Global Innovation Strategy Post-Commencement Evaluation

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2.   Abbreviations and Acronyms

Abbreviation or acronym	
AAS	Australian Academy of Science
ABN	Australian Business Number
AIS	Asian Innovation Strategy
AISRF	Australia-India Strategic Research Fund
ANAO	Australian National Audit Office
APS	Australian Public Service
ATSE	Australian Academy of Technology and Engineering
CAESIE	Connecting Australian-European Science and Innovation Excellence
Challenges	Practical Research Challenges
the department or DIIS	Department of Industry, Innovation and Science
DFAT	Department of Foreign Affairs and Trade
EASD	Economic and Analytical Services Division
EC	European Commission
EU	Evaluation Unit
GCF	Global Connections Fund
GIL	Global Innovation Linkages
GIS	Global Innovation Strategy
GST	Goods and Services Tax
IGC	Industry Growth Centre
ISL program	International Science Linkages program
MYEFO	Mid-Year Economic and Fiscal Outlook
NISA	National Innovation and Science Agenda
OECD	Organisation for Economic Co-operation and Development
RCP	Regional Collaborations Programme
RG	Reference Group
the Priorities	the Australian Government's Science and Research Priorities
SME	Small-and-Medium Enterprise
Strategy	Global Innovation Strategy

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4.   Executive Summary

The Global Innovation Strategy (the Strategy) is an initiative that aims to improve Australia's international innovation and science collaboration by better leveraging Australian researchers and research organisations to improve collaboration between industry and research.[1]

The Strategy was announced by the Australian Government in 2015 as a key international initiative of the National Innovation and Science Agenda (NISA) with funding of $36 million over four years to 2019–20. The Strategy fits under NISA's 'Collaboration' pillar.

The Strategy is comprised of four separate programs:

- Global Connections Fund (GCF)
- Global Innovation Linkages (GIL)
- Regional Collaborations Programme (RCP)
- Landing Pads.

The Department of Industry, Innovation and Science (the department) conducted a post-commencement evaluation of the Strategy between January and June 2018 and assessed its program design, implementation, early indicators and outcomes and Evaluation Ready status.

The evaluation scope was from initial launch in 2016 to the end of December 2017 and focused on GCF, GIL and RCP, acknowledging that the policy intent of the Strategy is broader than these three programs. The evaluation used a mixed-methods approach that incorporated qualitative and quantitative data collected from a variety of internal and external sources.

The evaluators found that the need for the Strategy was well understood and it has been designed and implemented relatively well overall given the parameters set by this need and the allocated funding envelope. Early performance metrics indicated there was strong demand for all Strategy programs, and positive early-stage collaboration and commercialisation outcomes from GCF. The evaluators also found that the delivery arrangements have presented some internal challenges for the policy and program teams. In addition, the evaluators concluded that although there would not be sufficient data available to inform an impact evaluation in 2019–20, an interim policy review of GCF and RCP at that time would be informative prior to the expiration of the agreements with the current delivery agencies.

An updated set of Evaluation Ready documents is being formalised into an Evaluation Strategy that would improve the program logic and data matrix drafted in 2015.

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[1] Department of Industry, Innovation and Science (DIIS) (2016) *Global Innovation Strategy — A strategy to advance Australia's international industry, science and research collaboration*, DIIS, https://publications.industry.gov.au/publications/globalinnovationstrategy/index.html

The evaluation recommends:

1. To delay the impact evaluation of the Strategy by two years to 2021–22

2. To schedule an interim policy review of GCF and RCP in late calendar year 2019

3. That the GIL policy and program teams review the delivery arrangements to ensure a strengthened understanding of each other's roles and responsibilities.

5. Summary of the Findings and Recommendations

Table 5.1: Summary of the evaluation findings and recommendations

Findings		Recommendations
Focus Area: Evaluation Ready		
The Evaluation Strategy is being re-developed.	The Evaluation Strategy for the Strategy is being re-developed. This updated Evaluation Strategy will improve the initial program logic and data matrix developed in 2015. It is expected to be in place at, or soon after, the conclusion of this evaluation.	
The policy team is generally able to access data useful for future evaluation activities.	While most of the data collated by the policy team is of high quality and well-maintained, data collected is distributed across three delivery agencies. As a consequence, the policy team does not have unrestricted access to the raw data, particularly as the Australian Academy of Technology and Engineering (ATSE) and Australian Academy of Science (AAS) are external to the department.	
An impact evaluation of the Strategy is scheduled for 2019–20. There will not be enough data at this time to inform a meaningful evaluation.	GIL and RCP allow multi-year projects. Delivery agencies will not receive a complete set of final project reports and exit surveys from first round grant awardees until 2020–21. Longer-term indicators of project success will not manifest immediately following project completion.	**1. Delay the impact evaluation of the Strategy by two years to 2021–22.** This will allow time for the first rounds of GIL and RCP to finish, grant awardees to fulfil project completion reporting requirements and for long-term outcomes to be measured appropriately. The policy team should lead the implementation of this recommendation in consultation with the Evaluation Unit. It should be reflected in the Evaluation Strategy for the Strategy and the departmental Evaluation Plan.

Findings		Recommendations	
An interim review of GCF and RCP is needed in 2019. This would inform a decision about their future.	The current contract end date for GCF and RCP funding is June 2020. There will not be enough data prior to this point to inform an impact evaluation of RCP. This is not an issue for GCF, as the program has been running for longer and the projects are shorter in length. A review of GCF and RCP in the second half of 2019 would inform a decision about their future.	**2. Schedule an interim policy review of GCF and RCP in late calendar year 2019.** This will enable an assessment of the two programs, including whether to continue the current delivery arrangements. The policy team should lead the implementation of this recommendation.	

Focus Area: Design			
The Strategy was designed to address known collaboration weaknesses in the Australian innovation system.	The four collaboration weaknesses as identified by the Australian Government were: 1. Movement of Australian technology and talent overseas. 2. Poor performance on industry collaboration and international innovation activities. 3. No support to engage with key economies on international collaboration activities. 4. No centralised overseas start-up support.		
The delivery model is appropriate to meet the documented objectives of the Strategy despite its complexity.	The delivery model is appropriate because the advantages outweigh the disadvantages. Each delivery agency was approached due to their experience in delivering grant programs on behalf of the Australian Government. The engagement of AAS and ATSE also provided a significant value-add by engaging the services of their experienced and highly specialised Fellows networks in the application process. Nevertheless, the delivery model is complex with multiple moving parts — three delivery agencies, a separate policy team and three slightly different programs.[2]		

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[2] Not to mention the fourth aspect of the Strategy under the responsibility of DFAT.

Findings	Recommendations
Alignment with the Industry Growth Centre (IGC) sectors and the Priorities is appropriate in light of the international element of the Strategy.	It is appropriate that both GCF and GIL program guidelines require eligible projects to fit within an IGC sector[3] given that the Strategy supports international innovation and science engagement. RCP does not mandate priority areas; however, it does request applicants consider the Priorities and associated Practical Research Challenges (Challenges), along with regional challenges identified through multilateral fora.
The recent Australian Government decision to remove the GCF and GIL requirement to select from a list of priority economies was soundly based.	Up until the 2018–19 Budget, GCF and GIL mandated that Australian business and research organisations applying for grants could only engage with a specified list of priority economies. Interview feedback strongly indicated, however, that the list was not viewed positively by many of the key policy and program staff, as well as applicants and other interested parties. The decision to remove this requirement was appropriate given the views of stakeholders.
Interview comments and program data indicate a potential disconnect between the level of allocated administered funding and the expected impact of the Strategy.	Some of the high-level objectives of the Strategy may be difficult to achieve given the current administered funding and the relatively small number of grants available for applicants. 72 per cent of interviewees spoke about the level of allocated administered funding in relation to the objectives of the Strategy and the potential opportunities foregone. 64 per cent of interviewees noted that many otherwise fundable high quality applications were missing out in grant rounds due to the high demand for grants and the inability of the delivery agencies to award grants to all suitable applicants.

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[3] Excluding the Cyber Security sector for GCF projects.

Findings		Recommendations
Focus Area: Implementation		
The cost of program administration appears reasonable.	As a percentage of total program costs, the overall cost of delivery is broadly similar across the three programs. In general, the delivery agencies reported they were streamlining administrative processes wherever possible to reduce delivery costs. All funding allocated to the Strategy is administered funding. This has presented challenges for the AusIndustry program team in delivering GIL, and the policy team in delivering all elements of the Strategy.	
Overall, the Strategy is being delivered on schedule.	To date, both GCF and GIL have been delivered in accordance with the agreements with ATSE and AusIndustry, and there has been no reports of delays in the delivery schedule. The awarding of the first round of RCP grants was delayed by almost eight months following the launch of the program in November 2016. This delay was out of the department's control. With the agreement of the department, AAS ensured that delivery of RCP would remain on schedule by reducing the number of additional grant rounds from three to one.	
The delivery arrangements have presented some internal challenges for the policy and program teams.	Half the stakeholders interviewed reported internal challenges for the policy team and AusIndustry staff involved in administering GIL. The GIL policy and program teams should ensure a strengthened understanding of each other's roles and responsibilities.	**3. The GIL policy and program teams review the delivery arrangements to ensure a strengthened understanding of each other's roles and responsibilities.** This should establish which team is the primary decision-maker for what aspects of the program. The policy team and AusIndustry should be equally responsible for the implementation of this recommendation.

Findings	Recommendations
Focus Area: Lead Indicators and Outcomes	
All delivery agencies are collecting data on program performance.	All delivery agencies have captured administrative data from at least one round of grants.[4]
The leveraged grant funding has exceeded expectations and minimum requirements.	Over two rounds, GCF Bridging Grant global partners made cash or in-kind contributions totalling 156 per cent of the Australian Government's investment. In the first round alone, GIL global partners made cash or in-kind contributions totalling 161 per cent of the Australian Government's investment and for RCP it was a 108 per cent.
First round exit surveys from GCF grant awardees indicate the program is successfully supporting early-stage engagement, innovation and commercialisation activities.	Following the expiry of the grant period (12 months), awardees are required to complete a final report and participate in an exit survey. 99 per cent[5] of respondents from the first round classified their projects as *partially* or *very successful*. Over 62 per cent of respondents reported they had identified additional collaborative partners or individuals and/or developed additional business or research opportunities; 47 per cent reported they had applied for additional grant funding. Over 90 per cent of respondents reported the program had led to healthy and growing collaborations and increased the likelihood of working with other international partners in the future. 53 per cent of respondents reported they had applied for a provisional patent, or that one may be developed in the future.

