

Global Quantum Computing Market: Analysis By Component (Hardware, Software, and Services); By Application (Optimization, Machine Learning, and Material Simulation); By Technology (Superconducting, Quantum Annealing, Trapped Ion, Quantum Dot, and Others); By End-user (Finance & Investment, Transportation & Logistics, Aerospace, Agriculture, Automotive, Energy, Healthcare, Information Technology, Life sciences, Manufacturing, Oil, Gas, and Mining, and Others); By Region Size, and Trends with Impact of COVID-19 and Forecast up to 2027

November 2022



# Global Quantum Computing Market: Coverage

Executive Summary and Scope

Introduction/Market Overview

Global Market Analysis

Regional Market Analysis

Impact Of COVID 19

Dynamics

Competitive Landscape

Company Profiling

# Global Quantum Computing Market : Coverage

## Scope of the Report

Attributes	Details
Title	Global Quantum Computing Market: Analysis By Component (Hardware, Software, and Services); By Application (Optimization, Machine Learning, and Material Simulation); By Technology (Superconducting, Quantum Annealing, Trapped Ion, Quantum Dot, and Others); By End-user (Finance & Investment, Transportation & Logistics, Aerospace, Agriculture, Automotive, Energy, Healthcare, Information Technology, Life sciences, Manufacturing, Oil, Gas, and Mining, and Others); By Region Size, and Trends with Impact of COVID-19 and Forecast up to 2027
Coverage	Global and Regional
Regional Coverage	North America (The US, Canada, and Mexico), Europe (Germany, UK, France, Italy, Spain, and Rest of Europe), Asia Pacific (China, Japan, India, and Rest of the Asia Pacific), Latin America, and Middle East and Africa
Market Influencing Variables	Growth Drivers, Challenges, Market Trends
Forecast Period of Market	2022-2027
Competition in the Market	Fragmented
Key Players	Amazon.Com, Inc. (Amazon Web Services, Inc.), Microsoft Corp. (Microsoft Azure), Alphabet Inc. (Google Cloud Platform), Alibaba Group (Alibaba Cloud), IBM, Intel Corporation, Nvidia Corporation, Toshiba Corporation, Rigetti Computing, Quantum Computing Inc., D-Wave Systems Inc., Zapata Computing, Xanadu Quantum Technologies Inc., QC Ware Corp., and Ion Q

# Global Quantum Computing Market : Coverage

## Executive Summary

Quantum computing is an emerging technology that leverages the laws of quantum mechanics to address problems that are too complex for traditional computers. The term 'Quantum' is derived from the physics concept of Quantum Mechanics, which describes the physical properties of electrons and photons. The global quantum computing market in 2021 was valued at US\$442.32 million. The market would reach US\$3295.97 million by 2027, growing at a CAGR of 39.88%, during the forecast period of 2022-2027.

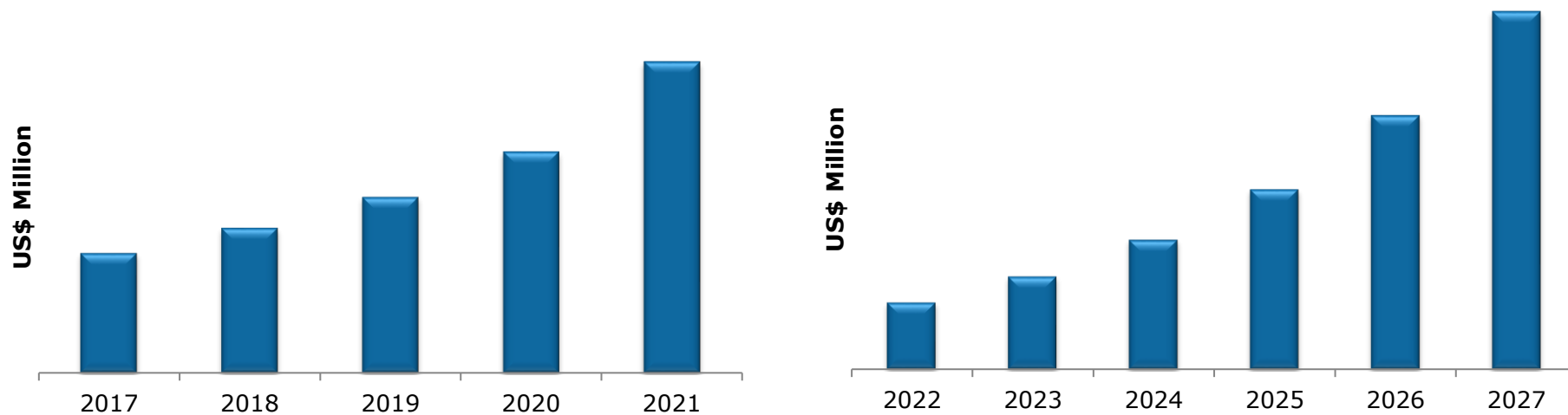
The global quantum computing market can be segmented based on component (Hardware, Software, and Services); application (Optimization, Machine Learning, and Material Simulation); technology (Superconducting, Quantum Annealing, Trapped Ion, Quantum Dot, and Others); and end-user (Finance & Investment, Transportation & Logistics, Aerospace, Agriculture, Automotive, Energy, Healthcare, Information Technology, Life sciences, Manufacturing, Oil, Gas, and Mining, and Others). Among the component, hardware segment lead the market with the maximum share, whereas services segment is expected to be the highest growing component. North America is leading the global quantum computing market, driven by the presence of key technology providers such as Google, Intel, IBM Corporation, and various others.

