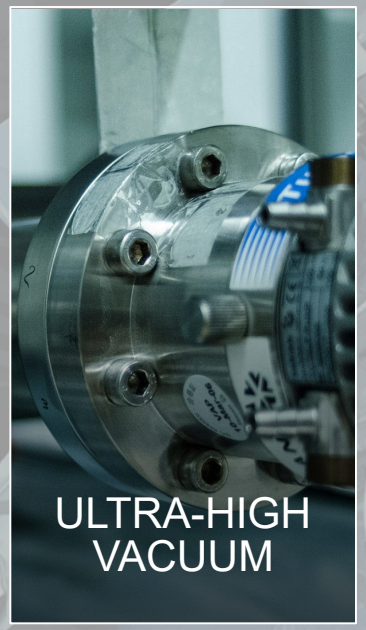
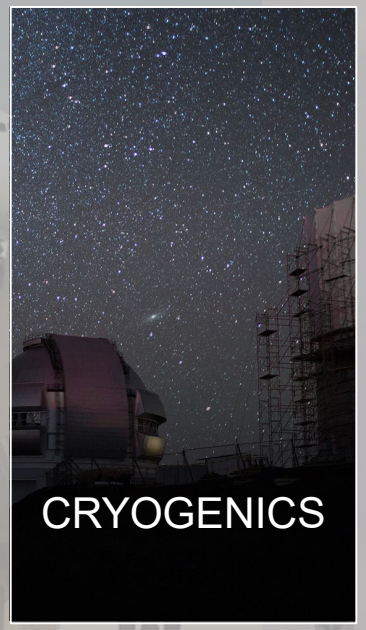
HONEYWELL QUANTUM SOLUTIONS

