



India's emerging quantum ecosystem strengthened by enabling policy of the Modi government: Dr Jitendra Singh

Supportive Ecosystem Is Giving India's Quantum Startups the Confidence to Build, scale up and Compete Globally: Dr. Jitendra Singh

India Achieves 1,000-km Quantum Secure Communication in About Three Years Against 2,000-km Target Set for Eight-Year Mission, says Dr. Jitendra Singh

NQM Support to Quantum Startups Expands from 17 to 26; Government Building Infrastructure, Funding and Industry Linkages: Dr. Jitendra Singh

India Has the Potential to Become Globally Competitive in Quantum Communication and Sensing, Self-Reliant in Quantum Computing, Says Dr. Jitendra Singh

PRAGATI Q-FOUNDRY by Department of Science and Technology Brings Startups, Industry, Investors, Manufacturers and Strategic Users Together to Accelerate Quantum Technology Deployment

At PRAGATI Q-FOUNDRY 2026, Dr. Jitendra Singh Unveils 10 New Quantum Technologies, 9 Startups and Strategic Partnerships

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India's emerging quantum ecosystem is being strengthened by an enabling policy of the Modi government that is opening greater space for industry and the private sector to participate in frontier technologies, Union Minister of State (Independent Charge) for Science & Technology and Earth Sciences, Dr. Jitendra Singh, said today. He said India had the scientific talent, technological capability and industry readiness, but the enabling environment provided by policymakers is now giving stakeholders the confidence to build and scale in quantum technologies.

Addressing PRAGATI Q-FOUNDRY 2026 – NQM Co-development and Venture Partnership Meet at Dr. Ambedkar International Centre, New Delhi, Dr. Jitendra Singh said the National Quantum Mission represents a new approach in which the Government, scientific institutions, startups, industry, investors, States and strategic users are working together to build indigenous capabilities. He said India would not remain a consumer of quantum technologies developed elsewhere and is building capabilities, infrastructure, talent and enterprises to develop these technologies at home and take them to the world.

The Minister highlighted the speed of progress under the National Quantum Mission, noting that the Mission was planned for eight years, but India has already achieved 1,000-km quantum secure communication in about three years, against the 2,000-km target envisaged for the eight-year period. He said achieving half of the target in less than half the planned timeframe demonstrates the capability that has been built within the quantum ecosystem and provides confidence to move ahead with greater speed and resolve.

Dr. Jitendra Singh said the National Quantum Mission has been structured as a whole-of-government and whole-of-nation effort, with four thematic hubs at IISc Bengaluru, IIT Madras, IIT Bombay and IIT Delhi, bringing together 152 researchers from 43 institutions across 17 States and two Union Territories. The hubs are working across quantum computing, quantum communication, quantum sensing and metrology, and quantum materials and devices.

He said the progress achieved in the last two to three years shows that India now has an opportunity to become globally competitive in quantum communication and quantum sensing and self-reliant in quantum computing. The Minister said the technologies emerging from the hubs, academic institutions and startups are already providing a strong foundation for this ambition.

Dr. Jitendra Singh said the Government's support to startups is not limited to funding, but extends to infrastructure, mentorship, technology validation, industry partnerships and pathways to customers. He stressed that quantum startups require sustained engagement from industry and investors, including capital, technical validation, co-development, procurement and market access. He also called upon States to evaluate indigenous technologies developed by startups and explore their deployment and procurement so that promising ventures can become sustainable.

The Minister said early industry linkage is particularly important for the sustainability of quantum startups, as quantum technologies require substantial capital and long-term commitment. He said PRAGATI Q-FOUNDRY and the B2B interactions associated with it are intended to facilitate concrete outcomes such as technology validation, procurement, co-development, investment and partnerships rather than merely showcasing technologies.

The National Quantum Mission has already supported 17 startups, and nine additional startups were announced at the event, taking the total to 26. Dr. Jitendra Singh said the expansion reflects the Government's continuing commitment to nurture quantum entrepreneurs and provide promising Indian ventures access to funding, infrastructure, mentorship and pathways to customers.

The event also witnessed the launch of flagship quantum technologies and products, exchange of MoUs and announcement of startups by Dr. Jitendra Singh. These initiatives mark the next phase of implementation under the National Quantum Mission, with the focus shifting towards testing, validation, integration, investment and deployment of indigenous technologies.

As part of the technology outcomes showcased under the Mission, one of the Technical Groups under the Quantum Communication Hub at IIT Madras successfully demonstrated a hybrid PQC-QKD link over 17 secure nodes between Chennai and Bengaluru using existing BSNL fibre. The 50ps daisy-chain timing synchronisation has also been released as an open-source solution for the research community.

The event was attended by Prof. Abhay Karandikar, Member, NITI Aayog; Prof. Ajay Kumar Sood, Principal Scientific Adviser to the Government of India; Prof. Umesh V. Waghmare, Secretary, Department of Science & Technology; Dr. J. B. V. Reddy, Mission Director, National Quantum Mission, along with senior scientists, entrepreneurs, investors, industry representatives and other stakeholders.

Dr. Jitendra Singh also interacted with founders of quantum startups in a roundtable discussion, taking stock of their technological progress, challenges and requirements for scaling. The interaction focused on strengthening linkages between startups, investors, industry and potential users so that promising indigenous technologies can move towards validation, adoption and deployment.

The Minister said indigenous capability in quantum processors, secure communication systems, advanced sensors, materials and devices is important for India's technological self-reliance, particularly in critical and strategic domains. He said India must build domestic capability across the value chain while remaining globally connected and developing technologies that are internationally competitive.

Prof. Abhay Karandikar, Member, NITI Aayog, said the progress under the National Quantum Mission demonstrates the importance of bringing together government, academia, startups and industry to build a strong quantum ecosystem. He said the Mission is creating the foundations for indigenous technology development and greater participation of the private sector in this emerging field.

Principal Scientific Adviser Prof. Ajay Kumar Sood said the quantum ecosystem is demonstrating that the traditional linear model of taking 10–15 years to move from fundamental science to technology is changing. He said around 52 technologies at various Technology Readiness Levels have emerged from the four thematic hubs, along with 17 financially supported startups. He stressed that deployment and procurement of indigenous technologies will be critical for making startups sustainable and creating internationally competitive products.

Dr. Jitendra Singh said the success of PRAGATI Q-FOUNDRY should ultimately be measured by the technologies advanced, partnerships created, investments mobilised, startups strengthened and indigenous solutions taken into use. He called upon all stakeholders to move forward with clear commitments, timelines and responsibilities, and said the National Quantum Mission has laid the foundation for India to build globally relevant quantum technologies and national capability.





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