As Europe readies itself to compete in the next frontier of technology, a familiar story begins to unfold: promising scientific breakthroughs hampered by sluggish commercialization and fragmented funding. This time, the battleground is quantum technology — and the stakes are high.

Quantum computing, hailed as the next revolutionary leap in digital capabilities, promises to outstrip current computing power by unimaginable orders of magnitude. From pharmaceuticals to cybersecurity, the potential applications are vast. But while Europe leads the world in scientific research on quantum tech, it finds itself once again trailing behind the United States and China when it comes to turning theory into thriving industry.

According to a draft EU strategy expected to be unveiled Wednesday, the bloc is sounding the alarm: homegrown quantum innovation is at risk of being scooped up and monetized elsewhere. The draft, seen by *POLITICO*, warns of a chronic inability to turn research into “real-market opportunities,” and the numbers tell the story — Europe attracts just 5 percent of global private quantum funding, compared to more than 50 percent for the U.S. and 40 percent for China.

Despite being flush with scientific talent and institutions, Europe ranks only third in quantum patents and continues to wrestle with its decades-old challenge: building globally competitive companies from its research labs.

“Europe has been falling behind in many sectors,” said Juha Vartiainen, co-founder of Finnish firm IQM. “But in quantum, we are several years ahead of other countries — at least in research. The question is: can we stay ahead?”

A Race Against Time

The urgency is underscored by developments across the Atlantic. IBM recently announced it expects to launch a functioning quantum computer by 2029, a milestone that could redefine global tech leadership. Meanwhile, U.S. government agencies are partnering with private companies through programs like DARPA’s challenge to create error-free quantum computing systems, potentially unlocking hundreds of millions of dollars in funding.

Europe, by contrast, remains hampered by its fractured financial ecosystem. A long-standing ambition to create a unified capital market capable of supporting large-scale tech ventures has made little headway. For startups like Spain’s Multiverse Computing, scaling up on European soil is a formidable challenge.

“Raising a scale-up in Europe is super difficult,” said Enrique Lizaso, Multiverse’s CEO. “We lack the instruments and venture capital at the level needed. If we want to compete with the U.S., we must be prepared to invest €100 million per company.”

Multiverse recently raised €189 million — but the funding mix included American investors, reflecting a broader trend of European innovation increasingly reliant on foreign capital.

Strategy Without Focus?

The European Commission, along with national governments, has invested €11 billion into quantum initiatives. But critics argue that the money is spread too thin. Unlike the U.S., which has zeroed in on specific challenges, Europe’s funding approach has tried to remain “technology-neutral.”

That neutrality may be holding the continent back. Vartiainen believes Europe needs to pick its battles more strategically: “If we want to be competitive, we must concentrate investments, not dilute them.”

The EU’s new draft strategy proposes launching two “grand challenges” between 2025 and 2027 — one targeting quantum computing, the other focused on navigation systems. It also hints at using public procurement to support early markets, encouraging governments to act as first buyers of new quantum systems.

But for now, details remain scarce. And with quantum computers likely to pose major cybersecurity concerns — such as breaking existing encryption — the conversation is quickly bleeding into national security and regulatory territory.

A Warning From the AI Playbook

Industry leaders are already wary of Brussels’ next move. The EU’s regulatory approach to artificial intelligence, which began with heavy-handed oversight, had to be softened in response to innovation concerns. Now, there are fears that a similar path could derail Europe’s quantum aspirations.

“We cannot afford to regulate what is not yet mature,” said Cecilia Bonefeld-Dahl, director general of DigitalEurope. “Otherwise, Europe risks losing the quantum race.”

As Europe steps into this new race, the message is clear: innovation alone is not enough. Without bold investment, sharper strategy, and a light regulatory touch, the continent could watch — once again — as others build the empires from its blueprints.