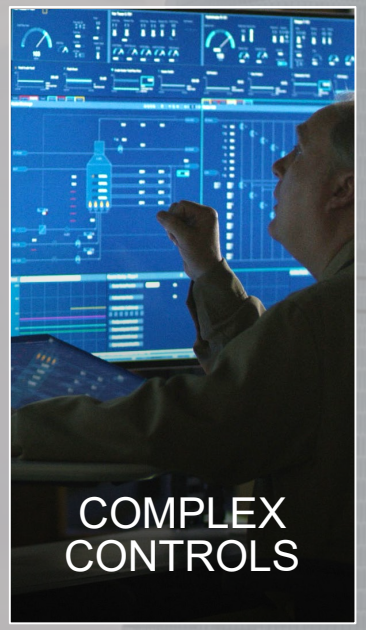
SHAPING THE FUTURE OF QUANTUM COMPUTING

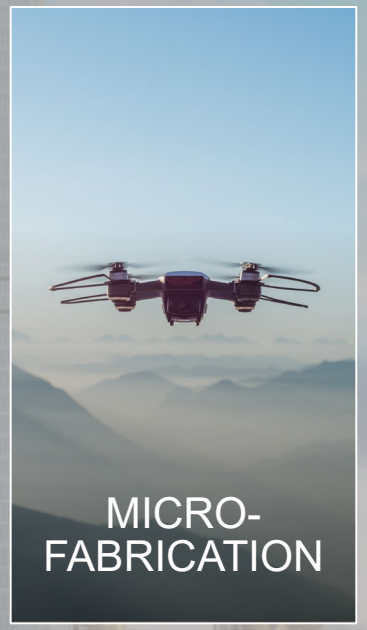
SUHARE NUR, PhD, SENIOR OFFERING MANAGER
HONEYWELL QUANTUM SOLUTIONS

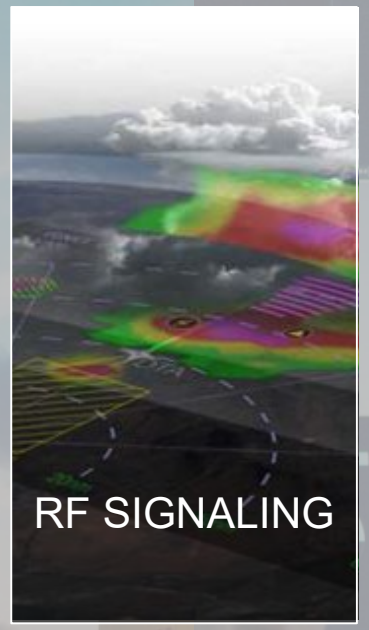
Honeywell











HONEYWELL: DECADES OF INNOVATION

HONEYWELL IS FOUNDATIONAL TO QUANTUM COMPUTING

HONEYWELL QUANTUM SOLUTIONS

SHAPING THE FUTURE OF QUANTUM COMPUTING

COMMERCIAL FOCUS
100+ SCIENTISTS
AND ENGINEERS

SCIENCE

Atomic, Molecular, and Optical Physicists

Theoretical Physicists

Quantum Information Scientists

ENGINEERING

Electrical
Mechanical
Optical
Systems
Software