The COVID-19 breakout had a significant impact on the global growth of computing services. The alarming rise in COVID patients, as well as the advent of new viral strains, has prompted the adoption of work-from-home and digitization. Rapid digitization and the adoption of smart software boosted quantum technology adoption in 2020. The pandemic has emphasized society's need for faster optimization computations and more accurate numerical models, both of which quantum computers excel at.

The global quantum computing market observed progressive growth in the past few years and anticipations are made that during the forecasted period (2022-2027), the market would further augment at an escalating growth rate. The global quantum computing market growth is predicted to be supported by numerous growth drivers such as rise in investments in quantum technology, increase in quantum computing start-ups, increasing number of strategic partnerships & collaborations, increase in demand for high performance computing, increasing use of quantum computing in drug development, and many other factors. Conversely, the market growth would be negatively impacted by various challenges such as high cost of quantum computing solutions, stability and error-correction issue, etc. Moreover, the market growth would succeed to various market trends like increasing adoption of cloud-based quantum computing, integration of quantum computing with IoT (internet of things), popularity of quantum mechanics in cryptography, etc.

# Quantum Computing Market : Global Analysis

## Global Quantum Computing Market by Value



CAGR	
2017-2021	xx%
2022-2027	xx%

Global quantum computing market was valued at US\$... million in 2021 and is anticipated to reach up to US\$... million by 2027 from US\$... million in 2022, with a CAGR of xx%.

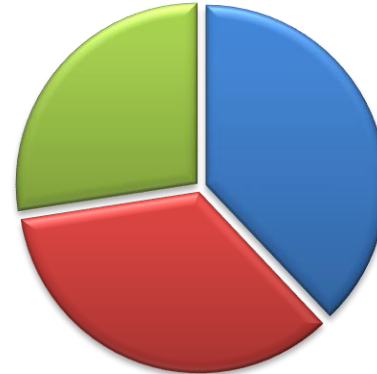
# Quantum Computing Market: Global Analysis

**Global Quantum Computing Market by Component; 2021**



Component	Share
Hardware	xx%
Software	xx%
Services	xx%

**Global Quantum Computing Market by Application; 2021**



Application	Share
Optimization	xx%
Machine Learning	xx%
Material Simulation	xx%

**Global Quantum Computing Market by Technology; 2021**



Technology	Share
Superconducting	xx%
Quantum Annealing	xx%
Trapped Ion	xx%
Quantum Dot	xx%
Others	xx%

