



The Australian Industry Group
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The Hon Anthony Roberts MP
Minister for Planning and Environment
NSW Government

[Submission via DPE website](#)

Ai Group response to the Draft Greater Newcastle Metropolitan Plan 2036

Thank you for the opportunity to comment on and make further input to this important document. We see the purpose of the GHMP is to guide the development of Newcastle and its surrounds as a global city by having the necessary physical, digital and social infrastructure to function effectively.

The GNMP comes at an important turning point in the development of the region which is positioned to benefit from developments on several fronts which will change the face of the city and the region in very positive and constructive ways. The purpose of our submission is to outline the role that the engineering and technology sector does and can contribute to that new place global city aspiration.

Collaboration

In the preparation of this response, Ai Group has consulted the following organisations:

- The Cities of Lake Macquarie, Newcastle, Port Stephens and Maitland;
- TAFE NSW, Northern Region;
- The University of Newcastle – Pro-Vice Chancellor Faculty of Engineering and Built Environment;
- Engineers Australia – Newcastle Division; and
- RDA Hunter.

The Value of Engineering and Technology in the Hunter Economy

Newcastle and surrounding districts have had 150 years of manufacturing and engineering history. Manufacturing employs in excess of 20,000 people - mostly in skilled occupations. It is the 6th largest employer and employment is growing rapidly following the recovery in the mining industry and for other reasons. At 6.6% of GDP, manufacturing in the Hunter occupies a comparable proportional share with the economies of the UK and USA. The Value Add for Hunter manufacturing is \$2.8 billion .

<http://www.economyprofile.com.au/newcastle/industries/value-added>

The value of engineering and technology industry output is about to significantly increased with greater access to Government Procurement under the Defence White Paper. With a building phase budget of \$195 billion over 10 years and a sustainment bill estimate3d to be

approximately \$750 billion over the succeeding 25 years, it will be the largest defence investment since World War II. The Federal Government has adopted a policy of maximising Australian content by requiring Prime Contractors to outreach to SME companies. Engineering and Technology companies in the Hunter stand to benefit due to the proximity of Primes in aerospace, ship building and sub-primes in land defence.

Construction

The Construction Industry is another major contributor to employment and regional growth. A major proportion of regional manufactured product supplies the construction industry in major construction and infrastructure – anywhere where steel frames or reinforced concrete are used together with electrical, plumbing, air conditioning and building control systems. The engineering and technology industry is important to this supply chain.

The region has considerable project management capabilities in major construction companies which are based in the region. Australia is regarded as a world leader in engineering project management. Combined, manufacturing and construction are part of a broader spectrum encompassing engineering and technology. When combined, their share is closer to 15.3% of the Value Add is \$6.9 billion. Employment is 51,500 or 16 % of the workforce. The combined sector represents the largest employer in the region and the highest proportion of Value Add for the region. It highlights the importance of STEM skilled employment, even in the current economy.

Innovation

Manufacturing is neither a fashionable word nor a fashionable industry. Images of our regional manufacturing industry as dirty, smokestack, low skill, low tech, dangerous and terminal are common in the community and among decision makers. Yes, we do make steel, chemicals, and other semi processed raw materials however the region has a large cohort of SME companies who manufacture high end products into a great variety of markets. They are often referred to as Advanced Manufacturers. Because these companies manufacture for larger companies that have the brand recognition, the contributions of contract manufacturers are not readily visible to the community. It is however in these smaller companies where much of the industry's innovation is occurring. Many of these companies also supply into global supply chains. A growing number have bases in the USA.

Ai Group supports the Innovation Hubs of the University of Newcastle and facilitates collaboration between established manufacturers, UoN, TAFE, a STEM high school and start-up technology companies. Regular meetings are arranged which have helped us to identify the extent and nature of our Technology Community.

Social Infrastructure

The social infrastructure which supports our engineering and technology industries is no less impressive on the world stage as regional assets. The ME Program of RDA Hunter has made significant strides in ensuring that deficiencies in the STEM outcome in our high schools have been addressed over the last eight years. The resulting regional uptake in the 6 STEM subjects in the HSC is very impressive, especially in the face of national or declining national figures.

The ME Program has made it possible to identify our STEM talent pipeline for the next decade - a fantastic regional asset which has global value. (For more commentary see Strategy 1.5 below and the attached spreadsheet on the ME Program). Few regions in the world are so well equipped. Research indicates that 75% of the fastest growing occupations will require STEM abilities and knowledge.

TAFE NSW trains our future technicians and tradespersons who build and maintain structures, machinery, equipment, vehicles and the control systems which operate them. In 2017 the NSW Government recognised TAFE NSW state-wide Skills Point for Innovative Manufacturing, Robotics and Science at TAFE NSW Newcastle. This is in recognition of the deep knowledge and skills which exist in the engineering and technology sector of our region.

The University of Newcastle has a world class Engineering Faculty with many national and international links in engineering research. It has a world ranking of 10 in Automation and Control from ARWU. It is in company with Stanford University as #9 and Caltech as #11.

Overall our educational assets are very impressive in a world which is in short supply of STEM capabilities.

The Future for Engineering and Technology in the Hunter

The regional engineering and technology industry is looking to a very bright future. In the period of the mining downturn it has:

- Diversified into other markets to increase resilience against a future mining downturn;
- Is actively exploring the opportunities to supply to Primes as part of the \$195 billion of infrastructure spending available over 10 years under the Federal Government Defence White Paper;
- Identified the value of partnering with researchers to develop new products with higher levels of technology;
- Increased the value of products and services exported overseas;
- Invested in the development of future talent for its workforce; and
- Committed to developing a new and enduring future for the industry.

Recommendations

Ai Group has provided comment on the draft GNMP referenced to various pages and paragraphs on the attached schedule for your consideration. The Schedule is supported by a table of achievements of the ME Program in creating the region's strategic advantage in its future technicians and engineers – our STEM talent pipeline.

The Ai Group, on behalf of its Hunter Region members requests that the Department of Environment and Planning in the final Greater Newcastle Metropolitan Plan 2036:

1. acknowledge the role of engineering and technology sector in the current economy of the Hunter Region and in its future economy;
2. include strategies identified in our submission to support the growth of the sector as part of a diversified global city strategy;

3. Develop guidelines for local Councils for the design and development of future technology parks to promote collaboration, innovation and to improve the quality of life for employees;
4. Include in the GNMP the roles our STEM high schools, TAFE and UoN Faculty of Engineering play in the creation of the vital skills infrastructure which is the lifeblood of our industry; and
5. In conclusion, recognise the Hunter as an “International Centre of Engineering Excellence.”

Please do not hesitate to contact me for further information on mob 0418 640 447 or email Adrian.price@aigroup.com.au .

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Adrian Price', with a stylized flourish at the end.

Adrian Price

Regional Manager

Hunter, Central Coast and Northern NSW

Attachments.... 2