

# Industry Leaders Forum

Thursday 17<sup>th</sup> June 2010



ENGINEERS  
AUSTRALIA  
Western Australia Division

## Communiqué

**On the 17<sup>th</sup> June 2010 the first Industry Leaders Forum, hosted by the Governor of Western Australia, His Excellency Dr Ken Michael AC, was held at Government House. The Forum brought together high-level industry representatives, from public and private enterprises, and university leaders in Engineering to engage in an open and broad-ranging discussion on the role, and contributions, of Engineering to the future development and wellbeing of WA.**

The Industry Leaders Forum is an initiative of the WA Division of Engineers Australia (EA) that seeks to be more proactive in supporting, facilitating and bringing together industries, educators and the community to work more cohesively in pursuit of the overarching goal of improving the long-term amenity, security, productivity and quality of life in WA.

A statement of 'Background and Purpose' is provided in Annex 1 together with the list of participants in the inaugural forum; this is the starting point of a developmental series of meetings and workshops. Four interconnected themes and directions emerged from the discussions and are summarised as follows. (The notes recorded at the discussion are provided in Annex 2.)

**Education and Training:** The focus on developing the analytical skills and rigorous thinking necessary for university study of Engineering needs to be maintained and enhanced. Improved coordination in outreach is desirable with a non-partisan emphasis on meeting the overall need for engineers in WA. An extended and more visible range, of career opportunities is required, especially in high-added-value engineering, to attract bright school students into the profession and advance WA's excellence in Engineering.

**WA Areas of Expertise:** The continuing success and wealth-generation of the resources industry provides the opportunity to build world-leading expertise and reputation in specific areas of engineering with a future focus. Culturally and economically, our future competitive advantage resides in the ability to create and innovate; expertise and intellectual property can come to be an export that matches the existing physical exports upon which we are now mainly reliant.

**Infrastructure and Planning:** WA needs to evolve from its largely ad-hoc model and mind-set of progress through discrete projects so as to adopt a holistic approach to development that, while meeting independent needs and exploiting competitive forces for good, also serves actively to advance the overall growth and improvement of the State. A long-term vision, embracing infrastructure integration, planning principles, community building and commerce, is required. Engineering has a fundamental role to play in the process of its development, dissemination and bi-partisan adoption by Government.

**Migration and Population:** Population growth continues to be essential for WA to have the critical mass and diversity of economic activity that will enable it to compete in the global market-place. Well-planned skilled migration will be an important component of this growth. Engineering has a key role to play in the development of high-amenity and people-friendly towns and cities that engender the sense of belonging and long-term commitment that yields the most effective workforce.

At the conclusion of the Forum, participants agreed on three overarching areas of concern for WA, these being (i) Educational needs, (ii) The acquisition of high-level technical capabilities, and (iii) Integrated future planning. The Forum recommended that:

- Future meetings of the Industry Leaders Forum expand upon the issues and directions described herein, and
- Engineers Australia facilitate the establishment of a "Committee for WA" to develop and provide input to the Government, especially with regard to infrastructure planning.

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## Annex 1

### Background, Purpose and Composition

Engineers Australia seeks to become more proactive in working with industry and the community to improve amenity, security and productivity within the expected future strong growth environment. Engineers Australia also seeks guidance on how the organisation and its members can make a greater contribution to Australia's future.

To gain insight from the engineering industry the WA Division Advisory Board (DABWA) requested that the WA Division Public Policy Subcommittee and the WA Centre for Engineering Leadership and Management Chapter (CELM) facilitate the formation of a high-level industry leaders body.

Following consultation, the WA Division established "The Industry Leaders Forum". The Terms of Reference state that the Forum will meet to discuss the issues of concern to Engineering and identify the critical success factors for the industry in WA in the next 10 years.

The outcomes of Forum meetings will inform and provide direction for the development of position statements, public comment and engagement with government. The outcomes will also identify topics for inclusion in future CELM activities.

