

# WISeKey Semiconductors SAS

SEALSQ Corp. Predecessor



**SEALSQ**  
semiconductors + quantum



## 2022 ANNUAL REPORT

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# 1. CEO LETTER TO SHAREHOLDERS

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Dear Shareholders!

I would like to introduce you to SEALSQ Corp., the parent company of the WISeKey Semiconductors Group (the “Semiconductors Group”, the “Group”) since January 1, 2023, through the presentation of the consolidated financial statements of the Semiconductors Group. SEALSQ Corp. is a wholly owned subsidiary of WISeKey International Holding AG (“WISeKey”) and, together with its subsidiaries, the SEALSQ group (“SEALSQ”) houses, since January 1, 2023, the Semiconductors Group together with its revolutionary Post Quantum technology.



Any figures within this letter refer to the consolidated financial statements of the Semiconductors Group which, as described in the Management Discussion and Analysis of Financial Condition and Results of Operations, SEALSQ’s consolidated financial statements will be the continuation thereof.

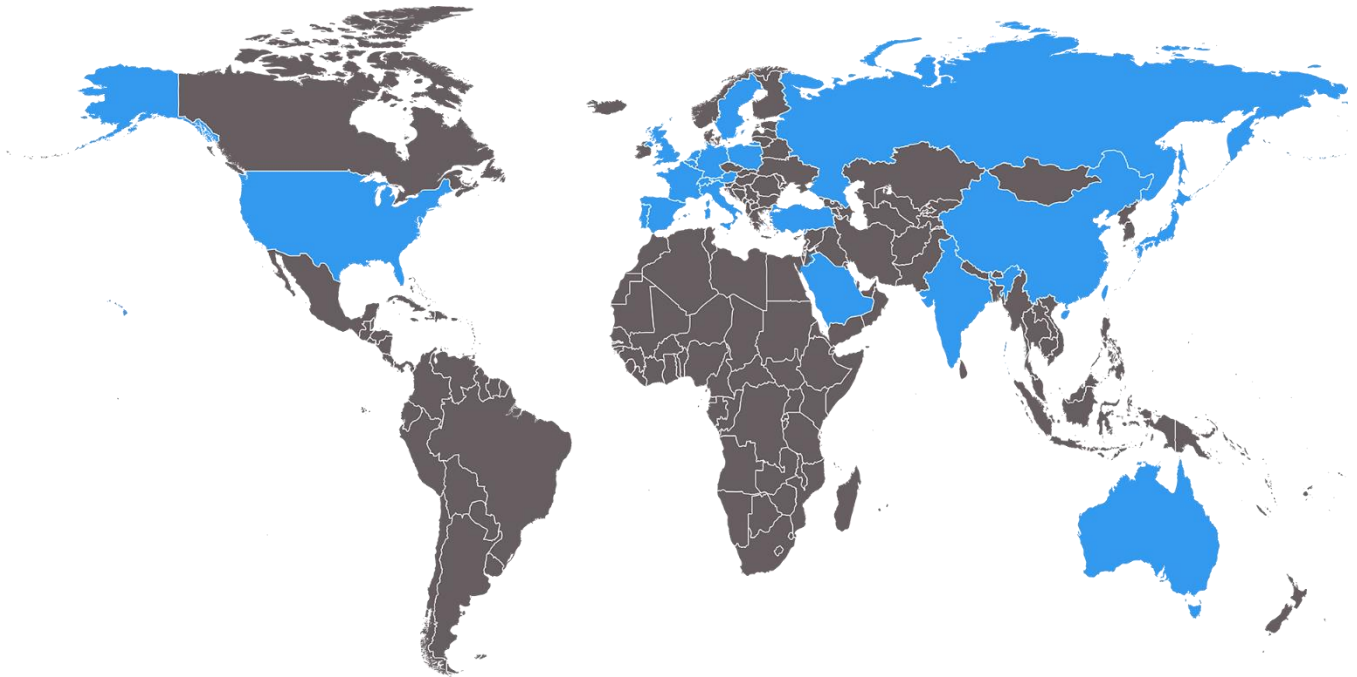
For the twelve-month period ended December 31, 2022, the Group reported revenues of \$23.2 million, an increase of 36% as compared to full year 2021, driven by revenue generated by new customers, favorable pricing, and growth in existing customers. In the first half of the year in particular, the restricting factor on our growth and revenue delivery in 2022 was the global supply shortage for the semiconductors that form the base of our IoT products. Like many companies around the world, we were impacted by constraints in the supply of raw materials and this key item continued to limit the growth in our revenues in the first half of 2022 in particular. Whilst the constraints relating to the global shortage of Semiconductors were still present during 2022, proactive supply chain management and close work with our clients resulted in significant organic revenue growth.

We expect our WISeKey Semiconductors SEALSQ revenue to continue to grow in 2023. Currently, we expect full year 2023 revenue for the segment to grow by approximately 25% as compared to full year 2022. We believe that due to our large backlog of \$36 million, our \$100 million pipeline of opportunities, and the significant investments we have made into expanding our salesforce, we are well positioned to continue to gain market share and expand our geographic footprint.

SEALSQ’s Post Quantum technology is based on advanced mathematical principles and utilizes innovative design to provide maximum security against quantum attacks. The technology has been extensively tested and validated by leading cybersecurity experts, and we are confident that it is the best

solution currently available for secure communication. Our team has been working tirelessly to develop a semiconductor technology that is immune to cyberattacks from quantum computers. With the rise of quantum computing, traditional encryption methods are becoming obsolete, and the need for a new, more secure semiconductor solution is more critical than ever.

Our team is made up of some of the brightest minds in the industry, and we are committed to staying at the forefront of the latest technological advancements. We have a proven track record of developing cutting-edge semiconductor technology that has been adopted by leading companies in various industries.



We believe that our Post Quantum technology has the potential to revolutionize the way sensitive information is shared and communicated, and we are excited about the many possibilities it presents. Our technology can be applied in various sectors, including finance, healthcare, government, and more.

SEALSQ is developing a new range of Trust Services, that will take advantage of the latest developments in post-quantum encryption (PQE) to be applied in real-world applications of digital signatures and encryption using PKI and digital certificates, such as secure communication channels (TLS), enhanced Key Exchanges and email security (S/MIME). These services are currently based in standards that can be improved to be resilient to quantum attacks and offer backwards compatibility with existing counterparts. SEALSQ implementation of PQE is done around the concept of “hybrid signatures” which combine in a single X.509 certificate a conventional signature with a second signature using a PQE algorithm. This approach ensures backwards compatibility and opens a new horizon of cybersecurity services.

Later this year, SEALSQ plans to offer a first “Root of Trust” based in PQE algorithms promoted currently by the NIST as valid candidates, which will be the foundation of a new portfolio of Trust Services and secure several IoT projects on which SEALSQ is already working.

In the past year the Group continued its progress in developing post-quantum resistant algorithms by establishing a strategic R&D partnership with MINES Saint-Etienne Research Institute. The Group’s R&D team has been working with several of the American National Institute of Standards and Technology’s (“NIST”) candidates for the MS600X Common Criteria products, such as Crystals-Kyber and Crystals-Dilithium, aiming to develop a complete post-quantum cryptography toolbox to be combined with new PKI-related Trust Services delivered by SEALSQ.



The Group achieved major milestones with the Post-Quantum engineering team being able to carry both Kyber and Dilithium CRYSTAL quantum-resistant NIST selected algorithms and the appropriate APIs on the MS6003, a WISeKey Common Criteria EAL5+ Certified secure hardware platform powered by an ARMSC300 core and featuring an USB interface, thus creating the first Quantum-Resistant USB Token demonstrator. This demonstrator marks a significant milestone for the QUASARS project and takes the team one step closer to achieving their goal of building a Post-Quantum Hardware Security Module and Root-of-Trust.

These post-quantum cryptography initiatives will play a key role in controlling vulnerability and other risks related to quantum computers technologies which when used by hackers can give them the ability to crack cryptography algorithms, corrupt cybersecurity and compromise global economy by undermining the security foundations of the current financial and governmental services. These initiatives have received tremendous support by many government entities around the

world through the sponsoring of public/private R&D projects.

The Group has taken affirmative steps to implement its Quantum Resistant Secure Architectures (“QUASARS”) project. The QUASARS project, is a radically innovative solution, based upon the new WISeKey Secure RISC V platform that is paving the way for the Post Quantum Cryptography era, offering hybrid solutions compliant with the French Agency for Cybersecurity’s (ANSSI) recommendations. Of note, SEALSQ has received strong support from the French SCS (Secured Communicating Solutions) Cluster for its QUASARS project.

SEALSQ’s strategy to further expand its U.S. operations will also benefit from its recent collaboration with NIST for the NCCoE Trusted IoT Device Network-Layer Onboarding and Lifecycle Management

Consortium project. Additional information on this consortium can be found at: <http://www.nccoe.nist.gov/projects/trusted-iot-device-network-layer-onboarding-and-lifecycle-management>. For this project, SEALSQ is working with NIST to define recommended practices for performing trusted network-layer onboarding, which will aid in the implementation and use of trusted onboarding solutions for IoT devices at scale. The WISeKey contributions to the project will be Trust Services for credentials and secure semiconductors to keep the credentials secure. Specifically, SEALSQ will offer INeS Certificate Management Service (CMS) for issuing credentials and VaultIC secure semiconductors to provide tamperproof key storage and cryptographic acceleration.

Several revenue streams which are reaching maturity should contribute to our expected revenue growth for 2023, driven by our large backlog of \$36 million and our \$100 million pipeline of opportunities. These include::

1. **SEALSQ enables companies to quickly and easily get access to Device Attestation Certificates (DACs).** The service is provided by [INeS](#), our managed “PKI as a Service” platform without the necessity to invest and to deploy any hardware infrastructure. Each manufacturer using the platform can manage the security lifecycle of certificates and devices in their own dedicated, cloud-based application. SEALSQ will also be offering its complete range of FIPS Certified Secure Elements with pre-provisioning of keys and DACs ready for authentication under Matter Protocol. This strong value proposition will enable smart home device manufacturers to achieve faster time to market through cost effective and simplified design processes when designing Matter compliant smart home products. Matter participants may gain the following benefits by partnering with SEALSQ:

- Accelerate time to market in achieving Matter compliance.
- Save money by avoiding the costs of technology, maintenance, staffing and ongoing compliance.
- Enjoy flexible deployment options, including on-premises, hosted or batch issuance.
- Simplify management of device attestation certificates and product attestation intermediates through SEALSQ’s INeS CMS Platform for IoT.

2. Gain efficiencies using a scalable platform to sign and secure device updates.



**Satellite-related activities:** We have started the commercialization of the WISeSat PocketQube satellite with 13 satellites now in orbit, launched with Space X. Our strong partnership with the [Swiss Army to cooperate in the development of Space related activities using WISeSAT/Fossa low orbit PicoSatellites technology](#) aims to establish the foundation for the development of new capacities in the field of data security. WISeKey is offering this IoT satellite technology to its IoT clients in a SaaS model, allowing both remote and redundant urban IoT communications for companies seeking to securely connect their assets. WISeKey Trust and Security solutions offer unique integration into an end-to-end platform that communicates in real-time with the WISeSat Satellite by ensuring the authenticity, confidentiality, and integrity of the devices and objects.



