Building local capability in an international playing field

Development of local competencies

Experience of IFP School and IFP Training

- **Local content policies, strategies of all concerned companies**
- **Why is this development a worldwide challenge?**
 - **Workforce:** major changes
 - **Operational integrity:** a concern for all stakeholders
 - **Initial qualification:** a concern for the industry
 - **Technologies:** diversity, complexity and rapid evolution
 - **Technical training** needs time, dedication and **continuity**

■ Main conclusions of the IEF 2009 symposium in Doha on HR issues

• For the industry

- Recruit locally
- Cooperate with local universities
- Encourage partnerships between local and international universities

• For governments

- Invest in education and R&D
- Stimulate cooperation between public and private interests

• For all actors

- Avoid stop-and-go policies: training needs insulation from boom & bust cycles
- Avoid free-market-only policies: training needs collaboration

■ Various partners ...

- Local or international universities / institutes
- Local or international training organisations
- National or international oil and gas companies

■ ... for various partnerships

- Offshore campus
- Offshore programs
- Academic partnerships

■ What is competency?

- Les compétences sont les **capacités** d'un individu à **exercer une fonction** ou réaliser une tâche, généralement dans le cadre d'un travail en entreprise (Wikipédia Français)
- A **standardized requirement** for an individual **to properly perform a specific job** (Wikipedia English)
- For a training company, development of competencies relies on four elements:
 - Motivation = **what I want to do**
 - Knowledge = **what I know**
 - Knowhow = **what I am able to do**
 - Attitude = **what I do and how I do it**

*Development of competencies is linked to **experience***

*Training is a **catalyst** and a **booster***

■ IFP School

- Graduate school
- Programs cover the whole oil and gas chain
- Master or PhD level
- 600 graduates a year, 50% foreigners
- Students from 50 countries

■ IFP Training

- Subsidiary of *IFP Energies nouvelles (IFP En)* for continuing education
- Courses address all issues of the oil and gas industry
- Young or experienced professionals
- From operators and technicians to engineers and managers
- 15 000 professionals, from 80 countries, trained every year
- Long training programs in Algeria, Angola, Bahrain, Cameroun, Congo, Gabon, Morocco, Myanmar, Russia, Saudi Arabia, Venezuela, Yemen, ...

From concepts ...

... to practice ...

*... back
and
forth.*

Example: Master in Petroleum Engineering in Nigeria

- Established 10 years ago, some 200 graduates active in the Nigerian O&G sector
- Industrial partners: Total and NNPC
- Academic partner: Uniport (University of Port-Harcourt)
- Challenge: build a program at an international standard, with sustainable growth
- IFP School / IFP Training: global engineering, students' selection, academic coaching and assessment, lecturing 50% of the program
- Foundation of the Institute of Petroleum Studies

Lessons

- ✓ Recognized success of a program at IFP School's standards
- ✓ Importance of industrial and academic partnerships

Example: Master in Petroleum Geosciences in Malaysia

- Sponsor: PETRONAS and University Partner: UTP
- Multidisciplinary programme: 200 days
- Courses content: 11 modules, with progressive transfer to UTP
 - Geology, Geochemistry
 - Well log analysis, Seismic interpretation
 - Basin assessment
 - Reservoir characterisation and modelling

Other Masters

- *Petroleum Geosciences* in Venezuela
- *Downhole and Surface Production* in Algeria

Foundation training programs in Geology, Geophysics, Reservoir Engineering Drilling & Completion, Subsurface & Production

■ Example: Graduate Diploma in Petroleum Geosciences

- Duration: 12 weeks
 - Based on practical case studies (hands-on), workshops, field trips
- Course content: 3 parts (12 modules)
 - Foundations in Geoscience and Petroleum System Analysis
 - Reservoir Identification and Characterization
 - Basin Analysis and Prospect Evaluation
- **Internship:** 4-month work with project report, presentation and defence (jury)
- Project and internship within the company

Example: Alternating training programs in Geosciences and Reservoir Engineering

- **On the Job Training in Venezuela – *Learn & Do***
 - Training period mixed with OJT in Geosciences or in Reservoir Engineering (11 months)
 - Training with IFP Training in alternation with hands-on workshops coached by experts from Beicip-Franlab (IFP En consulting subsidiary)
 - Knowledge acquisition with IFP Training

Example: Operators Certification

- More than 30 years of experience
- Some 3 500 trained operators, downstream and upstream
- Success rate above 90%
- Training program recognized by the industry
 - ✓ 1 year, alternating classroom and on-site training
 - ✓ Important hands-on content, experienced trainers
 - ✓ Mentors in the company
- Strong growth worldwide, especially upstream
- Angola, Cameroun, Congo, Gabon, Myanmar, Nigeria, Venezuela,...

- It is **a must!**
- Main objective: speed up **the qualification of the workforce**
- Main challenge: devise **focused and high-quality training schemes**
- Development of **local programs**
 - ✓ increases intercultural understanding
 - ✓ decreases training costs
- Needs **time, long-term policies, and partnerships**
- No sustainable result can be achieved without **continuity...**