RECRUITMENT AND DEVELOPMENT AND RETENTION

(RADAR Report)

An APESMA report on strategies for addressing skills gaps and shortages at the enterprise level

RADAR Report - a report produced by the Information Technology Professionals Association - a special interest group of the Association of Professional Engineers, Scientists and Managers, Australia - on strategies for addressing skills issues at the enterprise level, March 2011

www.apesma.asn.au
Recruitment, Development and Retention strategies
- part of the problem and part of the solution
to ICT skills gaps and shortages

Contents
Foreword ............................................................... 3
Introduction ........................................................... 4
What is the current state of play? ......................... 5
What are the primary obstacles
    to retention in the workplace? ...................... 5
What solutions are being proposed? .................... 7
    A focus on addressing ICT
        skills issues at the enterprise
        level ......................................................... 7
    General work practices which will
        attract, develop and retain staff............. 8
    A commitment to skills development .......... 9
Addressing underrepresentation of
    key groups ................................................... 10
Maximising the contribution of
    flexible as well as permanent
    workforce ................................................... 12
Conclusion .......................................................... 13
About APESMA and the ITPA............................. 14
Report preparation and references .................... 14
Recruitment, development and retention strategies - part of the problem and part of the solution to skills issues

Foreword

With more than 100,000 new ICT jobs created in the past decade in Australia, Australia’s ICT 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, ICT 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 over 545,556 IT professionals, contributing 4.6 per cent of Australia’s GDP and 4.9 per cent of economic gross value add.

In the longer-term, the ACS forecasts suggest a shortfall of around 25,000 ICT jobs by 2020. The gap between demand for ICT skills and the supply of skilled ICT professionals compromises Australia’s export and productivity gains, innovative capability and employment growth across Australian industry. Industry commentators predict that skills shortages which were in part alleviated by the global financial crisis are set to re-emerge in the short-term.

In light of these trends, meeting the skills needs of the ICT sector over the next decade and the attraction, development and retention of ICT professionals have become critical issues.

In order to address the issues around ICT skills at the enterprise level, the Information Technology Professionals Association (a special interest group of the Association of Professional Engineers, Scientists and Managers, Australia) has produced this paper to provide a resource for effectively attracting, developing and retaining ICT Professionals. APESMA and the ACS believe that without a focus on recruitment, development and retention at the enterprise level, the other initiatives the industry is working towards at the systemic level are likely to be undermined.

APESMA and the ACS welcome this report to encourage focus and discussion on national ICT issues affecting Australia’s 21st century productivity. We consider it critical that we continue to play an active and considered role in identifying and responding to the trends and issues to address skills issues - the primary workforce challenge in the ICT sector - a challenge that can only be tackled with the shared cooperation and commitment of major stakeholders.

Chris Walton
APESMA CEO

Anthony Wong
ACS President
Introduction

OECD, Productivity Commission and ABS studies estimate that 50 per cent of all Australian business productivity can be attributed to the application of ICTs. The Australian ICT sector directly employs over 545,556 qualified IT Professionals\(^1\), contributing 4.6 per cent of Australia’s GDP and 4.9 per cent of economic gross value add.\(^2\)

It is widely acknowledged however that the sector is likely to be marked in the future - as it has been in the past - by significant systemic and cyclical skills issues. The ACS/AIIA 2008 skills forecast report\(^3\) forecast a shortfall of 25,000 ICT jobs by 2020. These forecast shortfalls sit alongside a decline in university ICT enrolments of over 18 per cent in the period 2002 to 2005\(^4\). 2008 DEEWR figures show a slowing but still significant rate of decline of 11.4 per cent between 2006 and 2008\(^5\).

The gap between demand for ICT skills and the supply of skilled ICT Professionals threatens Australia’s export and productivity gains, innovative capability and employment growth across the sector. ICT is central to Australia’s national economy, contributing expert skills to drive and support productivity growth and in turn creating the means for the social and economic well being of the community at large.

