



Opportunities in the Oil and Gas Industry  
for UK Training and Education Services

# Brazil

**FOR UK TRADE & INVESTMENT**

© Crown Copyright





Opportunities in the Oil and Gas Industry  
for UK Training and Education Services

# Brazil

**FOR UK TRADE & INVESTMENT**

## Disclaimer

In effort to assure validity and authority to the report, we sought to obtain information from reliable, knowledgeable and influential sources. Whereas every effort has been made to ensure that the information contained in this report is accurate and correct, the author does not represent or endorse the accuracy or reliability of any of the information or content contained therein.

Under no circumstances will the author have any liability caused by your reliance on information obtained through this report as the opinions and interpretations presented in this report represent only our best interpretation of the data made available to us.



# Contacts

UK Trade & Investment is the Government organisation that supports both companies in the UK doing business internationally and overseas enterprises seeking to locate in the UK.

UK companies wishing to do business overseas can call on the services of UK Trade & Investment's Oil & Gas Group, their nearest Business Link; and via commercial sections of British Embassies, High Commissions and Consulates based in overseas markets. For those exporting for the first time, or businesses experienced in international trade expanding into new markets, UK Trade & Investment can help develop export capabilities and provide expert advice, reliable data and professional research. UK Trade & Investment offers British companies:

- Advice and support – Tailored, experienced, impartial advice to maximise your chances of success overseas,
- Information and opportunities – Essential, unique, trusted information so that you can pick the right markets, and
- Making it happen – Practical help to achieve your international trade potential.

Specific UK Trade & Investment services include the Overseas Market Introduction Service (OMIS) which puts UK companies in touch with staff in our overseas offices and provides focused business advice and visit support based on a workplan that is likely to include pre-visit research. Our internet-based Business Opportunities system matches UK businesses with international business opportunities gathered by our network of British Embassies, High Commissions and Consulates worldwide.

UK Trade & Investment's full range of information, advice and support can be accessed through the International Trade Teams throughout England, or through Scottish Enterprise, International Business Wales (IBW) or Invest Northern Ireland. Details of your local contacts can be found at [www.uktradeinvest.gov.uk](http://www.uktradeinvest.gov.uk) and you can also contact the Business Link network by calling their enquiry line on 020 7215 8000.

## **UK Trade & Investment**

Oil & Gas: Americas  
6TH Floor, Tay House  
300 Bath Street  
Glasgow G2 4DX  
Tel: +44 (0)141 228 3607  
Fax: +44 (0)141 228 3627  
[www.uktradeinvest.gov.uk](http://www.uktradeinvest.gov.uk)

## **British Consulate-General, Rio de Janeiro**

Guilherme Martins  
Manager, Energy Team  
UK Trade & Investment - Brazil  
Tel +55 21 2555 9610 (direct)  
Fax +55 21 2555 9670  
Email [guilherme.martins@fco.gov.uk](mailto:guilherme.martins@fco.gov.uk)  
[www.britain.org.br](http://www.britain.org.br)



# Contacts

## **Scottish Development International**

Scottish Development International  
Energy & Engineering  
150 Broomielaw  
Atlantic Quay  
Glasgow G2 8LU  
Tel: +44 (0)141 228 2732.  
Email: [SDI.Energy@scotent.co.uk](mailto:SDI.Energy@scotent.co.uk)  
[www.scottish-enterprise.com](http://www.scottish-enterprise.com)

Scottish Development International is the international economic development arm of the Government in Scotland and provides a broad range of support to companies and institutions to help them develop their overseas business.

Assistance varies from providing basic market information to detailed matching of business partners, as well as the organisation of inward and outward missions and Scottish stands at key international exhibitions. In providing these services Scottish Development International has staff based in markets throughout the world as well as working closely with the International network of British Embassies and Consulates. For more information visit the website [www.scottish-enterprise.com](http://www.scottish-enterprise.com).

## **GTEP**

Global Training & Education Partnership (GTEP)  
36 Holly walk  
Leamington Spa  
Warks CV32 4LY  
Tel: +44 (0)1926 462917(0)  
Mob: 07990 707091  
Email: [info@grep.org.uk](mailto:info@grep.org.uk)  
[www.gtep.org.uk](http://www.gtep.org.uk)

The GTEP initiative is a unique co-operation between the oil, gas and petrochemical industries and the UK government (UKTI), to help establish a greater presence of UK based skills in international markets.

GTEPs role is to co-ordinate the UK supply chain, identify and qualify opportunities that can be serviced and build the credibility of the UK supply chain in global markets.

GTEP is a membership based organisation and anyone involved in the training and education sector of the oil, gas and petrochemical industries is eligible to join.



# Contents

<b>Introduction</b>	<b>1</b>	<b>SENAI in Macae</b>	<b>10</b>
<b>Petrobras</b>	<b>4</b>	<b>Espirito Santos - Vitoria</b>	<b>10</b>
<b>Petrobras Recruitment – 2006 to 2009</b>	<b>4</b>	<b>Rio de Janeiro</b>	<b>10</b>
<b>Petrobras University</b>	<b>4</b>	<b>MOU – Brazil-UK</b>	<b>10</b>
<b>Human Resource Development in Petrobras</b>	<b>5</b>	<b>VET/ British Council</b>	<b>10</b>
<b>HSE Training in Petrobras</b>	<b>6</b>	<b>Other Support</b>	<b>11</b>
<b>Learning Technologies</b>	<b>6</b>	<b>Conclusions</b>	<b>11</b>
<b>Competency Assurance</b>	<b>6</b>	<b>Reference 1 – 2002 Report</b>	<b>12</b>
<b>Contracting and Tendering with Petrobras</b>	<b>6</b>	<b>Opportunities in the Oil and Gas Industry</b>	
<b>International Operating Companies in Brazil</b>	<b>7</b>	<b>for UK Training and Education Services</b>	
<b>Sources of Funding for Training and R&amp;D in Brazil</b>	<b>7</b>	<b>Reference 2</b>	<b>65</b>
<b>The City of Macae</b>	<b>9</b>	<b>Vendors List Registration Guide</b>	
		<b>Materials and Equipments Suppliers</b>	



# Brazil Education and Training

## Introduction

This has been prepared as an update of an earlier report that was produced in 2002. The objective is to compare some of the principle findings of the 2002 report with the current situation in Brazil in early 2006. The intention is not to re-write the 2002 report.

The report for Brazil is part of a wider initiative to promote co-operation in education and training to oil and gas producing countries in Latin America and The Caribbean. This initiative has been made possible through the Short-Term Business Attachment scheme, which is a UKTI-industry initiative. The other sponsors of the project are The British Council and GTEP.

It is recommended that this update is read with reference to the 2002 report. For reference the principle findings from 2002 report are:

1. The Brazilian oil and gas industry has set very ambitious growth plans for the next 3 to 4 years
2. These plans involve:
  - The doubling of production within 3 years
  - The internationalisation of Petrobras
  - The liberalisation (part de-regulation) of the industry, enabling foreign operators to enter the market
  - Achieving international standards and recognition for safety, health and environment management
3. Although Petrobras is the largest single potential client, there are over 15 foreign operators that have acquired exploration licenses in the 2000 round. Shell, BP and Enterprise are the main UK operators active in the market
4. British Gas and BP are also involved in major projects involving transportation and distribution (pipelines) of gas from Bolivia
5. Oil service companies with British connections are now established in the market e.g. Wood Group, Halliburton Brown and Root, DSND
6. Rio de Janeiro State, Rio de Janeiro city and Macae are the main centres, accounting for some 80% of the oil and gas activity in Brazil
7. There is a perceived shortfall of skilled people required for the industry at all levels. It is broadly acknowledged that the pace of change within the industry is so fast that the national system of training and education provision in Brazil (especially in Rio State) is unable to respond adequately
8. Petrobras will (try to) recruit 1500 graduates and postgraduates and 1300 people at technician level this year
9. The anticipated growth of foreign company presence in Brazil it is thought will further exacerbate the skills shortfall – although there is some uncertainty of the scale of this while exploration results are unclear
10. There are high value, low volume AND low value, high volume opportunities.



# Brazil Education and Training

11. Significant opportunities for UK training and education service providers who are able to demonstrate a capability to deliver and a track record of supply to the oil and gas industry.
12. The ability to export programmes to Brazil is therefore a key requirement as is the commitment on the part of suppliers to deliver
13. There is a desire within the industry for the development of a more sophisticated 'supply chain' in all aspects of training activity, more immediately within the high volume areas (health and safety)
14. The Education Market in Brazil:
  - Is provided at all levels by both the public and private sector
  - Private schools are generally acknowledged for providing the better school education; Public Universities are acknowledged for providing better higher education. Less than 12 % of the age cohort in Brazil go on to higher education
  - The Brazilian higher education system is heavily research focused; some of the research is regarded as world class
  - There is a perception that the pace of education delivery in Brazil is too slow to meet the large anticipated increases in demand for qualified graduates - some Universities are examining how they can reduce the time spent obtaining degrees, especially at post-graduate level
  - Brazilian graduates are in general (technically) highly competent but are not regarded as 'job ready'
- Brazilian students studying in the UK already provide some £40 million of invisible earnings
- Collaboration with Brazilian Universities is possible and encouraged although there may be limited financial returns
15. The Training Market in Brazil:
  - Is limited in both capacity to deliver and product range
  - Much of the training currently provided to the industry is of variable quality - there is a need to improve quality greatly
  - Significant opportunities lie in health and safety training especially those that are OPITO approved
  - Other opportunities exist for accredited technical courses in mechanical, electrical, process, chemical and control engineering, especially at NVQ Level 2, or where they are OPITO approved
  - Most of the training takes place in Brazil - there is very little training that takes place abroad. The exceptions are those areas where no provision exists in Brazil at all (e.g. rig stabilisation, asset management, project management)
  - Specialist, higher level offerings are sought throughout the industry
16. The Brazilians prefer to look to Europe than to North America
17. There is a need to develop the skill base at the practical level in the short to medium term. Providers of vocational education and training would thus fit very well into the market



# Brazil Education and Training

18. Large volume opportunities lie with supporting industries such as shipbuilding and the service industries e.g. health and safety, rigging, welding, fabrication, fork-lift driving etc.
19. Language is an issue - Portuguese content is almost essential for the high volume market
20. There are a number of market entry strategies open to UK TES organisations, although having 'Brazilian' content is the easiest way in. Although materials in English are acceptable initially, partnerships with local training organisations/providers are particularly encouraged to help avoid language issues.
21. There is a 'drag anchor' effect in the ability of local providers to respond to the markets' needs. UK TES providers partnering with local providers would assist in reducing this effect considerably.
22. Joint ventures with Brazilian entities are also encouraged
23. All organisations wishing to work in Brazil must register with ANP (National Petroleum Agency) and the national oil company (Petrobras) and meet their standards. Providers with OPITO certification are automatically approved
24. Once registered and based in Brazil, organisations will be able to be invited to participate in the bidding process and would be consulted to provide quotes for training
25. As with many markets, forming good personal relationships through regular contact, including face-to-face meetings, in Brazil is very important
26. Organisations that combine complimentary portfolios, who share cost and risk and who establish a permanent presence in the market will have a significant advantage over other providers who do not do so
27. Forming an alliance with UK companies active or about to enter the market to act as the 'training' department offers a potentially positive mechanism for market entry
28. The time to enter the market is now - the pace of development, the rate of growth and the liberalisation of the market is such that there is already serious competition from French, Italian, American and Canadian providers
29. Early estimates indicate that the value of the investment in training and development across the industry in Brazil over the next 3 - 5 years could be in the range of £30 - £70million.
30. A UK Training and Educational Services 'presence' in the market is considered a priority by UK companies interviewed during the survey. In particular, the EIC stressed the point that a permanent presence would immediately treble access to business opportunities.
31. A 'centrally' co-ordinated and/or managed approach could yield good returns on investment for providers of services



# Brazil Education and Training

## Petrobras

The main client in Brazil is Petrobras. Petrobras is continuing a strategy to increase oil and gas production. With the coming on-stream in late 2005 of the P-50 asset in the Albacora Leste field in Guanabara Bay, producing up to 180,000 bbls/day (some 12% of total national oil production), Brazil has achieved its ambition of self-sufficiency in oil. From a production high of 1.7mmbblsoe/day in 2002, Brazil now produces over 2.2mmbblsoe/day in 2006. The plans are to grow this to 3.0 mmbblsoe/day by 2012.

In 2002, Petrobras was a national oil company. Today it's a national oil company operating nationally within a liberalized market and now internationally. Petrobras is now active in Bolivia, Argentina, Venezuela, Mexico, The USA, Angola, Nigeria, Libya, Turkey, The Ukraine and Japan. An international division has been created. New skills sets will be required for Petrobras staff to work in Overseas. English and / or Spanish is obligatory to work in Petrobras International.

Additionally, Petrobras has an active and aggressive policy of diversification from its core hydrocarbon business into other areas of the energy spectrum – e.g. power generation and distribution. Petrobras has acquired electricity generating businesses in Brazil and Argentina. At one point Petrobras, following its acquisition of a generating company in Argentina, briefly owned a nuclear power plant. While allowing Petrobras to retain the conventional plants, the Argentinean Government quickly reversed the decision regarding the sale of the nuclear plant! Renewables are also attracting considerable interest and investment.

## Petrobras Recruitment – 2006 to 2009

Petrobras is undergoing a massive (by any company's standards) recruitment campaign – some 9000 new employees in the next 3 years. Applications for these positions are made through public concourse. The positions being filled are across the business. Initial focus is on core business skills such as geology, geophysics, reservoir and petroleum engineering. Millions of applications have been received and each is processed. Positions have been offered and take up is increasing across the corporation. Most of these new employees will have few (if any) skills or knowledge specific to the oil and gas industry. This will impact quite significantly on Petrobras in-house HR development capacity, with considerable responsibility resting with the Corporate University, now branded as the Petrobras University.

## Petrobras University

Petrobras University is undergoing a re-structuring to cope with this new intake. A new employee in Petrobras is given at least 6 months of full time training prior to taking up their post in the corporation. The training is a combination of technical enhancement (in some cases, reflecting short-falls in the education system), professionalisation and training specific to Petrobras business culture. This training is almost always done using in-house resources and programmes, often using commercially sensitive company information and data sets.

Petrobras University has recently been restructured. This has been necessary to accommodate the increase in new staff and to continue core uplifting of existing staff.



# Brazil Education and Training

The new structure has been re-organised into five schools:

1. Downstream
2. Upstream E&P
3. Gas & Energy (including renewables)
4. Business and Management
5. Generic Engineering

Outsourcing of new staff development does take place, but primarily involves Brazilian Universities and Petrobras affiliates and is undertaken mainly for highly specialized training (e.g. geology, geophysics) or where field-based training is required. Some of this training can last up to 12 months depending on the discipline or needs of employee. Very little outsourcing takes place in Downstream and Upstream. Business and Management is more frequently outsourced.

## Human Resource Development in Petrobras

For those interested in working with Petrobras University, the main area of opportunity for UK providers is in Continuing Education (which is their expression for Continuous Professional Development – CPD). This area of activity may experience some (albeit unintentional) neglect by Petrobras University over the next 3 to 5 years due to the new recruitment. There will remain a need to continue with CPD, especially to counter the expected loss of experienced professionals and workers due to retirement.

In 2002, Petrobras embarked on a policy where business units were responsible for training and development activities. Budgets lie with the business units and training is agreed by supervisors and operational management. All Business Units (BUs) have an HR function which is split into three parts:

- HR Management – dealing with transfers
- HR Environment – dealing with benefits, remuneration and unions
- HR Development – dealing with:
  - technical training (including HSE)
  - overseas training
  - management development and leadership

The two biggest upstream business units are:

Unidad Negocios – Basin Campos (UN-BC):

- based in Macae
- serves Campos Basin (some 80% of Brazil offshore production)
- approx. 5000 Petrobras employees
- approx. 13000 contractors
- 80% work offshore

Unidad Negocios UN-RIO

- based in Rio
- approx. 2000 Petrobras employees
- approx. 6000 contractors
- will recruit 300 new in 2006
- an additional 500 by 2009



# Brazil Education and Training

The main message from the BUs is that training should take place in Brazil. There is a shift toward embedding practical skills training, so this should be reflected. The main focus for training currently includes:

- Oil and gas offshore operations – all areas
- HSE – big emphasis

## HSE Training in Petrobras

This is the biggest volume of training in Petrobras. A major project started in 1998 in effort to reduce unacceptably high accident and lost time incidents. There has been a “massive” investment in both training and safety equipment during this period. The adopted method was behaviour based comprising behaviour auditing, daily dialogues and safety moments at the start of each shift. UN-BC alone has 220 technicians trained as behaviour based auditors. The net effect of the implementation to date has been a massive reduction in accidents and injuries. The goal, however, is to reach zero accidents.

The training all has to be at least IMO accredited. Other accreditations, e.g. OPITO are also recognised. Shore based personnel re-train every 4 years; offshore based staff retrain annually. Basic Offshore survival training is mandatory, as is firefighting. Presently, however, there is no mandatory requirement for Helicopter Underwater Escape Training (HUET) training. New areas now required include ‘anti-sabotage’ training. One surprising area where there is no mandatory requirement is in Major Emergency Management (MEM). There is currently no established provider in Brazil of MEM training.

The main message from Petrobras HSE is the need to widen and diversify the supply base. There is a concern that the training provision is concentrated in a few organisations. Petrobras operates a ‘pre-qualified’ vendors register called the ‘Crystal list’. Vendors must be on this list to tender for any business with Petrobras.

## Learning Technologies

Petrobras is keen to adopt novel but effective learning technologies. Since 2002, The Corporate (now Petrobras) University has implemented an e-learning strategy to support training. This is an important area for UK providers to consider, especially for accredited HSE and basic training.

## Competency Assurance

There is currently no uniform or standardised competency assurance system across Petrobras. However, a recent initiative by E&P has now developed a system modelled on the Cogent Sector Skills Council method. This is encouraging news. The system, named ‘Alta Competencia’ is currently being piloted with a view to a wider roll-out across all Petrobras BU’s and beyond – into the contractor sector and other industries. It has been stressed that this was a strategic initiative that seeks to obtain consistency in standards of competency within Petrobras. Given that a significant proportion of UK providers are already aligned to the UK model, mapping their products and services to Petrobras is now easier.

## Contracting and Tendering with Petrobras

As a public company, Petrobras must follow strict rules for tendering and contracting.



# Brazil Education and Training

Typically, 3 bids would be required for any contract being tendered. Single sourcing does present problems and while not insurmountable, such an approach will often lead to delays in project start-up, sometimes significantly so. These conditions apply to all public companies. Tendering and contracting with the private sector in Brazil is little different from current practice in the UK.

## International Operating Companies in Brazil

In 2002 a cluster of IOC's had newly entered the market and were engaged in the early phases of exploration. In 2006, a number of IOC's e.g. Shell are now producing, others are in various stages of declaring commercial viability of discoveries some have secured new exploration licenses – independent of Petrobras. This is a big shift from the market monopoly held by Petrobras. From an HR perspective, this indicates the beginning of competition across the industry for skilled workers.

