



STRATEGIES FOR JOINT FUNDING SUCCESS

This resource guides researchers and universities on preparing joint proposals for competitive grants. It offers suggestions on how to leverage institutional support and provides some examples of Australian and Indian researchers who have jointly succeeded in receiving funding from national and bilateral research schemes.

The advice in this resource is indicative only. Funding programs/grants have different eligibility and/or assessment criteria, target different stages and fields of research and offer different quantum of funding.

This resource has been informed by anecdotes provided by researchers who have had successes and failures with securing bilateral research funding. Bilateral and national funding schemes such as Australia India Strategic Research Fund (AISRF) and Scheme for Promoting Academic Research Collaboration (SPARC) are intended to support research collaboration, understanding/awareness of different ecosystems and leverage respective partners' research strengths.

Good ideas are a starting point, but successful collaboration to apply for grant funding is also dependent on clear communication and expectations, and the ability to situate your research within the context of funding and broader government priorities.



Researchers from the University of Queensland with clinical staff of the Paediatric Intensive Care Unit, Postgraduate Institute of Medical Education and Research, Chandigarh, as part of the Unnati Grant project on high-quality clinical trial methodology for Indian PICU researchers. Image: University of Queensland

A. WHAT TO KNOW

1. THE CURRENT BILATERAL RESEARCH FUNDING LANDSCAPE AT A GLANCE

Note: Publication output is the most commonly used and reliable metric for analysing research funding patterns. Measuring funding activity through publication output allows for comparability across funders, schemes, and disciplines, and provides insight into where funding is most actively generating results. The number of publications supported by a funder serves as an indicative measure of that scheme's prominence and popularity within the Australia-India research landscape.

FUNDING SOURCES BY NUMBER OF PUBLICATIONS

AUSTRALIAN FUNDER	PUBLICATIONS
Australian Government	Total: 3765
INDIAN FUNDER	PUBLICATIONS
Department of Science and Technology, Ministry of Science and Technology, India	2081
Council of Scientific and Industrial Research, India	1067
Science and Engineering Research Board	983
Department of Biotechnology, Ministry of Science and Technology, India	562
Department of Atomic Energy, Government of India	543
Ministry of Education, India	287
Indian Council of Medical Research	226
Indian Council of Agricultural Research	211
Indian Institute of Technology Bombay	185
	Total: 6145
INTERNATIONAL FUNDER	PUBLICATIONS
U.S. National Science Foundation	1801
European Commission	1498
EU Horizon 2020 Framework Programme	1361
National Natural Science Foundation of China	1267
Deutsche Forschungsgemeinschaft	1134
National Research Foundation of Korea	1035
Japan Society for the Promotion of Science	1034
U.S. National Institutes of Health	947
	Total: 10,077

Source: Scopus 2025

Analysis of publication outputs between 2014 and 2025 highlight the contributions of Australian, Indian, and international funders to bilateral research collaboration.

Australian Research Council (ARC)-supported projects account for the highest number of bilateral publications.

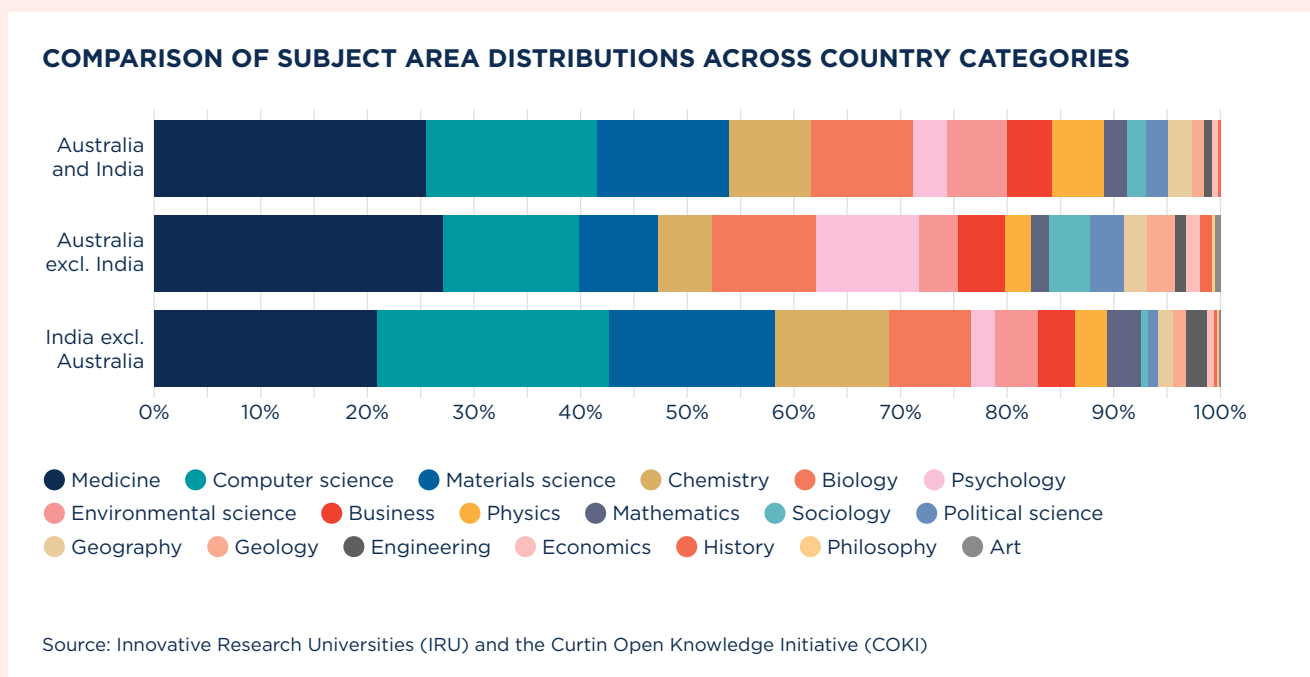
Overall, Indian funding bodies support a larger volume of Australia-India collaborative publications than Australian funders, reflecting the breadth of India's funding ecosystem and its increasing investment in international research collaboration.