[4] To date, two rounds of GCF grants have been awarded and one round each of GIL and RCP grants.

[5] This, and all following statistics, combine the results of responses from the Priming Grants and Bridging Grants exit survey reports. Due to the nature of the questions and the way the survey was designed, not every exit survey respondent answered every question.

Findings	Recommendations
Grant application success rates are low.	Grant application success rates reported so far are 15 per cent, 10 per cent and eight per cent for GCF Bridging Grants,[6] GIL and RCP respectively.
	36 per cent of interviewees observed that due to the large numbers of applications, only the very best were getting through. As a result, some high quality applications were missing out.
	Thus far, evidence from stakeholder interviews and GCF reports indicates that applicants are not unhappy with the low success rates.

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[6] GCF Priming Grants have a higher success rate of 38 per cent, but this is due to the comparatively smaller grant amount offered ($7,000 per applicant, compared to up to $50,000 for Bridging Grants, $1 million for GIL and no upper limit for RCP).

6.   Management Response

Internal Strategy policy and program delivery representatives were invited to respond to the findings and recommendations made in this report. Their comments are included below:

Table 6.1: Internal policy and program delivery representative responses to the evaluation report

Science Policy Branch	DIIS Grants Administration Branch	Science Agencies Governance Branch
Science Policy Branch is pleased to note the evaluation found that: · the need for the Strategy was well understood and it has been designed and implemented relatively well overall given the parameters set by this need and the allocated funding envelope · early performance metrics indicated there was strong demand for all Strategy programs, and positive early- stage collaboration and commercialisation outcomes from GCF. Science Policy Branch supports the post-commencement evaluation recommendations.	DIIS Grants Administration Branch notes the findings and recommendations of the post-commencement evaluation. In particular we support Recommendation 3: *'The GIL policy and program teams review the delivery arrangements to ensure a strengthened understanding of each other's roles and responsibilities.'*	None.

7. Introduction

7.1 The Strategy

The Strategy is an initiative aiming to improve Australia's international science, research and innovation collaboration. It was announced in December 2015 as part of the 'Collaboration' pillar of NISA and was initially allocated $36 million in administered funding over a four-year period from 2016–17 to 2019–20.[7] It currently consists of four distinct funding streams or programs, as outlined in Table 7.1:

Table 7.1: Overview of the Strategy funding streams prior to the 2018–19 Budget

Program	Purpose	Funding	Program Delivery
Global Connections Fund	Seed funding to Australian researchers and SMEs for collaboration activities with global partners, and to encourage translational activities and research commercialisation.	$4.9 million to 2019–20	Australian Academy of Technology and Engineering
Global Innovation Linkages	Funding for Australian businesses and research organisations for collaboration with global partners on strategically-focused research and development projects.	$18.0 million to 2020–21	AusIndustry
Regional Collaborations Programme	Funding for multi-partner projects that will enable greater science, research and industry collaboration in delivering innovative solutions to shared regional challenges.	$3.2 million to 2019–20	Australian Academy of Science
Landing Pads	Provide Australian market-ready start-ups with an overseas short-term operational base from which they can access a wider network of innovation hubs.	$11.2 million to 2019–20	Austrade

Source: Strategy and program websites

The Asian Innovation Strategy (AIS) was announced by the Australian Government in the 2018–19 Budget, as a fifth funding stream of the Strategy. It aims to leverage co-investment by foreign governments to help Australian businesses take advantage of opportunities in Asia. AIS has funding of $20 million over four years to 2021–22.

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[7] At the 2016–17 MYEFO, GIL received additional funding of $1.5 million. This is reflected in the detail about the individual program funding allocations, so the amounts in Table 6.1 will add to more than $36 million.

7.2 Objectives of the Strategy

In introducing the Strategy, the Australian Government's overall policy objective was to:

> Foster research and industry links by aligning existing and future international science and engagement activities with NISA's four key pillar outcomes. It will build on these to create commercial partnerships to improve the global reach of Australia's economy through innovation.[8]

The high-level objectives of the Strategy are described as:

- Encouraging other countries to partner with Australia

- Drawing together existing resources and programmes

- Accessing opportunities through international collaboration and start-up support

- Shifting engagement to scalable, more effective multi-partner collaborative projects.[9]

Ultimately, the Strategy is intended to:

- Enhance whole-of-government global engagement

- Build business-research collaboration

- Draw talent and investment into Australia

- Increase links to global value chains

- Facilitate an innovative, open marketplace for Australian businesses and researchers in the Asia-Pacific.[10]

7.3 Operation of the Strategy

The four separate programs of the Strategy are seen in Image 7.1. The department is wholly responsible for three of the programs, which are delivered by AAS, ATSE and AusIndustry and jointly responsible for the fourth (Landing Pads) with the Department of Foreign Affairs and Trade (DFAT).

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[8] DIIS (2016) *Global Innovation Strategy — A strategy to advance Australia's international industry, science and research collaboration*, DIIS,
https://publications.industry.gov.au/publications/globalinnovationstrategy/index.html

[9] ibid.

[10] ibid.

Image 7.1: Structure of the Strategy prior to the 2018–19 Budget
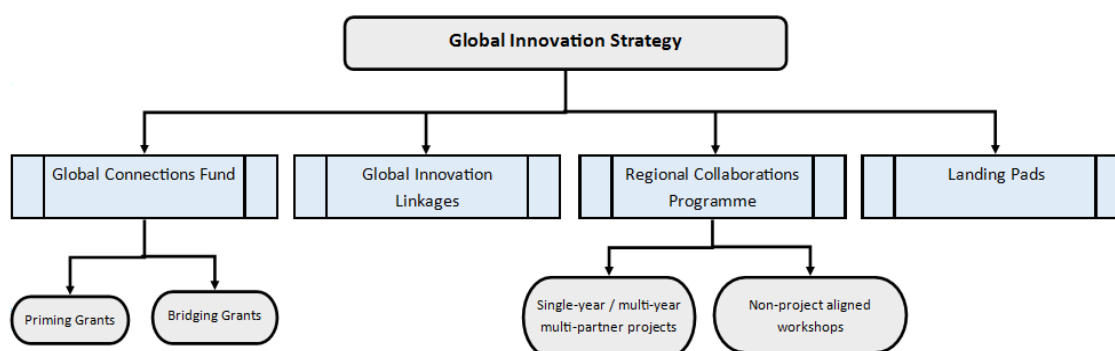
Source: Program websites

GCF is comprised of two complementary programs. Priming Grants encourage the development of initial international researcher and SME partnerships that advance research translation or product development. Bridging Grants support the growth of initial international researcher-SME partnerships into a collaboration that leads to the translation of research knowledge and intellectual property into market-ready products or services.

RCP is comprised of two components (multi-partner projects and non-project aligned workshops) that both work towards the overall program objective.[11]

Additional detail about the structure of the Strategy is at Appendix A.

The operation of the Strategy is as follows:

- GCF: Australian researchers and SMEs submit an Expression of Interest, which is assessed for eligibility. Approved applicants then prepare and submit a formal grant application. Submitted grant applications are assessed by an internal panel of independent expert representatives nominated by ATSE. The applications are compiled into a final ranking by ATSE and the department receives advice from ATSE on which applications should be funded.

- GIL: Australian businesses and research organisations submit an online grant application, which is first assessed for eligibility. Approved applications are then assessed by an independent advisory committee. The Minister for Industry, Science and Technology decides which applications to fund based on the recommendations of the advisory committee.

- RCP: Australian businesses and research organisations submit an online grant application, which is assessed for eligibility and impact by an internal panel of independent expert representatives. If required, applicants are contacted by AAS on the alignment of proposals with Australia's research priorities. The applications are compiled into an order of merit by AAS and

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[11] The two parts to RCP are not separate sub-programs unlike GCF. Applicants can apply for either or both components (projects or workshops) during each funding round, but can only receive one.

the department conducts a policy review on each to ensure these can be funded.

All applicants are notified of the outcome of their application once the assessment process has been finalised.

Once the Australian Government has announced the details of the successful applicants, the agency responsible for program delivery puts in place an agreement setting out the terms and conditions of the grant and mutual obligations.

From this point forward, successful applicants are able to commence their activities under the grant. For all department-owned programs, participants:

- must provide interim and final reports as per the terms of their agreement with the delivery agency

- are expected to complete a survey at the conclusion of their grant and provide a summary of the outcomes of their project.

At all times, participants must maintain adequate records to demonstrate that the grant funding is being used in accordance with the terms of the agreement. The delivery agencies are able to terminate, recall or amend the grant if there is evidence that this is not the case.

Eligibility

The key eligibility criteria for accessing one of the Strategy programs are outlined in Table 7.2:

Table 7.2: Overview of the key program eligibility criteria for applicants

Program	Criteria
Global Connections Fund (Priming Grants)	· Any Australian researcher[12] or SME[13] seeking to partner with an international SME or researcher.[14] · A new research or commercial partnership. · Project topic falls within one of the IGC sectors.[15] · Applicants successful in the immediately preceding round must have an entirely new topic and proposed partnership.[16]
Global Connections Fund (Bridging Grants)	· All Priming Grant requirements plus: · Not have been successful in a round run the preceding calendar year. · Able to provide evidence of a partner cash/in-kind co-contribution totalling 50 per cent of the grant.
Global Innovation Linkages	· Any Australian research organisation or business that is incorporated and registered for GST, and has an ABN. · Partnered with another Australian research organisation or business,[17] and one international research organisation or business. · Project topic falls within one of the IGCs. · Project provides evidence of a benefit to Australia. · Able to provide evidence of 1:1 partner cash/in-kind co-contribution.
Regional Collaborations Programme	· Any Australian business or research organisation that is incorporated and registered for GST, and has an ABN. · NOT be a non-corporate Commonwealth entity as defined by the *Public Governance, Performance and Accountability Act 2013*. · Partnered with at least two non-Australian business or research organisations, at least one of which must be from the Asia-Pacific region. · Project/workshop provides evidence of a benefit to Australia. · Able to provide evidence of a 1:1 partner cash co-contribution.
Landing Pads	· An Australian start-up that is market-ready and ready to go global. · Able to fund their own flights, accommodation, visas, insurance etc.