The main areas of need arising from discussions with IOC's are:

- HSE` Competency system
- E&P Global HSE standards
- Permit to work training
- Crane and lifting operations
- HUET and Basic Survival training
- Emergency response (simulation, not table top)
- Risk assessment
- Occupation health (management/standard/fitness to work/testing)
- HAZCOM/MSDS training
- Human factors engineering (for new projects)

Clearly, some of these areas amp directly with Petrobras, where others reflect the international standards of IOC's not yet mandatory or required in Petrobras.

## Sources of Funding for Training and R&D in Brazil

The high price per barrel is helping to release larger budgets for training. This, however, is being reflected across the whole industry, not just in Brazil. Nevertheless, the way and extent to which training and R&D is funded in Brazil must be the envy of many producing countries. There is a deep tradition of scholastic achievement at the professional level, underpinned by significant investment in research. This has both an upside and downside:

- Upside – a very well educated and qualified workforce, current in latest technologies ad practices
- Downside – very little ability to apply the knowledge in workplace environment without extensive, deep and time-consuming professional development before taking up position within the company

There is a cultural drive for qualification. A Masters degree is often the minimum requirement to gain employment. There is a seemingly complex maze of funding for training and HR development coming directly from the industry. A number of bodies and agencies have been established to fund, direct and support targeted areas. The function and purpose of these various organisations is covered in the 2002 report.



# Brazil Education and Training

In summary however, there are two main sources of funding:

Royalties – from production of which:

- 25% is channelled directly back into R&D and training activities

Levy from high producing wells of which:

- 1% is derived (Article 9478 of the Hydrocarbon Law)
- Managed and physicalised by ANP (National petroleum Agency)
- 50% goes directly to Petrobras
- 50% goes to Universities and research institutes
- equates to around £200m annual funding
- There is no barrier to UK R&D companies/Universities in partnering with Brazilian organization in receipt of this funding

The main provider of funding, and main auditor of successes is the ANP. ANP is the licensing body in Brazil, roughly equivalent in function to the DTI, except with wider responsibilities.

Other sources of funding for training include:

**FINEP** is a government agency charged with introducing innovation into the private sector. It's principle aim is to support basic research and take successful products to market. Although its interests extend across a number of industrial sectors, it has a specific remit within the oil and gas industry.

The four main areas of current investment, in partnership with Petrobras are:

- Deep water technology
- Environmental research
- Supply Chain – FINEP works with ONIP to introduce innovation into the local supply chain
- Health, Safety and Environment

For training, FINEP has an indirect role. It provides funds to other organisations through which training is conducted. These funds go mainly to public sector organisations including the University sector. Annual amount to date for training is circa. £7m.

An important initiative through which significant funding is provided is the **PROMIMP**. PROMIMP is a programme whereby Petrobras will invest for 5 years in an effort to help translate the corporate plan into an HR capacity.

The objective is to provide funding to individuals for training and development in areas of specialisation of direct relevance to the oil and gas industry. The focus is on areas where skills or knowledge gaps have been identified. The main recipients of the support are individuals who currently are not employed in the industry. In summary, PROMIMP is a conversion training course – converting technicians and professionals to work within the oil and gas industry.

PROMIMP does not exist as an organization. There is only an administrative function allocated from Petrobras.



# Brazil Education and Training

PROMIMP is a scheme, accessible by contractors who wish to develop or acquire new skills deemed relevant to the needs of the industry. The Brazilian E&T sector provides the training, usually in the form of established programmes. Few new programmes are created to deliver the PROMIMP objectives.

**The Brazilian Petroleum Institute (IBP)** is equivalent to UKOOA, with Petrobras and IOC's on its board. It has 3 main functions:

- Provides the link between the industry and government
- Undertakes large conferences, seminars and exhibitions where they are:
  - Organizer of Rio Oil and Gas Exhibition
  - An affiliate of World Petroleum Congress
- Promotes strategic actions of the industry in:
  - Technology
  - Human Resource development
  - Qualification of employees

IBP is solely concerned with the industry in Brazil and will not participate in the internationalization of Petrobras. IBP is very open to UK providers supplying services for the delivery of their short course programme, subject to the following:

1. The course cannot promote a specific or proprietary technology
2. Must demonstrably add value
3. The course is run in Rio

The 2006 course catalogue (varying between 2 to 5 days duration) comprises:

- Asphalt – 2 courses
- Engineering, Equipment and Maintenance – 10 courses
- Inspection – 16 courses
- Instrumentation and Automation – 10 courses
- Laboratory – 7 courses
- Petroleum, Gas and Combustibles – 26 courses
- Petrochemical – 2 courses
- Health safety and Environment – 16 courses

## The City of Macae

The port city of Macae hosts the Campos Basin business unit (UB-BC) and accounts for 80% of Petrobras offshore production. There are 5000 Petrobras employees and 13000 contractors in UB-BC. Around 80% work offshore in some capacity or other.

Macae has undergone some fairly major infrastructure changes in the past 4 years. The present Mayor has ambitions to place Macae on the world map as a centre for deep-water oil and gas technology and expertise. Petrobras is a partner in this initiative. One major focus of the Mayors' office is for Macae to become a centre of excellence in training. There is a presence of training companies in Macae, primarily providing HSE and offshore related products and services. A small number British companies are now established within the supply chain. There is broad encouragement for further UK participation.



# Brazil Education and Training

Although there is a string of suppliers based in Macae and Rio, they are mainly small enterprises. The private sector is dominated by 2 or 3 companies providing HSE and basic offshore training and highly specialized training:

- Sampling – Brazilian
- NUTEC – Aberdeen originated but Danish parent
- ASET – Aberdeen based

One or two other companies have had some success in winning contracts for short course training, but not in substantial amounts at present.

## SENAI in Macae

SENAI is part of the “S” System and is maintained by private enterprise (1% levy) under the auspices of the National Confederation of Industry CNI, the National Confederation of Commerce CNC, and the National Confederation of Agriculture CAN. The system operates in tandem with the official technical/vocational training and qualification system, responding to the labour needs of a range of sectors. SENAI provides industrial training. With its sister organization SENAC (commercial training) they are the two largest organisations working in the oil and gas sector and maintain good quality schools and training centres that comprise a nationwide network.

SENAI is establishing a large industrial capability in Macae. This is regarded as a cornerstone of Macae’s ambition to become a world class centre of excellence in training to the offshore oil and gas industry. SENAI has ambition and seeks collaboration with international partners, and has already set in place partnership agreements.

SENAI also plans to open up a Centre for Post-Graduate studies in Macae, adding further to its portfolio to the oil and gas industry.

## Espirito Santos - Vitoria

A new province has been opened up in Espirito Santos, mainly in and around the city of Vitoria. Petrobras alone is aiming to recruit and base 2000 staff there. There is very little if any infrastructure dedicated to training. Our research indicates that Vitoria has ambitions to create this infrastructure and perhaps even to compete with Macae.

## Rio de Janeiro

Rio de Janeiro has a concentration of resources providing training and education to the oil and gas industry. The 2002 report covers the main players here.

## MOU – Brazil-UK

During a state visit to the UK between March 8th and 10th, 2006, President Lula and Prime Minister Blair signed an MoU on education and technology transfer. Having endorsement at this level is taken seriously in Brazil and should help in establishing appropriate relationships through which to conduct business.

## VET/ British Council

The British Council has been involved for years in promoting vocational education and training (VET) and work-based learning methodologies in Brazil since 2002. This initiative is ongoing; its main focus is in Sao Paulo and is cross-sector. There is an opportunity for the promotion of VET to be targeted at Petrobras, who expressed a keen interest in understanding more about methodologies.



# Brazil Education and Training

## Other Support

The 2002 report made as one of its key recommendations the creation of a local support resource working with both the Consulate and British Council in Brazil. This role was created and has been funded since 2003. Cristina Palmeira has since been providing invaluable direct support to the UK providers seeking to open up opportunities in Brazil. The project has now concluded and Cristina has joined Petrobras. Support for UK organisations wishing to consider Brazil is still available via the Consulate commercial section and The British Council.

## Conclusions

A number of quite significant movements have occurred in the market when compared to the 2002 report. Some of these movements impact fundamentally on the role of training and education within the oil and gas industry in Brazil and subsequently provide indicators of improved market potential in 2006.

The conditions for contracting and tendering with Petrobras remain complex and a possible hindrance to entering the market. However, these conditions are no more or less complex than other countries where the UK sector is currently operating. Care should be taken in fully understanding what the market conditions are.

In general, there is scope for optimism in this market. Companies who entered following 2002 are now seeing returns on investment, even if it has taken time. The conditions then are different to 2006. The main movements in recruitment, business growth and diversification, international expansion, impact of the IOC's all help create even better conditions for opportunity.



# Reference 1 2002 Report

## FOR UK TRADE & INVESTMENT

### Opportunities in the Oil and Gas Industry for UK Training and Education Services

Brazil



# Contents

## Reference 1 – 2002 Report

<b>1.0</b>	<b>Introduction</b>	<b>16</b>	<b>6.0</b>	<b>Training and Education Specific to the Oil and Gas Industry</b>	<b>27</b>
<b>2.0</b>	<b>Executive Summary</b>	<b>17</b>	6.1	Summary	27
<b>3.0</b>	<b>Methodology</b>	<b>21</b>	6.2	The role of public and private agencies in training and education	28
<b>4.0</b>	<b>Geographical Focus</b>	<b>22</b>	6.3	The National Petroleum Agency - ANP	28
4.1	Brazil	22	6.4	National Petroleum Industry Organisation - ONIP	28
4.2	Brazil economy overview	22	6.5	ANP/ONIP investment strategy	28
<b>5.0</b>	<b>The Brazilian Training and Education System</b>	<b>23</b>	<b>7.0</b>	<b>The Gaps in the Brazilian Oil and Gas Industry</b>	<b>30</b>
5.1	Summary	23	7.1	Summary	30
5.2	Policy and legislation	23	7.2	Petrobras	30
5.3	Provision of vocational education and training	24	7.3	Increased demand for training and education	31
5.4	Higher education provision in Brazil	24	7.4	Recruitment of senior staff by foreign companies	32
5.5	Higher education structure	25	7.5	Recruitment of undergraduates by foreign companies	32
5.6	MSc	25	7.6	Technical middle level training	32
5.7	MBA - a cautionary tale	25	7.7	Small business training	33
5.8	Vocational university education	26	7.8	Supply and quality of local training and education provision	33
			7.9	Health, safety and the environment (HSE)	33
			7.10	Facilities	34



# Contents

Reference 1 – 2002 Report

<b>8.0</b>	<b>Opportunities for Training and Education Providers in the Brazilian Oil and Gas Industry</b>	<b>35</b>	<b>10.0</b>	<b>Market Entry</b>	<b>42</b>
8.1	Summary	35	10.1	Mechanisms	42
8.2	Vocational undergraduate and postgraduate opportunities	35	10.1.1	Visas	42
8.3	Health, safety and environment training	35	10.1.2	Transferring money	42
8.4	Emergency management and fire-fighting training	36	10.2	Collaboration with Brazilian Universities	43
8.5	Basic level training for subcontractors	36	10.3	Working with ANP and ONIP	43
8.6	Working with technical schools	37	10.4	Collaboration on HSE standards	43
8.7	English language training	37	10.5	Course sharing	44
8.8	Other opportunities	37	10.6	Relationships	44
<b>9.0</b>	<b>Market Issues</b>	<b>38</b>	<b>11.0</b>	<b>Conclusions and Recommendations on the Way Forward</b>	<b>45</b>
9.1	UK Reputation	38	11.1	Summary	45
9.2	Language skills	38	11.2	Specific initiatives	45
9.3	Distance learning	38	11.2.1	Initiative involving TPUK and the British Council	46
9.4	Pricing	39	11.2.2	The 'cluster' approach	47
9.5	Self funding students	40	11.2.3	Working with majors in the market	47
9.6	Employee sponsored training	40	11.2.4	Supply chain initiatives	47
9.7	Promotion	40	11.2.5	Export promoter	48
9.8	Competition	41	11.2.6	Rio Oil and Gas Show	48



# Contents

Reference 1 – 2002 Report

<b>12.0 Bibliography</b>	<b>49</b>
<b>13.0 Acknowledgements</b>	<b>53</b>
<b>14.0 Appendices</b>	<b>55</b>
1. Details of Brazilian organisations and companies researched	55
2. Details of accredited courses recognised by ANP	62

1.0



# Introduction

Reference 1 – 2002 Report

This report was commissioned by BG 5e of Trade Partners UK. It should be read in conjunction with relevant sections in the recently released report 'Brazil - Opportunities and Business Processes in the Oil, Gas and Petrochemical Industry'<sup>1</sup>, hereafter referred to as the McLennan report. Many of the conclusions and observations concerning the market, business protocols and processes in the McLennan report are relevant to how business opportunities in training and education can be pursued in the Brazilian market. Consequently, the McLennan report is essential rather than recommended reading for those organisations seriously contemplating acting on the findings of this report.

The main objectives of this report are:

- To provide TPUK with an analysis of the scale and nature of the market for UK training and educational services (UK TES) in the Brazilian oil and gas industry
- To evaluate what potential the market holds for UK training and education services
- To provide up-to-date market knowledge and highlight mechanisms for UK TES providers seeking to enter the Brazil market
- To make recommendations on the 'way forward'

The contexts within which this report is set are:

- Brazil's rapid acceleration toward self-sufficiency (growth) in energy supplies by 2005. Within the context of the energy mix, this means an almost doubling of oil and gas production in that period
- Petrobras' move toward international competitiveness
- The imperative to address and improve the industry's (Petrobras) environmental, health and safety record, following several high profile incidents where loss of life, injury and environmental damage has occurred
- The need to encourage genuine opportunities for the transfer of technology, knowledge and skills within a mutually beneficial framework of exchange

<sup>1</sup>Brazil - Opportunities and Business Processes in the Oil, Gas and Petrochemical Industry. Ken McLennan (SBTA) and Isa Montenegro (Assistant Commercial Analyst). Copies of this report are available from BG 5 Trade Partners, Tay House, Bath Street, Glasgow or from the British Consulate Generale, Praia do Flamengo, 284/2 Andar, 22210-030 Rio de Janeiro - RJ, Brazil Tel: +55 21 2555 9624; Fax: +55 21 2555 9670; email: britconrio@openlink.com.br

2.0



# Executive Summary

Reference 1 – 2002 Report

This report was commissioned to analyse and report on the potential market for UK training and education services to the oil and gas industry in Brazil. From the research carried out, it is quite clear that a momentum has been established that will present a serious challenge to Brazil in terms of skilled manpower supply.

A broad cross-section of individuals and organisations has confirmed that the industry in Brazil is in need of help in order to achieve these targets. The main conclusion of this report is that significant opportunities exist for UK TES providers who are considering entering this market.

**The authors wish to gratefully acknowledge the support and contribution of all those involved in the preparation and production of this report both in Brazil and the UK.**

The main points contained in this report are:

1. The Brazilian oil and gas industry has set very ambitious growth plans for the next 3 to 4 years
2. These plans involve:
  - The almost doubling of production within 3 years
  - The internationalisation of Petrobras
  - The liberalisation (part de-regulation) of the industry, enabling foreign operators to enter the market
  - Achieving international standards and recognition for safety, health and environment management
3. Although Petrobras is the largest single potential client, there are over 15 foreign operators that have acquired exploration licenses in the 2000 round, and up to 55 foreign companies after all 3 licensing rounds. Shell, BP and Enterprise are the main UK operators active in the market
4. British Gas and BP are also involved in major projects involving transportation and distribution (pipelines) of gas from Bolivia
5. Oil service companies with British connections are now established in the market, e.g. Wood Group, Halliburton Brown and Root, Subsea 7, Kvaerner, ASCo, Briggs Marine
6. Rio de Janeiro State, Rio de Janeiro city and Macae are the main centres, accounting for some 80% of the oil and gas activity in Brazil
7. There is a perceived shortfall of skilled people required for the industry at all levels. It is broadly acknowledged that the pace of change within the industry is so fast that the national system of training and education provision in Brazil (especially in Rio State) is unable to respond adequately
8. It is estimated that for projects up to 2005, that 15,600 vacancies will be created in the oil and gas market, embracing 87 professional disciplines (source ONIP)
9. Petrobras will (try to) recruit 1,500 graduates and postgraduates and 1,300 people at technician level this year

2.0



## Executive Summary

Reference 1 – 2002 Report

10. The anticipated growth of foreign company presence in Brazil it is thought will further exacerbate the skills shortfall - although there is some uncertainty of the scale of this while exploration results are unclear
11. There are a high value, low volume AND low value, high volume opportunities<sup>2</sup>
12. Significant opportunities exist for UK training and education service providers who are able to demonstrate a capability to deliver and a track record of supply to the oil and gas industry. These opportunities have been verified by both Brazilian and foreign industry participants
13. The ability to export programmes to Brazil is therefore a key requirement as is the commitment on the part of suppliers to deliver
14. There is a desire within the industry for the development of a more sophisticated 'supply chain' in all aspects of training activity, more immediately within the high volume areas (health and safety)
15. The Education Market in Brazil:
  - Is provided at all levels by both the public and private sector
  - Private schools are generally acknowledged for providing the better school education; Public Universities are acknowledged for providing better higher education. Less than 12 % of the age cohort in Brazil go on to higher education
  - The Brazilian higher education system is heavily research focused; some of the research is regarded as world class
  - There is a perception that the pace of education delivery in Brazil is too slow to meet the large anticipated increases in demand for qualified graduates - some Universities are examining how they can reduce the time spent obtaining degrees, especially at postgraduate level
  - Brazilian graduates are in general (technically) highly competent but are not regarded as 'job ready'
  - Brazilian students studying in the UK already provide some £40 million of invisible earnings
  - Collaboration with Brazilian Universities is possible and encouraged although there may be limited financial returns

<sup>2</sup>High value, low volume means low quantity, higher cost products, such as MSc's, specialist or advanced level programmes costing typically between £500 - £10,000. Low value, high volume refers to large quantity, lower cost products such as safety, health, core, technical short course, language and soft-skills short courses costing typically around £100 - £500.

