

Local content strategy

A guidance document for the oil and gas industry



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The global oil and gas industry association for environmental and social issues

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Executive summary

Many oil and gas producing states are introducing requirements for 'local content' into their regulatory frameworks. These requirements aim to create jobs, promote enterprise development and accelerate the transfer of skills and technologies. Local content has therefore become a strategic issue for the oil and gas industry—presenting both challenges and opportunities.

For the purposes of this document, 'local content' refers to the added value brought to a host nation (or region or locality) through:

- workforce development:
 - employment of local workforce; and
 - training of local workforce; and
- investments in supplier development:
 - developing supplies and services locally; and
 - procuring supplies and services locally.

For the purpose of this document 'local content' captures local community content and national content in one term.

Local content can be measured on a project basis, affiliate basis and/or country aggregate basis.

This guidance document is based on IPIECA members' efforts to develop good practice in managing local content. It is aimed at practitioners and other company representatives with responsibility for this objective.

The guidance is divided into three sections:

- Part 1—Introduction: discusses the business benefits of developing and implementing a local content strategy, including the types of data and analysis that may be used as inputs.
- Part 2—Developing capacity: provides detail on developing the primary components of a local content strategy, including building local workforce and supplier capacity.
- Part 3—Implementing and sustaining local content: focuses on key issues that practitioners can consider to help ensure the successful implementation of a local content strategic plan.

The experience of IPIECA members suggests that the time and effort invested in developing local content strategy can create social and commercial benefits that progress economic growth and contribute to sustainable development. Since every



oil and gas company is different, there is no single way to achieve a successful local content programme.

Important observations include the following:

- A local content strategy is not a quick fix or a route to achieving short-term benefits. It requires planning, coordination, resources and perseverance to obtain improvements—which are often realized in the long term.
- It is essential to communicate within the company the range of business benefits that can be gained through a local content programme in order to justify the time and effort involved. This communication can include a wide range of internal stakeholders across different business functions such as human resources, procurement, public and government affairs, etc.).
- An effective local content strategy can assist companies in meeting regulatory requirements, contributing to sustainable development and protecting their commercial interests.
- Practitioners should avoid becoming solely focused on meeting internal and external reporting requirements.
- A strategic approach to local content has realistic targets that contribute to lasting benefits in the long term. Targets that are beyond the existing capacity of local industry or the absorptive capacity of particular assets may create inefficiencies. These result in higher costs, lower government revenues and less competition.
- Established procurement practice tends to focus on cost and efficiency—factors that favour established businesses and global supply chains. While there may be a short-term cost premium in developing local suppliers, in the long term a reliable local supply chain can offer better overall value.

Actions for achieving local content objectives include four key factors. These are:

- thoroughly analysing the local context;
- starting early in the project life cycle to consider how and when to intervene;
- taking a long-term perspective; and
- effectively managing information flows and transparency.

Although companies have made considerable progress in advancing local content, it remains an emerging issue. As such, it requires more time and effort to improve practices.

IPIECA will continue to support these efforts and welcomes comments on this document and additional examples of good practice.

Part 1:

Introduction

About 90% of new hydrocarbon production in the next 20 years will come from developing countries (Baker III Institute, 2007). Many of these nations have understandably introduced 'local content' requirements into the regulatory frameworks governing natural resource developments. The aim is to create jobs, promote enterprise development and acquire new skills and technologies.

These new local content regimes pose both risks and opportunities for oil and gas companies. For example, operators and international contractors may face unrealistic expectations or targets from host governments or communities seeking quick results; opportunities come from longer-term efforts focused on helping to develop local businesses and employees.

Given the growing importance of local content, many companies regard the concept as a strategic issue that can have a direct impact on a range of core business functions, such as business development, procurement and operations.

In response, companies have begun to develop innovative tools and approaches aimed at meeting local content requirements and contributing to sustainable economic growth. At the same time, these efforts can protect and enhance companies' own commercial interests.

IPIECA members are leading the way in developing good practice for managing local content, capitalizing on business benefits while minimizing the challenges. This practitioners' guide draws on that experience and will help in developing corporate support of local content objectives.

Local content defined

Local content is the added value brought to a host nation (and regional and local areas in that country) through the activities of the oil and gas industry. This may be measured (by project, affiliate, and/or country aggregate) and undertaken through:

- Workforce development:
 - employment of local workforce; and
 - training of local workforce.
- Investments in supplier development:
 - developing supplies and services locally; and
 - procuring supplies and services locally.

Developing a local content strategy

'A stable and predictable business environment supports the delivery of successful local content programmes.'

Source: interview with ExxonMobil

'Our Nigerian content development strategy has the goal of facilitating the development of competencies, capabilities and competitiveness of Nigerian contractors.'

> Source: interview with Shell

Successful local content programmes are shaped by a clear understanding of the business benefits and a well-defined strategic plan. Detailed understanding of the local context is imperative. That means avoiding prescriptive solutions.

Practitioners should concentrate on the key drivers in achieving local content: regulatory requirements, business and stakeholder expectations—including those internal to the company.

The advantages of having a local content strategic plan include:

- reductions in operational costs by keeping expatriate staff to a minimum;
- smoother flowing supplies of goods and services;
- a consistently renewed licence to operate; and
- enhanced engagement with stakeholders.

With those advantages in mind, the strategic plan should focus on enhancing the capabilities of the local workforce. This is done through employment, training and investment in the local supply base by means of procurement and development.

Drivers of a successful strategy

- Local context: Objectives should be based on a thorough understanding of the local context. This knowledge enables planners to define what is realistic and achievable. Particularly important are the demand-side requirements, the supplyside capabilities, and any barriers that limit local participation.
- Regulatory requirements: Regulatory requirements may define explicit targets or objectives for local content development.
- Business expectations: There are an increasing number of strategic and commercial reasons behind the move for local content. By identifying them in each case, companies can justify applying the necessary resources and management effort and simultaneously identify the functions and areas of the business that should be involved

 Stakeholder expectations: These should help define objectives, particularly when key stakeholder expectations are not explicitly part of regulatory requirements or the defined business case.

Understanding local context

Knowing the neighbourhood enables companies to understand the importance of local context in terms of demand-side requirements, supply-side capabilities, and the barriers that limit local worker and local company participation. These factors vary by location, the nature of the project and the stage of the project life cycle.

Experience demonstrates that targets beyond the existing capacity of local industry or the absorptive capacity of particular assets can result in greater costs, lower government revenues and less competition (Nordas *et al.*, 2003).

Thorough analysis of the local context can yield a realistic baseline for a local content strategy plan. Table 1 provides some examples of relevant analytic exercises.