# Quantum Computing Market: Global Analysis

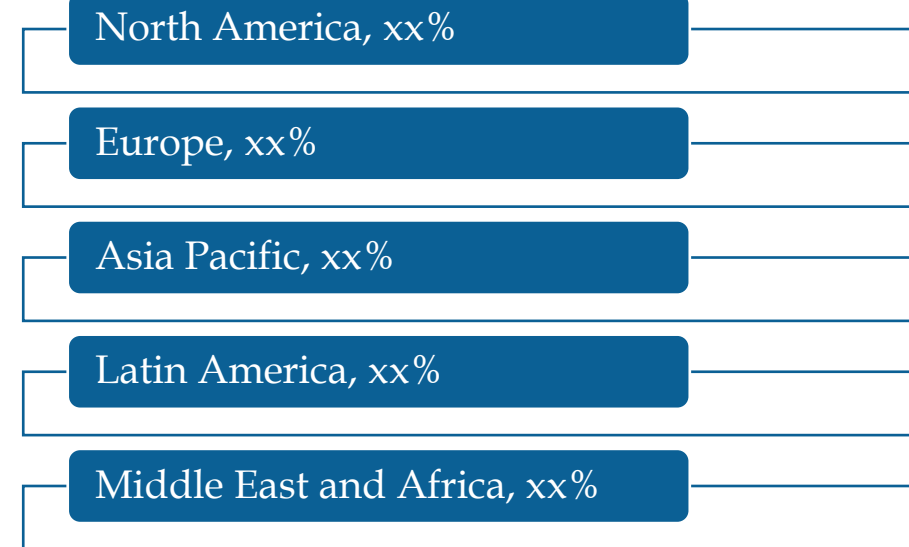
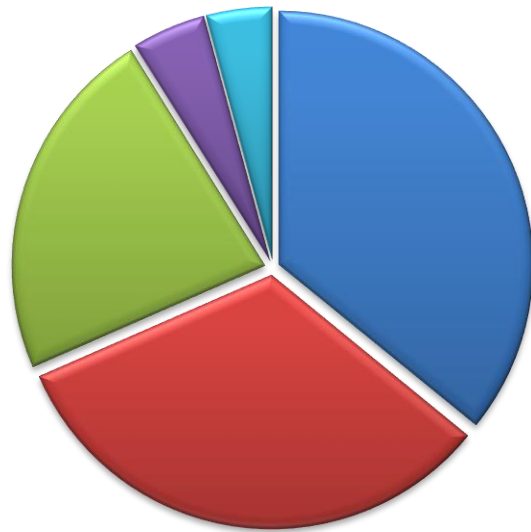
Global Quantum Computing Market by End-User; 2021



End-User	Share
Life sciences	xx%
Finance & Investment	xx%
Automotive	xx%
Oil, Gas, & Mining	xx%
Manufacturing	xx%
Transportation & Logistics	xx%
Aerospace	xx%
Agriculture	xx%
Energy	xx%
Information Technology	xx%
Healthcare	xx%
Others	xx%

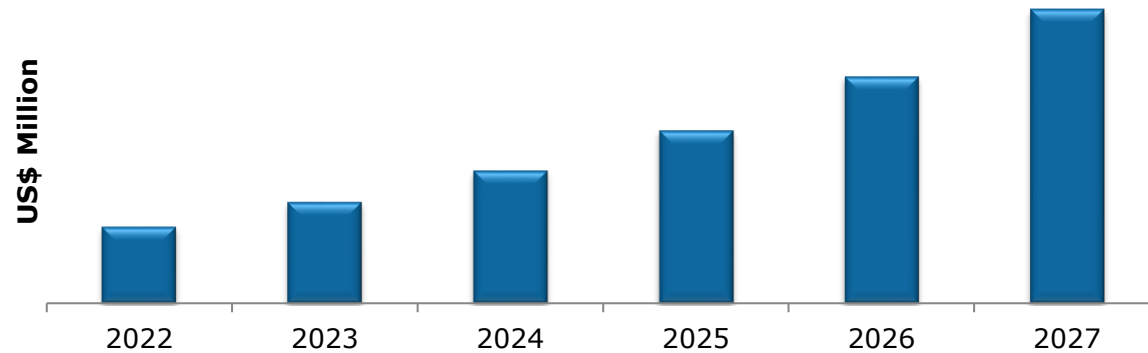
# Quantum Computing Market: Global Analysis

