

Industry 4.0 Advanced Manufacturing Forum

Embracing Industry 4.0 and the future of work: Embedding technology, driving jobs growth, backing Australian business

A five point call to action

1. Dedicated leadership, clear goals.

Managing the transition to industry 4.0, where businesses grow, jobs are secure and innovation thrives, requires leadership. Business, educational institutions, unions, standards bodies, and other decision-makers need to work together, now and into the future. All of these parties have committed to this journey, and largely funded it themselves through ongoing Taskforce work. There is a clear opportunity for government to play a co-ordinating role, and to support this work, including financially. Let's mirror Germany and other nations with a thriving advanced manufacturing sector and embed this leadership into the future. A rudderless ship won't sail.

- a. **Our proposal: To sustain progress achieved by the Prime Minister's Industry 4.0 Taskforce, provide \$175,000 per annum over 4 years to Ai Group for secretariat work, a yearly conference and professional organisation to deliver on Australia's bilateral commitment with Germany to advance Industry 4.0 and profile case studies of Australian businesses who are transforming through Industry 4.0. Provision of funding to be subject to achievement of agreed KPIs. The work of the I4AMF should be supported by continued representation from the Department of Industry, Innovation and Science on the I4AMF.**
- b. **The benefit to Australia: We have a clear leadership circle to steer the economy's transformation under Industry 4.0, cutting across society and involving all sectors. We have coordinated national consultation, collaboration and commitments to advance the Industry 4.0 agenda.**

2. More opportunities to upskill, more often.

The transition to Industry 4.0 requires new and enhanced skills. In some cases it means new workers, but largely we need new opportunities – for people to upskill, to retrain, to show the value they add to the new world of work. Demonstrating that this can deliver real benefits – for employers, for workers and for Australia - requires real leadership. One example of industry-led leadership is a unique apprenticeships program, between Ai Group, Siemens and Swinburne University of Technology, which has unleashed new talent, given Australians a chance to transition to new jobs, and shown just how real the benefits can be. Let's widen, deepen and scale this.

- a. **Our proposal: Back Australians by dedicating \$8 million for an Industry 4.0 focused apprenticeships program that connects future employers, apprentices and educational institutions, increases places for higher apprentices at vocational education and higher education providers, stimulates investment in Industry 4.0 curriculum and teaching equipment, and helps to accelerate employer investment in the higher skilled workforce required to run new Industry 4.0 business.**
- b. **The benefit to Australia: We have a future workforce that is skilled and able to respond to new jobs resulting from Industry 4.0. We have a pipeline of talent that is adaptable, and ready, able and willing to work – which is key to our future prosperity.**

3. Making great ideas work: Translating research into action.

Australia is home to many great ideas and innovation in deep technology across a number of sectors. We have pioneered new technologies, new business processes and we excel in research. But translating this into action – through commercialisation and business process transformation is an area where we must do better. This requires collaboration between educational institutions - including those driving cutting edge research, businesses, unions and other critical stakeholders.

- a. **Our proposal: Continue funding test-labs, as dynamic spaces where research can be incubated, taken from bench to boardroom and commercialised, and promote engagement with the SME community. Support for mapping of the Australian Industry 4.0 innovation landscape.**
- b. **The benefit to Australia: Deep research and innovation is rated internationally by our peers and we open opportunities to translate great ideas into commercial outcomes. We see the benefits of this in the creation of new jobs, returns to businesses and our international reputation being enhanced.**

4. Safeguarding growth opportunities for Australia

A strong Australian cyber security sector and cyber resilient industry is a vital enabler of digitally-driven growth. Digital technologies have created a new world where data is both a product itself and, an enabler to improve international trade transactions that rely on the free movement of data across borders using interoperable systems. We need to safeguard these systems, promote widespread awareness of cyber risks, as well as constantly upskill people, so we achieve a capability lift across Australia. This is in our long term economic and social interest.

- a. **Our proposal: Commitment to support the implementation of the initiatives and actions in Australia’s Cyber Security Sector Competitiveness Plan published by AustCyber; continued government support for AustCyber and the Australian Cyber Security Centre within the Australian Signals Directorate; continued cross-portfolio approach to cyber security policy which includes a focus on securing communications and information between businesses and their customers; as well as cyber innovation; continued advocacy in international forums against unfair competition, trade-distortive subsidies, forced technology transfer and cyber-enabled theft and resist introduction by governments of data localisation requirements.**
- b. The benefit to Australia: We have a globally competitive and growing local cyber security sector. This supports, sustains and enables the growth of Australian businesses in international markets as well as providing the Australian economy with home-grown cyber capabilities. Australians increasingly know that this is supported by robust multilateral arrangements that address digital barriers to trade.

5. Keeping Standards front of mind

Industry 4.0 will impact business models, value creation processes and products. Increasing complexity leads to new value systems. In transitioning to Industry 4.0, Australia needs to drive innovation, productivity and competitiveness by focusing on areas of competitive strength and strategic priority.

Standards continue to underpin the systems we use, and the products we buy, including in relation to industry 4.0. To enhance Australia’s standing, ensure the smooth operation of supply chains and reduce trade friction, we should collaborate globally, including through the International Organization for Standardization (ISO) and International Electrotechnical Commission (IEC) to develop and adopt standards that work for industry. This supports certainty, innovation, and competition.

- a. **Our proposal: Continued support of Australian expert participation in the development of Industry 4.0 standards through representation at all relevant committees and working groups (such as management systems, data-sharing, cyber security and industrial controls) at the international standards organisations and ensuring domestic information sharing before and after meetings to advance coordinated outcomes in Australia’s interests.**
- b. The benefit to Australia:
Australia can succeed on the world stage, and with the right enabling environment, can be global leaders, by contributing strategically to the development of an international standards for advanced manufacturing.