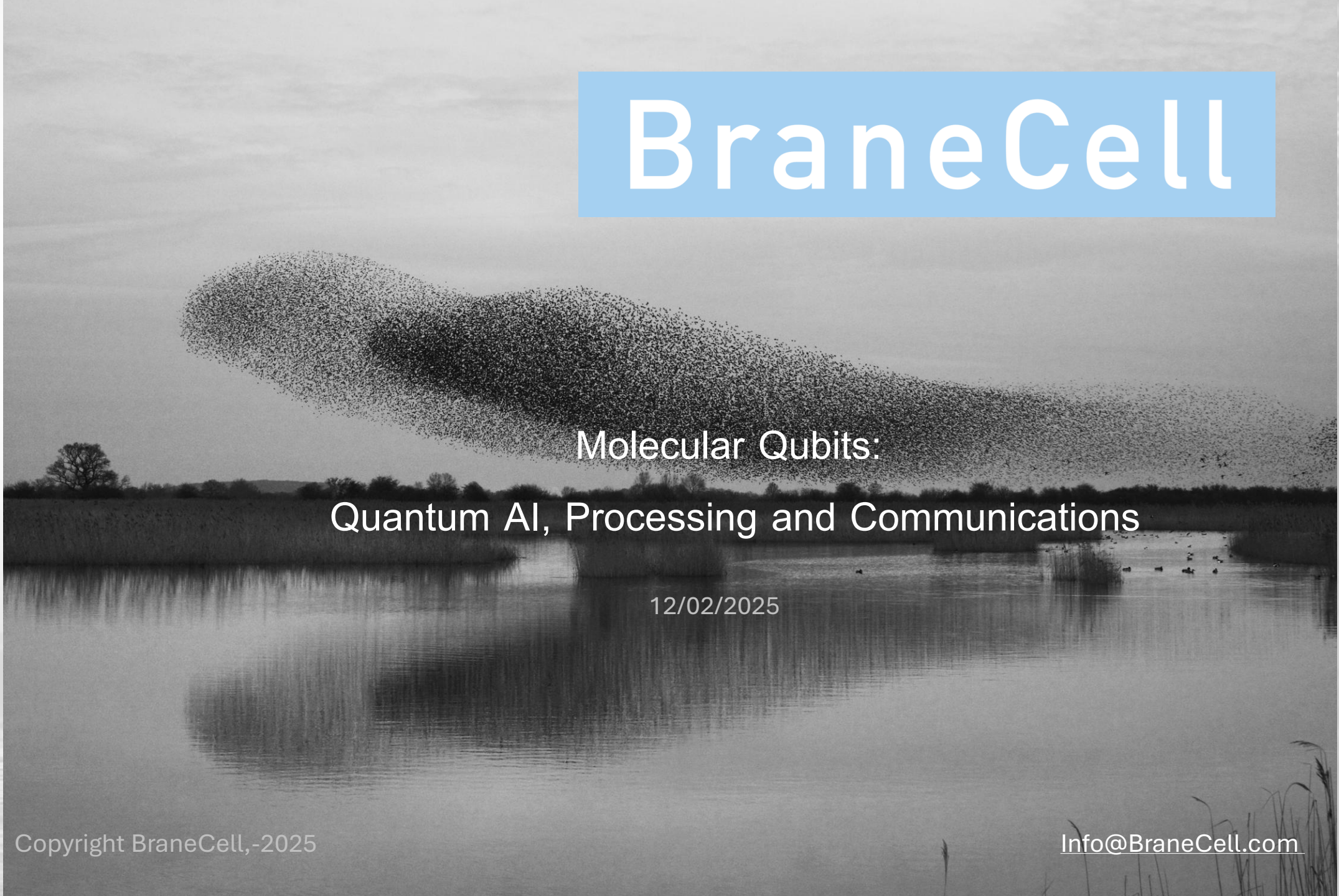

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Molecular Qubits:

Quantum AI, Processing and Communications

12/02/2025

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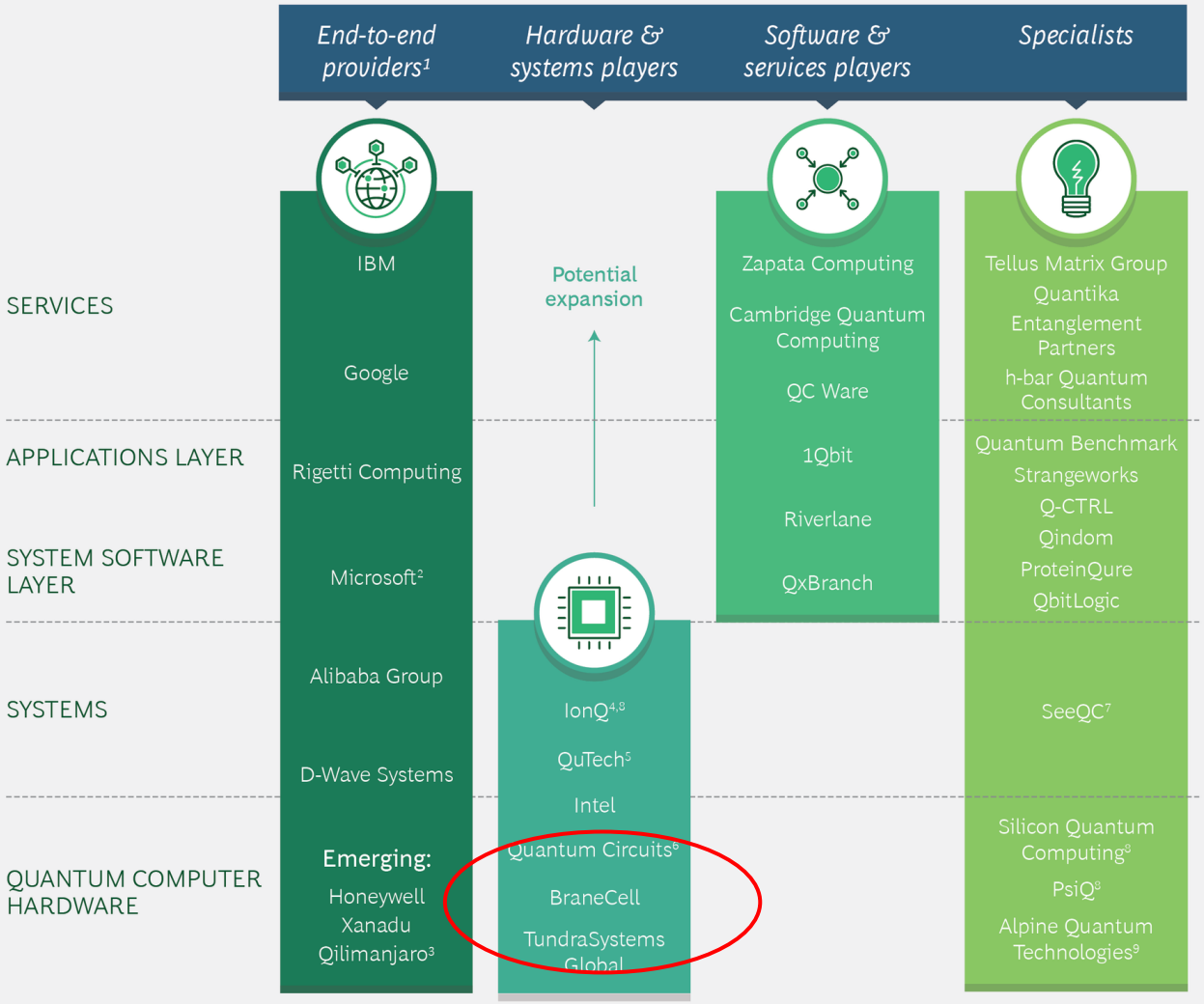
EXHIBIT 1 | Companies Assume Four Roles Across Layers of the Stack in the Quantum Computing Ecosystem



