

# MegazoneCloud Quantum Program

■ The Gateway to All Quantum Computing Technologies

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## ■ 대외비

본 문서는 MegazoneCloud 의 자산 및 저작물이며, 본 문서에 포함된 정보는 사전 협의 없이 어떠한 목적으로도 외부로 유출하거나 무단 복제될 수 없으며, 체결한 계약 또는 별도의 서면 허락 받은 이외의 목적으로 사용할 수 없습니다.

또한, 해당 문서에 대하여는 비밀성을 유지하여야 하며, 이를 위반하여 발생한 손해에 대해서는 법적 책임을 부담할 수 있습니다.

# Biography

Education	Ph.D. The University of Texas at Austin Major: Computer Engineering MIT Sloan Business School, AI Implication for Business Strategy MIT, Quantum Technology Fundamental
Job Experience	MegazoneCloud 양자컴퓨팅 사업 총괄 부사장(CQO) 포스텍 화학과 겸직교수 POSCO Holdings VP of R&D LGE CTO Quantum AI Team Head Intel Senior Staff Engineer(Austin, Texas)
Activities	양자기술조정위원회 위원 양자과학기술 사업 추진위원회 위원 국가전략 기본계획 자문위원단 위원 한국양자산업협회 회장(전), 이사(현) Quantum Fellow of Bessemer Venture Partners Member of Mckinsey Quantum Roundtable 퀀텀코리아 2023 조직위원회, 운영위원회 퀀텀코리아 2023 산업전시분과 위원장 Committee Members of Ministry of Science and ICT 한국군사과학기술학회2024, Invited Speaker Q2B 2023 Paris & Silicon Valley, Invited Speaker IBM-Yonsei Quantum Symposium, Invited Speaker Deloitte RESHAPetheNOW 2022(Copenhagen, Denmark), Panelist The Economist Quantum Commercializing Conference(London, UK), Panelist

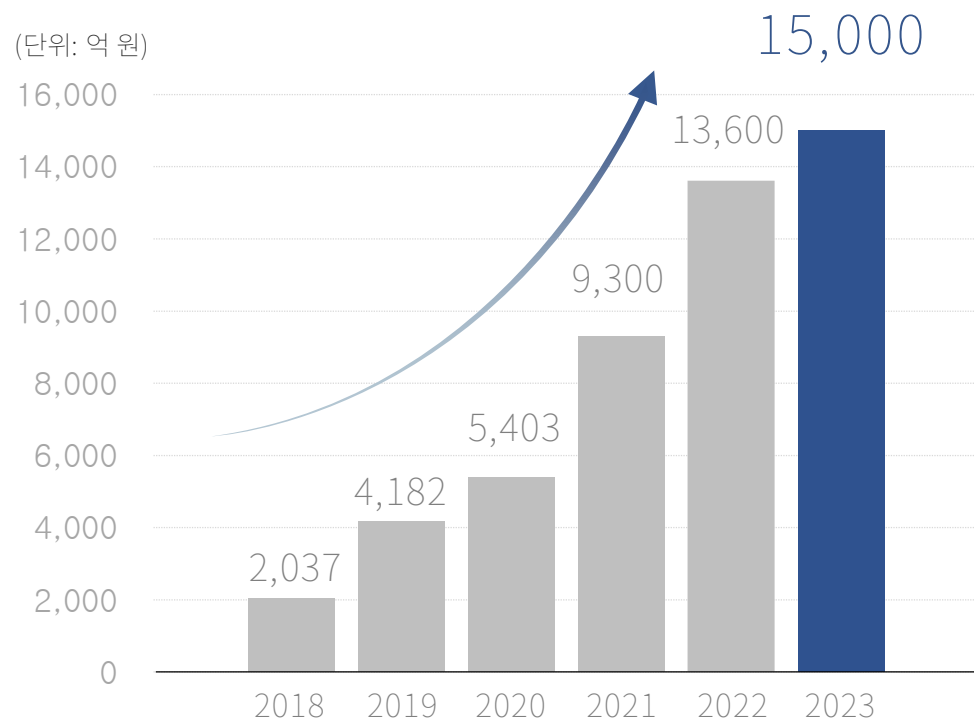


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# Introduction to MegzoneCloud

MegazoneCloud and its affiliates achieved a revenue of KRW 1.36 trillion in 2022 and recorded approximately KRW 1.5 trillion in revenue in 2023, underpinned by solid growth



2023 Revenue	KRW 1.5 Trillion (\$1.1B)
Employees	2,800
Branches	8 Countries <small>*USA, Japan, Canada, Australia, China(2), Vietnam, Hongkong, Singapore</small>
Subsidiaries	30+

