



gemaker

# Response to Industry Growth Program Discussion Paper

July 2023



gemaker acknowledges the Traditional Custodians of the lands on which we live, meet and work.

We wish to pay our respects to Elders past, present and emerging and recognise the continuous connection of Aboriginal and Torres Strait Islander people to land, water and Country

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# Executive Summary

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gemaker welcomes the opportunity to participate in the consultation on the Industry Growth Program.

gemaker provides expert advice, services and training in the commercialisation of Australian research and innovation. Our senior team members average more than 22 years' experience in this field.

Since 2011, we have helped 45 research organisations, 11 Government agencies and 88 innovative businesses – ranging from start-ups to fast-growth SMEs to ASX-listed companies – to take new knowledge and technology to global markets.

The highlights of the gemaker response are:

- The definition of SMEs should be made consistent across government procurement, ATO, ABS, and ASIC for business funding. Businesses of similar sizes should be assessed together. If the Department wants to focus on funding smaller companies, then use a \$25M cap with no employee cap.
- Commercial market readiness level (CRL) and technology readiness level (TRL) both need to be used to determine project eligibility. Commercial market readiness is of equal importance to the technology development level especially for the later TRL levels.
- Small initial grants are immensely valuable to the SME community to support and assist them in building innovation and conducting market assessments on high-risk/low TRL projects. These small grants of up to \$100k should be funded on an 80:20 (grant: applicant) basis. A 50:50 level of funding is appropriate for later-stage projects (ie TRL 5+) where the funding assists businesses to scale up and enter new markets.
- Implement a tiered level of grants so that businesses can start small and grow as they successfully advance along the commercialisation pathway. This reduces grant application effort, provides pre-qualification based on past success, and allows early businesses to start small and advanced business to start further along the pathway.
- A key requirement for funding should be that applicants can show that they can fund their portion of the grant. The need for funding can be used to rank applications within a tiered level in addition to the importance and value of the project to Australia.
- The second Valley of Death that all companies face is securing first customers. Consider the ongoing funding of a Small Business Innovation and Research (SBIR) program similar to the long-standing US scheme that is accessible to all SMEs. Australian federal and state governments had started implementing these programs before COVID, but these efforts have since lost momentum.



- Improving the clarity of the grant forms, providing more guidance on what is required and having much faster evaluation results will improve the quality of the grant applications and allow more SMEs to apply for grants. Simpler forms should be made available for smaller grant amounts and more information on how the commercial-in-confidence information is treated is also required.
- The industry partner organisations used by the government should have diverse skill sets in all stages of commercialisation, e.g. strategic business planning, market research, technology and IP assessment, and training. Committee members who are evaluating applications should have diverse industry sector and commercialisation experience.
- Consider how other programs interact with this program and ensure that together they strengthen Australian SMEs and their ability to compete in world markets. Establishing a Centre of Expertise for Commercialisation would provide a focal point for this. Training courses should be provided for SMEs to improve their understanding of their innovation readiness and their capabilities.
- Education of and funding for marketing activities needs to increase. Commercialisation success relies on technology maturity and commercialisation activities including marketing. The lack of funding for marketing activities by most commercialisation grant programs reinforces the view that the invention is important and marketing is not. This combined with the general lack of understanding of marketing principles by SME's increases the likelihood of market failure.
- An important gap also exists in the funding and professional development supporting those that translate and commercialise research from universities and other publicly funded research organisations. It is recommended that part of the Industry Growth Program is dedicated to a new government-backed, scalable commercialisation and translation capability program that would drive commercialisation skills initiatives, growing Australia's long-term commercialisation skills and capability policy framework.



# gemaker's response to Industry Growth Program Discussion Paper

## Eligibility of SMEs

**What objective criteria should determine eligible innovative SMEs? For example, annual turnover of \$20 million or less, employee cap and/or net asset cap?**

The definition of Small to Medium Enterprises (SMEs) is inconsistent across Government Procurement, ASIC, ABS, and the ATO. If the Department want to focus its funding to support smaller companies (within the definitions of SME's).

We would recommend

- assessing innovative businesses of similar sizes together eg. Start-ups/spin-offs, small businesses and medium businesses.
- the eligibility criteria be \$25 million or less annual turnover
- No employee cap as this can vary significantly depending on the industry and also the numbers of contractors vs employees.

