

## Publication of submissions

### Update from the Strategic Examination of R&D expert panel

The panel for the Strategic Examination of R&D is grateful for the strong response to our discussion paper – we have received almost 500 submissions.

We also thank the more than 600 stakeholders who participated in roundtables across Australia. We met a broad group of interested citizens including industry and research stakeholders, researchers, investors and state and territory representatives.

The opportunity to define a more impactful R&D system for Australia is both an honour and a challenge.

The panel is up for that challenge.

As a nation, we must seize a once in a generation chance to create an R&D system that is a catalyst for economic growth and complexity, and a substantial improvement in our nation's productivity.

This is not just a matter for interested R&D stakeholders. It will ensure all Australians, including future generations, can enjoy a better standard of living than we enjoy today.

And for that to be achieved, we must provide a framework of policies and incentives, skills and aspirations that can deliver what the country needs.

The panel has listened, read and learnt:

- the proliferation of fragmented initiatives has led to frustration, as have excessive and cumbersome rules and regulations
- our progress as a nation is hindered by the barriers, silos and cultural divides across academia, business and the investment industry
- incentives need to be better directed
- we need public subsidies to be targeted to highest impact we can achieve through a focus on growth with the consequential benefits
- we need to shift from a focus on the inputs to the research and development system to the value we derive from our investments in innovation
- R&D is a long-term endeavour that needs consistency of policy, and patient capital
- policies and ambition that endure will provide governments, industry and researchers with the opportunity and confidence to develop coherent strategies and implementation plans
- it is no longer enough to be good at research – we must create value from our research investments and pull knowledge through to impact.

Despite the challenges we have learnt about, a common thread is evident: there is enormous potential for Australia to make its R&D system more efficient, effective and ambitious.

### Panel's initial conclusions

As we embark on the next phase of our work, the panel has identified the following key messages from its work so far. We welcome feedback on these conclusions.

#### We need to focus on the whole pipeline – R&D for innovation

Australia should set its goals around a research, development and innovation (RD&I) agenda that can be applied to our economic, social and cultural life.

It should enable the entire innovation pipeline, from discovery to commercialisation - at scale.

#### A cohesive system aligned to national need

There are too many programs, spread too thinly. We should be ambitious and target our efforts to build scale in areas of national need and global opportunity.

Clear areas of focus are needed. Strategies formulated by federal, state and territories governments should be coherent, related, synergistic, add to more than the sum of the parts and be implemented.

It should enable and motivate the entire innovation pipeline, from discovery to use.

#### High-quality basic research is a cornerstone of Australia's knowledge-based economy

Australia is a strong research nation. Our research strengths must be sustained. Our researchers are the base for the generation of new knowledge and new talent, and engagement with new knowledge generated around the world.

We must however turn more purposefully toward creating value from this investment – particularly through support for new high-growth firms and industries enabled by Australia's research and development capabilities.

#### Driving effectiveness of public and institutional investment across the system

Complex and stringent regulations are slowing down the RD&I system, creating a secondary market of professional grant writers and consultants. The amount spent on overheads and administration could be better spent on growing our opportunities, capacity and companies.

#### Supporting high-risk, high-reward research and entrepreneurship

Current public funding models, business R&D incentives and research metrics favour safe, incremental research, discouraging bold or experimental ideas.

We need to address cultural barriers that pervade in Australia, including a low appetite for risk and fear of failure that discourages entrepreneurship.

#### Public investment cannot substitute for private initiative

Economic value cannot be created without the private sector. Industry must be at the core of planning for the effective leveraging of knowledge – both as innovators and as end-users.

#### We need to build the talent pool, and support it

Experimentation and ambition should be rewarded and celebrated. Our workforce needs to be equipped with the necessary skills.

We need to incentivise STEM education at all levels, from primary to tertiary education.

Technical, scientific and engineering skills need to be complemented with commercial acumen, investment analysis, business model innovation and strategic skills necessary to bring innovations to market.

Indigenous leadership in R&D should be promoted. Indigenous cultural and intellectual property should be protected. More Indigenous-led R&D businesses are needed.

#### Government as an exemplar

The purchasing power of government, from health to defence, from construction and infrastructure to services, should be used.

The current culture of risk-aversion within government procurement disadvantages new to market innovations by Australian firms.

Australia's publicly funded research agencies should be expected to support the development of new capabilities and industries.

#### Boosting private capital flows to support R&D and innovation activities

Unlocking additional and alternative sources of capital is vital if Australia is to compete with the investments, including by sovereign funds, of other nations that are backing-in R&D intensive firms.

Companies that leave Australia to be scaled up offshore, with their products sent back, represent a missed opportunity.

#### Strengthening performance measurement

Our research system needs to measure what matters – even when it's hard. Measuring what we can because we can with minimal discomfort is of little value, and too common. We need a greater focus on outcomes, including those relating to economic growth, rather than inputs.

#### Sustained growth in productivity and living standards requires innovation

To be instinctively innovative as a nation, we need to invest in our capabilities and the application of those capabilities.

#### What's next?

In addition to releasing the submissions to generate further discussion and input, over coming weeks the panel will release issues papers further exploring the evidence and the possible future directions for reform to increase the impact of the RD&I system. Additional opportunities to discuss reform directions will be organised, and written responses will be welcomed.

The focus of the papers will include national coordination and leadership, opportunities to achieve scale and impact, incentives for innovation and investment, the role of foundational research and the role of government.