

QUANTUM LEAP

THE
YEAR
IS
2025

This is a world in which a few large governments attempt to control the proliferation of quantum computing technology and apply it to the objectives of national power. The non-proliferation effort ultimately fails, leaving in its wake re-shuffled geopolitical alliances and new centers of power, as powerful quantum technologies fall into the hands of city consortia and deviant criminal networks.



GLOBAL INSIGHTS

IN THE US: A dramatic reversal of fortune between government and technology firms leads to a reassertion of the central role of the state in the digital “commanding heights.” Can the US maintain a first-mover advantage and use quantum to reassert definitive American hegemony?

IN EUROPE: The emergence of non-state quantum players (licit and illicit) would provide long-desired opportunities to catch up. Can “European values” somehow be yoked to this revolutionary technology? Can Europe attract the most important scientists through a human values proposition?

IN ASIA: Geopolitical re-alignments around quantum might finally shake loose the encrusted order, but to China’s advantage or disadvantage? And would the focus on quantum as a tool for national military power divert resources and attention from economic growth?

AND: Do African countries left with conventional computing simply fall a generation behind? Might an independent Afro-futurist movement congeal and bargain for greater access to quantum technologies?

THE NEW CYBERSECURITY AGENDA

- ✓ First-mover advantages put an even greater premium on speed-to-deployment over security, which will push security into the background (again) in an entirely new computing architecture.
- ✓ New human capital: protect and retain engineers who can build quantum hardware and software.
- ✓ Keep tech close to the chest: share with friends—and deny to everybody else.

THIS WORLD IS CREDIBLE BECAUSE ...

- No law of nature says the private sector has to maintain its lead and freedom to develop and deploy a transformative technology.
- Quantum could be transformative in the same way the microprocessor was (and states and militaries led in that domain for at least a decade).
- Could some governments at present already be out ahead of the private sector in quantum?