



Australian Government  
Department of Industry,  
Innovation and Science

# Industry Growth Centres



## Industry Growth Centres Initiative: Progress and Impact

July 2019



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# Introduction

The Australian Government's Industry Growth Centres Initiative is a strategic, sector based approach to growing our industries and creating jobs. The Initiative targets sectors of competitive strength and strategic priority through six Growth Centres:

- Advanced manufacturing, known as the Advanced Manufacturing Growth Centre (AMGC)
- Cyber security, known as AustCyber
- Food and agribusiness, known as Food Innovation Australia Ltd (FIAL)
- Medical technologies and pharmaceuticals, known as MTPConnect
- Mining equipment, technology and services, known as METS Ignited
- Oil, gas and energy resources, known as National Energy Resources Australia (NERA).

This document sets out the Growth Centres impact in three key areas:

- delivering an industry-led strategy
- aligning government activities to industry needs
- delivering targeted activities to grow their sectors.

## Strategic vision

Each Growth Centre develops a short and long term strategic vision for their sector that identifies challenges and opportunities for growth. This vision is captured in the Growth Centre's Sector Competitiveness Plan, a 10-year strategy developed in consultation with stakeholders and updated annually to reflect new sector trends. Through the Sector Competitiveness Plans, the Growth Centres focus on four key areas:

- increasing collaboration and commercialisation
- improving international opportunities and market access
- enhancing management and workforce skills
- identifying opportunities for regulatory reform.

# Industry Growth Centres Initiative

The Australian Government targets sectors of strategic importance or competitive strength and with high growth potential through the Industry Growth Centres Initiative.

The key growth sectors were identified through independent economic analysis, including from Deloitte Access Economics, Pricewaterhouse Coopers, IBISWorld, Outlook Economics and McKinsey & Company. This led to the announcement of six target sectors for the Initiative as part of the Australian Government's Industry, Innovation and Competitive Agenda (2014) and the National Innovation and Science Agenda (2015).

The Growth Centres began operations from June 2015. A detailed outline of individual Growth Centre achievements is on pages 11 to 22.



## ENGAGEMENT

>26,000  
ORGANISATIONS\*

\*includes firms, research organisations and industry associations

## Collaborative Projects



## COLLABORATION AND COMMERCIALISATION

Enhancing business capability and collaboration through

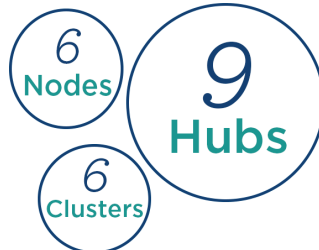
10

tools including the Trade Barriers Register

Facilitating Industry Collaboration through

21

Clusters, Nodes and Hubs



## Knowledge and Skills



## Improved Access to Global Markets



At least 150 firms have secured their first export or expanded sales

## Regulatory Reform

Collaborating on  
17  
Regulation Reform Projects

# Collaboration between government and industry

Growth Centres bring an industry-led focus and strategic alignment across Australian Government initiatives. Growth Centres collaborate with partner organisations and agencies across government, research and industry to drive cultural change and increase partnerships.

## Delivering for businesses

As the Australian Government's flagship initiative for business competitiveness and productivity, the Entrepreneurs' Programme<sup>1</sup> provides practical support for businesses. Frontline business insights from the Programme inform the Growth Centres' long term sector strategies. Growth Centres also co-design and deliver skills workshops with the Entrepreneurs' Programme, to ensure content meets firm needs. To date, 450 workshops have been delivered to over 10 000 participants.

## Connecting researchers with industry needs

Each Growth Centre identifies Industry Knowledge Priorities to inform research communities of industry needs, commercialisation opportunities, and priorities for industry-led research programs. This enables governments and researchers to address gaps, align research and collaborate to meet the needs of industry.

Growth Centres provide guidance that helps potential applicants to the Cooperative Research Centres (CRC) Program<sup>2</sup> and the Australian Research Council's (ARC) Industrial Transformation Research Program<sup>3</sup> (ITRP) align their applications with Industry Knowledge Priorities.

Growth Centres leverage their connections to deliver industry-research collaboration initiatives on behalf of the Australian Government. For example:

- AMGC delivers the Advanced Manufacturing Early Stage Research Fund (AMESRF)<sup>4</sup> for the Department of Industry, Innovation and Science. The Fund provides \$1 million to eligible projects each year until 2020–21.
- MTPConnect administers the BioMedTech Horizons (BMTH)<sup>5</sup> program for the Department of Health. Delivered via the Medical Research Future Fund (MRFF), Round One of the program (\$10 million) supported 11 projects. These projects stimulate commercialisation for precision medicine and 3D anatomical printing.
- MTPConnect also works with BioCurate, UniQuest and the Medical Device Partnering Program to deliver the \$22.3 million Biomedical Translation Bridge<sup>6</sup> program.