Critical questions currently face the sector … can we hope to sustain the profession when a chronic shortfall of ICT capacity continues to be a drag on project development and implementation including the National Broadband Network and other major public and private sector ICT infrastructure initiatives? How do we ensure that professional development practices continue to support the ICT profession? How do we ensure that students are supported to develop graduate work readiness? How do we attract the next generation of ICT professionals to the sector? Fundamentally, what kind of support, structures and practices at the enterprise level will be necessary in order to create a sustainable profession capable of realising optimal levels of innovation, productivity and competitiveness? These questions go to the heart of what it means to be an ICT professional in 2010 and beyond.
What is the current state of play?

It is widely acknowledged that the following factors reduce supply giving rise to skills gaps and shortages:

• a significant decrease in the number of students enrolling in ICT courses at the University and TAFE at a time when there is a growing demand nationally and international for ICT skills;
• graduates are often not considered ‘work ready’ by employers and so are not as employable as they should be;
• the ICT sector is often perceived as ‘churning and burning’ professionals and encouraging migration to other sectors;
• ICT skills learned have a limited lifespan due to the rapidly changing nature of technology – employees need to constantly update their skills to those the market is going to need;
• employers are not doing sufficient skills foresighting or developing rolling three to five year skills forecasts that will allow them to re-train or up-skill their workforce in areas of future skills needs; and
• there is research that shows that as in other sectors, ageism remains a serious issue in ICT and the retention of women in the ICT sector is poor.

Current approaches to addressing supply include:

• increasing the supply of skilled ICT migrants including permanent and targeted skilled migration and 457 visas
• increasing the supply of work-ready graduates including initiatives to improve attraction and retention to tertiary and VET ICT courses, raising awareness of ICT careers to increase enrolments, scholarships to study ICT and making graduates more work-ready, and
• sector-wide research and planning including a project on supply and demand modelling, industry mapping and skills foresighting.

APESMA and the ITPA endorse these approaches but hold the view that focusing on these strategies alone will undermine positive outcomes if not integrated with a strong and considered focus on the attraction, development and retention of quality ICT staff at the enterprise level.

Evidence of the primary obstacles to retention in the workplace

In early 2010, APESMA/ITPA conducted an online survey of just over 200 ICT professionals. The survey found that market rates, performance appraisal, overwork and professional development were the issues of greatest concern to ICT Professionals in their workplaces.

Not surprisingly pay-related issues rated highly with over 80 per cent of respondents indicating they were concerned with salaries keeping pace with the market. Over 50 per cent of respondents indicated that unpaid overtime, colleagues being paid more for doing same work, access to remuneration packaging, payment of on-call allowances and unfair targets for commission payments were all significant issues. Lack of recognition for extra work which contributed significantly to the bottom line was also raised as an issue.

Working hours were also found to be a significant concern with 70 per cent with an issue about overwork, 60.5 per cent of respondents highlighting long hours as an issue, working hours flexibility a concern for 56.5 per cent of respondents and unpaid overtime an issue for 56.1 per cent. The survey found strong concern around performance management and recognition issues with 71 per cent of respondents with concerns around performance appraisal, and the lack of recognition for the experience of older workers named as issues by respondents.
Survey respondents also highlighted the importance of career advancement issues with around 60 per cent identifying lack of career pathing and the opportunity to do project work to extend their existing skills as significant concerns. Professional development ranked highly with around 68 per cent identifying training and skills upgrade as key issues, and 32 per cent indicating adequate access to study leave was an issue for them.

The issues of concern to members were ranked - in order of importance - as follows:

1. Salaries keeping pace with market
2. Performance appraisal
3. Overworked
4. Training/PD
5. Lack of career path in ICT industry
6. Long working hours
7. Opportunity to do project work - work which extends existing skills
8. Working hours flexibility
9. Unpaid overtime
10. Colleagues being paid more for same work
11. Access to remuneration packaging
12. Security of employment
13. On-call - payment of allowance or time off in lieu
14. Standard of office accommodation
15. Phased retirement
16. Adequate access to study leave
17. Paid parental leave
18. Availability of part-time work
19. Access to job sharing, and
20. Payment for shift work.
Solutions - what's required?

