with the Association of Consulting Engineers Singapore (ACES)
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ACES embraces members of different sizes and nationality, would you say ACES perfectly represents the engineering consulting scene in Singapore, and even in the region, and what would you describe as the main characteristics of the industry?

L.P.H.: Formed in 1971, ACES is affiliated with FIDIC, the International Federation of Consulting Engineers. The association represents a mix of local and multinational consultants, including for the oil and gas industry. ARUP for example is a member holding an interest in the oil and gas industry.

B.M.: As for the main characteristics, Singapore has a very structured industry where the government has a strong hand. Coming from Australia, I can see that the projects here are much larger and more complex, including the ones in oil and gas. The framework here is much more rigid and comprehensive and includes full independent checking, agencies to govern different parts of the industry such as the BCA (Building Construction Authority) and so on.

When meeting Peter Cockcroft from the Society of Petroleum Engineers, he highlighted that Singapore should push for more entrepreneurship. Do you believe that consulting engineers are more likely than other engineers to set up their business in Singapore and bring it to the next level?

L.P.H.: After staying in the public sector for a long time I just started my own company some months ago. There might indeed not be a very active push but there are opportunities for entrepreneurs. It is easy to set up a business but there is no active encouragement.

B.M.: What we see more is that the government pushes local companies to do business overseas. When I first came to Singapore I noticed that the government was trying to push companies to look into the Chinese and Indian markets for expansion.
They also took steps to do so by including trade missions to said countries.

L.P.H.: I think the government recognizes that Singapore is not a very big country; development is limited and it is subject to economic fluctuation. Therefore, it would be risky to put all your eggs in one basket by solely addressing the local market. International Enterprise Singapore (IES) and other agencies have indeed organized trade missions and have some funding to allow local companies to obtain subsidies when they go overseas. Within ACES there are of course also smaller members that focus on a niche market without having the need to go look for business overseas.

How would you rate Singapore’s competitiveness within the region and internationally in terms of engineering consulting?

B.M.: Singapore is very competitive due to its advantage of being perceived as being at the same level as Australia, the UK and the USA. If you take Singaporean engineers and architects competing in the Middle East for instance, the client or developer there has a range of quality people to choose from. He will then find that people from the UK or USA come at a very high price whereas people from Indonesia and India for example will be cheaper but only offer mixed quality, while Singaporeans offer highly affordable quality.

To what extent are the Singaporean engineering consultants dependent on the oil and gas industry?

B.M.: The oil and gas industry is a big part of Singapore and the projects here are very large. The procurement models are more design, build and operate type driven by very big contractors including local players such as Keppel. It can be hard for ACES members to enter the market because of these large international players.

A lot of civil engineers do work that does not directly relate to the oil and gas industry but their activities do have an indirect impact on the industry. Do you think that the oil and gas companies are aware of the need for these civil engineers?

L.P.H.: It is a global industry but also a niche market in the sense that not all consultants can just go in and advice on design. It requires experience built on an international basis.

B.M.: Oil and gas companies are generally very focused on the projects they have at hand. There is also a different perception between the oil & gas industry and civil engineering. There are differences in accountability and risk. Companies will not easily partner up with someone new and small due to the fact that these large-scale projects are very risky and expensive if something goes wrong.
What is ACES doing to push the reputation of its members in the oil and gas industry?

B.M.: ACES does not really focus directly on particular industries. The association accredits the members in order for them to go out and attack any industry they want. We try to work at the general level of the consultants rather than to match them into a particular industry. Our job is to make sure there is a framework around them that empowers them.

L.P.H.: We indeed have no specific push towards the oil and gas industry. We do have certain awards and if an oil and gas project deserves such award we will not hesitate to provide them with one.

The association was created in 1971 at a time the Singaporean economy was building up, could you come back on the main steps since ACES’ creation?

B.M.: Rather than key milestones, ACES experienced a trend of bringing people together in order to push common issues. The issues at stake are the level of fees and the terms and conditions our members work under. ACES assists in having its members recognized in order to work towards reasonable and fair industry standards.

L.P.H.: ACES functions as a common platform providing a common voice that facilitates its members to speak out. ACES has been an association that followed the growth of the country. As Singapore started looking outward, so did ACES by joining FIDIC for example.

As an association, what role can ACES play as a bridge between its members and the government, i.e. in changing legislation, and in what areas do you currently see the need for change?

B.M.: Terms and conditions is one of them as we just completed an overhaul of the standard terms and conditions. Being the voice of engineers to the government agencies is important. An example is the current discussion to allow more market access for foreign professionals. The government needs to make sure that competition is maintained.

L.P.H.: From the association point of view, we want to achieve recognition for the members by attaining the desired fees, which also renders the industry more attractive for new talent.

In engineering profession we see a large gap between the old and new generation. How do you retain the knowledge and pass it on to the next generation?

L.P.H.: ACES puts in efforts to both retain and attract new people to the industry. Talent retention is based on reward and satisfaction. As reward is defined by the market, ACES
mainly works on improving satisfaction. There is indeed a gap as we also saw a lot of people leaving the industry in the nineties when the financial industry became much more attractive than the construction industry. While this gap is irreversible, we focus on guaranteeing continuity for the generation to come. If we speak about knowledge retention, there are companies that do for example retain their semi-retired talent as advisors to share the knowledge with the younger generation. This is one way to bridge that gap. This actually happens at quite a large number of the bigger consulting firms.

B.M.: ACES also puts efforts in industry outreach activities such as talks, seminars etc. such as the excellence awards. This is one way to make clear that there is recognition and reward for the industry to work towards.

**Do you believe Singapore needs international talent?**

L.P.H.: Singapore is not a very big country, with a limited pool of human capital. So there must be synergistic work between local and international talent. You only learn what you work on and if you do not expose yourself to knowledge and skills that international talent can bring you, you create your own little shell which you will not grow from. You have to ensure your people learn from all over the world and not just your country. Before you can go overseas, you have to bring in international talent.

*If we look at Singapore’s capabilities, Singapore is among the most expensive countries in the region. How does this play a role?*

L.P.H.: In Asia ACES is the voice of high end consultants, rather than low cost. In terms of cost we cannot compete with engineers from China for example. These can be equally productive but at certain levels, especially at a management and concept design level, Singaporean consulting engineers can position themselves better.

**Looking at the future, what will be the main developments in the profession in the coming years with new technologies being developed, the role of greener industries etc. and how will ACES be involved in this?**

L.P.H.: As for sustainability, Singapore has established the Green Building Council which is part of the World Green Building Council. ACES and FIDIC strongly support sustainability initiatives. One example is the use of LED lighting in public housing in Singapore. ACES also keeps its members aware of the sustainability issues currently present in the market.

B.M.: The advantage of Singapore is that such initiatives can be pushed through very quickly, while in other societies these projects often
have to grow organically. Other than sustainability, ACES members’ current developments focus on 3D documentation and an increasing role of using 3D in development more and more, in order to create much more intelligent design. Incentives for these projects are also in place. A final key trend is the national productivity drive in Singapore where many agencies are looking overseas to bring knowledge back home.

**What are your main ambitions and goals for ACES in the coming few years?**

L.P.H.: ACES wants to be recognized by the government and authorities as the voice of consulting engineers in Singapore. In the past years we have gained more recognition thanks to the good work done by my two predecessors. Secondly, we are trying to do more for the consultants so that ACES members can see the benefits. When non-members see these benefits they will be encouraged to join too. I would like to obtain 80% of the industry being represented by ACES.

Online article of interview:
http://www.energy.focusreports.net/#state=InterviewDetail&id=921