DEEPTECH

Will Deeptech's Fortunes Turn In 2020?

While the full potential of these technologies are yet to be unlocked, companies are already witnessing efficiencies going up

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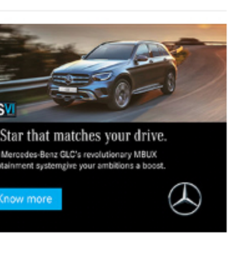

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Deeptech has become a buzzword in the Indian startup ecosystem. The emergence of technologies such as artificial intelligence (AI), machine learning (ML), automation blockchain and drones, among others, has opened up plethora of opportunities. While the full potential of these technologies are yet to be unlocked, companies are already witnessing efficiencies going up.

"The journey that began with bringing businesses to the cloud, adapting to e-commerce and building mobile apps to bring a seamless experience came a full cycle in the last decade. The year 2020 and the following decade are going to be about making the interactions or transactions even more seamless, and in a way that replicates human behavior," said Aakrit Vaish, co-founder and CEO, Haptik, a start-up that offers AI-powered chatbots.

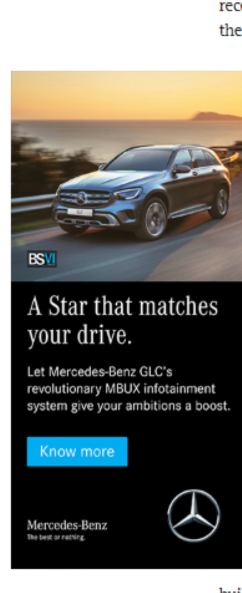
Quoting NASSCOM data, many reports said about 18 per cent of 1,300 Indian start-ups launched in 2019 are leveraging deep-tech. This is a big leap from 8 per cent in 2014, recording 40 per cent compound annual growth rate in the past five years.

"India needs more deep-tech companies utilizing blockchain, artificial intelligence, machine learning, Internet-of-Things (IoT) and augmented reality or virtual reality to come up with innovative solutions to the country's unique problem statements. These technologies have tremendous potential to bring in efficiencies, reduce costs and improve transparency in various sectors across corporate and government," said Santhosh Reddy, managing director and co-founder, ShakeDeal, a B2B procurement platform.

Funding Crunch in Deeptech

While the number of operators in the Indian deep-tech space has been on the rise, the industry faces challenges while raising funds. According to reports, deep-tech was the only start-up vertical in India to receive lower funding than the quarterly average.

According to the *DataLabs report by Inc42*, the Indian start-up ecosystem received a total funding of $3.42 billion in the first quarter of 2019 wherein the deep-tech sector received a total investment of only $9.58 million. This is just 1 per cent compared to the ecommerce vertical which received $958 million during the same period.



"For the deep-tech ecosystem to grow, funding is going to be critical. VCs (venture capitalists) need to be able to back these young and bold start-ups that are using emerging technologies to tackle new-age problems. Hopefully, 2020 will see significant investment in this space with the deep-tech industry coming of age," Reddy added.

Last month during the TiE summit, industry stakeholders also reiterated the problem and said there is a lack of institutional support. While addressing the audience, experts said deep-tech has not been a primary objective in India.

Lagging Behind Foreign Markets

While India has 27 unicorns, none of them are from the deep-tech space. The Indian deep-tech market is far behind other countries such as China, Japan and the US. While speaking at the TiE Summit, experts explained that while companies in India are still being guided to solve problems first and then create businesses, companies from other countries are already at a position to chase fundamental scientific problems to build business.

"India has seen many unicorns emerge in the last five years or so. However, none of them have been in deep-tech. In global comparison as well, India has been lagging behind the US, China, Japan and Europe with respect to building start-ups in the deep-tech domain. This is gradually changing as the deep-tech ecosystem in India is maturing with a more seasoned talent pool," Reddy said.

Sectorial Predictions For 2020

Currently, deep-tech such as AI, ML and IoT are being leveraged by players from almost all sectors, especially in security, health, logistics and legal, among others. Companies using technologies to solve issues have grown in number due to increased efficiency. As the dialogue about technology adaptation has been increasing, players are expecting further development of the sector.

"The trillion-dollar global logistics market is ripe for a disruption via technological change, particularly AI- and ML-driven solutions. With more and more businesses transitioning towards digitization, the year 2020 may witness a revolution in this space. Intelligent and automated systems will empower businesses to be more efficient in the coming decade," said Sachin Haritash, founder, Mavyn, a digital trucking startup.

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The use of AI for cybersecurity has been more than ever. With higher instances of cyberattacks, there is an increasing need to protect users online and take down misinformation. Several Internet companies are leveraging AI to identify, solve and manage threats. According to Akshat Jain, CTO and co-founder of cybersecurity start-up Cyware Labs, AI along with human control will be the future of cybersecurity space.

Explaining the use of AI in the health-tech space, Tanveer Singh, co-founder and CEO of Sova Health said, "2020 will see the democratization of AI in the industry. Smartphone-based cognitive behavioral therapy is showing promise for treating conditions such as depression, eating disorders and substance abuse."

While the space has been busy decoding ways to leverage the advanced technologies, adaptation of drones for commercial, defence and security purposes have been on the rise.

"The security and surveillance segment will continue to grow as defence and homeland security organizations adopt the [drone] technology to gain critical on-ground situational awareness during day and night operations. As enterprises become more efficient, drones will be integrated in several business operations such as project planning, construction progress monitoring and asset inspection," said Ankit Mehta, co-founder and CEO of drone-manufacturing company, ideaForge.

According to Mehta, due to this, there will be a dramatic increase in the numbers of players offering drone services for surveying and mapping.

Road Ahead

With growing number of players in this space, the central government is also doing its bit to encourage deep-tech adoption. For instance, earlier this year, reports said that NITI Aayog circulated a Cabinet note to invest INR 7,500 crore for AI development and research in India.

According to reports, the government think tank has proposed to invest in 20 international centres for transformational AI (ICTAI), five centres of research excellence (CORE) and setting up AIRAWAT (Artificial Intelligence Research, Analytics and knowledge Assimilation platform), a cloud computing platform which will be made accessible for anyone.

In August, it was reported that the Indian government will invest INR 400 crore for partnership with private industry and building cluster of testing infrastructure for military equipment including drone which are to be tested as a part of a pilot project.

While confusion and fear related to adapting advanced technologies is still prevalent in the ecosystem, push from both private and public sector may increase the pace of growth in the deep-tech space this New Year.

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