Type of analysis	Description					
Analysis of national development priorities	Aligning local content activities with development priorities can greatly enhance the benefits to the company and host country. Depending on the situation, priorities can be identified through formal development plans or through local stakeholder consultations.					
Local capabilities study	This look at existing and potential capabilities is particularly important when operating in new areas. The study can draw on local expertise and market intelligence, and may be completed in partnership with government and othe stakeholders to enhance the quality and credibility of the outcomes. Such partnerships can be especially useful when there are gaps between the healt and safety capabilities of local workers and the standards for technical and operational integrity set by international oil and gas operators.					
Supply chain mapping and analysis	These processes enable companies to identify opportunities for local participation. Analyses may include examination of the local content implications of different options in design and procurement, particularly at the conceptual design stage.					
Environmental and social risk assessment	Taking into consideration any issues related to local contractors that have not reached international standards of HSE (health, safety and environment) or may not be experienced in local community engagement and social-cultural matters (Wilson & Kuszewski, 2011).					
Cost-benefit analysis	Quantification and analysis of the different levels of benefits, costs and risks associated with different local employment and supply options. It is important to take a long-term perspective on the potential benefits.					
Barriers analysis	Analysing barriers to local content using a problem-tree approach (see Figure 1, overleaf) can identify the interventions required. The exercise can also help to develop the appropriate sequence for these interventions.					
Access to finance and business support services	Access to affordable finance is often cited as the primary factor affecting the survival and growth of local businesses, particularly small and medium enterprises (SMEs) (Ruffing, 2006). Without such access, local firms are severely limited in their capacity to invest in capital equipment and meet the standards required for inclusion in oil and gas supply chains. SME financing requirements are generally too large for microfinance but too small to be effectively served by corporate banking (IFC, 2009). Financial institutions often perceive lending to SMEs as more risky and less attractive due to higher transaction costs. Consequently, when finance is available, it may come with significant collateral requirements and/or at very high interest rates (Nguyen <i>et al.</i> , 2004) (IFC, 2009). To compound the challenge, SMEs often lack the track record and capabilities to prepare business plans and present attractive loan proposals.					
Infrastructure analysis	Infrastructure needs can be directly tied to local business participation. A lack of infrastructure can be a barrier to the provision of local services, and can increase the cost of doing business. For example, unreliable power suppliers may force suppliers to invest in generators and fuel, which increases local cost; poor or non-existent shipyard facilities can significantly limit contributions to offshore operations; and poor transport links can add to the cost of importing components. All these factors can combine to make local firms uncompetitive.					

 Table 1
 Typical analyses that can be used to review the local context and develop a realistic baseline

'Genuine partnerships are fundamental to the success of local content programmes. Patience and commitment are needed on both sides and an appreciation of the other partner's needs and priorities.'

> Source: interview with Chevron

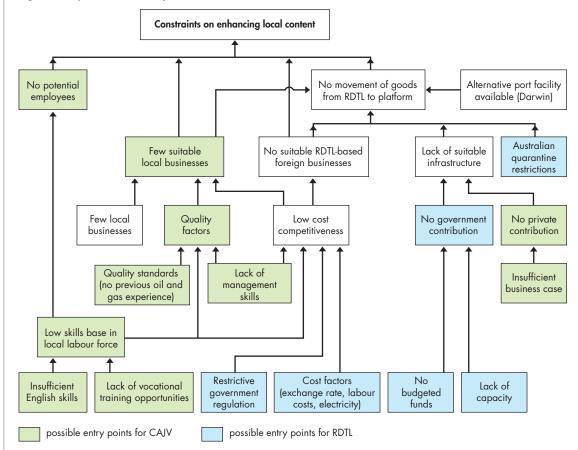


Figure 1 A problem tree analysis

Courtesy of AMEC (Warner *et al.,* 2007): based on the ConcoPhillips-operated Bayu-Undan Gas Recycle Project in the Timor Sea. The analysis explores the constraints to developing a local content strategy from the viewpoints of the Democratic Republic of Timor Leste (RDTL) and the Clough Amec Joint Venture (CAJV).

Regulatory requirements

Oil and gas companies face a range of different regulatory environments. Depending on how regulations are structured, they may impose limits on the initiation, growth and development of new enterprises. All of this can add significantly to the costs of doing business. The regulatory environment will influence the feasibility of implementing a local content strategy. Hence, an understanding of the context is crucial to the strategic plan's development.

The World Bank's *Doing Business Index* ranks economies on their ease of doing business, from 1–183, with 1 being the best (World Bank, 2011). The *Index*, edited here as Table 2 (opposite) to show a selection of 20 hydrocarbon producing states, averages the country's percentile rankings on 9 topics, each with a set of indicators. The *Index* gives equal weight to each topic. They are: starting a business; protecting investors; dealing with construction permits; employing workers; trading across borders; registering property; enforcing contracts; obtaining credit; and closing a business.

The *Index* highlights the diversity of business environments that multinational companies must negotiate. It reinforces the need to understand the local regulatory context when developing local content programmes.

	8		
Country	2011 Ranking (of 183)	2010 Ranking (of 183)	2009 Ranking (of 183)
United States	5	4	3
Canada	7	8	8
Norway	8	10	10
Saudi Arabia	11	13	15
Malaysia	21	23	21
Mexico	35	51	56
Colombia	39	37	49
Qatar	50	39	37
Azerbaijan	54	38	38
Kazakhstan	59	63	64
China	79	89	86
Trinidad and Tobago	97	81	78
Yemen	105	99	103
Indonesia	121	122	129
Russian Federation	123	120	118
Brazil	127	129	127
Iran	129	137	142
India	134	133	132
Nigeria	137	125	120
Angola	163	169	170
Equatorial Guinea	164	170	169

 Table 2 Extract from the World Bank's 'Doing Business Index'

Business expectations

The advantages of having a local content strategy may include the following:

Government relationship:

- contributing to the stability of the business environment;
- meeting legislative requirements;
- meeting expectations of host governments (driven in many instances by the expectations of local communities and business) for local economic and social benefits of oil and gas developments; and
- increasing the likelihood of 'competitive differentiation' in bidding rounds/negotiations with host governments and government authorities.

Supply base:

- maximizing opportunities for achieving higher levels of reliability and quality through local supplier proximity; and
- maximizing opportunities for lower costs on some locally-procured goods and services (mainly in the longer term).

Workforce:

 increasing access to (and development of) new staff resources, ameliorating the growing global issues of the aging workforce within the oil and gas industry and a gradual shrinking of the pool of technically capable, skilled resources.