# Main Business Areas



## Digital Agency

- u Digital Transformation Consulting
- u Digital Service Consulting
- u Digital Service Implementation
- u Digital Service Operation

#1 Digital Agency



## Platform Service

- u Cloud Migration Consulting
- u Implementation and Support Service
- u Cloud Managed Service
- u Global Solutions

#1 Cloud MSP



## Digital Marketing

- u Media Strategy Consulting
- u Data-driven Marketing
- u Mobile and Social Marketing
- u Online/Offline Campaign & Promotion

#1 Digital Marketing

# Business History



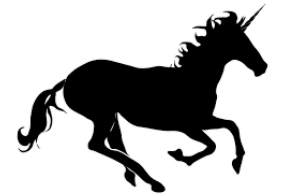
- Three Business Units:
- Digital Agency
  - Platform Service
  - Digital Marketing



Entering IaaS  
as the first AWS  
Partner in Korea  
(#1 Share & Premier today)



Focus  
Digital and Global



1998

2006

2009

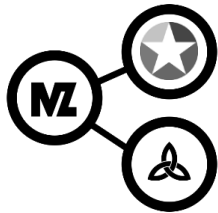
2012

2018

2020

2022

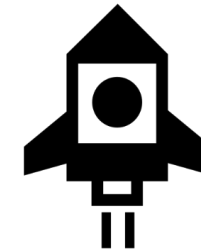
Founded  
as Web Agency  
and Hosting Service



Entering SaaS  
as the first Google Apps  
Partner in Korea  
(#1 Share today)



Refocus Cloud and  
Enter into Digital  
MegazoneCloud  
spun out



The 1st Unicorn  
in Cloud Industry

# Global Expansion Strategy

Through 12 regional business hubs, we are systematizing support for our customers' global expansion and market penetration



# Customers

■ We have about 6000 customers across various industries, ranging from manufacturing to media and entertainment industries expansion in 2023.

Manufacturing	Platform	Logistics	Game	Public/Univ.	Finance	Media/ENT

# Quantum Computing Industry Perspective

Accelerating Commercialization and Expanding Opportunities

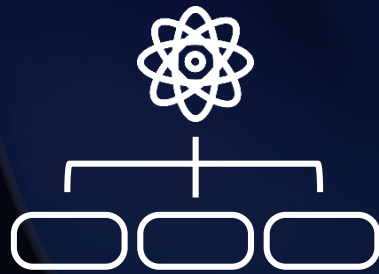
Q u a n t u m  
Innovation Laboratory

- Market Size has been anticipated to be increased to \$2T, including direct and indirect value creation.
- Rapid Advancements in Hardware Development:
  - Intense competition among hardware development companies, particularly those focused on Neutral Atom and Photonic-based platforms.
  - Significant progress in error correction technologies is accelerating the path to commercialization.
  - The combined efforts in these advanced hardware solutions are resolving many of the traditional challenges, paving the way for practical, scalable quantum computing applications.
- Momentum in South Korea
  1. Increased Government Investment:
    - The South Korean government is significantly boosting investments in quantum computing, recognizing its strategic importance.
    - Initiatives and funding programs are aimed at fostering innovation and collaboration within the quantum computing ecosystem.
  2. Rising Corporate Interest:
    - More South Korean companies are entering the quantum computing industry, aligning their strategies with governmental support.
    - Industries such as finance, pharmaceuticals, and telecommunications are exploring quantum solutions to gain competitive advantages.
    - Collaboration with global quantum technology leaders to adopt and integrate cutting-edge quantum solutions.

# MegazoneCloud Quantum Program

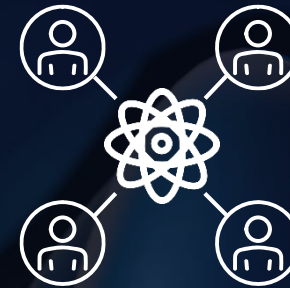
Advancing quantum capabilities through M-Quantum Program: Elevating commercial impact and accelerating quantum readiness across industries

## M-Qcloud Platform



- Cloud Service Deployment
- Cloud Service Operation
- Classic IP Integration
- Quantum Computing Emulator  
\* highly efficient emulator

