"Manufacturing could contribute more than 25 per cent in additional GDP growth compared to today [by 2060]. Industry 4.0 technologies, like robotics and artificial intelligence, will be key to realising this."

The Hon Karen Andrews MP
Minister for Industry, Science and Technology
Australian Government

# Australian innovation, technology and manufacturing policies in support of Industry 4.0

**Alexander Cooke** 

Department of Industry, Science, Energy and Resources Australian Government

## Industry 4.0: Unlocking opportunities for every manufacturer

- By boosting business competitiveness and productivity with new value-added products and services;
- Improving SME access to global value chains;
- Enabling jobs growth and workforce upskilling.



"Expanding our business [by investing in Industry 4.0] has given us more flexibility leading into the future as we enter new export markets, making us more agile to deal with our customers' ever-changing needs"

#### **Mr Anthony Kittel**

Owner and Managing Director, REDARC Electronics, South Australia

#### Barriers and Enablers - what do manufacturers need?

- Trusted, impartial advice
- SME Workforce Skills and Training
- Off-the-shelf commercial solutions, i.e. not necessarily new research
- Opportunities to share best practices and to build business capabilities
- Test beds
- Access to capital



"As well as the customer-centric benefits of moving in an Industry 4.0 direction, our internal culture has evolved as employees in both the office and workshop get on board. Our employees are now proactively learning new skills and seeking more knowledge and involvement to drive continuous improvement and participate in better decision making."

#### **Industry 4.0 Testlabs for Australia Pilot Program**

- The \$6 million Industry 4.0 Testlabs
   Program is preparing businesses to
   transition to the smart factories of
   the future.
- Testlabs provide a physical space for businesses and researchers to come together to trial, explore and showcase Industry 4.0 technologies and processes.
- Testlabs are being established at six universities across Australia.

Right: Industry 4.0 Testlabs at the Factory of the Future, Swinburne University of Technology (Top) and at the University of Technology Sydney (Bottom).





#### **Advanced Apprenticeship Pilot Program**

- The Advanced Apprenticeship Pilot aims to support the higher skills needed for Industry 4.0.
- Through a national one-year Diploma in Applied Technologies, the program seeks to boost the skills of workers in manufacturing SMEs, and strengthen partnerships between industry and the higher education sector.
- The pilot is being implemented across six universities in Australia.



### **Modern Manufacturing Strategy**

- \$1.5 billion Modern Manufacturing Strategy announced in the 2020-21 Budget
- The Strategy aims to grow manufacturing and create jobs by:
  - getting the economic conditions right for business
  - making science and technology work for industry
  - focusing on Australia's areas of advantage
  - building national resilience for a stronger economy.



#### **Digital Business Plan**

Our 2020-21 Digital Business Plan measures will accelerate business adoption of technology; reduce compliance burden for businesses; and improve our global influence on digital standards



Accelerating the digital capability of Australian businesses

A Digital Readiness
Assessment tool
A Digital Directors training
package and digital
director target



Digital Skills Finder Platform

User-friendly portal for Australian workers and SMEs to find software and digital tools to upskill and reskill during and after COVID-19



Regulatory Technology (Regtech) Innovation Challenges

Four challenges to find digital solutions to reduce the regulatory burden on businesses and stimulate the Australian tech sector



Using Blockchain to Reduce Compliance Costs

Two demonstration trials designed to reduce compliance costs of businesses



Boosting Australia's
Influence of International
Standards

Support digital, critical technology and critical minerals standards development.
Funding for statistical standards work

#### Thank you

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