BW Digital and NUS CDE Partner to Advance Quantum-Ready Data Centre Infrastructure for Southeast Asia

- Strategic research collaboration to develop quantum-ready digital infrastructure frameworks in Southeast Asia.
- Initial research will focus on infrastructure readiness for hybrid AI-quantum workloads, including advanced cooling, power systems, electromagnetic stability and deployment strategies.
- Collaboration supports BW Digital's investments in future-ready digital infrastructure in Singapore and the broader Southeast Asia region.
- Technological initiative aligned with Singapore's ambition to strengthen its position as a leading regional data centre hub while advancing local workforce capability development.

Singapore and Bali, 11 June 2026 - BW Digital and the National University of Singapore's College of Design and Engineering (NUS CDE) today announced a strategic research collaboration to develop the foundational engineering frameworks required for next-generation quantum-ready digital infrastructure in the tropical hubs of Southeast Asia.

Announced at DCD>Connect | APAC 2026, Data Centre Dynamics' flagship digital infrastructure conference, the collaboration deepens BW Digital's engagement with Singapore's AI and quantum research ecosystem and supports its investments in future-ready digital infrastructure.

BW Digital's initiative also aligns with Singapore's vision to advance its leadership in AI, high-performance computing (HPC) and quantum technologies, while further strengthening its position as a leading regional data centre hub.

In the next 18 months, the partnership will focus on defining the "minimum viable infrastructure envelope" required to support future quantum-classical computing integration within modern data centres. Areas of research include structural design, thermal, cryogenic and power systems, environmental stability and quantum-safe integration, connectivity and operations.

A key area of study will be how tropical operating environments, such as Singapore and Batam, present unique infrastructure challenges for quantum systems, particularly in relation to humidity management, heat rejection, vibration control and electromagnetic stability.

Researchers and engineers from BW Digital and the Department of Mechanical Engineering in NUS CDE will evaluate deployment typologies, readiness scorecards and infrastructure zoning strategies to support future hybrid AI-quantum workloads across Southeast Asia. The collaboration will also establish an operator playbook to guide BW Digital's future site selection, vendor engagement and infrastructure planning activities.

Mr. Florent Blot, Chief Business Officer - Data Centre and Value-Added Services, BW Digital said: "Quantum computing infrastructure is becoming an increasingly relevant focus for the data centre industry. As AI, HPC and quantum systems continue to converge, operators need to start preparing their infrastructure for future compatibility today. Our partnership with NUS CDE allows us to establish the right

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technical foundations early, while maintaining flexibility as the pace and direction of quantum adoption continue to evolve. The research will also provide valuable insights that can support the future development and optimisation of our existing and future data centre projects in Southeast Asia."

Professor Lee Poh Seng, Head, Department of Mechanical Engineering, College of Design and Engineering, National University of Singapore, said: "As Southeast Asia continues to grow as a strategic digital infrastructure hub, future competitiveness will depend not only on capacity, connectivity and energy efficiency, but also on readiness for emerging advanced technologies such as quantum computing. This collaboration with BW Digital allows us to bridge academic research with real-world infrastructure development, and to help define practical engineering requirements and operational frameworks for quantum-ready facilities in tropical environments. By combining NUS' engineering expertise with BW Digital's industry perspective, we aim to contribute to resilient, secure and future-ready digital infrastructure for the region."

As global standards for quantum-classical infrastructure continue to evolve, the collaboration is also expected to contribute to local workforce capability building, regional knowledge development and future infrastructure reference architectures for Southeast Asia.

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About BW Digital

Headquartered in Singapore and part of BW Group, BW Digital develops, builds and operates digital infrastructure in high-potential markets. Our vision is to create a sustainable digital ecosystem for cloud and AI workloads by combining data centres, connectivity and renewable energy assets.

Our infrastructure portfolio notably includes the 15,000km Hawaiki submarine cable connecting Australia, New Zealand and the US since 2018, and the BW Digital Campus at Nongsa Digital Park, comprising the 144MW NDP1 data centre, the NCC submarine cable between Singapore and Batam and the Citra Connect terrestrial fibre network. Follow BW Digital on: LinkedIn

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