Reputation:

 delivering sustainability and corporate responsibility objectives, and maximizing the impact of community investment resources. This edited sample from the World Bank's 'Doing Business Index' shows a selection of 21 hydrocarbonproducing states, and averages the country's percentile rankings for 9 topics (see main text for full description).

CASE STUDY Licence allocations in Brazil (ANP, 2009)

For Brazil's Agência Nacional do Petróleo, Gás Natural e Biocombustíveis (ANP), an important aspect of the bidding process is the company's performance against a range of local content criteria. These seek to increase the participation of national industry on a competitive basis, promote technological development, and enhance employment and income generation. In recent bidding rounds, the local content offering has represented between 20% and 40% of the final score in ANP's evaluation of bids.



Stakeholder expectations

Internal stakeholder engagement

The implementation of local content programmes requires extensive cross-departmental coordination and work. Effective local content management may also require modification of existing business processes and systems, especially project management, procurement and human resource management.

In large organizations, any attempt to change business processes is a complicated and resourceintensive activity. In drawing up a local content strategic plan, it helps to start by identifying key internal stakeholders and developing an understanding of their business plans and objectives. Support and leadership from senior management, extensive consultation, training and buy-in from key stakeholders serve as the foundation of a successful local content programme.

External engagement

Local content programmes are inevitably delivered in collaboration with external stakeholders, who play a key role in the process. They bring valuable knowledge, resources and commitment. Companies therefore benefit from aligning their interests, as far as possible, with those of other stakeholders. There is a range of organizations, in addition to national and local governments, that have a direct interest in local content. By analysing them, practitioners can identify those that are the most useful and influential. It is best to consult these key stakeholders early in the design of a local content strategy.

Once local content practitioners gain a sufficiently detailed understanding of drivers and are able to determine how their programmes might impact local development, they can communicate accordingly. These communications can help set expectations and explain clearly where the boundaries lie between corporate and public responsibility. Part 2:

Capacity development

Following the contextual analysis and gaining an understanding of the local drivers, development of a strong local content strategy can emerge. With a focus on capacity building, the two core areas are in developing the workforce and the supply base.



Workforce development

Employing local staff is an established objective of the oil and gas industry. To that end, some companies have evolved comprehensive 'competency development systems' to ensure that local employees can perform effectively and safely in complex and hazardous environments. Some of the key approaches that can be incorporated into a local content strategy are described below.

Employment policies

A transparent policy on local employment will help neighbouring communities to understand the company's commitment to the available workforce including the minimum standards that must be met. It is particularly important to establish a clear policy where recruitment is being used to promote participation of specific groups. These can include women, indigenous people and workers from specific geographical areas or ethnic backgrounds. Compliance with employment policies will usually be mandatory for major contractors as well.

Training and skills development

An effective local content programme usually features training and skills development elements to help local populations achieve the minimum standards required by the company—either in terms of general education or specialist skills. Such training can be an in-house initiative, or the company can look to local institutions to provide any necessary training. In either case, the programme should be based on a detailed analysis of local capabilities and a schedule of the skills requirements over the life of the asset.

Aspects of such training can include:

• **Basic education:** depending on the quality of the local education system, training programmes may benefit from education in basic capabilities

CASE STUDY

Total: Developing Yemen's LNG workforce

Total's US\$4.5 billion Yemen LNG project, launched in August 2005, is by far the largest in the nation's history. The company aims for 90% Yemenization of staff by 2015. To achieve this, Total set up an integrated strategy to recruit, train, retain and motivate a world-class Yemeni workforce—all on employment terms and conditions that are highly competitive within the region.

To compensate for the scarcity of local personnel competent in LNG operations, Yemen LNG set up training centres that offer an intensive, high-calibre training programme for technical specialists, engineers and supervisors.

To populate that scheme, Total launched an advertising campaign to attract candidates through radio, TV and the national press. Out of 16,000 application forms submitted for technical specialist level, the company chose 200 candidates.

Training began with an intensive three-month English programme, followed by eight months of training in oil and gas techniques. Then came 13 months of hands-on training.

Out of 7,058 applicants for the supervisory training levels, 82 engineers and supervisors ultimately joined the ranks of Yemen LNG. Many of the supervisor trainees for this specific level had acquired skills and knowledge working abroad. Total offered competitive packages to these expatriates to attract them back home and to participate in the development and the operation of the LNG project.

The training programme for the Yemeni LNG plant was a first for the country. Based on this success, Yemen LNG intends to run further programmes to train technicians to fill vacant positions as the first batch of trainees move on to assume senior and supervisory roles.

such as numeracy and literacy. Although these fundamental requirements add to the time required to train local employees, the results provide a lasting legacy of improved educational levels.

- Language training: essential in cases where the operating language is not widely spoken by potential employees.
- Locally-appropriate methods: as far as possible, training activities should suit the learning needs of participants in terms of language skills, level of education and style of learning.
- Practical experience: practical experience is fundamental to building competencies in technical and trades skills and for supervisory and managerial positions. This presents a challenge where comparable working environments are not available locally, or for offshore operations where capacity to accommodate trainees is often limited. Some companies have developed programmes that base trainees at their facilities elsewhere in the country or internationally.
- Flexibility: an individual's training period should be determined by his or her rate of progress through a programme.
- Scholarship schemes: an effective way to attract talented young people into the industry and a valuable social investment activity.



Accelerated staff progression

Companies can encourage the progress of local staff by tailoring training programmes to their development. Personnel are selected for such programmes based on their ability to handle a rapid learning process, and need to be carefully selected for their suitability for senior management or technical roles. Such programmes usually require both intensive training and one-to-one mentoring activities. 'We are working to strengthen vocational training and higher education in order to ensure a steady supply of specialized skills and talent for the growing oil and gas industry in the north-western region of Russia.'

> Source: interview with Statoil

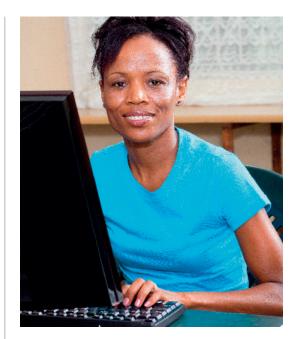
CASE STUDY

Statoil: Building the capacity of educational institutions in North West Russia (Statoil, 2009)

Statoil has invested significant resources in developing the capacity of local education institutions in North West Russia—a region of growing importance for the company.

At Pomor State University, Statoil has contributed financially and in the form of technical assistance to the development of a Bachelor of Business Administration (BBA) degree focusing on petroleum management. Developed in collaboration with the Norwegian University of Science and Technology (NTNU), this programme also receives funding from the Norwegian Ministry of Foreign Affairs. Emphasis is on building the skills and capacity of Pomor University itself. The first two groups of BBA students have recently graduated.