Source: Program websites

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[12] The applicant is employed by a registered tertiary education institution, public sector research agency, not-for-profit research organisation or Cooperative Research Centre in Australia and is classified at or above the post-doctoral level.

[13] A micro-business, small business (less than 20 employees) or medium-sized firm (up to 200 employees) with an ABN, and be incorporated and registered for GST.

[14] It must be a researcher-SME partnership.

[15] Excluding Cyber Security.

[16] GCF Priming Grants only.

[17] There must be at least one Australian research organisation and one Australian business in the partnership.

7.4   Authority to evaluate

The department's *Evaluation Plan 2017–21* called for an evaluation of the Strategy 12 months post-commencement to assess design, early implementation and early indicators and outcomes. This evaluation was conducted by the department's Evaluation Unit as a Tier two program, with medium strategic importance.

7.5   Evaluation guidance

The evaluation was guided by a Reference Group, which consisted of representatives from policy and program areas as outlined below in Table 7.3.

Table 7.3: Reference Group members

Position	Role
General Manager, Insights and Evaluation Branch, Economic and Analytical Services Division	Chair
General Manager, Science Policy Branch, Science Commercialisation Policy Division	Member
General Manager, Science Agencies Governance Branch, Science Commercialisation Policy Division	Member
General Manager, DIIS Grants Administration, AusIndustry – Support for Business Division	Member

Source: Evaluation Terms of Reference. and Reference Group meeting agenda and minutes

7.6   Evaluation scope

This evaluation reviewed the three programs under the overarching Strategy that the department's Science Policy Branch is responsible for, and which were part of the initial announcement in 2015 — GCF, GIL and RCP.

The evaluation Terms of Reference (Appendix B) define the key evaluation questions, which were grouped into four focus areas — Evaluation Ready, Strategy design, implementation, and lead indicators and outcomes (Table 7.4). Evidence was gathered to inform assessments of those focus areas. Where appropriate, focus areas were considered at both the overarching Strategy and program levels.

Table 7.4: Evaluation questions

Focus Area	Evaluation Questions
Evaluation Ready	· Do the programs have: · A clear articulation of intended outcomes, and how they will be achieved? · Appropriate performance measures? · Identified or initiated data sources? · Scheduled evaluation activities into the future? · Have the programs started collecting the necessary data for future evaluations?
Program Design	· What is the nature and extent of the need and/or problem being addressed? · What are the consequences if the need and/or problem is not addressed? · Is the program delivery model appropriate to achieve the specified objectives?
Implementation	· Is the Strategy being implemented on schedule? · Is the Strategy being administered and delivered in the most efficient way possible? · Are there clearly defined lines of responsibility for the Australian Government agencies involved in the delivery of the program?
Lead Indicators and Outcomes	· What data (if any) is available to determine initial outputs and early outcomes? · What does this data tell us about early outcomes or indications of early outcomes? · Are there any issues which might affect the achievement of intended outcomes and what actions are being taken to address them?

Source: Evaluation Terms of Reference

8. Methodology

The evaluation used a mixed-methods approach that incorporated qualitative and quantitative data collection from a range of internal and external sources to answer the evaluation questions in the Terms of Reference. Two methods were used — stakeholder interviews and desktop research.

8.1 Stakeholder interviews

A total of 11 semi-structured interviews were conducted with a mix of policy and program delivery representatives up to senior management level who would be able to comment on the design and implementation of the Strategy or at least one of the individual programs (Appendix C).[18]

All interviews were conducted in person. The recorded interviews were transcribed and coded for thematic analysis (Appendix E).

8.2 Desktop research

A variety of internal and external documents were examined as part of the evaluation. The purpose of this research was to inform preliminary thinking about the Strategy and the individual programs and to explore in detail the insights provided by the stakeholder interviews. The types of documents examined were:

- formative policy documents
- media announcements
- program documents
- delivery agency contracts and agreements
- administrative program data
- delivery agency program and outcome reports
- GCF applicant exit survey reports
- evaluation reports of similar programs.

8.3 Limitations

This evaluation would have benefited from a survey of the successful and unsuccessful grant applicants across all three Strategy programs. Without such a survey, the evaluators have been limited in their ability to review the experience of unsuccessful grant applicants as they received only indirect feedback from interviewed stakeholders and program reports about the experience of successful grant applicants.

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[18] The interview questions are located at Appendix D.

9.   Evaluation Findings

9.1   Evaluation Ready

The evaluators have considered the extent to which the individual programs under the overarching Strategy had clear objectives, identified appropriate performance indicators and data sources, and whether processes had been put in place to collect data for evaluation activities. They have also explored whether or not additional evaluations had been scheduled.

The Evaluation Strategy is being re-developed

Evaluation Ready documents are living documents and hence subject to regular review. Revised program logic models for each of the individual Strategy programs, as well as a single data matrix for the Strategy, are currently in progress as part of an updated Evaluation Strategy for the Strategy. This updated Evaluation Strategy will improve the initial program logic and data matrix developed in 2015 prior to the Strategy's launch in 2016 by:

- developing program logic models for all programs for which this department is responsible
- scaling back program outcomes that are unlikely to be achieved with current funding.

The updated Evaluation Strategy is expected to be in place at, or soon after, the conclusion of this evaluation.

The policy team is generally able to access program-level data useful for evaluation activities

Most of the data collated by the policy team is of high quality and well-maintained; however, data collection is distributed across three different delivery agencies. As a consequence, the policy team does not have unrestricted access to the raw data collected by the delivery agencies — particularly AAS and ATSE as these two agencies are external to the department. As AusIndustry is part of the department, the policy team is more able to readily access their raw program-level data than that from AAS and ATSE.

AusIndustry has recently undergone an organisational restructure. As such, it would be an ideal time for the program team to revisit their data collection holdings and practices to ensure that the handover is documented and incoming team members are sufficiently briefed, including on evaluation practices.

The current timing would not produce an informative impact evaluation

Due to the nature of the multi-year projects allowable under GIL and RCP, a number of longer term outcomes will take a relatively long time to manifest. This means that the current timing of the impact evaluation for the Strategy in 2019–20 would not allow for a meaningful assessment of these outcomes.

Funding for the Strategy is ongoing, but the current contracts for the delivery of GCF and RCP are due to expire at the end of June 2020. While it is not appropriate for a full impact evaluation, a review of at least these programs before the expiration of the funding agreements would provide valuable data and a sound evidence-base for any decision about their future.

Box 9.1: Findings — Evaluation Ready

1. The Evaluation Strategy is being re-developed.

2. The policy team is generally able to access data useful for future evaluation activities.

3. An impact evaluation of the Strategy is scheduled for 2019–20. There will not be enough data at this time to inform a meaningful evaluation.

4. An interim review of GCF and RCP is needed in 2019. This would inform a decision about their future.

Box 9.2: Recommendations — Evaluation Ready

1. Delay the impact evaluation of the Strategy by two years to 2021–22.

2. Schedule an interim policy review of GCF and RCP in late calendar year 2019.

9.2   Design

The evaluators have considered the need for the Strategy and the potential consequences if this need was not addressed. They have also explored whether the chosen program delivery model was appropriate to meet the objectives of the Strategy.

The Strategy was designed to address known collaboration weaknesses in the Australian innovation system

> Australia doesn't spend enough on international collaboration so this fills a gap in one way or another.
> **Program delivery representative**

The Strategy was designed to address four well-known collaboration weaknesses in the Australian innovation system, as identified by the Australian Government:

1. Australian technologies and talents were moving overseas to attractive funding environments, and SMEs had limited capacity to engage international expertise.	2. Australian businesses and researchers were lagging behind almost all OECD peers on industry-collaboration and international innovation activities.
3. There was no single Australian Government initiative to cost-effectively support international collaboration activities with economies of key strategic interest to Australia.	4. There was no centralised Australian Government support for start-up and entrepreneurial initiatives in overseas markets.

These identified weaknesses were supported by the 2014 *Australian Innovation System Report*,[19] which provided evidence that networking and collaboration are fundamental to any innovation system and that poor performance in this area is associated with low levels of trade, participation in global value chains and new-to-market innovation. The 2014 *Australian Innovation System Report* would have been used to inform the Strategy's policy development.

Many stakeholders made explicit recognition of the importance of collaboration in the interviews; for example,

> It's quite well-known that collaborating with other parties helps you to develop your ideas.
> **Policy team assistant manager**

> I know people ask about the benefit of an SME getting its research from overseas. The benefit is they get into a country and a market.
> **Program delivery representative**

The 2014 *Australian Innovation System Report* also noted that the most commonly identified barrier to innovation in Australia is a lack of access to additional funds.[20] This barrier has been reported by Australian firms for several consecutive years in a number of reports using the results from the Australian Bureau of Statistics Business Characteristics Survey. In addition, it is consistent with the survey results from the first round of GCF grants in 2016, which showed that 21 per cent of Priming Grant recipients believed that their collaboration would not have gone ahead without funding and 73 per cent of Bridging Grant recipients believed their collaboration would not have gone ahead without funding (Figure 9.1).

The findings in the 2014 *Australian Innovation System Report* are repeated in the latest edition, published in 2017[21].

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[19] DIIS (2016) *Australian Innovation System Report 2014*, DIIS, https://www.industry.gov.au/data-and-publications/australian-innovation-system-report-2014

[20] ibid.

