

ICM HPQC Fund is a sub-fund of a Singapore-based VCC fund investing in Seed to Series C rounds of infrastructure, hardware and software companies enabling the future of computing – high performance compute and quantum technology.

Follow as we uncover trends and developments in the High Performance & Quantum Computing (HPQC) universe. In our latest issue, we have...

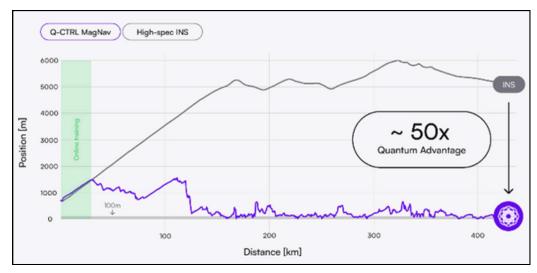
- An update on our portfolio
- Highlights on Quantum News & Tariff Impacts
- A snap coverage of the most recent moves in sector

PORTFOLIO UPDATES

Q-CTRL announces Quantum Advantage with its sensing product, with a world-first demonstration validating the company's quantum navigation technologies work in real-world environments and outperform conventional GPS backups by up to 50x, delivering true commercial and strategic quantum advantage while addressing threats to global trade. Q-CTRL has partnered with organisations such as Advanced Navigation, the Australian Department of Defence, the UK Royal

Navy, and the US
Department of Defense to integrate this technology into these defence platforms. Additionally, collaborations with Airbus aim to bring quantum navigation solutions to commercial aviation.

This advancement positions Q-CTRL as a leader in quantum navigation, offering a viable solution to the growing challenges associated with GPS reliance in both defence and civilian sectors. Read more here.



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Applied Ventures, who co-led the investment in Salience Labs alongside ICM HPQC, has published an article on Salience's innovative Optical Circuit Switch (OCS) based on a Semiconductor Operational Amplifier (SOA) technology. Find out more detail on this technology here.

QUANTUM NEWS

At the beginning of April, the US government's DARPA announced the nearly 20 companies chosen for the initial stage of DARPA's Quantum Benchmarking Initiative (QBI). DARPA invited proposals from companies and research groups around the globe and have an emphasis on technically and commercially realistic roadmaps to quantum computing. What stands out for us about this programme is that DARPA's initial position on quantum computing was scepticism, so selection in the programme is a significant, and independent, stamp of



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approval. The programme is set up in three stages, with the first stage a 6-month sprint where participants will provide comprehensive technical details of their concepts. If DARPA continues to see a plausible pathway to useful quantum

computing, it will continue to fund companies though all three stages with over \$300M available for each group that does so. Our team sees this programme as the most rigorous analysis of quantum computing approaches, and we will be tracking it closely.

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An Economic Analysis of

Quantum Computing

Matthew Gould, Portfolio Manager at ICM Kate Prebble, Investment Principal at ICM

April 2025



Although DARPA will apply a commercial lens to quantum computing groups, we believe that this has been less of a focus for the initial stage of the programme.

In this vein, the ICM Group published its views on the commercial viability metrics in quantum computing and suggests a framework for how to think about commerciality and unit economics in their analysis on quantum hardware companies.

It highlights that many ways to build quantum computers are too expensive to ever be commercially viable.

You can access and download the whitepaper <u>here</u>.

ON TARIFFS

After semiconductor's were initially exempted from President's Trump's tariff rollout, in late April, US Commerce Secretary Howard Lutnick made it clear that semiconductor-specific tariffs were on their way.

At the time of writing, it is not clear yet what this will entail and how it will be executed, but ICM HPQC will be tracking this area and the impact on current and future portfolio companies.





FLASH SNAP: QUICK ROUNDUP OF THE LATEST PLAYS (ICYMI)

- The Stanford AI Index 2025 is a comprehensive review on the state of AI. It
 highlights that state-of-the-art models are increasingly expensive to train even
 while AI hardware is becoming more efficient and costs are decreasing.
 [Stanford AI Index]
- The INTELLECT-2 project has launched a major effort to train a 32-billion-parameter AI model through permissionless compute contributions. [Prime Intellect]
- Microsoft is undergoing a data centre leasing and build freeze, possibly due to OpenAI moving towards new partnerships which exclude Microsoft from potential revenue. [Semianalysis]
- TSMC is on track to double its AI revenue in 2025 and analysts expect the semiconductor manufacturer to pass on any tariff-related price increases to customers. [Reuters]
- Huawei has launched its CloudMatrix 384 Supernode AI system, delivering nearly double the computing power of Nvidia's NVL72 but consuming four times more energy. [TechRadar]
- Huawei has begun shipping its 910C AI chip to Chinese customers, offering performance comparable to Nvidia's H100 amid tightening US export restrictions. [Yahoo Finance]
- Lenovo has launched its largest-ever storage portfolio refresh, introducing 21 new AI-optimised ThinkSystem and ThinkAgile models for enterprise data management and modernisation. [Business Wire]
- Nvidia's H2O AI chips worth billions were stockpiled by Chinese internet companies before US export restrictions took effect in April. [DealStreetAsia]
- TSMC has unveiled its 1.4nm chip technology, promising 15% better performance and 30% lower power consumption than 2nm processors when production begins in 2028. [Engadget]
- Meanwhile, TSMC faces Trump's threat of 100% tax for non-US production, while simultaneously confronting a potential US\$1B penalty over chips allegedly supplied to Huawei. [TechCentral]
- Google has entered advanced negotiations with CoreWeave to rent Nvidia Blackwell chips after facing capacity constraints. [TechRadar]
- Arm has predicted its Neoverse architecture will power nearly half of hyperscaler compute shipments by 2025, driven largely by AI's growing demands for efficient processing. [TechRadar]
- Cerebras Systems has launched the world's fastest inference service for Meta's Llama 4 Al model, achieving speeds of 2,600 tokens per second. [Business Wire]

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FLASH SNAP: QUICK ROUNDUP OF THE LATEST PLAYS (ICYMI) - CONTINUED

- Google has launched its Ironwood TPU chip, focusing on AI inference rather than training to address rising computational costs in serving predictions to users. [ZDNet].
- Alphabet's stock jumped 9% after Google unveiled Ironwood. [Yahoo Finance]
- IBM has launched its z17 mainframe computer, featuring enhanced AI capabilities, improved energy efficiency, and a Telum II processor that processes 450 billion daily inference operations. [TechCrunch]
- Meta has committed US\$837m to develop a data centre in Wisconsin, expanding its AI and cloud infrastructure as part of a broader US\$65 billion investment plan. [Yahoo Finance]
- Nvidia has avoided stricter chip export restrictions to China after CEO Jensen Huang attended a US\$1m-per-person dinner at Trump's Mar-a-Lago estate.

 [Yahoo Finance]
- Nvidia has partnered with Google Cloud to enable secure, on-premises deployment of Gemini AI models using Blackwell platforms and confidential computing technology for enterprise customers. [Nvidia]

The Manager, ICM HPQC Fund

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