I would like to draw your attention to the Registration Statement filed by WISEKey on Form F1 that was declared effective by the U.S. Securities and Exchange Commission (the “SEC”.) WISEKey proposes to distribute 20% of SEALSQ’s outstanding Ordinary Shares, to holders of WISEKey Class B Shares, including holders of WISEKey ADSs, and to holders of WISEKey Class A Shares, in each case as a partial spin-off distribution as a dividend in kind to such holders. WISEKey will initially retain 100% ownership of SEALSQ’s Class F Shares. The transaction remains subject to the applicable approvals and conditions to the transaction being satisfied or waived, including but not limited to, the approval of the listing of SEALSQ’s Ordinary Shares on the Nasdaq Global Market and the approval of the spin-off distribution by the WISEKey shareholders at an Extraordinary General Meeting. WISEKey anticipates that SEALSQ Corp Ordinary Shares will begin trading on the Nasdaq Global Market under the ticker symbol “LAES” during May 2023. There can be no assurance that the transaction will occur, or if one does, its terms or timing.

For further details regarding the Special Dividend, please refer to SEALSQ’s U.S. registration statement on Form F-1, including a prospectus (the Prospectus), the EGM invitation and a Shareholder Information Brochure.

We are committed to delivering value and driving growth through innovation and collaboration with our partners and customers. We believe that our Semiconductors Post Quantum technology is a game-changer, and we are excited about the many opportunities it presents for our company and our shareholders.

Thank you for your continued support, and we look forward to sharing more exciting updates with you soon.

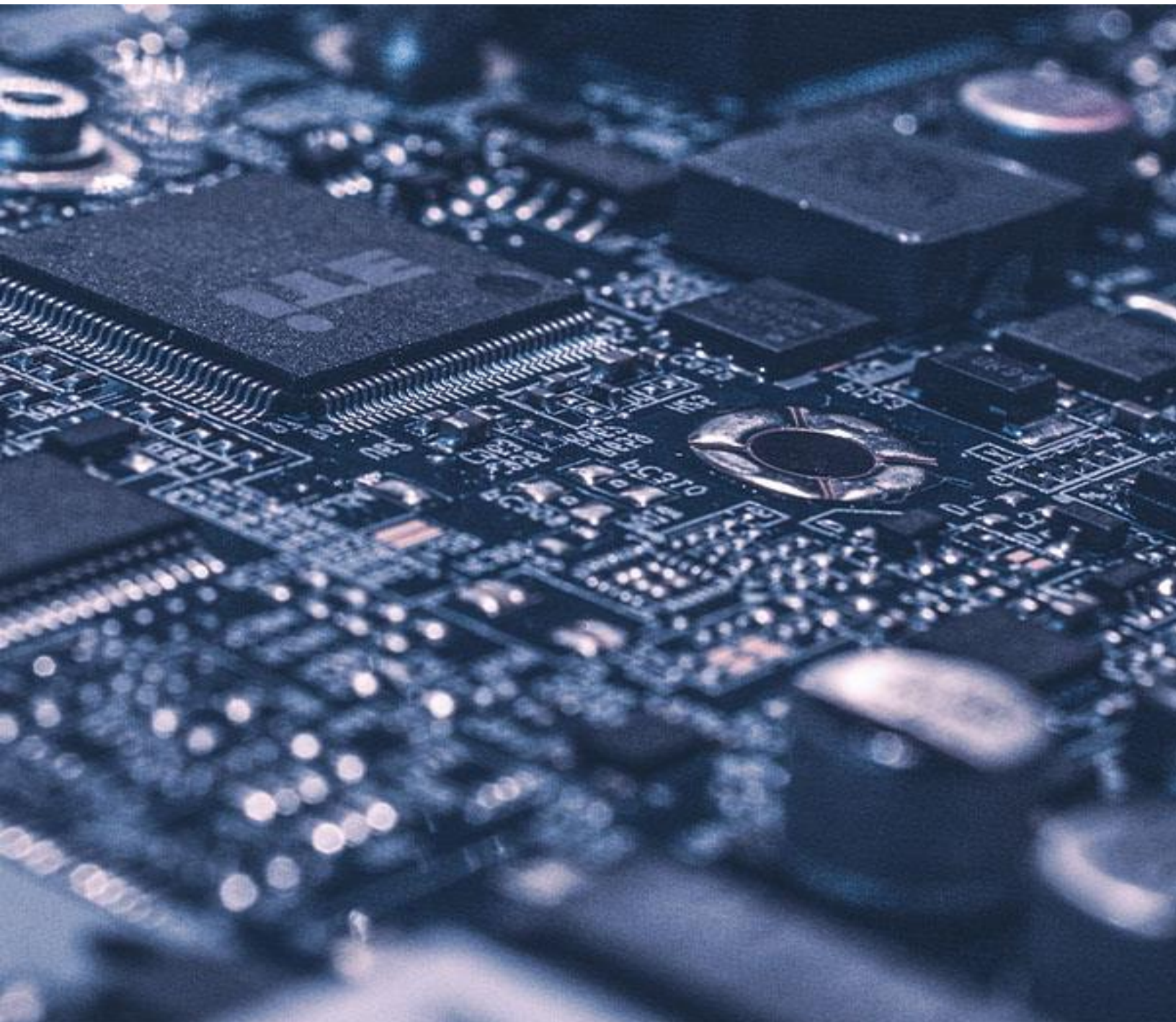
Sincerely,

Carlos Moreira



## 2. BUSINESS OVERVIEW

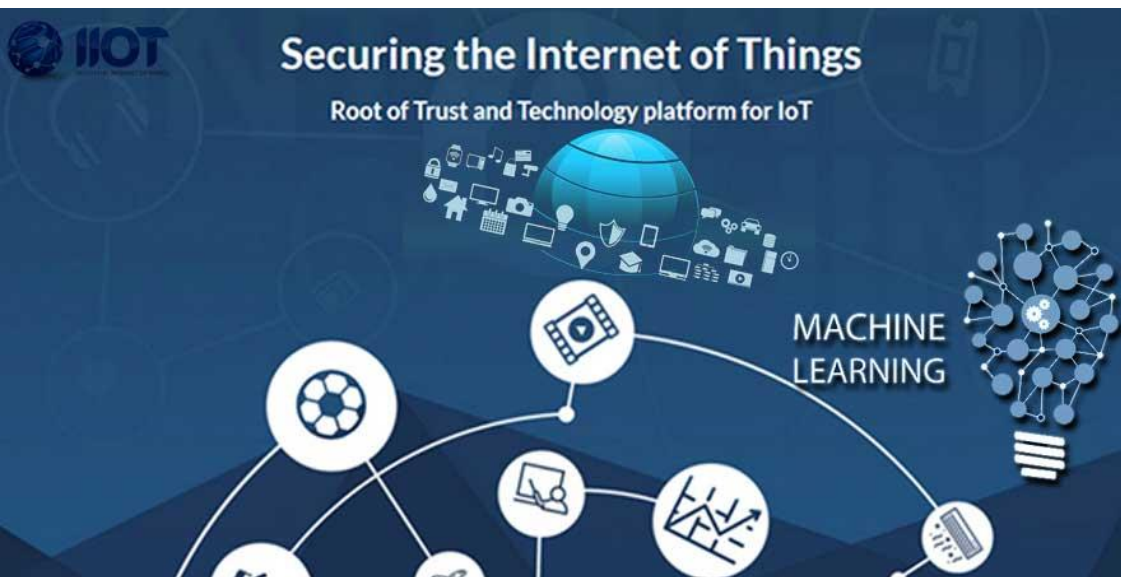
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# WISEKEY ROOT OF TRUST & SECURE HARDWARE SIMPLIFY IOT DIGITAL IDENTITY PROVISIONING

**Building on more than 20 years in establishing digital trust, WISEKey Digital Identity Provisioning Services offer device manufacturers, solution providers and consumers, the ability to trust the devices and the data of their IoT (Internet of Things) deployments.**

The Internet of Things (IoT) is radically transforming how we work and how we live. However, with this transformation comes increased risk.



For most IoT deployments, a trusted ecosystem of authorized devices and authorized services is the recommended approach. In a trusted ecosystem unauthorized devices or services are not allowed to interact with authorized devices or services. This prevents unauthorized access to the critical services and data of an IoT device.

While mutual authentication is a baseline requirement, devices also need a unique identity. This allows it to perform many different types of cryptographic operations and describes what it is and what it is authorized to do. Public key cryptography plays an important role in device identities. In any implementation of public key cryptography, it is important to have strict ways to create, manage, distribute, and revoke public keys.

Key management is difficult enough when managing even a small number of keys. However, some deployments require a huge number of keys to be generated. Consider an IoT vendor that wants to give a unique cryptographic device identity to each of their IoT devices in the field. One can easily imagine deployments of millions of such devices.

The process of providing a device with an identity is referred to as provisioning. Once manufactured, the device identities need to get from the manufacturing source to the devices and services. There are

generally two approaches to provisioning device identities: factory provisioning and cloud-based field provisioning (so-called Zero Touch Provisioning).

Provisioning device identities requires an understanding of the supply chain, manufacturing environment, cryptography and cryptographic hardware. It can be particularly challenging to provision devices for large scale deployments.



WISeKey IoT Security Solution, named INeS<sup>®</sup>, addresses these security challenges at each step of the device security lifecycle, providing customers with a means to manage device identity, secure connections, prevent device tampering, and update firmware and settings remotely and securely once in the field.

WISeKey offers a complete, full-service managed PKI that specializes in delivering device identities at scale for trusted ecosystems, for companies that need security and control over all the players in their ecosystem. The solution has been designed to support both factory floor and cloud-based field provisioning, to meet all customer requirements.

What differentiates WISeKey PKI is that it has been designed specifically for IoT and made-for services, unlike traditional PKI, that has been designed for IT products rather than devices. WISeKey has designed technology to authenticate networks via a Certificate Authority such as for Matter<sup>™</sup> or for Wi-SUN<sup>™</sup>. This, in turn, allows for interoperability across devices and platforms.

WISeKey PKI is WebTrust certified. The WebTrust certification covers all areas of the solution; from the people to the process, the infrastructure and solution itself. By using a WebTrust compliant Certificate Authority, customers can be assured that their PKI is being managed correctly.

WISeKey is committed to support alliances and industrial consortiums which design products that meet industry-related standards. For instance, Matter uses comprehensive, strong, easy-to-use, robust, and resilient architecture to build secure IoT devices and make it easy for device manufacturers to implement.

## Use Cases

### MATTER

Matter is a new single, unified, application-layer connectivity standard designed to enable developers to connect and build reliable, secure IoT ecosystems and increase compatibility among Smart Home and Building devices.

Matter's security requirements include a device attestation certificate, which confirms device authenticity, demonstrates trustworthiness and establishes an authenticated connection with the larger Matter network.



Integrating Matter into a device is fast and easy with WISEKey Root of Trust and INeS®. The lifecycle management solutions speed go-to-market while ensuring devices meet the Matter protocol, regardless of production volume or device use case.

NB: Matter is a protocol developed by the CSA (Connectivity System Alliance).

