



SMART SUBJECTS KEY FOR GLOBAL SUCCESS

Workers need the skills to meet industry needs

writes RDA Hunter CEO Todd Williams

For Australia to compete internationally, we need to have our brightest and best in industry on the world stage. Unfortunately in Australia not enough of our students are studying core subjects - Science, Technology, Engineering and Mathematics (collectively referred to as STEM) – ‘smart’ subjects that lead to careers in design, engineering and advanced technology industries.

The impacts of declining student numbers in STEM subjects on Australia’s capacity to respond to global challenges has been recognised by the Australian Industry Group, the Chief Scientist for Australia, the Australian Mathematical Sciences Institute and other peak body organisations.

Traditionally, the Hunter has ranked below the Australian and NSW averages for students doing STEM subjects. We need more students to be STEM literate because as graduates they will be equipped to perform in the competitive workforce of the future.

Recently Regional Development Australia (RDA) Hunter hosted the highly regarded corporate adviser Bernard Salt to talk about scenarios for the Hunter’s future. He presented numerous - some new, others we know about, and some already underway in the Hunter.

Unsurprisingly, we were told that if our region’s future is to be one of economic prosperity, then the Hunter must retain innovative people - not lose them to our capital cities and international centres.

The Hunter’s future jobs and workforce will develop either by attracting talent from outside the region or by growing our own. Mr Salt pointed out that the Hunter has to be innovative to retain our innovators and that we already have most, if not all, the necessary ingredients to build a culture of entrepreneurialism: world class education with our University and TAFE, our own Airport and deep sea port, proximity to Sydney and transport connectivity.

Regional Development Australia (RDA) Hunter is connecting with high schools and industry-partners to build an Australian talent pool that is flexible, connected, innovative and equipped with skills that meet industry needs. Our unique pathways project, the *ME Program*, is making a positive difference.

Now in its fourth year, RDA Hunter’s *ME Program* is an Australian first. This program develops our own local talent by linking schools to industry through innovative partnerships and by utilising Hunter TAFE and the University of Newcastle.

It is all about creating a path for students to experience and explore careers within smart industries such as Advanced Manufacturing, Automotive, Construction, Financial Services, Geospatial

Technology, Information Technology, Big Data, Transportation, Aerospace, Biotechnology, Energy, Healthcare, and even Hospitality and Retail.

Schools provide core subjects like Science, Technology, Engineering and Mathematics to provide the foundations for pursuing a career in manufacturing while industry provides vital on-the-job experience and additional education, delivered by a range of Australia's leading manufacturers.

Through this program, school students are equipped with technical skills and knowledge to help them make informed education and career choices in close consultation with education and industry stakeholders.

One of the *ME Program's* successes is that it has encouraged teenagers to want to pursue manufacturing jobs - to the point where they demand school based courses that enable them access to these jobs. For example: a school in the *ME Program* is, for the first time, offering a three unit extension maths class.

On the other side of the partnership, the *ME Program* offers employers the chance to help develop teenagers, while they are still at school, into first class applicants for their apprenticeships and other careers. As evidence: a ME industry partner, a multi-national, is receiving a 150% increase in applications for apprenticeships with a 50% reduction in recruitment costs because of the quality of applicants.

Here is a snapshot of the ME Program outcomes that we have achieved since 2010:

1. Secondary school participation in the ME Program has increased from 4 schools to 26 schools (which is a majority of secondary schools in the Hunter).
2. So far, over 7,500 students have been involved in the program.
3. Industry participation has increased from 4 to 32 partners. These companies range from small to medium sized technology companies to multi-nationals.
4. The uptake by year 11 students in Physics has grown to now put the Hunter on par with the NSW average!
5. Engineering studies in year 11 has continued to increase to a level that is now double the NSW average.
6. We have found that if you attend a school which is in the *ME Program* then you are twice as likely to undertake engineering studies. This, of course, significantly increases the chances of these students going onto higher education in this field.