Global Quantum Computing Market by Region; 2021

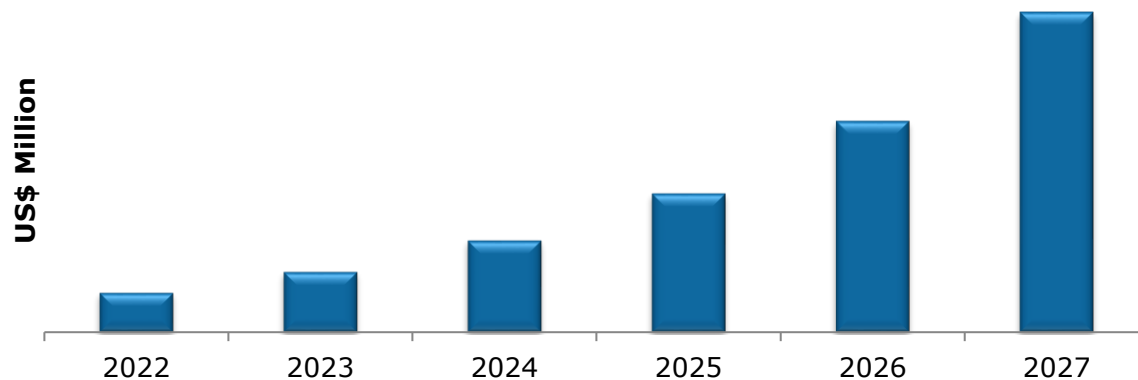


# Quantum Computing Market: Component Analysis

## Global Hardware Quantum Computing Market by Value



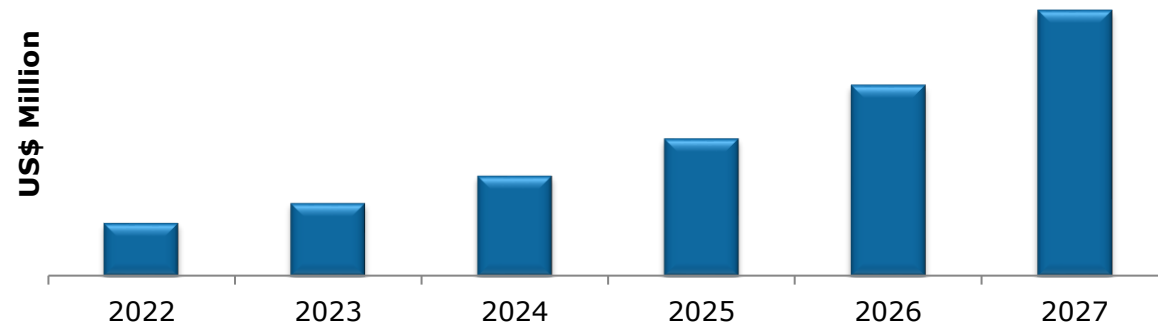
## Global Software Quantum Computing Market by Value



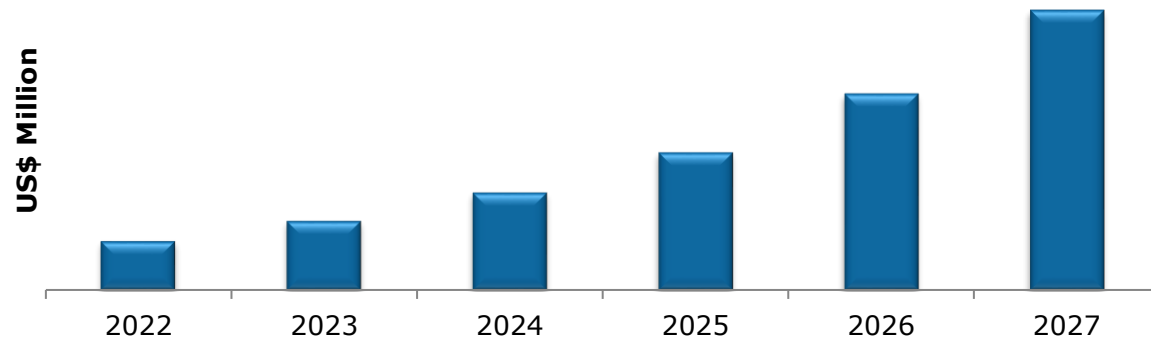
Component	CAGR (2022-2027)
Hardware	xx%
Software	xx%
Services	xx%