A focus on addressing ICT skills issues at the enterprise level

When ICT Professionals are in the top ten occupations experiencing talent gaps and shortages in Australia, with almost 40 per cent intending changing jobs in the next 12 months, 10 per cent say their current pay is poor, 80 per cent of the workforce is male, more than 25 per cent are unhappy with their training - significantly more than other workers (19%), and significant numbers of women are indicating their intention to leave the ICT profession because of work/life balance issues - there's little doubt that there is likely to be a benefit in factoring some proposed options for addressing ICT people management issues into a balanced and considered response to skills issues at the enterprise level.

While APESMA and the ITPA endorse the ACS/NICTIA vision statement, the APESMA view is that putting in place the broader policy settings outlined in the 10-year vision and as articulated/proposed will be undermined if the right people management practices are not in place at the workplace level - the strategies outlined can't effectively and sustainably contribute to alleviating skills gaps and shortages without effective people management at the enterprise level.

Including effective strategies for the recruitment, development and retention of ICT professionals at the enterprise level as part of a broader workforce development agenda is a way to better recognise people management strategies as a significant part of the problem - and the solution - to skills issues; they should form a fundamental part of the innovation agenda and vision for the ICT sector over the next decade.

Solutions should address the issues and obstacles identified by ICT Professionals. Improved work practices should be adopted on the basis that they will contribute to the attraction and retention of key ICT staff.

The solutions include:

- Adopting general work practices which will attract, develop and retain quality ICT staff;
- A commitment to skills development due to rapidly evolving and updated hardware and software;
- Addressing the underrepresentation of key demographics in the ICT workforce; and
- Maximising the contribution of flexible as well as permanent workforce.
General work practices which will attract, develop and retain staff - a checklist for consideration

- Provide challenging work to facilitate job satisfaction
- Regularly review salaries in line with the relevant market rates surveys
- Provide genuine opportunities and support for career advancement
- Provide access to targeted non-financial benefits
- Provide access to professional development opportunities to support career advancement
- Train existing staff in areas of current and forecast shortage such as project management
- Support/sponsor post-graduate education particularly in areas of shortage
- Provide internal training to meet specific needs of employees
- Assist with fees and expenses associated with structured training with registered training organisations
- Provide paid time off from work for travel, study, exams, residential programs and other features of external education
- Recognise that ICT is a profession by paying subscriptions and membership fees for professional publications and associations
- Provide mentoring from within the organisation to guide and support ICT professionals’ development
- Cover travel and attendance costs at conferences, seminars, conventions, symposiums and other professional gatherings, where employees may be delegates or speakers/presenters or both;
- Maintain in-house professional libraries; and
- Provide job rotation and opportunities to transfer internally.
ICT and the importance of skills development

In the contemporary work environment, skilled ICT Professionals are critical to a robust, efficient and innovative organisation.

ICT is characterised by rapidly evolving and updated hardware and software so ongoing skills development is an area of key importance.

Skills development enables members to:
• remain up-to-date in their own and related fields;
• demonstrate the relevant competencies for requirements of current role;
• become equipped with the skills to provide for career advancement;
• remain challenged and satisfied with professional ICT work;
• be aware of current trends in best practices in particular and related industries; and
• where relevant, meet the minimum annual 30 hour required to maintain the Practicing Computer Professional status via the Australian Computer Society;

and at the broader level
• most effectively lead and/or contribute to the achievement of organisational goals;
• support innovation using the latest versions of enabling ICT applications; and
• become proficient in areas of current or forecast skills shortage.
Addressing underrepresentation of key demographics - strategies for attracting, developing and retaining groups currently underrepresented in the ICT workforce

Clearly there are systemic issues which need to be addressed as well as implementing work practices at the enterprise level to address the underrepresentation of key groups in the ICT workforce. APESMA/ITPA’s view is that without an enterprise focus, the initiatives being taken to address these issues at the systemic level will be largely undermined.

Implementing inclusive gender and diversity practices in the ICT workforce

Women in ICT
While APESMA/ITPA has not undertaken specific research in the area of the retention of ICT graduates, mature-aged ICT professionals or indigenous Australians, we have undertaken an investigation into the retention of women in IT.15 The Insights into IT Professionals (Australia) Manpower Market Insights Paper (April 2009) found that 80 per cent of ICT Professionals are male - a sobering statistic when efforts have been made to broaden the pool from which ICT talent is drawn for a significant period of time.