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<sup>1</sup> For details, see [www.business.gov.au/assistance/entrepreneurs-programme](http://www.business.gov.au/assistance/entrepreneurs-programme)

<sup>2</sup> For details, see [www.business.gov.au/assistance/cooperative-research-centres-programme](http://www.business.gov.au/assistance/cooperative-research-centres-programme)

<sup>3</sup> For details, see [www.arc.gov.au/grants/linkage-program/industrial-transformation-research-program](http://www.arc.gov.au/grants/linkage-program/industrial-transformation-research-program)

<sup>4</sup> For details, see [www.amgc.org.au/projects](http://www.amgc.org.au/projects)

<sup>5</sup> For details, see [www.mtpconnect.org.au/biomedtechhorizons](http://www.mtpconnect.org.au/biomedtechhorizons)

<sup>6</sup> For details, see [www.business.gov.au/assistance/biomedical-translation-bridge](http://www.business.gov.au/assistance/biomedical-translation-bridge)

## Taking Australian businesses to the world

In partnership with Austrade, Growth Centres develop trade and investment promotion strategies for each of their sectors. They have supported business participation in Austrade's Landing Pads<sup>7</sup> in Tel Aviv, Singapore and San Francisco. The Growth Centres have also coordinated a "Team Australia" presence that has supported over 900 Australian organisations at 40 international trade shows and outbound trade missions, resulting in at least 150 firms either securing their first export or expanding their sales.

The Growth Centres' cluster initiatives informed the design of the Small and Medium Enterprises (SME) Export Hubs Initiative<sup>8</sup>. Export hubs help SMEs grow and export by developing local collaborative business networks within Growth Centre sectors. The Growth Centres support the initiative to ensure local export strategies align with their national export strategies. For example, FIAL is supporting Food & Fibre Gippsland to promote exports and secure market opportunities for local businesses in the food sector.

## Improving workforce skills

Growth Centres inform the Vocational Education and Training (VET) system by providing advice on the skills needed by their sectors. They achieve this through working with the Australian Industry and Skills Committee<sup>9</sup> and the Industry Reference Committees<sup>10</sup> (IRCs). Representatives from Growth Centres sit on the following seven IRCs:

- Manufacturing and Engineering IRC (AMGC)
- Sustainability IRC (AMGC)
- Information and Communications Technology IRC (AustCyber)
- Coal Mining IRC (METS Ignited and NERA)
- Drilling IRC (METS Ignited and NERA)
- Metalliferous Mining IRC (METS Ignited and NERA)
- Pharmaceutical Manufacturing IRC (MTPConnect).

## Stronger sectors via better regulation

Growth Centres work to optimise industry standards and harmonise regulation in their sectors, with 17 regulation reform projects underway.

A focus of these activities has been increasing alignment between Australian and international standards. The uptake of international standards helps eliminate technical barriers to trade and allows Australian businesses access to global supply chains. Activities include:

- NERA has worked with Standards Australia to establish the Australian Technical Committee to influence adoption of international standards in the oil and gas, energy and petrochemicals industries.
- AustCyber has worked with the MITRE Corporation to better align Australian regulatory frameworks with international best practice standards and guidelines. The MITRE Corporation is a federally funded US Research and Development Center.
- Growth Centres are supporting the development of a Trade Barriers Register with the Export Council of Australia. The register provides businesses with a platform to report barriers to doing business overseas. This will support the Government to understand challenges faced by international businesses and how to prioritise responses. The Growth Centres launched a beta version of the register in late 2018.
- Growth Centres have a focus on ensuring regulations keep up with technological advancements. For example, MTPConnect is working with the Therapeutic Goods Administration (TGA), CSIRO, ANDHealth and other key stakeholders on the Steering Committee for Adaptive Regulation of Digital Health. This will enable optimal roll out of major initiatives which regulate medical devices.

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7 For details, see [www.austrade.gov.au/landingpads](http://www.austrade.gov.au/landingpads)

8 For details, see [www.business.gov.au/assistance/small-and-medium-enterprises-export-hubs](http://www.business.gov.au/assistance/small-and-medium-enterprises-export-hubs)

9 For details, see [www.aisc.net.au](http://www.aisc.net.au)

10 For details, see [www.aisc.net.au/content/industry-reference-committees](http://www.aisc.net.au/content/industry-reference-committees)

## Delivering on national priorities

Growth Centres leverage their industry connections to help achieve national priorities. For example, FIAL is implementing the Australian Government's National Food Waste Strategy<sup>11</sup>, which aims to halve Australia's food waste by 2030.

