

MTC INDIVIDUAL RESEARCH GRANTS (IRG) & YOUNG INDIVIDUAL RESEARCH GRANTS (YIRG)

OGA, A*STAR



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Overview

- Manufacturing, Trade and Connectivity (MTC) IRG and YIRG support novel and fresh R&D investigator-led ideas in the technology readiness levels 1 and 2 space (*refer to Annex for more information*) in the MTC domain sectors:
 - Manufacturing: Aerospace; Energy and Chemicals; Electronics; Precision Engineering; Marine and Offshore; Food Manufacturing; Biomedical Manufacturing
 - Trade: Logistics; Wholesale Trade
 - <u>Connectivity</u>: Aviation; Sea Transport; Satellites
- IRG and YIRG are open to public sector research performers: local universities, A*STAR research institutes, polytechnics, and non defense-related public sector agencies (e.g. Ministries, Statutory Boards)

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Overview

- Proposals are solicited through a ground-up mechanism across the research ecosystem. The IRG allows for submissions from either single Principal Investigators (PIs), or small teams of PIs, while the YIRG aims at grooming young researchers in conducting independent research.
- Funding Quantum and Duration

	IRG	YIRG
Max. funding quantum (supports EOM, OOE, EQPT and Travel, and includes 30% indirect cost)	Up to \$1.2M per project over 3 years	Up to \$0.325M per project over 3 years

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Eligibility Criteria

IRG	YIRG
Any age	
PhD	PhD (not more than 7 years post-PhD)
 PI must hold a primary appointment of at least 75% in local publicly funded institution. Team PI/Co-investigator (Co-I) must hold an appointm in a local publicly funded institution. 	
-	PI of an on-going MTC/AME IRG or MTC/AME YIRG project is not eligible.
Not required	Required
 Applicants are only allowed to submit <u>one application</u> per as a PI. 	
	 Any age PhD PI must hold a primary application local publicly funded institution. Team PI/Co-investigator (in a local publicly funded) - Not required Applicants are only allowed to the second second

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Key Performance Indicators (KPIs)

Indicator	Definition	Data collection methodology
[KPI] No. of publications in the top 10% most highly cited journals	The top 10% most highly cited journals will be based on the CiteScore rankings maintained by Scopus.	Data reported via annual progress reports, mid-term reviews and final reports.
	(<u>https://www.scopus.com/s</u> <u>ources.uri</u> , titles in top 10 percentile, Source type Journals and Conference Proceedings).	Publications will be checked against the CiteScore list for the year of publication (e.g. a publication that is submitted in 2021 but published in 2022 will be checked against the 2022 CiteScore list).

* Additional KPIs and tracking indicators may be set at project level for tracking of outcomes





Application Process

- Grant calls will be made <u>annually</u> to solicit proposals from the R&D community
 - Via A*STAR website
 - Through Research Administrative Office (or equivalent) of the institutes of higher learning, academic medical centers, hospitals and A*STAR research institutes
- Applications <u>must</u> be <u>endorsed</u> by the applicants' Host Institution(s) prior to submission
- Applications should be submitted through the <u>Integrated Grant Management</u> <u>System (IGMS)</u>.
- All queries <u>must</u> be submitted through A*STAR (as Implementing agency) at irg_ame@hq.a-star.edu.sg



Selection Process Workflow



*Evaluation criteria include, but not limited to: (i) Alignment with MTC sectors, (ii) PI's track record, (iii) Intellectual / Innovative Merit, (iv) Competitive / Comparative Advantage, and (v) Likelihood of Success

Post Award Grant Management

- Follow the A*STAR Grants T&Cs and guidelines
- Yearly Progress Report <u>within two (2) months</u> from the end of the Financial Year
- Mid-Term and Final Review conducted approximately at the halfway mark and before the end of Term
- Final Report within three (3) months following the end of the Term
- FSOA <u>within six (6) months</u> from the end of the Term



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THANK YOU

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Annex





Technology Readiness Level (TRL)

IENT	9	ACTUAL SYSTEM PROVEN IN OPERATIONAL ENVIRONMENT
EPLOYMENT	8	SYSTEM COMPLETE AND QUALIFIED
DEP	7	SYSTEM PROTOTYPE DEMONSTRATION IN OPERATIONAL ENVIRONMENT
IENT	6	TECHNOLOGY DEMONSTRATED IN RELEVANT ENVIRONMENT
ГОРМ	5	TECHNOLOGY VALIDATED IN RELEVANT ENVIRONMENT
DEVE	4	TECHNOLOGY VALIDATED IN LAB
н	3	EXPERIMENTAL PROOF OF CONCEPT
RESEARCH	2	TECHNOLOGY CONCEPT FORMULATED
RE	1	BASIC PRINCIPLES OBSERVED



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TRL Examples

TRL	Description	Example
1	Basic principles observed	Scientific observations made and reported. Examples could include paper-based studies of a technology's basic properties.
2	Technology concept formulated	Envisioned applications are speculative at this stage. Examples are often limited to analytical studies.
3	Experimental proof of concept	Effective research and development initiated. Examples include studies and laboratory measurements to validate analytical predictions.
4	Technology validated in lab	Technology validated through designed investigation. Examples might include analysis of the technology parameter operating range. The results provide evidence that envisioned application performance requirements might be attainable.
5	Technology validated in relevant environment	Reliability of technology significantly increases. Examples could involve validation of a semi-integrated system/model of technological and supporting elements in a simulated environment.



TRL Examples

TRL	Description	Example
6	Technology demonstrated in relevant environment	Prototype system verified. Examples might include a prototype system/model being produced and demonstrated in a simulated environment.
7	System model or prototype demonstration in operational environment	A major step increase in technological maturity. Examples could include a prototype model/system being verified in an operational environment.
8	System complete and qualified	System/model produced and qualified. An example might include the knowledge generated from TRL 7 being used to manufacture an actual system/model, which is subsequently qualified in an operational environment. In most cases, this TRL represents the end of development.
9	Actual system proven in operational environment	System/model proven and ready for full commercial deployment. An example includes the actual system/model being successfully deployed for multiple missions by end users.