## M-Escalation Service



- Algorithm & Application Development
- Quantum Computing Consulting

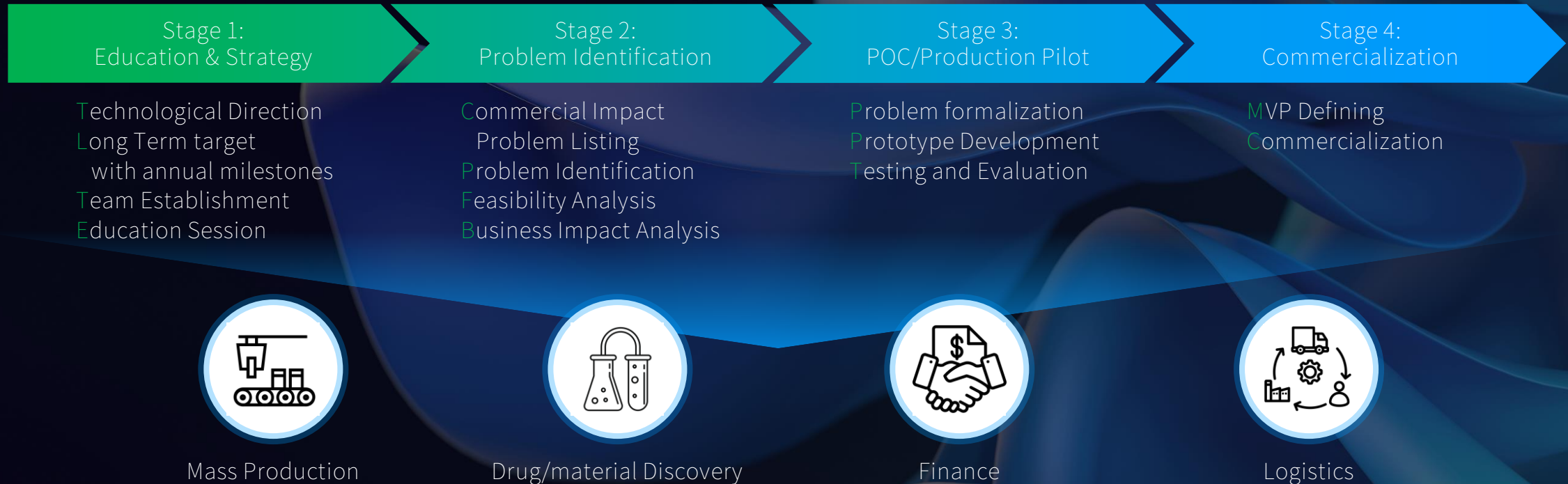
# M-Qcloud Platform

■ Providing customers with all required quantum computing resources through the M-Qcloud Platform



# M-Escalation Service

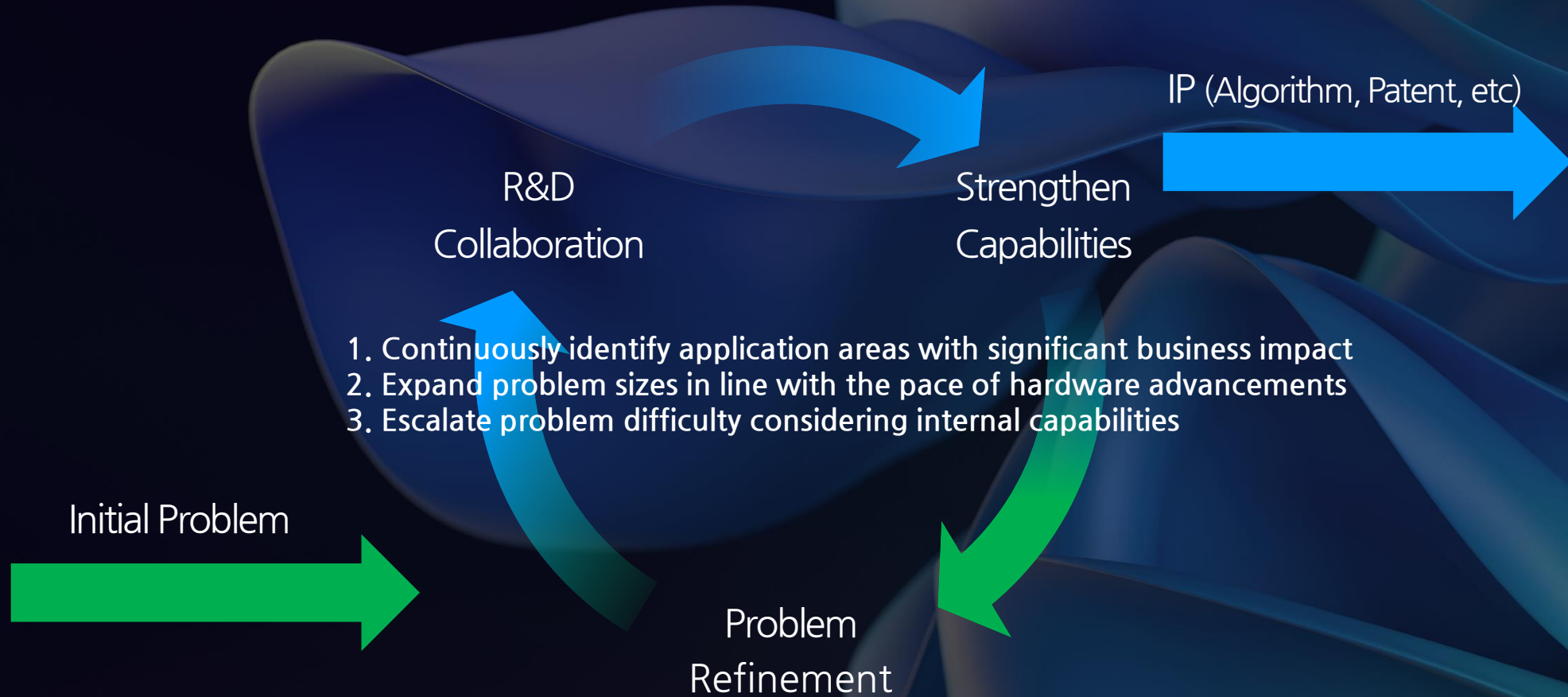
Consulting customers to adopt quantum computing technology effectively and efficiently