International funders account for the largest share of publications involving multi-country partners, indicating that many Australia-India collaborations are embedded within wider global research consortia rather than operating solely through bilateral schemes. The U.S. National Science Foundation funded the highest number of publications including Australian and Indian collaborators.

What these patterns mean for researchers seeking funding:

- Build awareness about Indian funding opportunities – they represent a significant but underutilised pool, and are increasingly shaped not only by public agencies but also by industry-led and corporate social responsibility (CSR) funding mechanisms. Greater awareness of funder priorities, industry linkages, and application processes is essential to fully leverage this evolving funding landscape. See step 3 of the Process Guide for Academic-industry Research Collaboration (p.65) for information on Indian government and commercial funding sources.
- If you are aiming to scale your work, consider positioning bilateral collaboration with your counterpart within larger international or multilateral consortia where publication outputs are the strongest.

THEMATIC PRIORITIES



Both Australia and India demonstrate strong complementarities in high-growth STEM fields such as Medicine, Computer Science and Materials Science. In fields where Australia-India collaboration delivers strong outputs – such as Environmental Science and Physics – partnerships tend to be institutionally embedded and aligned with shared national and global priorities.

There is potential to expand collaboration in emerging Humanities and Social Sciences (HUSS) and interdisciplinary fields, including Psychology and Business. Successful funding recipients suggest that proposals in these areas are more competitive when framed around interdisciplinary problem-solving, social impact and systems transformation, rather than standalone disciplinary themes.

What these patterns mean for researchers seeking funding:

- Begin building partnerships well in advance of funding rounds – target seed funding, workshops and conferences as launchpads.
- Use publication data as an indicator of funder interest – tailor your proposal to align with thematic areas where collaboration has already shown strong outputs.
- Embed interdisciplinary expertise within high-growth areas to enhance policy relevance, impact and competitiveness.
- Design projects with a clear scaling pathway and effectively demonstrate potential for continuity in your proposal.

Visual mapping of AISRF-funded projects between Rounds 1-16 shows a strong and sustained concentration in STEM themes, alongside a gradual diversification towards newer, cross-cutting areas over time.

Most consistently funded areas:

- Health sciences and biotechnology, including vaccines and immunology, disease control, diagnostics and biomedical innovation.
- Environmental science, climate and water management, with sustained funding for climate adaptation, water security, environmental monitoring and earth sciences.
- Agriculture, food systems and bioresources, particularly in areas such as crop science, agricultural biotechnology, food processing and sustainable agriculture.
- Energy and resources, including renewable energy, mining safety and efficiency, and sustainable energy systems.

Emerging areas:

Later funding rounds show a noticeable expansion into digitally enabled, advanced and interdisciplinary domains, signalling an evolution in funding priorities:

- Artificial intelligence, machine learning and advanced computing, embedded within health, agriculture, environmental monitoring and manufacturing applications.
- Advanced manufacturing, materials science and nanotechnology, with growing emphasis on innovation, industry relevance and translational outcomes.
- Critical minerals and digital technologies, supporting applications across climate, health, energy and security.
- Disaster resilience and climate risk research more visible in later rounds, indicating a shift from observation and mitigation towards resilience and systems preparedness.

What these patterns mean for researchers seeking funding:

- Anchor proposals in established priority areas such as health, environment, agriculture and energy, where funding pathways and partnerships are already mature.
- Strengthen bids by embedding emerging approaches – including in AI, health and digital systems transformation – within these priority areas.
- Position new ideas as complementary to existing bilateral research priorities, rather than as siloed, discrete themes.

b. Scheme for Promotion of Academic and Research Collaboration (SPARC)

SPARC has facilitated 799 joint research projects with funding of AUD \$84M to date.

While **SPARC thematic areas** are predominantly oriented toward STEM disciplines, it has also funded a number of projects in the HUSS, particularly in areas such as smart cities, sustainability, and digital transformation, demonstrating flexibility in the interpretation of thematic priorities.