### Wi-SUN



Wi-SUN Alliance is a global association made up of utilities, municipalities/local government service providers, and vendors. Its mission is to drive the global proliferation of interoperable wireless solutions for use in smart cities, smart grids and other IoT use cases through the use of open standards from organizations such as IEEE802, IETF, TIA, TTC and ETSI.

As part of its strategy to extend its offer towards Services, WISEKey signed a strategic partnership agreement with Wi-SUN, to become a supplier of certificates. WISEKey certificates will ensure that IoT devices in a for Wi-SUN Field Area Network are uniquely identified and fully authenticated for a robust security architecture.

# WISEKEY 2022 STRATEGIC PARTNERSHIPS

## WIS@key

**WIS@Key pursues strategic partnerships to strengthen its position as IoT cybersecurity provider and to develop new use cases based on our established technologies.**

### CSA

WIS@Key has become a member of the CSA (Connectivity Standard Alliance). The CSA ignites creativity and collaboration in the IoT, by developing, evolving, and promoting universal open standards -such as Matter, Zigbee - that enable all objects to securely connect and interact.




With this membership, WIS@Key roadmap consists of creating a Root of Trust – PKI Certificate Authority, dedicated to the Matter enabled edge devices, and to have it certified by the alliance during the first quarter of 2023. With this initiative would become the only CSA-Matter certified Root player to propose also the provisioning of the Matter identities at semiconductor level, thus simplifying the security journey of its customers.

### École des Mines



As part of its QUASAR program, for developing a new generation of secure element supporting Post Quantum Cryptography (algorithms capable to resist to the Quantum computer new threats), WIS@Key has renewed its partnership agreement with l'École des Mines. With this agreement, WIS@Key has onboarded for 2 years a post PhD engineer of l'École des Mines – one of the most famous French engineering universities - to port the NIST selected PostQuantum algorithms (Crystals Kyber and Crystals Dilithium) onto our chips and build the countermeasures against these new cyberattack threats.

## WISEKEY INVESTS R&D IN POST QUANTUM COMPUTING AND OTHER STRATEGIC DOMAINS



**Quantum computing may render today's strong cryptographic algorithms vulnerable to new forms of attacks leveraging quantum systems massive computation power.**

### QUASARS Project

**Existing public-key cryptography is based on the difficulty of factoring and calculating elliptic curve discrete logarithms. Quantum systems can develop unbelievable calculation power, and will thus be able to decrypt widely used asymmetric security protocols, such as the commonly used RSA or elliptical curve algorithms that protect billions of IoT devices today. It is mandatory to start working on post-quantum cryptography before current cryptosystems become obsolete!**

A NIST published report from April 2016 cites experts that acknowledge the possibility of quantum technology to render the commonly used RSA algorithm insecure by 2030. In December 2016 NIST initiated a standardization process by announcing a call for proposals. Efforts focus on public-key cryptography, namely digital signatures and key encapsulation mechanisms.

## Quantum Innovation

SEAL SQ is developing the next generation of secure chips that will resist attacks based on quantum systems massive computation power.

The competition is now in its third round (out of four) and many algorithms have been discarded. NIST hopes to publish the standardization documents by 2024 or earlier.

**WISeKey has Created a fully owned subsidiary named SEALSQ Corp. ([www.sealsq.com](http://www.sealsq.com)) with the purpose to roll-out the QUASARS project.**

WISeKey partners with academic research and industry (through its new subsidiary SEALSQ) on several candidates for cryptography systems that will both withstand quantum computer capabilities, while still working with existing protocols.

QUASARS Project aims at building a post-quantum Root-of-Trust and Hardware Security Module able to run the new algorithms that will be selected by the NIST initiative, and still compliant with all other security requirements from the French ANSSI and Common Criteria EAL5+ label.

The final platform will be the new WISeKey RISC V Platform, but the team has already taken steps to successfully run two of the Crystals Algorithms (Kyber and Dilithium) appointed by the NIST on the existing MS 6003 secure hardware platform. (<https://www.sealsq.com/about/research-innovation/quantum-proof-cryptography#PQCDemoVideo>)

# WISEKEY SEMICONDUCTORS 2022 HIGHLIGHTS

As a pure play IoT cybersecurity, WISeKey partners with its IoT customers to provide trust to IoT deployments. Trust that data remains confidential and is not tampered with. Trust that IoT devices remain under strict control and are protected against hostile take-overs. And trust that the IoT infrastructure is protected against rogue devices, rogue users, and rogue software.



**WISeKey partners with its IoT customers to provide trust to IoT deployments. Trust that data remains confidential and is not tampered with.**

## **Continuing to gain market share**

The fact that WISeKey is pure play IoT cybersecurity provider enabled it to keep on delivering chips at high quantities, even during the year 2022 which was again a year of global capacity shortage of the semiconductor industry. WISeKey succeeded to gain significant market share with its existing customers, such as Cisco and Thales.

## **Expanding sales and marketing channels**

WISeKey launched in 2022 a program to grow its sales channels, with the recruitment of representatives and resellers. It results from this program the onboarding of 7 additional rep. in the E.U region (UK, Italy Benelux, France), in Israel and South Africa and 2 rep. which will cover the Est region of the United States. The program continues in 2023, with an objective of 5 additional rep. and 3 resellers.



## Launching new products

WISeKey has launched in 2022 a new Vault-IC product: the Vault-IC 408, which embeds state of the art security resistance defined by the US NIST FIPS 140-3 Level3 standard. It does implement a new Random Number Generator developed by WISeKey which has successfully passed the NIST SP800-90B (Entropy Sources for Random Bit Generation) certification standard. This new chip is already in Design-WIN phase with multiple customers of WISeKey such as TOSHIBA and LANDYS & GYR

WISeKey has developed an off-the-shelf Vault-IC Secure Element version: Vault-IC 405, that is designed specifically to serve as a P25 cryptographic module, enabling the Land Mobile Radio (LMR) to achieve FIPS140 certification. This positions WISeKey with a clear competitive advantage on the growing Secure Radio market. Increasingly, police, military and government agencies are requiring FIPS 140-2 level 2 and 3 certification levels for the radios used during field ops.

Designing and certifying a cryptographic module for FIPS140 is challenging, time consuming and expensive. In many cases the certification can take up to or over 2 years. The Vault-IC being pre-certified, this design approach is an ideal solution to expand LMR manufacturers' Total Available Market into FIPS140 Levels 2&3 opportunities with shorter time to market and reduced costs since The Vault-IC Secure Element provides a simple, short release cycle, and less-expensive design for FIPS140 certified LMRs. WISeKey already signed one contract with a large manufacturer in 2022 and several other leading LMR manufacturers in the US are considering onboarding the product in their upcoming designs for 2023 and 2024.

## Partnerships

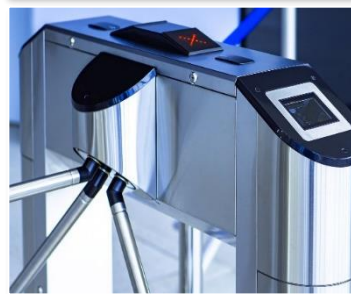
WISeKey has been selected as a collaborator by NIST for the NCCoE Trusted IoT Device Network-Layer Onboarding and Lifecycle Management Consortium project. For this project, WISeKey is working with NIST and other industrial companies to define recommended practices for performing trusted network-layer onboarding, which will aid in the implementation and use of trusted onboarding solutions for IoT devices at scale.

# WISEKEY CONTINUES TO ADDRESS NEW CUSTOMERS AND APPLICATIONS WITH ITS INNOVATIVE PRODUCT PORTFOLIO

## THE CHALLENGE: Protecting physical access.

Controlling physical access to sensitive premises is becoming more and more important for both private and public infrastructures.

Today's connected solutions feature ID-cards, mobile phones, key fobs or the like to identify and manage each user's access and privileges.



## THE SOLUTION: MS6001 & WISEKEY Trust services.

The secure ARM SC300 microcontroller MS6001 provides the bedrock for keyless entry systems.

When provisioned with an identity and integrated in an electronic lock, its tamper resistance, memory size and integrated cryptographic algorithms allow our customers to develop stand-alone systems that are capable of autonomously authenticating the access-credentials a person presents to the lock.

## THE CHALLENGE: Protecting remote logical access.

To access online data and services, simple passwords or even two factor authentication (OTP, TOTP, SMS) are not considered secure enough by government agencies and data experts. To be considered strong, authentication must use a possession factor incorporating a qualified or certified safety component and be based on cryptographic mechanisms.

The FIDO-Alliance, backed by Appl, Microsoft and Google has come up with the FIDO

## THE SOLUTION: FIDO USB dongles built on MS6003.

WISEKEY secure microcontroller MS6003 with integrated USB interface and optional identity provisioning gives our customers the possibility of



authentication scheme, a USB dongle that contains all access credentials for participating websites. This dongle is obviously capable of executing complex cryptographic algorithms and keeping the required secrets safe from tampering.

easily implementing certified solutions for authentication on the web, such as FIDO Keys.

**THE CHALLENGE:**  
**Authenticate users.**

Be it for physical access control, or access to data on a computer or cloud service, or access to medical records for a patient, solutions are built on the use of physical ID-cards. These cards, containing the credentials of the user, need to be read or programmed to allow the required access to the resource.



**THE SOLUTION:**  
**The SCR family of card readers.**

The SCR family of card readers are provided as hardware platforms alone or with integrated third-party applications, allowing customers to quickly build smart card readers without requiring custom development.



Based on 8/16-bit RISC processors, WISEKey's Smart Card Reader chips are EMV-CO compliant and equipped with DC/DC for a wide compatibility with smart cards.

**THE CHALLENGE:**  
**Authentication between two remote devices.**

In use cases like Qi3 Wireless chargers, drone to controller pairing, P25 radio communication, or Wireless Sensor Networks (WSNs) devices need to authenticate each other, encrypt and trust the exchanged data to prevent counterfeiting

**THE SOLUTION:**  
**WISEKEY Device-to-Device remote Authentication.**

INes CMS allows to create and manage an identity for each device. Devices are personalized with their ID using Vault-I-Trust SaaS services.



and attacks like man-in-the-middle, spoofing or impersonation.

For instance, when a drone is in flight, the command and control must be trusted and the data from the onboard camera and sensors must remain confidential and uncorrupted.

The drone must trust the controller and the base station must trust the data from the drone.

The WISEKEY Vault IC 408 embedded in the devices protects the keys and certificates and executes all the cryptographic operations required by mutual device authentication.

VaultIC 408 can be personalized for any specific use-case and is NIST certified FIPS140-2 Level 2 and 3, and FIPS 140-3 to ensure not only the highest level of security but also fast time-to market and full compliance of your products with market regulations.



### **THE CHALLENGE:**

#### **Prevent the use of fake consumables.**

Fake consumables (Batteries, Toner Cartridges, E-cigarettes..) represent a revenue loss of billions of dollars every year to manufacturers, cause injuries to consumers, damage host devices and undermine brands reputation. Indeed, consumables' authenticity is not easy to check reliably, and traditional physical methods have proven their limits.



### **THE SOLUTION:**

#### **WISEKEY Device-to-Host "self-authentication".**

Digital security based on cryptography and electronic signatures offers a robust way to check a consumable's authenticity. When affixed to the consumable, the Vault IC secure element acts as an ID Card that will be automatically checked by the host device before allowing any action.



