Novacium, Axel'One and AD-VENTA Secure €1 Million in RAPID Funding from the DGA and AID for the METAGENE™ Green Hydrogen Project

- A consortium led by Novacium, together with Axel'One and AD-VENTA, has secured funding from the Defence Innovation Agency (AID) and the Directorate General of Armaments (DGA) under the RAPID program (Support Scheme for Dual-Use Innovation), a program known for its selectivity.
- The METAGENE™ project:
  - Aims to develop a self-contained, high-pressure green hydrogen production station using a solid, non-hazardous metallic fuel.
  - With a budget of €1.2 million, the project is subsidized at the maximum rate of 80% provided under the program and began on September 1, 2026.

Montreal (Canada), Solaize (France), October 27, 2026 — HPQ Silicon Inc. (TSX-V: HPQ, OTCQB: HPQFF, FRA: O08) is pleased to inform its shareholders that its strategic partner, NOVACIUM SAS, a French deep-tech company specializing in green engineering of materials for energy applications, announces that the METAGENE™ project consortium, which it leads alongside Axel'One and AD-VENTA, has been awarded funding by the AID and DGA under the RAPID program. The funding agreement was finalized in June 2026 and could not be made public before today for confidentiality reasons.

The METAGENE™ project (from "METAux pour l'hydroGENE," meaning "metals for hydrogen") aims to develop and validate a self-contained, high-pressure green hydrogen production station, advancing the technology from Technology Readiness Level (TRL) 3 to TRL 5–6. The 30-month project began on September 1, 2026. Its budget totals €1.2 million, subsidized at the program's maximum rate of 80%, representing nearly €1 million in public funding. The first funding payment was made in summer 2026.

Image 1) Conceptual rendering of a hydrogen production and dispensing station adapted to the METAGENE process

A selective program supporting dual-use innovation

The RAPID program is implemented by the AID, drawing on the technical expertise of the DGA. It supports industrial research and experimental development projects with strong technological potential and dual military and civilian applications. Known for its demanding standards and often described as a genuine innovation competition, it selects only a limited number of projects each year and can subsidize up to 80% of eligible expenses. Selecting the METAGENE™ consortium at the maximum funding rate reflects the authorities' confidence in the technology's dual-use potential.

METAGENE™: an innovative, patented process for producing green hydrogen without electricity

METAGENE™ is an innovative, patented process for producing green hydrogen without electricity, designed for both civilian and military uses. Hydrogen is produced at the point of use from a solid metallic fuel based on aluminum and silicon, which releases hydrogen when it contacts water in the presence of an activator. Unlike electrolysis, the reaction requires no electricity source and generates no greenhouse gases; it produces an inert solid by-product. In its solid bulk form, the fuel is inert and not classified as a hazardous material, which considerably simplifies transportation and storage. With a high energy density of about 1.25 m^3 of hydrogen per kilogram of fuel, METAGENE™ offers an alternative to conventional hydrogen production and transportation.

