

The background of the slide features a central, glowing blue and cyan light effect that resembles a quantum entanglement or a data stream, with rays of light radiating outwards from a central point. The text is centered over this light effect.

entanglement, inc

revolutionizing computation | transforming ai

ACCELERATING QUANTUM INFORMATION SCIENCE AND A.I.
Private Public Partnership Approach
A critical infrastructure imperative

September 2019

APPLICATIONS & GLOBAL INDUSTRIES EI SERVICES



QUANTUM & AI ARE PRIORITIZED AS NATIONAL INITIATIVES



NATIONAL STRATEGIC OVERVIEW FOR QUANTUM INFORMATION SCIENCE

DECEMBER 21, 2018 President Trump signs into law the National Quantum Initiative Act which calls for \$1.25B in quantum funding over the next 5 years.

https://en.wikipedia.org/wiki/National_Quantum_Initiative_Act



The American AI Initiative

INVESTING IN AI RESEARCH AND DEVELOPMENT

BUILDING THE AI WORKFORCE

PROTECTING OUR AI ADVANTAGE

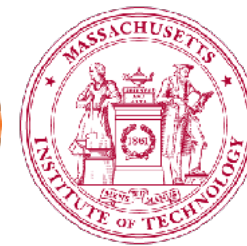
FEBRUARY 11, 2019 President Trump signs an Artificial Intelligence Executive Order to maintain American leadership in AI. (>\$920M '20)

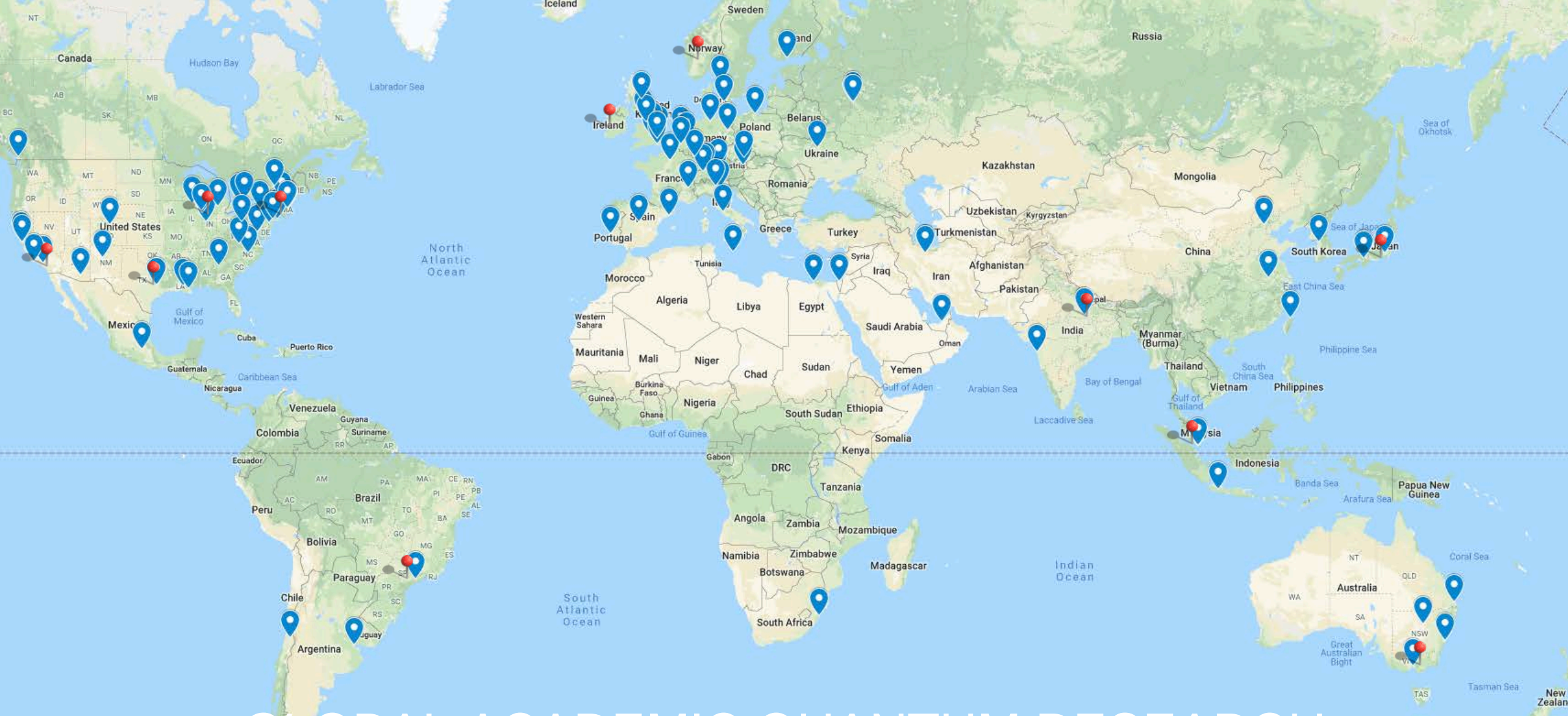
<https://www.whitehouse.gov/presidential-actions/executive-order-maintaining-american-leadership-artificial-intelligence/>