## Investing in sector-wide challenges

Growth Centres have committed \$58 million to 150 collaborative projects to address sector wide opportunities or challenges through the Growth Centres Project Fund. The Growth Centre funding must be matched by industry. This approach has leveraged over \$78 million from industry and research partners. The total direct value of these projects exceeds \$135 million.

| Growth Centre   | Projects   | Growth Centres Contribution | Industry Contribution Amounts | Total Project Value Amount |
|---|------------|-----------------------------|-------------------------------|----------------------------|
| Advanced Manufacturing Growth Centre                    | 30         | \$6 674 973                 | \$7 084 241                   | \$13 759 214               |
| Australian Cyber Security Growth Network                | 10         | \$6 070 285                 | \$6 131 776                   | \$12 202 061               |
| Food Innovation Australia Limited                       | 24         | \$9 982 759                 | \$10 639 674                  | \$20 093 518               |
| Medical Technologies and Pharmaceuticals Growth Centre  | 36         | \$15 600 000                | \$21 895 667                  | \$37 495 667               |
| Mining Equipment, Technology and Services Growth Centre | 16         | \$7 326 570                 | \$13 254 731                  | \$20 581 301               |
| National Energy Resources Australia                     | 34         | \$12 271 000                | \$18 660 750                  | \$31 196 500               |
| <b>Grand Total</b>                                      | <b>150</b> | <b>\$57 925 587</b>         | <b>\$77 666 839</b>           | <b>\$135 328 261</b>       |

The Igniting METS Accelerator Program, delivered by METS Ignited and the QLD Government, has helped eight SMEs to scale-up by implementing pathways to commercialisation. Participating SMEs have secured over \$12 million in capital investment and new sales contracts.

## Working with state and territory governments

The Growth Centres are working with state and territory governments to support activities and projects across the country:

- AMGC is working with the South Australian Government and Dassault Systems on the Virtual Shipyard Program<sup>12</sup>. The project trains fourteen South Australian companies on Industry 4.0 principles and supports them to collaborate, plan, design and build in 3D virtual environments.
- FIAL cooperates with Victorian, South Australian and Queensland Government agencies to deliver streams of its Enterprise Solutions Centre Program<sup>13</sup>.
- FIAL also administers the Victorian Salt Reduction Innovation Grants Initiative in collaboration with VicHealth.
- AustCyber has partnered with six states and territories to establish Cyber Security Innovation Nodes<sup>14</sup>. These nodes will drive collaboration and innovation in the sector. Each node commits to national priorities defined in the AustCyber business strategy and Cyber Security Sector Competitiveness Plan.

<sup>11</sup> For details, see [www.environment.gov.au/protection/waste-resource-recovery/publications/national-food-waste-strategy](http://www.environment.gov.au/protection/waste-resource-recovery/publications/national-food-waste-strategy)

<sup>12</sup> For details, see [virtualshipyard.org](http://virtualshipyard.org)

<sup>13</sup> For details, see [www.business.gov.au/assistance/the-enterprise-solution-centre/](http://www.business.gov.au/assistance/the-enterprise-solution-centre/)

<sup>14</sup> For details, see [www.austcyber.com/grow/collaborate/nodes](http://www.austcyber.com/grow/collaborate/nodes)



- The Western Australian Government has supported MTPConnect with \$1.2 million in funding over 4 years to establish a WA Hub. Additional funding has been provided by the University of Western Australia. The Hub will create a life science precinct to accelerate medical and biotechnologies, and establish Western Australia as a world leader in this area.
- METS Ignited is partnering with the Queensland Government to pilot several initiatives. These include the Bowen Basin Cluster Program, Queensland Clustering Initiative, regional and national accelerator programs, and the Digital Business Workshops. These initiatives draw on up to \$6 million in funding from the Queensland Government to help build local specialisations in areas of competitive strength and enhance business growth.
- The Western Australian Government provided \$875 000 in funding over four years to support NERA's Western Australian activities, especially supporting SME engagement, bridging industry and academia encouraging collaboration and promoting greater access to international markets.
- METS Ignited and NERA delivered the RISE Accelerator (RISE)<sup>15</sup> with the Western Australian and Queensland State Governments. RISE equips technology start-ups with the skills to commercialise their technology solutions. 17 businesses from regional and metropolitan Queensland and Western Australia have graduated from the program.

## Collaboration across Growth Centres

In addition to their individual activities and work with government above, Growth Centres work together on a number of programs:

- MTPConnect, NERA and METS Ignited are supporting the national expansion of the Industry Mentoring Network in STEM<sup>16</sup> (IMNIS) program. IMNIS aims to prepare a new generation of diverse, inclusive and industry-ready PhD graduates. The program expanded in 2018 to match 485 PhD students with 300 industry leaders across all the states and territories. The program provides access to professional industry networks that support mentee access and exposure to industry-focused research and post-research employment opportunities.
- METS Ignited and NERA both support the CORE Innovation Hub<sup>17</sup>. CORE is Australia's first co-working, collaboration and innovation hub focused on resources technology. After three years, CORE has more than 130 industry members and reciprocal agreements with other resources hubs in Santiago, San Francisco and Houston.
- FIAL, MTPConnect and AustCyber are working with Data61's Ribit<sup>18</sup> platform to connect students with digital, research and business skills to potential employers. Over the last three years, these Growth Centres have connected over 800 students to over 100 business and industry representatives. These events have been highly successful in delivering employment opportunities to participating students, with most participants having been interviewed or hired by attending businesses.

