



## **SEALSQ Joins Forces with IC'ALPS To Accelerate Secure ASICs Development**

Grenoble, France - December 10, 2024 – IC'Alps, a leader in ASIC/SOC design and supply chain management and SEALSQ Corp (NASDAQ: LAES), a company that focuses on developing and selling Semiconductors, PKI and Post-Quantum technology hardware and software products, today announced that they are strengthening partnership to face growing demand in the segment.

In 2024, SEALSQ embarked on a strategic initiative to capitalize on its innovative quantum-resistant chip technology. The Company engaged with major electronics manufacturers to explore the development of custom quantum-resistant secure chips based on the QS7001 architecture, tailored to meet specific customer requirements. This move into the post-quantum ASIC segment marked a pivotal advancement in SEALSQ's commercial and industrial strategy, unlocking access to potentially substantial new business opportunities and revenue streams.

Designing ASICs is a long and complex process due to the intricate requirements of customization, rigorous validation, and precision manufacturing required to meet specific application demands. SEALSQ, in collaboration with IC'ALPS, is poised to redefine this process by leveraging IC'ALPS' cutting-edge ASIC design expertise together with SEALSQ's rich security IP portfolio and production know-how. Together, the teams will streamline development timelines and enhance scalability, offering clients accelerated access to high-performance, tailored ASIC solutions for even the most demanding industries. A prime example of this synergy is SEALSQ's own QVault TPM, the first product born from this collaboration, with initial samples expected as early as Q1 2025.

*"This collaboration was a true partnership, with each team bringing its own expertise and approach,"* said Lucille Engels, COO of IC'ALPS. *"Drawing on our experience, we adapted our methods to meet SEALSQ's rigorous security standards. This partnership underlines our commitment to supporting our customers in the development of their products."*

*"The collaboration between IC'ALPS and SEALSQ exemplifies the dynamic and innovative spirit of the French semiconductor ecosystem,"* added Jean Pierre Enguent, CTO of SEALSQ, *"This partnership showcases how mid-sized high-tech companies can unite their expertise to fast-track the development of cutting-edge products that not only meet market demands, but rival the capabilities of larger*

corporations. By combining agility with innovation, we are setting a benchmark for excellence in the competitive global semiconductor industry”.

### About Post-Quantum Microcontrollers

Post-quantum microcontrollers are being developed to integrate post-quantum cryptographic algorithms and security features. Key activities include research, integration of algorithms, adding hardware-based security features, standardization, deployment in various applications, and raising awareness about their importance. These microcontrollers aim to secure digital systems against potential threats posed by quantum computing technology.

### About ASICs

ASICs are specialized integrated circuits designed to perform specific functions or tasks within a particular application domain. They offer advantages such as higher performance, lower power consumption, and reduced size and cost compared to alternative solutions like field-programmable gate arrays (FPGAs) or general-purpose microcontrollers.

Overall, the ASIC market is characterized by steady growth, driven by technological advancements and increasing demand for customized solutions across various industries.

- **Market Size:** The global application-specific integrated circuit (ASIC) market is expected to grow from \$21.53 billion in 2024 to approximately \$36.80 billion by 2032, with a Compound Annual Growth Rate (CAGR) of 6.9% during the forecast period (*Source: [Fortune Business Insights, 2024](#)*).
- **Application Areas:** ASICs are widely used in telecommunications, automotive, consumer electronics, industrial automation, and healthcare sectors.
- **Technology Trends:** Advancements in process nodes and packaging technologies are enabling higher integration, improved performance, reduced power consumption, driving innovations in AI, IoT, and 5G applications.
- **Emerging Markets:** Growing demand for low-power ASICs is evident in IoT and sensor applications, as well as in automotive sectors, including Advanced Driver-Assistance Systems (ADAS), autonomous vehicles, and electric vehicles (EVs).
- **Security Concerns:** To mitigate cybersecurity threats, especially in IoT and cloud computing, ASIC vendors are integrating robust hardware-based security features, such as encryption and authentication.

### About IC'Alps

IC'Alps is your one-stop-shop ASIC partner. Based in France (HQ in Grenoble, two design centers in Grenoble and Toulouse), the company provides customers with a complete offering for Application Specific Integrated Circuits (ASIC) and Systems on Chip (SoC) development from circuit specification, mastering design in-house, up to the management of the entire production supply chain. Its 100+

engineers' areas of expertise include analogic, digital and mixed-signal circuits (sensor/MEMS interfaces, ultra-low power consumption, power management, high-resolution converters, high voltage, signal processing, ARM and RISC-V based multiprocessors architectures, hardware accelerators) on technologies from 0.18 µm down to 3 nm, and from multiple foundries (TSMC, Global Foundries, Tower Semiconductor, X-FAB, STMicroelectronics, etc.). The company is active worldwide in medical, industrial, automotive, IoT, IA, mil-aero and digital identity & security sectors. IC'Alps is ISO 9001:2015, ISO 13485:2016, EN 9100:2018, Common Criteria certified, IATF16949-ready, member of TSMC Design Center Alliance (DCA), ams Osram Preferred Partner and X-FAB's partner network.

More information on [www.icalps.com](http://www.icalps.com) and follow us on <https://www.linkedin.com/company/ic-alps>

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#### **About SEALSQ:**

SEALSQ focuses on selling integrated solutions based on Semiconductors, PKI and Provisioning services, while developing Post-Quantum technology hardware and software products. Our solutions can be used in a variety of applications, from Multi-Factor Authentication tokens, Smart Energy, Smart Home Appliances, Medical and Healthcare and IT Network Infrastructure, to Automotive, Industrial Automation and Control Systems.

Post-Quantum Cryptography (PQC) refers to cryptographic methods that are secure against an attack by a quantum computer. As quantum computers become more powerful, they may be able to break many of the cryptographic methods that are currently used to protect sensitive information, such as RSA and Elliptic Curve Cryptography (ECC). PQC aims to develop new cryptographic methods that are secure against quantum attacks. For more information, please visit [www.sealsq.com](http://www.sealsq.com).

#### **Forward-Looking Statements**

This communication expressly or implicitly contains certain forward-looking statements concerning SEALSQ Corp and its businesses. Forward-looking statements include statements regarding our business strategy, financial performance, results of operations, market data, events or developments that we expect or anticipates will occur in the future, as well as any other statements which are not historical facts. Although we believe that the expectations reflected in such forward-looking statements are reasonable, no assurance can be given that such expectations will prove to have been correct. These statements involve known and unknown risks and are based upon a number of assumptions and estimates which are inherently subject to significant uncertainties and contingencies, many of which are beyond our control. Actual results may differ materially from those expressed or implied by such forward-looking statements. Important factors that, in our view, could cause actual results to differ materially from those discussed in the forward-looking statements include SEALSQ's ability to implement its growth strategies; SEALSQ's ability to successfully launch post-quantum

semiconductor technology; SEALSQ's ability to capture a share of the quantum semiconductor market; the growth of the quantum computing market; SEALSQ's ability to expand its U.S. operations; SEALSQ's ability to enhance its production facilities in the U.S. and France; SEALSQ's ability to make additional investments towards the development of a new generation of quantum-ready semiconductors; the success of SEALCOIN; SEALSQ's ability to continue beneficial transactions with material parties, including a limited number of significant customers; market demand and semiconductor industry conditions; the growth of the quantum computing market; and the risks discussed in SEALSQ's filings with the SEC. Risks and uncertainties are further described in reports filed by SEALSQ with the SEC.

SEALSQ Corp is providing this communication as of this date and does not undertake to update any forward-looking statements contained herein as a result of new information, future events or otherwise.

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