”Harnessing AI to Advance Our Security and Prosperity”
– Feb. 12, 2019, Summary of the 2018 DOD Artificial Intelligence Strategy

BIG PROBLEM AND LOTS OF PEOPLE ARE WORKING ON IT...

ENTITIES WORKING ON VARIOUS ASPECTS OF QIS





(fragmented)



QUANTIFYING QUANTUM

- ei is an **unconventional approach** that lowers the barriers of entry to R&D for quantum and AI at an early stage of the industry. We provide unrivaled access to resources that expand AI experimentation while serving as a platform to accelerate the development of Quantum Information Sciences
- Represents an opportunity to establish the first AI focused quantum trunk; customers can work with large datasets (on-site) and in a secure environment; then benchmark results. This capability doesn't exist anywhere else, and gives our customers a big competitive advantage
- Increases performance while expanding capabilities
- Integrating **super** and **quantum computers** with alternative and experimental computers, such as **neuromorphic computing**, to create the ultimate computational environment
- ei is different from existing quantum initiatives:
 1. ei works with more vendors than anyone and provides access to these diverse machines. Customers are not locked into one platform
 2. latency & bottlenecks are removed to increase performance.
 3. users can benchmark systems and optimize their work
- Benefits: **exponentially increases the body of knowledge** in QIS & AI



Temporary facility on 5 acres in Newport, RI, opening Q4'19



New facility located on 5 acres in Newport, RI coming online late 2020

INTEGRATING THESE VARIOUS METHODS OF COMPUTATION



SUPER-COMPUTING



(optimized SC)



NEUROMORPHIC COMPUTING



(over 100 million neurons)



QUANTUM COMPUTING



(multiple quantum systems)