The combination of Vault-IC 18X secure hardware module, trusted identity generation, provisioning, and flexible design customization services is ideally suited to defend your products and Brand.

Read the full Application Note on our Battery authentication solution.

### THE CHALLENGE:

#### Fights against counterfeit products.

Luxury consumer goods like Watches, Leather, Spirits and Fashion amount for most of the fake goods seized products value. Beyond sales loss, it's hurting the most valuable asset for this industry: the brand image. Brand owners need to fight counterfeit products, but also to restore the trust bond with their consumers.



WISEKEY delivers a new level of brand protection by combining the most secure anti-counterfeiting solution on the market, with exciting customer engagement possibilities in a single, easy to use package.

### THE SOLUTION:

#### Connected and Smart Packaging.

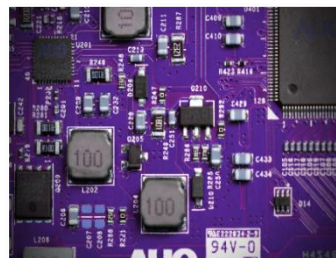
There is a way to protect from counterfeiting while enabling brands to engage consumers in a more personal way, reaping a new kind of marketing benefits.



### THE CHALLENGE:

#### Encrypting the data & protecting keys.

Among the common attacks are stealing the data and holding it for ransom, publicly exposing the data, covertly using the data to attack the owner, corrupting the data, or crippling the products and/or services of the owner (especially in the case of IoT networks). Data encryption and safe encryption-key storage is the last-standing and most critical digital security layer.



### THE SOLUTION:

#### WISEKey Secure Microcontrollers

Data can be efficiently encrypted/decrypted using WISEKEY secure platforms like MS600X series or the VaultIC secure elements family. They can safely store keys and encrypt data using NIST validated hardware algorithms like AES, ECC or RSA.

They have built-in physical protection mechanisms designed to defend against external tamper, bypass physical attacks and more.

### **THE CHALLENGE:**

**Ensure Data exchange only occurs among legitimate user/devices/applications.**

Data is more exposed to threats when being transmitted or processed: it can be stolen, altered or substituted via spoofing and man-in-the-middle techniques. Ubiquitous IoT devices, sensors and actuators communicating among themselves and with a cloud or private network are often the target, but also data being exchanged between different internal parts of a device or closed system (PC, factories, cars).

### **THE SOLUTION:**

**WISEKEY device identity framework.**

WISEKEY provides trusted Digital-IDs and SaaS services to provision them securely into devices to enable mutual authentication and secure protocols like TLS.

WISEKEY also provides Certificate Lifetime Management software (INeS) so trusted device identities can be centrally and securely managed through time.



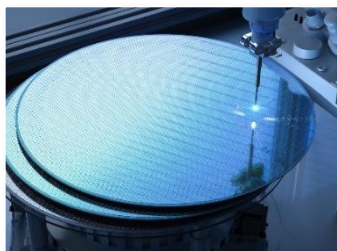
### **THE CHALLENGE:**

**IoT supply chain complexity.**

It is not easy for special facilities to be set up within the factory environment that are accessible to limited personnel to do the key injection. But increasingly, organizations are concerned about untrusted factory environments, especially by third parties in low cost geographies, where not all factory floor workers can be trusted to have access to sensitive keying material.

### **THE SOLUTION:**

**WISEKEY secure Element provisioning (VaultiTrust).**



To sidestep these various problems, the best choice for key injection is the Secure Element supplier, because they are the ones best equipped to establish a silicon-based root of trust and can perform key injection as part of a secure manufacturing process.

With the combination of VaultiTrust secure provisioning services, WISEKEY is ideally suited to simplify your supply chain.

**THE CHALLENGE:**  
**Manual provisioning identities in the field.**

Deploying IoT devices in a large-scale environment that includes different technologies (NB-IoT, LTE-M, LoRa, Zigbee, Thread, Bluetooth Low Energy, Wi-Fi) is becoming a significant challenge.

Also the challenge is the cost of people and travel and the effort required to configure each IoT device based on the functionalities of the sensors and actuators. For example, it can take an hour per IoT device to provision the devices in the field.

In addition, manual installation is extremely error-prone, where 80 to 90 percent of the downtime is attributed to human error.

**THE SOLUTION:**  
**Making the shift to Zero Touch.**



The main goal is to eliminate the manual provisioning process in a more extensive IoT network deployment by configuring the IoT devices automatically. Zero Touch will generate new business opportunities and revenue.

The Zero-Touch methodology is currently used in the IoT industry to address many device provisioning challenges. The process is typically applied in the second level (provision) and third level (configure) of IoT device life-cycle management.



## SEALSQ AND WISESAT

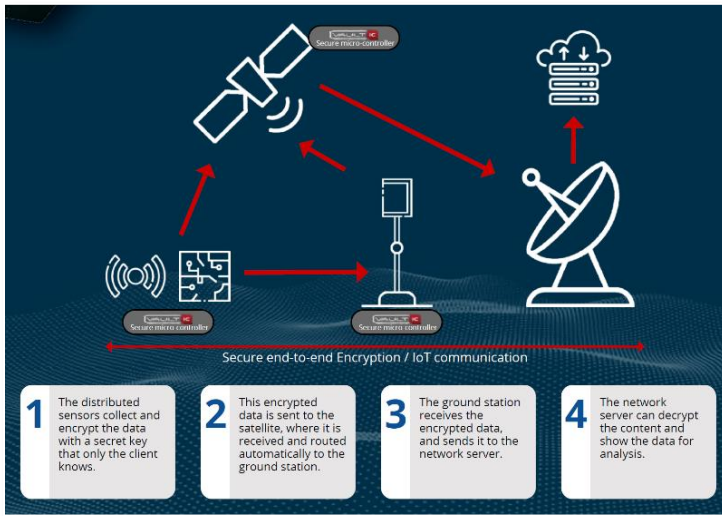


SEALSQ will offer the WISESAT product and services to its IoT clients in a SaaS model building a joint constellation with WISEKey and FOSSA of 88 low-orbit satellites by end of 2024. Allowing both remote and redundant urban IoT communications for companies seeking to securely connect their assets via satellite communication covering large and unserved geographic areas such as maritime, deserts, mountains, etc., at affordable prices. The vision is to drive mass adoption of satellite-enabled IoT through secure interoperable and standardized connectivity using LPWAN technologies such as LoRa or NB-IoT.

WISEKey Trust and Security solutions using SEALSQ's technology offer unique integration into an end-to-end platform that communicates in real-time with the WISESat Satellites by ensuring the authenticity, confidentiality, and integrity of the devices, objects, data and transactions.

SEALSQ's INeS platform uses state-of-the-art cryptographic algorithms to meet the highest standards for issuing, managing, and validating digital credentials for IoT devices and now those to be connected with WISESat Satellite.





This platform is scalable to support environments for hundreds of millions of devices and sensors equipped with SEALSQ Semiconductors, and able to remotely collect data from the field and transmit to the backend.

Additionally, INeS features Entity Management (any custom attributes such as identities, group, type, role, and life cycle), Message Security Policy Management, and Business Rules Management.

Interfacing via the cloud and connecting devices and applications, INeS is capable of remotely identifying credentials and controlling activation, deactivation, revocation, renewal, and secure provisioning.

WISESAT PocketQube Satellites now enables all IoT sectors to connect at planetary scale. See WISESAT Satellites in orbit live: <https://wisesat.wisekey.com/?tags=WISESAT>

WISESAT completed the installation, in La Línea de la Concepción, of the first WISESAT satellite ground station.

### WISESAT 1st Constellation

WISEKey successfully launched its First IoT Picosatellites WISESat–1 and WISESat–2 on January 13, 2022 with SpaceX Transporter 3 Rideshare Mission Aboard a Falcon 9 Vehicle. kickstarting WISESAT, a brand-new-offering-satellite-based secure IoT connectivity-as-a-service.



WISESAT offers the satellite platform, launch, integration, ground station services and the all the security architecture and components, as part of a turnkey SaaS solution for low-power and secure space-based IoT connectivity.

This reduces the complexity and cost of the communication link for the end customer and sets the benefits of space technology and embedded security within the reach of every IoT business.

### WISeSat FOSSA Secured Satellites

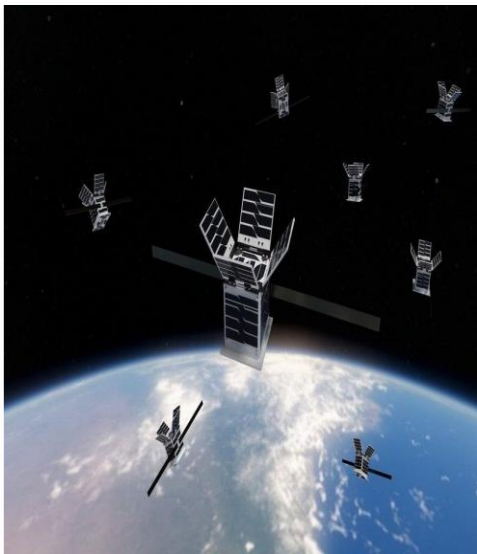
Creating one of the largest European IoT constellations in history, in cooperation with FOSSA Systems, WISeKey has launched 7 new WISeSat FOSSA satellites, secured by SEALSQ technology, which has increased to 13 the WISeSat-ready constellation in orbit, becoming the SwissSpanish satellite operator with the largest constellation.

The WISeSat Satellite is a security-IoT hardened FOSSASAT-2E picosatellite designed to further drive down satellite costs for IoT applications. These WISeSat ready platforms will enable secure and robust IoT connectivity and space-enabled services for assets in remote locations and applications such as maritime shipment, emergency locators, agriculture or farming.



### Swiss Armed Forces

Sign a Partnership Agreement to Cooperate in the Development of Space Related Activities, This partnership between WISeKey and the Swiss Armed Forces aims to establish the foundation for the development of new capacities in the field of data security, interconnection of objects or communication links based on a constellation of small low-orbit satellites.



WISeKey in cooperation with FOSSA System and secured by SEALSQ technology has launched 13 low-orbit picosatellites aboard of SpaceX Transporter Rideshare 3 mission and plans to create a constellation of 88 additional low-orbit satellites by end of 2024.

## Smart Agro

WISeSat Satellite communication for secure IoT connectivity using low-power sensors IoT deployed for Smart Agriculture projects.

For example, ODIN Solutions selected WISeSAT for its SmartAgro project enabling secure satellite communication for IoT sensors deployed to analyse the state of the field, the plants and everything related to management.



## Smart Farming

WISeSat Satellite IoT connectivity using picosatellites and low-power sensors deployed for Smart Farming. For example, EPRINSA selected WISeSAT for its SmartFarming project enabling satellite communication with IoT sensors to trace and assure the animal welfare.



## Air Inspection & Surveillance

Combinaison of the WISeSat communication, drones and IoT low-power sensors. With the aim is to answer the needs of secure communication on areas not well covered by other channels.

For example, Gibraldrone selected WISeSAT for its projects of air inspections of warehouses and ships as well as for forest fires with the guarantee of data protection between terrestrial sensors and drones



# WISEKEY 2022 RECOGNITIONS

As a pure play IoT cybersecurity player, WISeKey aims to achieve very high levels of security and certification for its products, with some of the techniques being patented. WISeKey wants its customer to rely on the tamper proofness of its chips and the audited management of keys and digital certificates.