Vacuum
Cryogenic

ROBUST TECHNOLOGY DEVELOPMENT

QUANTUM BREAKTHROUGHS

QUANTUM COMPUTING PROMISES SOLUTIONS TO PREVIOUSLY UNSOLVABLE PROBLEMS

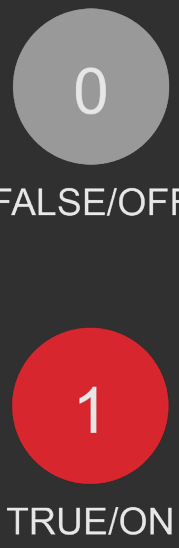
RAPID NEW DRUG DESIGN

REDUCE FOOD WASTE

MANAGE AIR TRAFFIC

OPTIMIZE INDUSTRIAL PLANTS

THE POWER OF SUPERPOSITION



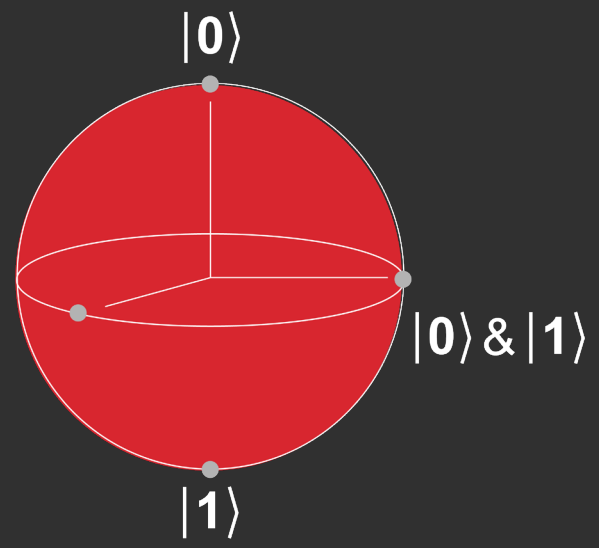
0	1	0	0	1

2^N possibilities:
holds only 1 value at a time

BITS

N-BIT WORD

Classical States



	0	0	0	0	0
&	0	0	0	0	1
&	0	0	0	1	0
	•••				
&	1	1	1	1	1

Holds ALL 2^N values at a time

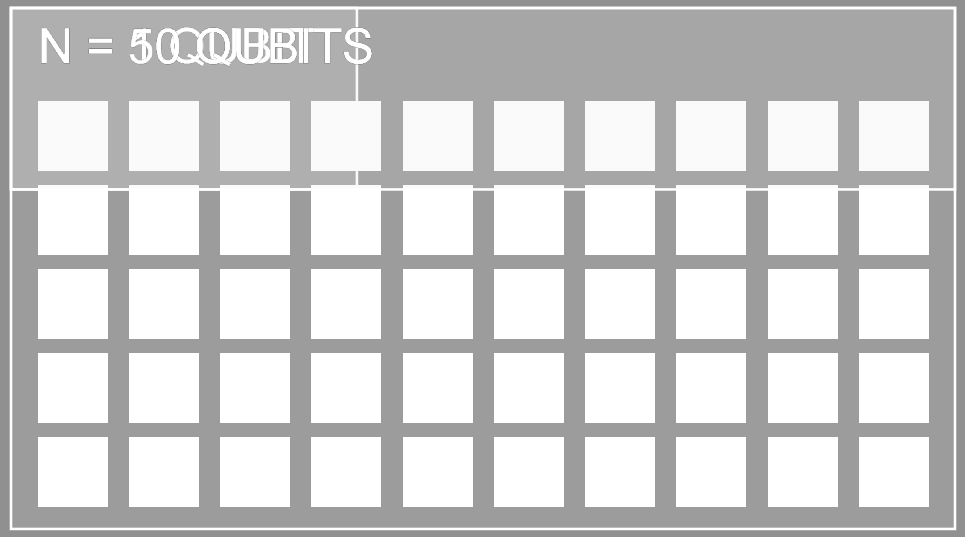
QUBITS

N-QUBIT-WORD

Quantum States

THE POWER OF 2^N