<sup>15</sup> For details, see [riseaccel.com](http://riseaccel.com)

<sup>16</sup> For details, see [www.imnis.org.au](http://www.imnis.org.au)

<sup>17</sup> For details, see [www.corehub.com.au](http://www.corehub.com.au)

<sup>18</sup> For details, see [www.ribit.net](http://www.ribit.net)



# Growth Centre Achievements



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Food and Agribusiness Growth Centre  
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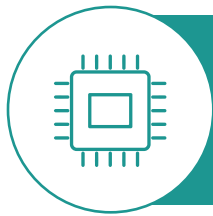
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## Advanced Manufacturing Growth Centre (AMGC)

Advanced manufacturing is a broad set of enabling technologies, processes and practices. All manufacturing companies can use advanced technologies to improve their productivity and competitiveness, adding value across entire supply chains. Advanced manufacturing can be applied equally to traditional manufacturing sectors and those emerging through the expansion and evolution of the sector.

Manufacturing continues to be an important part of Australia's industry mix; accounting for 6.1 per cent of Australia's GDP and 7.4 per cent of employment. In the 2015-16 financial year, manufacturing generated \$100 billion in export income.

The advanced manufacturing sector is challenged by a large amount of low-cost production being outsourced to lower-wage countries. It needs a skilled workforce to oversee modern manufacturing practices. AMGC is supporting the advanced manufacturing sector to facilitate a new breed of 'advanced manufacturers' who are linked into global supply chains by specialising in value-add activities.

Australian manufacturers are more competitive when they embrace innovative design features and technology leadership. To achieve this, a key focus of AMGC has been to boost collaboration, commercialisation, skills and capability within the sector.

AMGC projects improving Australia's total manufacturing competitiveness could add 25-35 per cent in value to the economy in 2026 through improvements in value differentiation, shifts in market focus, and improvements in cost competitiveness. Overall, AMGC projects have the potential to generate around \$240 million in revenue for Australian businesses and an estimated 1100 new highly skilled jobs.

AMGC has engaged with 2500 firms through workshops and collaborative projects.

### Enhancing collaboration and commercialisation

AMGC's 30 collaborative projects have a total value of over \$13 million (including AMGC's contribution and industry's cash and in-kind contributions) and are intended to demonstrate best practice for new manufacturing technologies and processes.

- AMGC has supported the establishment of a number of hubs to encourage better SME engagement with researchers. This includes a composites hub centre, Carbon Nexus at Deakin University in Geelong; an additive manufacturing hub around Lab 22 in Clayton; and an Industry 4.0 hub around the Swinburne University of Technology.
- AMGC has partnered with Victorian-based Volgren, Deakin University and mining company CleanTeQ to commercialise research into high-strength aluminium alloys to reduce the weight of bus bodies. Successful commercialisation of this new alloy is expected to generate up to 200 new jobs at Volgren and CleanTeQ as the mine goes into production.

## Improving skills and capability

AMGC is focused on increasing technical leadership and lifting management quality to transform Australia's advanced manufacturing sector. AMGC has published Industry Knowledge Priorities and is investing significant research into the skills and capabilities needs of the sector. In particular, AMGC is helping to build skills and capabilities required for firms to embrace Industry 4.0.

- AMGC is supporting a project led by South Australian company, Dematec Automation, to help 17 SMEs adopt Industry 4.0 technology. This includes introducing highly-integrated robotics, cyber-physical systems, and automation into manufacturing environments.
- AMGC's Manufacturing Academy<sup>19</sup> gives businesses direct access to information, learning modules and case studies to help them transition to advanced manufacturing.

## Taking Australian businesses to the world

With support from AMGC, Victorian-based Water Source has commercialised its portable water purification unit and is now exporting units to East Timor. Over the medium term, the company has the potential to generate \$20 million in new export revenue, leading to the creation of 15 high-skilled jobs.

Brisbane-based iOrthotics expects to grow its exports of customised orthotic devices. The company will achieve this through harnessing opportunities in the US market as a result of AMGC's support in helping the company to digitise and upscale its manufacturing process. AMGC's support could help generate up to 13 skilled jobs and assist the company to grow its sales revenue from an estimated \$940 000 in 2018 to \$2.82 million in 2019.

For more on AMGC's activities visit [www.amgc.org.au](http://www.amgc.org.au)



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<sup>19</sup> For details, see [www.manufacturingacademy.org.au/](http://www.manufacturingacademy.org.au/)





## Cyber Security Growth Centre (AustCyber)

The Australian cyber security sector is essential to securing Australia's online environment.

AustCyber was established to help develop a vibrant cyber security sector for Australia. Australia is well placed to capture a share of the cyber security market in the Indo-Pacific region over the next two to three years and an increased share of the global market.

AustCyber is working to lead the growth of Australia's cyber security sector and secure export pathways for Australian products and services. A key factor for success is having a major local customer. AustCyber has delivered a number of events to help small Australian firms pitch their products and services to governments and large companies. AustCyber is also helping firms to tailor their products and services to meet the dynamic demands of a rapidly expanding sector.

AustCyber has engaged with over 650 companies since January 2017. It has over 230 Australian cyber security companies and individuals taking part in its programs.