Statoil also helped to initiate a technology transfer programme between the Arkhangelsk State Technical University (ASTU) in Russia and the University of Stavanger in Norway. As a result, in 2007 ASTU expanded its curriculum to include technical courses in advanced drilling technology, offshore technology, and seabed and underwater technology.



Education and training Institutions

Deficiencies in local education and training systems can be major barriers to local participation. Some companies deal with this by investing in local education and training institutions. This approach reduces the requirement to provide basic training internally. It has the added advantages of supporting wider skills development in the local economy and promoting the company's long-term reputation as a good corporate citizen. Company investments in these areas can enhance rather than replace statutory funding.

Construction phase employment

The construction phase of projects usually offers more employment opportunities than the subsequent operating phase.



Companies can maximize local employment in construction through:

- Early identification of skill requirements: creating the opportunity to train workers for the construction phase. Where there are workers who have suitable basic skills but who lack formal trade qualifications, it may be more realistic to recruit such personnel rather than try to develop new skills from scratch.
- Procurement process: primary contractors usually manage up to 90% of construction jobs. Therefore, the procurement strategy used to engage primary construction contractors can include specifications and incentives for using local workers as well as requirements to conduct training activities.
- Information on future contracts: providing this information in advance may encourage contractors to invest in their local workforce, and thereby strengthen their subsequent bids.

Since post-construction workforce requirements are more limited, it is important to manage worker expectations from the outset. Doing so can ease the challenges associated with demobilizing large construction workforces.

Supplier development

Local firms' participation in the supply chain—with strengthened capacity to compete—is crucial to the promotion of local content. Two key strategies can help achieve this: the modification of procurement systems and the use of dedicated supplier or 'enterprise development' programmes.

Procurement policy

Corporate policy on supplier development can greatly enhance the effectiveness of local procurement initiatives—but only if it provides a mandate and guidance to the personnel responsible for procurement at the operational level. A policy that promotes local content may entail modification of the organization's existing corporate procurement policy. Alternatively, a policy can focus on developing a specific or asset-level policy relating to local procurement.

Modifying procurement strategies and systems

There are two mechanisms by which local enterprises can enter supply chains. The first is

'direct procurement', which refers to goods and services procured by the oil and gas company itself. Direct procurement gives the company greater control over the procurement process, with the right to reserve contracts solely for local enterprises. The drawback to this approach is that the number and size of contracts suitable for direct procurement are generally limited.

A more realistic opportunity for local firms usually lies in the supply chain of large contractors. This is 'indirect procurement'. Where the existing incentives for larger contractors to engage local enterprises are weak, the oil and gas company's procurement system can be put into play to mandate or provide incentives to contractors to engage local enterprises.

Tables 3 and 4 on the following pages provide details of modifications that can be made to direct and indirect procurement.

Table 5 on page 18 shows those areas that can benefit from modifying direct and indirect procurement (EAP, 2007).

CASE STUDY CAE: Industry Collaboration: enterprise development

CAE (Centro de Apoio Empresarial) is a prominent example of an effective enterprise development programme for the oil and gas industry. CAE seeks to 'build the capacity of Angolan businesses to participate more actively and with greater success in the oil and gas industry as key suppliers of quality products and services—in order to create jobs, promote skills transfer and achieve locally-based economic growth'. CAE was initiated in partnership by Sonangol, BP, Chevron, ExxonMobil and Total. Citizens Development Corps (CDC), a US-based international development organization with expertise in enterprise development, helps to implement the project. From its inception in 2005 to the end of 2010, 302 contracts in the oil industry were awarded to CAE-client Angolan businesses, with a total value of US\$ 212M. CAE offers a range of services to facilitate local enterprise participation in the industry:

- Training: business training in HSE, bids and contracts, ethics, financial management, supply chain management, human resources, marketing and communication; business planning and quality management.
- Advisory services: one-to-one advice and mentoring to companies to improve managerial efficiency and quality of service delivery, as well as specific guidance on bid submission and post-contract support.
- Certified Supplier Directory: certified database of qualified Angolan suppliers, supported by CAE-led due diligence processes.
- Company liaison: CAE acts as a liaison between multinational company procurement departments and registered Angola clients. This is implemented by 'channelling procurement announcements to registered suppliers to gauge interest and capacity, and then providing a list of capable candidates to the company soliciting competitive bids for a specific product or service'.

Table 3 Modifying direct procurement

Stage of the procurement cycle	Modification options	Comments and qualification
Procurement strategy	There are three potential strategies for achieving direct involvement of a local enterprise on a particular contract (assuming that suitable local enterprises exist):	 Reservation strategy advantages: may produce the quickest, most visible gains; and
	 Reservation or 'set asides': mandating that only qualified local firms are allowed to bid for the contract. 	 can provide an entry point for SMEs into wider participation in project procurement (ITC, 2000).
	 Preferencing: giving local firms a price or selection advantage in the tender evaluation phase. 	Reservation strategy disadvantages:
	3. Improving likelihood of local procurement: providing additional information, reducing the size and complexity of the scope, or simplifying procedures or processes to make it more likely that local firms will participate in the procurement process.	 can reduce the level of competition, with possible implications for the contract cost.
	Table 5 presents a listing of goods and services that will typically be suitable or appropriate for local supply in most contexts.	
Specification	 The scope for the contract can be identified through the following: Unbundling: work packages may be split into smaller packages to be more in line with local capabilities and to encourage greater local competition. Reservation: identification of packages of work that are within the capabilities of local enterprises (potentially as a result of unbundling larger contracts). 	 Possible disadvantages of unbundling include: additional contract administration; reduced effectiveness of project coordination and management; inappropriate division of responsibilities; increased contractual risk; duplication of establishment charges; and underutilization of resources (Watermeyer, 2006).
Pre-qualification/ accreditation	 The prequalification burden for local enterprises can be eased by: Information workshops: held to inform local firms of prequalification requirements. 	
	 Streamlined accreditation systems: with the added benefit of facilitating internal understanding of locally-available capabilities. 	
	• Direct assistance: local firms may be given guidance or assistance with the pre-qualification/accreditation process, particularly where these support services are not otherwise available locally.	

continued ...