The Industry Leaders Forum comprises 12 -15 high level engineering industry representatives, including CEOs of private and public enterprises and academia leaders. The membership of the Forum, which will meet two or three times a year, can change or rotate, depending on the availability of personnel and the topics to be discussed.

The Governor of Western Australian, His Excellency Dr Ken Michael AC, kindly hosted the inaugural Industry Leaders Forum, held as a luncheon at Government House on 17 June 2010.

### Attendees

His Excellency Dr Ken Michael AC	Governor of Western Australia
Mr Kevin Skipworth	LVO Official Secretary to the Governor
Professor Tony Lucey	President, WA Division Engineers Australia
Mr Chris Fitzhardinge	Past President, WA Division Engineers Australia
Mr John Ruprecht	Chair, Public Policy Committee WA Division Engineers Australia
Dr David Mofflin	Executive Director, WorleyParsons & Chair CELM WA Chapter
Professor Moses Tade	Dean, Engineering Curtin University
Professor John Dell	Dean, Engineering, Computing and Mathematics, UWA
Mr John Smith	Chief Executive Officer and Managing Director, Clough
Mr Mike Deeks	WA Site Executive, Raytheon
Ms Sue Murphy	CEO, Water Corporation
Mr Menno Henneveld	Managing Director, Main Roads WA
Mr Doug Aberle	Managing Director, Western Power
Mr Phil Brown	Operations Manager, JP Kenny
Mr Robert Velletri	Managing Director, Monadelphous
Ms Shirley In't Veld	Chief Executive Officer, Verve Energy
Ms Janice Lake	Director, WA Division Engineers Australia

## Annex 2

### Record of Discussion

*Threads for discussion as provided by His Excellency, Dr Ken Michael AC:*

- Year of Engineering Leadership
- Future Directions for the profession
- High standards of engineering practice
- High expectations from the community
- Engineering leading and shaping the community

### Notes from General Discussion

#### > Education and Training

- Skilled engineers continue to be in short supply – will continue to rely on overseas trained engineers to make up the shortfall
- Good graduates are coming through – the critical shortage is in engineers with 5-10 years experience
- Students coming to university typically have poor numeracy – this should be embedded better in high school
- Work with universities to focus more on identification of centres of excellence and a more collaborative approach with industry. Engineers Australia could facilitate better use of resources. Engineers Australia should identify around five areas of technical excellence where we anticipate that there will be a long-term competitive advantage.
- University outreach programs have improved student intake and improved collaboration but still the quality of mathematics education is most important aspect for first-year engineering students.
- Coordination of existing school outreach programs across industry would be productive; at the moment we are working disparately to achieve a similar objective. Regional areas not well served by outreach programs.

#### > WA Areas of Expertise

- The oil and gas industry offers significant opportunities for WA content. The industry will be prominent for the next 50 to 100 years and WA should focus on developing a “hub” for the industry. Local content appears to be declining in the face of a strong Australian dollar and the ready availability of overseas capability. WA needs to take a longer term strategic view and initiate and support an education and training and research program - similar to Norway – which now has a vast range of expertise in oil and gas and assured economic and social future.
- However other countries already provide a wide range of expertise – so WA must identify specific areas for development – such as integrating and adapting existing technology to meet local conditions in the areas of renewable and alternative sources of energy.
- The future will see a transfer from oil and gas to renewables – fortunately many design elements are similar – which could provide a platform upon which to develop centres of excellence.
- We need to be aware that the knowledge from our existing centres of excellence is being “exported” already to countries such as China.

- We need to strongly promote centres of excellence that already exist and demonstrate what skills we've grown. The Collins Class submarines are an example of where many high level skills were developed. Renewable energy is another area of developing competence.
- Engineers Australia could use a similar process to the Infrastructure Report Card to identify and quantify areas of expertise in a diverse range of skills that will have a competitive advantage well into the future.
- We need to take a strategic approach to build a range of specialised areas of expertise in WA.
- Renewable energy is one area that WA has expertise in already – Engineers Australia could establish a specialised committee to look at what needs to be done to develop this capability to be internationally recognised.
- Engineers Australia could take three or four specialised areas of expertise and promote with the intention of creating media interest that will lead to community engagement.
- Emergent themes: “what is the future for skills development in WA?” and “what areas of expertise can be demonstrated with sustainable competitive advantage?”

