विज्ञान एवं प्रौद्योगिकी विभाग
DEPARTMENT OF
SCIENCE & TECHNOLOGY
सत्यमेव जयते

National Quantum Mission

Qmet Tech

Guidelines for supporting Start-ups under National Quantum Mission

1. Background:

The Union Cabinet approved the National Quantum Mission (NQM) on 19th April 2023 with a total outlay of Rs.6003.65 Crore for a period of eight years. The Mission aims to seed, nurture and scale up scientific and industrial R&D and create a vibrant & innovative ecosystem in Quantum Technology (QT) in the country. As part of the mission, four Thematic Hubs (T-Hubs) will be established as Section-8 Companies, not-for-profit entities, within premier academic institutions and national research and development labs. These T-Hubs will specialize in four distinct technology verticals: Quantum Computing, Quantum Communication, Quantum Sensing & Metrology, and Quantum Materials & Devices.

1.1. The mission is structured around four core activities: Technology Development, Human Resource Development, Entrepreneurship Development, and the startup ecosystem, and International Collaboration. These activities will be executed through the four Thematic Hubs (T-Hubs), which will operate as Section-8 Companies. The Hub Governing Boards (HGB) will have the autonomy to devise internal processes and procedures, aligning with the mission's objectives under the guidance of the Mission Governing Board (MGB) and Mission Technology Research Council (MTRC). The decisions made by their Board of Directors are considered authorized actions by the Section-8 Company.

1.2. Given that Quantum Technology is still in its nascent stage, significant investment and adequate government support are necessary to scale products, services, and operations. Therefore, guidelines to support startups under NQM are crafted, emphasizing the timely provision of financial resources. These guidelines ensure initial backing from the T-Hubs, followed by funding from private entities such as Angel Investors, Venture Capitalists (VCs), and Private Equity (PE) firms. Furthermore, T-Hubs are encouraged to invest in startups in exchange for equity to ensure sustained financial stability. Hence, it is necessary to frame the guidelines for supporting startups that require a totally different size of funding and institutional framework.

1.3. Since the setting up of the T-Hubs is still underway and startups working in the area of Quantum Technology require prompt support, the Technology Innovation Hub (TIH) namely, I-HUB Quantum Technology Foundation of IISER, Pune, already established in the vertical of Quantum Technologies under the National Mission on Interdisciplinary Cyber Physical Systems (NM-ICPS) scheme of DST, may support some potential startups working in Quantum Technologies. Once the T-Hubs under the National Quantum Mission are established, support for startups may be provided through T-Hubs.

2. Eligibility Criteria:

(a) A startup, should be registered by DPIIT at the time of application. If not registered, funds will only be released after successful registration by DPIIT.

(b) The startup must have a business idea to develop a product or a service with a market fit, viable

commercialization, and scope of scaling.

(c) The startup should be using technology in its core product or service, or business model, or distribution model, or methodology to solve the problem being targeted.

(d) Only for 'Indian Companies' defined as 'holding company registered in India', and 'IP resides in India', and 'majority owned in India'.

(e) Shareholding by Indian promoters in the startup should be at least 51%, as per Companies Act, 2013 and SEBI (ICDR) Regulations, 2018. Any future change in the status as 'Indian Company' is covered under section 9.3 below.

3. Investment Evaluation & Monitoring Committee (IEMC)

An Investment Evaluation & Monitoring Committee (IEMC) will be constituted by the Hub Governing Board and Board of Directors which will be responsible for overall execution and monitoring of startup. The IEMC will comprise of the following members:

I. Chairman- Chairman of HGB
II. CEO of the Section-8 Company
III. Three Technical Experts
IV. Three Business experts
V. Financial Advisor of the Section-8 Company

4. Submission of Application:

The applications may be obtained from Start-ups on following basis:

4.1. Cohort-based as well as rolling basis:
A quarterly cohort will help create rhythm and momentum. At the same time, best to keep a 'window' open on rolling basis to evaluate some high-quality startups opportunistically

4.2. In response to 'problem statements', as well as Open Challenge:
Quarterly cohorts can be theme based (e.g. Energy, Financial Services, Defense, Security – in the case of Quantum) where 'users' (both from government & private corporate sector) can spell out 'problem statements' against which Startups may apply. It may also announce Open Challenge to promote certain important areas including societal importance to support other high-quality Start-ups.

4.3. T-Hubs / Technical Groups recommended Start-ups:
It may also be possible that some T-Hubs/ Technical Groups in T-Hub may recommend Start-ups whom they may be working very closely and have good innovative ideas. They may also be supported based on merit.

5. Selection Criteria:

5.1. The startups shall be selected through an open, transparent and fair process, comprising, inter-alia:

(a) An online call for applications shall be hosted on an ongoing basis.