- 1. Cost effective & efficient technology adoption
- 2. Technology adoption for P&L improvement

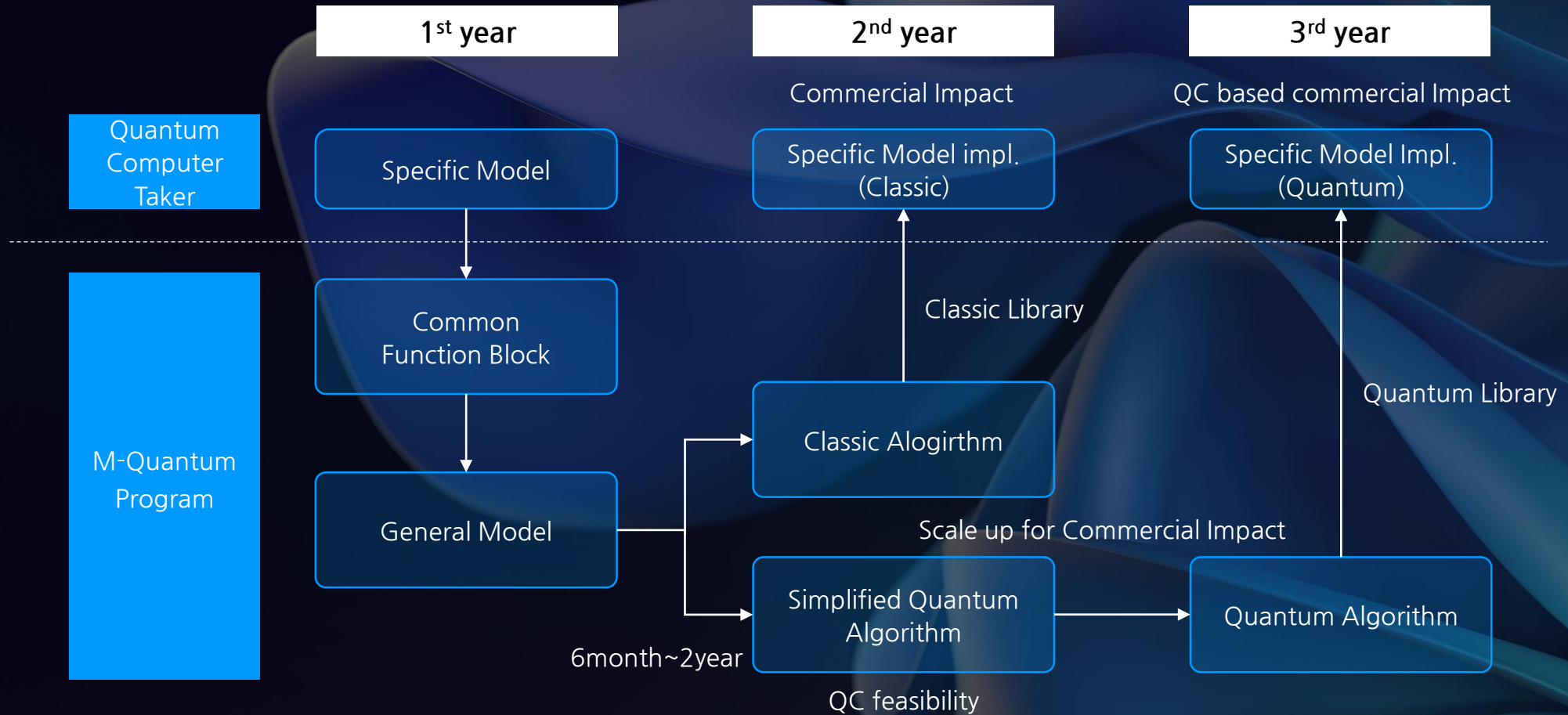
# Quantum Computing Technology Strategy

| Through joint research with specialized companies on the complex issues existing within the company, we are fostering talent, enhancing capabilities, and securing IP, while adjusting problem sizes to keep pace with hardware advancements