2.0



# Executive Summary

Reference 1 – 2002 Report

16. The Training Market in Brazil:
  - Is limited in both capacity to deliver and product range
  - Much of the training currently provided to the industry is of variable quality – there is a need to improve quality greatly
  - Significant opportunities lie in health and safety training especially those that are OPITO approved
  - Other opportunities exist for accredited technical courses in mechanical, electrical, process, chemical and control engineering, especially at NVQ Level 2, or where they are OPITO approved
  - Most of the training takes place in Brazil - there is very little training that takes place abroad. The exceptions are those areas where no provision exists in Brazil at all (e.g. rig stabilisation, asset management, project management)
  - Specialist, higher level offerings are sought throughout the industry
17. The Brazilians prefer to look to Europe than to North America
18. There is a need to develop the skill base at the practical level in the short to medium term. Providers of vocational education and training would thus fit very well into the market
19. Large volume opportunities lie with supporting industries such as shipbuilding and the service industries, e.g. health and safety, rigging, welding, fabrication, fork-lift driving, etc.
20. Language is an issue - Portuguese content is almost essential for the high volume market
21. There are a number of market entry strategies open to UK TES organisations, although having 'Brazilian' content is the easiest way in. Although materials in English are acceptable initially, partnerships with local training organisations/providers are particularly encouraged to help avoid language issues
22. There is a 'drag anchor' effect in the ability of local providers to respond to the markets' needs. UK TES providers partnering with local providers would assist in reducing this effect considerably.
23. Joint ventures with Brazilian entities are also encouraged
24. All organisations wishing to work in Brazil should register with the national oil company (Petrobras) and meet their standards. Providers with OPITO certification are automatically approved
25. Once registered and based in Brazil, organisations will be able to be invited to participate in the bidding process and would be consulted to provide quotes for training
26. As with many markets, forming good personal relationships through regular contact, including face-to-face meetings, in Brazil is very important

<sup>3</sup>The Energy team in the British Consulate Generale in Rio can assist in identifying potential local partners

2.0



## Executive Summary

Reference 1 – 2002 Report

27. Organisations that combine complimentary portfolios, who share cost and risk and who establish a permanent presence in the market will have a significant advantage over other providers who do not do so
28. Forming an alliance with UK companies active or about to enter the market to act as the 'training' department offers a potentially positive mechanism for market entry
29. The time to enter the market is now - the pace of development, the rate of growth and the liberalisation of the market is such that there is already serious competition from French, Italian, American and Canadian providers
30. Early estimates indicate that the value of the investment in training and development across the industry in Brazil over the next 3-5 years could be in the range of £30-£70million<sup>4</sup>
31. A UK Training and Educational Services 'presence' in the market is considered a priority by UK companies interviewed during the survey. In particular, the EIC stressed the point that a permanent presence would immediately treble access to business opportunities.
32. A 'centrally' co-ordinated and/or managed approach could yield good returns on investment for providers of services

<sup>4</sup> These figures are derived from estimates provided by ONIP, ANP and other organisations interviewed who were able to provide indications of the scale of the investment required over the period in question. The size of the range is largely determined by the uncertainty associated with the exploration phase. Much of the training envisaged at the upper end of the scale would occur in light of massive increases in construction as a result of major finds and the move toward vastly increased production.

## 3.0



# Methodology

Reference 1 – 2002 Report

Secondary research was carried out within the UK involving desk study drawing on information sources currently in the public domain e.g. Embassy, TPUK, British Council reports, DTI sources of statistics and market information, internet, library, specialist publications, local knowledge. Meetings with players already involved in the market provided further sources of information and advice prior to travel to Brazil.

The primary in-market data were derived mainly through semi-structured face-to-face interviews. Every effort was made to ensure that those individuals and organisations selected for interview were able to add authority and credibility to this report. During this phase of the project, 22 structured interviews were conducted with personnel representing government organisations, educational institutions, organisations representing the oil and gas industry, state oil companies, international oil companies, joint venture companies and major service and contract companies. This was achieved over eight working days.

People interviewed ranged from general managers, operational managers, safety managers, and human resource managers to training managers and academics. A cross section of training and education providers in Rio State was sampled and interviewed. Details of some of the companies and organisations who participated in the study are provided in Appendix 1.

## 4.0



# Geographical Focus Reference 1 – 2002 Report

The main geographical focus for this project is on Rio de Janeiro State, which accounts for some 80% of the oil and gas production in Brazil (see pages 4 to 8 of McLennan). The Campos Basin will also account for most of the increases in oil and gas production in Brazil. Other aspects that will impact on the industry relate mainly to the pipeline transportation and distribution of natural gas throughout Brazil, including the importation of gas from Bolivia. Both British Gas and BP are very heavily involved in the project.

## 4.1 Brazil

Following three centuries under the rule of Portugal, Brazil became an independent nation in 1822. By far the largest and most populous country in South America, Brazil has overcome more than half a century of military intervention in the governance of the country to pursue industrial and agricultural growth and development of the interior. Exploiting vast natural resources and a large labour pool, Brazil became Latin America's leading economic power by the 1970s. Highly unequal income distribution remains a pressing problem

## 4.2 Brazil Economy Overview

Possessing large and well-developed agricultural, mining, manufacturing, and service sectors, Brazil's economy outweighs that of all other South American countries and is expanding its presence in world markets. In the late eighties and early nineties, high inflation hindered economic activity and investment. "The Real Plan", instituted in the spring of 1994, sought to break inflationary expectations by pegging the real to the US dollar. Inflation was brought down to single digit annual figures, but not fast enough to avoid substantial real exchange rate appreciation during the transition phase of the "Real Plan".

This appreciation meant that Brazilian goods were now more expensive relative to goods from other countries, which contributed to large current account deficits. However, no shortage of foreign currency ensued because of the financial community's renewed interest in Brazilian markets as inflation rates stabilized and the debt crisis of the eighties faded from memory.

The maintenance of large current account deficits via capital account surpluses became problematic as investors became more risk averse to emerging market exposure as a consequence of the Asian financial crisis in 1997 and the Russian bond default in August 1998. After crafting a fiscal adjustment program and pledging progress on structural reform, Brazil received a \$41.5 billion IMF-led international support program in November 1998. In January 1999, the Brazilian Central Bank announced that the real would no longer be pegged to the US dollar. This devaluation helped moderate the downturn in economic growth in 1999 that investors had expressed concerns about over the summer of 1998. Brazil's debt to GDP ratio for 1999 beat the IMF target and helped reassure investors that Brazil will maintain tight fiscal and monetary policy even with a floating currency. The economy continued to recover in 2000, with inflation remaining in the single digits and expected growth for 2001 of 4.5%. Foreign direct investment set a record of more than \$30 billion in 2000.

## 5.0



# The Brazilian Training and Education System

Reference 1 – 2002 Report

## 5.1 Summary

Brazil has a population of some 170 million. There is a mix of basic education provision through both public and private sources that varies in terms of quality, scale and range. Primary education is free and compulsory for children between 7 and 14. There are 127 Universities and over 800 tertiary colleges. It is estimated that around 20% of the adult population are not fully literate. Less than 12% of the adult population in Brazil go on to University. Both public and private oil industry bodies have a strategic role in defining the skills needs of the industry.

## 5.2 Policy and legislation

For the last 6 years the Brazilian vocational education system has been undergoing a major reform. To survive in a globalised and competitive world, the Ministry of Education recognised the need to both raise the level of qualification of the Brazilian worker and reform the vocational education system to address the needs of the labour market, the citizen and society. The first step towards reform came in 1996 with the passing of the National Education Law (LDB), which gave vocational education a separate identity from academic education. The Law defined vocational education at 3 levels - basic, technical and technological.

- Basic - Destined to train and retrain workers, independent of their previous level of education
- Technical - Aimed at giving professional qualifications to students taking or concluding general secondary education

- Technological - Corresponding to higher education courses for those who have concluded secondary or technical school. It differs from the traditional University course in that it is geared towards the production of goods and services rather than research

Technical and Technological courses are part of formal education and curriculum guidelines and course lengths are laid down by the National Education Council. Basic level courses are a non-formal education of variable length, without pre-established curricula. HE institutions also offer extension courses in vocational areas.

The Ministry of Labour and Employment focuses on basic level training and re-training for people in work, the unemployed and the socially excluded. The Manpower Training and Professional Development Secretariat SEFOR, within the Ministry aims to articulate and mobilise the country's entire technical and vocational education resources. In order to achieve this, in 1997 it introduced Brazilian National Plan for Workers Technical and Vocational Education PLANFOR. In 2001, the PLANFOR distributed over £150m, mainly for basic level training programmes.

Since 1997, the Ministry of Labour and Employment has been discussing the development of an occupational certification programme with support from the International Labour Organisation (ILO). Although aware of the need for a national certification programme, there is concern that the variables in training facilities, industrial processes in different regions and the varying levels of education of workers throughout the country are not favourable to a national certification process. It is more probable that certification will take place by industrial sector or region, rather than nationally.

## 5.0



# The Brazilian Training and Education System

Reference 1 – 2002 Report

### 5.3 Provision of vocational education and training

VET in Brazil is offered through three systems - the public system, the semi-public ("S" system) and the private sector. Some of the institutions offer basic to postgraduate level courses, whilst others are more limited in their offer.

The public system consists of a network of 138 Federal schools including 20 Federal Centres for Technological Education CEFET's, which are centres of excellence and serve as a reference for the state, municipal and private schools. There are also over 1,000 state and municipal schools.

The "S" System is maintained by private enterprise (1% levy) under the auspices of the National Confederation of Industry CNI, the National Confederation of Commerce CNC, and the National Confederation of Agriculture CAN. The system operates in tandem with the official technical/vocational training and qualification system, responding to the labour needs of a range of sectors. SENAI (Industrial training) and SENAC (Commercial training) are the two largest organisations and maintain good quality schools and training centres that comprise a nationwide network.

The private network of providers is vast and includes the following providers: Private Universities and HE institutions, (including the new private Technological Education Centres CET's), labour foundations, associations, unions and federations; employers foundations, associations, syndicates and federations; NGOs, community and religious organisations and other private providers.

### 5.4 Higher Education Provision in Brazil

Higher education in Brazil is also provided through the public and private sectors. Within the public sector, there is intense competition for entry as the education is free. The private sector caters mainly for the middle and upper classes that do not gain entry to public Universities. The public sector is held in very high regard within Brazil - some of the Universities could compete with the best in the west in certain areas, with engineering base internationally acknowledged for its excellence. There is a huge emphasis on research underpinning teaching. For example in COPPE (part of the Federal University of Rio de Janeiro and one of the most respected institutes in Brazil) 70% of overall activity is accrued by research, with the balance being devoted to teaching. Even within the private sector, the distribution of effort is more balanced at 50-50, which would compare favourably with only a few UK Universities.

Less than 12% of the age cohort is enrolled in higher education, which is relatively low compared to other countries in the region, e.g. Argentina 41%; Peru 40%; Uruguay 30%; Venezuela 29%; Chile 27% (Unesco, 1995). By further comparison, the OECD country average is 49%. Simply doubling the number of spaces offered, however, will not double the rate of coverage, because there are a larger than usual number of young Brazilians reaching University age. Over the past 15 years, growth in private provision of higher education was roughly equal to the moderate growth of the University-age cohort, but now significantly large increases in the number of enrolments would be necessary in order to maintain the current (inadequate) rate of coverage. Additionally, graduate rates from secondary schools are rising sharply, and there is an increase in the percentage of older, employed Brazilians seeking tertiary degrees. However, the system cannot keep pace with this increased demand for higher education under existing conditions.

## 5.0



# The Brazilian Training and Education System

Reference 1 – 2002 Report

In response to this, new private Universities are mushrooming throughout Brazil with questionable standards and qualifications. The main driver for this development is perceived business opportunities. With a few notable exceptions, the quality of instruction and the relevance of the curriculum are below desirable (reasonable) standards. It is therefore with extreme caution that UK institutions work with new, private Universities.

The World Bank have instigated a project with the objective of improving human capital formation in Brazil by increasing access to tertiary and higher education, and driving the progression of the system to become more efficient and relevant (through diversity), and of a higher quality. The total cost of the project is estimated at \$1,345 million (World Bank, 2000)

### 5.5 Higher Education Structure

Higher education qualifications in Brazil may be identified as follows:

- Undergraduate degrees last three to four years
- Postgraduate degrees are graded by the amount of study hours involved
  - Up to 180 hours, courses are defined as Extension courses and do not require accreditation
  - Up to 360 hours, courses are defined as level 2 and do not require accreditation
  - Up to 540 hours, Specialisation courses do require accreditation
  - Masters courses also have 540 hours teaching time. In addition students submit a dissertation
  - Doctorate is by dissertation

### 5.6 MSc

An MSc in Brazil lasts from eighteen months to two years. Brazilian MSc's are different from those offered in the UK as they are research intensive and take the student halfway to a Ph.D. There are no fees for courses run by the public (rather than private) Universities. MSc students tend to be recent graduates, rather than those who have worked for a few years, and tend to be recruited quickly on completion of their postgraduate degree.

### 5.7 MBA - A Cautionary Tale

The MBA is perceived to be a generic term used to describe a management qualification taken by middle management. Foreign MBA's are assessed by the Financial Times ranking tables. As the London Business School is the only UK University in the top rankings, it is the only UK MBA that is considered by potential students. It takes eighteen months to obtain the LBS qualification, and this is in line with Brazilian expectations. Accreditation by AMBA (Association of MBA's) does not mean anything to the Brazilians.

The development of management skills in the Brazilian industry has been mainly farmed out to foreign (mainly US) Universities. The reputation of management schools in Brazil is not good. There has been an explosion of private Universities offering 'MBA's' of very questionable standard and quality. The brand 'MBA' is very much devalued in Brazil. Offerings of Masters of Science Degrees in Business Studies may well help break down this unfortunate perception.

## 5.0



# The Brazilian Training and Education System

Reference 1 – 2002 Report

The long duration of Brazilian Masters means that British MSc's and MBA's are not seen as equivalent. However, certain groups of students (for example those interested in postgraduate vocational courses) may not be prepared to commit to the time required to complete a Brazilian masters.

### 5.8 Vocational University Education - 'A Novel Concept of Provision'

In many ways the emphasis in public institutions on achieving excellence in teaching through research acts as a 'drag anchor' on the system when it has to respond to change. This is not a criticism, but an observation that was supported during interviews. The system is rigid and change takes time. Priority is given to scholarly pursuit rather than on the production of practitioners or 'job-ready' graduates. There is, however, a growing movement for the introduction of 'vocational' education along the lines of the 'new' Universities in the UK. This system is viewed as being more able to respond to rapid changes in the economy where new skills are required or where 'old' skills need to be adapted to suit the new economic climate.

Vocational University education is, however, perceived as a novel concept in Brazil and is not understood in many of the old established Universities. These traditional Universities perceive that vocational education threatens the collapse of the old system of education. PUC is one of the 'better' private Universities in Rio State who expressed a broad acknowledgement that University graduates are not industry ready. PUC is one of the few institutions that recognise the need for a more 'vocational' approach, yet they have not implemented a vocational system in practice.

Foreign companies who have to recruit University graduates complain that they need to provide training for recent graduates in an effort to turn them into effective workers, because they have not been trained vocationally.

Companies such as

Enterprise Oil want to get their graduates working effectively as soon as possible. This highlights the need for a vocational education system in Universities. There is a problem of timing as the foreign companies need work-ready graduates now. Enterprise Oil would be willing to sponsor undergraduates through their degrees especially if the course was associated with a UK University. This might provide the impetus needed. Another more powerful case is that of Petrobras who spend a whole year turning recent graduate recruits into 'Petrobras' ready engineers. This may in many senses equate to a graduate development scheme in the UK, however, there is no system of Chartered Engineers along the UK model in Brazil.

## 6.0



# Training and Education Specific to the Oil and Gas Industry

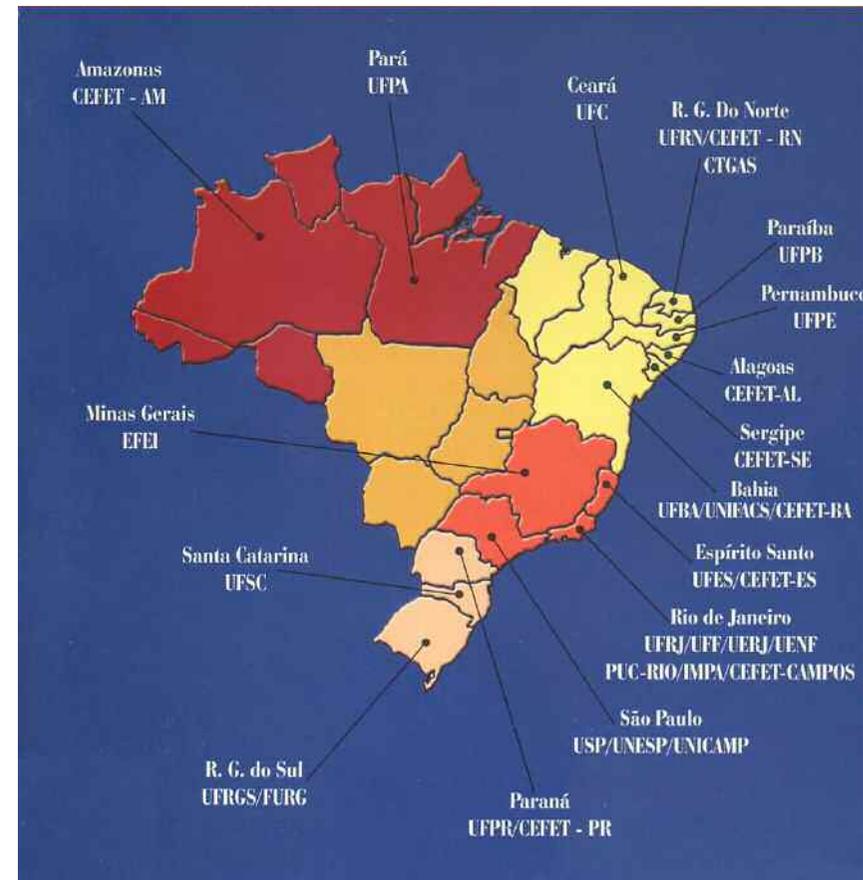
Reference 1 – 2002 Report

## 6.1 Summary

The focus of this research is on all levels and types of training and education as it applies to the oil and gas industry as follows: core (or basic), craft and technician<sup>5</sup> level training; and undergraduate and postgraduate level education. There is also a distinction drawn between 'hard' and 'soft' skills, i.e. between engineering/technical related and what is more usually described as people/administrative/business skills.

There are 33 institutions that offer training and educational services to the oil and gas industry in Brazil. Of these, 25 offer undergraduate and postgraduate courses and 8 offer courses at technician level. They are distributed across all the oil producing regions of Brazil (Map courtesy of ANP).

<sup>5</sup> For the purposes of this report the technician level of training corresponds to UK pre-degree training at HNC and HND levels (NVQ levels 2 & 3).



## 6.0



# Training and Education Specific to the Oil and Gas Industry

Reference 1 – 2002 Report

## 6.2 The Role of Public and Private Agencies in Training and Education

Both public and private agencies in Brazil play a strategic role in defining the manpower and training requirements for the industry. The National Petroleum Agency (ANP) and the National Organisation of the Petroleum Industry (ONIP) are two such bodies. Their role in defining the direction of investment in human capital for the industry cannot be underestimated. Ensuring a successful interface with these bodies is essential to tapping in to opportunities.

## 6.3 The National Petroleum Agency - ANP

ANP is responsible for the regulation of the oil and gas industry in Brazil, including the awarding of licenses to operators. They act as the 'guardian' of national interest in hydrocarbon exploitation. There is no direct equivalent of the ANP in UK. The nearest would be the regulatory arm of the DTI in Aberdeen. As part of their remit, however, ANP play a strategic role in the forecasting and planning of skills development for the industry. They hold budgets for training and education and carry out annual reviews of the industry's requirements. They work in close concert with industry, academia and local and federal government. They are a very influential body.

