Local workforce employer – education programs to develop skills for STEM jobs

Regional Development

Australia



Trevor John CEO, RDA Hunter





Local Talent Development

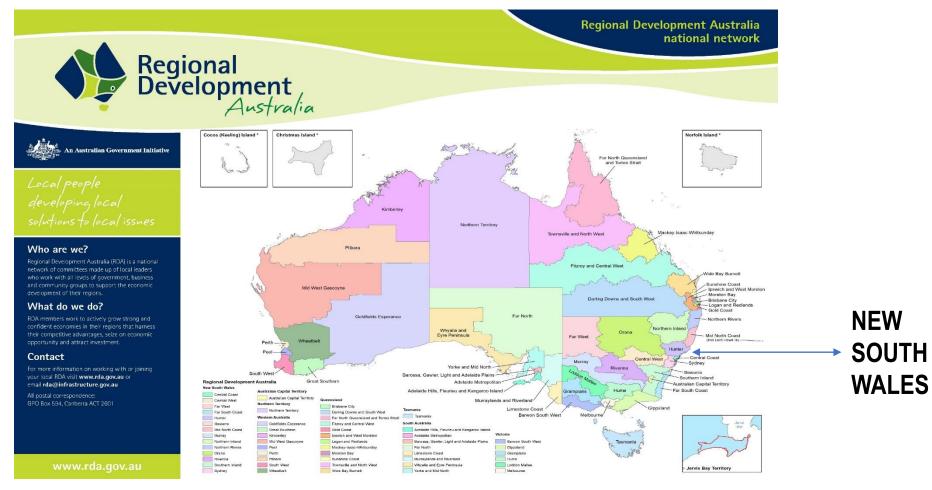
- > INDUSTRY WORKFORCE PROGRAMS
- > RDA HUNTER'S SKILLED WORKFORCE INITIATIVE
- > STEMship
- > LESSONS







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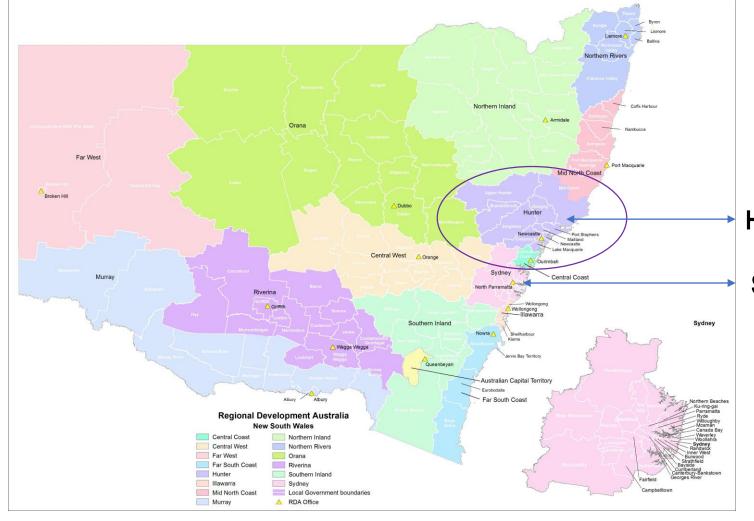








RDA Hunter



HUNTER REGION
SYDNEY







RDA Hunter











RDA Hunter









Hunter – heavy industry

History of coal, steel making and ship building. Working Port is also a recreational space for Newcastle





Newcastle inner city renewal – Waterfront Honeysuckle Precinct

(sources Newcastle Herald and HCCDC, 2019)





Skilled Workforce Initiative Components

Project	Funding Partner	Age demographic
miniMg	The City of Newcastle	Primary: Ages 9 – 11
Regional Development Australia SISP SUSSIBLE Education STEM INDUSTRY SCHOOL PARTNERSHIPS	NSW GOVERNMENT	Transition to Secondary: Ages 11 – 13
PROGRAM	Australian Government Department of Defence	Secondary: Ages 13 - 16
Generation STEM	CSIRO	Secondary: Ages 13 – 17
STEMship	NSW GOVERNMENT	Vocational Education & Training (VET)
STEMstart	LOCKHEED MARTIN Australia	Vocational Education & Training (VET)
Altitude Accord	THE UNIVERSITY OF NEWCASTLE AUSTRALIA	University Undergraduate







Local Talent Development







STEMship

STEMship Graduates contribute to the economic development of the Hunter

- A talent pool of work ready employees skilled in the Science, Technology, Engineering and Mathematics (STEM) vocations;
- Employees more adaptable to the Jobs of the Tomorrow:

Advanced Manufacturing,

Defence & Defence Industry

Electronics

Information Technology & Cybersecurity

Engineering and

Design.















Stage 1 of STEMship

Fee Free (government sponsored)

Stage I includes:

- ☐ 15 weeks completing a combination of training and work placement (25hrs/ week).
- ☐ 14 units of Competency with Hunter TAFE
- ☐ An opportunity to work in some of the Hunter Region's most innovative organisations
- ☐ Students will require an exemption from school to enter the program











Work Placement

Stage I (25 hours per week)

- ☐ Combination of TAFE training and short work placement
- ☐ Opportunity to work in some of the Hunter Region's most innovative organisations
- Exposure to some of the industries which are utilising new technologies and practices Advanced Manufacturing, Aerospace, Engineering, Electronics, Design & Information Technology

Stage II

- ☐ Incentivised work placement for higher level qualifications
- ☐ Apprenticeship or traineeship with a Hunter organisation















TAFE Components

Mathematical problem solving strategies

Computer technology

Produce drawings to communicate ideas

Produce computer aided drawings

Make scale models

Microprocessor equipped devices

Solve problems in DC circuits

Competitive systems and practices

Organise and communicate information

Effectively work with others

WHS regulations, codes and practices in the workplace

Work safely

Career planning







STEMship Outcomes

1. Employment

Casual, part time or full time – Apprenticeship and traineeship pathways preferably in Jobs of Tomorrow vocations

2. Study

- □ Accessing Jobs for Tomorrow via entry into Higher Qualifications supporting STEM (Internships)
- ☐ Entrance into a University degree program (full or part time studies)

3. Employment and Study

A combination of both (casual employment to offset further training)















STEMship: Eligible? How to Apply

Eligibility

- □ Parent or guardian approval;
- School Principal letter of support;
- ☐ Exemption from enrolment at school;
- ☐ Ability to travel to Tighes Hill TAFE and work placement

Application

- Complete the application form;
- ☐ Attend an interview;
- Tell us why you would like to enrol in the program.





STEMship

STEM Transition to Vocational Education and Training (VET) Pathways

ME Program graduates

Referral from Schools

Application interview

STEM (skills set) Pre vocational program

– Delivered by Hunter TAFE

Industry partnership to include work placement and Industry experience

Traineeship or apprenticeship (Jobs of Tomorrow vocation)

Internship - Jobs of Tomorrow Program in vocational training (STEM)

Enrolment into Degree Program

Comprehensive Applied Learning

STEM skilled workforce able to enter the Jobs of Tomorrow











Lessons

- Industry first Meet Industry Needs: skills gaps, relevant curriculum content
- Regional program local understanding and cooperation: known contracts and opportunities
- Promote STEM education and skilling to students and the broader community
- STEM plus enterprise skills: team, creative problem solving, design, awareness
- Agility necessary challenges for institutions to co-design effectively
- Specific content to immediate requirements not necessarily credential or qualification focused
- Micro-credentials stackable steps towards degrees and diplomas
- ➤ Benefitted from continuous funding builds trust







Participation





















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