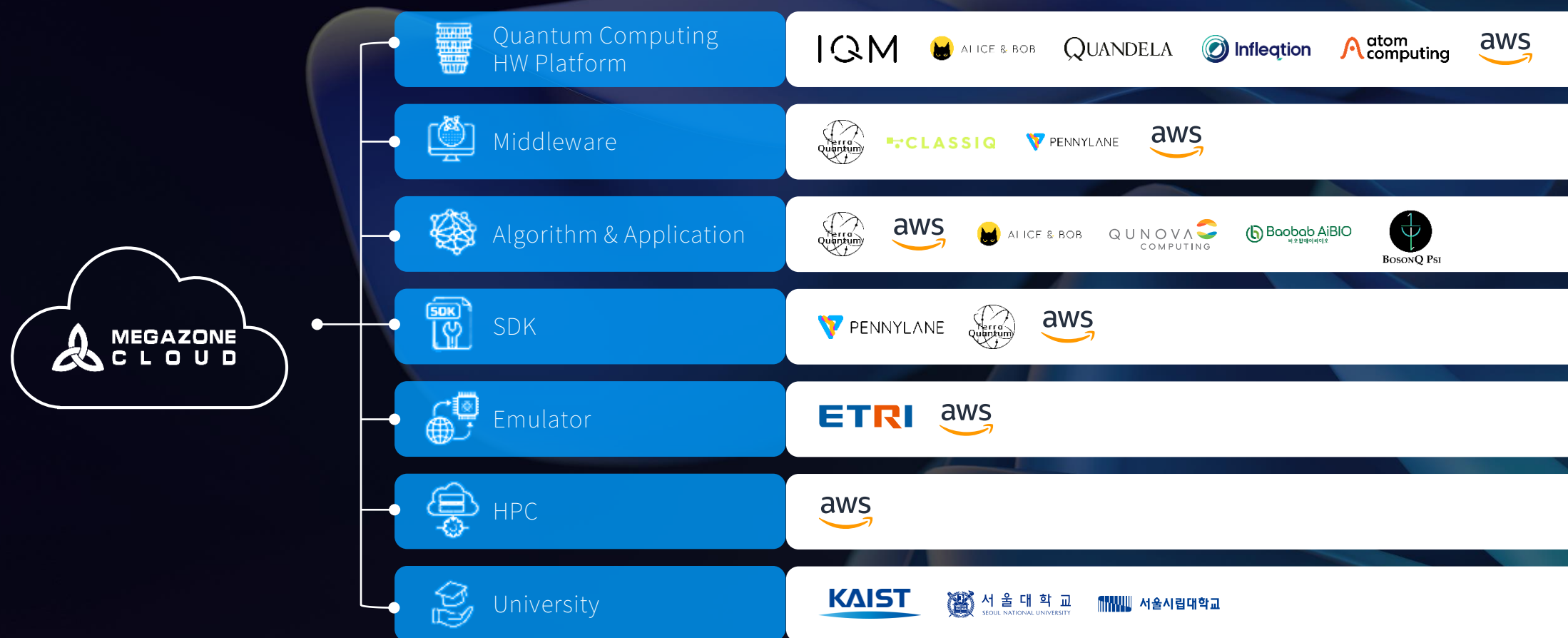
# Quantum Computing Application Development Approaches

Various R&D approaches are possible depending on the company's technical capabilities : Algorithm & Application



# MegazoneCloud Quantum Technology Partners

Integrating quantum computing hardware and software, emphasizing the development and operational readiness of quantum computing applications and services



