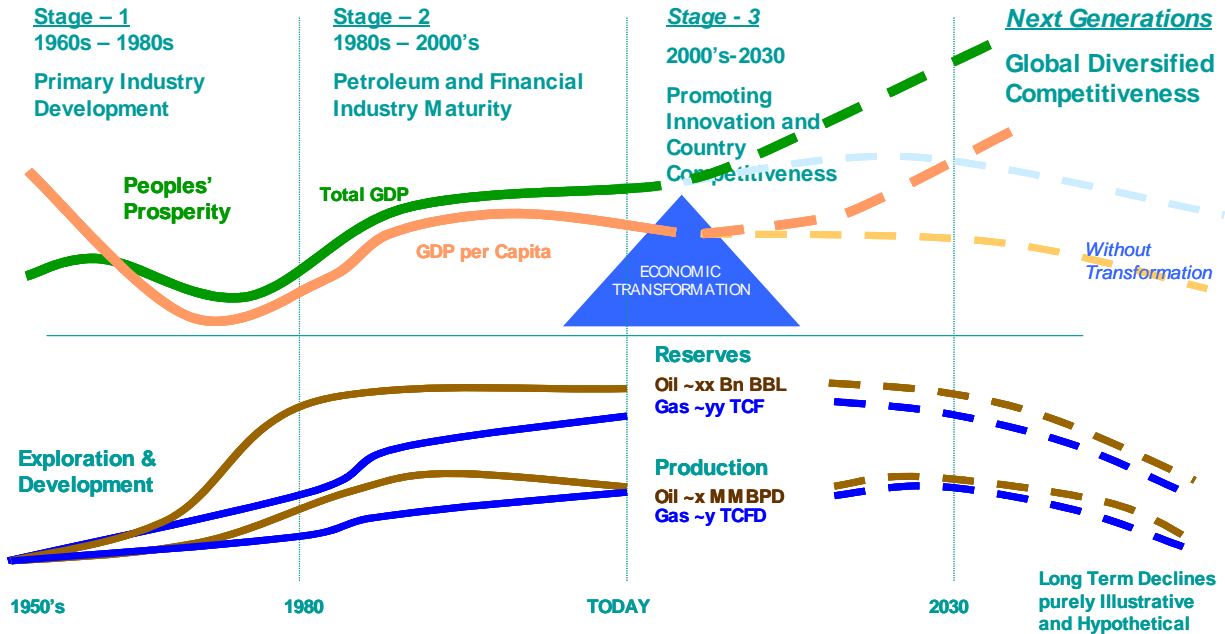
#### **5. Increasing the share of local content**

Being collaborative and seeking partnerships for an “Innovation Driven Economy” (i.e. Stage –3) is just not enough. No company or country will provide another one the access to *Competitive* technology or capabilities without getting something

similarly significant in return ... **there is no free lunch.**

Countries seeking to develop their local industry to a high level of sophistication need to get themselves ready to *secure* key technologies and capabilities. To be able to successfully source world-class capabilities and technologies, Oil & Gas based countries must enhance the sophistication of the local companies and local competition. In other words, they must enhance their competitive strength through a certain level of insourcing of technology and capability.

Typical Example of a Middel Eastern Country's Economic Development



The desire by NOCs to invest in state-of-the-art technology helps to maintain industry competitiveness; however, the development of the sector's supply chain would yield the best long-term returns for the nation and perhaps the IOC. A robust social, political and legal framework is necessary but not sufficient. These countries need to significantly enhance their investment in education and more importantly in local R&D to transform their economies through a series of coordinated efforts in a range of areas. Without this coordination and scale of effort they run the risk of stagnating their economies and local industry

Undertaking initiatives to develop the broader marketability of national sub-contractors, manufacturers and suppliers is a high priority for most producer nations.

A global trend is for transactions between the state and oil or gas development companies to incorporate more stringent 'local content' requirements.

The potential for linkage between the meeting of local content requirements and investment in community projects is not yet fully exploited. The way projects are tendered does not always incentivize long term investments. Projects tend to be "one off", and not linked to a track record of performance, as had been the case in

Norway. Overtime the goal should be to move relationships with NOCs/government from a transactional level to 'preferred partner' status.

