

## Quantum Computing Market is estimated to be US\$ 4531.04 billion by 2030 with a CAGR of 28.2% - By PMI

The report "Quantum Computing Market, By Component, By Application, By End-Use Industry - Trends, Analysis and Forecast till 2029"

COVINA , CALIFORNIA, UNITED STATES, March 17, 2023 /EINPresswire.com/ --According to the latest research study, the demand of "<u>Quantum Computing</u> <u>Market</u> size accounted for US\$ 387.3 billion in 2020 and is estimated to be US\$ 4531.04 billion by 2030 and is anticipated to register a CAGR of 28.2%."



The discovery of potential COVID-19 therapeutics has a bright future due to quantum computing. New approaches to drug discovery are being investigated with funding from the Penn State Institute for Computational and Data Sciences, coordinated through the Penn State Huck Institutes of the Life Sciences. For businesses in the quantum computing market, these tendencies are turning into lucrative opportunities during forecast period. Research initiatives that are assisting in the screening of billions of chemical compounds to uncover suitable medication candidates have been made possible by the convergence of machine learning and quantum physics. Stakeholders in the quantum computing business are expanding the availability of supercomputers and growing R&D in artificial intelligence to support these studies (Al). The energy and electricity sector offers lucrative potential for businesses in the quantum computing market. As regard to whole assets, work overs, and infrastructure, this technology is assisting players in the energy and power sector in making crucial investment decisions. Budgetary considerations, resource constraints, and contractual commitments may all be factors in these issues that quantum computing can help to resolve.

**Region Analysis:** 

North America is predicted to hold a large market share for quantum computing due to its early

adoption of cutting-edge technology. Additionally, the existence of a competitive market and end-user acceptance of cutting-edge technology may promote market growth. Sales are anticipated to increase throughout Europe as a result of the rise of multiple startups, favourable legislative conditions, and the growing use of cloud technology. In addition, it is anticipated that leading companies' company expansion will accelerate market growth. The market is anticipated to grow in Asia Pacific as a result of the growing need for quantum computing solutions for simulation, optimization, and machine learning.

## Key Highlights:

• The first multi-chip quantum processor was introduced by Rigetti Computing in May 2021. It has a distinctive modular architecture that speeds up commercialization while overcoming key scaling issues for fault-tolerant quantum computers.

• IBM announced in February 2021 that BP and the IBM Quantum Network have joined forces to support the use of quantum computing technologies in the power and energy sector.

• In January 2021, Boehringer Ingelheim and Google Quantum AI (Google) established a partnership that will concentrate on implementing and researching novel quantum computing use cases in pharmaceutical research and development, particularly molecular dynamics simulations.

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Key Market Insights from the report:

Global Quantum Computing Market size accounted for US\$ 387.3 billion in 2020 and is estimated to be US\$ 4531.04 billion by 2030 and is anticipated to register a CAGR of 28.2%. The Global Quantum Computing Market is segmented based on component, application, end-user industry and region.

• Based on Component, Quantum Computing Market is segmented into Hardware, Software, and Services.

• Based on Application, Quantum Computing Market is segmented into Simulation, Optimizing, and Sampling.

• Based on End-User Industry, Quantum Computing Market is segmented into Defense Healthcare and Pharmaceuticals, Chemicals, Banking & Finance, and Energy & Power.

• By Region, the Quantum Computing Market is segmented into North America, Europe, Asia Pacific, Latin America, and Middle East & Africa.

Key Benefits for Quantum Computing Market:

The key benefits of quantum computing are numerous, and they have the potential to revolutionize the way we process and analyze data. Here are some of the main benefits:

1. Speed: Quantum computing has the potential to be much faster than classical computing, especially for certain types of problems such as optimization, machine learning, and cryptography.

2. Efficiency: Quantum computing can solve certain problems with fewer resources than classical computing, which means it can be more energy-efficient.

3. Scalability: Quantum computing can be scaled up more easily than classical computing, which makes it well-suited for handling larger and more complex datasets.

4. Novelty: Quantum computing allows for entirely new approaches to solving problems that are difficult or impossible for classical computing.

5. Security: Quantum computing can be used to develop new cryptographic algorithms that are more secure than those used in classical computing.

6. Innovation: Quantum computing has the potential to spur innovation in a wide range of industries, from pharmaceuticals to finance to logistics.

7. Scientific breakthroughs: Quantum computing can be used to simulate complex systems, such as chemical reactions or materials, which could lead to new discoveries and scientific breakthroughs.

Overall, quantum computing has the potential to unlock new insights and solutions in fields ranging from finance to healthcare to cybersecurity. However, there are still significant technical and practical challenges that need to be overcome before quantum computing can become widely adopted.

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Scope of the Report:

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