AustCyber's long term proposition is expected to yield a potential increase in the value of the sector from \$2.2 billion in 2016 to \$4.7 billion in 2026. However, the growth potential is even bigger if Australia undertakes concerted actions to support the three initial focus segments – software, services in the protection stack, and services in underlying processes. In this case, revenues in the domestic cyber security sector could increase to \$6.0 billion in 2026, which equates to an annual growth rate of almost 11 per cent over the decade.

## Enhancing collaboration and commercialisation

Australia has world-leading research capabilities in cyber security. However, these capabilities do not always translate into commercialisation. This results from a diffuse funding system and weak links between academics and business. AustCyber is working with the Cyber Security CRC to make sure its research projects address industry needs.

AustCyber has committed \$6.1 million across 10 collaborative projects and is leveraging \$6.1 million in funding from industry.

- AustCyber established and delivers the annual “Cyber Week” which includes events promoting industry awareness and collaboration, start-up ‘pitch-fest’ events and networking events for employers and researchers.
- AustCyber has designed and executed nine major domestic business pitching events since August 2017. These events are providing a platform for businesses, including SMEs, to pitch their capabilities to government and ASX-listed companies. To date, AustCyber has facilitated 55 business pitches from 38 companies.

By participating in the AustCyber National Fintech Summit and SINET61, Canberra based firm Penten forged connections with numerous industry players. Since 2015, the firm has grown to over 50 employees, and was crowned the National Winner - 2018 Business of the Year at the Telstra Business Awards.

## Improving skills and capability

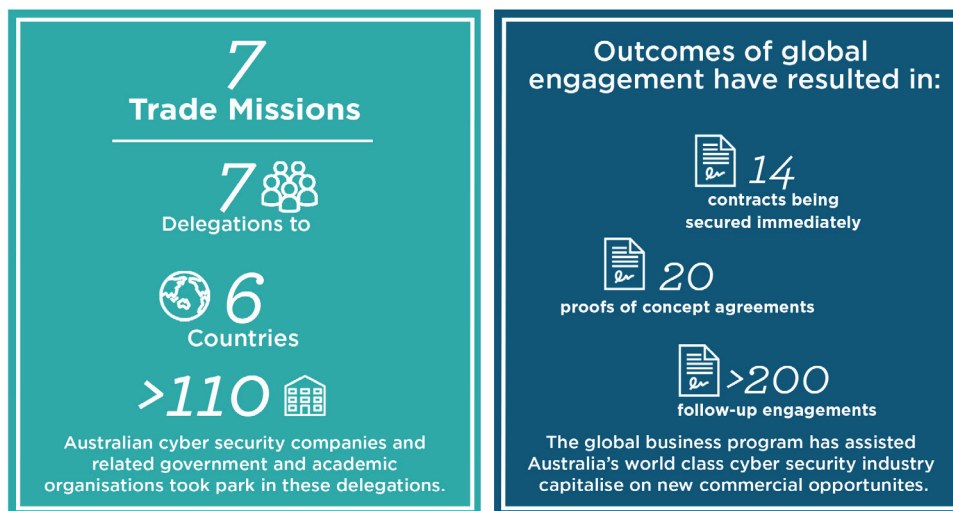
In 2018, AustCyber research found that the skills shortage in Australia's cyber security sector is larger than first estimated. AustCyber has made significant strides towards improving workforce skills.

- AustCyber has worked across the Vocational Education and Training sector, and with industry, to deliver a national TAFE curriculum for Cyber Security courses that meets industry needs. The Certificate IV in Cyber Security and Advanced Diploma of Cyber Security courses are practical, non degree courses that students can complete on the-job. Subscriptions for all courses delivered as part of Semester 1 2018 were full with wait-lists of up to 600 students in some locations.
- AustCyber has delivered the pilot of CyberTaipan, a national youth cyber security competition. It challenges students to learn about networking, cyber defence and cyber security and solve complex cyber problems. Nearly 40 students aged 12 to 18 came together from across Australia to compete in the pilot National Finals in Canberra on 16 March 2019. CyberTaipan was presented and delivered by Northrop Grumman in partnership with AustCyber. Sponsors of the pilot include BlackBerry, PwC Australia and Woodside Energy.

## Taking Australian businesses to the world

AustCyber, in partnership with Austrade, is showcasing Australian cyber security capability in key markets (the US, ASEAN and the United Kingdom).

- AustCyber has partnered with the Australian British Chamber of Commerce to deliver the Australian British Financial Services Catalyst 2019 mission to London in July 2019.
- AustCyber has assisted in the selection and funding of cyber security companies to participate in Austrade's Landing Pad program and is the first sector-specific cohort in the program. The first San Francisco Landing Pad cyber security cohort ran from January to March 2018 and consisted of five cyber security companies, many of whom have continued to grow their US presence since the program ended.
- With Austrade, AustCyber supported a cyber security mission to San Francisco in March 2019 and the Singapore Landing Pad Residency Program in May to August 2019.
- AustCyber participated in an Australian Ministerial delegation to the Tel Aviv Landing Pad in late 2017, and visits assisting the cohort of Australian cyber security accelerator CyRise in late 2017 and late 2018.