Table 3 (continued)	Modifying direc	t procurement
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Stage of the procurement cycle	Modification options	Comments and qualification
Tendering	 Longer lead time: communicating the company's likely future demand allows local suppliers to target pieces of work for which they have existing capability and to invest in building the capability to deliver future work. Announcements: tenders should be announced in such a way that suitable local enterprises will be aware of the opportunity (e.g. use local language wherever possible). Tender workshops: educating prospective bidders about the process, company's requirements and performance standards. 	
Bid evaluation	 General preferencing: a local bidder may be selected when it is relatively close to other competitors on quality and price. Price preferencing: local bidders will have the preference figure discounted from their tender price. This provides a price advantage against outside competitors. Feedback to unsuccessful bidders: enables local firms to improve and also can lessen potential grievances on the part of unsuccessful bidders. 	Price preferences should be used in a time-limited fashion, with the understanding that more competitive bids will be expected for future work.
Contract	 Simplified contracts that include basic components but are simpler, with fewer options, and written in plain language. Longer contract periods that allow firms to spread capital or fixed costs over a longer period. Payment terms that feature more frequent payment milestones, shorter durations and, in some instances, upfront assistance to help with purchases of materials (Heum <i>et al.</i> 2003). 	Longer contract periods may reduce incentives for satisfactory performance, and should be accompanied by a robust system of termination in the event of non- performance.
Performance monitoring	 Mentoring and constructive feedback On-site audits 	

Stage of the procurement cycle	Modification options	Comments and qualification
Procurement strategy Specification	 There is a range of potential strategies for ensuring or encouraging the participation of local workers or local enterprises. Examples include: Mandatory requirements: obligatory employment of local enterprises or workers. Incentives: incorporating advantages for local content within tender evaluation criteria. This may also include leveraging the knowledge and capabilities of large contractors to develop effective local content delivery strategies. Joint ventures and alliances: local firms may receive significant capacity development benefits through working as a partner or subcontractor with an international firm. Coordination and information sharing: facilitating relationships between large contractors and local firms through communications and special events. Several measures may be considered that promote the use of local workers and subcontractors. These activities need to be conducted through a detailed analysis of the proposed scope of work and the potential for local capabilities to deliver elements of the scope: Local worker roles and responsibilities may be specified for local employment. There could be incentives for joint ventures with local firms. Unbundling/reservation (see Table 3). Use of dedicated local procurement systems may be mandated in situations where the contractor needs to conduct its own procurement activities. Training and skills development for local workers or subcontractors may be specified. Local content KPIs may be included. 	 Possible advantages include: transfer of risks and management efforts; contractors may be well positioned to manage the process and achieve desired outcomes; and joint ventures and alliances may increase opportunities for knowledge and technology transfer.
Pre-qualification/ accreditation	 Local capability development: Proven capabilities in local subcontractor or workforce development may be a prerequisite for some contracts. 	

Table 4 Modifying indirect procurement through large contractors

continued ...

Stage of the procurement cycle	Modification options	Comments and qualification
Tendering	 Local supplier databases can be shared between clients and tendering organizations to help develop realistic local content strategies and to begin establishing relationships. 'Matching' events and trade fairs can establish contacts between primary contractors and local firms. Ring-fencing of budgets for local content related activities (e.g. subcontractor training), where appropriate. 	
Bid evaluation	• Evaluation criterion: The tender may explicitly identify performance against local content requirements as an important criterion in tender evaluation.	Significant weighting on local content performance sends a clear signal to contractors of the importance of local content. It can also encourage a greater focus on local content in the tender submission.
Contract	 Client modification flexibility helps to broaden the contract scope and so can achieve greater local content—particularly in the longer term. A favourable subcontracting environment results from regulating the type of contract which a lead contractor is permitted to use in the engagement of a targeted local enterprise and by providing for secured payment. 	 Considerations for creating a more favourable subcontracting environment include: contract provisions that are no more onerous than those in the prime contract; alternatives to a pay-when-paid, or pay-if-paid, system; alternatives to surety for smaller subcontracts; and an inexpensive dispute resolution procedure and no rights to the prime contractor without recourse to adjudication in the event of a dispute (EAP, 2007).
Performance monitoring	 KPIs: performance on local content requirements should be included as primary contract KPIs. Budget security: budget lines for local content activities should be ring-fenced. 	

 Table 4 (continued)
 Modifying indirect procurement through large contractors

Sector	Supply opportunities	
General services	 Accommodation Basic professional services (e.g. legal a Catering Cleaning and laundry services Forestry and environmental services Landscaping and gardening Logistics and warehousing 	 Mailing and courier services Mersonnel agencies Pest control Printing and photography Security Translation services Transportation services
Construction and trades	 Air-conditioning maintenance Carpeting and floor coverings Civil works maintenance Earthworks Fencing and paving Low-voltage electrical maintenance Painting and corrosion protection 	 Road marking and signage Roofing and waterproofing Sewerage, stormwater and drainage Simple mechanical maintenance Small vehicle maintenance Telecommunications and data systems Waste recycling and management
Goods (wholesale, distribution, manufacture)	 Appliances and electrical goods Automotive parts Cleaning supplies Construction supplies and hardware Food supplies Fuels, lubes and greases 	 Furniture and fixtures Laundry equipment Machined tools and spare parts Office equipment and stationery Small motor vehicles Uniforms

Table 5 Supply opportunities for the upstream sector in low income countries

Part 3:

Implementing and sustaining local content



Internal organization and coordination

Since every oil and gas company is different, there is no single way to achieve a successful local content programme. Most successful local content strategies share two common elements: effective internal organization and coordination.

There are several ways to advance coordination, including:

- Nominating an internal champion: one designated person—provided he or she has sufficient seniority and expertise—can be a key driver for local content programmes (IFC & ExxonMobil, 2008). The champion's role is to provide high-level endorsement and to motivate others to help promote and implement the programme internally (IFC & BHP Billiton, 2008).
- Integration into business systems: integration of local content activities into existing business systems maximizes local content outcomes. The ExxonMobil case study below outlines how it can be done.

- Performance incentives: some personnel, particularly those who don't personally experience the benefits of local content, may see attempts to modify existing procedures as interference. To counter this, many companies include local content in staff performance objectives.
- Information flows: staff need to understand the capabilities of local suppliers and how to reach them; local suppliers need to understand when and where opportunities will become available. For these reasons alone, the information needs of key stakeholders should be understood and met, as explained in Figure 3 on page 28.
- Corporate infrastructure: recognizing local content as a strategic issue, some companies have established systems and positions at the corporate level to develop and implement corporate standards and to ease communication between different global business units.

CASE STUDY

Integrating ExxonMobil's local content strategy into business systems (ExxonMobil, 2008)

ExxonMobil's specially-developed company-wide 'National Content Strategy' has been documented in an internal publication entitled *Upstream National Content Guidelines, Strategies and Best Practices*.

To ensure implementation, all relevant ExxonMobil business lines at affiliate, project and operating affiliate levels are involved in formalising these plans globally. Among the key business systems and procedures included are:

- ExxonMobil Capital Projects Management System (EMCAPs);
- Build the Production Organization (BTPO);
- Production Operations Best Practices (POBP); and
- Best Practices for External Affairs (BPEA).