There is scope to expand HUSS collaboration within SPARC by framing research proposals as enabling impact in interdisciplinary fields.

CASE STUDY

COLLABORATION FOR ECOLOGICAL CONSERVATION IN THE HIMALAYA REGION – SPARC

In 2023, La Trobe University was awarded a SPARC grant valued at AUD \$80k for a project undertaken in collaboration with the Indian Institute of Technology Madras (IITM), Sikkim University and the University of Western Australia. Focused on infrastructure transformation for ecological conservation of the Eastern Himalayan region between India and China, this is an example of interdisciplinary research expertise effectively leveraged for securing competitive bilateral funding.

Integrating approaches from political ecology, history, socio-cultural perspectives and security discourses to address the complex socio-environmental issues shaping the Eastern Himalaya's development.

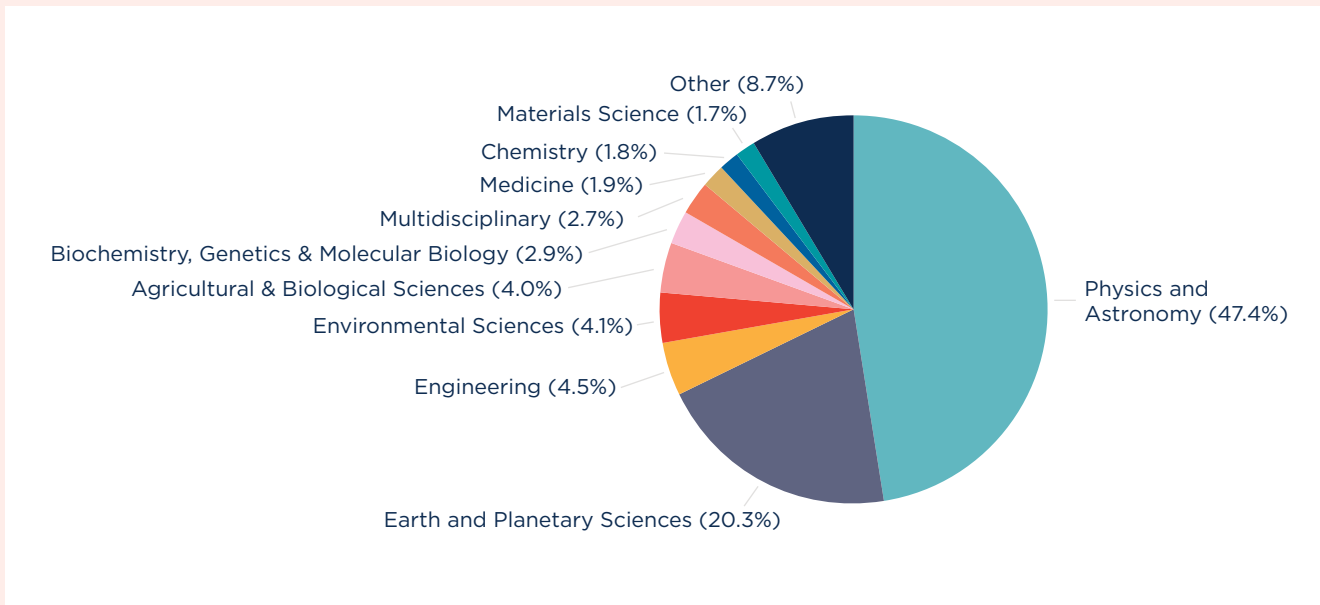
Key planned activities include collaborative research, teaching, and postgraduate supervision that will strengthen academic linkages and build shared understanding of infrastructure impacts on security, development and conservation in the region.

Strategies used for a successful application

- Aligned research with pressing regional priorities and challenges at the intersection of infrastructure, governance and ecological conservation in a geopolitically significant region – leveraging both Indian and Australian research interests.
- Flagged regional stakeholders from Nepal, Bhutan and China (Tibet) as knowledge partners alongside the academic expertise of research partners to ensure a locally responsive approach to the research problem.
- Defined clear collaborative activities, including research, teaching, and postgraduate supervision.
- Focused proposal on mutual benefit and capacity building, promoting long-term academic engagement between partner institutions.

Source: [Success in India SPARC grant, La Trobe University](#)

c. U.S. National Science Foundation (NSF)



- Australia-India collaboration funded by the NSF is heavily concentrated in Physics and Astronomy (47.4%), indicating strong, well-established research networks and alignment with NSF priorities in this area.
- Earth and Planetary Sciences (20.3%) form the second major cluster, suggesting shared strengths around climate, geoscience, and planetary research.
- Engineering, Environmental Sciences, Agricultural Sciences, and Life Sciences each represent smaller shares (roughly 3-5%), pointing to emerging collaboration opportunities.
- Explicitly multidisciplinary projects remain underrepresented.

