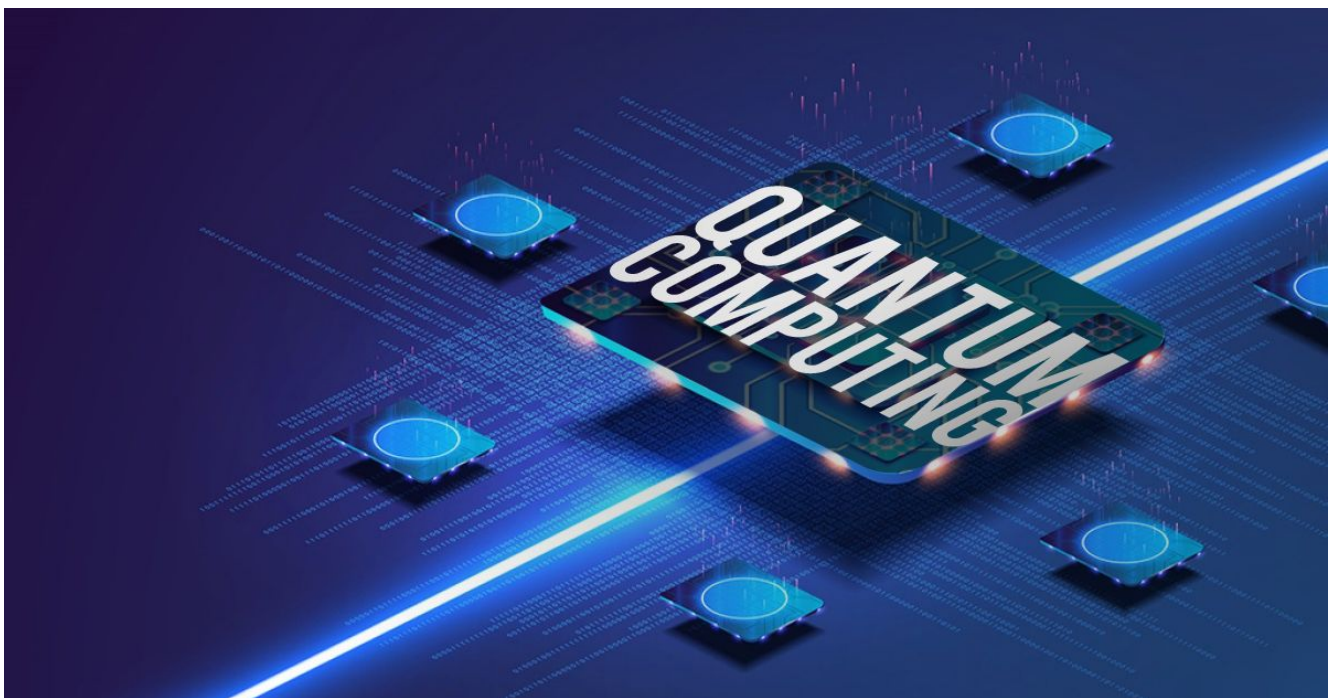


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# Commercial Quantum Computing- On the next frontier?

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In 2019, Google created a stir with a stunning announcement. Its Sycamore quantum computer had then completed a task in 200 seconds which a conventional computer would have taken 10,000 years. This incredible pace of processing catapulted our expectations on the future of revolutionary tech. But since Google's big bang proclamation, the adoption of quantum computing had hit the slow lane until Huawei rekindled the spark recently. The Chinese hardware giant has officially published a patent in this realm, developing a quantum chipset and quantum computing device with the promise of higher yields and accelerating quantum computing adoption.



Imagine the delight you feel when you can browse the internet 10x faster than what you do on your regular mainstream computer. **The sheer compute power of quantum computing makes the incredible possible. And for businesses, it means an exponential speed in completing processes and tasks.**

**In infancy, but the Big Tech is already hooked to it**

Quantum computing is still a raging experiment in the lab of innovation. But it hasn't dissuaded the Big Tech companies from staying invested in its boundless potential. For instance, Microsoft is gaining strides with Azure Quantum without a huge hardware

investment. Google Quantum AI and its Sycamore computer are testimony to the search engine behemoth's commitment to this futuristic tech. Amazon Web Services (AWS) has a quantum computing centre that performs R&D, tests, and operates quantum processors to innovate and scale tech for new, large-scale initiatives.

## The emerging applications.....

Quantum computing is gaining in popularity. The usual buyers of quantum solutions are data scientists, labs, researchers, airline businesses, financial institutions and academia. The most widespread applications are primarily limited to the six targeted sectors- optimization, research, crypto, finance, materials science and healthcare. Both private and governmental investors are looking to capitalize on the revolutions ahead in drug development, materials, cybersecurity and other multi-billion-dollar fields. But for this super niche tech to find eclectic usage, tech companies need to think aloud and act on developing viable products.



## Computing the future

Although many large tech companies have invested heavily in quantum technologies, quantum computing has had its share of delays and false starts in its adoption. This sluggish growth can reverse when leading organizations explore new ways to produce faster results, accelerate buying cycles and improve performance. It needs a seismic shift in temperament to switch from classical to transformative computing solutions. Thankfully, the public sector intends to invest heavily in quantum research. China tops with plans to invest \$15 billion in quantum computing, the European Union \$7.2 billion, the U.S. \$1.3 billion, the U.K. \$1.2 billion, and India and Japan \$1 billion each. **In the 2020 Budget, the Government of India pledged Rs 8000 crore (or \$1 billion) running over five years for the National Mission on Quantum Technologies and Applications. The right policy intent connected with temperament can green flag the beginning of quantum revolution.**



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