For more information on AustCyber's activities visit [www.austcyber.com](http://www.austcyber.com)



## Food and Agribusiness Growth Centre (Food Innovation Australia Limited)

The food and agribusiness sector is a key source of growth for the Australian economy over the coming decades.

FIAL was established to grow the share of Australian food in the global marketplace. It is working to help businesses develop innovative, cost-effective and differentiated offerings to access and compete in international markets. In particular, FIAL is targeting the growing middle class markets in the Asia-Pacific.

The size of the global middle class is expected to increase from 1.8 billion in 2009 to 4.9 billion by 2030. The Asia-Pacific region is home to 66 per cent of this population. FIAL has engaged with over 15 000 firms in the food and agribusiness sector through activities such as capability building workshops, tradeshow, inward buyer missions, collaborative tools and learning events.

The gross value added from the food and agribusiness industry to the economy was \$67.2 billion in 2017-18, with a total of 176 050 business estimated in the sector in 2016. The industry's exports of \$41.2 billion represent 12.0 per cent of total merchandise exports recorded in 2018.

### Enhancing collaboration and commercialisation

FIAL's projects and Cluster Programme are fostering a collaborative industry culture that promotes working together to advance research and development, strengthen value chains, whilst minimising export costs.

FIAL has committed over \$9 million in project funding towards collaborative projects. There are over \$50 million in benefit to be realised from the commercialising these ideas.

- FIAL's Enterprise Solutions Centre is connecting SMEs with R&D expertise and short-term funding to help them access technology and upskill staff. The Centre has funded 73 projects (81 per cent of which are led by SMEs) valued at \$6.73 million, with more than 50 per cent of this amount invested by industry. Seventy-five SMEs have generated new products with potential sales of over \$50 million. Many participants collaborated with a researcher for the first time through the program.
- FIAL annually publishes 'Celebrating Australian Food and Agribusiness Innovations', which showcases 50 innovative companies of all sizes and across the entire value chain, acting as exemplars and inspirations for the sector.

### Improving skills and capability

To address the practical needs of the sector, FIAL has identified Industry Knowledge Priority areas in R&D and management capability.

- FIAL's Retail Readiness, Private Label and Market Diversification workshops have been delivered across the country in collaboration with the Entrepreneurs' Programme, with over 200 companies in participation. These workshops have prepared firms for their discussions with buyers at 'Meet the Buyer' events with Ritchies, Coles, Woolworths and JD.com. Over 600 participants have attended these workshops across Australia, and 40 per cent have had one on one meetings with buyers.

## Taking Australian businesses to the world

FIAL's suite of online tools, workshops and international trade missions to China, the United Arab Emirates, Singapore and Thailand are collectively building capability around product innovation, export and business.

- FIAL has delivered a market-channel readiness program to help Australian firms build their capability to access new export markets. With the Entrepreneurs' Programme, FIAL has delivered 65 workshops on topics including eCommerce Readiness, Intellectual Property and International Brand Building, and Market Diversification to over 1750 participants.
- With the help of "Are You Ready for Export?" series of workshops, at least 55 companies are now exporting to new markets and hundreds more are active in investigating international opportunities.
- FIAL has accompanied 174 firms to and showcased an additional 158 companies at international trade shows. These businesses made over 6500 supplier-buyer connections either during and/or post shows. This resulted in more than \$2 million in estimated sales from the 2017-18 financial year shows alone.

FIAL helped Gold Coast functional-food firm Morlife expand its product range overseas by offering a range of online tutorials, inbound trade missions and international trade show programs. Morlife described these opportunities as 'invaluable' and has plans to double the size of its production facilities to meet growing demand. Co-founder Cheryl Stewart was named Gold Coast Woman in Business of the Year 2018, in recognition of her success in helping to expand business exports to 15 countries.

With FIAL's support, Great Southern Truffles, a Western Australian firm exporting truffles to Hong Kong and the US, participated in international trade shows and workshops to build its export capability. As a result, Great Southern Truffles has experienced 50 per cent growth over the last 24 months and has employed an additional four full-time and six part-time staff.

For more information on FIAL's activities visit [fial.com.au](http://fial.com.au)





## Medical Technologies and Pharmaceuticals Growth Centre (MTP Connect)

Australia is an acknowledged world leader in the Medical Technologies and Pharmaceuticals sector. This is due to its vibrant ecosystem of start-ups, established companies and thriving research environment.

Australia has growth opportunities in regenerative medicine, digital health, smart devices, implants and bionics, precision medicine and high-value pharmaceuticals manufacturing. MTPConnect forges connections between research and industry in these areas to make scientific and technological breakthroughs that are successfully translated and commercialised.

MTPConnect has committed \$15.6 million across 36 collaborative projects, engaging over 160 consortium members and leveraging \$21.2 million in matched funding from industry. These projects have led to 68 new technologies being invented or progressed, 37 new patents/trademark applications and licenses, 11 new start-up companies and 45 direct jobs being created.

