

Report on Professional Development Symposium

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Compared with Melbourne the Sydney symposium was a small event. Nonetheless the presentations and discussions were of a high calibre. Clear messages emerged from this half day symposium

Thank you to organizations that participated at the symposium. They demonstrate a commitment to professional development in rail engineering capability.

Some background Discussion:

Many organizations that presented were already signed up to Engineers Australia Chartered Status Professional Development Program. Steve Dilli from Engineers Australia outlined the program's aim, of moving graduate engineers through to Chartered status in a structured manner. Gaining Chartered status has many advantages to both the individual and the organisation. It marks the person out to be a competent engineer, able to provide a level of practice above a graduate engineer and has implications in law. The framework also commits the engineer to continuous professional development, to maintain their practice relevance.

Below are just some of the comments raised.

Ravi Ravitharan outlined how the RTSA can help facilitate individuals through this Engineers Australia program, particularly for those individuals not employed in a company sponsored Engineers Australia program.

Brian Hastings outlined the Interfleet 'Passport' scheme developed in the UK and challenged the RTSA to set up a similar scheme in Australia. The issue was that engineers could not gain all the competencies from one employer and thus not attain Chartered status via one employer. There was a need to allow individual to move through different employers to gain Chartered status.

Garry Whiting from ARA provided some background research from their industry outlook survey on skills gaps. There is indeed a looming crisis in rail engineering skills, particularly from retiring rail engineers (50+ years of age) with little uptake coming into the industry. There appears to be a heavily weighted age profile in the industry towards the senior years. Garry highlighted the low completion rates of engineers through university and questioned what factors led to non-completion. A higher supply of graduate engineers would obviously assist in the rail industry.

Jenny McAullife and Phillip Campbell from ARTC each gave a presentation; one on the mentoring program and one on the engineering program. The mentoring program matches up a mentor with a 'mentoree' and runs across the entire ARTC Corporation. This was a one year pilot program sponsored by grant money from government.

David Roberts outlined some of the key features of the GHD program. GHD also has a mentoring component as well as endorsing the EA chartered program. There were a number of in-house and external short courses which GHD endorses, and GHD believe these are effective ways of continuous professional development.

Kim Fletcher, recently employed in TIDC and in charge of 'learning and development', outlined the future program of TIDC. Kim also discussed rotation of graduates as an issue.

Bill Palazzi from PB outlined their learning and development program and highlighted the success of short courses within PB. They also endorse the Chartered status program

Diana Cross from ARUP outlined their program and the focus of efforts to have employees come up with their own training needs. ARUP support engineers through their learning and development linked to individual needs and their performance assessment. ARUP are also on the EA program

Emerging Themes:

Pathways from Graduate to Chartered Status

Many of the participants were consulting organisations.

There was a clear message that rotation of engineers was needed for engineers to attain the necessary competencies of Chartered status.

The RTSA had tried to introduce the passport scheme in Australia some years ago; however this did not take off.

There was debate as to whether companies, with a profit motive would act altruistic for the collective benefit of individuals and the industry or whether they would act in self-interest. It would depend if development of intellectual capital leading to chartered level was seen as a competitive advantage for particularly companies.

Unfortunately there was not a cross section of the manufacturing industry present at the symposium. Would manufacturing employers see growing their human capability organically as a competitive advantage, and not wish to share this with other manufacturers?

The case may be slightly different for consulting companies, where rotation may be seen as filling a capability gap, in the provision of consulting services.

The case may also be different for government agencies for example RailCorp, where it may be in the government's interests to share technologies and develop different work practices. This could lead to an accelerated transfer of technology between industry and government agency, servicing the needs of both government agency and industry.

Certainly in Victoria the Department of Infrastructure has initiated a rotation program with operators and rolling stock manufacturers/maintainers. This was described at the RTSA symposium in Melbourne late last year.

The motivations of the different parties would need to be understood, although the evidence of the UK passport scheme should be a basis to work from.

The RTSA thought that it did not have the resources to run such a scheme by itself, and suggested it was well suited for the rail industry body ARA, through Rail Skills and Careers Council. This body would ensure, at senior levels, poaching of individuals did not occur, and that employees would not work in competitors' fields say within a 3-month period. This body could perhaps administer the scheme with the co-ordination of human resource departments within each of the constituent ARA member companies.

Perhaps these sorts of protocols, including confidentiality agreements may be no different to existing employees resigning from one company and moving to another.

Enticing Undergraduate Engineers to move into rail

There was also discussion about getting engineers into rail. The old cadetship scheme, whereby undergraduates were sponsored through some of their course, was seen as an attractive proposition. The ARA definitely believed some organizations would be resurrecting this scheme. A particular example was cited in Newcastle with United Group.

A number of rail specific units are being delivered through the CRC and associated universities. For example CQU for signalling diploma (with IRSE endorsement), and UOW for rolling stock. Could engineers going through general undergraduate disciplined courses be given the opportunity of taking electives in rail technical areas that could go as credit points to their undergraduate degree? For example Mechanical Engineering at University of Sydney allowing candidates to enrol in elective units in the

University of Wollongong Rolling Stock units and for this to go as credit points to their undergraduate course? Similarly for Electrical engineers picking up the signalling units at CQU as credit points.

Although universities like to protect their revenue stream, there continues to be a move for universities to accept credit points from other universities, particularly where the units are more specialised, and the demand across the nation is relatively weak. A number of universities have exchange arrangements with other national and international universities.

Perhaps the RTSA with Engineers Australia could help promote rail electives from selected universities into main stream undergraduate courses?

Providing an opportunity for undergraduate engineers going into year 3, to take up rail electives, may be one way to attract engineers into the rail industry.

Enticing school leavers to consider a career in rail

A theme that reoccurred at the symposium, and previously discussed with RailCorp was the need to attract young school leavers.

Engineers Australia conducts a number of initiatives including careers nights at school, and national Engineers Week. A number of organisations previously expressed interest in providing resource material, e.g. DVD and brochures that could be used with career counsellors.

Many of the issues identified above will be consolidated with the outcomes from Melbourne, and will be a focus of discussion by the RTSA executive as its next meeting.