What these patterns mean for researchers seeking funding:

- Build on existing momentum if working in high-priority fields but emphasise *added value* of the bilateral partnership to stand out in large-scale multi-country projects.
- If working in underrepresented disciplines, piggyback on established thematic strengths – frame proposals around strategic gaps, interdisciplinary relevance, and alignment with NSF cross-cutting priorities (e.g. climate resilience, sustainability, advanced materials, data science).
- Clearly articulate the value of the Australia-India partnership in the collaboration – highlighting complementary infrastructure, data, field sites, or expertise that cannot be replicated domestically.

FUNDING PATTERNS

a. AISRF



Source: Data shared by Prof Mohan Yellishetty

Since its inception in 2006, AISRF has supported 16 rounds of funding and over 370 collaborative activities. Past AISRF rounds have funded a varying number of projects, with the lowest grant amount of AUD \$5,065 and highest amount of AUD \$3.5M. AISRF is co-funded by the Australian and Indian governments, with contributions ranging from matched funding to varying amounts based on the scheme design, objectives of the funding round, and specific project requirements.

The list of AISRF recipients up to Round 14 can be viewed here: www.industry.gov.au/accessing-information/grants-reporting/australia-india-strategic-research-fund-grant-recipients

AISRF grants are typically:

- Moderate in size, supporting pilot projects and early-stage collaboration
- Time-bound, with clear expectations for outcomes within defined funding cycles
- Partnership-intensive, requiring strong institutional alignment and co-leadership between Australian and Indian partners

AISRF-funded projects often serve as precursors to larger grants. Treating AISRF as a stepping stone enables the consolidation of research relationships for future scaling.

FUNDING GUIDELINES

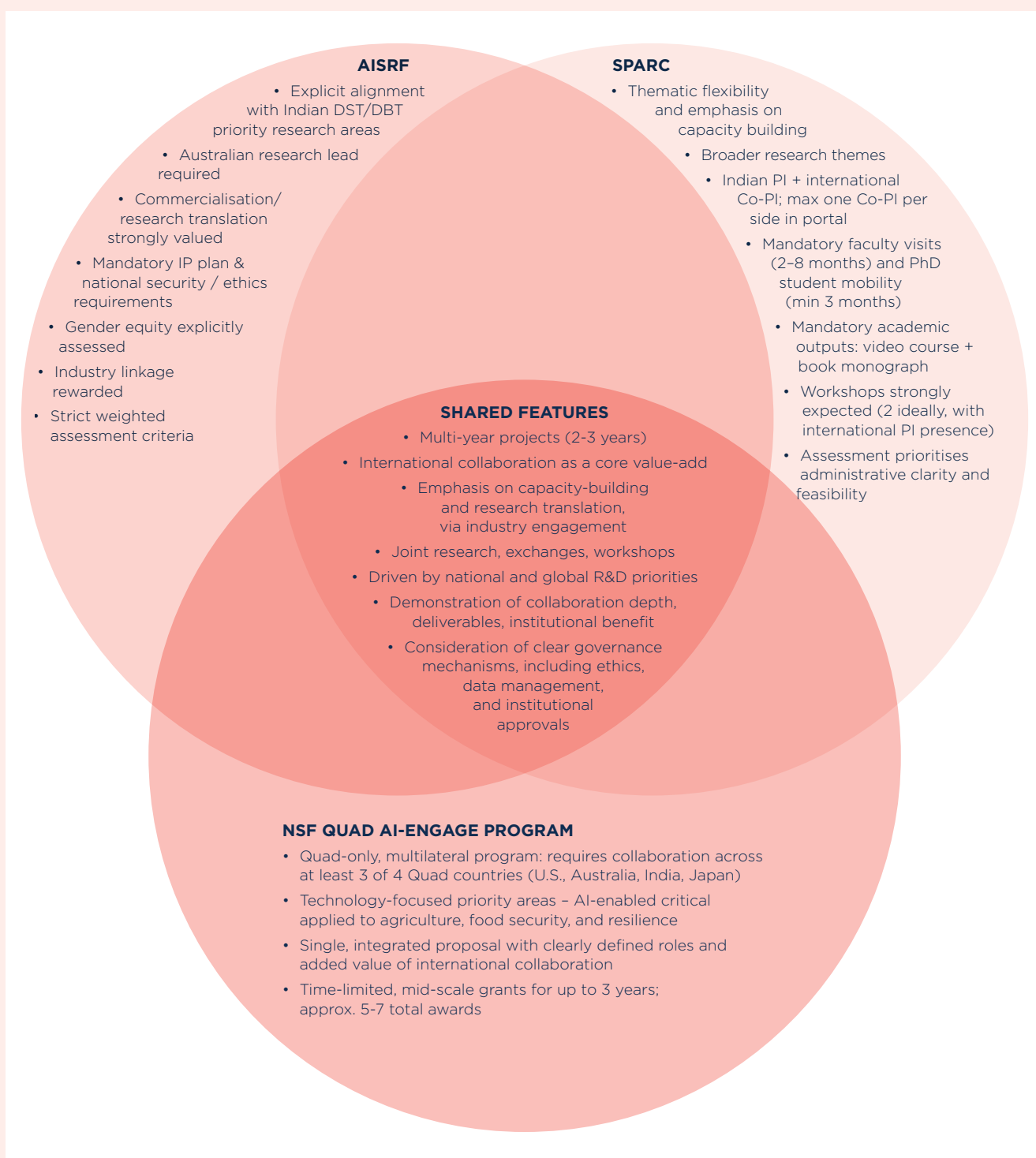
All bilateral and national research funding schemes have their unique eligibility and assessment criteria that are periodically updated. Refer to the websites of the relevant funding program to obtain latest information to ensure your proposal has competitive advantage.