The 2010 APESMA/ITPA Survey of Perceptions of Work/Life Balance for Women ICT Professionals found that work/life balance was a complex and challenging issue for professional women in Information and Communications Technology.

Respondents generally experienced significant difficulties around balancing their work and life/family responsibilities with 53 per cent of respondents indicating that they did not feel they currently had work/life balance.

In looking at experiences of recognition, advancement and career progression, the survey found that 46 per cent of women ICT Professionals believed that balancing work/life responsibilities had significantly or moderately impeded advancement of their career, while 19 per cent reported that their employer was rarely or never proactive in ensuring equal access to career progression.

In evaluating the extent to which work/life balance was impeded by work culture and practices, 27 per cent of women ICT professionals indicated that their organisation did not genuinely encourage a balance between work and life/family. 57 per cent said that showing dedication in their workplace equalled long hours, 39 per cent indicated that their workload was unreasonable, and 49 per cent said that managers and senior staff did not model good work/life balance. 47 per cent reported that unnecessary inflexibility at work limited their capacity to balance work and life/family responsibilities, and 49 per cent said that while their employer had good work/life policies, the culture did not support their implementation and practice.

Concern about salary parity was raised as an issue with 31 per cent of respondents indicating that they did not believe they were fairly remunerated relative to their male Professional counterparts.

Retention of women ICT professional staff was highlighted as a significant issue. 21 per cent of respondents indicated they were dissatisfied or very dissatisfied with their current role. A significant 56 per cent cited better work/life balance as the most important factor influencing their intention to leave their current employer. A massive 75 per cent indicated work/life balance was the primary reason they were considering leaving the ICT profession compared to 44 per cent for women professionals more generally.
Suggested strategies for implementing gender and diversity in ICT workforce

While APESMA is encouraged by recent legislation requiring the monitoring and reporting of the proportion of women on Boards and in senior management roles, their employment throughout organisations, as well as remuneration by gender, organisations can do more to tackle this issue proactively:

- Provide employment conditions which provide reasonably for work/life balance, for example, flexibility provisions, part-time work, parental leave, work from home options, paid maternity leave, job sharing and induction after career break
- Ensure engagement as part-time or job sharer does not differentially impact career prospects
- Consider professionals with diverse backgrounds for promotion and Executive and Board positions
- Where a restructuring process occurs, ensure that it does not impact differentially on particular groups
- Provide relevant support for culturally diverse needs

Suggested strategies for attracting talented students to ICT graduate positions

- Employer to share cost of HECS to attract and retain quality graduates
- Provide for further professional development which combines training and employment including short to medium-term international project engagements where possible
- Identify leadership potential at early career stage and implement training and development regimes to nurture and promote leadership within the company, and
- Provide role models and in-house skills development via mentoring including reverse mentoring to leverage young professionals' ICT skills.

Suggested strategies for retaining mature-aged workers

- Provide for phased retirement to retain the skills of mature-aged workers
- Provide flexible work arrangements
- Utilise skills and experience of mature-aged workers in mentoring younger professionals
Maximising the contribution of flexible as well as permanent workforce

With gaps and shortages in a range of ICT skills expected to re-emerge and impact project delivery in the short-term, ICT contracting professionals will play a significant role in the dispersal of specialist technical expertise across the private and public sectors over the next decade. On the proviso that it would not be to the detriment of ICT Professionals engaged as permanent staff, strategies for attracting and retaining the best contracting professionals alongside those aimed at attracting quality permanent staff should be an important part of an organisation’s toolbox of recruitment and people management strategies. APESMA/ITPA therefore proposes that alongside a workforce plan which includes strategies for the recruitment, retention and engagement of the best professionals to permanent positions, workforce plans should also identify strategic measures to address capacity and capability gaps beyond those which can be addressed by the permanent workforce. Where this group is included in an organisation’s people management strategy, they have the capacity to contribute significantly to the achievement of organisational goals and projects. Where they are not included, the full potential of this valuable resource may remain underutilised.