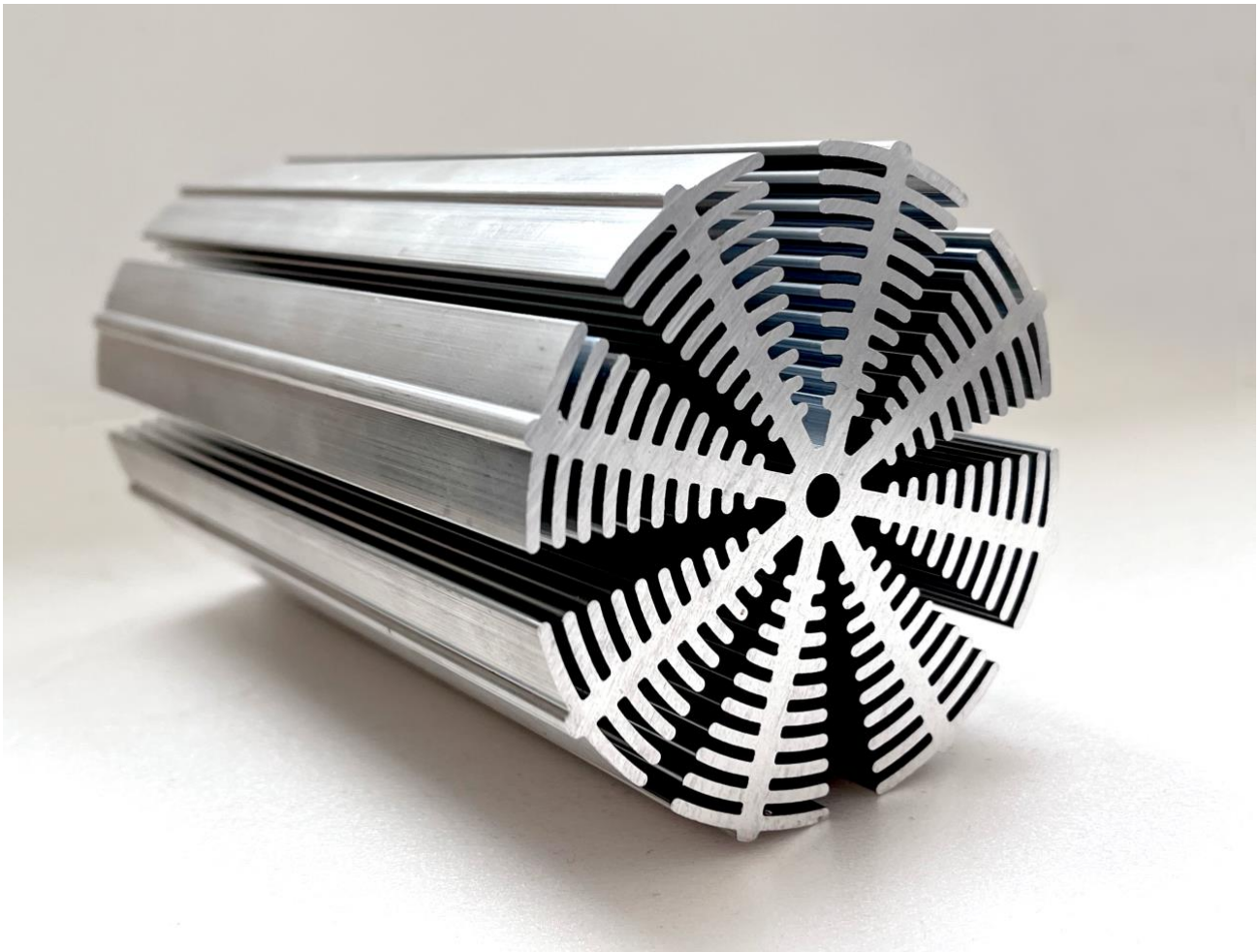

Image 2) Photograph of the solid fuel made from recycled aluminum and silicon developed by Novacium

This technology has already been the subject of two industrial partnerships: a memorandum of understanding with recycled aluminum producer GLD Alloys in April 2025, aimed at securing a supply of low-carbon aluminum for the fuel, and an industrial cooperation agreement with AD-VENTA in December 2025, concerning the integration of the METAGENE™ reactor into a high-pressure hydrogen dispensing station capable of delivering up to 20 kg of hydrogen per day. RAPID funding will support the development and validation phase of this station.

A consortium bringing together complementary expertise

The project brings together three partners with complementary expertise. Novacium, the consortium leader, develops the metallic fuel and hydrogen generation reactor and manages the project. AD-VENTA, a specialist in high-pressure hydrogen systems, is adapting its compression and dispensing station to integrate this reactor. Axel'One, a collaborative platform dedicated to chemistry and the environment, contributes its gas analysis and characterization capabilities, along with its experience in reactors and hydrogen purification.