#### > Infrastructure and Planning

- Government must look to providing and maintaining infrastructure for towns and cities outside of the metropolitan area – in particular the towns of the Pilbara and Kimberley which are seen as temporary work locations and have been for over 40 years. The Pilbara and Kimberley have been seen as a series of projects rather than integrated development that will underpin liveable thriving towns.
- Engineers Australia needs to advocate for creation of nodes of population with high amenity through appropriate standards of housing, transport, water and power – these then will attract value adding to diversify and strengthen the local economy. Government planning, policy and infrastructure investment must address these issues.
- Western Australia is still lacking a public strategy for state infrastructure investment. The Infrastructure Coordinating Committee is becoming more proactive and effective and the Centre for Excellence in Innovation in Infrastructure Delivery is starting to have external engagement but much more needs to be done.
- Is there a role for Engineers Australia to discuss what should be done rather than simply reacting to what has been done?
- Western Australia needs a vision to contextualise our future decisions and link them to the challenges of catering for our growing needs – it is not that difficult. Engineers Australia needs to encourage governments and the community away from the “project” mindset, so we have a linked projects that take a regional development approach – the State Infrastructure Strategy should address this.
- Western Australia needs to look more holistically at whole process of infrastructure integration and planning. – Engineers Australia should set up discussion around “state vision for integration and planning of infrastructure for sustainable development across Western Australia”
- Engineers Australia still needs to recognise the challenges for governments of the political cycle and focus on activity that can gain be-partisan support.
- Engineers Australia should develop ideas to take to government. The mechanism could be through a briefing with 2-3 relevant Ministers and a number of CEOs. Part of the briefing would be to introduce a “Vision for WA”.

- Integration has value in complex situations. The Stirling Alliance is an example of the value of looking at having a long term goal and having a structure that is based on interagency cooperation.
- Another approach would be similar to that used for Cabinet Sub Committees where key Ministers are able to develop a strong concept with input from industry and government before it is considered for adoption – If Engineers Australia were to use this approach it would need to develop a new model .
- Engineers Australia should establish a “Committee for WA” – vision for infrastructure, industry development in the Pilbara and Kimberley and developing centres of excellence in areas where we will have sustainable competitive advantage.
- Engineers Australia needs to consider how it can effectively operate in this area of interface between community and politics.
- The Western Australian Infrastructure Report Card should include comment on the vision and strategy relevant to the planning coordination and investment in infrastructure.

#### **> Migration and Population**

- Migration – there needs to be better communication on the options for skilled and temporary visas. There also needs to be improved understanding from industry of how the process works and how it could be quicker in response to short term skills needs.
- State Migration Strategy – A Western Australian Migration Strategy is currently being developed by the Department of Training and Workforce Development with the support of CCIWA and CME. It is possible that a new category “elite technologist” would be useful in finding specialised people in the oil and gas sector. It is expected that sourcing skills through migration will be harder in the future – we need to place more effort in growing our own skills.
- Aging population is another trend that will influence our future prosperity – we should have more high amenity and person friendly cities to reduce migration churn and to encourage continuing participation in the workforce. Population growth is a necessity and essential for our future – we are very small by comparison with other nations.

#### **Agreed major Issues of concern identified from general discussion**

1. Education – increase number of students, improve coordination of literacy and numeracy initiatives
2. Technical Capability – need to identify and support specific areas of expertise where we have a sustainable competitive advantage
3. Future planning – urgent need for better long term integrated infrastructure planning for the state – in particular for Pilbara and Kimberley communities,

#### **Agreed recommendations arising from general discussion**

1. Future meetings of the Industry Leaders Forum to discuss in depth the issues identified.
2. The establishment of a “Committee for WA” – facilitated by Engineers Australia, to provide input to government on the above issues, particularly long term infrastructure planning.



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