Quantum eMotion Advances Quantum-Secure Root-of-Trust Technology Through Collaboration with Taiwan-based Semiconductor Firm

written by Raj Shah | March 17, 2026

March 17, 2026 (Source) – Quantum eMotion Corp. (NYSE American: QNC) (TSXV: QNC) (FSE: 34Q0) ("QeM" or the "Company"), a leader in quantum-secure cybersecurity solutions, is pleased to announce that it is receiving advisory services and funding of up to $600,000 from the **National Research Council of Canada Industrial Research Assistance Program (NRC IRAP) to support a research and development project focused on quantum-secure semiconductor technology in collaboration with JMEM Tek.**

The non-dilutive funding supports a strategic cross-border, collaborative R&D initiative conducted in partnership with JMEM Tek, a Taiwan-based semiconductor technology company specializing in secure chip design. The joint **R&D project represents over $2.5 million in combined development investment**, focused on advancing next-generation quantum-secure hardware architectures and strengthening cross-border innovation in trusted semiconductor technologies.

This project strengthens innovation links between the Canadian and Taiwanese technology firms, while accelerating the development of next-generation trusted semiconductor technologies.

Building a Quantum-Secure Hardware Root of Trust

The funded project focuses on the development of a next-generation **secure System-on-Chip (SoC)** platform designed to embed a **hardware Root of Trust** directly at the silicon level.

The architecture will integrate:

- QeM's proprietary quantum-grade entropy generation
- Hardware-based cryptographic acceleration
- A silicon-level **Root of Trust**
- Advanced **Physically Unclonable Function (PUF)** technology for device-unique identity
- Secure key generation, storage, and lifecycle management

The integration of PUF technology enables each chip to possess a mathematically unique and unclonable identity derived from intrinsic physical characteristics of the silicon itself. When combined with quantum-grade entropy, this creates a robust foundation for secure boot, authentication, firmware integrity validation, and cryptographic key protection.

This secure-by-design approach is intended to protect critical systems from hardware tampering, cloning, firmware injection, and advanced cyberattacks – including future quantum-enabled threats.

NRC IRAP support will assist QeM in advancing its research and development activities in quantum-secure semiconductor technology.

"This NRC IRAP support is a significant milestone," said Francis Bellido, CEO of Quantum eMotion. "By combining quantum entropy, PUF-based device identity, and hardware Root-of-Trust architecture, we are laying the silicon foundation for next-generation trusted computing. Our collaboration with JMEM reinforces the leadership of Canadian and Taiwanese innovators

in secure semiconductor innovation at a time when digital sovereignty and hardware security are becoming mission-critical.”

Securing AI, Cloud, and Critical Infrastructure

The secure SoC platform is being designed for deployment across:

- AI data centres and high-performance computing
- Cloud infrastructure and edge systems
- Financial and digital asset platforms
- Defense and government systems
- Healthcare and digital health networks
- Energy and critical infrastructure environments

By embedding a quantum-secure Root of Trust and PUF identity at the chip level, the architecture aims to provide scalable trust anchoring for next-generation digital ecosystems.

Strengthening Trusted Semiconductor Supply Chains

In the context of growing global focus on semiconductor resilience and hardware-level cyber threats, this collaboration between Canadian and Taiwanese companies contributes to:

- Trusted supply-chain development
- Secure chip manufacturing collaboration
- Resilient international technology partnerships
- Post-quantum-ready hardware infrastructure

The Company anticipates achieving key development milestones over the coming phases and will provide updates as the program advances.

About Quantum eMotion

The Company's mission is to address the growing demand for affordable hardware and software security for connected devices. Thanks to its patented Quantum Random Number Generator, QeM has become a pioneering force in classical and quantum cybersecurity solutions. This security solution exploits quantum mechanics' built-in unpredictability and promises to provide enhanced protection for high-value assets and critical systems. For further information, please visit our website at https://www.quantumemotion.com or contact us at: info@quantumemotion.com.

The Company intends to target highly valued Financial Services, Healthcare, Blockchain Applications, Cloud-Based IT Security Infrastructure, Classified Government Krown Technologies and Communication Systems, Secure Device Keying (IOT, Automotive, Consumer Electronics) and Quantum Cryptography.

For further information, please visit our website at https://www.quantumemotion.com or contact:

Francis Bellido, Chief Executive Officer Tel: 514.956.2525
Email: info@quantumemotion.com
Website: www.quantumemotion.com

Cautionary Note regarding Forward-Looking Statements

This news release contains "forward-looking information" within the meaning of applicable securities laws, which is based upon the Company's current internal expectations, estimates, projections, assumptions and beliefs. Such forward-looking statements and forward-looking information include, but are not limited to, statements concerning the Company's expectations with respect to the commencement of trading of the Company's common shares on NYSE American; the expected cessation of trading on the OTCQB; the anticipated benefits of the NYSE American listing; and the Company's business strategy, target

markets and growth initiatives. Forward-looking statements or forward-looking information relate to future events and future performance and include statements regarding the expectations and beliefs of management based on information currently available to the Company. Such forward-looking statements and forward-looking information often, but not always, can be identified by the use of words such as “plans”, “expects”, “potential”, “is expected”, “anticipated”, “is targeted”, “budget”, “scheduled”, “estimates”, “forecasts”, “intends”, “anticipates”, or “believes” or the negatives thereof or variations of such words and phrases or statements that certain actions, events or results “may”, “could”, “would”, “might” or “will” be taken, occur or be achieved. Forward-looking statements or forward-looking information are subject to a variety of risks and uncertainties which could cause actual events or results to differ materially from those reflected in the forward-looking statements or forward-looking information, including, without limitation, risks and uncertainties relating to delays in or failure to complete listing-related processes, the Company’s ability to maintain compliance with applicable exchange requirements, changes in market conditions, the value of the Company’s intangible assets, completing proof of concept studies, protecting intangible assets rights, timing and availability of external financing on acceptable terms or at all, the possibility that future results will not be consistent with the Company’s expectations, increases in costs, changes in legislation and regulation, changes in economic and political conditions and other risks inherent to the cybersecurity industry and new technologies, such as risk of obsolescence, slow adoption and competing technological advances; and those risks set out in the Company’s public documents filed on SEDAR+ at www.sedarplus.ca.

Should one or more of these risks and uncertainties materialize,

or should underlying assumptions prove incorrect, actual results may vary materially from those described in forward-looking statements or forward-looking information. Although the Company has attempted to identify important factors that could cause actual results to differ materially, there may be other factors that could cause results not to be as anticipated, estimated or intended. For more information on the Company and the risks and challenges of its business, investors should review the Company's annual filings that are available at www.sedarplus.ca. The Company provides no assurance that forward-looking statements or forward-looking information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements and information. Accordingly, readers should not place undue reliance on forward-looking statements and forward-looking information. Any forward-looking statement speaks only as of the date on which it is made and, except as may be required by applicable securities laws, the Company disclaims any intent or obligation to update any forward-looking information.

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