## 6.4 National Petroleum Industry Organisation - ONIP

ONIP was created using a model that came from OSO/CRINE initiatives, i.e. an industry/government partnership. ONIP is a private entity; it is not aligned to any Government department, but exists to support the industry. ONIP is funded through subscription from companies operating in the market. Like ANP, ONIP plays a role in defining skills requirements for the industry. It prides itself on its ability to respond quickly to changes in industry needs.

ANP and ONIP work very closely, ensuring a degree of cohesion in strategy development and implementation. ANP are currently doing research into market demand to project the money to be invested beyond 2001 in an effort to define the gaps in the market. Consistently, however, the emphasis on the direct funding made available through these organisations is on technical and engineering disciplines.

## 6.5 ANP/ONIP Investment Strategy

To identify future demand for training in the next ten years and the subject areas that merit scholarships, ANP in conjunction with ONIP, academics, technicians and companies, such as Petrobras, ascertain what the market needs will be. The analysis is undertaken very thoroughly by allocating a person to research a specific area that a specific programme may act upon. This is undertaken at discipline level.

While the intention is to map out the industry needs for the 5-10 years, there are obviously risks involved. It is difficult to project so far ahead due to the uncertainties of exploration, so short-term and medium-term projections are established. These projections apply the precautionary principle to the long-term forecasting. The method currently applied involves a system by which all students undertake a standard syllabus in the first half of their programme, and specialisations are then identified according to market demand, and students are then channelled down those routes. Although choice of subject could theoretically be quite constrained by the market, there are financial advantages for both the student and the institution in the sense that the course is funded.

6.0



# Training and Education Specific to the Oil and Gas Industry

Reference 1 – 2002 Report

ANP have awarded scholarships for education and training to students at technical, undergraduate and postgraduate levels since 1999. The table below shows the projections for the number of scholarships to be awarded and the amount of money paid direct to the institutions for these scholarships.

**ANP Scholarships 2000-2004**

	2000	2001	2002	2003	2004
No. of Undergraduate students	268	454	491	591	602
No. of Masters students	145	261	272	332	336
No. of PhD students	66	99	162	244	255
No. of Other students	60	72	80	88	88
Total number of students	471	886	1,005	1,255	1,281
Total value of scholarship R\$m	8.8	18.0	21.6	27.3	27.3
Number of Technical scholarships		600	TBA	TBA	TBA
Technical scholarship value R\$m		4.0	TBA	TBA	TBA

Source: ANP Capital Humano

ONIP have produced an estimate of the demand for human resources within the industry up to 2005. They have identified which disciplines are required and the number of personnel required. From this they then assess the training requirements in conjunction with ANP, and what budget can be allocated. The difficulty with this is that companies can only project forward if they know how full their order books will be. In terms of new exploration the uncertainty will prevail until finds are made. For example, only one foreign operator is near to first oil - Enterprise. It could be 18-24 months before the picture becomes clear and whether there is under or over supply. Nevertheless, this is only one interpretation of the situation. The drivers of change in the industry detailed above are placing enough strain on the system as it is. Further details of these organisations may be found in Appendix 1.

## 7.0



# The Gaps in the Brazilian Oil and Gas Industry<sup>6</sup>

Reference 1 – 2002 Report

## 7.1 Summary

Petrobras is the single largest potential client in Brazil. The range, scale and depth of local education and training provision is not sufficient to meet the demands of the industry as it accelerates towards the goals of self-sufficiency and international competitiveness. There is a lack of facilities. The higher end of the education spectrum is somewhat constrained in its ability to respond to rapid change; partly due to the top-heavy academic approach to training and education and an inherent lack of flexibility. At the lower end of the spectrum, there is a lack of capacity in the system to provide the numbers of trained manpower for the industry.

## 7.2 Petrobras

The main employer in the Brazilian oil and gas industry is Petrobras - the national Oil Company. In terms of human resource, it had 65,000 employees in 1979 and 35,000 employees by 2002, and at the same time more than doubled production. For example, the first geologists graduated in Brazil in 1960. By the mid 1970s Petrobras was hiring 100 geologists and several hundred engineers per annum, but there remained insufficient human resource so they hired Americans. By 1982, however, recruitment began to decline and by 1987 Petrobras more or less ceased all recruitment of specialist human resources until late 2001. The result is that the average age for an engineer/geologist is 45 years. These older, experienced staff now no longer has the desire to work offshore; it simply does not appeal to them. Further, it is not efficient for Petrobras to send them offshore.

<sup>6</sup> To set the context, a good overview of the Brazilian upstream oil and gas industry can be found in section 2.2 of McLennan. Further background reading can be obtained from the Scottish Enterprise Energy Group report 'Brazil - Upstream Oil and Gas Market'.

This situation is prevalent across the whole of Petrobras. It is actually a situation that mirrors in some respects that of the UK in terms of an 'ageing' workforce in the oil and gas industry. The average age of an offshore worker in the UK continental shelf (UKCS) is 49 years. Coupled with the perception that the UKCS is 'half-empty' in terms of reserves, it is this situation that leads to the so-called 'sunset' industry phenomenon within the UK sector. Nevertheless, in Brazil, working in the oil industry is a very attractive career option, paying an above average salary and providing good working conditions in general.

Petrobras maintain that they are largely self sufficient in the provision of in-house, corporate, graduate development and soft-skills training. They established a corporate University in December 2000 (the RH - Universidade Petrobras). The vast majority of training in Petrobras is conducted in-house. The new University is evidence of 'new changes, new thinking, a new approach and a new challenge' for Petrobras in its approach to staff development. The whole workforce of Petrobras is, in the main, very well trained. There is a high level (disproportionately high when compared to UK companies) of Graduates, Masters and PhD's within the company.

The main challenge from a training perspective for Petrobras to meet the growth and internationalisation targets is in the training of new staff. In 2002 Petrobras will (try to) recruit 1,500 undergraduates and postgraduates (mainly in technical and engineering disciplines) and 1,300 technicians. Petrobras will need to train all new staff about the oil and gas industry. They do not, however, foresee external providers playing a significant role in the development of these new recruits - the main objective of the training is to make them fit into the Petrobras 'culture'. New employees, especially those in specialist disciplines such as geologists, geophysicists and engineers, are trained in-house for a year to eighteen months.

## 7.0



# The Gaps in the Brazilian Oil and Gas Industry

Reference 1 – 2002 Report

In terms of training for experienced (and older) staff, the company does arrange external courses, for example MSc's and PhD's, in Brazilian or foreign Universities. Wherever an MSc or PhD. is not available in Brazil, employees are sent abroad to study. The National Scientific Research Council (SEMPRE) provides funding for overseas study for Petrobras employees. As a condition, sponsored staff must remain with Petrobras for 5 years or return the money used to fund the course. Petrobras also 'invite' Brazilian and foreign experts to teach internal short courses to supplement their own training provision.

### 7.3 Increased demand for training and education

Compared to the UK, recruitment in the oil and gas industry in Brazil differs in the sense that is perceived to be a future (rather than a sunset) industry. It is therefore relatively easier to attract people into the industry, although attracting people of the right calibre is different challenge. Prior to the part-privatisation of the industry, Petrobras was more or less responsible for training and education in Brazil, commonly working with select institutions (e.g. COPPE, PUC). In that sense they were also the only 'client'. The planned expansion of the industry, however, coupled with the emerging presence of foreign companies is expected to result in a significant increase in the demand for education and training in the industry.

The market for training and educational services is changing from a situation where one company (Petrobras) set the demand to a situation where more than 40 (major) companies will require skilled labour. Pressure is certainly being applied on the local market to supply the quantity, quality and range of trained workers in order to cope with the current and projected demands.

ONIP and ANP are working extremely hard with the industry to find a solution to this problem. Foreign companies present in the market currently train their employees in-house due to lack of supply. Consequently, there will be a demand for more in-country rather than in-house training as numbers expand.

Petrobras also do not seem to have planned for the fact that they would likely loose staff to other companies. This, coupled with the lack of recruitment over the last 14 years or so and the ongoing recruitment of large numbers of new staff, means that their demand for qualified staff may outstrip supply. Another driver for increased training and education provision lies in the roots of the planned internationalisation of Petrobras (and other Brazilian companies).

Petrobras in particular have stated their aims are to become a global player. They are already looking at the Gulf of Mexico as one theatre of operation; Angola is another area in their sights - with many common denominators such as the 'offshore' environment, and language.

Previously Petrobras did not have a need for staff to be qualified in aspects of international business. However there is now an internal need within Petrobras (and other Brazilian companies) to have staff skilled in international business, legal, economic and regulatory practices. Petrobras are currently planning what the training requirements for internationalisation will comprise. A budget has been set and the plan will be implemented by the end of 2002.

## 7.0



# The Gaps in the Brazilian Oil and Gas Industry

Reference 1 – 2002 Report

### 7.4 Recruitment of senior staff by foreign companies

Foreign companies in the oil and gas industry based in Brazil are facing problems recruiting experienced Brazilian staff to work in their organisations. They find it difficult to employ individuals with the skills levels needed for critical positions within the company. The established (i.e. trained) workforce tends to work for Petrobras so the job market for appropriately trained people is very limited (and highly competitive). To get around this in the short-term, foreign (i.e. UK) companies are assigning expats with responsibility of building a team of Brazilians in effort to develop the right kinds of skill sets while the work is already underway. This is not a satisfactory arrangement and leads to problems such as slippage in timescales and additional workload for experienced staff.

### 7.5 Recruitment of undergraduates by foreign companies

Foreign oil companies are now active in undergraduate recruitment from Brazilian Universities. Compared to what Petrobras can offer, however, the prevailing perception is that these companies cannot offer the sort of job security normally associated with the 'nationalised' industry; or the initial year's training programme, which is equivalent to a postgraduate degree. The main difficulty facing the non-Brazilian companies is that the scale of their operations at this stage cannot justify extensive in-house training programmes for graduate employees, yet they have no credible alternative but to do so in the short-term.

### 7.6 Technical middle level training

There is almost as much demand for technicians from all the companies in the industry as there is for higher-level disciplines. This demand is already outstripping supply and the situation will be repeated once the growth plans really to begin to kick in. Oil and gas related training in Brazil at technician level is perceived to be inadequate in terms of the breadth and depth of subject areas and the number of technicians being processed through the system.

Industry sources suggest that technicians are required in order to work in the following areas:

- Separation
- Gas Compression
- NGL Recovery
- Quality Assurance
- Pumping & Metering
- Chemical Engineering
- Water Injection
- Water Treatment
- Safety Engineering
- Flow Measurement
- CAD
- Oil Treatment

Companies that are able to provide this type of training will find a large market in Brazil. Language would be an issue, however, as English fluency is not widespread at this level.

## 7.0



# The Gaps in the Brazilian Oil and Gas Industry

Reference 1 – 2002 Report

## 7.7 Small business training

SEBRAE is undertaking a cluster project amongst 400 small companies involved in the oil and gas industry. It aims to build up a network of small companies. An analysis of professional, managerial, technical and technological skills required from craft up to managerial level would provide additional information for training requirements for SME's. The objective is to define training requirements generically to allow for as much course 'sharing' to be undertaken - or, in other words, to enable SME's to take advantage of economies of scale whenever courses are delivered. ONIP recognise that SME's in the oil and gas industry cannot provide adequate in-house training for just a few employees<sup>7</sup>. It is anticipated that foreign (UK) training providers will have a key role to play in this area. The training, especially in supply chain management and development, is not matured in Brazil to any extent.

## 7.8 Supply and quality of local training and education provision

In terms of quality there is a mixed picture, made more complicated by pockets of 'nationalistic' pride inherent in the established academic system. Some providers believe that they are adequately meeting market demand through Brazilian institutions and by sending students abroad. Others believe that there are certain subjects that are well-covered, for example professional management, economics and soft skills.

<sup>7</sup> How this process is marketed and co-ordinated is not yet known.

However, the most consistent view from other observers (more usually those from industry) feel that the supply and quality of provision is lacking. The situation is being further compounded by the growth of unregulated new training and education providers, who are mainly driven by the potential profitability of their activities - they are more interested in numbers than quality<sup>8</sup>. In the established system, quality is paramount and there is growing resentment towards this new type of provision.

## 7.9 Health, Safety and the environment (HSE)

This is an important area for Petrobras and for Brazil in general. There have been a number of very high profile incidents involving loss of life, injury and major environmental damage. Petrobras have also recently responded to criticism of its past environmental management policy. Several initiatives, backed up by large budgets, have been launched. One initiative stands out - PEGASO (Operating Safety and Environment Management Excellence Programme).

The main objective of PEGASO is the achievement of international standards in environment, safety and health by 2005. This is an ambitious project and has a budget of \$1.3billion allocated to it. This investment will be utilised in revising contingency plans and risk assessments, increasing supervision, reducing waste, treating effluent, controlling emissions and promoting the use of alternative energy. PEGASO appears not to be driven strategically (centrally) - the projects currently funded vary in scale and type. Nevertheless, PEGASO does have serious objectives and is aiming to get at the heart of many of the cultural issues that pertain to safety, health and the environment in Brazil.

<sup>8</sup> This is a very broadly held view in both academia and in industry.

## 7.0



# The Gaps in the Brazilian Oil and Gas Industry

Reference 1 – 2002 Report

Safety culture is not anywhere near as engrained in Brazil as it is in the North Sea; Brazil is very much at a pre-Piper Alpha stage. Workers frequently ignore safety standards. Foreign companies are taking the lead in enforcing their HSE standards amongst the workforce and providing HSE training.

There is a patchwork of HSE standards between states and in terms of current work practices there is no 'national' framework. UK HSE systems are highly regarded and the Brazilians would like to have a HSE training system with a bureaucratic (accountable and transparent) framework.

### 7.10 Facilities

The Federal Government understands that if they want to attract oil and gas companies into Brazil, the ability to employ a skilled local workforce will be a key factor in how these companies invest. One of the biggest constraints in this is the lack of facilities of an appropriate nature. More facilities to train workers at all levels and in all aspects are required. The demand for in-country training will be extensive<sup>9</sup>. For training organisations able to make an investment in establishing facilities, e.g. health, safety fire-fighting, emergency response, the opportunities may be very lucrative.

There are facilities in Macae that currently service most of the industries' needs. There are, however, doubts about this particular facility's capacity and concerns within the industry that more facilities are required to introduce competition into the supply chain (see 8.3 below for more detail).

<sup>9</sup> The challenge of sustaining a viable workforce in the next 10-15 years in the oil and gas industry is being debated by a group within the 17th World Petroleum Congress to be held in Rio in September 2002. The group specifically approaches Universities to show them the potential business.

## 8.0



# Opportunities for Training and Education Providers in the Brazilian Oil and Gas Industry

Reference 1 – 2002 Report

## 8.1 Summary

The oil and gas industry is a very complex one. It demands a highly skilled workforce that embraces nearly every aspect of the skills spectrum, with a few additional and unique disciplines thrown in (for example, drilling and reservoir specialisms). The training needs of the industry are therefore both as diverse and as specialist as they can possibly be. The situation in Brazil can also be characterized this way, but with one major difference. The three targets of self-sufficiency, internationalisation and improved HSE performance add an imperative that presents a major challenge for Brazil and an opportunity for its trading partners. This is set against a backdrop where the engineering base in Brazil is strong, and regarded world class in certain areas. Training in health, safety and the environment presents a major opportunity for UK providers. Other opportunities in areas of particular interest in the UK hold similar promise.

## 8.2 Vocational Undergraduate and Postgraduate Opportunities

The engineering education base in Brazil is generally regarded as very strong. Indeed in certain areas they are world leaders, for example in riser technology and deep-water engineering. The science base is less well positioned. Petrobras need specialist courses at postgraduate level for those employees who are higher up in the organisation, for example petroleum engineering, maintenance engineering, project management, asset management, etc., etc. It was openly acknowledged by many Brazilian observers that all contributions from UK education and training providers were needed to eliminate the gaps.

## 8.3 Health, Safety and Environment Training

In the offshore sector there is a need for general HSE training. Petrobras acknowledge that they require education on HSE issues for employees, suppliers and partners. Currently, M&O Sampling, an Australian-American company, provides the majority of HSE training to Petrobras. M&O lease two training facilities in Macae for offshore (safety, fire, etc) training and have been contracted to Petrobras since 2000. Petrobras and Transocean previously owned these facilities. A helicopter training and fire training ground are located elsewhere. Petrobras has an agreement to train all offshore-related staff through M&O for 5 years. There are estimated to be between 2,000 to 3,000 employees each month passing through this facility<sup>10</sup>. However, the quality of training is not of a high enough standard and Petrobras would consider using alternative training providers who offered higher quality training and accreditation. Old Petrobras trainers mainly do M&O training. Petrobras acknowledge that they need UK providers' help in HSE training. Although M&O have more or less a monopoly on this type of training, the contract is not an exclusive one. Petrobras would actively welcome the introduction of competition.

<sup>10</sup> The estimated value of this training is approximately US\$400,000/month.

## 8.0



# Opportunities for Training and Education Providers in the Brazilian Oil and Gas Industry

Reference 1 – 2002 Report

## 8.4 Emergency management and fire-fighting training

Emergency management training covers a range of activities. UK companies already have been awarded contracts in highly specific areas such as rig stabilisation. The management of major emergencies, coupled with the ability to evaluate the performance of key personnel in positions with responsibility in simulated situations, offers another opportunity for providers of these products. Similarly, opportunities for basic training in fire-fighting and survival techniques exist in the short term and could be potentially enormous in the medium to long term.

## 8.5 Basic level training for subcontractors

The biggest challenge for UK companies is being able to tap into what probably represents the largest volume market for training - the training of subcontractors to the industry. Petrobras alone have approximately 65,000 subcontracted employees working for them in some capacity<sup>11</sup>. It is accepted that in areas of environmental sensitivity or critical operations (e.g. where environmental damage or personal injury can occur) the need to have a highly trained subcontracting resource is even greater than it is within Petrobras itself.

<sup>11</sup> Petrobras HSE presentation in Aberdeen, December 2001.

A good example where such training will be required is in the Brazilian shipbuilding industry. This industry slipped into almost terminal decline ten years ago, with the resultant haemorrhaging of skilled and semi-skilled workers. Shipbuilding and its associated services are now at the forefront of the expansion of the oil and gas industry. The demand for new construction and fabrication of infrastructure is quite immense. Order books currently stand at over US\$3 billion - and will rise.

By way of case study, the projected rapid expansion of the Asai shipyard is typical of the sector. In 2001 they employed 200 people. The number of employees is predicted to rise to 900 in 2002 and 3,000 in 2003. Years of decline have meant that there are not the workers with the necessary skills available to hire. Recent advances in technology and equipment and the introduction of international standards means that ex-shipyard workers would require retraining in how to use the equipment and how to work in a safe and healthy environment. It is estimated that there are 10,000 to 15,000 short to medium term training opportunities in this sub-sector. Labourers and semi-skilled shipyard workers need to be trained to be, for example, welders, fabricators, and riggers, forklift truck drivers, labourers and goods handlers. A whole new safety culture that complies with international standards must be implemented if the aims of, for example, PEGASO are to be realised.