[21] DIIS (2017) *Australian Innovation System Report 2017*, DIIS, https://www.industry.gov.au/data-and-publications/australian-innovation-system-report-2017

Figure 9.1: Extent to which the collaboration activity would have occurred without GCF funding
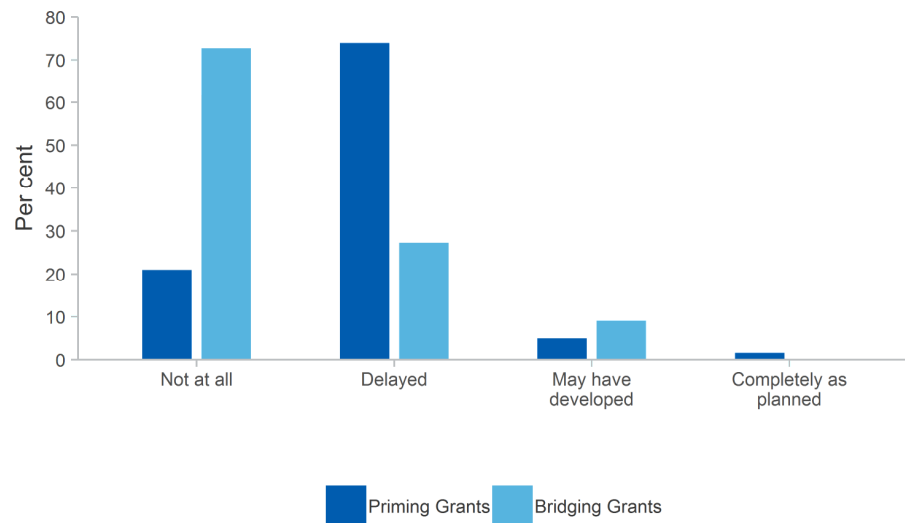
Source: ATSE final reports from the 2016 GCF rounds

The delivery model is appropriate but complex

The chosen delivery model is appropriate because the advantages outweigh the disadvantages. Each delivery agency was approached by the policy team at the design stage due to their experience in delivering grant programs on behalf of the Australian Government and their long-standing relationship with the department. By being involved at the design stage, all three delivery agencies had the opportunity to provide suggestions as to how the specific features of the programs might best suit their own particular program delivery style.

The engagement of AAS and ATSE as delivery agencies also provided a significant value-add to the Strategy. They are able to promote it internationally and domestically through their own networks, and engage the services of their experienced and highly specialised Fellows networks in assessing applications and providing feedback to grant applicants. As AAS and ATSE are external to the department, they retain a certain degree of autonomy in deciding how to run the programs they are delivering on behalf of the Australian Government.

Nevertheless, the fact remains that the delivery model is complex. There are multiple moving parts — three delivery agencies, a separate policy team and three slightly different programs.[22]

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[22] Plus a fourth part to the Strategy that is under the responsibility of another agency (DFAT).

Alignment with the IGC sectors and the Priorities is appropriate.

The IGC initiative is another departmental initiative driving innovation, productivity and competitiveness by focusing on areas of competitive strength and strategic priority in Australia. It is appropriate that both GCF and GIL program guidelines require eligible projects to fit within an IGC sector given that the Strategy supports international innovation and science engagement to help Australia compete on an international level.

The RCP funds Australian businesses and researchers to collaborate with international science, research and innovation partners on solutions to shared regional challenges within the Asia-Pacific. Unlike GCF and GIL, the program guidelines do not mandate priority areas for proposed research topics. It will be important for AAS to continue to emphasise that applicants should consider the Priorities and associated Challenges, along with regional challenges identified through multilateral fora.

Of those stakeholders interviewed that commented on this design feature, all held the view that it was very consistent with the policy direction being taken by the Australian Government, and with the program design decisions of the department.

The recent Australian Government decision to remove the requirement to select from a list of priority economies was soundly based.

Up until the 2018–19 Federal Budget, GCF and GIL mandated that Australian entities applying for grants could only engage with a specified list of priority economies as their primary global partner.

The original rationale for the list was to enable Australia to focus its science engagement on those economies of strategic research and importance to Australia. This is consistent with the findings from the 2011 evaluation of the International Science Linkages (ISL) program in relation to the design of an effective international science collaboration initiative. However, interview feedback strongly indicated concern by many of the key policy and program staff, as well as applicants and other interested parties. For example:

> If it's about being strategic and reducing the number of countries for diplomatic reasons and broader government priorities, then that's ok. But not if it's a bottom-up competitive process.
> **Policy team manager**

At the 2018–19 Budget, it was announced that the GCF and GIL requirement to choose from a public list of key economies would be removed.

RCP specifically focuses on building strong linkages within the Asia-Pacific region. It is important to the stated aims of this program that at least one partner economy in the application comes from the Asia-Pacific region. This partnering requirement has not attracted any similar feedback.

There is a potential disconnect between the level of allocated administered funding and expected impact of the Strategy

The Strategy has been allocated a total of around $37 million over five years to 2020–21[23] — with $5 million for GCF, $18 million for GIL and $3 million for RCP, and the remaining $11 million for Landing Pads. Given this level of funding and the relatively small number of grants available for applicants, some of the objectives of the Strategy as described in section 7.2 may be more difficult to achieve.

Nearly three-quarters of the stakeholders interviewed spoke about the level of allocated administered funding, the resulting likelihood of having a significant impact on industry-research collaboration, and potential opportunities foregone. Just over half of these stakeholders also noted that many otherwise fundable high quality applications were missing out in grant rounds due to the level of allocated administered funding.

> If a project is particularly time-sensitive, it may not eventuate in the end; a great opportunity is foregone due to the lack of funding available.
> **Policy team assistant manager**

Program and policy documents recognise that the Strategy has a supporting role in achieving the specified high-level objectives and therefore that the outcomes will be the combined result of a number of Australian programs and initiatives. It will be important for policy and program teams, and future evaluators of the Strategy to think in terms of contribution to outcomes rather than attributing outcomes directly to the Strategy.

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[23] Excluding the announcement of the additional funding in the 2018–19 Budget.

1. The Strategy was designed to address known collaboration weaknesses in the Australian system.

2. The delivery model is appropriate to meet the documented objectives of the Strategy despite its complexity.

3. Alignment with the IGC sectors and the Priorities is appropriate in light of the international element of the Strategy.

4. The recent Australian Government decision to remove the GCF and GIL requirement to select from a list of priority economies was soundly based.

5. Interview comments and program data indicate a potential disconnect between the level of allocated administered funding and the expected impact of the Strategy.

9.3 Implementation

The evaluators have considered whether or not the Strategy was being implemented on schedule and if it was being administered and delivered in the most efficient manner possible. They have also considered whether the lines of responsibility for the different agencies involved in program delivery were clearly defined.

The cost of program administration appears reasonable

The cost of delivering the Strategy is higher than it otherwise might have been due to the multiple delivery agencies. The evaluators recognise, however, that considerations in selecting the delivery model were based on more than just minimising the cost of delivery.

As a percentage of total program costs, the overall cost of delivery is broadly similar across the three programs and in general, the delivery agencies reported that they were streamlining administrative processes wherever possible to reduce delivery costs.

Based on the delivery cost data from the agreements in place with the delivery agencies at the launch of each of the programs and using Australian National Audit Office methodology[24], any efforts to further improve the cost of delivery should be focused on GIL and RCP. For example, the average cost of administration per application received is around $9,600 for GIL compared to around $600 for GCF and $4,200 for RCP. The average cost of providing each dollar of grant funding is highest for RCP at $0.29 compared to $0.13 for GCF and $0.10 for GIL (Figure 9.2), but this is likely reflective of the fact that more time was initially spent by the policy and program teams in setting up RCP than for GCF and GIL.

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[24] The methodology is described in Australian National Audit Office (ANAO) (2017) *Efficiency of the Australia Council's Administration of Grants*, ANAO,
https://www.anao.gov.au/work/performance-audit/efficiency-australia-councils-admin-grants

Figure 9.2: Measures of program administration efficiency
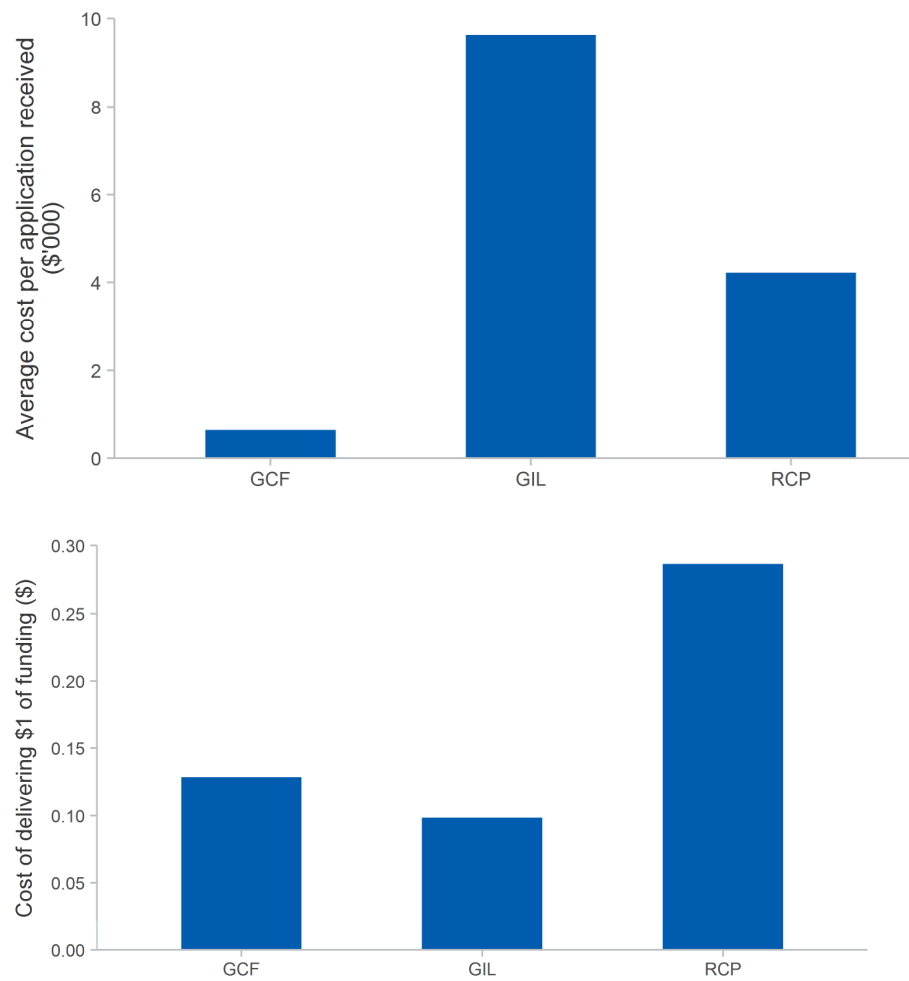
Notes: Methodology based on that used by the ANAO in their audit of selected Australia Council grant programs.[25] Administration costs are estimated costs as at the start of program implementation. Calculations for each are based on:

Cost of delivering $1 of funding

The total estimated administration cost divided by the total approved funding

In the case of GCF this calculation was averaged over the first two rounds

Average cost per application received

The total estimated administration cost (multiplied by 1000) divided by the number of applications received

Again, in the case of GCF this calculation was averaged over the first two rounds

Source: Strategy agreements with the delivery agencies and administrative data

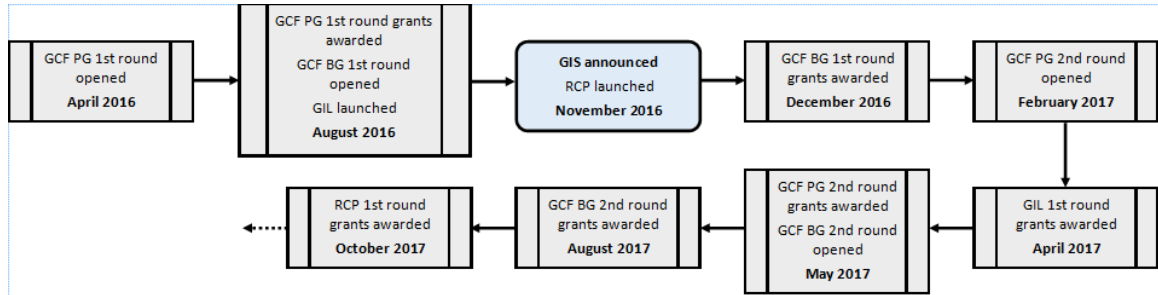All funding allocated to the Strategy is administered funding, which has presented challenges for the AusIndustry program team in delivering GIL. The program team was required to fully absorb all staffing-related costs associated with delivery according to the original costing and subsequent service-level agreement with the policy team, as confirmed at interview by a program team

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[25] ibid.

representative. The policy team also reported that this funding model has presented challenges for them in administering all elements of the Strategy.