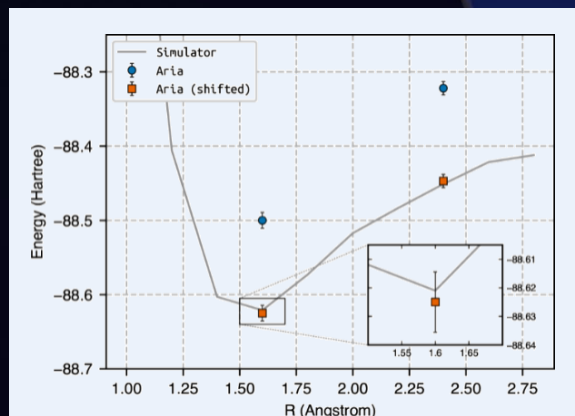
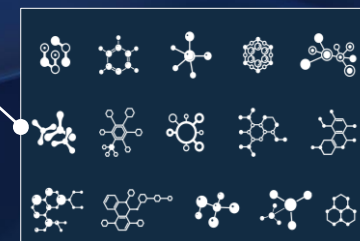


# HI-VQE Solution with IQM on MegazoneCloud

# Qunova HIVQE – Path toward True Quantum Advantage in 2024

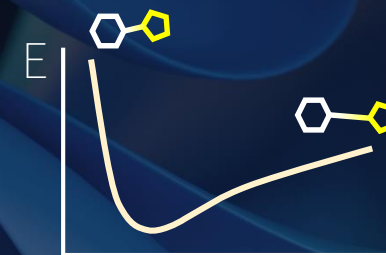
## Chemistry Problems

Best Practice Model  
For Quantum Advantage



## Drug and Battery Industry

Innovations for scalable business !