MTPConnect has engaged with 3970 organisations and 14 270 individuals in the sector through activities such as workforce skills and commercialisation training, collaboration events, workshops and trade and investment missions.

By 2025, Australia's MTP sector has the potential to create an additional 28 000 jobs and an extra \$18 billion of cumulative Gross Value Add per year to the economy.

## Enhancing collaboration and commercialisation

MTPConnect's activities and co-funded projects are improving engagement between research and industry to lead to better idea generation and commercialisation.

- MTPConnect supports The Actuator, a national medical technologies accelerator driving development of high-value, niche advanced manufacturing and medical device technologies. The Actuator helps businesses on their commercialisation journey by providing mentoring programs, de-risking early stage ideas, stimulating the start up ecosystem and facilitating industry-stakeholder collaboration. The first cohort of six firms completed the 15-month program with investments of \$1.1 million being considered.
- MTPConnect has invested in ANDHealth to help Australian mid-stage digital health companies meet key investor partners and customer requirements around clinical and commercial validation. The inaugural cohort of six companies received a total of \$1.84 million of services (cash and in-kind from the partners), allowing the firms to create 23 new jobs and serve 4739 patients.
- The Perth based 'Centre for Entrepreneurial Research and Innovation' (CERI) established a national 'Accelerating Australia' project to bring people with a passion for entrepreneurship in medicine together to find novel solutions for medical needs and develop them into products. In 2018, 194 individuals developed 19 new products.



## Improving skills and capability

The MTP sector faces the ongoing challenge of developing, attracting and retaining talented researchers and staff in enabling disciplines such as bioinformatics, health economics, regulatory affairs and data analytics.

- MTPConnect and QUT's Bridge Program provided 200 scientists, academics, professionals and entrepreneurs with skills in pharmaceutical commercialisation. Six months later, 38 per cent of participants reported an increase in commercialisation activity. This program has been extended into the BridgeTech Program, where a further 200 participants will develop commercialisation skills in medical technologies.

## Taking Australian businesses to the world

To deliver on its goal to make Australia the Asia-Pacific MTP hub, MTPConnect is partnering with Austrade and Australia's peak industry bodies, such as AusBiotech, to drive international engagement and market access for the MTP sector.



For more information on MTPConnect's activities visit [www.mtpconnect.org.au](http://www.mtpconnect.org.au)



## Mining Equipment, Technology and Services Growth Centre (METS Ignited)

The multi-billion Australian METS industry is a global leader in mining innovation and is a significant contributor to the national economy.

METS Ignited was established to help grow the Australian METS industry, overcome barriers and to secure a share of the growing global market.

Improved processes, products and services will have a major impact on the METS sector with potential for further growth through exporting, technology development and the creation of new processes, services and products. METS Ignited is seizing these opportunities by supporting collaboration, commercialisation of new mining technologies, and skills development.

METS Ignited has committed \$7.3 million across 16 collaborative projects valued at over \$20 million through the METS Ignited Project Fund. METS Ignited has leveraged \$13.3 million in matched cash funding from industry.

METS Ignited has engaged with 1890 firms through activities such as workshops, hackathons, and networking and trade events.

### Enhancing collaboration and commercialisation

To foster a culture of collaboration and innovation, METS Ignited is supporting initiatives which bring together those that generate ideas and those who can commercialise those ideas to bring products and services to market. These initiatives range from hackathons to accelerators, from challenge platforms to cluster programs, and finally awards programs to recognise this improved collaboration.

- METS Ignited, in partnership with key industry, government and research organisations, facilitated the development a prospectus for the Future Battery Industries Cooperative Research Centre (FBI CRC). The FBI CRC received \$25 million in Commonwealth funding and will connect world class research capability with industry needs to build knowledge and develop processes and battery applications using Australia's new energy materials.
- The Shield-X Hackathon in 2017 challenged companies to develop an industry-wide Safe Stop personal safety device for autonomous systems at mine sites. Nineteen teams from nine different countries were involved, with the winners going on to develop a commercial version of their device which is now on the market.

### Improving skills and capability

Creating new, high-value jobs, with clear pathways from schools to vocational training or tertiary studies to industry, and upskilling existing workers is critical for Australian METS to maintain a competitive advantage.

- METS Ignited, in partnership with the Entrepreneurs' Programme, developed a series of Masterclasses to help attendees understand and benefit from the emergence of Industry 4.0, how to better leverage capital investment, the future of industry and workforce, and how to better pitch their offerings. Throughout 2018, classes were held at a number of state capital and regional cities and further master classes are planned in 2019.

## Taking Australian businesses to the world

Australian METS companies are already active in exports. On average, 66 per cent of METS companies are exporting and 25 per cent of total annual revenue comes from international jurisdictions. Exporting is key to the future of the sector and METS Ignited has worked to foster even higher levels of export within the industry.

- METStech Passport is the first exchange program of its kind between Australia and Chile, sending three Australian METS companies to Chile, and three Chilean METS companies to Australia to take part in a two-week mining innovation ecosystem immersion. Austrade and METS Ignited run the program in partnership with Expande, a public-private organisation as part of Fundacion Chile, to give mining suppliers international exposure to cross-pollinate ideas and facilitate international expansion.