## Certification of VaultIC

WISeKey VaultIC chips combine a powerful, secure microcontroller with hardware crypto accelerators and secure storage of user-defined sensitive or secret data.

The Vault-IC 405 was certified against FIPS 140-2 Level 3

The Vault-IC 408 was certified against the FIPS SP800 -90B ESV (Entropy Source Validation) program.

## Certification key provisioning

The loading of digital IDs onto the chips at wafer level and at package level, and pairing chips with digital certificates happens through processes and software that are independently ISO27001 certified.

## Certification of digital certificates

All digital certificates and digital ids are generated using FIPS 140-2 Level 3 certified Hardware Security Modules, located in WISeKey Common Criteria EAL5+ and ISO27001 certified data centers.

## Certification of SSL Trust Services

WebTrust for Certification Authorities, Baseline Requirements and Extended Validation SSL services. WISeKey undergoes annual independent audits of our Trust Services, as required by the industry and the different Root Certificate Programs (Chrome, Mozilla, Microsoft, Apple, and others) to recognize our Digital Certificates as trusted for different purposes as protection of web servers with TLS certificates or electronic signatures of documents with personal certificates.

### **3. MANAGEMENT DISCUSSION & ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

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The following discussion and analysis refer to the consolidated financial statements of WISeKey Semiconductors SAS (the “Semiconductors Group” or the “Group”) which is the predecessor of SEALSQ Corp. (“SEALSQ”). On January 1, 2023, the Semiconductors Group was sold by WISeKey International Holding Ltd (“WISeKey”) to its wholly owned subsidiary SEALSQ Corp. The combination will be accounted for as a reverse acquisition from January 1, 2023, in line with ASC 805-40 “Reverse Acquisitions”, whereby the consolidated financial statements will be issued by the legal parent, SEALSQ, but will be considered to be the continuation of the financial statements of the legal subsidiary, the Semiconductors Group.

## FY 2022 Key Financial Milestones

The key highlights of the year ended December 31, 2022 were:

- **Revenue growth:** 36% increase in revenue to \$23.2 million in the year 2022, compared to \$17 million in 2021.
- **Increase in profitability-** the Group turned its results around from a loss-making position in 2021 into a profitable business in 2022:
  - \$2.6 million operating income in the year 2022, turning the business around from the \$(5) million operating loss recorded in 2021;
  - \$3 million EBITDA in 2022 compared to a negative EBITDA of \$(3.5) million in 2021; and
  - a net income of \$5.8 million in 2022 compared to a net loss of \$(4.8) million in 2021.
- **Good liquidity position:** cash and cash equivalents increased to \$4.1 million at December 31, 2022, from \$2.1 million at December 31, 2021.
- **QUASARS project and investments in Research & Development (“R&D”):**
  - we continue to support our R&D work with \$2.3 million invested during the year in R&D.
  - In 2022, we started our investment in the QUASARS project paving the way for the Post Quantum Cryptography era and were able to create the first Quantum-Resistant USB Token demonstrator.
- **Strengthening our Sales and Marketing (“S&M”) organization:** with the appointment of a new Vice-President of Global Sales, Mr. David Khalifa, who brings over 30 years of sales development experience, in particular in the semiconductor industry, the appointment of distribution agents in EMEA, and the recruitment of a new sales director in North America.
- **Satellite-related activities:** in partnership with WISeKey, who have started the commercialization of the WISeSat PocketQube satellite with 13 satellites now in orbit, launched with Space X, we are

working on the satellite-enabled IoT through secure interoperable and standardized connectivity using LPWAN technologies such as LoRa or NB-IoT.

## Key Financial Metrics

A summary of the key performance metrics of the Group is set out in the table below:

<b>US GAAP (Million US\$)</b>	<b>2022</b>	<b>2021</b>
Net sales	23.2	17.0
Gross profit	9.8	7.1
Operating income / (loss) as reported	2.6	(5.0)
Net income / (loss)	5.8	(4.8)
Total Cash	4.1	2.1
<b>Non-GAAP (Million US\$)</b>	<b>2022</b>	<b>2021</b>
EBITDA	3.0	(3.5)

## Revenue

For full year 2022, the Semiconductors Group's total revenue was \$23.2 million, compared to \$17 million in 2021. This 36% increase in revenue is due to the higher demand for semiconductors following the shortages in the industry triggered by the Covid pandemic over the last few years. Our capacity to maintain supply commitments to our customers and increase our manufacturing capacity has allowed us to build a strong backlog of purchase orders and increase revenue.

While supply chain shortages in the semiconductor sector are not expected to continue in this coming year, we are well positioned to continue our growth due to our healthy backlog and growing pipeline of new opportunities which is now over \$100 million.

### *Revenue by region*

Our operations are global in scope, and we generate revenue from selling our products and services across various regions. Our operations in North America now contribute the largest part of our revenues (59%), whilst our European market remains a strong contributor with EMEA accounting for 29% of our revenue. Our focus remains on these two regions, and we continue building our sales and marketing team in these areas.

Our revenue by geographic region for the fiscal years ended December 31, 2022 and 2021 is set forth in the following table:

Net sales by region USD'000	12 months ended December 31,			
	2022		2021	
North America	13,609	59%	10,631	63%
Europe, Middle East and Africa	6,777	29%	4,255	25%
Asia Pacific	2,745	12%	2,062	12%
Latin America	67	0%	47	0%
<b>Total net sales</b>	<b>23,198</b>	<b>100%</b>	<b>16,995</b>	<b>100%</b>

### ***Strong demand for our IoT products in 2023***

The Group has started the implementation of a significant investment plan to increase its production capacity in response to customers' expectations. We expect our revenue to continue to grow by approximately 25% in 2023 as compared to 2022.

We believe that due to our large backlog of \$36 million, our \$100 million pipeline of opportunities, and the significant investments we have made into expanding our salesforce, we are well positioned to continue to gain market share and expand our geographic footprint.

### ***New revenue streams from 2023***

The Groups' parent, WISeKey has started the launch of the WISeSat picosatellites constellation which will enable the direct connection of satellites to IoT devices for authentication, completing the connection cycle from space to device through secure telecommunication means. This technology allows for identification in remote, low connectivity areas, and will rely on our semiconductors' technology.

## **Gross Profit**

Our gross profit increased by 38% to \$9.8 million (gross margin of 42%) in the year ended December 31, 2022, in comparison with a gross profit of \$7.1 million (gross margin of 42%) in the year ended December 31, 2021. These good results are closely linked to the 36% year-on-year increase in revenue between 2022 and 2021, and our ability to update our pricing strategy to absorb the higher purchase costs caused by the shortage in semiconductor that impacted our inventory in 2021 and in the first half of 2022.

We expect that the semiconductor industry will no longer experience supply shortages in 2023 which may put pressure on our gross margin as customers will no longer be willing to pay a premium to secure their order and circumvent any shortages.



## Operating Results

In 2022, the Group turned its operating results around from an operating loss of \$(5) million in 2021 into a \$2.6 million operating income in 2022, hence a net increase by \$ \$7.6 million year on year. This is partly due to a one-off other operating income of \$2 million in 2022 in relation to the write-off of a creditor balance.

However, this demonstrates the effectiveness of the Group's strategy to streamline its cost base with a decrease in total operating expenses, excluding the one-off other operating income, by \$3 million or 25% between 2021 and 2022, while our revenue increased by 36%.

We expect that our operating expenses will increase in future years as our strategy includes:

- the strengthening of our sales and marketing team to expand our customer base both through new industries and geographically;
- a capital expenditure investment plan over five years aiming to increase our production capacity; and
- our investment in relation to the QUASARS project for the next generation, post-quantum semiconductors.

A more detailed analysis of our operating costs is presented further below.

## Net Results

The Group achieved a profit-making position in 2022 with a net income of \$5.8 million in 2022 compared to a net loss of \$(4.8) million in 2021, hence a net increase by \$10.6 million year on year.

This \$10.6 million increase in net profit is mostly due to two factors: the above-mentioned improvement in the operating results and a one-off income tax recovery of \$3.3 million in 2022 in relation to the recoverability of its deferred tax assets. The Group now reaching profitability, it is more likely than not that it will be able to utilize its accumulated deficit to reduce future tax liabilities, therefore, deferred tax assets in an amount of \$3.2 million were recorded in 2022. The Group does not expect a similar income tax recovery in future years.

## Liquidity and Capital Resources

Cash and cash equivalents at December 31, 2022 was \$4.1 million, compared to \$2.1 million at December 31, 2021. The most significant sources of funding of the Group are customer sales, research tax credits provided by the French government and loans extended by WISEKey.

## Consolidated Income Statement of WISeKey Semiconductors SAS, SEALSQ Corp. predecessor

(Million US\$)	12 months ended December 31,		Year-on-Year Variance
	2022	2021	
Net sales	23.2	17.0	36%
Cost of sales	(13.3)	(9.6)	39%
Depreciation of production assets	(0.1)	(0.3)	-66%
<b>Gross profit</b>	<b>9.8</b>	<b>7.1</b>	<b>38%</b>
Other operating income	2.0	0.1	2,000%
Research & development expenses	(2.3)	(3.0)	-23%
Selling & marketing expenses	(3.8)	(4.2)	-10%
General & administrative expenses	(3.1)	(5.0)	-38%
Total operating expenses	(7.2)	(12.1)	-40%
<b>Operating income / (loss)</b>	<b>2.6</b>	<b>(5.0)</b>	<b>152%</b>
Non-operating income	0.9	0.5	80%
Interest and amortization of debt discount	(0.4)	(0.2)	100%
Non-operating expenses	(0.6)	(0.1)	600%
<b>Income / (loss) before income tax expense</b>	<b>2.5</b>	<b>(4.8)</b>	<b>152%</b>
Income tax recovery / (expense)	3.3	-	n/a
<b>Net income / (loss)</b>	<b>5.8</b>	<b>(4.8)</b>	<b>221%</b>

## Analysis of operating income and expenditure

### ***Other operating income***

In 2022, the Group recorded a one-off other operating income of \$2 million in 2022 in relation to the write-off of a creditor balance.

### ***Research & development expenses***

Our R&D expenses include expenses related to the research of new technology, products and applications, as well as their development and proof of concept, and the development of further application for our new and existing products and technology. They include salaries, bonuses, pension costs, depreciation and amortization of capitalized assets, costs of material and equipment that do not meet the criteria for capitalization, as well as any tax credit relating to R&D activities, among others.

Our R&D expenses decreased by \$0.7 million between 2021 and 2022. Although, in the last two years, we have refocused our R&D efforts, it remains a large part of our operating expenses with \$2.3 million spent in the year ended December 31, 2022, representing 25% of total operating expenses excluding other operating income.

Our 2022 R&D spend includes the investment already made on our future semiconductors Quantum Technology, via the launch of our project "QUASARS" (QUAntum resistant Secure ARchitectures project). The QUASARS project, is a radical innovative solution, based upon the new WISeKey Secure RISC V platform that is paving the way for the Post Quantum Cryptography era, offering hybrid solutions compliant with ANSSI's ("Agence nationale de la sécurité des systèmes d'information," the National Cybersecurity Agency of France) recommendations. The project has already officially received the French SCS label (Secured Communicating Solutions) as a recognition of its quality and innovation.