The following table compares the latest guidelines issued for for AISRF, SPARC and the U.S. National Science Foundation's Quad AI-ENGAGE Program.

AREA	AISRF (ROUND 16)	SPARC (PHASE 4B)	NSF QUAD AI-ENGAGE PROGRAM
Strategic Focus	Explicit alignment to priority research areas (DST/DBT streams)	Thematic flexibility, but strong emphasis on capacity building	Multilateral research proposals involving at least three of the Quad countries: U.S., Australia, India, and Japan
Priority Areas	<p>STEM-dominated, with co-funding from the Department of Science and Technology (DST) and Department of Biotechnology (DBT) in India</p> <ul style="list-style-type: none"> critical minerals processing technologies and methods quantum computing and communications remanufacturing and product end-of-use recovery including electronic waste recycling biomanufacturing for industrial and consumer products, including biochemicals, biofuels and novel bio-based materials biotechnology for improved agricultural productivity and climate resilience (including food security or renewable feedstocks) RNA vaccines and biotherapeutics (immunotherapy) 	<ul style="list-style-type: none"> Advanced Materials, Rare-earth & Critical Minerals Energy, Sustainability and Climate Change Agri & Food Technologies Semiconductors Advanced Computing (Supercomputing, AI, Quantum Computing) Healthcare & MedTech Space and Defense Next-Gen Communications Disaster Management & Resilient Infrastructure Blue Economy Smart Cities & Mobility Manufacturing & Industry 4.0 	<p>Critical technologies – AI, robotics, sensing, and communications – with application to agriculture.</p> <p>Eligible topics include:</p> <ul style="list-style-type: none"> Artificial intelligence-enabled crop planning and monitoring Crop improvement through image-based high throughput phenotyping and genotyping Farm supply chain management Robotics for efficiency of the farm workforce Data-driven agriculture risk information and management system Assessing, monitoring, and management of land and aquatic resources
Bilateral Requirement	Mandatory matched proposals in Australia and India; identical project title	Mandatory Indian + international partner	<p>One joint proposal copied/submitted to each partner agency</p> <p>U.S. PIs apply via National Science Foundation (NSF); Japanese PIs via Japan Science and Technology Agency (JST); Indian PIs via Indian Council of Agricultural Research (ICAR); Australian PIs through eligible Commonwealth Scientific and Industrial Research Organisation (CSIRO) programs</p> <p>Integrated team contributions to be clearly outlined in a unified project description</p>
Lead Applicants	Australian entity with ABN + Indian primary partner (DST/DBT)	Indian PI + international PI/Co-PI from eligible institutions	<p>PIs and co-PIs from all collaborating countries to submit same proposal to respective funding agencies</p> <p>The institutions of the research teams from each country to adhere to the specific requirements set by their respective agencies</p>
Partner Eligibility	Eligible Australian entities only; Indian partner via DST/DBT	Only SPARC-eligible institutions; max one Co-PI per side in portal	Proposals involving research teams from all four Quad countries strongly prioritised