Sources: Quantum Computing Report (quantumcomputingreport.com); BCG analysis.
[1]Based on player's ambition with varying levels of maturity and service activities.
[2]Multiple technologies in the labs with focus on topological qubits.
[3]Qilimanjaro is a spinoff from the University of Barcelona.
[4]AWS is invested in IonQ.
[5]QuTech was founded by TU Delft and TNO, and has collaborations with Intel and Microsoft.
[6]Quantum Circuits (qci) is a spinoff from Yale University.
[7]SeeQC is a subsidiary of Hypres.
[8]Vision to become end-to-end provider.
[9]Alpine Quantum Technologies (AQT) is a spinoff from University of Innsbruck.

BCG

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Established Brand
(*10 years of development*)
Early Patents
(*incl. 2012, prior to competition*)
Experienced Team
(*credentialed and practical*)
Edge-capable (molecular) **Qubits**
(*quantum-advantaged AI, QPU, QSDC*)

Chip Product Features: QML†, QPU, QSDC

0 gap

Edge quantum advantage

-Ambient operation

-Smaller footprint

< 10^{-3} seconds

Fast decision processes

Potential Reservoir-QNN (AI) signatures

10^{-2}

Decreased AI power consumption

-No chip heat-up

-Exponential speedup

10^{-2}

Lower Fab invest cost

Decentralizes fab | private fab | gentler on the environment

1st

Invented new qubit

Extraordinary opportunity

$ 400 Billion

Market @ 19 % CAGR

AI Chips | quantum processing | communications markets.

† QML= quantum Machine Learning | QPU = Quantum Processing Unit

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The Problems with today's AI and Quantum Chips

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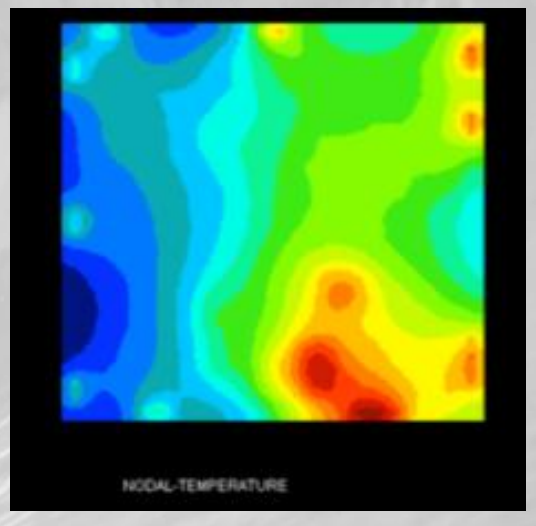
AI

1. Excessive heat up and internal temperature gradients lowering (40 %) chip life in 24/7 cloud use
2. Excessive cost to invest in a new fabrication facility
3. Oligopoly of manufacturers
4. Energy consumption while AI Chips in use, ultimately hurts nature and people

Quantum Chips

1. Single photon gate operations are delicate
2. Cold temperatures or large footprints (not edge) are often needed
3. Specific applications provide exponential speedup (many apps not accessible)



Conventional AI Chip internal local heating

+1 857 529 7151 | One@BraneCell.com

Solved by Molecular Qubits

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Our molecular qubits operating particularly in correlated-topological (or quantum-gate) mode solves the challenges and expands the markets.

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Quantum Machine Learning (QML) and BraneCell

Unlike semiconductor-based AI, BraneCell's QNN, QML hardware:

- Better information density [1]
- Non-self-heating QNN [4]
- Potentially much-lower power consumption
- May train quicker [IBM, 2]
- AI with quantum combination is better. [Microsoft, Xanadu, IonQ, 2025 Congressional Reports [5]]
- Our approach may circumvent vanishing gradient issue [3]
- Low investment for a Fab facility
- Inter-AI-chip communications by BraneCell qubit QSDC
- Gate-based QPU possible
- Quantum reservoir neural network, may provide quantum *automata* signatures

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Smaller than Classical

Warmer than Quantum

BraneCell Approx. 110 X smaller Node + Interconnect Feature Size		
	Interconnect + Node (nm^2)	BraneCell shrinkage (improved density)
BraneCell	9	1
3 nm, Samsung	1,010	1/**112**
5nm, Classical	1,530	1/**171**

-We can fit our complete quantum network on their chip replacing only 2 of their transistors.
-We have quantum properties at ambient temperature.