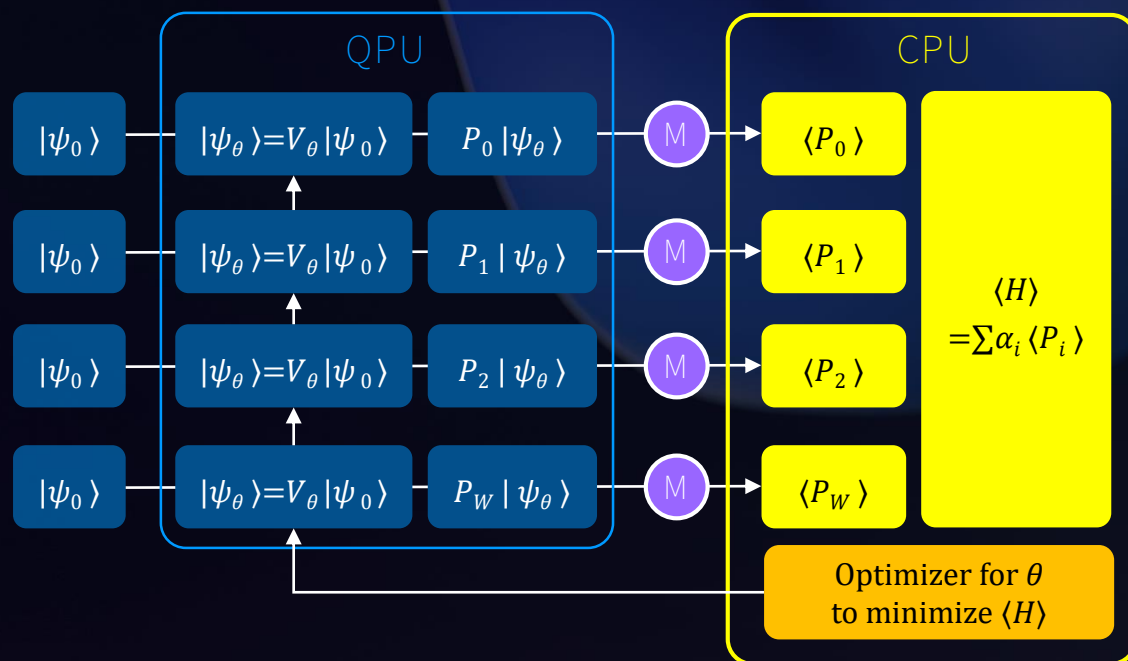
## VQE – Quantum Simulation

Most highly considered for NISQ



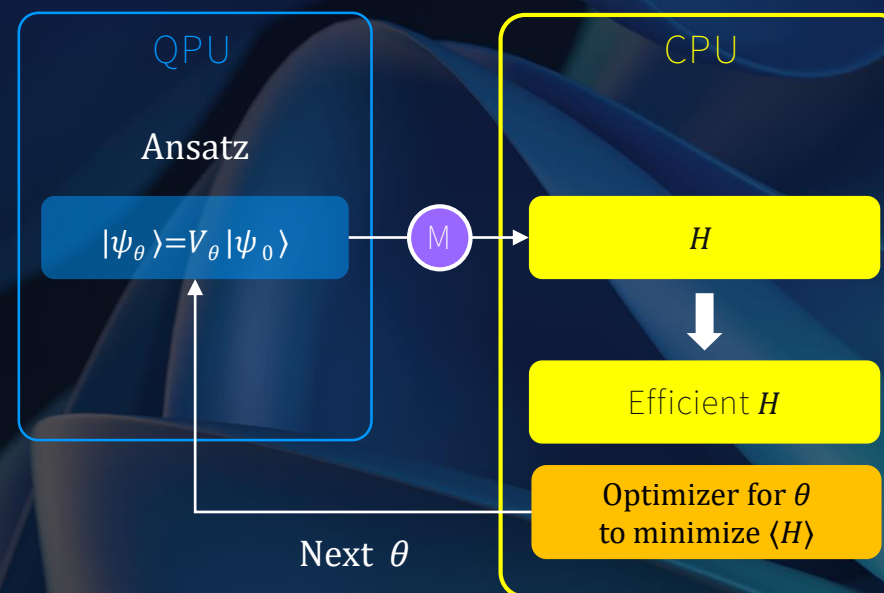
## Conventional VQE

Requires Pauli Word Measurements  
Brilliant idea but not successful with NISQ



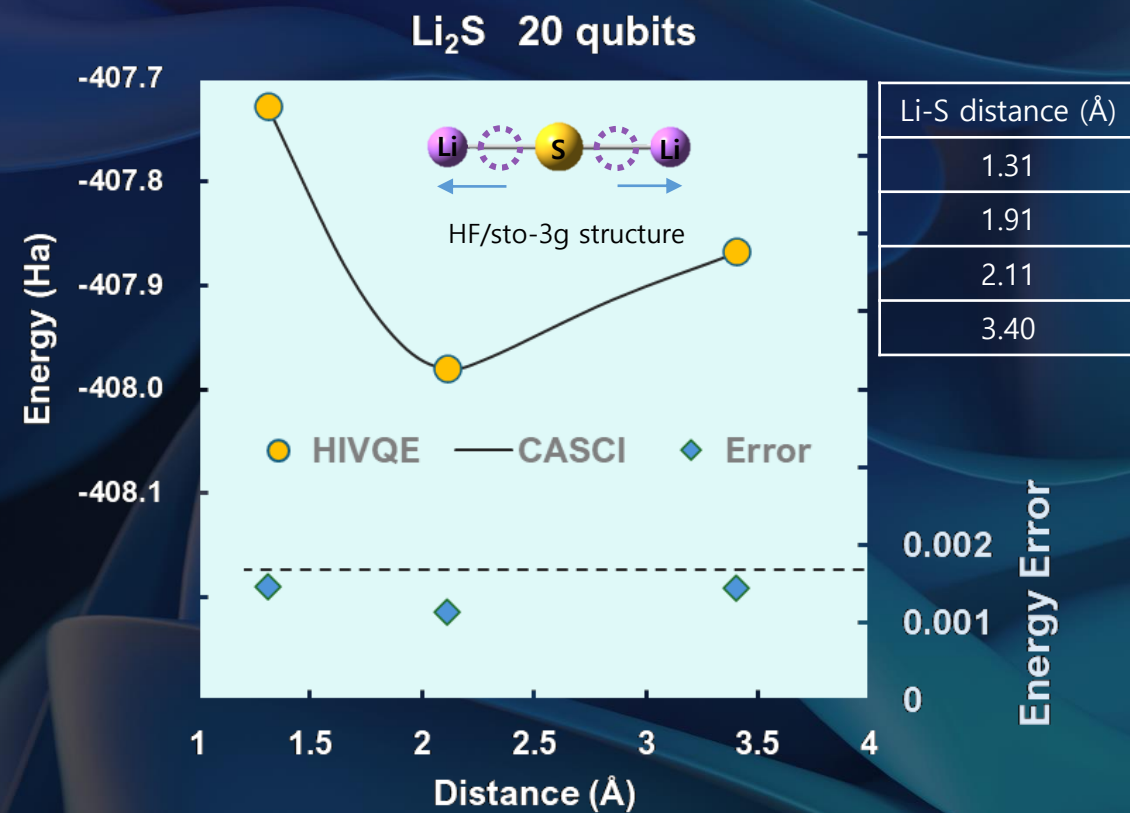
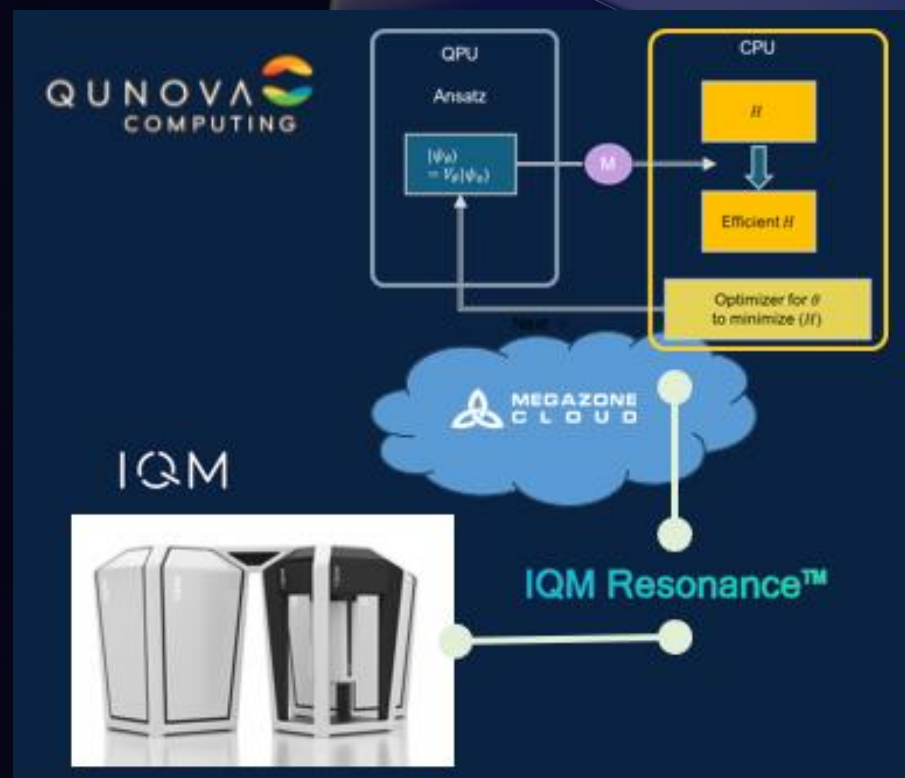
## Handover Iteration VQE