# Quantum Computing Market: Application Analysis

## Global Optimization Quantum Computing Market by Value



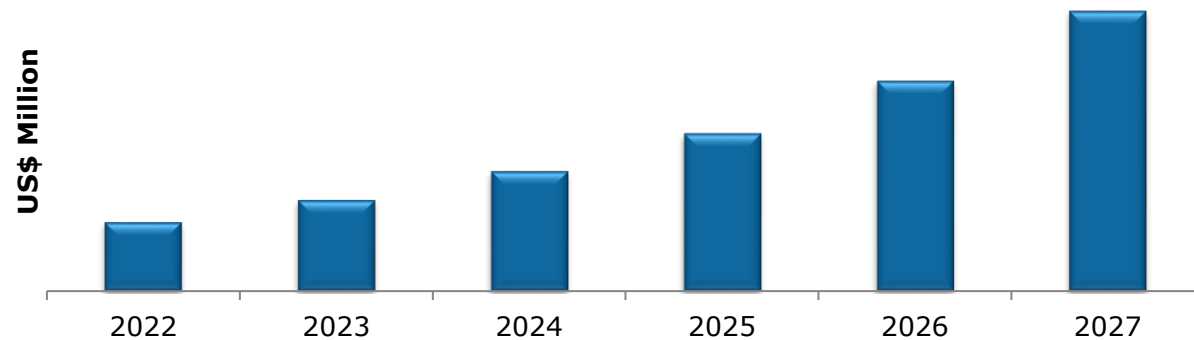
## Global Machine Learning Quantum Computing Market by Value



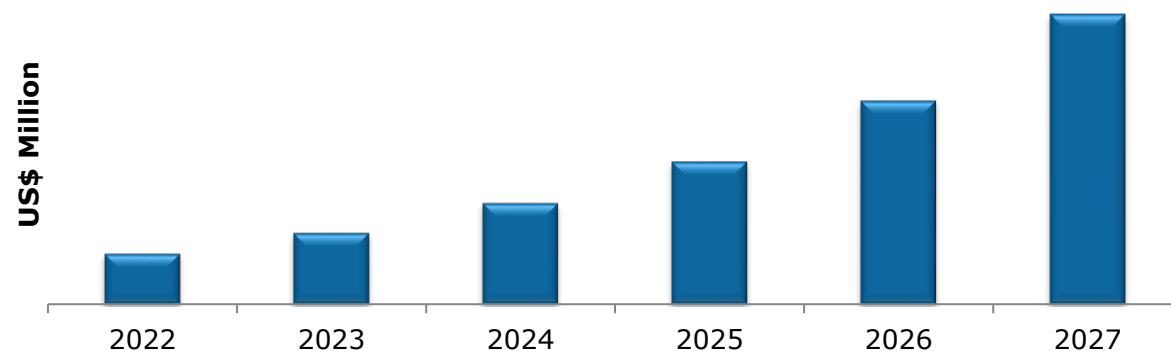
Application	CAGR (2022-2027)
Optimization	xx%
Machine Learning	xx%
Material Simulation	xx%

# Quantum Computing Market: Technology Analysis

## Global Superconducting Quantum Computing Market by Value



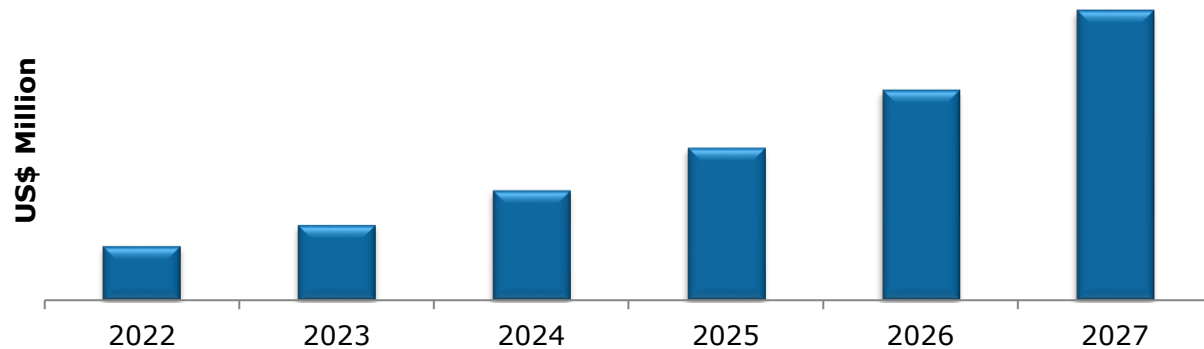
## Global Quantum Annealing Computing Market by Value



