

“High-speed 5G connectivity can advance medical device growth trajectory in India”

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GE Healthcare, a leading global medical technology, diagnostics, and digital solutions innovator, has opened its 5G Innovation Lab in Bengaluru – the first for GE Healthcare across the globe. The lab is intended to serve as a testbed to develop future-ready products and solutions, turning a new corner in innovation by providing expertise and a platform for a collaborative ecosystem covering academia, the healthcare industry and startups to explore 5G-enabled precision healthcare use cases. To find out more in this regard, BioSpectrum spoke to Girish Raghavan, Vice President- Engineering, GE Healthcare in detail. Edited excerpts-

What is so unique about this lab and why did you choose India to set up the lab?

Today, we find ourselves at a pivotal point in time for the medtech sector, which is rapidly rising in prominence with a digital healthcare transformation upon us. The 5G Innovation Lab, we recently inaugurated in Bengaluru, is the first for GE Healthcare across the globe, representing an important milestone investing in R&D to better understand and leverage the potential of 5G connectivity.

The Lab, situated at the John F. Welch Technology Centre (JFWTC), houses state-of-the-art infrastructure, including a private 5G network for testing and development. More so, it provides expertise and a platform for a collaborative ecosystem for academia, the healthcare industry, and startups, facilitating exploration of various 5G-enabled Precision Healthcare use cases. The Lab will serve as a conduit for the interplay of exponential technologies like AI/ML, IoT, Big Data, Edge Computing and Cybersecurity. It will play an important role in ensuring connectivity and accessibility to 5G technology to

leapfrog into the next generation of MedTech.

India is an important market for GE Healthcare globally, and more broadly, a critical hub for the medtech sector – from research to manufacturing and development capabilities. We are excited to venture into 5G in this market and explore its various use cases across the healthcare landscape, so we can apply these benefits to care delivery practices in India and the world.

India also houses GE Healthcare's second largest integrated and multidisciplinary research and development centre outside the United States – the JFWTC, which was established over two decades ago. With the JFWTC representing a pioneering hub of innovation, we were especially confident about building our 5G Innovation Lab here, to further scale our contributions to healthcare while researching locally in India. This will give us a keen understanding of the applicability of this technology across the spectrum, which we can adopt at the global level.

What challenges do you foresee in the implementation of 5G technology in the long run?

Understanding and adopting new technologies is complex. We must explore the potential of innovative tech in healthcare, essential to transform the sector. We are talking about the dawn of the new era with smarter, quicker clinical decision-making.

While there are a few hurdles we might face along the way, the promise of 5G connectivity will disrupt the patient care continuum – transform diagnosis, therapy, and prognosis, leveraging its massive bandwidth, high data speeds, low latency, and highly reliable connectivity.

How is this lab going to bring about a revolution in India's medtech space?

India's medtech sector is yet to reach its full potential. As one of the fastest growing markets in the global medical devices industry, India is expected to grow at a CAGR of 15 per cent. High-speed 5G connectivity can advance this medical device growth trajectory, pushing the boundaries of innovative healthcare solutions – from remote monitoring and AI to tele-health services. With the launch of GE Healthcare's first 5G Innovation Lab, we are optimistic of the pivotal role it will play as a catalyst for an ecosystem to explore 5G-enabled use cases across the healthcare landscape.

5G has great potential to impact healthcare, especially by enabling rapid data-sharing and real-time, high-quality virtual care. It can become the backbone of digital health infrastructure leveraged effectively, helping us reach the last mile with needed tele-health solutions.

Our 5G Innovation Lab will serve as a testbed for our teams to develop future-ready products and solutions, so we can turn new corners in innovation. This, in turn, can help our lead scientists, technologists and researchers leverage data efficiently to understand how 5G connectivity can support the delivery of personalised, precision healthcare. Empowered with these insights, we would hope to support the development of accessible and innovative products and next-generation solutions to ultimately improve lives, worldwide.

At GE Healthcare, we are committed to continue leveraging our clinical expertise, know-how and technological and manufacturing capabilities to develop innovative medtech solutions. This can help deliver quality, personalised and precision care to patients. This includes sustained work across our product teams, testing and understanding how to leverage 5G connectivity across the healthcare spectrum, from virtual tele-consultation and care to robotic surgery in the future. Our fundamental idea, at the core of our products and services, is to make the health system smarter.

We will continue to advance local manufacturing efforts in the country, in line with the government's vision of 'Aatmanirbhar Bharat.' We are also striving to provide reliable, low-cost solutions to ensure accessibility and affordability of healthcare across India.

Additionally, GE Healthcare is committed to strengthening the Indian medtech industry through innovative applications of AI & ML. We are employing technologies like AI to identify ways to lower medical errors in healthcare, improve the precision and pace of imaging devices, and move further along the path of predictive medicine. We have key emerging technologies which we will continue leveraging, with the expectation of transforming healthcare over the next decade, while further investing in India to build competence, infrastructure and a framework that supports innovation, for India and the globe.

What new opportunities will be brought out to the academia & startup space through this initiative?

We aim to foster collaboration with academia, the industry and startups by building a cohesive ecosystem enabling such groups to explore various use cases of 5G connectivity in Precision Healthcare. Here, individuals or teams can conduct tests across various domains to understand the reliability of their new products or innovations. It will thus open doors for qualified 5G-enabled exploration to enhance various sectors that work closely with healthcare.

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