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New Class of Material for Quantum Information Processing

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Our Materials:

Low Cost

Abundant in the USA

No disposal issues

No heat degradation

Quantum biomimetic.

We will Onshore the Neural Network Fab at 1/100th CAPEX

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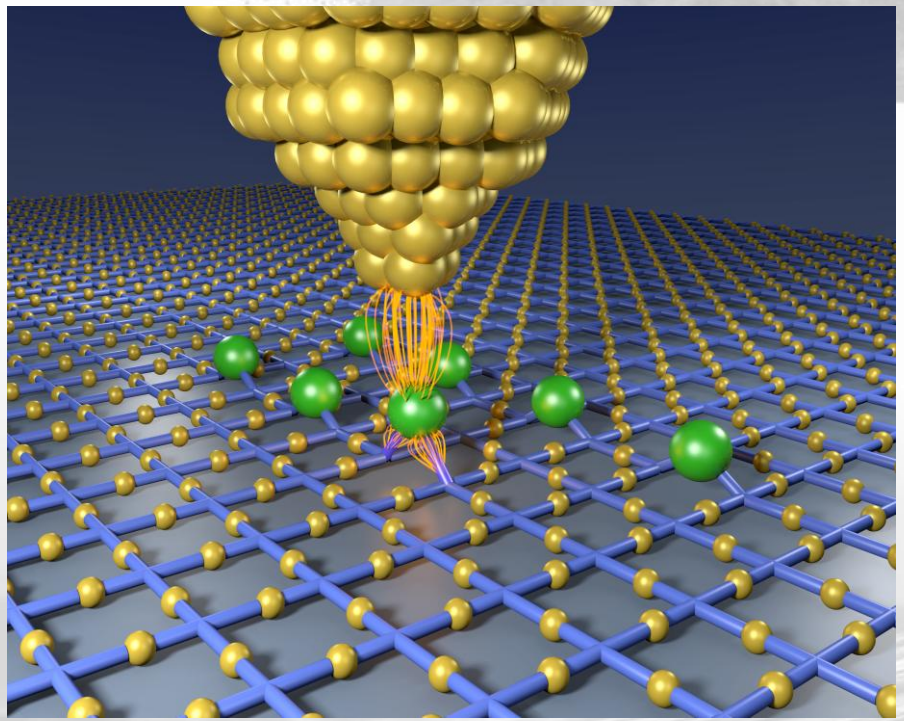
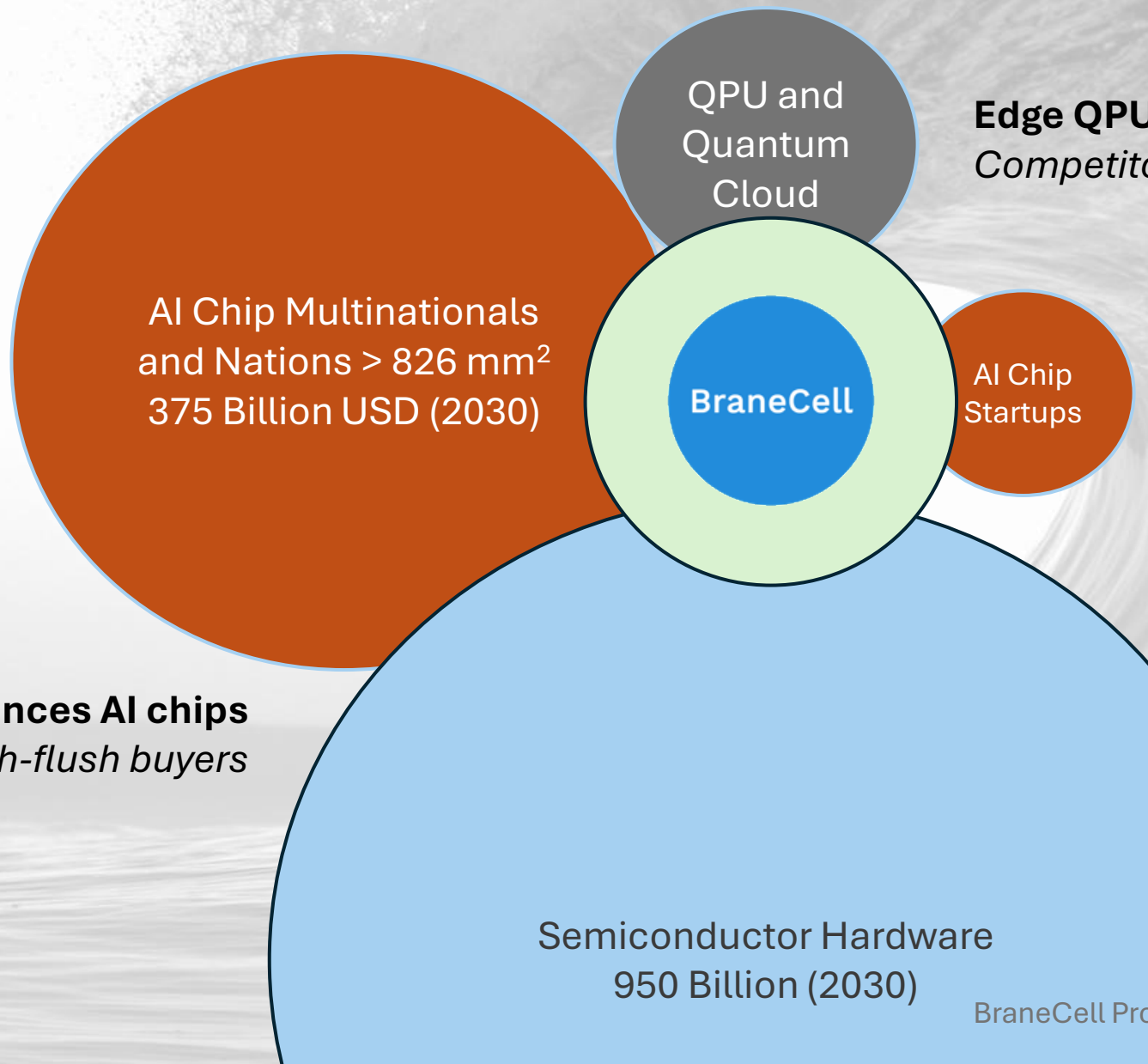