## 8.0



# Opportunities for Training and Education Providers in the Brazilian Oil and Gas Industry

Reference 1 – 2002 Report

## 8.6 Working with Technical Schools

There is a fairly impressive publicly funded technical school infrastructure in Rio State led by an organisation called FAETEC. FAETEC have recognised that there is a gap in the provision of oil and gas related training programmes in Brazil and have stated ambitions to present a credible challenge to the local market. FAETEC are planning to build a new Institute for Ecology, Energy and Oil at Paracambi, approximately a two-hour drive from Rio de Janeiro. The Institute will accommodate up to 28,000 students. While the early emphasis will be on very basic and core technical training, they have ambitions to grow their provision to NVQ and upwards. To achieve this FAETEC wish to collaborate with UK Universities and FE Colleges to accelerate the implementation process, including the development of 100 staff involved in the delivery of courses, providing (selling, licensing) intellectual property rights (IPR) and setting up competency systems

CEFET Technical School (the equivalent to a FE college) offers courses for technicians. It wants to expand its provision to include courses for technologists (the grade before becoming an engineer). ONIP have especially highlighted this as an opportunity.

## 8.7 English language training

English language training represents a very large market opportunity. The British Council generally lead the way in general language development. There is an additional need for technical and business oriented English language classes to be made available to suit the oil and gas industry. This type of provision is likely to grow over the next two to three years. The biggest competition may well come from new educational organisations currently springing up throughout Brazil.

## 8.8 Other Opportunities

There are other areas of training that are urgently required in Brazil. ROV pilot technical training courses are not available in Brazil. There is a shortage of dynamic positioning officers. Short courses on management engineering (risk management, reliability-engineering, etc) would be very much in demand. There are major gaps in supply chain management, both in terms of training and implementation. Petrobras staff are naive in aspects of project management.<sup>12</sup>

Other opportunities exist in subject areas that would assist Petrobras (in particular) to develop its international profile, such as international business, management, finance, contract and international law, petroleum economics, maintenance and asset management, environmental management and environmental engineering.

<sup>12</sup> Petrobras do not really project manage in the conventional meaning of the word, especially when compared to the formalised approach applied in the UKCS, where sound management practice makes the difference between a loss-making and profit-making project.

## 9.0



# Market Issues

Reference 1 – 2002 Report

### 9.1 UK Reputation

Petrobras views UK technology and service suppliers as being competent, quality focused and commercially driven - this view extends to UK training and education in general. UK providers are highly regarded in Brazil. There is a perception that the UK offers quality services. Those organisations with a strong brand and good reputation for delivery to the industry in other oil-based economies will have an advantage when offering their services to the market. .

Many Brazilians prefer to work with Europeans rather than Americans. Europeans are described as being friendlier, easier to talk to and the Brazilians find that it is much less complicated to establish ties and to co-operate with them.

### 9.2 Language skills

English language levels cannot be assumed to be at a high level in Brazil. However, English is the official second language and is recognised as important. The Government is now requiring all children to study a foreign language from the age of eleven. English is widely spoken at senior and middle management levels; however many middle management staff do not have a sufficient command of English to study in the language. A general rule of thumb would be that the majority of Brazilians do not speak or understand the language. Consequently, the demand for courses delivered in English is quite restricted (especially in the high volume market) and constitutes the main reason for finding a Brazilian partner.

### 9.3 Distance learning

The British Council reports<sup>13</sup> that Brazil seems poised for a major expansion of distance learning. Distance learning is recognised in Brazil as a legitimate method of learning and its development is officially encouraged. It is stated that there is considerable awareness of distance learning and a widespread view that it offers opportunities and advantages for Brazil.

According to the British Council, distance learning is not recognised by the Ministry of Education at postgraduate level. According to the EIC no distance learning programme has ever been recognised. Enterprise Oil advised that in their experience the Ministry of Education is reluctant to accredit distance learning courses because some are of dubious quality. This is a situation that is coming under quite intense scrutiny in Brazil - the situation could be best described as 'fluid'.

<sup>13</sup> Healy, P. (2000) 'Brazil: Distance Learning and In-Country Delivery'. British Council, 2001.

## 9.0



# Market Issues

Reference 1 – 2002 Report

The system for accreditation lacks clarity. However, in general, for UK institutions who wish to pursue this avenue their courses to be officially recognised, they must conform to the standards set by the Ministry of Education for post-school qualifications and must be accredited by the National Education Council. Brazilian law demands that 25% of a course be delivered face-to-face and this does not include video conferencing. However, video conferencing is used extensively in the current provision under the new university provision. One way to achieve recognition of the qualification would be to request a Brazilian institution to confirm that their UK course was equivalent to Brazilian qualifications and to help provide the correct level of contact time between lecturer and student. The more reputable the University, the better the result.

There is a growing opportunity to deliver UK courses online. Internet usage in Brazil is relatively high. Some 4.5 to 5 million people have access to the internet, three-quarters of all users in Latin America. However, this only accounts for less than 3% of the population. Currently, internet access is very slow while old analog systems are used. As the telephone system in Brazil continues to improve the use of the internet is expected to grow rapidly in the next few years.

There is generally a lack of know-how in Brazil about distance learning techniques. This is slowing down development. There is therefore a market for expertise in distance learning course design and for license agreements to use course materials. There are opportunities to collaborate with Brazilian Universities to provide expertise or to co-operate on course development. There may be niche markets for international qualifications and/or courses taught in English covering topics relevant to the industry and that could prove very attractive as the current economic environment develops.

Petrobras have set up their own distance learning department within their corporate University infrastructure. They envisage that in the future distance learning will form a significant part of the company's training. They have started to provide distance learning programmes to their workforce who does not have the time to attend taught classes. They also use distance education to train production workers on their oilrigs. Petrobras are on a fairly impressive acquisition drive for distance learning materials to be delivered through their corporate University - this should be of interest to specialist organisations in the UK.

### 9.4 Pricing

Price sensitivity is a major challenge for UK providers in Brazil. Those paying for courses include employers, the government through ANP and individuals. Due to the economy there is price sensitivity amongst Brazilians. The price of UK training and education is in reality much higher (sometimes double) than that of comparable products obtainable in Brazil.

Prices for UK training and education need to be quickly adjusted to suit the Brazilian market otherwise the service offering will have limited success. To keep the costs of training and education to a minimum, local labour can be used. The salary costs of Brazilian trainers are very low compared to in the UK, less than a third in most cases. The main way to ensure sustained competitiveness is to develop Brazilian content and good quality products.

## 9.0



# Market Issues

Reference 1 – 2002 Report

### 9.5 Self Funding Students

The idea of self-investment in education and training courses is starting in Brazil, although the scale and direction of this trend is difficult to predict. However in general, students cannot afford to fund themselves. If they are self-funding they are price sensitive and are generally unable to afford UK prices in training and education.

### 9.6 Employee Sponsored Training

Employers seeking training in the high volume, low value sector such as health and safety, technician and core training tend to be price sensitive. In other areas of training, such as dynamic positioning training, they want what is referred to as the 'Rolls Royce' solution because the risks involved in low quality training are too high. In this case employers are quality rather than price sensitive. As a profitable company, Petrobras can afford training and will pay international, but not premium, prices if necessary. As one might expect, they are fully aware what the local market can supply and at what price. The government through ANP is not prepared to pay high prices for courses. As yet there is not universal acceptance amongst contractors as to the value of training. This will change over time as pressure is brought to bear to reduce accident rates and to be more accountable for operational practices through introduced HSE legislation.

### 9.7 Promotion

The promotional message will depend on the services being offered. In general emphasis should be placed on the expertise and reputation of the UK provider, their experience of tailoring courses to the oil and gas industry, the quality of the offering and the uniqueness of the services provided to the Brazilian market.

The promotional methods and media used will vary according to the target audience. Organisations in this report advertise their services in the specialist oil and gas press, the national newspapers and on billboards. They use public relations and direct marketing techniques such as direct mail to raise awareness of their courses. All of the organisations have their own website.

The quality of promotional material, such as brochures, is of an extremely high standard. Many organisations produce brochures, pamphlets and even hardback books to distribute to their target markets which are of a much higher quality than would be found in equivalent organisations in the UK.

All aspects of the promotional mix should be clearly targeted to the specific needs of the customer. Promotional material that is broad in focus will serve to raise initial awareness but will not necessarily gain business. Certain interviewees such as Petrobras commented that they receive a plethora of brochures from TES providers that do not position the offering as being tailored to their specific needs.

## 9.0



# Market Issues

Reference 1 – 2002 Report

## 9.8 Competition

As with any market there is competition. The main sources of competition in Brazil come from North America (USA, Canada) and Europe (France especially, Italy and to a surprisingly lesser extent, Portugal). American and Canadian training providers face similar language issues as the UK. Canadian providers, especially those from the public sector, enjoy not insignificant government assistance in the form of subsidies. American providers trade off good brand names within Brazil and are generally able to match prices in most areas. There has in the past been a tendency to lean toward the US for training and education services, but this trend is, however, being negatively affected by growing 'anti' American sentiment in Brazil. Nevertheless, their ability to compete and compete aggressively is well known.

France represents the single biggest European threat to UK competitiveness. Indeed, after the USA, France is the second largest investor in Brazil, exceeding Germany, Italy and the UK's investment combined. France is a popular location for overseas study in Brazil, not least because education in France (and in Germany) is free regardless of country of origin<sup>14</sup>. The French are very strong in the automotive, aeronautical and telecommunications industries, but are less strong in the oil and gas industry. Nevertheless there is evidence that training and education is attracting interest in France. The main disadvantage for the main European competition is language (except Portugal) and reputation. In terms of the latter, only the UK (and to a large extent, Norway) can boast a reputation that is admired and respected in Brazil.

<sup>14</sup> The main drawback here, however, is that it takes 2 years plus for an MSc, between 5 and 6 years to complete a PhD, compared with the UK which takes 1 year for an MSc and an average 3 years for a PhD.

## 10.0



# Market Entry

Reference 1 – 2002 Report

## 10.1 Mechanisms

The market entry mechanisms involved in the delivery of training in Brazil impact on price and thus competitiveness. To ensure compliance with Brazilian law, there is a need for a 'local entity' to register training. The UK provider could do the following to set up a training entity:

- Establish partnership with local providers
- There are opportunities for UK training providers to enter into a joint venture with Brazilian companies.
- Set up a holding company both as a 'local entity'<sup>15</sup> and as a vehicle to move money<sup>16</sup>.

It costs R\$200,000 (around £65,000) to set up (register) a company. This sum must be deposited in a bank but can, however, be used as working capital. It is theoretically locked into Brazil but could be used, for example, to bring in a person to run the company. It can be hedged against US dollars to avoid the currency risk. In all cases sound legal and financial advice should be sought.

<sup>15</sup> There is evidence of a legal requirement to achieve a ratio of three Brazilians for every one foreigner employed. There are exceptions to this rule and some organisations are actively finding ways around it.

<sup>16</sup> Invoicing and administration could be undertaken by the holding company so that invoices could be raised and signed, contracts for visas could be applied for, etc.

### 10.1.1 Visas

This is an important area and should be looked into carefully. Normally trainers come to Brazil without a working visa. For a 3-4 day trip working visas are not necessary. For longer-term commitments, once a contract has been won, visas can be obtained more easily. It takes 6-7 weeks lead-time to apply for a temporary-working visa - this impacts on ability to respond to opportunities with quick turnaround. In order to obtain a temporary-working visa for a series of courses a contractual statement is needed to support the application. Trying to move someone into the country on a 3 year working visa is quite complicated. Where there is doubt, seek advice from the Consulate or other (recommended) legal representative.

### 10.1.2 Transferring money

Where an invoice is raised for the provision of a service, it is possible to transfer money to the UK before tax has been taken out. There is a withholding tax of 25% (10% + 15%). If the price is in R\$ then a company would need to send 130 back to the UK to end up with 100. There is a need to register trademarks and to register a technology transfer agreement to send gross sums back to the UK. Again, this is an area where good reliable advice should be obtained.

## 10.0



# Market Entry Reference 1 – 2002 Report

## 10.2 Collaboration with Brazilian Universities

UK TES providers could collaborate with Brazilian Universities to develop courses. Collaboration with reputable, well-established Universities, such as COPPE and PUC is advised. Such Universities require that the quality of the courses should be of a demonstrably high standard. ONIP would happily help to introduce the UK providers to suitable Brazilian institutions. Alternatively the Universities could be contacted directly. A note of caution - this area of activity is quite busy. Make sure the contacts you make are with decision makers.

The Brazilian Universities would, however, need to perceive that the collaboration was beneficial to them. COPPE, for example, would require courses from UK institutions to add intellectual value and academic credibility to COPPE, not just increase business. This reflects COPPE's position as a strong brand in Brazil. COPPE would not consider marketing another institution's courses without COPPE's involvement in the course.

PUC are positive regarding collaboration with a UK TES provider. Their paramount concerns are for good academic quality and rigour in the programmes provided. The programme's ability to meet market needs is a secondary consideration. An academic evaluation of the course by PUC would take three months.

Generally speaking, both public and private Universities are happy to explore collaborative opportunities from UK institutions.

## 10.3 Working with ANP and ONIP

Working in close concert with ANP and ONIP is seen as an important measure of progress in Brazil. It is said that ANP 'hold the purse strings' for training - their role cannot be underestimated. Both ANP and ONIP would be happy to help if they see that value is being added to the system. If ANP are provided details of the contribution UK TES providers could make to training in the Brazilian oil and gas market, and the value of that contribution is accepted, they would then discuss with ONIP and other industry players how UK providers could become involved in the Brazilian market.

ANP produce annually a document setting out the institutions that they have approved to offer oil and gas related training. They choose relevant training providers and programmes through a public bid on a national basis. The institutions and programmes are rated for quality through a system of inspections, student evaluation and employer feedback.

## 10.4 Collaboration on HSE standards

The need for HSE training in the oil and gas industry has been highlighted throughout this report. Petrobras' requirement to improve HSE and the Government's policy to raise HSE standards presents an opportunity to establish a HSE framework, including the setting of standards for operations and for training. If UK HSE standards are adopted, this would doubtless lead to a demand from the Brazilian government and from the industry for UK HSE training. ANP also set standards and could perhaps be approached to set new offshore safety regulations.

## 10.0



# Market Entry

Reference 1 – 2002 Report

### 10.5 Course Sharing

Course sharing is a common feature of delivery in many overseas markets. Mainly this is seen in evolving or third world markets where numbers of employees from individual companies do not justify running an in-house course on cost grounds. Petrobras suggested sharing courses between different organisations such as ANP, IBAMA, Petrobras and other oil companies. Course sharing makes courses viable to run and also addresses price issues. In practice this arrangement is very difficult to implement. It is vital that the process of marketing is undertaken rigorously and at a personal level with decision makers.

### 10.6 Relationships

As with many markets establishing good relationships with individuals is vital in ensuring that proposals are considered for purchase. Developing relationships takes time and effort. Making sure that cultural differences are addressed is also important. It is advisable that time is taken to read about and understand the cultural norms and expectations at all levels of the activity.

## 11.0



# Conclusions and Recommendations on the Way Forward

Reference 1 – 2002 Report

## 11.1 Summary

This report was commissioned to analyse and report on the potential market for UK training and education services to the oil and gas industry in Brazil. From the research carried out, it is quite clear that a momentum has been established that will present a serious challenge to Brazil in terms of skilled manpower supply.

A broad cross-section of individuals and organisations has confirmed that help will be needed in order to achieve these targets. The conclusion of this report therefore is that there are significant opportunities for UK TES providers to consider entering this market.

In order that decisions concerning market entry can be taken, several factors should be taken into account:

- The distance from the UK is quite considerable
- There are taxation issues that must be looked into very carefully - this both impacts on the ability to repatriate revenues and remain competitive
- There is a price sensitivity that needs to be addressed - especially at the high volume end of the market
- Language is a problem, especially in the high volume training arena
- There is a poor culture of health and safety
- There are pockets of 'nationalistic' resistance to 'outside interference'

That said, there are positive factors that indicate that the time for entry is now:

- The UK education system is highly regarded in Brazil
- There is a broad based respect for what the UK has achieved in the North Sea
- UK training systems (and products) are highly regarded
- There is a pro-European sentiment not just in the oil and gas industry, but in Brazil in general
- There is a strong basis of capability in UK training and educational service providers who are able to demonstrate a reputation for delivery of products into emerging and established oil and gas markets

## 11.2 Specific Initiatives

Given the tight geographic nature of the core of the industry in Brazil (i.e. the critical mass within Rio de Janeiro State), it is possible that a co-ordinated UK approach could be adopted. Indeed this may help provide a model for future market entry if it is managed successfully. The key question is how would this be achieved. A number of suggestions are offered.

## 11.0



# Conclusions and Recommendations on the Way Forward

Reference 1 – 2002 Report

### 11.2.1 Initiative involving TPUK and the British Council

UK capability could be presented to the market in a structured manner, perhaps under the auspices of TPUK and the British Council. This jointly co-ordinated approach would likely have to be commercial in nature for several reasons:

- Many of the training organisations that would consider participating are commercially driven
- The client in Brazil will most likely be a commercial company/organisation
- Public bodies committing to the market have a requirement to minimise risk and may have to have recourse to the export credit guarantee scheme

The production of a high quality 'capability statement' could be the marketing cornerstone of this. This publication would not necessarily be a showcase of particular organisations as such. More it would present in a very general way those aspects of UK capability that could confidently and successfully be exported from the UK into the Brazil market. This document should focus on those areas where need is clearly defined within Brazil - matching our capability with their need. Such capability could include, although not exhaustively, the following:

- Oil and Gas undergraduate and postgraduate engineering products
  - Petroleum
  - Reservoir
  - Drilling
  - Ocean Technology
  - Maintenance

- Project Management
- Environmental Engineering
- Highly specialised education/training products
  - International law
  - Environmental management
- International business
- International finance
- International economics
- Supply chain management
- Asset management
- Health & safety training
- Fire and emergency management training
- Technician training (electrical, mechanical welding)
- Competency based and vocational training and education systems

If done cleverly, this document could provide a template for other markets where the UK holds strategic interest. It may be an advantage to construct the document as a web-based format with hard copy reproduction designed in. The main advantage this approach would have for TPUK/British Council is that it avoids any charges of overt preferential selection. The cost of producing a 'multi-market' generic statement, 16 pages, full colour, high quality, web-enabled document with a print run of 5,000 is in the range of £20,000 to £30,000. Further print runs for other countries/markets would be around £1 each thereafter on runs of around 5000.

## 11.0



# Conclusions and Recommendations on the Way Forward

Reference 1 – 2002 Report

A second document derived from a database<sup>17</sup> would add detail on particular products and services and information on where these products and services may be obtained. It would be important that this information is produced to a prescribed and consistent format and verified against agreed criteria for inclusion.

### *11.2.2 The Cluster Approach*

Another approach would be to identify clusters of providers with proven capability (track-record) to deliver. For example, a critical mass of training and education provision that has specifically grown out of the offshore oil and gas industry can be found in northeast Scotland. In Aberdeen (the so-called oil capital of Europe) there is a training infrastructure second to none anywhere in the world. It is argued here that this infrastructure (which attracts more overseas trainees than any other in the UK) can act as a 'brand' that is levered into the market strategically. The so-called 'Aberdeen (or UK Industry) Cluster' would not necessarily be exclusive to organisations operating out of Aberdeen - more it would function to stress a capability, backed up with the necessary infrastructure, as a means to lead UK training and educational services to the oil and gas industry into Brazil.