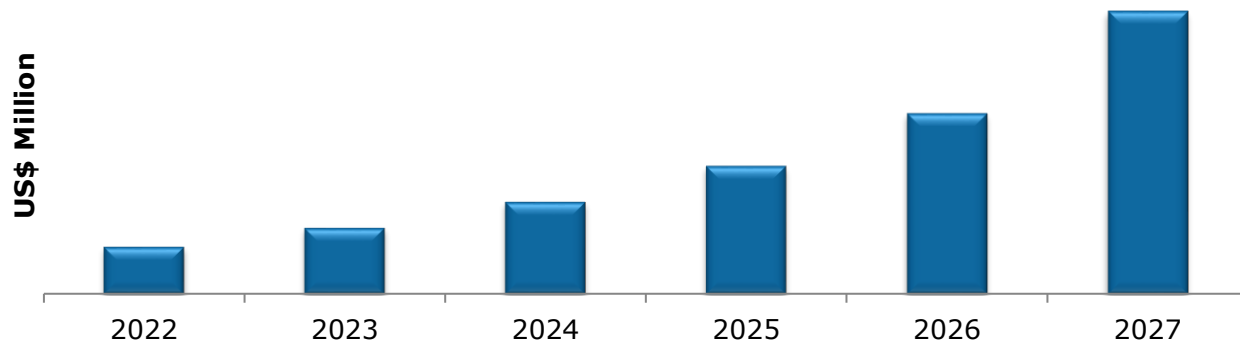
Technology	CAGR (2022-2027)
Superconducting	xx%
Quantum Annealing	xx%
Trapped Ion	xx%
Quantum Dot	xx%
Others	xx%

# Quantum Computing Market: End-User Analysis

Global Life Sciences Quantum Computing Market by Value



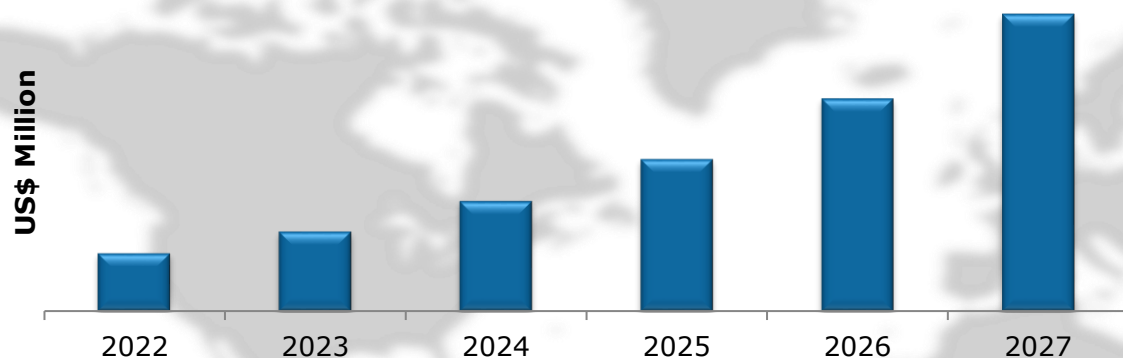
Global Finance & Investment Quantum Computing Market by Value



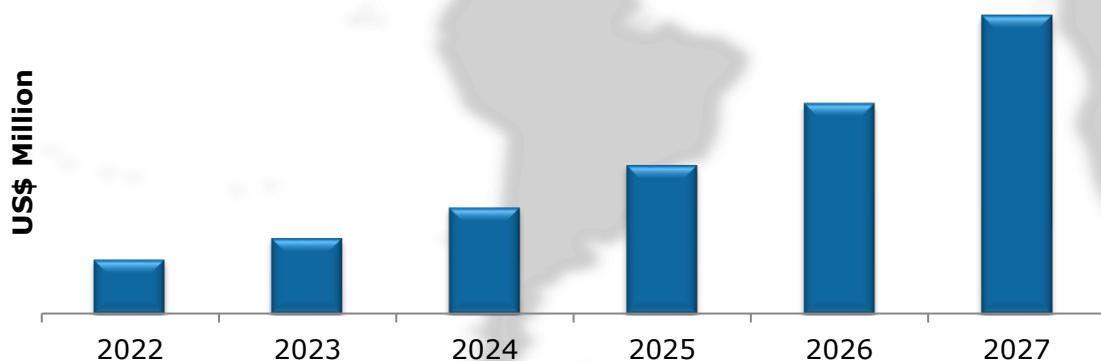
End-User	CAGR (2022-2027)
Life sciences	xx%
Finance & Investment	xx%
Automotive	xx%
Oil, Gas, & Mining	xx%
Manufacturing	xx%
Transportation & Logistics	xx%
Aerospace	xx%
Agriculture	xx%
Energy	xx%
Information Technology	xx%
Healthcare	xx%
Others	xx%