For more information on METS Ignited's activities visit [www.metsignited.org](http://www.metsignited.org)





## Oil, Gas and Energy Resources Growth Centre (National Energy Resources Australia)

Australia's energy resources sector (including the exploration, development and extraction of energy and fuels from oil, gas, coal and uranium) contributes strongly to the Australia's position as a leading energy exporter.

NERA is unlocking the potential of the Australian energy resources sector, by improving the sector's competitiveness and transforming the sector for the low carbon future of tomorrow. NERA is uniquely positioned to support sector-wide transformation and unlock over \$10 billion of new value and potentially 200 000 jobs for the Australian economy.

NERA has focused on transitioning sector workforce skills to support future industry needs; establishing innovation clusters; developing a National Energy Literacy Framework; improving access geophysical and subsurface data to contribute to Australia's future energy resources base; and developing new technology projects.

NERA has engaged with 2320 firms through activities such as workshops, networking events and inbound and outbound trade missions.

Australia ranks as one of the top three global exporters of liquefied natural gas (LNG), coal and uranium, with expectations to become the world's largest LNG exporter by 2019. The sector directly provides approximately 85 900 full time jobs with a gross value add of \$55.1 billion.

### Enhancing collaboration and commercialisation

NERA is creating connections between researchers, industry, government, SMEs, supply chains, and entrepreneurs to grow collaboration and entrepreneurship in the sector.

NERA is delivering a range of initiatives to drive these connections and has committed \$12.3 million to 34 collaborative projects valued at \$31.2 million, with over 200 partners through the NERA Project Fund.

- NERA has supported nine SMEs through an Innovation Voucher scheme to support industry-led research addressing a technical challenge impacting a primary buyer in the oil, gas and energy resources sector. Primary buyers partnered in each of these projects. Following the success of this initiative, NERA announced its Leap Vouchers scheme in 2018.
- NERA's SME ConnectER Program allows SMEs to pitch their innovation and value proposition to operators and contractors from the oil and gas sector. SME ConnectER 2019 builds on its highly successful predecessor, which saw over 30 SMEs pitch their innovations to representatives from Chevron, Woodside, Shell, ConocoPhillips, Quadrant Energy, Upstream Production Solutions, Worley Parsons, Downer and Monadelphous.

Through the Innovation Voucher scheme, Soter Analytics has developed SoterSpine, a low-cost, wearable product that monitors and records at-risk body posture movements to prevent musculoskeletal injuries in the workplace. Soter Analytics has 11 new customers, in five industries, across three continents.

## Improving skills and capability

The Australia's energy resources sector needs to be at the forefront of adopting digital and automation technologies to remain competitive.

- NERA has released 'Are you research ready?'<sup>20</sup>, a guide assisting businesses to prepare for engagement with publicly funded research organisations and other support programs to gain competitive advantage.
- In 2018, NERA developed and released the 'Preparing Australia's future oil and gas workforce' report<sup>21</sup>. Designed as a scenario-planning tool, the report maps out the potential trajectory of the oil and gas workforce in Australia in the years ahead so that companies, workers and policymakers can make informed decisions and prepare for a potentially volatile future. The report is a step towards developing a common expectation about the potential future direction of the workforce in the oil and gas industry.

## Taking Australian businesses to the world

Under the Smart Australia program, NERA supported 10 innovative small businesses from Australia's energy resources sector to form the inaugural Team Australia Delegation at Gastech 2018<sup>22</sup>, enabling them to deliver a showcase of local innovation and future capability to the 30 000 attendees at this year's event in Barcelona. These SMEs also participated in a rigorous three-day customised workshop and mentoring program to help them identify in-market opportunities, scope relevant commercial and financial strategies, and develop the skills, language and tools required to translate these into tangible commercial outcomes.

For more information on NERA's activities visit [www.nera.org.au](http://www.nera.org.au)



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<sup>20</sup> Read the guide at [www.nera.org.au/ReportsandPublications/AreYouResearchReady](http://www.nera.org.au/ReportsandPublications/AreYouResearchReady)

<sup>21</sup> Read the report at [www.nera.org.au/AustraliasFutureEnergyWorkforce](http://www.nera.org.au/AustraliasFutureEnergyWorkforce)

<sup>22</sup> For details, see [www.nera.org.au/LatestNews/Gastech2018](http://www.nera.org.au/LatestNews/Gastech2018)



## More information

More information on the Growth Centres can be found on the Department of Industry, Innovation and Science website [www.industry.gov.au/industry-growth-centres](http://www.industry.gov.au/industry-growth-centres)

For a dive into some of the opportunities of the future of Australian industry, take a look at our Future Clicks Podcast series. The podcasts explore fresh opportunities facing Australian businesses, workplace skills of the future, pioneering industries, industry pioneers, and why going global is more achievable than ever. The series can be found at [www.industry.gov.au/future-clicks-podcast](http://www.industry.gov.au/future-clicks-podcast)





