



## **SUBMISSION TO**

Senate Education Employment and Workplace Relations Committee  
on shortages of engineering and related employment skills

### **Introduction**

Local government is an essential component of the Australian governance, economic and social development. Local government is the major economic driver in many regional communities, providing the majority of employment opportunities, stimulating business and delivering social, recreational and community services. Without effective local government local economies and communities would struggle to operate effectively especially in regional Australia.

Local government is a significant employer in Australia employing approximately 200,000 people. In addition local government is a major contributor to local, state and national economies with an estimated expenditure of \$24 billion per annum.

## **Background**

The 2007 National Skills Shortage Strategy for Local Government said that Australia is confronted with the global phenomena of technological and demographic changes that are slowing growth of workforce and dramatically changing the way we work. These national and global trends are contributing to the skills shortages threatening Australian local government.

Local government is an employment and economic driver that delivers key social, environmental and economic services to communities across Australia. To be effective local government requires a skilled workforce but it competes with other tiers of government and the private sector to attract and retain skilled staff.

Local government is responsible for the planning and delivery and maintenance of key and essential infrastructure and services to communities throughout Australia. Increasingly it is becoming the principal provider of these services to local communities on behalf of state, territory and commonwealth governments.

### **The role of engineering in local government**

Local government engineers administer and supervise the design, construction and maintenance of roads and bridges, pedestrian and cycle facilities, regional airports, buildings, storm water drainage, recreational facilities, parks and waste disposal.

This is no small task. In 2009-2010 local government owned and managed \$187 billion of local roads and other fixed assets. It also managed \$25.9 billion of buildings. In 2009 local government spent about \$4.1 billion on constructing, maintaining and renewing its local road network.

This is not sufficient to keep this network in a sound condition. There is currently an underspend of some \$860 million per annum, between what councils spent and what they need to spend to keep their local roads in a sound condition.

As part of the reforms initiated by the former Local Government and Planning Ministers Council and funded under the Australian Local Government Reform Fund, local government is making a major effort to improve its asset management, so that it manages its assets on an efficient planned life cycle basis rather than on a reactive maintenance basis.

If the reforms are implemented successfully they will help to narrow the \$860 million funding gap. The reforms are driving demand for a new type of civil engineer - the asset manager who plans and funds the local government assets on a lifecycle basis.

### **The skills shortage problem**

Skills shortage is a major issue confronting the Australian workforce as our workforce is not growing fast enough to keep up with the demand for labour and the particular skills required by many industries. The aging of the workforce is having significant impact on the availability of skills. At the same time the fall in the number of young people of working age will lead to a drastic decline in the growth of the Australian workforce.

As local government's workforce is substantially made up of workers over 45 years of age, it faces a significant challenge in filling the employment gaps, with older employees retiring and leaving the workforce. Skill shortages undermine the capacity of local government to provide essential and desirable services negatively impacting on local economic development and local communities. At the same time the demand for local government services is growing due to a number of factors including:

- growth in the national economy;
- transfer of functions and responsibilities to local government from state, territory and commonwealth governments;
- an increase in the size of population of 50 years of age, which with its associated increase in demand for recreational and community services as people retire and pursue leisure activities;
- accelerated demand for services and infrastructure associated with population growth in regional and rural municipalities chosen for their 'sea change' and tree change lifestyles; and
- growth in the population over 65 years of age who require aged care and support services.

The increase in demand for local government services is borne out in expected growth in employment in local government. Local government employment grew by some 34% over the last decade. However the ability to meet this growth is

dependent on the capacity of local government to find appropriately skilled staff at the same time that it is confronted with looming skill shortages.

Extensive work is being undertaken on skills shortage and workforce development by local government associations and peak professional bodies across Australia. The work encompasses research into skills shortages, perceptions of local government as an employer, development of initiatives to promote and develop local government as an employer of choice, and investment in training programs in collaboration with educational institutions.

### **Competition for talent**

Local government competes for civil engineers with the building and construction and resources industries and with state and federal governments. While local government offers a stable employment base for civil engineers, the construction and resource sector is more volatile but offers better remunerations particularly for more senior engineers. During the GFC the shortage of civil engineers experienced by local government eased but the rejuvenation of the resources sector has seen the shortage reappear.

### **International recruitment**

There has been a surge of civil engineers recruited from overseas including by councils. In 2011, 30% of Queensland councils recruited and employed overseas workers pursuant to 457 visas in occupations including engineering.

LGMA National recently ran a campaign across Australian local government encouraging councils to express their interest in participating in an international recruitment campaign. Some 50 councils who were desperately looking to fill long standing vacancies expressed interest and nominated engineering as one of the highest skills in demand.

## **Conclusion**

In order to resolve some of the skills shortage challenges around engineering, it's important for investment to be made in engineering skills and new ways of working for engineers. This investment needs to be made by public and private sector investors undertaking infrastructure projects.

It's been said that engineers spend less than half of their time using their engineering skills. Most of their time is taken up by:

- Project management;
- Budgeting and financial reporting;
- Administrations and governance;
- Public consultation; and
- Routine technical work.

Investment needs to be made to investigate and develop new ways of working for engineers. To explore how engineers could be part of a team that has the support of appropriate technical, administrative and financial skills that would enable engineers to be more effective by working on engineering matters and using their engineering skills. We must look at ways that will enable engineers to be more effective in utilising their engineering skills at the same time as we grow the number of engineers.

It should be mandated for private and public sector investors undertaking infrastructure projects to invest in growing engineering skills. If we don't tackle the problem with direct and immediate investment the lack of engineering skills will become a handbrake on our economy!

Recent work by the Australian National Engineering Taskforce revealed that the cost of infrastructure projects has risen by as much as 20% due to the skills shortages in the engineering field. By enabling engineers to do more we may be able to become more cost effective and efficient with the development and implementation of major public and private infrastructure projects.

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