Delivery of the Strategy is running to schedule

Image 9.1: Major Strategy milestones to December 2017 following its launch

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┌──────────────┐     ┌──────────────────┐     ┌──────────────┐     ┌──────────────┐     ┌──────────────┐
│ GCF PG 1st   │     │ GCF PG 1st round │     │ GIS announced│     │ GCF BG 1st   │     │ GCF PG 2nd   │
│ round        │ ──▶ │ grants awarded   │ ──▶ │ RCP launched │ ──▶ │ round grants │ ──▶ │ round opened │
│ opened       │     │ GCF BG 1st round │     │              │     │ awarded      │     │              │
│ April 2016   │     │ opened           │     │ November 2016│     │ December 2016│     │ February 2017│
│              │     │ GIL launched     │     │              │     │              │     │              │
│              │     │ August 2016      │     │              │     │              │     │              │
└──────────────┘     └──────────────────┘     └──────────────┘     └──────────────┘     └──────────────┘
```

Source: Strategy media announcements

There has been no significant delay so far in the delivery of the Strategy. ATSE has delivered GCF in accordance with their Commonwealth funding agreement, and AusIndustry has delivered the first round of GIL on a schedule consistent with the service-level agreement[26] in place at the time of the program launch between the policy and program teams.

The awarding of the first round of RCP grants was delayed by almost eight months following the launch of the program in November 2016. This delay was associated with a change in the Minister for Industry, Innovation and Science in late January 2017. AAS ensured that delivery of RCP would remain on schedule by reducing the number of additional grant rounds from three to one.

The implementation of GIL has been challenging for the policy and program teams

Half the stakeholders interviewed reported internal challenges between the policy team and AusIndustry staff involved in administering GIL, largely reflecting the need to strengthen understanding of each other's roles and responsibilities. Both teams have a good reputation with their stakeholders. The delivery of GIL and the overarching Strategy should ensure full utilisation of the knowledge and expertise of both teams.

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[26] Consistent with AusIndustry standard practice, service-level agreements like the one that was put in place for the launch of GIL no longer exist.

Box 9.4: Findings — Implementation

1. The cost of program administration appears reasonable.

2. Overall, the Strategy is being delivered on schedule.

3. The delivery arrangements have presented some internal challenges for the policy and program teams.

Box 9.5: Recommendations — Implementation

1. The GIL policy and program teams review the delivery arrangements to ensure a strengthened understanding of each other's roles and responsibilities.

9.4   Early indicators and outcomes

The evaluators explored whether there were any program performance data available, and what conclusions could be drawn from the data about early outcomes, or indications of future outcomes. They also explored whether there were any early indicators of issues that might affect the achievement of intended program outcomes, and what actions were being taken to address them.

Leveraged grant funding has exceeded expectations and minimum requirements

Project partners across all three programs have made eligible cash and in-kind contributions in excess of the minimum required by the respective programs. Over two rounds, GCF Bridging Grant global partners made cash/in-kind contributions totalling 156 per cent of the Australian Government's investment. In the first round alone, GIL global partners made cash/in-kind contributions totalling 161 per cent and for RCP it was 108 per cent (Figure 9.3).
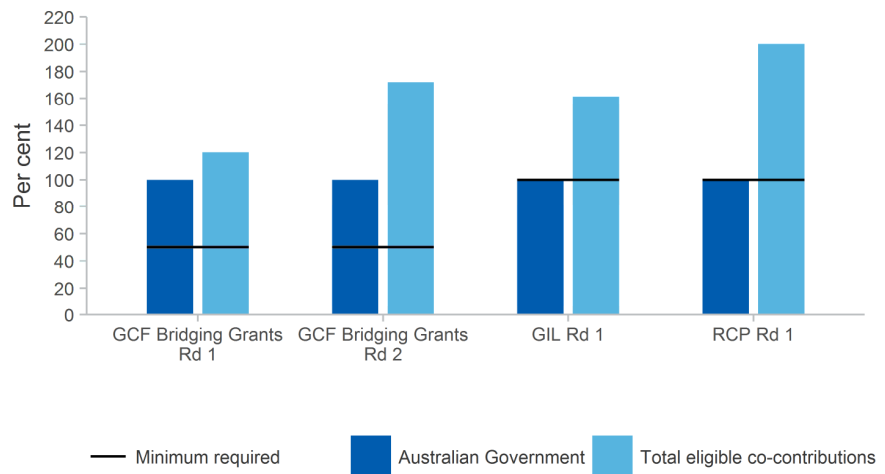
Notes: GCF Bridging Grant data is over two rounds of grants; and GIL and RCP over a single round.

Source: Strategy program administrative data

Early GCF outcome indicators are positive

> The grants also serve to modestly enlighten the grantees from an international science commercialisation perspective. They've been successful and are getting other grants, and their partners are applying for grants.
> **Program delivery representative**

Early indicators from data collected by ATSE so far indicate progress towards achieving the objectives of GCF. Collectively, the data available so far indicated that the program is helping to build business-research collaboration and successfully supporting early-stage engagement, innovation and commercialisation activities. Figure 9.5 indicates that the two main outcomes of receiving a GCF grant were that the participants implemented their ideas as a research-industry collaboration and identified additional collaborative partners. Additional perceived benefits from participants in the program included healthy and growing collaborations and increasing the likelihood of working with other international partners in the future.

Figure 9.4: Outcome types and other perceived benefits from GCF grant awardees

Per cent of respondents

Priming Grants   Bridging Grants

Per cent of respondents

Priming Grants   Bridging Grants
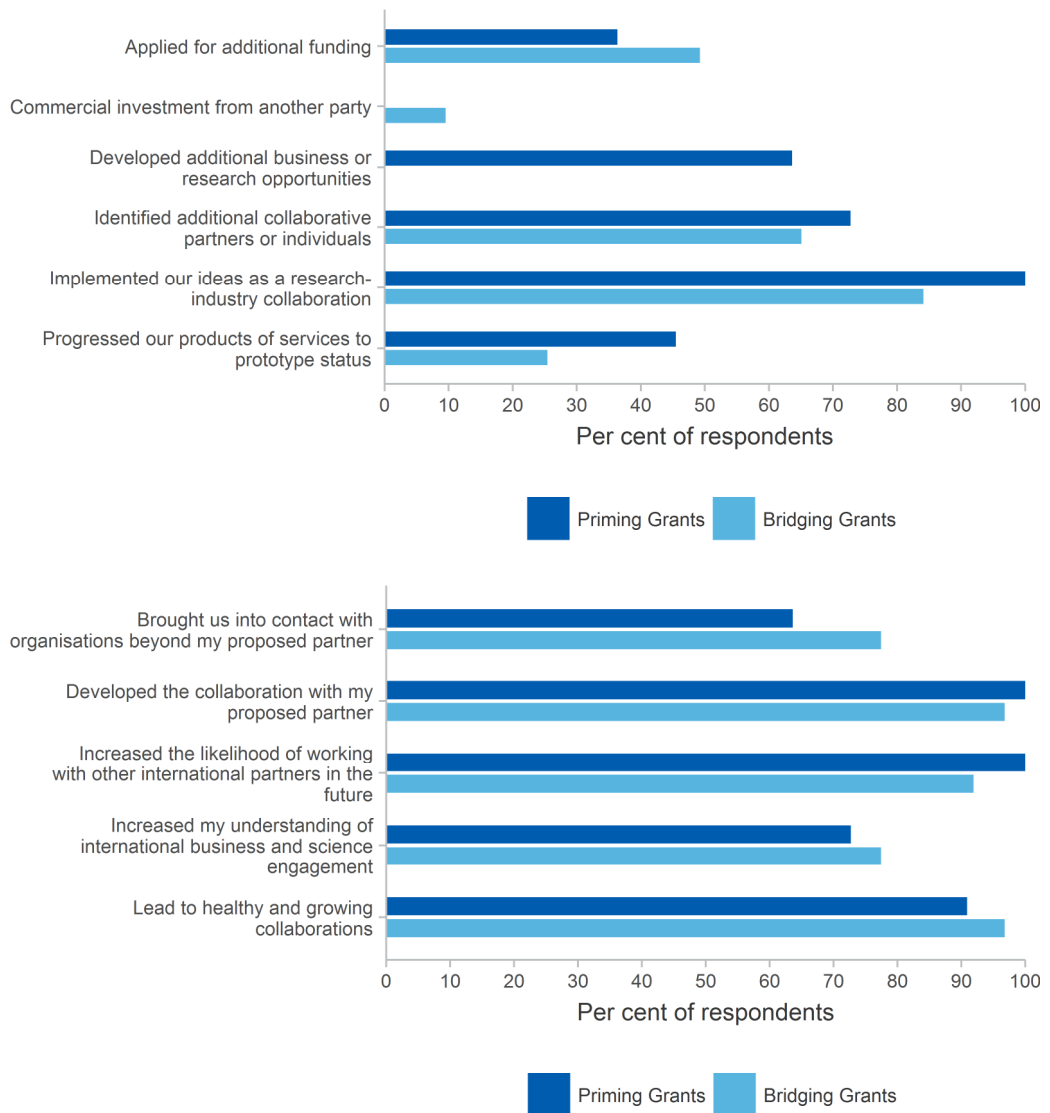
Notes: The data is from an exit survey that ATSE requires all grant awardees to complete at the conclusion of their project. The survey was designed such that not all respondents answered every question, and for these particular questions, respondents could choose every option that applied to them. For the top figure, Priming Grants n = 63 and for the bottom figure, Priming Grants n = 62 (a total of 71 respondents completed an exit survey). For both figures, Bridging Grants n = 11 (a total of 14 respondents completed an exit survey).

Source: ATSE final reports from the 2016 GCF rounds

Nevertheless, interviewees were relatively cautious about making any conclusions at this stage about the impact of the Strategy. Interviewees took care to point out that the Strategy was still in early stages of implementation, particularly with respect to GIL and RCP and that RCP participants had only just started to undertake grant activities.

Grant application success rates are low

> The program is definitely over-subscribed. There is currently great demand and ATSE reports that the applications are of very high quality, so the success rate of applicants is much lower than the demand.
>
> **Policy team assistant manager**

The grant application success rates (the number of successful applications for grant funding compared to the total number of eligible applications) so far for the individual programs under the overarching Strategy are relatively low (Figure 9.5). 36 per cent of the interviewees commented that one of the consequences of this situation is that very high quality fundable applications are unsuccessful in obtaining a grant.

Figure 9.5: Number of applications received by program teams against the number of successful applications by Strategy program/sub-program and round
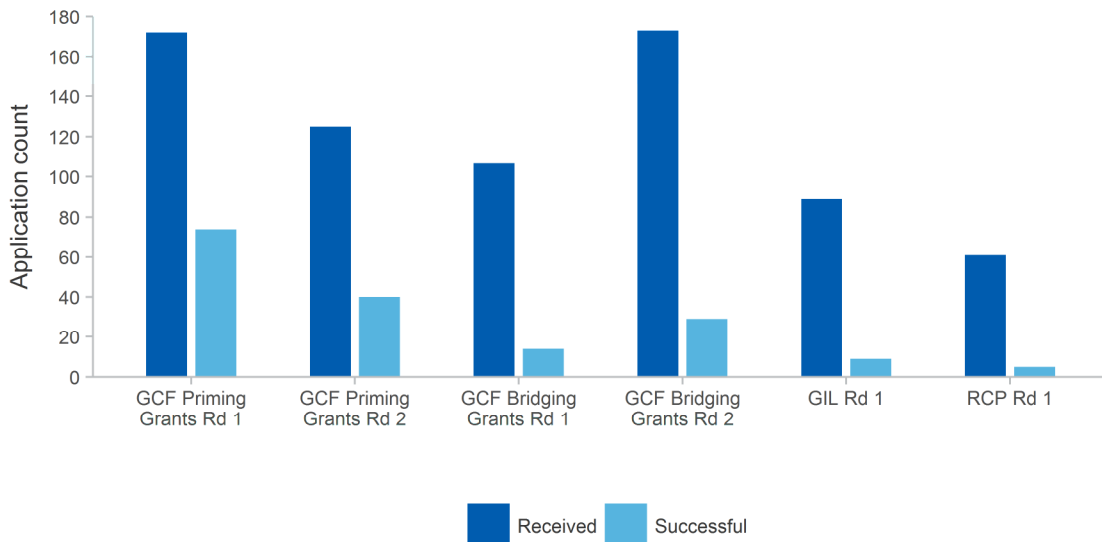
Source: Strategy program administrative data

Similar application success rates have been observed across other Australian and international innovation and science programs. Nonetheless, all delivery agencies should consider tightening the eligibility criteria for their programs in order to raise the application success rate. Possible options include removing the option of meeting matched funding requirements with in-kind contributions, focusing each grant round on a specific research area or outcome, and publicising current program success rates on the program websites.

Box 9.6: Findings — Lead indicators and outcomes

1. All delivery agencies are collecting data on program performance.

2. The leveraged grant funding has far exceeded expectations and minimum requirements.

3. First round exit surveys from GCF grant awardees indicate the program is successfully supporting early-stage engagement, innovation and commercialisation activities.

4. Grant application success rates are low.

10. Conclusion

The Strategy aims to improve Australia's international innovation and science collaboration by better leveraging Australian researchers and research organisations to improve collaboration between industry and research.

The evaluators found that overall, the Strategy is a well-designed and well-run initiative with a clearly demonstrated rationale. The evaluators acknowledge that the requirement of requiring GCF and GIL applicants to select global partners from a priority economies list, which was not viewed positively by key stakeholders, was removed during the 2018–19 Budget. Furthermore, early performance metrics indicated that there was strong demand for all Strategy programs, and positive early-stage collaboration and commercialisation outcomes from GCF. This is positive for the other two programs, which involve multi-year projects — GIL and RCP.

The evaluators found that the delivery arrangements have presented some internal challenges for the policy and program teams, the current timing of the impact evaluation in 2019–20 would not produce an informative evaluation due to insufficient long-term data, the allocated administered funding is presenting some challenges for the Strategy in potentially affecting the achievement of high-level objectives and outcomes, and the grant application success rates are relatively low.

These findings have led to several recommendations that would improve the management and implementation of the Strategy going forward.

Appendix A   Overview of the Strategy

Table 10.1: Overview of the Strategy

Program Feature	Global Connections Fund	Global Innovation Linkages	Regional Collaborations Programme
Program type	Competitive grant	Competitive grant	Competitive grant
Maximum grant period	12 months.	Four years.	No upper limit. At least one year.
Application and assessment process	Multi-stage with merit assessment by an expert panel of ATSE Fellows.	Single-stage with merit assessment by an AusIndustry-led expert panel.	Single-stage with merit assessment by an expert panel of AAS Fellows.
Participant reporting requirements	Interim report Final report Exit survey Summary of project outcomes	Annual report Final report Exit survey Summary of project outcomes	Annual report Final report Exit survey Summary of project outcomes
Priority areas	Industry Growth Centres excluding Cyber Security.	Industry Growth Centres.	Not mandated.[27]
Partnering arrangements	One Australian research organisation or SME, and one international research organisation or SME.[28]	At least one Australian business and one research organisation, and one international business or research organisation.	Any combination of business and research organisations.
Global partner requirements	One. Unrestricted.	At least one. Unrestricted.	At least two (with at least one from an Asia-Pacific economy).
Global partner matched funding requirements	0.5:1 cash or in-kind[29] (Bridging Grants only)	1:1 cash or in-kind.	1:1 cash only.

Notes: This table includes changes announced at the 2018-19 Budget. It excludes the Landing Pads program, which is part of the Strategy, but for which policy responsibility is held jointly by the department and DFAT.

Source: Strategy and program websites

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[27] Applicants are requested to consider the Priorities and associated Challenges, along with regional challenges identified through multi-lateral fora.

[28] Must be a Researcher-SME partnership. Researcher-Researcher and SME-SME partnerships are not supported.

[29] In other words, if the grant applicant is successful in a bid for $50,000, then the global partner must contribute at least $25,000 in cash or in-kind.

Appendix B   Evaluation Terms of Reference

Global Innovation Strategy Post-Commencement Evaluation Terms of Reference

The Department of Industry, Innovation and Science (DIIS) will undertake a post-commencement evaluation of the Global Innovation Strategy (GIS). The evaluation will be conducted by DIIS's Evaluation Unit (EU) in the Economic and Analytical Services Division (EASD) and will be guided by a Reference Group (RG).

Background

GIS is an initiative designed to provide opportunities for Australian entrepreneurs and researchers to collaborate on international science and research activities. GIS is one of 24 measures in the National Innovation and Science Agenda announced by the Australian Government in December 2015;[30] has funding of $36 million over four years; and currently consists of four distinct programs:

- The <u>Global Connections Fund</u> (GCF) provides funding to Australian small-and-medium enterprises (SMEs) and researchers to link with their international counterparts (researchers and SMEs respectively), in order to seize opportunities in priority areas of importance to the strategic growth sectors of Australia.

- The <u>Global Innovation Linkages</u> program (GIL) has an initial funding allocation of $18 million. It provides funding to assist Australian businesses and researchers to collaborate with global partners from priority economies on strategically focused leading-edge research and development projects.

- The <u>Regional Collaborations</u> program has an initial funding allocation of $3.2 million. It provides funding to Australian participants from eligible organisations to collaborate with regional and international science, research and innovation partners on solutions to shared regional challenges within the Asia-Pacific region.

- The <u>Landing Pads</u> program provides market-ready start-ups with a short-term operational base in one of five global innovation hotspots.

Authority for Review