(b) The applicant may be asked to submit details on team profile, problem statement, product/service overview, business model, customer profile, market size, quantum of funds needed, projected utilization plan for funds, etc.
(c) Eligible applications will be evaluated by IEMC using the following criteria:

	Criteria	**Details**	**Weightage (%)**
1	Is there a need for this idea?	Market size, what market gap is it filling, does it solve a real-world problem?	p
2	Feasibility	Feasibility and reasonability of the technical claims, methodology used/ to be used for PoC and validation, roadmap for product development	q
3	Potential Impact	Customer demographic & the technology's effect on these, national importance (if any)	r
4	Novelty	USP of the technology, associated IP	s
5	Team	Strength of the team, Technical and business expertise	t
6	Fund Utilization Plan	Roadmap of money utilization	u
7	Fund raised	Fund raised from other organizations including private and government	v
8	Additional Parameters	Any additional parameters considered appropriate	w
9	Presentation	Overall assessment	x
			100%
Weightages for criteria (p,q,r,s,t,u,v,w,x) may be assigned by the T-Hub differently			

(d) The entire process from the date of receipt of application to disbursal of the funds may be upto a maximum of 3 months.
(e) Applicants who are rejected will also be notified through email.
(f) The selected list of applicants recommended for investment is shared with the professional legal team for legal and financial due diligence.
(g) The final selected applicants are submitted to the Project Directors (PD) or CEO of T-Hub/TIH for further due diligence i.e. signing Equity Agreement with Startup and take necessary approvals from the BoD/HGB before formally release the amount to the Startup. An appropriate legal Agreement should be signed, clearly defining the terms and conditions.
(h) Upon Board approval, T-Hub/TIH engage in equity-sharing discussions with the selected start-ups.
(i) Funds can be given to the startups based on the following slabs:
(j) Slab A & B: For supporting matured idea stage, for supporting development of Prototype Stage and for Product testing / validation / product development etc.
(k) Slab C: For scaling up of the technology, product development and for commercialization

6. Evaluation Process:

6.1. Pre-screening of Applications:
Applications are pre-screened to determine eligibility under the advertised program, followed by screening by a Committee of Technical Experts constituted by the T-Hub/TIH/IEMC. The shortlisted start-ups may be given an opportunity to present in front of the technical experts/jurors, comprising professors and industry technical experts.

6.2. Second Round of Interactions:
Shortlisted applicants undergo a second round of interactions with a IEMC along with few invitees from Business Leaders, VC Fund representatives, Angel Investors, Chief Executive Officer (CEO) of T-Hub/TIH and other domain experts. This round evaluates the business viability of the start-up and suggests a rough valuation of the company. BoD/HGB of T-Hub/TIH may also parallelly get the legal and financial due diligence from the professional legal / financial team of the selected applications for the taking the final decision. An appropriate legal Agreement should be signed, clearly defining the terms and conditions.

6.3. Evaluation of Applications:

(a) Selection of Start-ups will be carried out by IEMC for each Quantum Technology Vertical. For investments under Slabs A & B, the T-Hub's HGB and BoD are authorised to take the final investment decision. For investments under Slabs C, there will be an additional evaluation step by the centrally-constituted IEMC. This centrally-constituted IEMC will meet as and when required (at least once in three months) to review all such recommendations from the four T-Hubs for investments under Slabs C.

(b) IEMC will meet periodically to build rapid momentum and progress w.r.t evaluation and investment decisions.

(c) IEMC will also hold quarterly or six-monthly 'monitoring' meetings with supported Start-ups for reviewing the progress and guide the Start-ups. Also, recommend further releases to the Start-ups based on satisfactory progress.

7. Funding Mechanism:

7.1. Funding at various stages of Technology lifecycle (Technology Development, Prototype development, demonstration, commercialization etc.) including product validation and certification. The following guidelines apply at various stages of the technology lifecycle:

Track	SLAB & FUNDING AMOUNT	T-Hub Fee/Equity	PURPOSE
Track-1 For early stage startups with no VC funding so far. (**Seed Funding upto Rs. 5 Crore with incubation Equity**)	Slab A: Upto Rs 1 crore	T-Hubs gets upto 3% equity as incubation fee. Negotiated case-by-case*	For supporting matured idea stage (For Idea to PoC)
	Slab B: Above Rs 1 crore, and upto Rs 5 crores	T-Hubs gets upto total 4.5% equity as incubation fee. Negotiated case-by-case*	For supporting development of Prototype Stage, testing, validation, product development (For PoC to product/customer pilot)
Track-2 For startups with one or more rounds of VC funding **(Equity or CCPS upto Rs. 25 Crore)**	Slab C: Upto Rs. 25 Crores**	(a) <u>T-Hub as Lead Investor:</u> Equity linked instrument (CCPS) Conversion of equity @15- 30 % discount to next round, depending on time elapsed.	For scaling up of the technology, product development and for commercialization
		(b) <u>T-Hub as co-investor alongside a VC</u> VC sets valuation & T-Hub invests at same terms with corresponding equity %. Or at CCPS terms set by VC	

* In case a startup gets an initial funding of Rs. 1 Crore (idea to PoC) and then gets a 2nd funding upto Rs. 4 Crore (PoC to pilot), the total incubation fee will not exceed 4.5% for both fundings combined.
** MGB may approve higher funding to the startups on the basis of merit and requirement.