Our Group being technology-driven, the level of our R&D expenses reflects our engagement to act as a leader in new semiconductors and security developments, and future applications. We expect our R&D expenses to remain a significant portion of our overall expenditure as the Group continues to invest in new products.

### ***Selling & marketing expenses***

Our selling & marketing ("S&M") expenses include advertising and sales promotion expenses such as salaries, bonuses, pension costs, business development consultancy services, and costs of supporting material and equipment that do not meet the criteria for capitalization, among others.

Our S&M expenses decreased by \$0.4 million to \$3.8 million for the year ended December 31, 2022, compared to 2021. This is mainly due to the fact that our head of sales retired in 2021 and his replacement was not available to start straight away after his retirement.

However, our S&M expenses are expected to increase in future years as we continue building our sales and marketing team, with new recruitments expected in the U.S. and Asia, to support our growth.

### **General & administrative expenses**

Our G&A expenses cover all other charges necessary to run our operations and supporting functions, and include salaries, bonuses, pension costs, lease and building costs, insurance, legal, professional, accounting and auditing fees, depreciation and amortization of capitalized assets, and costs of supporting material and equipment that do not meet the criteria for capitalization, among others.

Our G&A expenses decreased by \$1.9 million in 2022 compared with 2021, from \$5.0 million in 2021 to \$3.1 million in 2022 representing 34% of total operating expenses excluding other operating income. The decrease is mostly due to the end of the depreciation period of some production masks acquired in 2016 which has resulted in the decrease of our depreciation expense by \$1.1 million compared to 2021, a decrease by \$0.1 million of our audit fees and the streamlining measures taken by the Group, including a reduction in G&A headcount which resulted in a \$0.1 million saving and a \$0.2 million decrease in office rental costs.

### **Key Changes in our Financial Position**

Our inventories amounted to \$7.5 million at December 31, 2022, representing a \$4.8 million increase compared to inventories of \$2.7 million at December 31, 2021. The increase in inventories is in line with expectations in view of the 36% revenue increase year on year and the further growth planned.

The Group now being profitable, a deferred tax asset in an amount of \$3.2 million was recognized at December 31, 2022.

In 2022, the Semiconductors Group entered into a loan agreement with a third-party client to borrow funds for the purpose of increasing their production capacity. The carrying value of the loan at December 31, 2022 amounts to \$1.5 million recorded in Bonds, mortgages and other long-term debt.

### **Outlook for 2023 and beyond**

WISeKey's has taken several initiatives to continue growing revenue and strengthen net results.

These initiatives include:

- Enabling companies to quickly and easily get access to **Device Attestation Certificates (DACs)**. The service is provided by INeS, our managed "PKI as a Service" platform without the necessity to invest and to deploy any hardware infrastructure. Each manufacturer using the platform can manage the security lifecycle of certificates and devices in their own dedicated, cloud-based application. We will also be offering our complete range of FIPS Certified Secure Elements with pre-provisioning of keys and DACs ready for authentication **under Matter Protocol**. This strong value proposition will enable smart home device manufacturers to achieve faster time to market through cost effective and simplified design processes when designing **Matter compliant smart home products**.
- The use of our technology with the **WISeSat PocketQube Satellite constellation** to be deployed.
- The development of the **QUASARS project**.

- Planned investment in new equipment to **increase the production volume of semiconductors**.
- **The strengthening of our Sales and Marketing team** with new recruitments expected in the U.S. and Asia to support our growth, and new partnership agreements such as CJR Associates and Rep One Associates Inc. signed in 2023 in North America.

## Non-GAAP Financial Measures

In managing the business on a consolidated basis, management develops an annual operating plan, which is approved by our Board of Directors, using non-GAAP financial measures. In measuring performance against this plan, management considers the actual or potential impacts on these non-GAAP financial measures from actions taken to reduce costs with the goal of increasing our gross margin and operating margin and when assessing appropriate levels of research and development efforts. In addition, management relies upon these non-GAAP financial measures when making decisions about product spending, administrative budgets, and other operating expenses. We believe that these non-GAAP financial measures, when coupled with the GAAP results and the reconciliations to corresponding GAAP financial measures, provide a more complete understanding of the Company’s results of operations and the factors and trends affecting business. We believe that they enable investors to perform additional comparisons of our operating results, to assess our liquidity and capital position and to analyze financial performance excluding the effect of expenses unrelated to operations, certain non-cash expenses related to acquisitions and share-based compensation expense, which may obscure trends in the Company’s underlying performance. This information also enables investors to compare financial results between periods where certain items may vary independent of business performance and allows for greater transparency with respect to key metrics used by management.

These non-GAAP financial measures are provided in addition to, and not as a substitute for, or superior to, measures of financial performance prepared in accordance with GAAP. The presentation of these and other similar items in non-GAAP financial results should not be interpreted as implying that these items are non-recurring, infrequent, or unusual. Reconciliations of these non-GAAP measures to the most comparable measures calculated in accordance with GAAP are provided in the financial statements portion of this release in a schedule entitled “Financial Reconciliation of GAAP to non-GAAP Results (unaudited).”

### **Non-GAAP to GAAP Reconciliations - WISeKey Semiconductors SAS, SEALSQ Corp. predecessor**

Financial Reconciliation of GAAP to non-GAAP Results (unaudited) (Million US\$)	12 months to December 31,	
	2022	2021
<b>Operating income (loss) as reported</b>	<b>2.6</b>	<b>(5.0)</b>
Non-GAAP adjustments:		
Depreciation expense	0.4	1.5
EBITDA	3.0	(3.5)

## 4. FINANCIAL STATEMENTS

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**Consolidated Financial Statements**  
**of WISeKey Semiconductors SAS,**  
**SEALSQ Corp. Predecessor**

**As at December 31, 2022**

The page numbers below refer only to the F pages of the annual report.

1. Report of the Independent Registered Public Accounting Firm .....	F-2
2. Consolidated Statements of Comprehensive Income/(Loss) .....	F-3
3. Consolidated Balance Sheets .....	F-4
4. Consolidated Statements of Changes in Shareholders' Equity.....	F-5
5. Consolidated Statements of Cash Flows .....	F-6
6. Notes to the Consolidated Financial Statements .....	F-7

## 1. Report of the Independent Registered Public Accounting Firm

### Report of Independent Registered Public Accounting Firm

Shareholders and Board of Directors

**WISeKey Semiconductors SAS** - Arteparc de Bachasson, Bâtiment A, rue de la Carrière de Bachasson  
13590 Meyreuil - **FRANCE**

### Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of WISeKey Semiconductors SAS Group (the "Company") as of December 31, 2022 and 2021, the related consolidated statements of comprehensive income/loss, stockholders' equity, and cash flows for each of the years then ended, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the years then ended, in conformity with accounting principles generally accepted in the United States of America.

### Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audit. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Lyon (France), April 20, 2023

**BDO Rhône-Alpes**

Represented by Justine GAIRAUD

We have served as the Company's auditor since 2016.



## 2. Consolidated Statements of Comprehensive Income/(Loss)

USD'000	12 months ended December 31,			Note ref.
	2022	2021	2020	
Net sales	23,198	16,995	14,317	23
Cost of sales	(13,267)	(9,547)	(8,147)	
Depreciation of production assets	(132)	(301)	(736)	
<b>Gross profit</b>	<b>9,799</b>	<b>7,147</b>	<b>5,434</b>	
Other operating income	2,007	91	-	24
Research & development expenses	(2,308)	(3,050)	(4,128)	
Selling & marketing expenses	(3,824)	(4,245)	(3,103)	
General & administrative expenses	(3,091)	(4,984)	(6,788)	
<b>Total operating expenses</b>	<b>(7,216)</b>	<b>(12,188)</b>	<b>(14,019)</b>	
<b>Operating income / (loss)</b>	<b>2,583</b>	<b>(5,041)</b>	<b>(8,585)</b>	
Non-operating income	935	483	146	25
Interest and amortization of debt discount	(355)	(167)	(8)	25
Non-operating expenses	(638)	(96)	(749)	26
<b>Income / (loss) before income tax expense</b>	<b>2,525</b>	<b>(4,821)</b>	<b>(9,196)</b>	
Income tax income (expense)	3,245	(6)	(5)	27
<b>Net income / (loss)</b>	<b>5,770</b>	<b>(4,827)</b>	<b>(9,201)</b>	
<b>Earnings per share (USD)</b>				
Basic	3.92	(3.72)	(6.25)	28
Diluted	3.92	(3.72)	(6.25)	28
<b>Other comprehensive income / (loss), net of tax:</b>				
Foreign currency translation adjustments	(15)	(8)	33	
Defined benefit pension plans:				19
Net gain (loss) arising during period	170	142	105	
<b>Other comprehensive income / (loss)</b>	<b>155</b>	<b>134</b>	<b>138</b>	
<b>Comprehensive income / (loss)</b>	<b>5,925</b>	<b>(4,693)</b>	<b>(9,063)</b>	

The accompanying notes are an integral part of these consolidated financial statements.

### 3. Consolidated Balance Sheets

USD'000, "except par value"	As at December 31, 2022	As at December 31, 2021	Note ref.
<b>ASSETS</b>			
<b>Current assets</b>			
Cash and cash equivalents	4,057	2,064	7
Accounts receivable, net of allowance for doubtful accounts	2,219	2,606	8
Inventories	7,510	2,710	9
Prepaid expenses	394	454	
Other current assets	1,252	414	10
<b>Total current assets</b>	<b>15,432</b>	<b>8,248</b>	
<b>Noncurrent assets</b>			
Deferred income tax assets	3,296	-	27
Deferred tax credits	692	847	11
Property, plant and equipment net of accumulated depreciation	782	886	12
Intangible assets, net of accumulated amortization	1	5	13
Operating lease right-of-use assets	1,379	1,776	14
Other noncurrent assets	77	82	15
<b>Total noncurrent assets</b>	<b>6,227</b>	<b>3,596</b>	
<b>TOTAL ASSETS</b>	<b>21,659</b>	<b>11,844</b>	
<b>LIABILITIES</b>			
<b>Current liabilities</b>			
Accounts payable	6,735	7,256	16
Indebtedness to related parties, current	3,374	-	18
Current portion of obligations under operating lease liabilities	324	320	14
Income tax payable	47	3	
Other current liabilities	148	180	17
<b>Total current liabilities</b>	<b>10,628</b>	<b>7,759</b>	
<b>Noncurrent liabilities</b>			
Bonds, mortgages and other long-term debt	1,489	-	33
Operating lease liabilities, noncurrent	988	1,456	14
Indebtedness to related parties, noncurrent	7,946	15,617	18
Employee benefit plan obligation	396	575	19
<b>Total noncurrent liabilities</b>	<b>10,819</b>	<b>17,648</b>	
<b>TOTAL LIABILITIES</b>	<b>21,447</b>	<b>25,407</b>	
<b>Commitments and contingent liabilities</b>			
			20
<b>SHAREHOLDERS' EQUITY</b>			
Common stock	1,955	1,772	21
EUR 1 par value			
Authorized - 1,473,162 and 1,298,162 shares			
Issued and outstanding - 1,473,162 and 1,298,162 shares			
Additional paid-in capital	14,926	7,258	
Accumulated other comprehensive income / (loss)	775	621	22
Accumulated deficit	(17,444)	(23,214)	
<b>Total shareholders' equity</b>	<b>212</b>	<b>(13,563)</b>	
<b>TOTAL LIABILITIES AND EQUITY</b>	<b>21,659</b>	<b>11,844</b>	

The accompanying notes are an integral part of these consolidated financial statements.

