

## **"One of the biggest challenges in medical training is the gap between theoretical knowledge and clinical readiness"**

30 November 2025 | Views | By Vrushti Kothari

**Delhi-based startup Maverick Simulation Solutions is entering 2026 with renewed momentum, backed by significant R&D investment and a fast-expanding footprint across India's medical education landscape. With simulation-based training becoming essential, Maverick is emerging as a key driver of India's medtech innovation bringing indigenous, AI-enabled training solutions to institutions nationwide. To gain deeper insights, BioSpectrum spoke with Anuj Chahal, Founder & CEO of Maverick Simulation Solutions.**

**Maverick Simulation Solutions has announced an investment of Rs 50+ crore into its R&D division. Please elaborate upon this. Is there a phase wise agenda in place?**

The Rs. 50+ crore investment is a long-term commitment to strengthening our innovation backbone. For us, R&D has never been an afterthought, it's where the actual transformation in medical training begins. The investment is structured in phases, each focused on a different dimension of innovation.

In the immediate term, we are upgrading our current range of simulators, task trainers, CPR trainers, and high-fidelity systems, to make them more realistic, durable, and intelligent. The next phase involves deeper integration of AI and immersive AR/VR technologies, which will allow learners to engage in dynamic, data-driven training environments. The final phase will expand our R&D infrastructure itself, hiring more engineers, clinical experts, and simulation specialists to enhance design and prototyping within India.

The entire effort is centred on one principle: innovation that's contextual to India. We are developing technologies that reflect the realities and requirements of Indian medical institutions.

**What are the major plans in store for 2026? How much growth and revenue is expected during this fiscal?**

FY 2024–25 was a turning point for us, we crossed Rs 100 crore in revenue and strengthened our presence across 100+ medical institutions. The momentum reinforces the growing acceptance of simulation-based learning in India.

For the next phase, we're aiming to expand our reach to over 250 institutions and target a revenue milestone. But growth for us is not limited to scale; it's also about depth. We want simulation to become a fundamental part of healthcare education, not an optional add-on.

To enable this, we're launching new simulator categories, particularly in emergency response, maternal and child health, and surgical skill development, all supported by analytics for measurable feedback. We're also working closely with faculty members to help them integrate simulation into daily teaching. Our aim is to make competency-based training a standard part of every medical and nursing curriculum.

**What are the major challenges being addressed by your company with respect to medical training and the medtech sector?**

One of the biggest challenges in medical training is the gap between theoretical knowledge and clinical readiness. Many students graduate with sound conceptual understanding but lack the confidence and motor skills to perform procedures on real patients. This gap can have real-world consequences.

We are addressing this through realistic, reusable, and affordable simulators that enable repeated hands-on practice. Our simulators are designed to mimic human anatomy and physiological responses closely, helping students build muscle memory in a safe, controlled environment.

**India produces thousands of medical graduates every year, yet many report feeling underprepared for clinical practice. In your view, how far can simulation go in bridging this skills gap?**

Simulation can bridge this gap more effectively than any textbook or one-time observation ever could. The reality is that no amount of theory can prepare a student for the tactile, time-sensitive, and high-pressure nature of clinical work.

With simulation, learners can practice repeatedly, inserting IV lines, managing airways, performing CPR, until they gain confidence and competence. It provides a safe, failure-tolerant space where mistakes are part of learning rather than risk.

We're already seeing tangible outcomes. Institutions that have integrated simulation into their curriculum report higher skill proficiency, better student engagement, and lower anxiety levels among trainees. As simulation becomes a mandated part of medical education, I believe we'll see a significant shift in the readiness of young doctors and nurses entering clinical environments.

The long-term vision is to make simulation not just a supplement but a standardized part of every medical student's journey, from anatomy labs to emergency rooms.

**Uptake in Tier-II and Tier-III cities is often seen as a challenge. What factors are driving, or holding back, wider adoption of simulation beyond metros?**

Historically, simulation-based education has been concentrated in metropolitan teaching hospitals due to the high cost of imported systems. But that dynamic is shifting. The availability of locally manufactured simulators has made skill labs viable for smaller and mid-tier institutions.

Policy changes have also played a role. The National Medical Commission's guidelines promoting competency-based learning have encouraged medical and nursing colleges across India to adopt simulation. What remains a challenge is not demand, but implementation capacity, particularly in Tier-II and Tier-III cities, where faculty may not have prior exposure to simulation training.

To support these institutions, we offer turnkey solutions that include the full setup - simulators, lab design, training modules. This integrated model ensures institutions can focus on teaching outcomes rather than the logistics of deployment.

We're now seeing strong interest from semi-urban nursing and paramedical colleges. As awareness grows, the adoption curve outside metros is steepening rapidly.

**How have collaborations with institutions such as AIIMS, IITs influenced the direction of simulation training in India?**

Collaboration has been integral to Maverick's growth story. Our partnerships with institutions like AIIMS and IITs have allowed us to combine clinical insight with engineering innovation, something essential in simulation design.

Working with AIIMS gives us access to invaluable clinical feedback, helping us refine the realism and usability of our simulators. IITs bring technical depth, from material innovation to mechanical systems, ensuring our simulators can replicate real-world anatomy and motion accurately.

These partnerships have not only improved our products but have also shaped the direction of simulation training across India, moving it toward an evidence-based, technology-enabled discipline rather than a peripheral teaching aid.

**With AI and digital twin technology entering medical education, how do you see the training of future doctors and nurses evolving over the next decade?**

We are standing at the edge of a transformation in healthcare education. Over the next decade, AI, AR/VR, and digital twin technology will make training more personalised, measurable, and immersive than ever before.

AI will act as an intelligent mentor, tracking a student's technique, identifying errors, and offering real-time feedback. Digital twins, on the other hand, will allow learners to simulate complex physiological conditions and understand patient variability at a deeper level.

At Maverick, we're already experimenting with systems where AI and sensor data combine to assess performance in real-time, for example, evaluating the precision of a CPR or the angle of an intubation.

The classroom of the future will blend physical and digital elements, students practicing on tactile simulators, while their performance is analysed and visualised virtually. This hybrid model will create more confident, competent healthcare professionals who are not just trained to perform tasks but to think clinically and critically.

Our vision is to ensure that these technologies don't remain the privilege of a few elite institutions. The goal is accessible innovation, bringing world-class simulation learning to every corner of the country.

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