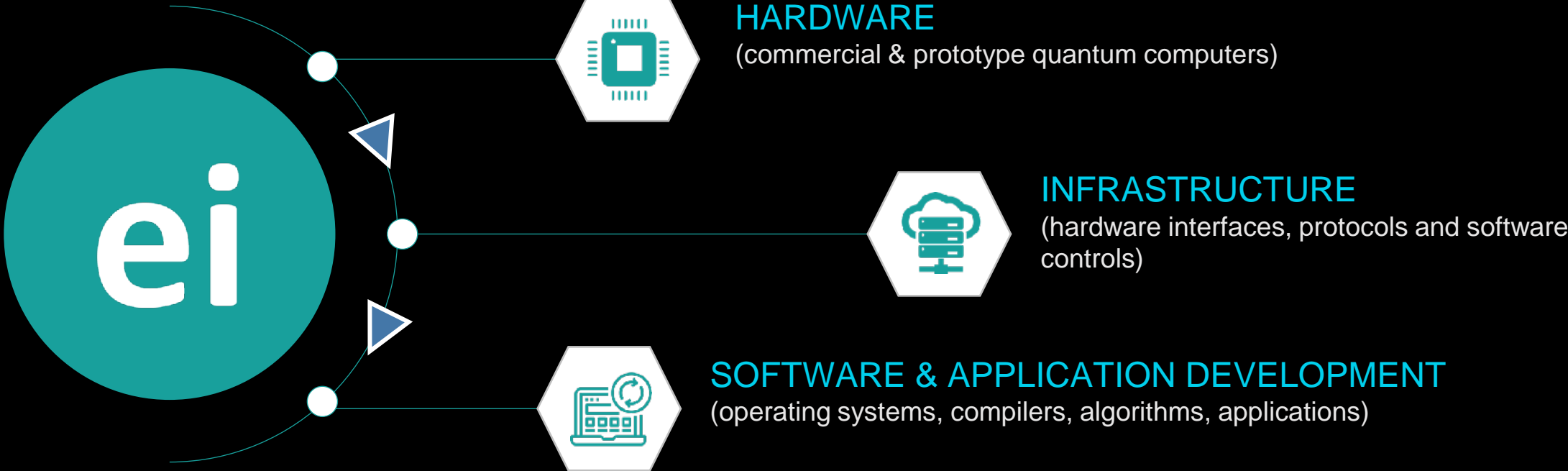


STORAGE



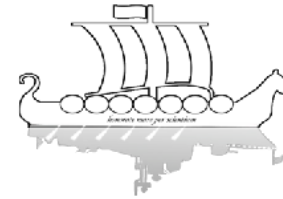
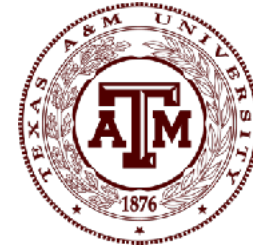
(over 250PB)

OUR TECHNOLOGY FOCUS




ENTANGLEMENT'S BUSINESS PARTNERS & NETWORK

UNPRECEDENTED ACCESS TO THE BEST QUANTUM INFORMATION SCIENCE
RESOURCES



TEAM

 **Michael Riordan**
VP, GOV'T AFFAIRS &
STRATEGY
Fmr Dir Congress. Affairs NATO /
European Cmd HQ; Prof. Strategy
Policy, Ethics Naval War College;
IED Task Force

 **Pete Tseronis**
STRATEGIC ADVISOR


Former CTO of U.S. Dept of Energy
& U.S. Dept of Education
Industry advocate


 **Jason Turner**
FOUNDER, CEO & CHAIRMAN

Serial Entrepreneur & Investor
Enterprise HPC, Media &
Technology

 **Steve Pritchard**
CHIEF TECHNOLOGY OFFICER

High Performance Computing
Engineer & Systems Architect,
Former Senior Executive, U.S.
Dept of Defense


 **Dr. Tomas Diaz de la Rubia**
SENIOR SCIENTIFIC
ADVISOR
Chief Scientist & Executive Director,
Discovery Park, Purdue University,
fmr Dir. Lawrence Livermore
National Laboratory


 **Bradley Rotter**
CO-FOUNDER, DIRECTOR &
IMPACT INVESTOR

Pioneer hedge fund investor
focused on the cyber security
aspects of digital currency and
the miraculous blockchain

 **William Crowell**
STRATEGIC ADVISOR

Former Deputy Director National
Security Agency (NSA)
Venture Capitalist (Alsop Louie)

 **Keith Britt**
QUANTUM SOLUTIONS
DESIGNER
Research fellow at Oak Ridge
National Lab; Quantum computer
scientist

 **Dr. Chris Verlinden**
DATA SCIENTIST

PhD, Philosophy,
Oceanography with specialty in
Ocean Acoustics and DSP; U.S.
Coast Guard, Navy

ADVISORY BOARD



Melissa Hathaway

CEO, HATHAWAY GLOBAL STRATEGIES

Cyberspace Policy & Cybersecurity Cyber Czar (Pres. Obama), CNCI (Pres. Bush), Prof. Belfer Center



Rear Adm. Jay Cohen (Ret)

THE CHERTOFF GROUP

Retired Rear Admiral U.S. Navy, former Under Secretary of Homeland Security for Science & Technology Last Naval command: Chief of Naval Research, Office of Naval Research



Maj. Gen. John Wharton, U. S. Army (Ret)

MANAGING PARTNER, ONE DEFENSE

Most recently Commanding General, U.S. Army Research Development and Engineering Command Former Senior Fellow at the National Defense University and Senior Advisor to OSD's National Security Technology Accelerator



Davey Gibian

PRESIDENTIAL INNOVATION FELLOW, DIU, CALYPSO AI

Assigned to DOD and Intelligence Community, AI and cybersecurity entrepreneur, U.S. Air Force, Venture Capitalist