In further support of this recommendation, one of the main issues in the training and education services sector in oil and gas is that the majority of the organisations and companies involved are not so much as opportunity constrained - more they tend to be resource constrained. Openly encouraging organisations with largely complimentary portfolios to combine resources, share cost and risk may provide a highly effective market entry mechanism.

<sup>17</sup> e.g. the information produced by Jackie Hall of British Council.

### *11.2.3 Working With Majors in the Market*

A third approach would be TES providers to somehow align with UK majors and service companies who are active or about to enter the market. This approach would require assistance from Government bodies, such as TPUK, to facilitate such discussions. There would doubtless be a number of sensitive issues surrounding this approach, not least the desirability of the majors to adopt the principle. Nevertheless, it would be one way in which UK products, systems and standards could be taken to market and applied in accordance with the international standards expected of UK companies who operate in non-UK markets. It is also one way to demonstrate how value can be added whenever UK companies are seeking to enter emerging or new markets.

### *11.2.4 Supply Chain Initiatives*

There is a very underdeveloped supply chain within the sector; both in terms of competition and understanding of the contribution a well-established supply chain contributes to competitiveness. SEBRAE is the government agency charged with assisting SME's and large companies alike in the development of a supply chain. The UK has much to offer in this area with CRINE and LOGIC.

SEBRAE, in partnership with ONIP and ANP, would be very receptive to suggestions for a structured programme of seminars for key people as part of the development of a supply chain in Brazil. This also represents an opportunity for organisations able to offer the right kind of services and products.

## 11.0



## Conclusions and Recommendations on the Way Forward

Reference 1 – 2002 Report

### *11.2.5 Export Promoter*

TPUK could establish an 'Export Promoter' specifically to co-ordinate UK activity. The short lead-in time that companies have to make an impact on the market makes this a fairly attractive option. The export promoter could act both on behalf of organisations in a selling capacity as well as establishing links with UK companies, active or entering the market. A dedicated resource charged with responsibility to develop and channel opportunities back to the UK and to then follow up on their behalf would provide a fairly unique co-ordinated approach. The promoter would work in close concert with the Consulate and the British Council and other established UK organisations helping to consolidate the whole initiative.

### *11.2.6 Rio Oil & Gas Show*

The Rio Oil and Gas show in September 2002 would offer an opportunity to showcase UK capability. The British Council and TPUK will have a stand. There will be a UK pavilion. It is also likely that some UK providers will take space in the UK pavilion. Using some of the space in the UK pavilion to showcase UK capability would provide an effective platform for training and education promotion within Brazil. This could be organised by TPUK and the British Council in conjunction with other supporting agencies such as Scottish Development International.

12.0



## Bibliography Reference 1 – 2002 Report

Alexander's Oil and Gas News [www.gasandoil.com/goc/](http://www.gasandoil.com/goc/)

Anderson, J. (2001) 'Oil for everyone'. [Institutional Investor](#). Vol 35 I 1 p93-94, Jan 2001

Anon (2000) 'Business: Making it Shine'. [The Economist](#) Apr 22, 2000, London

Anon (2001) 'Brazil's fourth round to include blocks in 19 basins.' [Oil & Gas Journal](#) Vol 99 146 Nov 12 2001, Tulsa

Anon (1998) 'Darkness and light in Brazil.' [The Economist](#). Vol 346 n8055 p33 (2), Feb 14 1998

Anon (2001) 'Government Developments'. [Oil & Gas Journal](#). Vol 99 I 51 p7, Dec 2001

ANP [www.anp.gov.br](http://www.anp.gov.br)

ANP 'Capital Humano para o Setor de Petroleo e Gas Natural'

ANP (2000) Annual Report

Arthur Andersen  
[www.arthurandersen.com/website.nsf/content/LatinAmerican&CaribbeanBrazil/OpenDocument](http://www.arthurandersen.com/website.nsf/content/LatinAmerican&CaribbeanBrazil/OpenDocument)

BP Amoco [www.bp.com/centres/energy/index.asp](http://www.bp.com/centres/energy/index.asp)

Brazil Embassy, London [www.brazil.org.uk/](http://www.brazil.org.uk/)

Brazil infoNet [www.brazilinfo.net](http://www.brazilinfo.net)

Brazilian Petroleum & Gas Institute  
[www.oilsurvey.com/php/link.php3?Cold=111198](http://www.oilsurvey.com/php/link.php3?Cold=111198)

British Consulate General Rio de Janeiro (2000) 'Brazil: Oil and Gas Sector'

British Council, Brazil [www.britishcouncil.org.br](http://www.britishcouncil.org.br)

British Council: 'British Chevening Scholarships'

British Council: 'British Overseas Placement Scheme'

Britcham (2002) 'Britain Brazil: News and Views'. January/February 2002

Brower, D. (1999) 'Majors lead charge into Brazil'. *Petroleum Economist*. Vol 66, 19 Sep 1999

COPPE (2000) 'Graduate School and Research in Engineering'

Datamark [www.datamark.com.br](http://www.datamark.com.br)

12.0



## Bibliography Reference 1 – 2002 Report

DTI [http://dti.hyperco.net/cgi-bin/tp\\_links\\_search.pl?yp\\_country=Brazil](http://dti.hyperco.net/cgi-bin/tp_links_search.pl?yp_country=Brazil)

Economic Commission for Latin America & the Caribbean  
[www.eclac.cl/analysis/](http://www.eclac.cl/analysis/)

Energy Day Brazil: 'An Energy Day Supplement'

Energy Information Administration [www.eia.doe.gov](http://www.eia.doe.gov)

Energy Team, British Consulate General Rio de Janeiro (2000)  
'Brazil: Oil & Gas Sector' 15 Oct 2000

Enterprise Oil [www.entoil.com](http://www.entoil.com)

ETEG [www.eteg.org](http://www.eteg.org)

Ernst & Young [www.ey.com.br/en/docs/bussin](http://www.ey.com.br/en/docs/bussin)

FAETEC (2001) 'Catalogo'

FGV 'IBRE Intelligencia Economica do Brasil'

FIRJAN 'Rio Para Investidores'

Healy, P. (2000) 'Brazil: Distance Learning and In-Country Delivery'.  
British Council 2001

Hitchin, R. (2002) 'Spirit to Take on the World.' [Oil & Gas Investor](#)  
Vol 22 I 1 Jan 2002, Denver

IBMEC 'A Melhor escola de negocios'. Rio de Janeiro

IBP [www.ibp.org.br](http://www.ibp.org.br)

IBP (2000) Annual Report

IBP (2002) 'Calendario de Cursos'

Inter-American Development Bank [www.iadb.org](http://www.iadb.org)

International Energy Authority [www.iea.org/](http://www.iea.org/)

Instituto Brasileiro de Geografia e Estatistica  
[www.ibge.gov.br/english/default.php](http://www.ibge.gov.br/english/default.php)

Khalip, A. (2001) 'Oil Spill from Sunken Brazil rig contained so far'. Mar 2001  
[www.enn.com/extras/printer-friendly.asp?storyid=42666](http://www.enn.com/extras/printer-friendly.asp?storyid=42666)

Koreisha, S. 'Brazilian Institutions of Higher Learning'.  
<http://darkwing.uoregon.edu/~sergiok/brasil/brUniversities.html>

KPMG (2001) 'Questions frequently asked by new foreign investors'

12.0



## Bibliography Reference 1 – 2002 Report

Latin American Network Information Center [www.lanic.utexas.edu/index.html](http://www.lanic.utexas.edu/index.html)

Lambton College (2000) 'Lambton College partners with Senai in Brazil'  
[www.lambton.on.ca/NewsEvents/news\\_html?NewsItem=Senai](http://www.lambton.on.ca/NewsEvents/news_html?NewsItem=Senai)

McLennan, L. & Montenegro, I. (2001) 'Report on the Upstream, Downstream and Petrochemical Opportunities in Brazil and Businesses Processes'. British Consulate General, Rio de Janeiro

Mellars, J.D. (2000) 'Petrobras looks at Brazil and beyond.' Petroleum Economist Dec 2000, London

ONIP 'National Organisation of the Petroleum Industry, Brazil'

ONIP (2002) 'Demanda de Recursos Humanos para o Setor de Petroleo e Gas'. ONIP Presentation 28.02.2002

Petrobras [www.petrobras.com.br](http://www.petrobras.com.br)

Petrobras 'Vendors List Registration Guide'

Prates, J-P., Hester, A., Frickmann, A. (2000) 'Special report- Brazil's petroleum sector evolves: Brazil's petroleum prospects bright after successful demonopolization beginning'. [Oil & Gas Journal](#). Vol 98 I 38 p78-87, 11 Sep 2000

PriceWaterhouseCoopers (2001) 'Doing Business and Investing in Brazil', Sao Paulo

PUC 'Graduate Studies and Research: Pipeline Engineering'

PUC 'PUC-Rio Sixty years'

Rumble, G. (1992) 'Why and which distance education? The planner's perspective'  
<http://www1.worldbank.org/disted/management/governance/sys-01.html>

Scottish Enterprise Energy Group (2000) 'Brazil Upstream Oil and Gas Market'

SEBRAE 'Rio de Janeiro: Knowing the Potentialities of a Great State'

SEBRAE 'Centre for International Business'

SECT 'Ciencia Tecnologia: Programas e Projetos'

Senac [www.senac.br](http://www.senac.br)

Townsend, D. (2000) 'Ringling the changes'. Petroleum Economist. Vol 67 I 2 p5-8, Feb 2000

Townsend, D. (2000) 'ANP upbeat on second round'. Petroleum Economist. Vol 67 I 3 p23-25, Mar 2000

12.0



## Bibliography

Reference 1 – 2002 Report

Trade Partners UK [www.tradepartners.gov.uk](http://www.tradepartners.gov.uk)

UENF Universidade Norte Fluminense [www.unef.br](http://www.unef.br)

US Department of Commerce [www.ita.doc.gov/](http://www.ita.doc.gov/)

Wilkinson, Ian (2002) 'Business in Brazil for SMEs in the Energy Sector'.  
EIC Presentation

World Bank

<http://wbi0018.worldbank.org/external/lac/lac.nsf/4c794feb793085a5852567d60006ad764/abe36259ca656ca656c4>

World Bank (2000) 'Brazil- Higher Education Improvement Project'  
[www.worldbank.org/pics/pid/br65527.txt](http://www.worldbank.org/pics/pid/br65527.txt)

World Information [www.worldinformation.com](http://www.worldinformation.com)

13.0



## Acknowledgements Reference 1 – 2002 Report

Susan Matheson, Aberdeen City Council  
Gordon McIntosh, Aberdeen City Council

Raimar van den Bylaardt, ANP (Agência Nacional do Petróleo)  
Ellis Armstrong, BP Brasil  
Richard D. Taylor, BP Brasil

Michael John Holloway, British Consulate-General, Rio de Janeiro  
Gery Juleff, British Consulate-General, Rio de Janeiro  
Isa Montenegro, British Consulate-General, Rio de Janeiro  
André Raposo dos Santos, British Consulate-General, Rio de Janeiro

Jackie Hall, The British Council, London  
Hector Munro, The British Council, London  
Mark Baumfield, The British Council, Rio  
Veronica Barbosa, The British Council, Rio  
Monique Malé, The British Council, Rio  
Mark Hopkins, The British Council, Recife

Segen F. Estefen, COPPE/UFRJ, Federal University of Rio de Janeiro  
Carlos Levi, COPPE/UFRJ, Federal University of Rio de Janeiro  
Murillo Vaz, COPPE/UFRJ, Federal University of Rio de Janeiro

Iain Adam, Subsea 7  
David Barnes, Subsea 7

Martin Hester, Edinburgh Petroleum Services

Dai Somerville-Jones, Energy Industries Council  
Dr. Ian Wilkinson, Energy Industries Council

Patricia Garcia, Enterprise Oil do Brasil Ltda.  
Martin E. Macfadyen, Enterprise Oil do Brasil Ltda.

Carlos Augusto de Azevedo, Governo do Estado do Rio de Janeiro  
Alceu Mariano de Half Souza, Governo do Estado do Rio de Janeiro  
Daniel Cardoso Filho, Governo do Estado do Rio de Janeiro  
Ana Paula Moura Rodrigues, Governo do Estado do Rio de Janeiro

David Jordon, Halliburton Kellog Brown and Root

Evandro Pires de Oliveira, Instituto Brasileiro de Petróleo e Gás

Alberto Machado Neto, ONIP (Organização Nacional da Indústria do Petróleo)  
Delma Quintanilha, ONIP (Organização Nacional da Indústria do Petróleo)

Sergio Pinto Amaral, Petrobras, Petróleo Brasileiro S.A.  
Armando Paulo Barros, Petrobras, Petróleo Brasileiro S.A.

Arthur M. B. Braga, Pontificia Universidade Católica  
Marcos S. de Paula Gomes, Pontificia Universidade Católica

13.0



# Acknowledgements

Reference 1 – 2002 Report

Antonio Batista, Sebrae RJ  
Rodrigo Brantes, Sebrae RJ  
Renato Dias Regazzi, Sebrae RJ  
Luiz Claudio Leite, Sistema Firjan

Grace Howell, Trade Partners UK  
Keith Melville, Trade Partners UK  
David Bull, Trade Partners UK  
Judith Rooney, Trade Partners UK

Adilson de Oliveira, Universidade Federal do Rio de Janeiro

John Field, Wood Group Engineering Ltd.  
Ken McLennan, Wood Group Engineering Ltd.

Luís A. D'Angelo Aguiar, Zentech Offshore  
Brian Jones, Zentech Offshore  
Ana Paula F. de Souza, Zentech Offshore

14.0



## Appendix 1 Reference 1 – 2002 Report

### Details of Brazilian Organisations and Companies Researched

Details of the organisations and companies who participated in the survey are in alphabetical order:

#### **ANP: National Petroleum Agency**

ANP is Brazil's oil and gas regulatory body who produce the regulatory framework for the industry. They own Brazil's oil and gas reserves in the name of the country. They control these reserves and state which areas can be explored. ANP has devised, promoted and administered the auction of exploration blocks in 1999, 2000 and 2001. The fourth licensing round will be in June 2002. On offer are 54 blocks in 18 sedimentary basins, which present a wide range of opportunities for companies of different profiles, from mature basins to deepwater frontiers.

ANP, as industry regulator, has to remain unbiased and cannot act as a clear advocate for local industry. It has shown itself however to be an active promoter of the private oil sector.

ANP provides funds for oil and gas research and training through the scholarships they award. Raimar van den Bylaardt distributes the money and is responsible for developing strategy.

#### **British Council**

The British Council works as the UK's international organisation for educational and cultural relations. Globally, their objective is to promote a wider knowledge and enhance the reputation of the UK as a valued partner. The focus is on six sectors: English language, education, information, arts and creative industries, science and technology, and governance and law. In all of these sectors, the British Council works in partnership with many types of institutions and businesses, along with the federal, state and municipal governments, government and non-governmental agencies (both British and Brazilian), as well as NGO's and Universities.

In Brazil the British Council's most important role is to promote education. There are 1,100 Brazilians on long-term UK courses and 10000 Brazilians on short-term UK courses through the British Council. Their aim is to get Brazilian students to go to the UK to study, as this is the volume market. The Prime Minister's Initiative has a target of increasing the number of International non-European Union students coming to the UK to study masters and FE level courses by 25% by 2005. The value market comprises higher end courses. Currently Brazilians tend to go to the USA for these courses. UK offerings need to be different and add value.

Chevening Scholarships are run by the British Council and the Foreign and Commonwealth Office. There are 100 scholarships awarded each year at a cost of over £1 million. They are full scholarships for masters qualifications which last 12 months. Some companies jointly fund the scholarships. The Foreign Minister's Summer House is a Chevening scholarship funded by the Foreign and Commonwealth office and TP UK and managed by the British Council.

14.0



## Appendix 1 Reference 1 – 2002 Report

The majority of the subjects studied are not technical ones as Chevening scholars are high flyers or entrepreneurs. They are very popular with Brazilian companies. The objective is to bring business to Britain.

The Bond Scheme is handled by a department of the British Council in Brasilia. The oil and gas industry is now receiving focus.

### **COPPE: School of Engineering and Research UFRJ**

COPPE is part of the Universidade Federal do Rio de Janeiro (UFRJ) which also contains COPPEAD the Business School. The School of Engineering and Research (COPPE) was established 35 years ago. It is a leading research centre with a strong reputation and close links to Petrobras.

The major emphasis of COPPE is on research. The School judges its academic excellence by the number and quality of theses produced, the amount of published research and the quantity of research projects being developed. Eighty percent of funds come from research based activities. In 2001 R\$70m came from companies requesting research projects and from the government research fund. Only 20% of resources allocated to the School are for teaching. Overall they are running at 70% of their capacity in teaching. The shortfall in students occurs in the undergraduate area.

COPPE attract the best undergraduate students, from private schooling mainly, and encourages them to stay on and do research. They do not perceive that it is their role to provide vocational education and training.

Approximately 20% of the 300 MSc students and 25% of the 150 PhD students choose to orientate their degrees towards oil and gas related subjects.

### **DSND Consub**

DSND Consub is a foreign service company who is involved in subsea construction work. They are one of the three big players left in subsea construction. They run supply boats, ROV spreads and two ROV support vessels. The majority of the work is done for Petrobras (90% of the work for their biggest job - Barracuda Caratinga- is for Petrobras). They conduct in-house, offshore training for ROV operators.

DSND, a Norwegian company, acquired Consob, a Brazilian company, five years ago and developed the company for entry into the Brazilian market. They have a predominantly Brazilian workforce. In April 2002 DSND merged with Halliburton Subsea KBR (Kellogg, Brown and Root) in a 50:50 joint venture.

### **EIC Rio: Energy Industries Council**

The EIC in Rio offers services such as updated project information, client contact and visit scheduling, office space for visitors and longer term lease, advice on Petrobras registration, business advice and legal-accounting contacts. It is an independent and non-profit making body with offices in downtown Rio, close to Petrobras and contractors. .

EIC can rent an office for two people with all the services for UK£7,000 per annum. A virtual office (dedicated phone and mail service) costs UK£1,000 per annum. There is a 35-40 person presentation suite to rent in the building suitable for training courses.

14.0



## Appendix 1 Reference 1 – 2002 Report

### **Enterprise Oil**

Enterprise has been active in Brazil since 1998, with interests in deepwaters of the Campos Basin, Espirito Santo Basin and Santos Basin, offshore Brazil. The company is a key player in the Brazilian oil and gas industry, with progressive plans to develop a core area in Brazil. The Rio project team is now spread wide geographically, with key activities taking place in Brazil, the US and Norway. They are the first foreign operator in Brazil to go through a development project and expect first oil in July 2003. In March 2002 they purchased Odebrecht, a large Brazilian company. They themselves have just been taken over by Shell.