AREA	AISRF (ROUND 16)	SPARC (PHASE 4B)	NSF QUAD AI-ENGAGE PROGRAM
Funding Size	Total of AUD \$4M available from 2025-26 to 2028-29. AUD \$200k-\$1M per project (up to 100% eligible costs)	Maximum budget for a project up to AUD \$19.2M Proposals above AUD \$830,000 must include at least 3 institutions of different types(IITs/NITs/Private Institutions etc.)	Jointly funded by the U.S. NSF, JST, ICAR, and CSIRO <ul style="list-style-type: none"> • U.S. portion: up to \$400,000 USD over up to 3 years • Japan portion: up to ¥60,000,000 over 3 years • India portion: up to ₹30,000,000 over 3 years • Australia: no direct funding through NSF - participation supported via CSIRO programs • Number of awards: Approx. 5-7
Project Duration	Up to 3 years	2-3 years	Up to 3 years
Core Activities Funded	Joint research, commercialisation, exchanges, workshops, research translation	Faculty visits, student exchanges, joint research, courses, workshops, publications	<ul style="list-style-type: none"> • Same project descriptions for both the international and NSF submissions • The Project Description of the proposal limited to fifteen pages and includes contributions of each international partner • Well-integrated project activities and strong demonstration of partnership value-add
International Faculty Visits	Allowed but not mandatory; capped travel & living costs	Mandatory: 2-8 months total; min 7 days per visit	Not mandated but may be included in Budget Justification and Project Description
Student Mobility	Encouraged (postgraduate focus) but flexible	Indian PhD students only - min 3-month visit; no Masters/ postdocs	Not required but student involvement can be described in Project Description and Mentoring Plan (if applicable)
Teaching Outputs	Not required	Mandatory 25-40 hr video course (min hours per PI/Co-PI)	Optional but can strengthen Broader Impacts
Publication Outputs	Encouraged but not mandated	Mandatory book/monograph with ISBN (conference proceedings excluded)	Not mandated but dissemination may be addressed under Broader Impacts and Data Management Plan
Workshops	Eligible but optional	Strongly expected: ideally two, with international PI presence	Optional and must be justified in Project Description and Budget
Translation	Strongly encouraged – commercialisation pathways valued	Preference given to proposals that lead to development of 'working model' or prototype	Not required but translation pathways strengthen Broader Impacts
Assessment Criteria Weighting	40% research impact in priority area; 30% delivery capacity; 30% bilateral benefit	Qualitative review: collaboration depth, deliverables, institutional benefit	<ul style="list-style-type: none"> • Proposals from early career investigators especially encouraged • Leveraging international collaboration to support transformative research ideas • Demonstration of broader project impact that go beyond what each country's teams could accomplish on their own
Governance & Risk	Heavy emphasis on IP, export controls, national security, ethics	Focus on administrative clarity, planning, feasibility of deliverables	Compliance with the NSF Proposal & Award Policies & Procedures Guide (PAPPG) rules, data management, ethics, and institutional policies
IP Requirements	Mandatory IP plan; ownership & commercialisation terms	IP planning implied	To be addressed via Data Management & Sharing Plan and institutional IP policies
Gender Equity	Explicit assessment criterion	Not explicitly prioritised	Equity, inclusion and participation may be addressed under Broader Impacts
Industry Linkage	Encouraged and rewarded	Not a formal priority	Optional but strengthens impact

AREA	AISRF (ROUND 16)	SPARC (PHASE 4B)	NSF QUAD AI-ENGAGE PROGRAM
Ineligible Costs	Infrastructure, major equipment, marketing, overheads beyond caps	External experts, non-named faculty, non-PhD students	Defined by the PAPPG
Failure Risk Areas	Missing attachments; misalignment to priority areas; weak bilateral benefit; weak IP/ security planning	Poor visit planning; missing mandatory outputs; ineligible student categories	Non-compliance with the PAPPG, missing required sections, weak demonstration of project and collaboration merit



2. COMMON REQUIREMENTS ACROSS FUNDING SCHEMES

STRUCTURAL & ADMINISTRATIVE REQUIREMENTS

- Clear articulation of how the project addresses national priorities in both countries.
- Evidence of complementary expertise, not duplication – strong bilateral schemes reward teams whose skills fit together rather than mirror each other.
- Demonstrated capacity to deliver mobility, training, or skill-building components (e.g., short courses, student exchange).
- Strong justification of budget, especially around travel, staffing, and cost structures in both countries.
- Compliance with differing administrative norms.
- Eye to the practical – what are reasonable, practical outcome/outputs.

COLLABORATION REQUIREMENTS

- Demonstrated, ongoing collaboration between partners
 - » How you will maintain momentum through activities such as workshops, meetings, exchanges or aligned research pathways
- Clear governance and division of responsibilities, showing how the partnership will operate across both countries' institutional and national systems, including defined roles for Principal Investigators (PIs), co-PIs and participating researchers.
- Evidence of institutional support such as research offices, scheme coordinators or monitoring committees to verify eligibility, support budgeting requirements and ensure compliance with scheme-specific administrative processes.

3. COMMON CHARACTERISTICS OF PAST SUCCESSFUL BILATERAL PROJECTS

- *Pre-existing relationships support successful awards.* Many joint applications provided evidence of informal or formal collaboration (e.g., research publications, co-teaching) in preceding years. Most funded teams had meaningful prior engagement.
- *Prior bilateral or international grant experience is helpful but not required,* as long as the team is anchored by strong and capable PIs who can demonstrate readiness to lead the collaboration.
- *Joint applications for Indian funding schemes should be aligned with India's R&D priorities* (See p.89 of the Framework for information on India's Science & Technology clusters).
- According to successful grant recipients, *proposals with clearly outlined strategies for researcher training, mobility, capacity-building, and knowledge-transfer components* –not just research outputs – are rewarded. Some successful recipients suggest careful consideration for integrating the following into your proposal:
 - » short researcher training courses
 - » joint student supervision arrangements
 - » skill-building workshops
 - » mobility components
- *Proposals developed collaboratively between teams in both countries via joint workshops* are more competitive.
- Australian and Indian institutions with strong internal support (e.g., Strategic Research & Consultancy Offices, funding scheme coordinators) played an active role in strengthening proposal quality.
- *Demonstration that applicants have assessed the existing research landscape* and highlighted what makes their proposal different.
- *Strong institutional backing on both sides,* including administrative coordination.
- *Articulation of how the partnership will be maintained beyond the grant* – plans for jointly advancing research post-grant expiry.
- *Stronger likelihood of success when local networks (especially Indian institutions' networks) help identify relevant industry and commercial partners.* Small startups or innovation-focused companies can add value by demonstrating real-world applicability.