The development of national capabilities along the supply chain is imperative in meeting the 'local content' requirements. It not only helps creating job opportunities, reduces the risks of being penalized for not meeting the local content requirements in contracts & purchase agreements, but it also reduces the dependence on expatriates; a key priority for most politicians and labor unions.

Furthermore, the development of national capabilities promotes developing the local economy by increasing contribution of the business to the macro economy, retains local income and fosters foreign investment.

IOCs in collaboration with industry, manufacturers, financiers, local institutes and NOCs have demonstrated some promising results as I shall discuss later in this paper. The question to be asked is not: "what can we do with existing local capability?" Rather: "what can we build with existing and projected demand, so as to enhance local capability and allow us to capture more value in the future? Also to be considered is how an IOC can leverage the strengths of a NOC.

In recent years many of the world's major O&G companies are shifting away from their community investment strategies in philanthropic projects - e.g. health, youth education, and charities. These initiatives largely aim to raise the local and international reputation of the operator. Instead, investment is now encouraged to address the direct impacts of oil or gas operations experienced by local populations and nations. Impacts include environmental pollution, health and safety damage, and threats to local livelihood and businesses.

Kuwait is in the process of developing an operating services agreement for IOC operation of some of its oilfields. In the draft operating services contract, local content is emphasized. IOCs will be allowed latitude in suggesting their Local Content Plans in support of their development plans. The contract, however, is explicit in its requirements for local content in areas of procurement, contracting and subcontracting. As regard procurement, in each Contract Year, the IOC shall assure that national goods, equipment and supplies constitute at least thirty percent (30%) of all goods, equipment and supplies utilized in the performance of the Operating Services during each contract year. In determining compliance with this requirement, the value of national goods, equipment and supplies purchased or agreed to be purchased for the year shall be determined as a percentage of the total value of goods, equipment and supplies purchased or agreed to be purchased that year.

Kuwait is nevertheless sensitive to the limitations of its local capabilities and has therefore added the following text to its draft contract:

"In no event shall the Second Party be obligated to utilize National Goods, Equipment and Supplies if they are not competitive in terms of price or quality or service and support or if they are not available at such time or times as similar goods, equipment and supplies that do not constitute National Goods, Equipment and Supplies."

As for subcontracting; Kuwait's operating services contract requires that national services, or services of national origin, constitute at least thirty percent (30%) of all subcontracted services utilized in the performance of the Operating Services during each Contract Year. In determining compliance with this requirement, National Subcontract Value shall be determined as a percentage of Total Subcontract Value in the Contract Year.

Again the contract protects the IOC from the need to utilize national services, or services of national origin if they are not competitive in terms of price or quality of service and support or if they are not available at such time or times as similar services that do not constitute national services or services of national origin.

Both oil and gas operators and their principal contractors need to shift their perception of the immediate project as the main market for supplier enhancement programs, to one that views the project as the 'spring-board' to other, far broader and more sustainable market opportunities. A recent study by Amec shows that it is entirely plausible for the contractor to go beyond the current practice of developing the capabilities of sub-contractors and suppliers to meet the internal requirements of an asset support contract. Working alone, or in partnership with the client, government agency or non-government business support organization, contractors may soon perceive commercial advantage in assisting sub-contractors to apply their newly acquired capabilities in quality control, reliability, cost and HSE, to access other – non project related - market opportunities, both within the oil and gas sector, and further afield.

There are interesting avenues forward that go beyond the contractual ties between IOCs and NOCs. They answer new trends that are shaping the oil and gas industry. Successful new business models will depend on a careful alignment of each party's objectives, needs and assets. The difficult task lies in finding a venture where both parties bring complimentary assets to the table. IOCs and NOCs are encouraged to explore non-traditional avenues of cooperation and partnership such as: creation of common funds, creation of service CoE, e.g. logistics & fabrication, leverage use of nationally available fund programs; e.g. Offset, asset swaps to develop new skills and to access new markets, collaboration of experts and CoE, R&D, financing JVs & Joint investments, and looking for new 'forms of market penetration'. This is particularly of relevance as we note an increased blurring of NOC-IOC categories. With high-profile international ventures, NOCs such as Petronas from Malaysia are challenging the IOCs on their territory of high political risk ventures. Sonatrach, for one, is following suit with a dedicated internationalization strategy. We can no longer confine 'national oil companies' to their national borders. Public ownership is also becoming an elastic concept and NOCs such as Statoil from Norway and Petrobras from Brazil are partially privatized but maintain a majority government stake. Most NOCs no longer limit their activities to producing and selling crude, as shown by KPC which is highly integrated, maintaining a balance of approximately 1.1 to 0.9 volumes for upstream to downstream.