"Being selected by the AID and DGA under a program as demanding as RAPID is recognition of our teams' work and the strength of our consortium," said Dr. Jed Kraiem, co-founder and Chief Operating Officer of Novacium. *"Together with Axel'One and AD-VENTA, we bring together all the expertise required, from fuel chemistry to the high-pressure station, to take METAGENE™ from the laboratory to an operational demonstrator."*

"METAGENE™ is particularly well suited to decentralized high-pressure hydrogen production in remote environments," added Jean-Luc Mussot, President and Chief Executive Officer of AD-VENTA. *"This funding will enable us to integrate Novacium's reactor into our dispensing station and validate its performance under real-world conditions."*

Strong economic potential in growing civilian and military markets

Beyond its technological dimension, METAGENE™ targets rapidly growing markets. The global green hydrogen market could reach approximately US$500 billion by 2030 (source: BloombergNEF). In the mobility segment alone, the hydrogen market is estimated at approximately €25 billion by that time, while autonomous energy systems for defence applications (drones, vehicles and bases) represent an estimated market of €5 billion to €10 billion.

METAGENE™'s positioning rests on a tangible economic advantage. By producing hydrogen at the point of use, without electricity or major infrastructure, the solution avoids the costs and constraints associated with transporting and storing pressurized hydrogen, which today often exceed €50/kg. The fuel uses abundant, low-cost metals, aluminum and silicon, with a raw material cost of approximately €20 to €30 per kilogram of hydrogen produced on site.

These advantages address practical needs expressed by numerous sectors: powering inspection and surveillance drones, communication stations and remote outposts, off-grid industrial sites, clean mobility, and autonomous defence bases and systems operating in challenging environments. These are all applications in which decentralized, safe and competitive hydrogen production provides a decisive advantage.

About Novacium SAS

Novacium is a French deep-tech company based in Solaize, specializing in developing and producing silicon-based anode materials for lithium-ion batteries through a proprietary process.

Novacium also designs custom battery cells and packs for demanding applications, particularly in the defence, aerospace and portable-energy sectors.

About HPQ Silicon

HPQ Silicon Inc. is a Quebec-based industrial issuer listed on the TSX Venture Exchange (TSX-V: HPQ), focused on innovation in advanced materials and the development of critical processes.

HPQ holds a strategic 36.8% interest in Novacium, its research, development and commercialization partner. Together, HPQ and Novacium are developing next-generation silicon-based anode materials (GEN3 and GEN4) for batteries, pursuing commercialization of ENDURA+ lithium-ion cells, and developing innovative technologies for clean hydrogen production and energy recovery from residual materials. HPQ holds the exclusive commercialization rights to these technologies in North America.

About AD-VENTA

AD-VENTA is an innovative French company specializing in the design and manufacture of high-pressure hydrogen storage, regulation and dispensing systems, including pressure regulators, smart valves and cylinder heads for mobile applications. Based in Châteauneuf-sur-Isère (Drôme), it provides turnkey solutions for hydrogen mobility (light vehicles, aviation and marine applications) and has recognized expertise in gas safety and regulations.

About Axel'One

Axel'One is a collaborative platform dedicated to chemistry and the environment, established in 2011 in the Auvergne-Rhône-Alpes region. It supports R&D projects and very small, small and medium-sized enterprises in advanced materials and innovative processes by providing offices, laboratories, technology halls and scale-up pilot facilities, as well as research and characterization services. It has a team of approximately 30 people.

Cautionary Note Regarding Forward-Looking Information

This news release contains forward-looking statements based on certain assumptions regarding technological performance, market demand, permits, financing, supply chains and economic conditions. These statements involve significant risks, including delays, regulatory issues, competition, the availability of financing and macroeconomic uncertainties. Actual results could differ materially from those anticipated. Detailed risk factors are presented in HPQ's annual information form available on SEDAR+.

Forward-looking statements are provided solely to outline management's future expectations and objectives. A more detailed cautionary note regarding forward-looking information related to the METAGENE™ technology is available for download [here].

Additional information regarding the Company is available in the SEDAR+ *database* (www.sedarplus.ca) and on the Company's website at *www.hpqsilicon.com*.

Neither the TSX Venture Exchange nor its Regulation Services Provider accepts responsibility for the adequacy or accuracy of this release.

Information

NOVACIUM
Dr. Jed Kraiem, Ph.D., COO
info@novacium.com

HPQ Silicon
Bernard J. Tourillon, BAA, MBA, CEO
info@hpqsilicon.com