Simpler Algorithm : 1/1000 QPU  
World First Chemical Accuracy



# Qunova HIVQE – Path toward True Quantum Advantage in 2024

HIVQE Live Demo - 1000x more accurate, 1000x lighter, 10x more scalable



Chemical Accuracy from HW end-to-end runs

# Qunova HIVQE – Roadmap for True Quantum Advantage

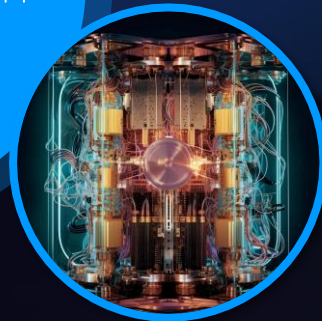
Peta scale computation can trigger the market.



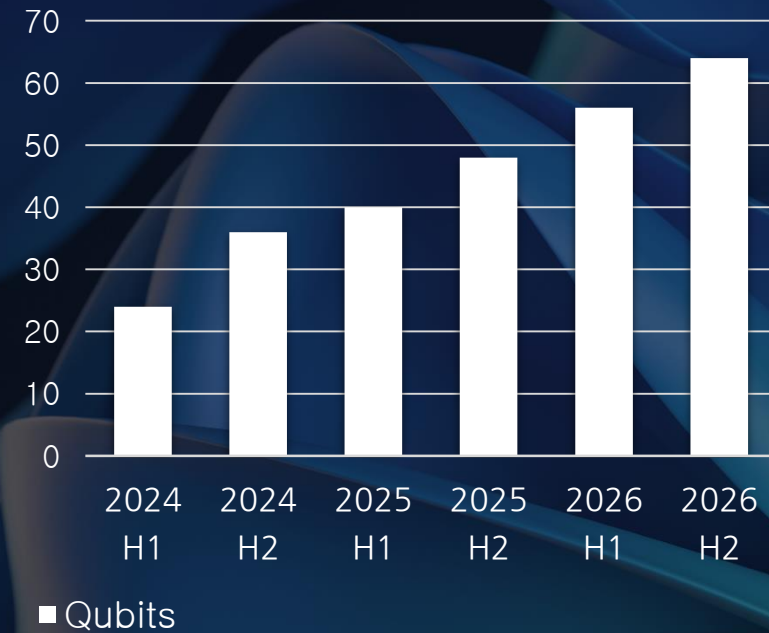
100 cores  
1 Petabit  
Memory

Peta Scale  
Computation  
3 Hours

40 Qubits  
(log QV or  
Algorithm Qubits)



Qunova's HIVQE Quantum  
Advantage Roadmap



The gateway to all quantum computing technologies

Thanks for attention

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