## Eligibility of projects

**What level of grant matching is appropriate? Should there be a variation for earlier stage Technology Readiness Levels (TRLs) programs and the size of the grant?**

- Small initial grants are immensely valuable to the SME community to support and assist them in creating an innovative eco-system and build a program of innovation and growth before moving on to larger projects which will take significant relative levels of investment and risk for them to participate in a growth programme. Access to small grants with a small requirement for matching funding is recommended.
- High Risk/Low TRL projects should be funded on an 80-20 basis for market analysis and commercialisation pathway advice – capped at \$100K. (ie 80% grant: 20% funded by applicant;). Generally, a 50/50 level of funding is appropriate for later stage projects (ie TRL 5+) where it assists businesses to scale up and enter new markets.
- It is recommended that a tiered system of grants will allow companies to take-up small amounts of funding for small projects and create pre-qualification for subsequent larger more advanced development and trialling will help them prevent major duplication of application effort and also will provide the government with a “success” pathway for businesses to grow – while still allowing more advanced companies to start at mid to higher levels of the program.



## **Are there barriers beyond pre-profit stage that the program should consider supporting?**

Everyone focuses on the valley of death as being the need for funding. The next valley of death is gaining first customers. It is extremely hard to obtain customers for a new technology replacing the incumbent. A Small Business Innovation & Research program (SBIR) solves real challenges with innovative solutions and supports them to grow as businesses. The Federal Government and State Governments began implementing SBIR programs in Australia pre-covid which has appeared to have lost momentum.

An SBIR program has been delivered for decades in the US and has the ability to provide the investment, purpose and support for solving our problems and growing new industries in Australia.

US Federal agencies with R&D budgets in excess of \$100 million (i.e. eleven agencies, including Defence and Health) are required to allocate 3.2% of their budgets to this program. Over the past three decades, \$43 billion has been awarded to tens of thousands of small, innovative, research-intensive businesses, to:

- meet government R&D needs
- stimulate technological innovation and commercialisation
- increase employment and workforce skills and strengthen the economy
- foster participation in innovation and entrepreneurship by women and people who are socially and economically disadvantaged.

Our own past Chief Scientist, Alan Finkel, successfully applied for US SBIR funding in the 1980s, for his US-based company Axon Instruments.

The concept of supporting SMEs to move into new and adjacent markets for import-replacement activities is also something worthy of support. Inclusion of this approach in the program will enable SMEs to take more risk in moving into new markets than would normally be possible.

## **Should Technology Readiness Levels (TRLs) be used to determine eligibility of a project? If so, what are appropriate TRLs for commercialisation and/or early-stage growth phases?**

Generally, it helps to categorise new projects and innovations into TRL levels for the program to make understandable where projects fit and what level of progression would be expected to be achieved for different grants applied.

However, TRLs are only about maturity of the technology and not about how ready the product is to go to market. The consistent focus of funding programs on technology development, with limited to no focus on market or investment readiness, devalues market-related activities for innovative companies and hence they fail to adequately prepare for new products to enter markets.

To emphasise the value of market-related activities it is suggested that the Industry Growth program refers to both TRLs and CRLs (Commercial (or Market) Readiness Levels) for eligibility and expected progress. (see <https://www.innovateukedge.ukri.org/blog/understanding-market-readiness-level> for a summary of CRLs)



In addition, we also recommend consistency across government programs. To encourage all innovations to progress to commercialisation, company creation and economic growth, they should receive parity in levels of support, whether SME or university sourced.

The AEA program expects innovations to enter that program at TRL 3-5. This is consistent with being beyond the Basic Research Phase. If the Industry Growth Program offered tiered grants the lower level should commence from TRL 3, ie basic research is mostly complete.

### **How should we determine which projects have the most potential for future growth and market impact?**

The first stage of determining if a technology/new product has potential for growth is to undertake a market assessment of the proposed innovation. First time entrants to the program should be able to receive small amounts of assistance and funding to get this assessment completed - if they don't have the skills to undertake this themselves and/or can't fund access to commercial expertise. To apply for larger grants and later stages of the program, a market assessment must clearly demonstrate a need or emerging need in the market.

Assessment of the impact should look at sales growth, employment creation and improvement of sovereign supply chain capability for highly preferred industries.

### **Should it be necessary that the applicant has the legal ownership, or effective ownership, of the know-how, intellectual property or other similar results arising from the project?**

In most cases, ownership of the outcomes by the applicant will ensure that the applicant and the Australian economy receives sufficient returns to justify the grant funds.

However, the ability to be able to exploit the results of the project is the critical element needed in order to progress a technology/product to commercialisation. It should be up to the applicants to demonstrate how the ownership structure of the outcomes of the project supports the goals of the Industry Growth Program. Depending on the industry, there may be no local commercialisation partners or investors to enable scale up of a new technology. Ownership may need to change hands in those circumstances.