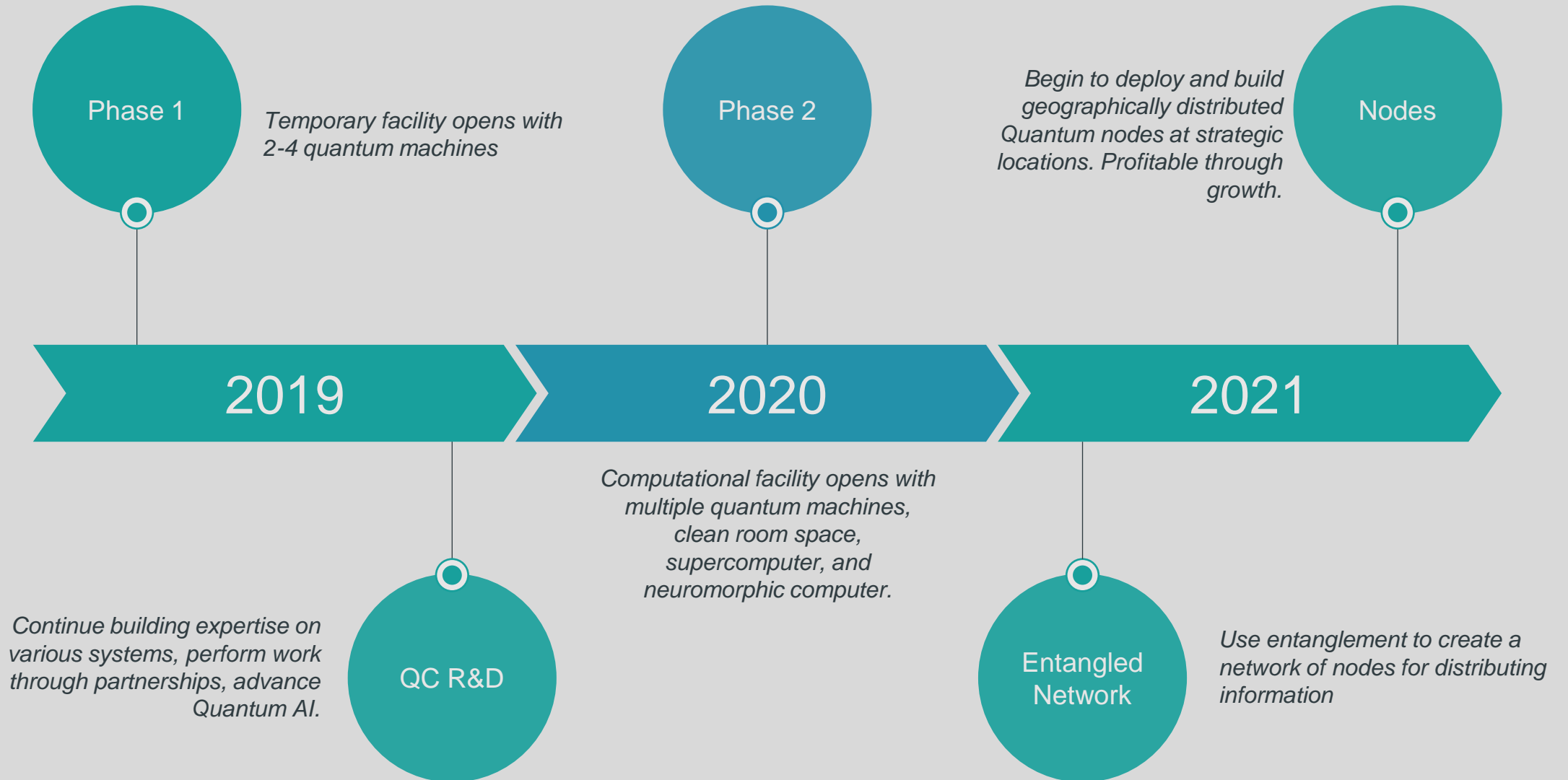


Dr. Talal Debs

MANAGING DIRECTOR, RSR PARTNERS

Financial Sector, Fmr. Executive Dir. JP Morgan, Blockchain Expert, PhD in Philosophical Foundation of Physics, University of Cambridge & Harvard

TIMELINE



EI'S ADVANTAGEOUS ROLE IN THE QUANTUM ECO-SYSTEM

01 Reduce the barriers of entry that exist for QIS & AI R&D today, enable more people with good idea's to have access to machines

02 Foster a multidisciplinary approach and leverage the “computational hub” that ei is creating for critical projects

03 Establish ei as a resource to support U.S. QIS & AI ambitions; shepherding public & private sector funded innovation through more effective partnering models

04 Establish fee based usage rates for computational projects

05 Leverage commercial technology to meet big challenges



entanglement inc

revolutionizing computation | transforming ai

entanglement.ai