#### 4. Consolidated Statements of Changes in Shareholders' Equity

USD'000	Number of common shares	Common Share Capital	Additional paid-in capital	Accumulated deficit	Accumulated other comprehensive income / (loss)	Total equity (deficit)
<b>As at December 31, 2020</b>	<b>1,298,162</b>	<b>1,772</b>	<b>6,755</b>	<b>(18,387)</b>	<b>487</b>	<b>(9,373)</b>
Indebtedness to related parties	-	-	503	-	-	503
Comprehensive income / (loss)	-	-	-	(4,827)	134	(4,693)
<b>As at December 31, 2021</b>	<b>1,298,162</b>	<b>1,772</b>	<b>7,258</b>	<b>(23,214)</b>	<b>621</b>	<b>(13,563)</b>
Recapitalization by WISeKey International Holding Ltd	175	183	7,165	-	-	7,348
LT loan debt discount	-	-	511	-	-	511
Indebtedness to related parties	-	-	(8)	-	-	(8)
Comprehensive income / (loss)	-	-	-	5,770	154 <sup>(a)</sup>	5,924
<b>As at December 31, 2022</b>	<b>1,473,162</b>	<b>1,955</b>	<b>14,926</b>	<b>(17,444)</b>	<b>775</b>	<b>212</b>

(a) Adjusted for rounding

The Recapitalization by WISeKey International Holding Ltd that occurred in 2022 is further detailed in Note 18.

The accompanying notes are an integral part of these consolidated financial statements

## 5. Consolidated Statements of Cash Flows

USD'000	12 months ended December 31,		
	2022	2021	2020
<b>Cash Flows from operating activities:</b>			
Net Income (loss)	5,770	(4,827)	(9,201)
Adjustments to reconcile net income to net cash provided by (used in) operating activities:			
Depreciation of property, plant & equipment	404	1,532	2,243
Amortization of intangible assets	4	5	604
Interest and amortization of debt discount	355	167	8
Inventory obsolescence impairment	554	-	(457)
Income tax expense / (recovery) net of cash paid	(3,250)	6	5
Release of provision	-	-	(52)
Other non cash expenses / (income)	-	-	-
Expenses accrued under noncurrent liabilities	882	-	-
Unrealized and non cash foreign currency transactions	-	-	616
Other	-	-	(120)
Changes in operating assets and liabilities, net of effects of businesses acquired			
Decrease (increase) in accounts receivables	387	(400)	1,539
Decrease (increase) in inventories	(5,354)	(236)	313
Decrease (increase) in other current assets and prepaids, net	(778)	172	198
Decrease (increase) in deferred research & development tax credits, net	154	464	1,330
Decrease (increase) in other noncurrent assets, net	5	4	63
Increase (decrease) in accounts payable	(521)	522	(457)
Increase (decrease) in deferred revenue, current	-	(150)	143
Increase (decrease) in income taxes payable	44	3	(10)
Increase (decrease) in other current liabilities	(31)	(413)	169
Increase (decrease) in defined benefit pension liability	(179)	(440)	43
<b>Net cash provided by (used in) operating activities</b>	<b>(1,554)</b>	<b>(3,591)</b>	<b>(3,023)</b>
<b>Cash Flows from investing activities:</b>			
Sale / (acquisition) of property, plant and equipment	(299)	(36)	(52)
Acquisition of a business, net of cash and cash equivalents acquired	-	-	215
<b>Net cash provided by (used in) investing activities</b>	<b>(299)</b>	<b>(36)</b>	<b>163</b>
<b>Cash Flows from financing activities:</b>			
Proceeds from debt	3,750	3,691	4,013
Repayments of debt	-	-	(1,208)
<b>Net cash provided by (used in) financing activities</b>	<b>3,750</b>	<b>3,691</b>	<b>2,805</b>
<b>Effect of exchange rate changes on cash and cash equivalents</b>	<b>96</b>	<b>170</b>	<b>40</b>
<b>Cash and cash equivalents</b>			
Net increase (decrease) during the period	1,993	234	(15)
Balance, beginning of period	2,064	1,830	1,845
<b>Balance, end of period</b>	<b>4,057</b>	<b>2,064</b>	<b>1,830</b>
<b>Supplemental cash flow information</b>			
Cash paid for incomes taxes	4	-	16
Recapitalization by WISeKey International Holding Ltd	7,348	-	-
ROU assets obtained from operating lease	56	33	90

The accompanying notes are an integral part of these consolidated financial statements.

## 6. Notes to the Consolidated Financial Statements

### Note 1. The Semiconductors Group

WISeKey Semiconductors SAS, together with its consolidated subsidiaries (the “Group” or the “Semiconductors Group”), has its headquarters in France. WISeKey Semiconductors SAS, the parent of the Semiconductors Group, was incorporated in July 2010 and is a private joint stock company (French Simplified Joint Stock Company).

In 2020, the Group acquired WISeCoin France R&D Lab SAS, a private French company which was spun off from the Group in 2019. The primary activity of WISeCoin France R&D Lab SAS is to carry out research and development on hardware and software components of semiconductors and integrated circuits with a focus on authentication and security solutions. On January 1, 2021, WISeCoin France R&D Lab SAS’ assets and liabilities were transferred to WISeKey Semiconductors SAS and WISeCoin France R&D Lab SAS was dissolved. The Group designs, develops and markets secure semiconductors worldwide as a fabless manufacturer. It provides added security and authentication layers on its semiconductors which can be tailored to customers’ needs. As an advanced chip designer, the Group holds the intellectual property (“IP”) for the semiconductors it sells.

The Group anticipates being able to generate profits in the near future thanks to the increased focus on the security and authentication of IT components and networks.

### Note 2. Future operations and going concern

The Group recorded an income from operations in this reporting period and the accompanying consolidated financial statements have been prepared assuming that the Group will continue as a going concern.

The Group recorded a net operating income of USD 2.6 million in the year ended December 31, 2022 and a net operating loss of USD 5.0 million in the year ended December 31, 2021, and had positive working capital of, respectively, USD 6.2 million and USD 0.5 million as at December 31, 2022 and 2021, both calculated as the difference between current assets and current liabilities. Based on the Group’s cash projections up to April 30, 2024, it has sufficient liquidity to fund operations. Historically, the Group has been dependent on financing from its parent, WISeKey International Holding Ltd, to augment the operating cash flow to cover its cash requirements.

Based on the foregoing, Management believe it is correct to present these figures on a going concern basis.

### Note 3. Basis of presentation

The consolidated financial statements are prepared in accordance with the Generally Accepted Accounting Principles in the United States of America (“US GAAP”) as set forth in the Financial Accounting Standards Board’s (FASB) Accounting Standards Codification (ASC). All amounts are in United States dollars (“USD”) unless otherwise stated.

### Note 4. Summary of significant accounting policies

#### ***Fiscal Year***

The Group’s fiscal year ends on December 31.

#### ***Principles of Consolidation***

The consolidated financial statements include the accounts of WISeKey Semiconductors SAS and its wholly-owned subsidiaries over which the Group has control.

Intercompany income and expenses, including unrealized gross profits from internal group transactions and intercompany receivables, payables and loans have been eliminated.

#### ***Use of Estimates***

The preparation of consolidated financial statements in conformity with US GAAP requires management to make certain estimates, judgments and assumptions. We believe these estimates, judgments and assumptions are reasonable, based upon information available at the time they were made. These estimates, judgments and assumptions can affect the reported amounts of assets and liabilities as of the date of the financial statements as well as the reported amounts of revenues and expenses during the periods presented. To the extent there are differences between these estimates, judgments or assumptions and the actual results, our consolidated financial statements will be affected. In many cases, the accounting treatment of a particular transaction is specifically dictated by US GAAP and does not require management’s judgment in its application. There are also areas in which management’s judgment in selecting from available alternatives would not produce a materially different result.

#### ***Foreign Currency***

The functional currency of WISeKey Semiconductors SAS is USD.

In general, the functional currency of a foreign operation is the local currency. Assets and liabilities recorded in foreign currencies are translated at the exchange rate on the balance sheet date. Revenue and expenses are translated at average rates of exchange prevailing

during the year. The effects of foreign currency translation adjustments are included in stockholders' equity as a component of accumulated other comprehensive income/loss. The Group's reporting currency is USD.

### **Cash and Cash Equivalents**

Cash consists of deposits held at major banks that are readily available. Cash equivalents consist of highly liquid investments that are readily convertible to cash and with original maturity dates of three months or less from the date of purchase. The carrying amounts approximate fair value due to the short maturities of these instruments.

### **Accounts Receivable**

Receivables represent rights to consideration that are unconditional and consist of amounts billed and currently due from customers, and revenues that have been recognized for accounting purposes but not yet billed to customers. The Group extends credit to customers in the normal course of business and in line with industry practices.

### **Allowance for Doubtful Accounts**

We recognize an allowance for credit losses to present the net amount of receivables expected to be collected as of the balance sheet date. The allowance is based on the credit losses expected to arise over the asset's contractual term taking into account historical loss experience, customer-specific data as well as forward looking estimates. Expected credit losses are estimated individually.

Accounts receivables are written off when deemed uncollectible and are recognized as a deduction from the allowance for credit losses. Expected recoveries, which are not to exceed the amount previously written off, are considered in determining the allowance balance at the balance sheet date.

### **Inventories**

Inventories are stated at the lower of cost or net realizable value. Costs are calculated using standard costs, approximating average costs. Finished goods and work-in-progress inventories include material, labor and manufacturing overhead costs. The Group records write-downs on inventory based on an analysis of obsolescence or a comparison to the anticipated demand or market value based on a consideration of marketability and product maturity, demand forecasts, historical trends and assumptions about future demand and market conditions.

### **Property, Plant and Equipment**

Property, plant and equipment are stated at cost, net of accumulated depreciation. Depreciation is computed using the straight-line method based on estimated useful lives which range from 1 to 10 years. Leasehold improvements are amortized over the lesser of the estimated useful lives of the improvements or the lease terms, as appropriate. Property, plant and equipment are periodically reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable.

### **Intangible Assets**

Those intangible assets that are considered to have a finite useful life are amortized over their useful lives, which generally range from 1 to 10 years. Each period we evaluate the estimated remaining useful lives of intangible assets and whether events or changes in circumstances require a revision to the remaining periods of amortization or that an impairment review be carried out.

### **Leases**

In line with ASC 842, the Group, as a lessee, recognizes right-of-use assets and related lease liabilities on its balance sheet for all arrangements with terms longer than twelve months, and reviews its leases for classification between operating and finance leases. Obligations recorded under operating and finance leases are identified separately on the balance sheet. Assets under finance leases and their accumulated amortization are disclosed separately in the notes. Operating and finance lease assets and operating and finance lease liabilities are measured initially at an amount equal to the present value of minimum lease payments during the lease term, as at the beginning of the lease term.

The Group has elected the short-term lease practical expedient whereby we do not present short-term leases on the consolidated balance sheet as these leases have a lease term of 12 months or less at lease inception and do not contain purchase options or renewal terms that we are reasonably certain to exercise.