The GIS is a 'Tier Two' program with medium strategic importance. DIIS's Evaluation Strategy establishes a principle to undertake a post-commencement evaluation following a program's first year of operation. This type of evaluation typically examines initial implementation to allow decision makers to identify early issues regarding program administration and delivery and take corrective action if required.

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[30] https://www.pm.gov.au/media/2015-12-07/national-innovation-and-science-agenda

Furthermore, given the complexity of GIS's delivery model,[31] it is timely for an evaluation to examine whether the program is operating as intended and collecting data that will enable robust impact evaluation in the future.

Evaluation Scope and Timing

The post-commencement evaluation will focus on an assessment of the GIS's Evaluation Ready status, program design, program implementation and early performance indicators.

This evaluation will encompass program activities from three of the four elements of GIS,[32] from commencement (in 2016) to 31 December 2017:

- The Global Connections Fund – launched in April 2016[33]
- The Global Innovation Linkages program – launched in August 2016[34]
- The Regional Collaborations program – launched in November 2016.[35]

The evaluation report may be published on the Office of the Chief Economist website subject to a final decision by DIIS' Executive Board (EB). The evaluation will begin in January 2018 and is scheduled to be completed by the end of June 2018.

Terms of Reference

The evaluation Terms of Reference have been developed in accordance with the Rossi framework.[36]

5. Evaluation Ready - do the program elements under the GIS have:

   5.1 A clear articulation of intended outcomes, and how they will be achieved?

   5.2 Appropriate performance measures?

   5.3 Identified or initiated data sources?

   5.4 Scheduled evaluation activities into the future?

   5.5 Have the program elements under the GIS started collecting the necessary data for their future evaluations?

6. Program design

   6.1 What is the nature and extent of the need and/or problem being addressed?

   6.2 What are the consequences if the need and/or problem is not addressed?

   6.3 Is the program delivery model appropriate to achieve the specified objectives?

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[31] Three distinct program elements, each administered by a different agency (the Landing Pads program is administered by the Department of Foreign Affairs and Trade and therefore outside scope), and four different grant delivery structures.

[32] The Landing Pads program is administered by the Department of Foreign Affairs and Trade and is therefore outside the scope of this evaluation.

[33] http://www.innovation.gov.au/event/global-connection-fund-now-open-innovative-researchers-and-smes

[34] http://www.innovation.gov.au/event/18-million-boost-global-collaboration

[35] http://www.innovation.gov.au/event/regional-collaborations-programme-boost-asia-pacific-industry-and-research-collaboration

[36] Rossi et al, 2004, *Evaluation: A Systematic Approach*

7. Implementation

   7.1   Is the GIS being implemented on schedule?
   7.2   Is the GIS being administered and delivered in the most efficient way possible?
   7.3   Are there clearly defined lines of responsibility for the government agencies involved in the delivery of the program?

8. Lead indicators and outcomes:

   8.1   What data (if any) is available to determine initial outputs and early outcomes?
   8.2   What does this data tell us about early outcomes or indications of future outcomes?
   8.3   Are there any issues which might affect the achievement of intended outcomes and what actions are being taken to address them?

Methodology

The evaluation methodology and the extent to which the above questions can be explored will depend on the availability and accessibility of data at the time of review. A number of approaches will be used for the evaluation, including:

- desktop research and literature review
- analysis of program data collected by AusIndustry, the Australian Academy of Science (AAS) and the Australian Academy of Technology and Engineering (ATSE)
- interviews with stakeholders involved with policy design, including Growth Centres staff
- interviews with stakeholders involved with program delivery (AAS, ATSE and AusIndustry).

The evaluation will be conducted by the EU. Time will also be required from policy and program representatives to assist with the provision of data and background information.

Governance

A RG has been established to oversee and guide the evaluation. The RG will be responsible for providing guidance to the EU for the duration of the project. The members will provide relevant/area specific advice and perspectives, including feedback about directions and products. Membership reflects the role rather than the individual. The RG will sign off the Terms of Reference and will review the report's findings and recommendations. The RG will comprise of:

Mr David Turvey	Economic and Analytical Services Division, Insights and Evaluation Branch, General Manager (chair)
Mr Gino Grassia	Science and Commercialisation Policy Division, Science Policy Branch, General Manager
Ms Clare McLaughlin	Science and Commercialisation Policy Division, Science Agencies Governance, General Manager

The RG will meet three times:

Task	Date
Meeting one: Endorse Terms of Reference	December 2017
Meeting two: Discuss preliminary findings	April 2018
Meeting three: Provide feedback on draft report	June 2018

The final report will be signed off by the chair, before going to DIIS's EB for endorsement. Policy and program Senior Executive Service (SES) officers will be invited to the EB meeting and those SES will provide the final evaluation report to the relevant Deputy Secretary. These governance roles are outlined in more detail in the Department's Evaluation Strategy 2017-21.

Appendix C　　Interviewees

Key internal and external stakeholders were interviewed to gather their experiences with and opinions of the Strategy (Table 10.1). Questions were based on the four focus areas outlined in the evaluation Terms of Reference.

Table 10.2: List of interviewees

Interviewee	Area	Role
2x senior representatives	Australian Academy of Technology and Engineering	Program delivery
Senior representative	International Programs, Australian Academy of Science	Program delivery
General Manager	Industry Growth Division, Department of Industry, Innovation and Science	Policy
Manager	AusIndustry – Business Services Division, Department of Industry, Innovation and Science	Program delivery
Manager	Industry Growth Division, Department of Industry, Innovation and Science	Policy
2x Managers	Science Commercialisation Policy Division, Department of Industry, Innovation and Science	Policy
Assistant Manager	Industry Growth Division, Department of Industry, Innovation and Science	Policy
3x Assistant Managers	Science Commercialisation Policy Division, Department of Industry, Innovation and Science	Policy
Policy Officer	Science Commercialisation Policy Division, Department of Industry, Innovation and Science	Policy

Appendix D   Interview Questions

Departmental Stakeholders

1. Can you please tell us about your role in the program to date?

2. In your opinion, do you consider the objectives of GIS to be clearly articulated, including how they will be achieved?

3. Can you explain the need behind the establishment of GIS?

    3.1 What is was/the nature of the problem being addressed?

    3.2 Why was Federal Government intervention required?

    3.3 In your opinion, what were the likely consequences if GIS wasn't established?

4. From your experience, how well has GIS been designed? Are there aspects/elements to which improvements could be made?

    4.1 Do you consider the current design appropriate/satisfactory in meeting the need/problem outlined previously?

    4.2 Do you think the grant amounts are about right/too little/too much?

    4.3 How about the total amount to be distributed to applicants at each round?

    4.4 What do you think about confining the project topics to those that are Industry Growth Centre priorities?

    4.5 How about confining primary project partners to those from Australia's list of priority economies? Might this affect relationships with other countries?

    4.6 Each of the different programs under GIS is delivered by a different agency. What thoughts do you have about this arrangement?

5. In your opinion, how well is GIS being implemented?

    5.1 What has gone well in program delivery? What has not gone so well?

    5.2 Do you have any opinions on what might improve program delivery?

    5.3 Is the delivery of the program running on schedule?

    5.4 Have there been any unintended consequences (positive or negative) following the establishment of GIS?

6. Do you think GIS is being administered and delivered in the most efficient way possible?

    6.1 Are there clearly defined lines of responsibility for the different government agencies involved in delivery?

    6.2 How well are the government agencies involved cooperating to achieve the government's policy objectives?

    6.3 Is GIS being administered and delivered in a cost-effective manner?

7. Do you have any final thoughts or feedback you would like to add?

ATSE and AAS Stakeholders

1. Can you please tell us about your role with the GCF/RCP program so far?

2. Do you consider the objectives of the GCF/RCP to be clearly articulated, including how they will be achieved?

   2.1 Can you please elaborate on what you think those objectives are?

   2.2 Can you comment on those objectives in the context of the overall GIS program?

3. Can you comment on what is/was the nature of the problem being addressed through the establishment of the GCF/RCP?

   3.1 Why was Federal Government intervention required?

   3.2 In your opinion, what were the likely consequences if the GCF/RCP wasn't established?

4. In your opinion, do you feel that the current design of the GCF/RCP is meeting the program's stated objectives and/or the identified need/problem?

   4.1 Are there aspects to which improvements could be made?

   4.2 Do you have any comments on the overall funding amount available at each round/financial year?

   4.3 Do you have any comments on the priority economies list with respect to applicant project partners?

5. Could you take us through the process by which the program is delivered i.e. from receiving the funding from DIIS to the application and assessment process, additional applicant support etc.?

   5.1 What has been your experience in implementing the GCF/RCP? Have you experienced any issues or delays?

   5.2 What has gone well in program delivery? What has not gone so well?

   5.3 Do you have any suggestions on what might improve program delivery?

   5.4 Have there been any unintended consequences (positive or negative) following the establishment of the GCF/RCP?

6. In your opinion, is it clear to you the roles and responsibilities of ATSE/AAS as the delivery agency versus DIIS as the policy owners of the GCF/RCP and the overarching GIS?

   6.1 What is the relationship like between yourselves and the policy owners?

   6.2 If you had the opportunity to change the delivery model, where would you see ATSE/AAS in the process? For example, do you see yourselves continuing to deliver the entire program, or inserting yourselves into those elements where you feel you can have the greatest impact/value-add?

   6.3 How are you funded for program delivery? Does it come out of the funding provided by DIIS, or internally sourced?

6.4 Are the member of your Fellows network that participate in the delivery of the GCF/RCP reimbursed for their time? Where does this funding come from?

7. [ATSE only] These are a couple of technical process-related questions on behalf of our Internal Audit colleagues.

   7.1 ATSE Grant Management System – do you maintain a database/system to manage grantee requirements, deliverables and timeframes?

      7.1.1 If yes, could you provide us with an overview of the system and how it is used to monitor compliance with the GCF funding agreement requirements?

   7.2 ATSE Finance System – could you provide us with an overview of the Finance system and processes to record GCF transactions, and meet financial management and reporting requirements?

   7.3 Documentation Requests – would it be possible to obtain copies of:

      7.3.1 Policies and procedures supporting your administration and management of GCF grant funding?

      7.3.2 GCF financial reports (e.g. program income & expenditure statements, SOCI, variance analysis and explanations, managing under/overspends, cash flow statements).

      7.3.3 Internal GCF budget? – if one exists

8. Do you have any final thoughts or feedback you would like to add?

   8.1 Are there any aspects of the GCF program or the GIS in general we haven't covered you would like to comment on?

Appendix E   Interview Summary

Clear need and objectives

Interviewees were asked to discuss the context of the development of the Strategy. In doing so, they voiced three main themes:

- Australia was lagging behind its peers in the innovation space
- there was poor collaboration between industry and researchers in Australia, as well as with international counterparts
- there was poor commercialisation of research ideas.

Several interviewees spoke about the role of the Australian Government. The main views were that the Australian Government was there to help encourage collaboration, support whatever might have already been happening, and then help things to scale up. Two stakeholders voiced the opinion that if the Strategy did not exist, then collaboration between Australian businesses and researchers with their international counterparts would still exist, but on a much smaller scale.

