Information Technology Professionals Association
– an APESMA special interest group

Addressing workforce challenges in the IT sector

An APESMA/ITPA position paper on IT skill shortages
July 2010
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What is APESMA?
The Association of Professional Engineers, Scientists and Managers, Australia (APESMA) is an organisation registered under the Fair Work Act 2009 representing over 25,000 Professional Engineers, Professional Scientists, Veterinarians, Professional Surveyors, Architects, Pharmacists, Information Technology Professionals, Managers and Transport Industry Professionals throughout Australia. APESMA is the only industrial association representing exclusively the industrial and professional interests of these groups.

What is the ITPA?
APESMA represents several thousand members working directly in Information Technology (IT) through its special interest group - the Information Technology Professionals Association (ITPA).

This document puts the APESMA/ITPA position on addressing IT skills shortages.

It is widely recognised that IT is a critical productivity and innovation enabler. While direct quantification is problematic, OECD, Productivity Commission and ABS research have estimated that around 50 per cent of business productivity can be attributed to the application of IT. The IT sector is a major employer. With more than 100,000 new IT jobs created in the past decade in Australia, Australia’s information and communications technology market is the fifth largest in the Asia Pacific region and the 14th largest in the world. While national employment levels have risen by around 1.6 per cent over the past five years, IT professionals have seen a growth of 47.6 per cent in the ten years to May 2008 making it one of the most critical sources of employment and a consistent driver of economic growth. Australia employs up to 155,000 IT professionals directly in the IT industry and around another 230,000 in other sectors of the economy. In 2009, ICT accounted for 9 per cent of professional employment and two per cent of all employment in Australia.

National statistics show a decline in university IT enrolments of over 18% in the period 2002 to 2005. 2008 DEEWR figures indicate that the rate of decline of eligible applicants may be slowing with a decline of 11.4% between 2006 and 2008.

In spite of declining skills shortages in 2009 in response to the global financial crisis, shortages in IT skills are expected to re-emerge and impact project delivery in the short-term. In the longer-term, the ACS/AIIA Report forecast a shortfall of 25,000 IT jobs by 2020.

The gap between demand for IT skills and the supply of skilled IT professionals compromises potential export and productivity gains, innovative capability and employment growth across Australian industry.

The following are some of the initiatives which have been advocated by the Gershon Review in response to current workforce challenges:

- use temporary migrant visas as a short-term solution;
- increase local graduate numbers;
- reduce the loss of ICT professionals to overseas employers;
- grow existing ICT professionals’ skills through training and development;
- employ and/or better retain older Australians; and
- attract more females to IT careers.

APESMA/ITPA response to skills shortages
Consistent with the measures recommended by the Gershon Review and the NICTIA/ACS 10 year vision for IT in Australia, the ITPA is playing a leading role in addressing IT workforce challenges by developing and supporting strategies which will enhance Australia’s IT skills base.

We recognise that solutions are required at the level of the profession and on an industry-by-industry basis as well as at the enterprise level. The ITPA is therefore involved in the following
areas to directly address IT workforce challenges as well as having input into broader policy areas which are critical but less directly affect career and employment-related areas.

**Addressing workforce challenges**

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<th>Strategies for attracting, developing and retaining skilled IT professionals</th>
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<td><strong>Provide appropriate salaries</strong></td>
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<td><strong>Provide positive working conditions</strong></td>
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<td><strong>Provide challenging and rewarding career paths</strong></td>
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<td><strong>Reduce loss of IT professionals overseas</strong></td>
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<td><strong>Identify and facilitate training and development opportunities in areas of shortage</strong></td>
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<td><strong>Identify and reduce attrition of experienced staff, in particular women and other groups under-represented in the IT workforce</strong></td>
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**Skilled migration**

| Use local skilled professionals in enabling infrastructure development projects | Advocate employment of local skilled professionals in the development of projects such as the National Broadband Network |
| Support skilled migration where existing staff are being appropriately trained | Ensure that employers are contributing to the development and training of the local workforce in the skills that are in short supply to reduce its reliance on overseas labour in the future |
| Maintain skilled migration with improved targeting | Support Federal Government’s IT Skilled Occupation List being more appropriately targeted and specific |

**Strategies for realising the potential contribution of the contingent IT workforce**

| Ensure the interests of non-standard workers in IT are protected | Provide an evidence-base to encourage Federal Government to rethink how agencies buy and use IT services and products - develop a business case for ensuring uniformity and integrity of contracts for provision of labour and fair terms for contractors |
| Ensure employers have in place strategies for maximising the contribution of their contingent as well as permanent workforce | Suggest initiatives which will ensure contractors and consultants are engaged and their interests are aligned with those of the engaging organisation or client |
Support technology innovation vision to realisation\(^\text{14}\) by enabling IT innovators to pursue business/collaborative opportunities (95% of Australian ICT sector is SME's\(^\text{15}\))

Those involved in technological innovation or research may lack entrepreneurial and business skills. Develop IT-specific support for consultants and contractors

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<th>Broader policy input</th>
<th>Support incentives for business to retain IT services on-shore</th>
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<td>Reduce/limit offshoring of IT service provision</td>
<td>Support initiatives to attract and retain girls in IT at secondary school level and women in IT courses at tertiary level</td>
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<td>Increase number of local graduates</td>
<td>Increase support for R&amp;D</td>
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<td>• provide improved financial/taxation incentives for private sector funded research and development</td>
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Support initiatives which:

- increase investment incentives
- enhance the ability of Australian firms to attract the necessary venture capital to create, exploit and globally license intellectual property.\(^\text{18}\)

The ITPA collaborates with governments, education providers and relevant industry groups to meet the current challenges facing the IT workforce in Australia.

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3. ITCRA newsletter, Issue 26
14. Cutler Report Executive Summary p.3
ACS Submission on National Innovation System Review, p.1
List derived from NICTIA media release, 21.1.2001
ACS, Energising Australian Innovation - a 10 year strategic vision for the Australian Information and Communications Technology sector, p.7
ACS, Energising Australian Innovation - a 10 year strategic vision for the Australian Information and Communications Technology sector