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## Ensure that IOC & NOC agree on definitions, expectations & Measures

Before I provide you with examples of success stories, my final theme, I would like to remind ourselves that ***What gets measured gets done!*** Therefore the IOC and NOC need to agree to set up a comprehensive, meaningful, effective and transparent tracking & reporting system. The measures need to reflect contributions and benefits in terms that the government, the local community and shareholders understand and appreciate. It should also serve as an early warning system to allow for recovery plans to be made.

Tracking should include areas such as:

1. Number (or %) of locals in areas of high transferability (in order to measure contribution to skills enhancement);
2. Number of local partners, joint programs and projects;
3. Number of nationals employed; and their % within the total workforce;
4. Degree of diffusion of ethical and HSE standards to contractors & suppliers; and the degree of success in developing the private sector;
5. Economic & socio-economic impact of the business's community investment programs;
  - The Business and Development Performance program operates within the Overseas Development Institute (ODI), London. Its aim is to design, and align, business management tools and public policy instruments to enhance the 'development performance' of corporations operating in developing countries.
6. Contribution to local employment and the local economic multiplier effect of the business;
  - indirect tax payments to government from national and foreign employees working for local contractors and subcontractors; third party incremental expenditure in country;
7. Amount (or %) of re-invested earnings;
8. Volume of transactions with local institutions - reporting the volume with local financial institutions from the business passing financial transactions through domestic banks; this may prove an incentive for improving the range and reach of financial products available to the domestic sector, including suppliers to the operator;
9. Skills enhancement through engagement with training and education institutions;
10. % of locals in leadership positions & their management capabilities.

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### **Success stories of beneficial partnerships**

The most prominent success story is perhaps the rise of Statoil and the Norwegian oil industry. In the 1970's Norwegian authorities intensified their demands towards the IOCs with regard to purchase of Norwegian goods and services, and employment of Norwegian citizens.

The building up of oil-competence was imperative to Statoil if it was to be assigned operating responsibility in exploration- and production licenses. Statoil spent one year to staff the company with qualified people in relevant fields. It initially recruited foreign specialists in areas of challenge to the Norwegians, such as geology and petroleum engineering. The expatriates trained Norwegians in addition to carrying out their own day to day duties. In addition to importing specialist, Norwegians were sent abroad to acquire necessary knowledge and know-how. The number of employees in Statoil increased from 54 in 1973 to 118 in 1974 and 244 in 1975. By 1973, Statoil was given preference by being awarded from 50 % and up to 85 % of all new assignments on the shelf. Statoil conducted its first drilling with assistance from Esso-specialists in the summer of 1975. In 1977 Statoil operated four wells, and in 1981 Statoil became the first Norwegian company to have operator status for an oil field.

Similarly, Petrobras, which in the 50's was a state company with no geoscience professionals, collaborated with IOCs, teaching and research institution to build up its capabilities. Today Petrobras boasts having over 1,000 subsurface professionals with a strong focus on developing core competencies. Furthermore, 80% of E&P spend in the 5 year plan (2003-07) is being allocated to domestic projects, totaling over USD18Bn. The production development investment is to be shared among equipment suppliers and service providers with 53% of the total being spent in Brazil. Foreign companies setting up business in Brazil have to meet a 60% national content target.

Malaysia has also benefited from institutional astuteness, which has been at the heart of the country's remarkable economic development. Petronas, Malaysia's national oil company, is already one of the top oil and gas companies in the Fortune Global 500.