Working with other stakeholders

Local content programmes involve close collaboration with other stakeholders—and their needs play a key role in developing a successful strategy. In return, stakeholder participation brings with it valuable knowledge, resources and commitment.

This section focuses on the benefits—and challenges—of working with stakeholders, with the objective of maximizing local content. For a wider consideration of community engagement, IPIECA provides a range of useful online resources¹.

Several types of organizations have a direct interest in local content. These include:

- National and local governments: many host governments wish to maximize the amount of investments in their country and therefore require targets for local content.
- National Oil Companies (NOCs): NOCs often have broad mandates to support national socioeconomic policy and industrial development objectives (Baker III Institute, 2007). They may have detailed knowledge of local industrial capacities and might maintain detailed supplier databases.
- Communities: local people inevitably have expectations about a nearby project. Sustained two-way engagement can enhance companies' understanding about local capabilities and longterm development needs.
- NGOs and community-based organizations (CBOs): where local content development has strong local community dimensions, working with credible local NGOs/CBOs can greatly enhance the chances of success. Specialized NGOs can provide useful support services such as partnership building, organizational development and microfinance.
- International organizations: organizations such as the International Finance Corporation's (IFC's) Business Linkages Programme can often provide expertise in local capacity development.



- Other oil and gas companies: while local content is increasingly being framed as a competitive issue, it will often make sense for companies to cooperate in the local content domain—particularly in joint venture developments. The creation of enterprise development centres is one example.
- Lead contractors: since most local expenditure is likely to occur through lead contractors, they will benefit by demonstrating how they contribute to meeting their client's local content objectives.
- Business membership organizations (BMOs) and Chambers of Commerce: these organizations often play important roles in facilitating access to opportunities and knowledge for local firms. Building the capacity of BMOs can help develop local suppliers.
- Financial institutions: in collaboration with operating companies, banks and similar organizations can help SMEs gain access to sustainable finance.

¹ See www.ipieca.org/topic/social-responsibility/community-engagement

Benefits from working with external stakeholders include:

- Resources: working with others can bring additional resources, expanded capacity and economies of scale.
- Knowledge, skills and risk sharing: helping to manage risk can often lead to multi-sector/ multi-partner solutions to the complex problems associated with developing local content programmes.
- Third-party broker: providing legitimacy, independence and objectivity.
- **Ownership:** enhancing a sense of responsibility over processes and assets.
- Sustainability: providing mechanisms for programmes to become self-sufficient and sustainable.
- Legitimacy: giving greater positive recognition for a company's activities (Wise & Shtylla, 2007).

These benefits notwithstanding, there are challenges in working with other stakeholders – not least of which is the time and commitment needed to establish partnerships.

Successful collaborations identify common objectives and align these to the different participants' priorities.

Infrastructure

Infrastructure—such as power, water or transport facilities—is critical to the success of local content plans and activities. For example, reliable power can provide direct opportunities for local businesses, and can lead to the provision of more reliable products and services as businesses are no longer burdened with the additional operating costs that result when back-up power/diesel generators are needed.

In some cases, oil and gas companies need to provide some critical infrastructure themselves, or to enter into a cost sharing arrangement with the relevant government. This is often part of the production sharing agreement. Wherever possible, however, it is more appropriate and sustainable to encourage governments to make infrastructure investments themselves.

Primary oil and gas contractors may also consider investing in local infrastructure when it is in their strategic or commercial interests. Oil and gas companies can encourage this by:

- providing details of future potential contracts that would justify such investments;
- allowing some provision in project scope to support or catalyse infrastructure investments where there is a business case for such an investment; and
- facilitating partnerships between different contractors and suppliers to spread risk and the investment burden.

Understandably, governments are more likely to invest in infrastructure where there is a wider national benefit beyond support for the local oil and gas support industry. There may be a case for this type of investment to be financed by the revenues (or future revenues) arising from oil and gas production.

Measuring progress

Every local content strategic plan should include appropriate indicators that allow the company to measure progress against objectives. Collecting suitable data also helps to meet compliance and reporting requirements. These vary by country and definitions of local content.

The second edition of the IPIECA *Oil and Gas Industry Guidance on Voluntary Sustainability Reporting* (published in 2010) includes metrics to help companies monitor and communicate their work on local content for external corporate reporting. For internal monitoring, the first edition of the same document (IPIECA, 2005) proposes some basic key performance indicators (KPIs). These may help companies establish a process to measure a return on their investment and determine the value added in an international or national context.

Figure 2 is an example of a template used by IPIECA member companies for measuring and tracking local content performance on a project. The template helps to estimate the actual monetary value delivered by local firms for each contract. Another useful resource is the Measuring Impact Framework developed by the World Business Council for Sustainable Development and the International Finance Corporation (WBCSD & IFC, 2008). Although not designed specifically to measure the impacts of local content strategies, it provides an easy-to-follow four-step methodology that helps users measure, assess and manage their impacts on society.

The environment in which a local content strategy is developed and implemented is likely to be very dynamic. It is therefore essential to review systems and procedures regularly. This review should include:

- the regulatory environment;
- availability of goods and services;
- availability of service providers (e.g. training or educational facilities); and
- social or political change.

								-	-	% of	Total Committe	d Value
Contract/ PO number	Single Source (SS) or bidding (CFT)	Object/Description	Contractor/ Supplier Name	Effective Date of initial Contract	Anticipated Finish Date	Initial value of Contract Historical Value in '000s USD	Approved Amendments (if any) Historical Value in '000s USD	Amendments)	Expenditure to date by 31 December (i.e. Value of Work Done in '000s USD	International %	National/ Local %	Total 100% (for checking purpose)
		Engineering Services Maintenance and Inspection EPC Facilities EPC Pipeline and Facilities Logistics Services Construction Services Diving Services				10,000 5,000 3,000,000 500,000 20,000 50,000 500	3,000 500 150,000 100,000 4,000	13,000 5,500 3,150,000 600,000 24,000 50,000 5000	15,000 3,000 2,500,000 5,500 7,000 7,000 700	100 50 75 85 0 80	0 50 25 15 100 100 20	100 100 100 100 100 100 100 100
					Total	3,585,500		3,843,000	3,031,200	2,317,060 76%	714,140 24%	3,031,200 100%

Figure 2 A template for monitoring and evaluating local content

24% 100% local content from expenditure to date

897,600 30%

local content from initial contract value

954,350 31%

local content from total committed value

Summary-key success factors

Developing skilled local workers and competitive local suppliers able to perform to the exacting standards of the industry is a difficult—and timeconsuming—process. Challenges are compounded by factors outside the company's control, such as the quality of educational systems, the business regulatory environment, the availability of finance and the condition of infrastructure.