Where appropriate, organisations should:

- Eliminate unfair contract for service terms which adversely impact the flexible workforce - ensure contracting and consulting professionals are engaged under fair terms including the elimination of unfair contract provisions involving termination of putative fixed term contracts at the discretion or convenience of the engaging client, and ensure there is an opportunity to negotiate mutually agreed terms;

- Utilise induction to embed more inclusive practices and behaviour toward contractors, and engage them more actively in organisational and project goals; and

- In view of the differential access of non-standard workers to learning and development opportunities, show leadership by using learning and development as incentives to attract quality contracting and consulting professionals.

APESMA/ITPA recognises the increase in the number of professionals operating through non-standard work arrangements, and the potential of this group to help achieve organisational objectives, and contribute to organisational productivity and innovation.

APESMA/ITPA supports:

- the inclusion of the flexible workforce in an organisation’s workforce planning framework to ensure a strategic approach to meeting capacity and capability gaps (though their engagement should not be to the detriment of the permanent workforce);

- the inclusion of practices which will ensure the dispersal of ICT skills across industry in the face of re-emerging skill gaps and shortages;

- the inclusion of contracting and consulting professionals in an induction process at the beginning of their engagement to ensure their direct engagement in organisational and project goals, and to encourage a more inclusive culture; and

- providing training and professional development to contracting professionals as an attraction and retention tool, and to address contracting professionals differential access to professional development.
Conclusion

APESMA/ITPA recognises that strategically the ICT function has the potential to help deliver organisational objectives, underpin operational capability, play a fundamental role in creating value, constitute a resource, catalyst or enabler for innovation, and support change management.

We believe that to contribute to these critical objectives, a best practice approach to the recruitment and development and retention of ICT professionals is required. The strategies set out in this paper offer some practical options for organisations to consider.

APESMA/ITPA’s approach is based on recognition:

- that key stakeholders, including ICT professionals themselves, share a commitment to the maintenance and continuing development of a world class ICT sector in Australia;
- of the need to attract, develop and retain the next generation of ICT professionals;
- of the need to attract, develop and retain ICT professionals who are currently underrepresented in the professional ICT workforce;
- of the need for fair remuneration and conditions of employment in the sector, and that compliance with relevant Awards and minimum standards agreed is a given;
- of the professional development needs of ICT professionals to enhance organisation’s ICT and innovative capability;
- that the needs of the ICT sector will be best served by ICT employers developing constructive and positive relationships with key stakeholders and their ICT staff; and
- of the workplace issues fundamental to ICT professionals’ commitment to their employing organisation and the profession.

The suggested strategies set out in this paper are just some of the ways to implement sound people management strategies at the enterprise level to assist with recruitment, development and retention issues. APESMA holds the view that work practices are not only often a significant part of the problem - but offer a range of potential solutions - likely to positively impact skills gaps and shortages by helping retain quality ICT professionals in the profession. We believe that an industry-wide commitment to addressing these issues at the enterprise level should form a fundamental part of the innovation agenda and vision for the ICT sector over the next decade.
About APESMA and the ITPA

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.

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

---

### APESMA contact details

**HEAD OFFICE**

- **Street address**: 163 Eastern Rd, South Melbourne Victoria 3205 Australia
- **Mailing address**: GPO Box 1272, Melbourne Victoria 8060 Australia
- **Telephone**: +1300 APESMA (1300 273 762)
- **Facsimile**: +61 3 9695 8846
- **Email**: itpa@apesma.asn.au

**Websites - APESMA**

- [www.apesma.asn.au](http://www.apesma.asn.au)

**ITPA**


---

### Report preparation

APESMA/ITPA thanks Dr. Kim Rickard for preparation of this report (email: krickard@apesma.asn.au).

### Acknowledgements

APESMA/ITPA thanks Mr. Adam Redman from the Australian Computer Society for his assistance with the preparation of this report.

---

8. Insights into IT Professionals (Australia), Manpower Market Insights Paper, April 2009, p.2
10. Insights into IT Professionals (Australia), Manpower Market Insights Paper, April 2009, p.6
11. Insights into IT Professionals Australia, Manpower Market Insights Paper, April 2009, p.3
12. Insights into IT Professionals (Australia), Manpower Market Insights Paper, April 2009, p.7