

Skills and Capabilities for Australian Enterprise Innovation

Securing Australia's Future – Project 10

Professor Stuart Cunningham
Chair, Expert Working Group

What the report does

- **fills a gap in Australia's understanding of innovation**
- **how diverse skills and capabilities—especially technical and non-technical skills—work together in enterprises to foster innovation and meet innovation challenges**
- **major STEM focus and on the supply side of skills**
- **the demand side – how do some of Australia's most innovative companies mix technical and non-technical skills to meet innovation challenges and grow in the face of volatility of markets, digital disruption, increasing global supply and value chains, service sector models for the economy**

What we did

Comprehensive Literature Reviews

- Australian and international academic and grey/policy studies

Commissioned Research

- interviews with over 30 experts on innovation practice and policy

19 Interviews with Senior Executives

- senior executives in highly innovative Australian organisations (recipients of innovation awards, peer affirmation and referral)

Statistical Investigation of Data

- Expanded Analytical Business Longitudinal Database, augmented by analyses of Australian Bureau of Statistics' Business Characteristics Survey data

Organisation	Industry sector	Staff (approx.)
Anglicare Victoria	Consumer Services/NFP	1,300
Animal Logic	Media	500
Cochlear	Manufacturing (medical)	1,400
Cotton Australia	Agriculture/	20
CSIRO	Research Institute	5,000
Envato	Technology	200
Fibrotech/OccuRX	Medical Technologies	5
George Institute of Global Health	Medical Research	550
Hatchtech	Medical Technologies	5
ING Direct	Financial Services	1,000
Keech	Manufacturing	150
Laing O'Rourke	Engineering and Construction	3,000
NOJA Power	Manufacturing	150
Pernod Ricard Winemakers	Food & Beverages	2,000
Queensland Urban Utilities	Consumer/Business Services	1,300
SEEK	Technology	6,000
SocietyOne	Financial Services	70
Southern Innovation	Advanced Manufacturing	10
Woodside	Resources	3,500

What are the major takeaways from this work?

- **Innovation requires skills mixing in individuals**
- **Innovation requires skills mixing across teams and across organisations**
- **Skills mixes change over time**

What are the major takeaways from this work?

- **Australia is a relatively inefficient innovator**
- **The Global Innovation Index indicates that Australia generally has the relevant skills but lacks the capacity to manage and use these skills and other inputs for innovation**
- **STEM inputs are necessary but not sufficient to turn technical skills and knowledge into innovation outcomes. Australian decision makers must acknowledge this and build it into their priorities, processes and messaging**
- **Improving innovation capability is the responsibility of enterprise, government and education working together**

Are you skills-ready for innovation?

A checklist for your business

Skills mixing in individuals

Do you promote the idea in your mission, values or strategy that having staff with diverse skills is a source of sustained competitive advantage to the organisation?

Do you offer and encourage employees to take up training opportunities and job rotation programs for employees for both deepening and broadening skills?

Do you monitor the skills available in your organisation and provide individual development plans for employees to foster sustainable innovation and retention?

Do you utilise opportunities for 'work integrated learning (WIL)', internships or graduate programs to develop hands-on work skills and exposure to potential candidates?

Do you offer management and leadership development opportunities, for instance through mentorship programs or secondments with collaborator organisations (clients, suppliers, collaborators)?

Do you appoint job applicants based not only on their technical expertise but also their broader experience, including evidence from their social, community and work lives that demonstrate a degree of cultural fit with the company's value system?

Do you seek new appointments with strong customer-focus skill sets around building effective customer relationships, relationship marketing, co-creation of products, and commercialisation?

Skills mixing on the team and organisational level

Does HR in your organisation have the expertise and authority to influence building the diverse skills base required for innovation?

Does the organisation have a strategically-minded HR unit that actively identifies and adapts the skill sets of employees in response to changes in customer needs?

Do you consider candidates from outside your core industry to internalise new knowledge?

Do you consider beyond-technical skills, such as attitude, cleverness, people and collaboration skills, adaptability, problem solving, leadership and cultural fit, in your recruitment decisions?

Do you offer favourable employment conditions, such as flexible work arrangements, participation in decision making, skills integration opportunities and a stimulating environment?

Do you actively foster diversity in its many forms, such as skills, cultural, knowledge-base, gender etc, in your workforce and particularly in project teams?

Do you have an innovation culture that encourages employees to share, discuss and spend time on developing their ideas for improving the business?

Do you encourage employees to develop business and market understanding and to understand problems from the customers' perspective, for instance through direct dialogue?

Do you disseminate new information on new technical developments or market changes through seminars or presentations?

Skills mixing on the system level

Do you encourage collaboration across organisational boundaries, locally and internationally, and do you develop the skills required for international operations?

Do you actively manage the skill sets by introducing different skills into your organisation at different stages or at critical times in the development of innovations in new products or services?

Do you encourage collaboration with research and education providers through joint apprenticeships, WIL, internships or joint PhD programs?

Do you use partnerships or utilise contractors for specific skills that are not needed permanently in your organisation?

Securing Australia's Future – Project 10

Skills and Capabilities for
Australian Enterprise Innovation

www.acola.org.au

 **ACOLA**
AUSTRALIAN COUNCIL OF LEARNED ACADEMIES