B. WHAT TO DO

1. LEVERAGE INSIGHTS FROM SUCCESSFUL COLLABORATORS

- Identify researchers with repeated success in funding schemes (e.g., those awarded multiple AISRF/SPARC grants).
- Analyse their partnership trajectories:
 - » research fields (high-priority or emerging)
 - » years of collaboration
 - » disciplinary networks
 - » institutional support patterns
 - » national-priority alignment
- Invite previously successful teams to share practical insights on what strengthened their applications.
- Capture lessons on how they:
 - » built and maintained relationships
 - » navigated differing administrative systems
 - » identified new opportunities in emerging areas
- Use these insights to guide new applicants and develop institutional resources.

2. BUILD AND STRENGTHEN FOUNDATIONS EARLY

- Consolidate your research complementarities early, especially if they are in emerging fields of interdisciplinary collaboration within STEM or STEM-SSAH (Social Sciences, Arts, Humanities) interdisciplinary areas.
- Seek internal grants for short-term visit/exchange to establish research relationship, follow up with regular virtual meetings to discuss research scope and strategy well in advance of funding cycles.
- For more guidance on establishing relationships with new collaborators, see Guide for Securing Collaborative Research Funding (step 1, p.54)

3. ALIGN SMALL FIELDS TO BIG PRIORITIES

- Map your research area to high-level national Missions to find interdisciplinary linkages – e.g., humanities and digital preservation; behavioural science and sustainability; urban planning and innovation.
- Use this mapping to strengthen the case for relevance in bilateral funding rounds.
- See case study on p.77 for strategies to develop an interdisciplinary research proposal.

4. EXPAND VISIBILITY & PARTNERSHIP POOL

- **Use research intelligence platforms and professional networks to identify potential collaborators**
 - » Actively search tools such as Dimensions, Scopus, Web of Science and ARCH-India to map who is publishing and patenting in your target field in Australia and India.
 - » Use co-authorship networks, citation clusters, and keyword alerts to identify emerging researchers, high-impact groups, and institutions with aligned research interests.
 - » Use professional platforms such as ResearchGate, LinkedIn, and ORCID to initiate contact with a short, personalised message referencing shared research interests and a specific collaboration idea.
 - » Propose low-risk relationship-building activities – such as co-hosting a webinar, co-supervising a PhD, or drafting a short joint concept note – to build trust and demonstrate value before pursuing major grants.
- **Leverage conferences and major events strategically**
 - » Attend flagship disciplinary conferences, bilateral forums (e.g. Australia-India education and research dialogues), and international conventions where Indian and Australian researchers are well represented.
 - » Use the program and delegate list in advance to schedule sideline meetings.
 - » Present posters or organise special sessions to showcase your work and signal interest in collaboration.
 - » Follow up within 1-2 weeks with targeted emails and short concept notes to convert informal discussions into concrete project ideas.
- **Stay connected to research ecosystems through networks and mailing lists**
 - » Subscribe to mailing lists and newsletters from key funding agencies (e.g. DST, DBT, ARC, SPARC, UA and Australian university groupings), bilateral platforms (e.g. ARCH-India, AISRF, CAIR), learned academies and relevant professional societies.
 - » Join thematic research networks, Centres of Excellence, and industry-academic consortia that operate across both countries.
 - » Monitor calls, workshops, and policy roundtables to identify alignment opportunities beyond formal bilateral schemes.
- **Work through institutional international offices and existing diaspora links**
 - » Engage your university's international office, alumni relations team, and research development unit to access existing MoUs, partner university databases, and alumni in India/Australia.
 - » Use staff and student diaspora networks to obtain introductions and informal intelligence about institutional priorities.
- **Build visibility through digital and institutional showcases**
 - » Maintain up-to-date researcher profiles and project pages on institutional websites, Google Scholar, and LinkedIn.
 - » Participate in virtual workshops and online matchmaking events hosted by funding agencies, embassies, or industry bodies to stay visible and discover new partnership leads.

5. POST-GRANT ACTIVITIES

- Share progress to date with each other's institutions and funders.
- Develop short case-study briefs to publicise and share what you can about your ongoing research.
- Showcase your research collaboration through conferences, workshops and bilateral research networks.
- Keep in touch with your project partners even after the grant expires – some other grant opportunities may arise.

CASE STUDY

The following case studies highlight successful joint funding applications and illustrate how the strategies outlined above can be applied in practice.