Surface of molecular placement

Development of the newest methods in Atomically Precise Manufacturing (APM) changes the game of chip fabrication, from a > $ 8 Billion CAPEX to a < $ 80 Million Fab facility (at same $/chip, lower throughput per facility). Such Fabs can be distributed/decentralized and application-specific, tailor-made quantum AI chips. This is the frontier of AI chip manufacturing.

Taking a portion of existing markets and expanding the quantum (QPU), AI and semiconductor chip markets.



Edge QPU
Competitors can not do

Quantum (coherence) AI properties
Competitors can not do

Chiplet may Enhance Classical
Competitors can not do

Chiplet enhances AI chips
Cash-flush buyers

Markets: Big Revenue and Big CAGR

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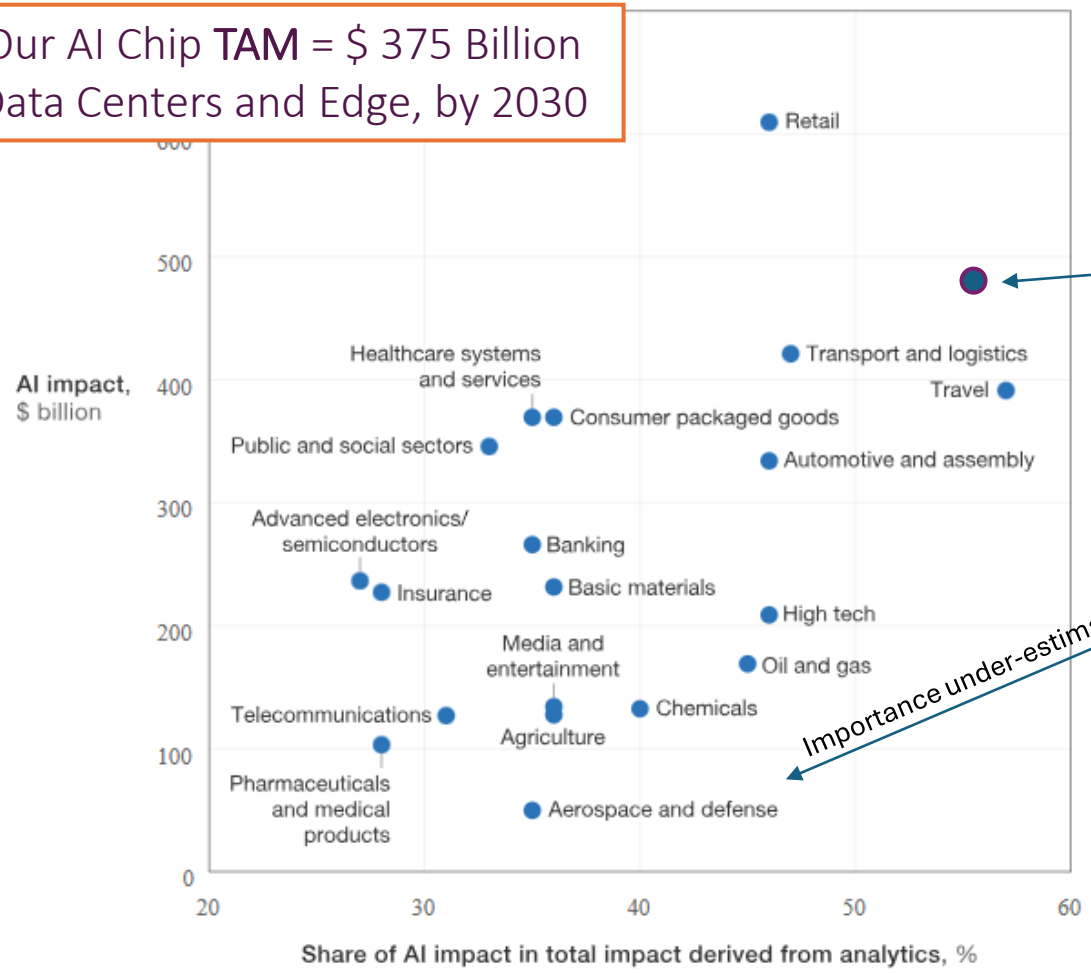
Artificial intelligence (AI) has the potential to create value across sectors.

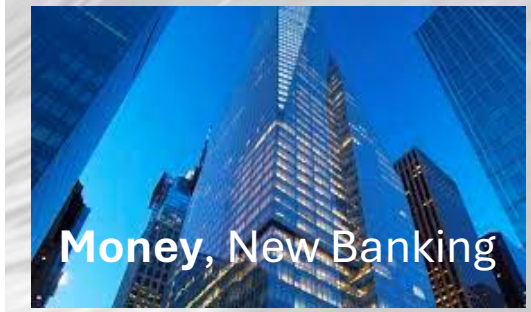
Our AI Chip **TAM** = $ 375 Billion
Data Centers and Edge, by 2030



McKinsey&Company | **Source:** McKinsey Global Institute analysis

NLP $ 49.4 Billion,
CAGR 25.7

Importance under-estimated by McKinsey



BraneCell

Info@BraneCell.com | +1 857 529 7151
HUBZone

Dr. Lauren Sammes
Dr. Christopher Papile
and BraneCells (team)

For qualified investors only.

Proprietary
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