Nevertheless, IPIECA members find that the time and effort invested in developing local content programmes have been worthwhile in terms of strategic and commercial benefits—and the gains to economic growth and sustainable development.

Four factors are key to successful implementation of local content strategy: contextual analysis; starting early; a long-term perspective; and free-flowing, transparent information streams.

Table 6 provides a snapshot.

Success factor	Importance	Reference
Contextual analysis	• A thorough understanding of local context—with emphasis on demand-side requirements, supply-side capabilities and barriers—enables a company to manage the challenges that limit local worker and firm participation.	Part 1: Introduction (pages 3–8)
Starting early	 There are long lead times in developing local capabilities. Decisions made early in the project life cycle have significant implications. 	Starting early (pages 25–26)
Taking a long- term perspective	 Local content development can be costly and time- consuming in the short term. Bearing this in mind from the start facilitates the achievement of more realistic and sustainable outcomes. 	Taking a long-term perspective (pages 26)
Free-flowing, transparent information streams	 A steady supply of information enables local firms and workers to understand opportunities and requirements, and supports client companies in understanding local capabilities. Having an effective communications programme in place is a low-cost exercise that helps markets to function better and often reduces the requirements for other more costly interventions. Transparency throughout is fundamental to the integrity of the process and the perceptions of stakeholders. 	Free flowing, transparent information streams (pages 28–29)

Table 6 Key factors for successful implementation of a local content strategy

CASE STUDY

Enhancing fabrication capabilities in the Nigerian oil and gas industry (the EFCN Project) (Statoil, 2008) (INTSOK, 2009)

In 2000, the Governments of Norway and Nigeria commissioned a detailed industry study. Its aim was to assess the enabling environment for private sector development in the Nigerian upstream petroleum industry and to recommend strategies to improve the capabilities of local supply and service companies.

The report that resulted, Enhancement of Local Content in the Upstream Oil and Gas industry in Nigeria, identified the fabrication industry as having the highest potential for increasing Nigerian content. The study based this conclusion on analysis of the potential for increasing employment and locally manufactured equipment.

The study led to the development of the EFCN Project. This is now working to increase the competence and capabilities of small- and medium-sized fabricators in Nigeria, enabling them to better compete for business from the oil and gas industry.

The International Finance Corporation arm of the World Bank manages the project, which is funded on a 50/50 basis by Nigeria and Norway. On the Nigerian side, the main contributors are the Nigerian National Petroleum Company and the Petroleum Training Development Fund. The Norwegian contribution is split between the Norwegian Agency for Development Cooperation and industry partners which include Statoil, Aker Solutions and FMC Technologies.

The execution phase of the project started in early 2008. During the course of two years, it assessed the quality management standards of seven small- and medium-sized Nigerian fabricators. The results of this assessment are now forming the basis for a two-year training programme.

The Project has also established a Fabrication Training Centre (FTC) in Lagos. Officially opened in 2009, it includes classrooms and welding workshops. The FTC will provide the EFCN's technical courses. Work is ongoing to establish sustainable governance and participation to ensure that the FTC has a long-term future after completion of the EFCN project.

Starting early

It is essential that local content development be considered as early as possible in the project life cycle to ensure that opportunities are fully realized.

This includes early decisions regarding materials and methods of construction. At the beginning of the process, the specification of materials and methods of construction for components or subcomponents can often be modified to better match local capabilities and facilities.

Even some relatively minor decisions, when made soon enough, can have wide-ranging implications. For example, ensuring that specifications for electrical systems and equipment match what is available in the host country may greatly increase the opportunities to source components and electricians locally.

The importance of starting early is underpinned by:

- Capacity development: effective workforce and supplier development is time consuming. Hence, the earlier these processes are started, the more likely that qualified employees and firms will be available when required. This is particularly important during a development's construction phase when opportunities are many but time is limited.
- Implications of design and procurement decisions: many decisions made in the early, conceptual stages of a project significantly affect the scope for local participation. Once key parameters are specified and the Front End

'Early consideration of local content opportunities is vital to ensure the resulting strategy creates benefits for the company and our partners.'

> Source: interview with Woodside

Engineering and Design (FEED) phase begins, the opportunities to improve local content become limited and/or more costly. Some companies explicitly include local content requirements in early project decision making gateways. The process can result in benefits from local content expertise in project development teams.

- Scheduling: lead times for workforce and supplier development activities need to be explicitly addressed in project scheduling. Projects may need to initiate these activities several years in advance of other on-the-ground activities.
- Information gathering and communications coordination: this can avoid raising unrealistic expectations if performed before final project approval and as part of an integrated external communications strategy.

Taking a long-term perspective

Taking a long-term view can result in more realistic and sustainable outcomes. Companies and operations with high levels of local participation have typically achieved this over several decades with long-term benefits in terms of cost reductions and stakeholder satisfaction.

The specific benefits of a long-term perspective are:

- Skills and capability progression: employees need operational experience before they can move into supervisory and managerial roles; local firms need to succeed in delivering smaller contracts before moving onto larger, more complicated deals. By planning for this phased progression over a realistic time frame, local content programmes can consistently deliver higher value participation.
- Challenging regulatory requirements: regulatory requirements for local content often exceed local capacities in the short term. However, if the company explains the advantages of its longterm approach, governments and regulators will often consider a strategy that demonstrates a realistic progression to higher levels of local content during the course of a project.
- Linkages across project phases: there may be opportunities to link skill requirements and supply opportunities between exploration, construction, and operations and maintenance.



'Local content is a strategic issue and those involved need the vision to see that additional investments of time and resources will deliver benefits in the long-term.'

Source: interview with BP

CASE STUDY

BP Trinidad & Tobago (BPTT): Strategic decision-making in local supply chain development (BP, 2005) (BP, 2009) (Trinidad & Tobago Ministry of Energy, 2004) (Wise & Shtylla, 2007)

BPTT is Trinidad and Tobago's leading oil and gas producer and a significant profit centre for BP globally.

Local content is a major priority of the Trinidad and Tobago Government, which aims to 'maximize the level of participation of its national people, enterprises, technology and capital through the development and increasing use of locally-owned businesses ... and human capabilities in the conduct of all activities connected with the energy sector'.

As part of BPTT's expansion, the company needed a series of new offshore platforms: Cannonball, Mango and Cashima. Rather than and procuring the design and construction of these facilities from established suppliers in Louisiana, the company took a 'strategic approach' to this investment decision. BPTT considered the design and construction of these platforms to be valuable opportunities for building competitive local engineering and fabrication capacities.