DRIVING INNOVATION IN PROCESS SYSTEMS – SPARC

Milinkumar Shah, an Associate Professor in Chemical Engineering at Curtin University, participated in a successful SPARC project developed jointly by researchers from Curtin and IIT Kharagpur. The collaboration centred on applying advanced computational modelling – including artificial intelligence, machine learning, computational fluid dynamics and multiphysics modelling – to process systems, a research area well aligned with India's transition toward advanced manufacturing and Industry 4.0.

The proposal was developed through a series of online discussions between researchers at the two institutions, supported by guidance from IIT Kharagpur's International Office. Assessors recognised the strong alignment of skill sets within the team, as well as the proposal's clear and achievable deliverables – a skill-enhancement short course, researcher training through student exchange, and joint publications to support long-term collaboration.

Strategies used for a successful application:

- Aligned the project with national research priorities, particularly India's shift towards advanced manufacturing and Industry 4.0.
- Built relationship foundations through virtual meetings, enabling early-co-design of the application and establishing a strong working relationship.
- Showcased complementary expertise from both institutions, strengthening the feasibility of the project.
- Defined clear, achievable deliverables, making the project's value clear.
- Engaged institutional support staff with experience in SPARC proposals to guide the application.

CASE STUDY

ADVANCING THERMAL ENERGY SOLUTIONS - AISRF

Frank Bruno, Research Professor at the Future Industries Institute, University of South Australia, received a 2020 AISRF grant to develop high-temperature thermal energy storage (TES) as a cleaner alternative to rice husk and other biomass burning in India's food and grain-drying sector.

The joint project emerged from a long-standing professional connection between Professor Bruno and Professor Dharam Buddhi, Vice Chancellor, Uttaranchal University Dehradun, first formed at an international conference in 2000. The team was further strengthened by collaborators including Dr Richa Kothari from Central University of Jammu and Dr Atul Sharma from the Rajiv Gandhi Institute of Petroleum Technology.

Indian partners contributed expertise in biomass characterisation, biodigester design and community energy requirements, while the University of South Australia led TES design, materials evaluation and demonstration development. Assessors likely valued the project's strong bilateral relevance, the complementary expertise brought by both countries, and its clear pathway from early-stage research to practical demonstration, supported by active industry engagement. In-kind and cash contributions from Indian partners further demonstrated commitment and commercial potential.

Strategies used for a successful application:

- Built on a long-standing academic relationship, providing a strong foundation and established ways of working.
- Aligned the project with real-world challenges, particularly air quality in India.
- Showcased complementary expertise, with partners from both countries contributing distinct technical expertise.
- Engaged industry partners, signalling potential for real-world impact.
- Secured in-kind and cash contributions, reinforcing commercial potential.

CASE STUDY

CULTURAL HERITAGE AND SUSTAINABLE URBAN DEVELOPMENT - IMPRINT

Professor Sambit Datta, Dean International in the Faculty of Science and Engineering at Curtin University, secured projects under both the Uchhatar Avishkar Yojana (UAY) and the IMPRINT (Impacting Research Innovation and Technology) schemes – programs that have since been consolidated under IMPRINT-2. The joint project focused on India's priorities for digital preservation of cultural heritage buildings and sustainable urban development.

An earlier unsuccessful AISRF application highlighted for him the importance of developing strong academic relationships well in advance of funding rounds. To position himself for success, he built on the connections formed during his five-year Visiting Professorship at IIT Kharagpur, supported by institutional efforts that deepened networks through targeted engagement. Proposal development was shaped through collaborative workshops, with guidance from IIT Kharagpur's Strategic Research and Consultancy Development Office.

Strategies used for a successful application:

- Built on long-standing academic connections, providing a strong foundation that helped bring additional collaborators.
- Aligned the project with government research priorities, particularly digital preservation of heritage buildings and sustainable urban development in India.
- Used collaborative workshops and institutional support to both source additional collaborators and co-design a proposal that reflected the strengths of both institutions.
- Applied lessons from an earlier unsuccessful application, strengthening the relationship between collaborators in advance to position the team for success.

ADDITIONAL LINKS:

- Full AISRF Grant Guidelines: business.gov.au/grants-and-programs/australia-india-strategic-research-fund-round-16
- Full SPARC Guidelines: sparc.iitkgp.ac.in/contents/sparc-guidelines.pdf
- Full GIAN Guidelines: gian.iith.ac.in/guidelines
- SPARC Thematic Areas: sparc.iitkgp.ac.in/thematic-areas
- General advisory/useful suggestions for preparing the SPARC proposal: sparc.iitkgp.ac.in/contents/additional-advisory.pdf
- Research Funding Toolkit, UCU Continuing Professional Development: cpd.web.ucu.org.uk/files/2013/11/CPD-RFT_Grant_writing.pdf
- Special Guidelines for Submitting Joint Proposals under the Quad AI-ENGAGE Collaborative Research Opportunity: www.nsf.gov/funding/opportunities/dcl-special-guidelines-submitting-joint-proposals-under-quad-ai