For the year ending March 31, 2006, the company posted over USD 45 billion in revenues, and a net income of USD 12 billion. At home, Petronas has played an important role in the development of the industry. It has taken a successful leadership role in developing local expertise to the point where the Malaysian oil and gas services industry relies much less on foreign expertise and is well positioned to venture abroad. Many local service companies, formed within the last two decades, have rapidly developed the essential competencies to serve Petronas, and other international oil companies active in Malaysia.

Unlike most NOCs, Petronas has grown far beyond its boundaries. Today 80% of Petronas' revenues are generated outside of Malaysia and 30% of its petroleum reserves are located overseas.

Other specific examples of success stories for the local industry arising from IOC-NOC-private local company joint venture partnerships include:

- 1) The Joint Venture between Western Geophysical and Sonangol related to seismic acquisition operations in Angola. This JV started in early 90's and led to the opening up of Angola's Deepwater market. Without this stimulus, it would have taken far longer to occur.
- 2) Kuwait's flagship Equate project, which started production in 1997, underlines the potential to add value to exports. It is central to Kuwait's diversification plans for the energy sector by developing the petrochemicals business, building on the country's vast stock of crude oil and gas reserves.

Equate, a joint venture between Union Carbide and Petrochemical Industries Company of Kuwait (PIC), each holding a 45 per cent stake, alongside local firm Boubyan Petrochemical Company with 10 per cent, has established itself as an important regional supplier. The project has built a reputation for delivering quality and reliability. The complex includes a 650,000-tonnes-a-year ethane cracker for ethylene production, and capacity for production of 450,000 tons of polyethylene and 350,000 tons of ethylene glycol. Equate II, a major expansion initiative will virtually double output by next year. This will also help diversify the range of competences into aromatics and olefins.

Equate is clearly vital to the Kuwaiti economy. It currently represents about 60 per cent of the country's non-oil export income, a figure which is expected to rise to as much as 80 per cent by the end of next year. It has also fuelled the development of related initiatives downstream, including a film packaging business owned by private sector partner Boubyan.

Indeed, the project not only marked a giant leap forward in the expansion and diversification of Kuwait's industrial base, but was also a key step in the development of the private sector in the local economy. It further attracted foreign investment and new international technology, and allowed the participation of local private investors (through Boubyan).

- 3) Joint Venture between Baker Petrolite and Sonangol in Angola on Production Chemicals. Similar to the Equate example, a local company was added as partner, not just NOC and International service company. This venture had a high local content, created jobs, facilitated experience transfer, reduced costs of services and product, and provided products for agriculture.
- 4) BP's Enterprise center in Baku and its 'Center of Excellence' in Trinidad & Tobago. The aim of these centers was to help local companies develop their business (quality, expansion, regionalization, etc.) & transform the supply sector and capabilities in support of major oil and gas developments. These centers not only helped in developing scarce human resources, but also facilitated the creation of non-energy industries, which led to growing the export sector. This in turn stimulated attraction of foreign investments which helped to bolster the development of societal, infrastructural and environmental programs.

The above cited examples are testimony of the fruit of partnerships to the IOC, NOC, and local industry in terms of competitiveness, transfer of technology & Innovation.

The petroleum industry is living through one of the most exciting periods in its history. It is not a time for business as usual; it is a time for new ways of doing business.

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### **Resources:**

- *Country Facing Strategies* – 2006; Alex Oliveira, Accenture
- *“Investment in Middle East Oil: Who Needs Whom?”*; Valérie Marcel - February 2006, Chatham House.
- *North Kuwait Operating Service Contract* – latest edition (2006).
- *“Nigerian National Petroleum Corp. (NNPC)”* – September 2004; Alex Oliveira, Accenture
- *“National Oil Companies - Evolution, Issues, Outlook”* - May 27, 2003; World Bank, Washington D.C.
- *“Enhancing the Social Performance of Engineering Services Contractors”* – November 2004, Overseas Development Institute.
- *“Strategic Human Resources Study of the Upstream Petroleum Industry: The Decade Ahead”* - April 2004, Petroleum Resource Council of Canada.
- *“Options for Developing a Long Term Sustainable Iraqi Oil Industry”* - December 2003, USAID