# Quantum Computing Market: Regional Analysis

## North America Quantum Computing Market by Value



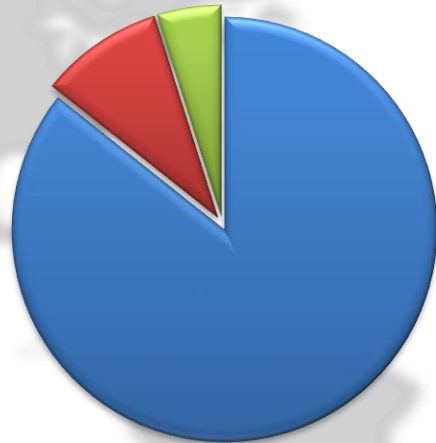
## Europe Quantum Computing Market by Value



Region	CAGR (2022-2027)
North America	xx%
Europe	xx%
Asia Pacific	xx%
Latin America	xx%
Middle East and Africa	xx%

# North America Quantum Computing Market: An Analysis

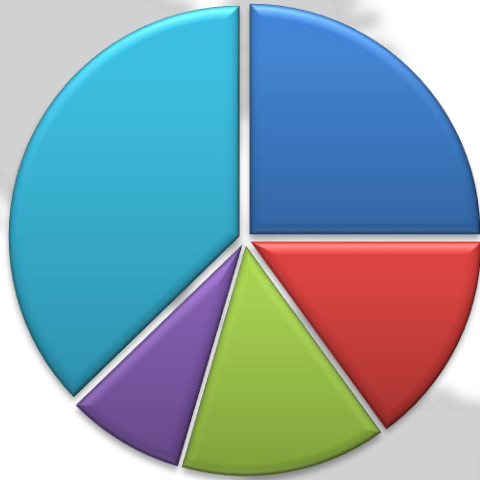
North America Quantum Computing Market by Region; 2021



Region	Share (2021)	CAGR (2022-2027)
The US	xx%	xx%
Canada	xx%	xx%
Mexico	xx%	xx%

# The US Quantum Computing Market: End-User Analysis

The US Quantum Computing Market by End-User; 2021



End-User	Share	CAGR (2022-2027)
Finance & Investment	xx%	xx%
Aerospace	xx%	xx%
Automotive	xx%	xx%
Energy	xx%	xx%
Others	xx%	xx%

# Europe Quantum Computing Market: An Analysis

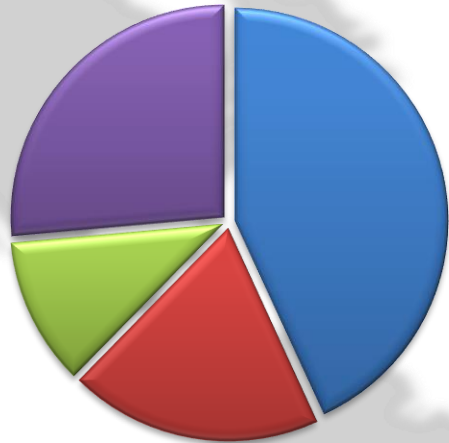
Europe Quantum Computing Market by Region; 2021



Region	Share (2021)	CAGR (2022-2027)
Germany	xx%	xx%
UK	xx%	xx%
France	xx%	xx%
Italy	xx%	xx%
Spain	xx%	xx%
Rest of Europe	xx%	xx%