Another stakeholder said that if Australia increased its investment in the innovation space, it would indicate to the rest of the world that Australia considered innovation an important part of the economy, that Australia was being competitive, which would then increase confidence in the business and research sector.

All interviewees considered the objectives of the overarching Strategy or the individual programs they had knowledge of to be very clear. Consistent with the comments about why the Strategy was set up, all reported that the Strategy targeted international industry-research collaboration and the commercialisation of research ideas, rather than just researchers performing research for its own sake.

> Business and researchers struggle to break out of their own silos, and the aim of the program was to show them that there's benefit in partnering outside of their chosen field to improve products and services, not just perform research for research's sake.
> **Policy team assistant manager**

Three interviewees discussed how the different programs ultimately had the same objectives but were coming at it from slightly different angles. For example, GCF was all about early engagement, GIL about research commercialisation, and RCP about increasing links within the Asia-Pacific region through collaboration on shared challenges.

Six interviewees reported that the Strategy was filling a gap in two respects — in NISA, which otherwise would not have had an international collaboration element, and in the suite of programs being offered by the Australian Government, particularly after the cessation of such initiatives as the ISL program. One interviewee argued that it was critical for NISA to have an element addressing international collaboration for NISA to be successful at influencing the Australian innovation system. Consistent with these views was

the observation that the Strategy was providing an opportunity to engage where it otherwise may not necessarily have existed.

Some interviewees made a comparison with the level of investment in innovation and science activities by other economies. Three observed that even though Australia was investing in this area, the funding was not close to the same level as that of other economies, such as the European Union. Several commented that as a result, Australia was having to manage the expectations of other economies when initiatives such as NISA and the Strategy are launched.

Some interviewees held the view that because the initiative was a competitive grants program, it could not be used for government-to-government engagement in the same way that bilateral programs such as the AISRF could be, and therefore was unable to assist the Australian Government in meeting its science diplomacy objectives. Two interviewees also mentioned that because the Strategy only funded the activities of Australian participants, other economies did not necessarily view the Strategy as providing opportunities for their own stakeholders.

Satisfactory design

Interviewees tended to be very positive when discussing the final design of the Strategy. As they had varying levels of experience with the initiative, the comments ranged from those about the overarching Strategy to those focused on one or more of the individual programs.

> There were reasonable and sensible design features and policy perspective taken at the time.
> **Policy team manager**

The majority of interviewees agreed that the design tried as much as possible to take into account learnings from other programs or had features modelled after pre-existing programs such as the AISRF, or the former CAESIE project.

Similarly, most interviewees mentioned how the alignment of the GCF and GIL with the IGC initiative was very consistent with the policy direction being taken by the Australian Government and the program design decisions of the department at the time the design of the Strategy itself was being considered.

Four interviewees discussed the long-standing nature of the relationships between the department and the chosen delivery agencies. In particular, one interviewee noted that due to the speed at which the Strategy was required to be set-up, and the international element of the initiative, the delivery agencies needed to have already established research and business networks with the countries and industry sectors the Strategy wanted to target.

The one design feature that attracted the most criticism from interviewees was the choice of a priority economies list to help target grant funding towards countries of higher strategic importance to Australia. Several interviewees reported fielding questions from internal and external parties about why certain countries such as Canada, South Africa and Indonesia were excluded, and one interviewee noted that the list was only ever intended to be an internal guide for Australian Government officials.

> Canada has quite a big innovation program, so it's an outlier in the
> developed world. We should have Canada.
> **Program delivery representative**

One interviewee argued that since the Strategy had been designed as a set of competitive grants programs, the use of a priority economies list to direct grant funding to economies of interest to Australia was unnecessary. The same end result could be achieved in other ways through the grant application assessment process.

Program administration

Many interviewees recognised that each delivery partner was actively seeking better ways of running their respective programs and finding cost savings. For example, AAS decided not to use a two-stage application process to reduce the burden on applicants; ATSE required minimal supporting documents from applicants; and AusIndustry was templating their program guidance material.

ATSE spoke extensively about the customised applicant advice service they provided as a matter of course to every applicant regardless of whether they were successful in obtaining a grant or not. This feature had not been replicated in either the GIL or RCP programs. Interviewees reported (and later program reports confirmed) that applicants viewed this service very favourably, and that it could be helping to minimise the disappointment of unsuccessful applicants.

> That's right. Nobody fails. Everybody wins. And the win is nobody goes
> away empty-handed. Even if you don't get a grant, you've had some advice.
> **Program delivery representative**

A couple of interviewees spoke about possible alternative initiative designs that would still incorporate the expertise of AAS and ATSE, but allow for more of the programs to be run in-house by AusIndustry and therefore potentially create additional savings in program administration.

Communication and engagement

All interviewees agreed that the level of engagement between the teams designing and implementing the Strategy was generally excellent. One interviewee specifically pointed out that the extensive negotiation was a necessity due to the multiple delivery agencies, each of whom had their own style of delivery that needed to be accounted for.

> Everyone's been willing to muck in.
> **Policy team manager**

In addition, a couple of interviewees mentioned that when the delivery partners made suggestions to the policy team about the Strategy, the policy team was very receptive to those ideas.

One interviewee targeted the RCP program in particular in their observations that this program took a little more work from the policy and program teams than the other two as there was comparatively less guidance from other programs on exactly how to set it up and implement it.

Clear roles in most instances

For the most part, interviewees agreed that the policy and program delivery teams were all very clear about their roles in relation to the design and implementation of the Strategy.

A number of comments were made by interviewees indicating that the delivery arrangements have presented some internal challenges for the policy and program teams in the initial delivery of GIL.

> The relationship hasn't worked perfectly.
> **Policy team assistant manager**

For example, one interviewee noted in part this could be due to the fact that whereas the relationship between the policy team and AAS and ATSE were governed by formal Commonwealth funding agreements, the arrangements for the delivery of GIL at the time of the first round were less formal. Another interviewee commented on a lack of communication between the two teams when changes had to be made to the program.

Uneventful initial implementation

Overall, interviewees reported few major issues or challenges thus far in administering the Strategy, saying that delivery is largely running to schedule.

One interviewee said that of all the programs in the Strategy, the caretaker period had the largest effect on RCP, which ended up with a launch delay of around 11 months. The interviewee went on further to comment that in order to keep the delivery schedule of RCP on track, the department and the AAS decided to combine the initial four rounds of grant offerings to two larger ones.

> There have been no major issues, but it's just taken a little longer.
> **Policy team manager**

Interviewees reported that all three delivery partners are using specialist panels with representatives from academia and industry to assess the grant applications. In all cases, interviewees were very positive about this as the project proposals in the applications were very technical and beyond the capability of APS staff to assess competently. Interviewees reported that the use of the Fellows networks for application assessment was one of the significant benefits of delivering GCF and RCP through ATSE and AAS, and that AusIndustry organised the panel assessment process for GIL very efficiently.

Level of administered funding

The amount of allocated administered funding for the Strategy was a recurring theme throughout the interviews. Interviewees generally held the view that there was insufficient funding allocated to the Strategy, which might impact on its ability to have any significant impact on improving industry-research collaboration or result in many foregone opportunities.

> Australia has a $1.7 - $1.8 trillion economy so the funding could be
> construed as a "drop in the bucket", which is the real issue.
> **Policy team manager**

Interlinked with this observation about the funding level was the observation by many of the interviewees that there was a high demand for the programs measured by the number of applications received at each grant round run so far. Half of the interviewees specifically mentioned that the quality of the grant applications was generally very high, so there were quite a few otherwise-fundable applications that were being rejected due to the funding available. Two interviewees singled out GIL as being of the most concern of all the Strategy programs, as the application process was also relatively intensive.

A couple of interviewees, however, noted that even if funding for the Strategy was increased, it may not actually help solve the issue of the low application success rates. One interviewee compared the Strategy to the Australian Research Council programs, which had a lot more funding available and still had relatively low success rates of round 22 per cent. This interviewee also noted that the observed issue with low application success rates was common across Australian science and research programs.

Nevertheless, most interviewees understood that it was unlikely additional funding would be allocated to the Strategy. Also, two interviewees commented that given the parameters under which the Strategy was operating, it appeared to be very well-calibrated.

> Everyone would like more resources but I think we've taken the view, "how can we do this smart?" Yes you could throw more resources at it, and we could put more grants out, but the reality is there isn't any new money so let's make this money go the furthest it can. Because that's really the important thing.
> **Program delivery representative**

Positive early indicators and outcomes

Interviewees were generally very positive about the Strategy, but at the same time cautious about concluding anything at this stage about the impact of any of the programs. The exception was one or two interviewees involved with the GCF, who reported signs of successful collaborations among participants, and the strengthening of networks and relationships.

One interviewee pointed out in particular that because GIL was a multi-year grant, the success of the projects in this project would more than likely take at least 18 months to manifest. As a result, the full impact of the program, including an assessment of whether it has been value-for-money for the Australian Government, would take three to five years to become apparent.

Interviewees spoke about how the fact that the Strategy was an Australian Government initiative meant that it was being viewed as prestigious by other economies.

> The added advantage of providing a government fund is that particularly in the region we're operating in, Asia including China and South-East Asia, countries hold government-funded programs in very high esteem.
> **Program delivery representative**

A couple of interviewees noted that one of the minor drawbacks of using external agencies to deliver parts of the Strategy was the inability to completely control the level, detail and type of program data, which could potentially have some effect on future policy development. One or two interviewees noted that subsequent to the launch of the Strategy, the general policy was for all programs to go through the Business Grants Hub and AusIndustry.