

# Talent Development: Malaysian Oil & Gas Industries



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**T**he recent announcement by Petronas with regards to several major oil and gas projects, such as Rapid project in Pengerang and North Malay Basin Development, has created much excitement in the oil and gas industry. Also in the limelight are other notable offshore field developments in Malaysia, namely Malikai, Rotan and Kanowit. Marginal fields are also being developed and existing fields will be rejuvenated with enhanced oil recovery system to boost oil production in the coming years.

All these developments in the local oil and gas industry will create thousands of skilled jobs comprising different level of education, trainings and skill sets. For example, in the Rapid project, it is envisaged that some 40,000-50,000 workers will be needed during construction period (Bernama, 12 May 2012).

The question that comes to mind is: Where will we source all the technical personnel and skilled workers needed to execute and ensure success and continuity in all these projects? In other words, if the projects concerned do not create the multiplier effect that is needed to boost our overall economy, it will not be meeting its objectives.

Talent issues have been actively discussed in the mainstream and social media. The focus here is on the oil and gas industry, which is high net worth and a major impact economy booster in the region. Nevertheless, considering the significance of the oil and gas industry in our economy, it will be prudent to have a holistic and long-term approach to address the talent issue, while being cautious over external pull factors.

## TALENT DEVELOPMENT NEEDS

Oil and gas industry talent requirements are different on a wide magnitude compared to that of local manufacturing and construction industries. Equipment technologies and safety requirements differ throughout the world and are dictated by process licensors as well as oil majors. In Malaysian context, the industry is well developed to cater to regional needs. Local vendors have established themselves through Petronas vendor development programmes and large engineering consulting groups have their presence here as well.

In order to move towards wider global audience, extensive efforts need to be

engaged. Our local engineers need to be well versed with wider technical skill sets in terms of familiarising with standards and other regulatory requirements in other countries. Moreover, projects all over the world are being completed in shorter periods and involve satellite offices around the world engaged with a multicultural work force, which will require a higher degree of English language proficiency and IT skills.

The market is also looking for well-rounded talents. This includes technical skills which are complemented with field experience such as fabrication, testing and commissioning works. These can be common requirements for most employers. The reality, however, is that most of the workforce is not trained to be well rounded. This would be a point for improvement that can be taken up by the industry.

Talent development solutions must also cater beyond the engineering community, such as government officials, logistics service provider, inspection service providers and procurement personnel. The advancement of the industry is very much dependent on these parts in the private sector and public sector catering to the oil and gas industry.

## RAISING STANDARDS OF TRAINING & EDUCATION

To ensure Malaysians are capable of meeting the industry needs and market demands, our workforce needs to be equipped with the right knowledge and tools. It's not just fresh graduates. The entire workforce needs to be fostered to meet market demands and to keep abreast of current market developments.

At present, there seems to be expectations gaps between the industry and educational institutes. The industry expects the fresh graduates to be "job ready"; however they are

not. Currently, steps are being taken by both private and public sectors to address the issues.

Though IEM and BEM have prescribed paths to attain professional qualification for engineers, most graduates are either not aware of the process or have a lackadaisical attitude towards it. We should be stressing on continuous professional development. A structured learning process which suits the industry, particularly employers, must be part of the workforce development plan throughout an engineer's career, with measurable indicators.

Internship plans, as spearheaded by MOGEC (Association of Malaysian Oil & Gas Engineering Consultants), which link local research universities and major engineering consultancy companies based in Malaysia, must be applauded. Solutions like these offer university students early exposure to the oil & gas industry and build their capabilities. Upon completion of their undergraduate degree, this will ensure a smoother transition to a career in the oil & gas industry.

Meanwhile, the curriculum in academic institutions should reflect the specialisations in the market. Key ideas and industry terminologies should be familiarised at tertiary education level as this will enhance the confidence level of workforce entrants. For example, subjects related to safety, technology, industry codes and standards as well as software tools should be made available to the final-year students.

Both the industry and academia need to strengthen their collaboration to align talent development to match the requirements of the oil and gas industries. Involvement by industry personnel in designing the academic curriculum and providing real field or business exposure through the sharing of experiences must be encouraged and rewarded. More structured learning programmes are also needed for existing industry practitioners to further improve themselves. These can be arranged through partnerships between the industry and academia.

## CONCLUSION

While talent will be an on-going issue in the next decade, there is already a talent pool in Malaysia that can be developed and refined further. This may involve long-term commitments from both the public sector and industry players. The benefits that may be reaped far outweigh the efforts required. ■

## IEM DIARY OF EVENTS

**Title: Talk on "Energy Efficient Cellular Base Stations based on the Characteristics of Malaysia's Solar Radiation Exposure"**

**12 November 2015**

Organised by : Engineering Education Technical  
Division  
Time : 5.30 p.m. – 7.30 p.m.  
CPD/PDP : 2

*Kindly note that the scheduled events below are subject to change. Please visit the IEM website at [www.myiem.org.my](http://www.myiem.org.my) for more information on the upcoming events.*