It is recommended that the expected norm should be that the applicant owns the outcomes but if the applicant can demonstrate that they and the Australian economy will receive appropriate benefits without the applicant owning the outcomes then this should be taken into account.



## **Is 'need for funding' (i.e. why applicants are unable to access sufficient funding for the project from other sources) a useful merit criterion for assessing grant applications? If so, how should this be measured?**

The key criteria should be to demonstrate that an applicant can actually fund its share of a project as there are very few SMEs with significant cashflow surpluses and so most applicants will be deciding between which projects to forgo to focus on the project to be considered under the Growth Program.

Need for funding is also potentially an important criterion for ranking competing applications – provided the impact of the project, on national benefits and on achieving the goals of the Program, is equally important. These elements can be closely linked through a measure of Value for Money.

## **Diversity and inclusion**

### **What are the potential barriers to accessing the Industry Growth Program?**

- If application forms and processes are long, repetitive and confusing, with lengthy delays for communication and evaluation, then this is a significant burden on start-ups and SMEs, making it a lot harder for smaller companies to find the resources to be able to apply. SMEs need to be nimble so lengthy delays mean they are more likely to move on to alternate projects.
- Lack of clarity of the type of responses required for evaluation.
- Lack of clarity that information provided by applicants will be treated as 'commercial in confidence' disincentivises applying for programs.
- Opening funding rounds for submission over major public holiday seasons limits the ability of SMEs to adequately respond adequately.

### **How can we help overcome these barriers to expand the reach of the program?**

- Reduce complexity and length of application and process particularly for small grants. The application length of application and responses required for small (up to \$100k) and large grants (up to \$5m) should be commiserate with the amount of funding requested.
- Ensure responses are provided within 6-8 weeks of submission and staffing to allow for that turnaround.
- Provide clear written material to applicants and training to advisors to ensure confidentiality is understood by both parties
- Provide example material and regular training sessions for SMEs to learn how to submit applications that meet the program criteria.
- If there will be funding rounds, they should occur on a known regular basis so businesses have plenty of time to prepare and learn what they need to bring together to support the due diligence process as this is not something SME's generally have readily accessible





### **Should the program consider more specific merit criteria for traditionally underrepresented groups?**

- If under-represented groups are to be specifically supported a tranche should be separately carved out for them with specific criteria developed to provide a higher level of funding to support where a gap is to be closed. The main funding tranches should be fully merit-based.

Industry partner organisations

### **What core capabilities and resources would be most useful from industry partner organisations to improve commercialisation and early-stage growth performance for participants of this program?**

- With a move to directly contracted advisors it will be essential to ensure there is a strong mix of expertise to cover all areas of innovation sectors and commercialisation stages.
- to supplement the Industry Advisors, the industry partner organisations could cover periods of high demand for services and to access specific skills, sector knowledge and networks that may not be readily available in the advisor group. This would allow for pre-filtered expertise to be identified as needed.
- The ability to provide access to industry-relevant mentors through industry organisations would also be of value.

### **What services and support should industry partner organisations provide to participants?**

- strategic, business and commercialisation planning
- industry-specific intelligence and advice on market conditions and trends
- international competitor information and demand
- strategic IP advice, and searching
- grant application training
- eco-system networking events
- marketing services



## Program governance and grant assessment

### **Are there other skills and expertise that should be represented on the committee?**

- The independent committee needs to be able to meet/review recommendations on an ongoing and regular basis, as previous programs had long lead times from advisor recommendation to when committees and delegates met to review recommendations. Waiting 3-4 months after a recommendation goes forward often means businesses have had to move on to other things and commit resources elsewhere.
- The committee will need a broad range of experience with a mix of technical and strategic business skills to assist in understanding the scope of growth opportunities
- Given committee members will be mainly ranking applications rather than doing detailed assessments they will need to have a demonstrated broad exposure to multiple industries to appreciate where each application sits vis a vis the different industries being considered.