### **FAETEC: Technical Schools Support Foundation**

FAETEC is a state institution linked to the State Secretary of Science. It is the only Foundation in Rio State and is in charge of all professional education in the State for those who require a basic level of education and training. It has over 130,000 students ranging from pre-school to college age. FAETEC has 14 technical schools running 40 different courses, 16 basic level Professional Centres (CETEP's) offering 110 courses and some schools.

Currently FAETEC train technicians up to high school level, but they have aspirations to become a vocational university and want to begin to offer undergraduate and postgraduate courses up to PhD level. To this end they are planning to start an Institute for Manual Science which will provide courses at all levels for the mining industry, and an Institute for Ecology, Energy and Oil for oil and gas related courses.

Although the amount of funding they currently receive from industry is very small; there are plans to increase this. The state elections in April 2002 may mean a change of top management within FAETEC

### **Halliburton Kellog Brown and Root**

Halliburton KBR is undertaking the largest subsea project in the world in Brazil managing the engineering for the FPSO's. Once the project is completed in early 2004, they will hand it over to Petrobras. They are hoping that this project will be a springboard to something else.

### **IBP: The Brazilian Petroleum and Gas Institute**

Founded in 1957, IBP represents private oil companies. It is a private, non-profit making organisation, which aims to develop and bring together the various sectors, connected directly or indirectly to the oil industry. The Institute's membership list includes 174 companies associated with all areas of petroleum and petrochemistry. There are four different levels of subscription for companies. Through its promotion of various activities, IBP offers opportunities for the development and technological integration of industries across Brazil. With the assistance of its technical committees, comprised of the country's leading professionals in their respective fields, IBP issues trade publications, holds courses and promotes specialised events for the sector.

## 14.0



# Appendix 1

## Reference 1 – 2002 Report

### **IBP get involved in the following:**

- Activities linked to regulation in the oil and gas sector; for example they help fine tune exploration and production concession contracts, particularly in their legal, tax and foreign exchange aspects
- Activities in the environmental area; build relationships with IBAMA, CONAMA, Ministries and CNPE
- Technical activities guided by committees: they organise seminars, meetings, workshops. There are 20 technical committees who decide on the content of courses to meet market needs. Courses are practical rather than academic. The committee system ensures that IBP are responsive to what the market requires in terms of training and can react quickly.
- Build relationships with the international oil industry; with ONIP, ANP, they set up an exhibition stand at the OTC Exhibition in Houston and ONS in Stavanger
- Represents the petroleum industry on ONIP and CTPETRO committees

In addition IBP is involved with the Rio Oil & Gas Expo and Conference 2002 and the World Petroleum Congress 2002:

### **ONIP: National Petroleum Industry Organisation**

Brazil's National Petroleum Industry Organisation (ONIP) was created in 1999. Since then it has built an increasingly visible presence lobbying for local participation in goods and services for the oil industry, as well as acting as general advocate for attracting investment to Brazil's oil industry. It has often been able to establish itself as a mediator between state-oil giant Petrobras and private equipment suppliers, between the oil companies and the government, and between foreign companies and local interests.

As well as acting as an industry lobby group, ONIP provides training, maintains a national database of suppliers to the oil industry, commissions reports on the future of the oil industry, and carries out studies that identify supply bottlenecks and opportunities for local suppliers. It also acts as a consultant to foreign companies, pointing them in the right direction for local suppliers of goods.

### **ONIP describes its main products as:**

- Vendors list of qualified suppliers of goods and services
- Assistance in investments in Brazil
- Assistance in financing and legislation
- Assistance in promotion of partnerships involving Brazilian and foreign companies
- Trade promotion for example to exhibitions
- Database with information concerning oil and gas activities, investments and economic scenarios

ONIP was set up as a non-governmental organisation to fill a gap in the institutional framework for the Brazilian oil and gas industry. ANP has to remain unbiased and so it cannot act as a clear advocate for local industry. ONIP states that it is its responsibility to 'act as a neutral mobilizing agency for all the players within the oil and gas industry'.

Associated with ONIP are dozens of trade associations representing different sectors and representatives of state and local governments of key areas for the oil industry, such as Macae.

14.0



## Appendix 1 Reference 1 – 2002 Report

### **Petrobras: Brazil's state oil company**

Founded in 1953, Petrobras is today the 13th largest Oil Company in the world. It is still Brazil's only commercial oil producer and controls around 95% of Brazil's refining capacity. Petrobras will invest US\$32bn over the next 5 years and will remain the dominant player in the market for some time to come.

Petrobras has been undergoing dramatic changes since the fifty-year near-monopoly in the oil and gas market ended under the Petroleum law passed in 1997. The market is now fully open to developers and support companies. According to Brazil Energy, Petrobras has changed from 'an overstuffed Goliath that acted as just another arm of government policy into a company that - for the most part - responds to the expectations of its growing number of private shareholders.'

Petrobras is undergoing a radical reorganisation under President Philippe Reichstul. It is creating a new corporate structure to end the centralised nature of the company and giving greater autonomy to regional centres, including procurement responsibility. Petrobras is reorganising itself to gain greater efficiency, improve profits and sustain volume growth.

#### **Petrobras' strategy is:**

- To consolidate traditional activities, including increasing reserves, expanding production and expanding sales of oil products
- To create new markets to ensure sales of natural gas output and energy generation
- To expand international operations, to mitigate risks, reduce capital costs and ensure growth

Its main challenge today is to gear up for a market based on free competition, reviewing its strategies and refocusing its businesses on E&P, refining, shipping, retailing, distribution, natural gas and petrochemicals, training its staff and opening up opportunities for partnerships with leading participants in the energy sector. The aim is now to make the company competitive at the international level, whilst consolidating its leading position in Brazil as an integrated oil company. Petrobras is expanding and diversifying into new international core areas such as West Africa and neighbouring states such as Colombia, Bolivia and Argentina via the proposed Uruguiana-Porta Alegre gas pipeline.

The loss of the P-36 shook the company badly, resulting in a major rethink on social, environmental and safety standards. A cornerstone in Petrobras' development strategy is to achieve international standards in the field of health, safety and efficiency. Over the next five years the group has sanctioned a \$1.3bn package on HSE projects aiming for 'excellence in environmental management and operational safety'. The work is being co-ordinated under the Pegaso banner. The heaviest spend took place in 2001 (\$415m) and will continue through 2002 (\$323m) until 2005 (\$165m).

By 2010 the company plans to be positioned at the forefront of the oil industry in Latin America, as an energy enterprise operating within global markets. This strategy should provide the foundation for its growth, whilst maintaining its competitive edge in ultra-deepwater technology and effectively contributing to energy integration in Latin America.

For further information on Petrobras refer to McLennan's report.

14.0



## Appendix 1 Reference 1 – 2002 Report

### **PUC-Rio: Pontificia Universidade Catolica do Rio de Janiero**

Founded in 1941, PUC is a private university in an expensive area in the centre of Rio. It is run by Jesuits. It had 14,897 students in 2000; 10,450 undergraduate students, 933 masters, 630 PhD's and 2,884 Lato sensu (specialist course) graduate students. PUC students are of a high quality.

PUC's mission is to 'be committed to high-quality teaching, applied research and scientific development, in order to constantly contribute to the education of critical and conscious citizens.'

PUC has more freedom when compared with COPPE to operate in a quasi commercial way because they are not under the government system. This is unusual in Brazil as the majority of Universities are federal and so part of the public education system.

The split of training to research is 50:50. The core business is teaching, though they are expected to do research. PUC are considered to be the best private university for research in Brazil. As such they secure a lot of funding for research from the Government and Petrobras.

All science and engineering subjects are taught in the Science and Technology Centre. Currently 3,000 undergraduate and 900 graduate students are enrolled in different programmes offered by the Centre. The Centre also offers a number of continuing professional development courses and sponsors a technology incubator programme to stimulate start up companies originating from university research. Petrobras supports research programmes in the area of Petroleum Engineering.

The Centre for Extension is responsible for marketing professional development programmes and other courses such as petroleum engineering to companies. The courses are delivered through the academic departments. They offer degree and short courses similar to IBP (mainly not in competition) and sometimes work for IBP. PUC have a centre for distance learning but it does not have any engineering programmes yet.

### **SEBRAE-RJ: The Small Business Agency for the State of Rio de Janiero**

SEBRAE-RJ is a non-profit organisation which was founded ten years ago. The Rio de Janiero unit is the second largest of the 27 autonomous units, which make up the organisation in Brazil. It targets small businesses with an income up to R\$1,200,000, not just those involved in the oil and gas industry. Its objective is to work in a 'strategic, innovative and pragmatic way to provide the conditions under which small businesses can achieve sustainable growth'. It exists to inform, advise and qualify businessmen to strengthen the small business, and so boost Brazil's economic development. The most important sector for SEBRAE-RJ is oil and gas. They work mainly at the subcontractor level. Its objective is to make small businesses competitive in this sector is so they can share in the growth of the market.

14.0



## Appendix 1 Reference 1 – 2002 Report

**SEBRAE provides the following services to small businesses:**

**Provision of information, advice and consultancy to small businesses.**

**A database has been set up for this purpose.**

- Offering training courses and qualifications
- Provision of contacts and business opportunities for small businesses through the promotion of trade fairs, business meetings and the organisation of trade missions in Brazil and abroad
- Makes technology, technical tools and solutions available through contacts with universities, institutes, the government and other public and private institutions.
- Offers wider and easier access to finance through banks and small credit institutions under differentiated conditions, terms and interest rates

15.0



# Appendix 2

Reference 1 – 2002 Report

## List of Programs in Brazil approved or recognised by ANP

	PROGRAMME	INSTITUTION
1	Petroleum Chemistry	UFRJ – Federal University of Rio de Janeiro
2	Professional Training of Civil Engineering to the Oil and Gas Sector	UFRJ – Federal University of Rio de Janeiro
3	Sea Systems and Subsea Technology for Oil and Gas Exploration in Deep Waters	UFRJ – Federal University of Rio de Janeiro
4	Inter-unit Postgraduate Programme in Energy	USP – State University of São Paulo
5	Petroleum Geology – Exploration and Development	UNSEP – Paulista State University
6	Applied Geophysics to Exploration and Development of Oil and Gas Reservoir	UFPA – Federal University of Pará
7	Inter-departmental Programme in Oil and Gas	PUC-Rio – Pontiff Catholic University of Rio de Janeiro
8	Undergraduate & Postgraduate Programme in Geology and Geophysics to the Oil & Gas Sector	UFBA – Federal University of Bahia
9	Human Resources in Mechanical Engineering with Focus in Oil and Gas	UFSC – Federal University of Santa Catarina
10	Planning and Optimisation of Petrochemistry and Natural Gas Process	CEFET-PR – Federal Centre of Technology Education of Paraná
11	Postgraduate Programme in Geology and Sea Geophysics	UFF – Fluminense Federal University
12	Undergraduate & Postgraduate Programme in Petroleum Geology	UFRGS – Federal University of Rio Grande do Sul
13	Process, Management and Environment of the Oil and Gas Industry	UFRJ – Federal University of Rio de Janeiro
14	Oil and Gas Process Plant Engineering	UFRN – Federal University of Rio Grande do Norte
15	Science and Engineering in Oil and Gas Resources	UNICAMP – State University of Campinas
16	Energy and Petroleum Engineering	EFEI – Federal School of Engineering of Itajubá
17	Professionally Qualified Training in Basin Analysis in Oil and Gas Exploration	UERJ – State University of Rio de Janeiro

15.0



## Appendix 2 Reference 1 – 2002 Report

	PROGRAMME	INSTITUTION
18	Human Resources Capacity in Petroleum Geology	UFRJ – Federal University of Rio de Janeiro
19	Naval and Oceanic Engineering	USP – São Paulo University
20	Oil Exploration and Production Engineering	UENP – State University of North Fluminense
21	Taught Programme in Economics, Energy Planning & Production Engineering in the Oil Industry	UFRJ – Federal University of Rio de Janeiro
22	Graduate and Postgraduate Course in Geology, Geophysics and IT in the Oil & Gas Sector	UFRN – Federal University of Rio Grande do Norte
23	Professional Training to the Oil and Gas Industry	UNIFACS – Salvador University
24	Inter-disciplinary Programme in Oil and Gas Engineering	UFPR – Federal University of Paraná
25	Inter-departmental programme in Oil and Gas Technology	UFPB – Federal University of Paraíba
26	Architecture in Sediments Deposit for the Analysis of Hydrocarbon Reservoirs	UFPE – Federal University of Pernambuco
27	Environment Studies around Oil Industry Activities Zone	FURG – Foundation University of Rio Grande
28	Chemical Engineering of Oil Processing	UFPE – Federal University of Pernambuco
29	Institutional Programme in Oil and Gas	UFES – Federal University of Espírito Santo
30	Multi-disciplinary Programme in Oil and Gas	UFRN – Federal University of Rio Grande do Norte
31	Institutional Training Programme in Science and Oil and Gas Engineering	UFC – Federal University of Ceará
32	Applied Computing Science to the Oil Industry	IMPA – Institute of Pure and Applied Mathematics
33	Petroleum Law	UERJ – State University of Rio de Janeiro
34	Automation, Control and Instrumentation for the Oil and Gas Industry	UFSC – Federal University of Santa Catarina
35	Structural Integrity of Installation in the Oil Industry	UFRJ – Federal University of Rio de Janeiro

15.0



## Appendix 2 Reference 1 – 2002 Report

	PROGRAMME	INSTITUTION
36	Undergraduate Course in Oil and Gas Law	UFRN – Federal University of Rio Grande do Norte
37	Process Operator	CEFET-AL – Federal Education Technology Centre of Alagoas
38	Course for Process and Maintenance Operators	CEFET-AM – Federal Education Technology Centre of Amazonas
39	Training for Rig and Process Operators	CEFET-BA – Federal Education Technology Centre of Bahia
40	Automation and Process Control Technician	CEFET-Camps – Federal Education Technology Centre of Campos
	Maintenance Technician	
	Industrial, Maintenance, Automation, Oil and Gas, and Turbo Machinery	
41	Technical Speciality in Oil and Gas	CEFET-ES – Federal Education Technology Centre of Espírito Santo
42	Process Operator	CEFET-RN – Federal Education Technology Centre of Rio Grande do Norte
	Maintenance in the Oil Industry	
43	Sedimentation of Oil and Gas, Prospect, Production and Instrumentation	CEFET-SE – Federal Education Technology Centre of Sergipe
	Transport and Gas Distribution	
44	Technical Course in Oil and Gas	CTGAS – Technology Centre of Gas



# Reference 2

FOR UK TRADE & INVESTMENT

Vendors List Registration Guide  
Materials and Equipments Suppliers

Brazil



# Contents Reference 2 – Vendors List

<b>1. Purpose</b>	<b>67</b>	<b>8. Processing Time</b>	<b>74</b>
<b>2. Definitions</b>	<b>67</b>	<b>9. Documents Required for Renewal of Registration Certificate</b>	<b>74</b>
<b>3. General Comments</b>	<b>68</b>	<b>Annexes</b>	<b>76</b>
<b>4. Addresses for Supplier Registration</b>	<b>70</b>		
<b>5. Registration Documents Required for Brazilian Suppliers</b>	<b>70</b>		
<b>6. Registration Documents Required for Foreign Suppliers</b>	<b>70</b>		
<b>7. Inclusion of Materials in the Supply Line of a Company Already Registered</b>	<b>74</b>		



# Vendors List Registration Guide

## Reference 2

### 1. Purpose

- 1.1 The purpose of this document is to provide the concepts and procedures to be adopted by suppliers who intend to:
- register with Petrobras as a material and equipment supplier;
  - renewal the registry, if already registered;
  - change the line of materials for which the company is registered.

### 2. Definitions

- 2.1 Registered Suppliers (CRCC) CRCC – is the portuguese acronym for Registration Certificate and Classification List: a document sent to the supplier after its registration or renewal, considering its registered line of supply and any constraints related thereto, to be eligible to participate in Petrobras bids. For receiving the CRCC, the supplier shall be assessed and approved in the technical, legal-fiscal and economic-financial aspects. In Petrobras information systems, accessible in all units of the company in Brazil, the supplier will be identified with the status "A" for active.
- 2.2 Technically Qualified Suppliers A supplier whose registration or renewal has been approved only on technical aspects. It does not receive the CRCC but it is identified in Petrobras information system, accessible in all Company units in the country, with the status "Q" for technically qualified only. Participation of suppliers with status "Q" in bids are restricted to the discretion of the purchasing unit, who will take into consideration, among other aspects, the commercial risks involved and market competitiveness.
- 2.3 Materials Requiring Technical Qualification (RQT) Equipment or materials whose performance in the Petrobras industrial process may harm the continuity, endanger the safety of people, installations or environment, and the products that, included in the production process as raw material, may harm the quality of the company's end product.
- 2.4 Reseller The supplier who trades materials manufactured by third parties, duly accredited.
- 2.4.1 Resellers for RQT material will only be registered if the relevant manufacturers are also registered.
- 2.4.2 Resales referring to manufacturers who are cancelled or suspended from the registry list will be automatically removed from the reseller's list.
- 2.5 Distributor Is the supplier of materials appointed by the manufacturer who does not sell its products directly.
- 2.6 Agent/Representative Whoever represents the supplier in Petrobras, through the manufacturer's own commercial office or through an individual or company accredited by it.
- 2.6.1 Agents are not registered separately in Petrobras but are bound to a supplier who empowers it to act as its agent.



# Vendors List Registration Guide

## Reference 2

- 2.6.2 The agent may represent more than one supplier for the same line of product(s). It may not, however, take part in the same bid as a representative of more than one supplier.
- 2.6.3 Suppliers may appoint one or more agents, for example, for regional services.
- 2.6.4 To include the agent(s) the supplier shall provide the following data:
- Name or company name
  - Individual (CPF) or corporate taxpayer (CNPJ) number
  - Full address
  - Contact person if agent is a company
  - Phone and fax numbers and e- mail address
- 2.7 Legal representative The representative who is expressly empowered to receive summons and respond administratively and legally on behalf of the supplier. (This requirement applies to foreign suppliers.)

Note: Should the supplier permit the legal representative to act as its commercial representative, including signing bids and contracts on behalf of the supplier, it must issued a specific statement in the bid or add this authorization to the text shown in Annex III hereto.

- 2.8 Material Family Set of similar or related materials manufactured and/or sold by a certain group of eligible suppliers.
- 2.9 Reference List List of suppliers kept by Petrobras operational units, involving low cost and simple materials, mostly items of local procurement, not registered on a centralized or corporate basis (see sub- item 5.4).

### 3. General Comments

- 3.1 The company interested in registering or reviewing its registration must send a letter to one of Petrobras units mentioned in item 4 herein, duly signed/identified, stating its purpose and listing the documents attached thereto.
- 3.2 When sending the documents, the interested party must meet the requirements stated in the prevailing revision of this Guide.
- 3.3 The information herein and its updates can be found on Petrobras home page in the Internet, at the address <http://www.petrobras.com.br>, options: "Business", "Supplier Channel", "Materials", "Suppliers Registration Guide" .
- 3.4 The company who meets all requirements determined herein will receive the CRCC (acronym for the portuguese words of Registration Certificate and Classification List), which will determine the materials for which it will be eligible to supply to Petrobras and will have status "A" (Active) registered in Petrobras information systems, accessible in all company units in Brazil.