This was a challenging decision in the initial instance, because:

- the local fabrication of the first platform (Cannonball) would incur a US\$10M cost premium (on a total project cost of US\$54M) relative to international fabrication; and
- it was necessary to enhance local skill levels in engineering, design and fabrication to support local participation.

BPTT facilitated local fabrication by supporting the creation of two Joint Ventures (JVs). One was for engineering and construction management with Fluor Corporation (USA) and Summit. The second was for fabrication with Trinidad Offshore Fabricators Co. Ltd. (TOFCO), a JV of Chet Morrison Contractors (USA) and Weldfab Limited. Both JVs provided the means to develop local capacities through both technical training and mentoring.

Since the beginning of the Cannonball project in 2002, the benefits of the strategic approach for BPTT have been significant:

- Development of competitive local suppliers: TOFCO and the Summit JV won the subsequent contracts to construct the Mango and Cashima platforms through a competitive tendering process. TOFCO has also secured further platform construction contracts with BHP Billiton and EOG Resources.
- Cost savings: BPTT realized more than US\$11 million savings on the construction of the two subsequent platforms through reduced design, engineering and procurement costs and shorter fabrication times. The company could achieve additional savings on future facilities required under long-term production infrastructure requirements.
- **BPTT staff capacity development:** a local BPTT staff member managed the project internally. This helped develop the company's internal capacities in project and supply chain management.
- Local economic development: local fabrication activities encouraged the development of nearby SMEs, increased local employment in a previously deprived area of Trinidad and paved the way for wider export opportunities in oil and gas fabrication.
- **Stakeholder recognition:** key stakeholders have acknowledged the success of BPTT's strong commitment to local content development, with investment seen to benefit the country as a whole.

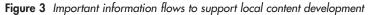
Free flowing, transparent information streams

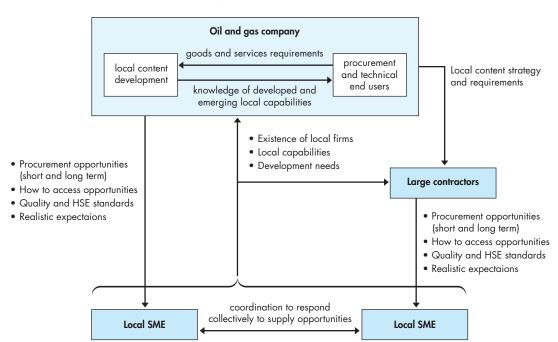
Information flows are crucial for developing local content. On the supply side, workers and businesses need to be aware of the opportunities that are available and how to access them. On the demand side, technical end users and personnel from procurement and human resources departments in companies and international contractors need to understand the capabilities available locally. They must also become aware of how best to make links with local suppliers. Language barriers and cultural differences may complicate these processes—particularly in new operating environments.

That is why it is advantageous for company and contractor employees to interact personally with local people—augmenting formal communications programmes. Everyone involved benefits from shared insights, greater empathy and growing respect. Figure 3 illustrates the process.

Key considerations in information management include:

- Locally-appropriate communication: using local languages and distribution channels makes communication more effective—particularly when linking information on supply and employment opportunities to established channels within targeted communities.
- Future opportunities: providing information about future requirements and employment opportunities gives local businesses and workers time to invest in capital equipment and to obtain the necessary skills and expertise. It also benefits international contracting companies that may be more willing to invest in training, supplier development, infrastructure and joint ventures if they have a clearer understanding of future projects and contracts. Some oil and gas companies release information about planned activities and requirements up to five years in advance.





- Culture change: communicating non-confidential information about a company's current and future requirements is logistically straightforward, but may require cultural change in favour of transparency.
- Transparency: local content programmes involve making difficult choices about which parties obtain access to employment and business opportunities. Transparency in the way these decisions are made helps to discourage corrupt practices and may mitigate potential grievances from unsuccessful bidders.

This guidance document is evidence of an emerging body of good practice in the management of local content in the oil and gas industry.

As this field evolves, IPIECA will continue its efforts to advance information sharing on good practices.

CASE STUDY

Statoil: Petro Arctic Supplier Association in Northern Norway (Petro Arctic, 2010)

While Norway has a well-established oil and gas support industry nationally, there was much less local experience available when Statoil began developing the Snøhvit LNG project in the far north of the country. To facilitate greater local participation, Statoil helped to establish the Petro Arctic Supplier Association in 1997.

Petro Arctic's main aim is to maximize deliveries of goods and services from member companies to Snøhvit and future projects in Northern Norway and the Barents Sea. The Association works in cooperation with Statoil, local and regional authorities and, crucially, with contractors and subcontractors.

Petro Arctic is a critical informational link between developers and regional business. It informs members about project progress and markets member companies to developers and their sub-suppliers. Requests for the supply of locally-sourced goods and services are channelled through the association's secretariat.

The Association continues to build productive networks among the member companies, as experience has shown that local businesses must work together to secure contracts. It also provides qualification and training programmes for members so that they are able to satisfy customer demands.

The association has now turned its attention to the Goliat project, the next large development in Northern Norway, and cross-border cooperation with North West Russia.

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IPIECA is the global oil and gas industry association for environmental and social issues. It develops, shares and promotes good practices and knowledge to help the industry improve its environmental and social performance, and is the industry's principal channel of communication with the United Nations.

Through its member-led working groups and executive leadership, IPIECA brings together the collective expertise of oil and gas companies and associations. Its unique position within the industry enables its members to respond effectively to key environmental and social issues.

Company members	5	Association members	
Addax Petroleum	OMV	African Refiners Association (ARA)	
BG Group	Petrobras	American Petroleum Institute (API)	
BP	Petronas	Australian Institute of Petroleum (AIP)	
Chevron	Petrotrin	Canadian Association of Petroleum Producers	
CNOOC	PTT EP	(CAPP)	
ConocoPhillips	Qatargas	Canadian Petroleum Products Institute (CPPI)	
eni	RasGas	European Petroleum Industry Association (EUROPIA)	
ExxonMobil	Repsol	International Association of Oil & Gas	
Hess	Saudi Aramco	Producers (OGP)	
Hunt Oil	Shell	Petroleum Association of Japan (PAJ)	
KPC	SNH	Regional Association of Oil and Natural Gas	
Mærsk	Statoil	Companies in Latin America and the	
Marathon	Talisman	Caribbean (ARPEL)	
Nexen	Total	South African Petroleum Industry Association (SAPIA)	
NOC Libya	Woodside Energy	The Oil Companies' European Association for	
Occidental		Environment, Health and Safety in Refining and Distribution (CONCAWE)	
		World Petroleum Council (WPC)	

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