## Program design to meet intended outcomes

### **What other design elements could be considered to ensure a quality, positive business experience and outcomes?**

- Need to be clear whether university spinouts will be eligible for the program.
- Consider how the Industry Growth program will link into other government programs such as the Australian Economic Accelerator and the International Growth grant programs (eg EMDG)
- Commercialisation success relies both on technology maturity and broader commercialisation activities such as: defining the target, identifying a unique value proposition, engaging with customers to validate Product/Solution Fit and Product/Market Fit, etc. More traditional marketing activities are also needed to successfully launch innovations. Funding is needed for all these types of activities within the Industry Growth Program. It is noted that EMDG provides marketing funding for export markets but no funding is available for entering new domestic markets.
- Establishing a Centre of Expertise for commercialisation capability is an excellent idea to help build on existing commercialisation skills in Australia, which are mainly located in Universities and Research Organisations (albeit in small but effective numbers).
  - It is important for the Centre to have a forward-looking role in identifying emerging industries and then working to build the required commercialisation and commercial skills needed to support such industries' take-off.
  - The Centre should educate SMEs to provide them with an understanding of the innovation readiness platform and to understand where they sit on their ability to adopt new and innovative technologies and what they need to build those capabilities. Consider looking at the SME@UTS program, which incorporates the innovation strategy segment and training on connecting with university research in a value-adding way. This program has helped SMEs overcome their fear of dealing with universities and government and engage in small innovation programs after some innovation strategy education.



- An important gap also exists in the funding/programs supporting the translation/commercialisation of research from universities and other publicly funded research organisations. It is recommended that part of the Industry Growth Program is dedicated to a new government-backed, scalable commercialisation and translation capability program that would drive commercialisation skills initiatives, growing Australia's long-term skills and capability policy framework.
  - Under this program participants would learn how to combine their technical and specialist skills with the business-building and negotiation skills required to create new markets and industries. They would also work with Government on how policy is developed. The program would create new understandings of how different parts of the innovation ecosystem operate - and need to cooperate - and how networks are built to develop emerging industries.
  - Many of these translation/commercialisation professionals from research organisations also move into the innovation ecosystem (including spin-off or start-up companies, CRC's venture capital, commercialisation agencies to support industry commercialisation efforts).
  - A lot could be learnt from the recent US investment of US\$50b in innovation, which incorporates **US\$3.1b** to support the increase or establishment of technology transfer capacity across the country.

### **Are the proposed project periods (up to 24 months) reasonable?**

24 months is a reasonable period when there is a properly structured project plan with realistic deliverables and timelines.

### **How should we measure the success of the Industry Growth Program, for the economy and for participating businesses?**

Measures for the increased return to the economy could be through

- increases in GDP
- increases in Employment
- Critical industry expansion and new emerging industries supported
- Supply chain expansion within Australia
- ROI on the funds invested into the project.



## Post-grant period reporting obligations

### **What information would be important to seek during the follow-up (post-grant or post-advice) period?**

Given that growth is a risk as much as an opportunity for businesses, the program needs to provide sufficient flexibility in meeting milestones and requirements to allow for changing business conditions and changes to the milestones/timing as necessary with minimal internal processes.

Information to track would include:

- Revenue
- R&D expenditure

### **Over what timeframe should the program follow up with grantees and advise recipients to collect data on their business?**

A maximum of 2 years after the grant period finishes.

### **How can the reporting burden be kept to the minimum required to best support a future evaluation of the program?**

- Link grant reporting to the general reporting requirements of ASIC.
- Companies should report on the projections that they included in their initial application to demonstrate impact (ie if they could identify impact for the application they should be able to measure its achievement after implementation).

### **What other opportunities (including those beyond data) could be explored as part of the post-grant period?**

How has the program improved diversity and contribution to net zero climate objectives?



## Alignment with other initiatives

### **How can the program complement other university, industry, and government initiatives?**

It appears that universities will not be able to apply for the Industry Growth program, and it is currently unclear if spinout companies may apply. This is a major change from the antecedent programs, both of which encouraged University commercialisation offices to apply.

If it is intended that the Economic Accelerator Program is the program that universities should apply for to receive funding for similar activities to the Industry Growth Program then the programs need to reference each other and to operate under similar merit criteria.

To encourage all innovations to progress to commercialisation, company creation and economic growth, they should receive parity in levels of support, regardless of whether SME or university sourced. The reasons for market failure, in terms of progression of an innovation to successful commercialisation, may be different for SMEs and universities but the solutions are the same, ie access to funds dedicated to commercialisation to progress the innovation through TRLs **and** CRLs (Commercial Readiness Levels).

The types of advice that are envisioned to be provided by the Industry Growth Program Advisors, ie

- validation of a business model
- networking and collaboration
- seeking investment
- market testing
- developing compelling value propositions.

are activities consistent with CRLs and are best practice for all innovations regardless of source. The AEA needs to clearly indicate that these types of activities are funded under that program to ensure parity between the two programs.

### **How could the program support better connections from industry to universities and entrepreneurial students?**

- Provide a tranche of the program to support Industry – University innovation connections by supporting universities to deliver innovation training for SME's together with demonstrations of emerging research for different industries of importance to the government.