7.2. The support to Start-ups will be in tranches and purely based on progress shown against milestones.

7.3. The recovery of financial support through "Equity participation" only as per the provisions of the Companies Act. The quantum of equity from Start-up will be as per the guidelines which may be approved by BoD/HGB of T-Hub/TIH.

7.4. Flow of Funds:

(a) The disbursement of funds to Start-ups routed through T-HUB/TIH.

(b) Applicants need to enter into Equity Agreement with T-HUB/TIH.

8. Provision of Mentoring Start-ups:

(a) High-quality mentoring is critical for success of quantum startups. Mentoring will ensure that the investments made under the NQM lead to the creation of a world-class startup & T-Hub ecosystem. T-Hubs must aim to identify and assign one tech mentor & one business mentor to each startup invested in, especially under investment Slabs A, B & C

(b) In addition to the incubation fee paid to T-Hub, the startup may offer equity to mentors if their services are needed. In exchange, the mentors agree to participate in mentoring sessions (number of sessions may depend on the requirement and should be agreed upon initially), either online or in person.
(c) For investments under Slab-C and beyond, the mentoring requirement and arrangement can be need-based and mutually agreed upon.

9. Progress Monitoring & Management

9.1. Fund Utilization Monitoring:

(a) T-Hub/TIH should monitor the rightful use of funds by start-ups, with financial audits conducted every three months.
(b) In case of poor performance of any selected startup, EAC may decide to discontinue seed fund support to the startup and take further action as may be required
(c) Appropriate legal action will be taken against the selected startup in case it uses the grant for purposes other than those for which it has been awarded.

9.2. Access to the facilities available at T-Hub/TIH:
T-Hub/TIH or Technical Groups set up under T-Hub are encouraged to allow access of facilities available with them to the Startups on a reasonable payment basis, if requested by Startups.

9.3. Change of the Startup's 'Indian Company' status
There is a possibility that a startup's 'Indian Company' may change at a later date because of a large funding round from a foreign investor, or for some other reason. Since quantum Technology is a national priority, this situation required careful handling.

In such an eventuality, the following steps will apply:

9.3.1. For investments received under Slabs A & B

(a) The startup will notify the T-Hub in writing about likely change in status, and provide full reasons and details thereof, including investment quantum and terms offered by potential incoming investor
(b) The T-Hub to immediately notify it's own BoD/HGB, and the centralised IEMC.
(c) If the reason for change in 'Indian Company' status is a large funding round from a foreign investor, the T-Hub (with approval of central IEMC) will have the right to make a matching counter-offer as a 'first right of refusal' within 30 days
(d) If the T-Hub (with approval of central IEMC) decided not to make a counter-offer under the 'first right of refusal' clause, the startup may then proceed with it's own funding plans
(e) If the reasons for change in 'Indian company' status are not related to a funding round, the startup needs to provide full reasons, and a 30-day period to respond. The T-Hub (& centralised IEMC) may exercise their judgement to deny this request if the reasons provided are not satisfactory under the terms of the equity agreement entered into by them with the T-Hub/TIH.

9.3.2. For investments received under Slab C

Such startups, i.e. those receiving funding under Slab-C, would be those that are clearly of national importance. They would be expected to retain their 'Indian Company' status, under the terms of the equity agreement entered into by them with the T-Hub/TIH.

10. DISPUTE RESOLUTION

Any disagreement/ difference of opinion/ dispute between the Parties regarding the interpretation of the provisions of this Agreement or otherwise arising from this Agreement and the activities undertaken under this Agreement shall be resolved by mutual consultation by the Parties under the leadership of the Secretary, DST. For any dispute unresolved for a period not exceeding thirty (30) days, reference shall be made under the provisions of the Arbitration and Conciliation Act, 1996 or any statutory modification / re-enactment thereof and rules made there under. The place/venue/seat of arbitration shall be New Delhi and the proceedings shall be conducted in English or Hindi language. The award of the arbitrator shall be binding on all Parties.

11. GOVERNMENT SUPPORT TO STARTUPS:

(a) The Startups supported by the Government with their Funds may be given preference in all tendering processes in GeM and any other manner Government procures the products / services.

(b) T-Hub/TIH must involve relevant user agencies such as government/private agencies at an early stage, for bringing confidence on the products developed by the Start-ups. Periodic 'Demo Days' may be planned to showcase innovative quantum startups to government & private sector.

12. Responsibilities of T-Hubs:

(a) Wider outreach for sourcing startups;
(b) Basic preliminary screening;
(c) Documentation & due diligence;
(d) Funds disbursal;
(e) Assign mentors (tech; business) to each startup invested in, and coordinate fortnightly/monthly mentoring sessions.
(f) signing of the equity agreement,
(g) Constitution of Investment Evaluation & Monitoring Committee (IEMC) constituting of three technical experts and three business experts.
(h) Any other activity not covered above.