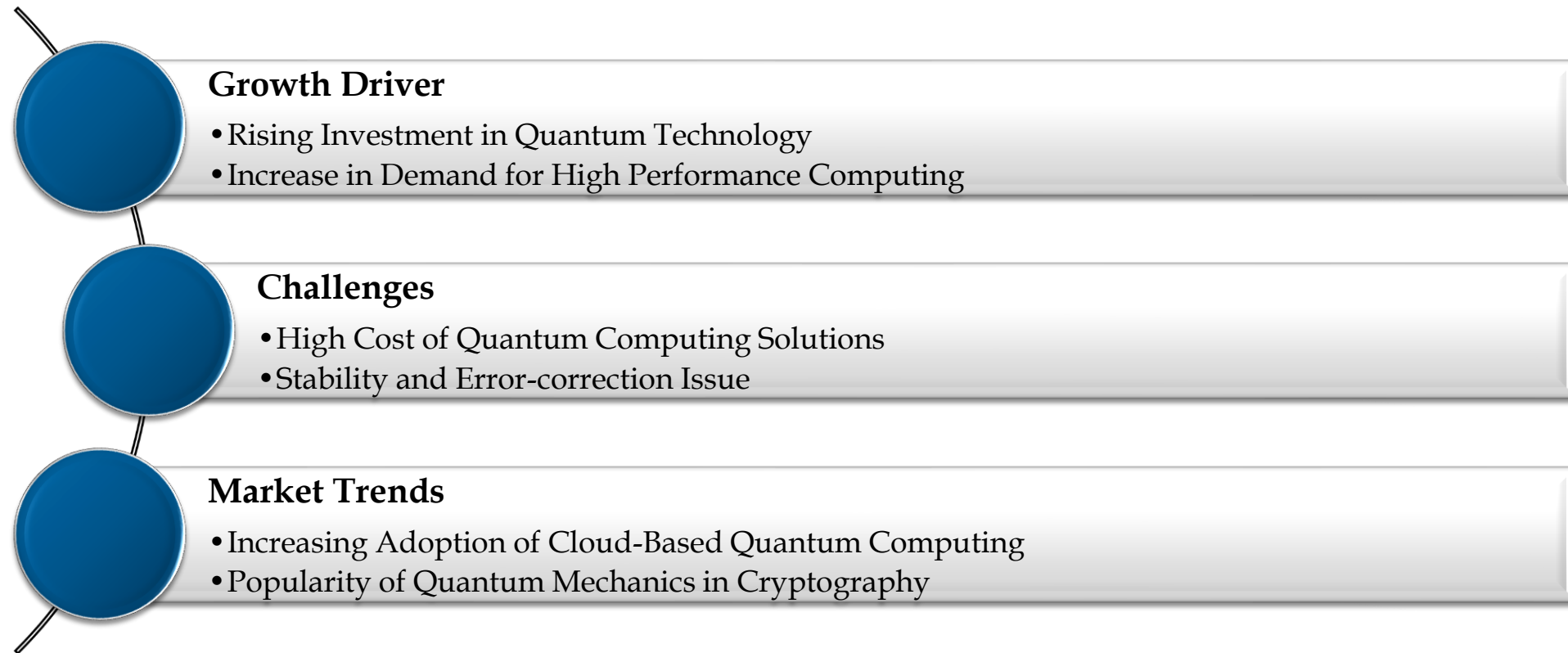
# Asia Pacific Quantum Computing Market: An Analysis

Asia Pacific Quantum Computing Market by Region; 2021



Region	Share (2021)	CAGR (2022-2027)
China	xx%	xx%
Japan	xx%	xx%
India	xx%	xx%
Rest of Asia Pacific	xx%	xx%

# Global Quantum Computing Market: Dynamics



# Global Quantum Computing Market: Competitive Landscape

## Players Profiled

- ❑ Amazon.Com, Inc. (Amazon Web Services, Inc.)
- ❑ Microsoft Corp. (Microsoft Azure)
- ❑ Alphabet Inc. (Google Cloud Platform)
- ❑ Alibaba Group (Alibaba Cloud)
- ❑ IBM
- ❑ Intel Corporation
- ❑ Nvidia Corporation
- ❑ Toshiba Corporation
- ❑ Rigetti Computing
- ❑ Quantum Computing Inc.
- ❑ D-Wave Systems Inc.
- ❑ Zapata Computing
- ❑ Xanadu Quantum Technologies Inc.
- ❑ QC Ware Corp.
- ❑ Ion Q