# Vendors List Registration Guide

## Reference 2

- 3.5 The aforementioned certificate will be valid for no more than one year and the supplier shall submit the documents for its renewal 30 (thirty) days before its expiration date.

Note: The above mentioned expiration period for the CRCC is based on item 4.3 of Decree no. 2745 dated 08/24/98, which approved the Regulation for Petrobras Simplified Bidding Procedure.

- 3.6 It is worth mentioning that depending on the result of documents assessment, Petrobras may place constraints on the CRCC, about granting advance payments in contracts or restrictions on the supply line and validity of CRCC. If in doubt about such constraints, the unit responsible for registration should be contacted.
- 3.7 The data of the manufacturers registered by the units mentioned in 4.2 herein below and who received the CRCC will be provided to all Petrobras units through a computerized corporate system. This database is the basic source of selection, by contracting units, of the companies eligible to supply materials to Petrobras.
- 3.8 The fact that a company is registered as a supplier of a certain material does not entitle it to participate in all Petrobras bids. Its performance during its relationship with Petrobras, while registered, is one of the factors considered in the selection of companies by the contracting units.

- 3.9 In Petrobras bids involving materials for which they are eligible, the registered suppliers are not required to submit any other document confirming their legal, financial and technical capacity. Instead, they are only required to submit the valid CRCC.
- 3.10 It should be mentioned that specific extra requirements may be requested in a bid or when signing the contract, considering that the registration is made for each material family, group of materials with similar characteristics and use, and the material being purchased for a specific purpose may require specific technical requirements not stated at the time of registration.
- 3.11 The CRCC of foreign companies are valid solely for participating in international bids where payment in foreign currency is permissible. Their representatives may not submit bids in the Brazilian currency, using a foreign supplier's CRCC. The foreign supplier will have to appoint a reseller in Brazil in order to be able to participate in Brazilian bids.
- 3.12 All documents listed herein must be submitted altogether. Partial submissions are not acceptable.
- 3.13 The dispatch of all documentation referring to items 5, 6 or 7 will not imply in automatic registration in Petrobras Corporate Registry. This will depend on favorable financial, legal and technical assessments (see item 8 – Processing Time).



# Vendors List Registration Guide

## Reference 2

- 3.14 Material suppliers and service providers are registered separately in Petrobras. To register as a service provider, the company must apply directly to the Legal Department at the address given in item 4 herein below.
- 3.15 Companies that already have a service provider CRCC and wish to register as a material supplier should submit the documents listed in sub - items 5.1.4, 5.1.5, 5.1.8, 5.2.1 and 5.3, in addition to a copy of the CRCC issued by the Legal Department. In the later case, the CRCC issued by the Materials Unit will have the same validity as the CRCC issued by the Legal Department.

## 4. Addresses for Suppliers Registration

- 4.1 Suppliers for materials/equipments which require technical qualification and their distributor(s), are only registered in the Materials Unit at Petrobras headquarters.

- **Materials Unit**

Petróleo Brasileiro S. A. - Petrobras  
Materiais/CQDM/CF  
Av. República do Chile, 65/601  
CEP 20.031- 912 – Rio de Janeiro - RJ  
Tel.: (+55 21) 2534- 1986  
Fax: (+55 21) 2534- 4248

- 4.2 Address for service providers registration  
Petróleo Brasileiro S. A. - Petrobras  
Jurídico/AJ/JCAE  
Av. República do Chile, 65 – Térreo/ Ala Sul  
CEP 20.031- 912 – Rio de Janeiro - RJ  
Tel.: (+55 21) 2534- 2970 / 2534- 2971

Note: The rules for registering of service providers should be requested from the unit mentioned in 4.3 herein above.

## 5. Registration Documents Required for Brazilian Supplier

This item is not applicable to foreign suppliers.

## 6. Registration Documents Required for Foreign Suppliers

- 6.1 Evidence of Legal Capacity

- 6.1.1 Evidence of being legally incorporated in its country of origin, issued by a government body. Submit the latest amendment (if any) to the company bylaws with the respective registration.
- 6.1.2 The supplier must send a letter introducing its legal representative in Brazil, expressly empowered to receive summons and respond, administratively and judicially, as stated in Annex III (see sub- item 3.6);



# Vendors List Registration Guide

## Reference 2

6.1.3. In the case of resale or distribution (see sub- item 3.3 and 3.4), submit accreditation letter(s) from the supplier(s) of each the material family(ies), informing the accredited product(s), as stated in Annex I. The issue date of the accreditation letter must be no more than six months earlier.

### 6.2. Evidence of Financial Capacity

6.2.1 Two copies of Balance Sheet and Financial Statements relating to the end of the last financial year of the company. Such documents shall comply with the minimum requirements of brazilian regulations relating to information content, format and grouping (see **Regulation CFC- 686/90**).

#### **IMPORTANT**

These documents shall be signed or initials put by the company's representative, duly identified (name and position) and by the accountant. To expedite the analysis the company must highlight the following information:

- **Net income for the year;**
- **Investments;**
- **Long term assets;**
- **Long term liabilities;**
- **Net worth;**
- **Current assets;**
- **Current liabilities;**
- **Fixed assets;**
- **Total assets.**

#### **Comments:**

- a) The individual company balance sheet and income statement must be submitted when registering a company belonging to a certain group.
- b) The group Annual Report will only be acceptable if the company demonstrates that it is not legally bound to submit a separate balance sheet, backed by local legislation. This requirement applies to both the holding and companies in the group.
- c) The minimum information,
- d) Companies that are registering or renewing and cannot yet provide the statements for the preceding year, will only be registered with validity until July 30 of current year. As soon as they submit the previous year's balance sheet, this validity will be extended to the regular 12 months period.
- e) The criterion used by Petrobras to perform the financial assessment is available from the units responsible for the registration or by the following instructions:  
Financial Calculation.

6.2.2 Evidence that the company is not in a situation of bankruptcy or pre-bankruptcy nor is a debtor of a state or private organization that may be detrimental to the performance of the contracts, and which may be:

- a A letter from the CEO or financial director of the company; or
- b A legal opinion.



# Vendors List Registration Guide

## Reference 2

### 6.3. Evidence of Technical Capacity

The following list includes a set of technical requirements that may be requested for certain material.

In addition to those listed herein, other requirements of technical eligibility for specific materials, most of which are published in the federal official gazette (DOU), normally associated with families of material that require qualification, are available from the registration unit.

The supplier should contact the registration unit for a list of the specific technical requirements for each material family.

- 6.3.1 List of the products/materials to be sold to Petrobras, filling out the Material Description Spreadsheet (Annex II).
- 6.3.2 Catalogue with technical specifications.
- 6.3.3 Evidence of compliance of the quality system maintained by the supplier through a certificate issued by a second or third party, accredited by official certification system(s), based on the ISO- 9000 series standard.
- 6.3.4 If the quality system certificate issued by a third party does not have an expiry date, a document from the certifying body should be submitted confirming its validity on the date when it is presented.

- 6.3.6 Description of the personnel qualification system for technicians performing welding inspection and non-destructive testings (NDT), when such services are part of its production process, with evidence of compatibility with the official system in the country where the plant is installed. This system must be structured based on the EN- 45013 and ISO- 4712 standards, respectively.
- 6.3.7 A list of supplies, informing characteristics of the materials supplied and the respective customers attended, with name and phone number of a contact person.
- 6.3.8 Letters of reference from customers (end users of the material), informing the main technical characteristics and good performance of the materials, as stated in Annex V.
- 6.3.9 Facilities provided for technical assistance, Petrobras operators training and supply of spare parts in due time, when applicable.
- 6.3.10 Distributors and resellers of materials that require technical qualification must present the Inspection Warranty Agreement, pursuant to the model in Annex V.
- 6.3.11 Depending on the application of the material to be supplied, the following certificates for some specific materials must also be submitted, pursuant to specific legislation:



# Vendors List Registration Guide

## Reference 2

- Telecommunications Product Certificate, issued by Anatel, the Brazilian National Telecommunications regulation agency;
- Certificate of Approval from the Occupational Safety and Health Agency (SSST), or its equivalent, for Individual Safety Equipment (EPI);
- Certificate of Approval from the harbors and coastal authorities (DPC), for ships;
- Design or Product Approval Certificates pursuant to Petrobras or international standards;
- Certificate of Conformity for electrical materials, to be used in potentially explosive atmospheres, issued by an organization accredited by INMETRO, a Brazilian government agency that regulates this area, in the terms of the prevailing legislation.

Alternatively, for registration purposes, the suppliers of foreign material should submit a certificate issued by an official certification organization in the European Union, USA (UL or FM), Canada (CSA), Australia (SAA) or Japan (RIIS), explaining the type of protection. At the time of supply (submission of bids, delivery of material and others, as stated in the bidding invitation), the supplier must submit a certificate issued by a laboratory accredited by INMETRO, specific to the product to be supplied, as stated in the Brazilian law.

For registration purposes, at least one certificate shall be submitted for each family of material listed in Annex II.

6.3.12 The following should be submitted to register a chemical product:

- a) Chemical Product Spreadsheet, containing basic data on the product(s) to be registered; and
- b) Chemical Product Technical Data and Safety Records to register all trademarks.

Note: The files of the chemical product spreadsheet, technical data records, chemical product standard and completion instructions can be obtained directly from the Registration Unit or from Petrobras home page, at address <http://www.petrobras.com.br>, following the sequence: "Business", "Supplier Channel", "Materials".

### Comments:

- 1) The documents mentioned in sub-items 6.1.1, 6.1.2, 6.1.3, 6.2.2 and 6.3.8 should be notarized and certified by the relevant Brazilian consulate, further translated to Portuguese by a sworn public translator, while the rest may be in English or Spanish (The documents mentioned herein must have been issued no more than six months earlier).
- 2) Bidding for materials that do not require technical qualification, in principle, Petrobras will only hold bids in the local market, and therefore it is not allowed to register foreign suppliers for this group of materials.



# Vendors List Registration Guide

## Reference 2

- 3) The documents mentioned in sub- items 6.1.1, 6.1.2, 6.1.3, 6.2.2 and 6.3.8 should be submitted in the original or duly certified xerox copies. No documents transmitted by fax or originating from it will be acceptable.
- 4) Statements should be written on the manufacturer's letterhead, with place and date, with the company's representative's signature, name typed in and position in the company.
- 5) The signatures of the CEO or directors may be notarized in Brazil when these people are named in the Annual Report submitted.
- 6) In the specific case of distribution, the distributor must submit the documents listed in sub- items 6.1, 6.2, 6.3.1, 6.3.4, 6.3.5, while the manufacturer(s) of material(s) distributed by it must comply with sub- items 6.1.1, 6.3.2 to 6.3.10.
- 7) Alterations in the organization, changes in address, e- mail, phone, fax and person of contact must be informed immediately to Petrobras.

## 7. Inclusion of materials in the scope of supply for suppliers already registered:

- 7.1 To include materials in the scope of supply, suppliers already registered must send, at any time, or also when applying for renewal, the documents mentioned in sub- item 5.3 (Brazilian suppliers) or item 6.3 (foreign suppliers) relating to the materials to be included.

## 8. Processing time:

- 8.1 Registration will be made within 60 (sixty) days after correctly submitting all documents listed herein, for suppliers whose scope there is a material family that requires technical qualification and within 30 (thirty) days for the remaining material families.

## 9. Documents required for renewal (CRCC):

- 9.1 Suppliers must submit the following documents 30 (thirty) days before the expiry date of the certificate (CRCC) to the registration unit stated in item 4:
  - 9.1.1 Brazilian supplier: not applicable
  - 9.1.2 Foreign supplier:



# Vendors List Registration Guide

## Reference 2

Updated documents mentioned in sub- items:

- 6.1.2 Letter from supplier introducing the legal representative in Brazil;
- 6.1.3 Letter issued by manufacturer recommending reseller or distributor (when applicable);
- 6.2.1 Financial statement (Balance sheet and financial statements);
- 6.2.2 Evidence that it is not in a bankruptcy or pre- bankruptcy situation;
- 6.3.8 Letters of reference from customers (end users).

**Note: Return to Comment 1 in item 6.**

- 9.2 Suppliers of materials who apply for technical qualification of a manufacturer shall present a valid quality system certificate of the manufacturer or a document from the certifying body confirming its validity.
  - 9.2.1 If the Quality System Certificate issued by a third party does not have an expiry date, a document from the certifying body shall be submitted, confirming its validity on the date when it is presented.



# Vendors List Registration Guide

Reference 2

## ANNEX I - A

### (MODEL OF STATEMENT FOR RESELLER ACCREDITATION)

#### IMPORTANT:

THIS STATEMENT MAY BE WAIVED SHOULD THE RESALE COMPANY CONFIRMS THAT ITS CONTROLLING INTEREST IS HELD BY ITS PARENT COMPANY

### STATEMENT

(full company name)

We hereby accredit the company \_\_\_\_\_ registered under brazilian corporate taxpayers CNPJ no. \_\_\_\_\_ as reseller of the products manufactured by us.

#### Products:

( List the accredited products, should the accreditation does not include the manufacturer's complete product line)

---

---

---

---

---

---

---

---

---

---

\_\_\_\_\_  
(Place and date)

\_\_\_\_\_  
(Signed by the accrediting company's representative, with name and position)

**(This statement must be written on the manufacturer's letterhead)**



# Vendors List Registration Guide

Reference 2

## ANNEX I - B

### (MODEL OF STATEMENT FOR DISTRIBUTOR ACCREDITATION)

#### IMPORTANT:

THIS STATEMENT MAY BE WAIVED SHOULD THE RESALE COMPANY CONFIRMS THAT ITS CONTROLLING INTEREST IS HELD BY ITS PARENT COMPANY

### STATEMENT

(full company name)

\_\_\_\_\_ by its representatives signing hereunder, **states that it does not sell its products directly and that they are sold (exclusively in Brazil)** by its distributor identified hereunder.

It also states that it continues to be fully liable for the guaranty, technical assistance and liability for the products, and will undertake all critical examinations of the contracts signed by the distributor, hereby agreeing to adopt a system of identification of materials in order to ensure that they can be traced to the respective technical documents.

**Company name:** \_\_\_\_\_

**CGC/CNPJ:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone:** \_\_\_\_\_

**Fax:** \_\_\_\_\_

**Zip code:** \_\_\_\_\_

**Products:**

( List the accredited products, should the accreditation does not include the manufacturer's complete product line)

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

\_\_\_\_\_  
 (Place and date)

\_\_\_\_\_  
 (Signed by the accrediting company's representative, with name and position)

**(This statement must be written on the manufacturer's letterhead)**





# Vendors List Registration Guide

Reference 2

## ANNEX III

(MODEL OF LETTER INTRODUCING THE LEGAL REPRESENTATIVE)  
(BIDDER'S LETTERHEAD)

### PROCURAÇÃO

Comunicamos por meio desta que

\_\_\_\_\_

estabelecida à \_\_\_\_\_

Telefone \_\_\_\_\_

FAX \_\_\_\_\_

CNPJ \_\_\_\_\_

\_\_\_\_\_

é nosso Representante Legal Autorizado, com plenos e expressos poderes para receber Citações e responder Administrativa e Judicialmente.

Assinatura do outorgante

\_\_\_\_\_

### POWER OF ATTORNEY

This is to confirm that

\_\_\_\_\_

Established at \_\_\_\_\_

Phone \_\_\_\_\_

Fax \_\_\_\_\_

CNPJ \_\_\_\_\_

\_\_\_\_\_ is our

Authorized Legal Representative, with full and express Authority to receive Legal Notifications and Represent us in Administrative and Judicial Matters.

Grantor signature

\_\_\_\_\_

#### NOTE:

The terms of the Note associated with item 2.7 herein, which determines the attributes of the Legal Representative, may be added to this text.

(This statement must be written on the manufacturer's letterhead)



# Vendors List Registration Guide

Reference 2

## ANNEX IV

### (MODEL FOR CUSTOMER'S LETTER OF REFERENCE)

We hereby vouch, for the due purposes, that the company (full company name) , has satisfactorily supplied the products listed herein below, with regard to the sale, delivery date and technical assistance. We also add that the products have a good operating performance.

Supply date	Products / Technical characteristics
<hr/>	<hr/>

\_\_\_\_\_  
(Place and date)

\_\_\_\_\_  
(signed by the **END CUSTOMER**, with name and position)

**(This statement must be written on the manufacturer's letterhead)**



# Vendors List Registration Guide

Reference 2

## ANNEX V

### (MODEL FOR INSPECTION WARRANTY AGREEMENT)

ELIGIBILITY REQUIREMENT FOR REGISTERING RESELLER/DISTRIBUTOR OF MATERIALS THAT REQUIRE WITNESSED MANUFACTURE INSPECTION.

(Manufacturer's company name)

\_\_\_\_\_ hereby states that it offers the customers of (full company name of reseller/distributor) the warranty requested by its customers. It also states that it is responsible for providing all means and operating facilities to carry out or witnessing the inspection by the company under contract, whenever the customers agree with the reseller/distributor for it to release the material with witnessed inspection.

(Company name of manufacturer or reseller/distributor)

\_\_\_\_\_ states that it is responsible for hiring and paying the company that will perform the inspections. It also states that the company to be hired to perform the inspection shall provide evidence on the inspection work and be approved by the customer in advance.

Note – The products to be inspected and inspection requirements will be as those defined by Petrobras in the manufacturer's or distributor's Registration Certificate and List Classification - CRCC.

\_\_\_\_\_  
(Place and date)

\_\_\_\_\_  
(Signed by manufacturer, with full name and position)

\_\_\_\_\_  
(Place and date)

\_\_\_\_\_  
(Signed by Reseller/Distributor, with full name and position)

Note.: Only valid with the signatures of both manufacturer and reseller/distributor

**(This statement must be written on the letterhead of the manufacturer or reseller/distributor)**



# Vendors List Registration Guide

Reference 2

## ANNEX VI

**DOCUMENTS AND INFORMATION REQUIRED FOR REPAIR SHOP REGISTRATION**

**(NOT APPLICABLE FOR FOREIGN SUPPLIERS)**



# Vendors List Registration Guide

Reference 2

## ANNEX VII

(MODEL OF STATEMENT FOR LAST AMENDMENT TO COMPANY BYLAWS)

### STATEMENT

**Petróleo Brasileiro S/A - Petrobras**

**We hereby state, under penalties of the law, that the document attached hereto is the latest amendment of the** (Articles of Incorporation or Company bylaws) **of the company** \_\_\_\_\_ (full company name) \_\_\_\_\_, **confirmed in the instrument** (Amendment/Consolidation) **dated** \_\_/\_\_/\_\_, **duly registered in the** (State Board of Trade or Registry Office), **under number , on the date of** \_\_/\_\_/\_\_.

\_\_\_\_\_  
(Place and date)

\_\_\_\_\_  
(Signed by the company representative,  
with full name and position)

**This statement must be written on the company's letterhead, and attached as front page to the last contractual alteration.**