SUPERPOSITION EQUALS **SUPERPOWER**



1,125,899,906,842,624

1,024

2

1 QUBIT

10 QUBITS

50 QUBITS

QUBIT CONTROL

CONTROLLING THE FUTURE OF QUANTUM COMPUTING

ION TRAPS

CONTROL ELECTRONICS

QUBIT CONNECTIVITY AND TRANSPORT

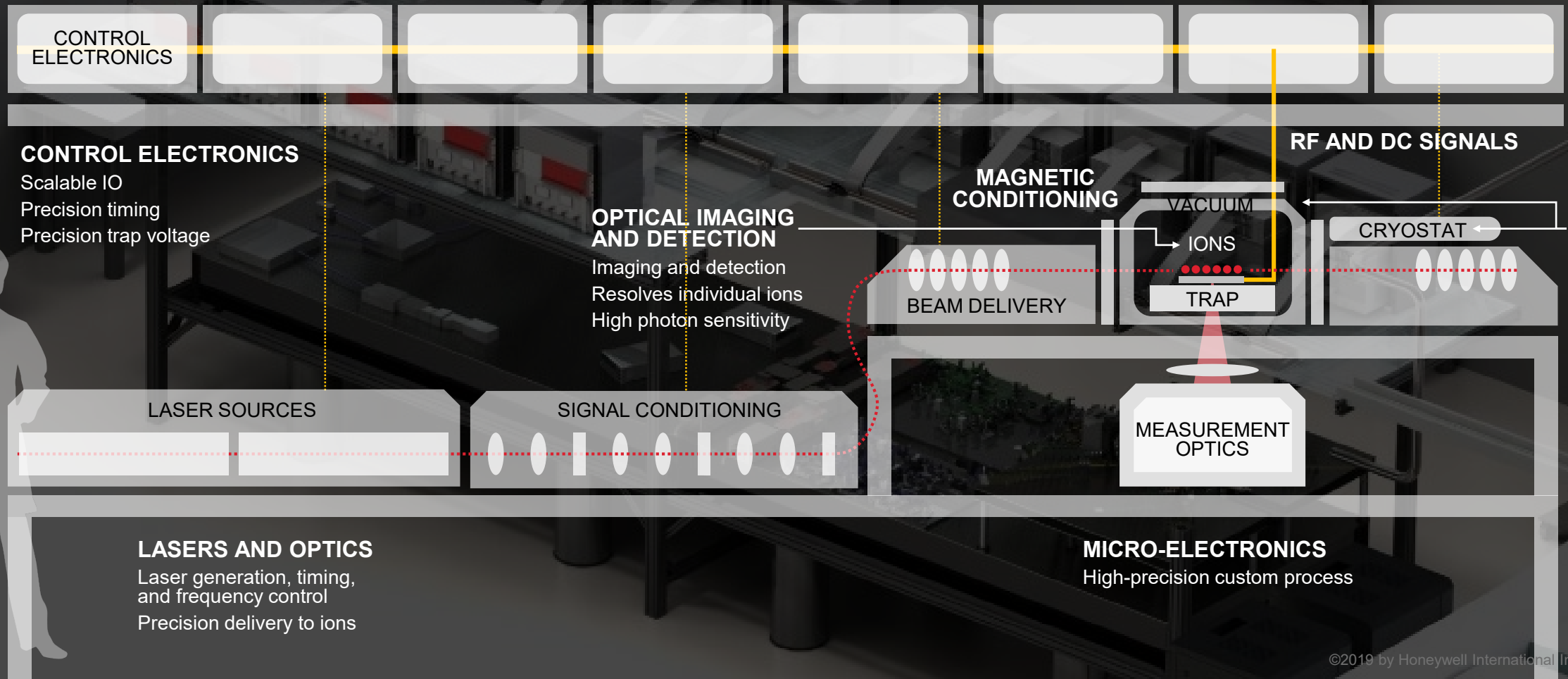
CRYOGENICS

HIGH-FIDELITY GATES

PARALLEL OPERATIONS

HONEYWELL QUANTUM SOLUTIONS

SHAPING THE FUTURE OF QUANTUM COMPUTING



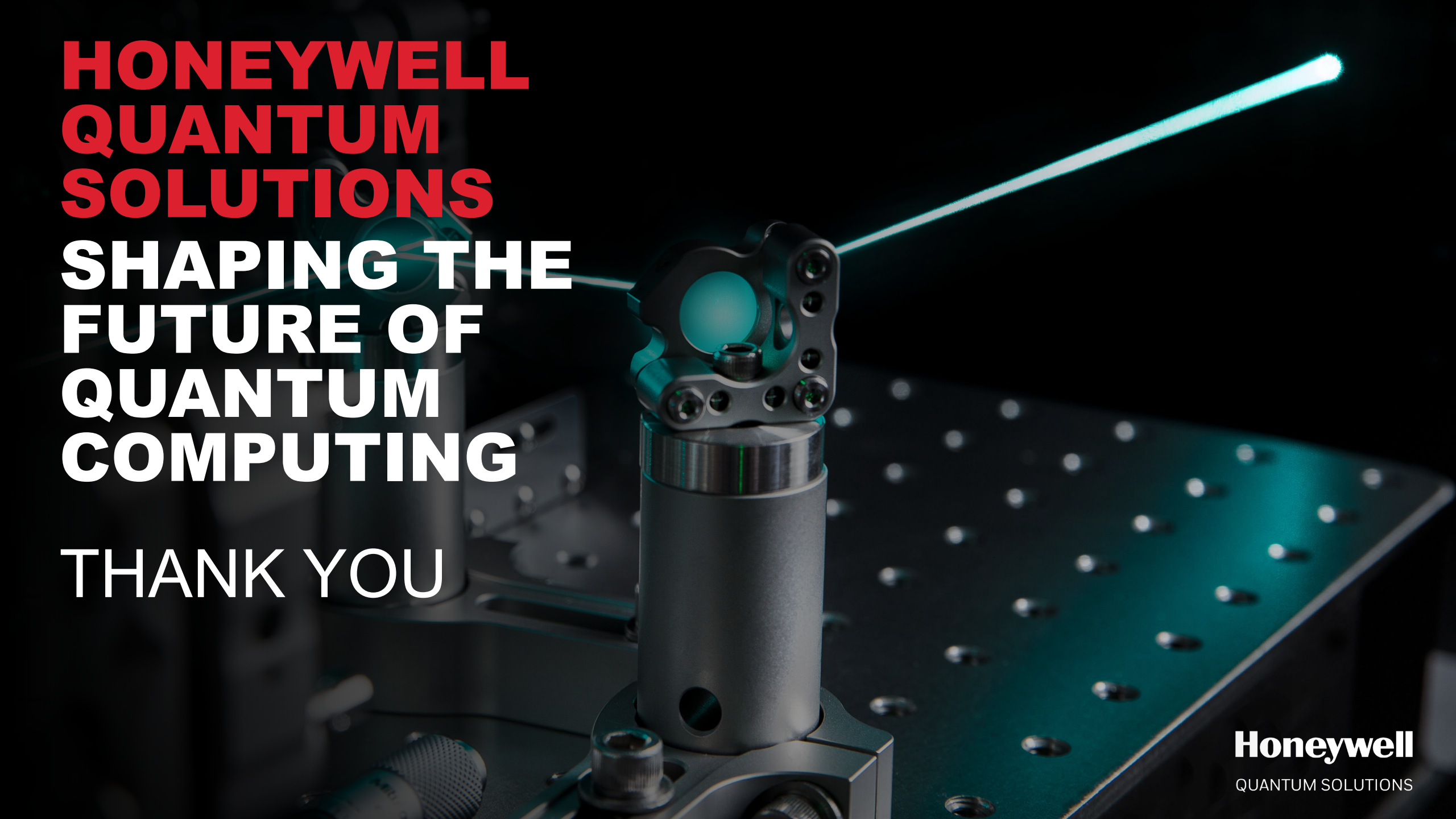
HONEYWELL QUANTUM SOLUTIONS

SHAPING THE FUTURE OF QUANTUM COMPUTING

HONEYWELL QUANTUM SOLUTIONS

SHAPING THE FUTURE OF QUANTUM COMPUTING

THANK YOU



Honeywell
QUANTUM SOLUTIONS