We have also elected the practical expedients related to lease classification of leases that commenced before the effective date of ASC 842.

### **Revenue Recognition**

The Group's policy is to recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. To achieve that core principle, the group applies the following steps:

- Step 1: Identify the contract(s) with a customer.
- Step 2: Identify the performance obligations in the contract.
- Step 3: Determine the transaction price.
- Step 4: Allocate the transaction price to the performance obligations in the contract.
- Step 5: Recognize revenue when (or as) the entity satisfies a performance obligation

Revenue is measured based on the consideration specified in a contract with a customer and excludes amounts collected on behalf of third parties. We typically allocate the transaction price to each performance obligation on the basis of the relative standalone selling prices of each distinct good or service promised in the contract. If a standalone price is not observable, we use estimates.

The Group recognizes revenue when it satisfies a performance obligation by transferring control over goods or services to a customer. The transfer may be done at a point in time (typically for goods) or over time (typically for services). The amount of revenue recognized is the amount allocated to the satisfied performance obligation. For performance obligations satisfied over time, the revenue is recognized over time, most frequently on a *prorata temporis* basis as most of the services provided by the Group relate to a set performance period.

If the Group determines that the performance obligation is not satisfied, it will defer recognition of revenue until it is satisfied.

We present revenue net of sales taxes and any similar assessments.

The Group delivers products and records revenue pursuant to commercial agreements with its customers, generally in the form of an approved purchase order or sales contract.

Where products are sold under warranty, the customer is granted a right of return which, when exercised, may result in either a full or partial refund of any consideration received, or a credit that can be applied against amounts owed, or that will be owed, to the Group. For any amount received or receivable for which we do not expect to be entitled to because the customer has exercised its right of return, we recognize those amounts as a refund liability.

### **Contract Assets**

Contract assets consists of accrued revenue where the Group has fulfilled its performance obligation towards the customer but the corresponding invoice has not yet been issued. Upon invoicing, the asset is reclassified to trade accounts receivable until payment.

### **Deferred Revenue**

Deferred revenue consists of amounts that have been invoiced and paid but have not been recognized as revenue. Deferred revenue that will be realized during the succeeding 12-month period is recorded as current and the remaining deferred revenue recorded as non-current. This would relate to multi-year certificates or licenses.

### **Contract Liability**

Contract liability consists of either:

- amounts that have been invoiced and not yet paid, nor recognized as revenue. Upon payment, the liability is reclassified to deferred revenue if the amounts still have not been recognized as revenue. Contract liability that will be realized during the succeeding 12-month period is recorded as current and the remaining contract liability recorded as non-current. This would relate to multi-year certificates or licenses.
- advances from customers not supported by invoices.

### **Sales Commissions**

Sales commission expenses where revenue is recognized are recorded in the period of revenue recognition.

### **Cost of Sales and Depreciation of Production Assets**

Our cost of sales consists primarily of expenses associated with the delivery and distribution of products. These include expenses related to the license to the Global Cryptographic ROOT Key, the global Certification authorities as well as the digital certificates for people, servers and objects, expenses related to the preparation of our secure elements and the technical support provided on the Group's ongoing production and on the ramp-up phase, including materials, labor, test and assembly suppliers, and subcontractors, freights costs, as well as the amortization of probes, wafers and other items that are used in the production process. This amortization is disclosed separately under depreciation of production assets on the face of the income statement.

### **Research and Development and Software Development Costs**

All research and development costs and software development costs are expensed as incurred.

### **Advertising Costs**

All advertising costs are expensed as incurred.

### **Pension Plan**

In 2022, the Group maintained one defined benefit post retirement plans covering the employees of WISeKey Semiconductors SAS.

In accordance with ASC 715-30, *Defined Benefit Plans – Pension*, the Group recognizes the funded status of the plan in the balance sheet.

Actuarial gains and losses are recorded in accumulated other comprehensive income / (loss).

### **Income Taxes**

Taxes on income are accrued in the same period as the revenues and expenses to which they relate.

Deferred taxes are calculated on the temporary differences that arise between the tax base of an asset or liability and its carrying value in the balance sheet of our companies prepared for consolidation purposes, with the exception of temporary differences arising on investments in foreign subsidiaries where the Group has plans to permanently reinvest profits into the foreign subsidiaries.

Deferred tax assets on tax loss carry-forwards are only recognized to the extent that it is "more likely than not" that future profits will be available and the tax loss carry-forward can be utilized.

Changes to tax laws or tax rates enacted at the balance sheet date are taken into account in the determination of the applicable tax rate provided that they are likely to be applicable in the period when the deferred tax assets or tax liabilities are realized.

The Group is required to pay income taxes in a number of countries. The Group recognizes the benefit of uncertain tax positions in the financial statements when it is more likely than not that the position will be sustained on examination by the tax authorities. The benefit

recognized is the largest amount of tax benefit that is greater than 50 percent likely of being realized on settlement with the tax authority, assuming full knowledge of the position and all relevant facts. The Group adjusts its recognition of these uncertain tax benefits in the period in which new information is available impacting either the recognition or measurement of its uncertain tax positions.

### **Research Tax Credits**

Research tax credits are provided by the French government to give incentives for companies to perform technical and scientific research. WISeKey Semiconductors SAS is eligible to receive such tax credits.

These research tax credits are presented as a reduction of Research & development expenses in the income statement when companies that have qualifying expenses can receive such grants in the form of a tax credit irrespective of taxes ever paid or ever to be paid, the corresponding research and development efforts have been completed and the supporting documentation is available. The credit is deductible from the entity's income tax charge for the year or payable in cash the following year, whichever event occurs first. The tax credits are included in noncurrent deferred tax credits in the balance sheet in line with ASU 2015-17.

### **Earnings per Share**

Basic earnings per share are calculated using WISeKey Semiconductors SAS' weighted-average outstanding common shares. When the effects are not antidilutive, diluted earnings per share is calculated using the weighted-average outstanding common shares and the dilutive effect of stock options as determined under the treasury stock method.

### **Segment Reporting**

Our chief operating decision maker, who is also our Chief Executive Officer, regularly reviews information related to one operating segment, secure microcontrollers, for purposes of allocating resources and assessing budgets and performance. We report our financial performance based on this segment structure described in Note 32.

### **Recent Accounting Pronouncements**

#### Adoption of new FASB Accounting Standard in the current year – Prior-Year Financial Statements not restated:

As of January 1, 2022, the Group adopted Accounting Standards Update (ASU) 2020-06, 'Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging— Contracts in Entity's Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity's Own Equity.

ASU 2020-06 simplifies accounting for convertible instruments by removing major separation models required under current U.S. GAAP. Consequently, more convertible debt instruments will be reported as a single liability instrument and more convertible preferred stock as a single equity instrument with no separate accounting for embedded conversion features. The ASU removes certain settlement conditions that are required for equity contracts to qualify for the derivative scope exception, which will permit more equity contracts to qualify for it. The ASU also simplifies the diluted earnings per share (EPS) calculation in certain areas. There was no material impact on the Group's results upon adoption of the standard.

As of January 1, 2022, the Group also adopted ASU 2021-04, Issuer's Accounting for Certain Modifications or Exchanges of Freestanding Equity-Classified Written Call Options — a consensus of the FASB Emerging Issues Task Force.

The ASU provides a principles-based framework to determine whether an issuer should recognize the modification or exchange as an adjustment to equity or an expense. The ASU is to clarify and reduce diversity in an issuer's accounting for modifications or exchanges of freestanding equity-classified written call options (for example, warrants) that remain equity classified after modification or exchange. The amendments in the ASU affect all entities that issue freestanding written call options that are classified in equity.

There was no material impact on the Group's results upon adoption of the standard.

As of January 1, 2022, the Group also adopted ASU 2021-10, Government Assistance (Topic 832): Disclosures by Business Entities about Government Assistance.

The ASU provides an update to increase the transparency of government assistance including the disclosure of the types of assistance, an entity's accounting for the assistance, and the effect of the assistance on an entity's financial statements. ASC 832 requires the following disclosures in the notes: information about the nature of the transactions, the accounting policies used to account for the transactions, and balance sheet and income statement affected by the transactions. The duration, commitments, provisions, and other contingencies are required to be disclosed.

There was no material impact on the Group's results upon adoption of the standard.

#### New FASB Accounting Standard to be adopted in the future:

In October 2021, The FASB issued ASU No. 2021-08, Business Combinations (topic 805): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers.

Summary: The ASU amends ASC 805 to "require acquiring entities to apply Topic 606 to recognize and measure contract assets and contract liabilities in a business combination." Under current GAAP, an acquirer generally recognizes such items at fair value on the acquisition date. ASU 2021-08 requires contract assets and contract liabilities acquired in a business combination to be recognized and measured by the acquirer on the acquisition date in accordance with ASC 606 (meaning the acquirer should assume it has entered the original contract at the



same date and using the same terms as the acquiree). This new ASU applies to contract assets and contract liabilities acquired in a business combination and to other contracts that directly/indirectly apply the requirements of ASC 606.

Effective Date: ASU 2021-08 is effective for public business entities for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years. An entity should apply the amendments prospectively to business combinations occurring on or after the effective dates. Early adoption is permitted.

The Group expects to adopt all the aforementioned guidance when effective. Management is assessing the impact of the aforementioned guidance on its consolidated financial statements but does not expect it to have a material impact.

## Note 5. Concentration of credit risks

Financial instruments that are potentially subject to credit risk consist primarily of cash and cash equivalents and trade accounts receivable. Our cash is held with large financial institutions. Management believes that the financial institutions that hold our investments are financially sound and accordingly, are subject to minimal credit risk. Deposits held with banks may exceed the amount of insurance provided on such deposits.

The Group sells to large, international customers and, as a result, may maintain individually significant trade accounts receivable balances with such customers during the year. We generally do not require collateral on trade accounts receivable. Summarized below are the clients whose revenue were 10% or higher than the respective total consolidated net sales for fiscal years 2022, 2021 or 2020, and the clients whose trade accounts receivable balances were 10% or higher than the respective total consolidated trade accounts receivable balance for fiscal years 2022 and 2021. In addition, we note that some of our clients are contract manufacturers for the same companies; should these companies reduce their operations or change contract manufacturers, this would cause a decrease in our customer orders which would adversely affect our operating results.

	Revenue concentration (% of total net sales)			Receivables concentration (% of total accounts receivable)	
	12 months ended December 31,			As at December 31,	
	2022	2021	2020	2022	2021
<b>IoT operating segment</b>					
Multinational electronics contract manufacturing company	16%	13%	19%	34%	17%
International equipment and software manufacturer	6%	10%	9%	12%	0%
Semiconductor equipment and electronic devices manufact	4%	5%	0%	0%	12%
International telecommunication company	5%	5%	6%	7%	11%
International digital security company	10%	0%	0%	6%	0%

## Note 6. Fair value measurements

ASC 820 establishes a three-tier fair value hierarchy for measuring financial instruments, which prioritizes the inputs used in measuring fair value. These tiers include:

- Level 1, defined as observable inputs such as quoted prices in active markets;
- Level 2, defined as inputs other than quoted prices in active markets that are either directly or indirectly observable; and
- Level 3, defined as unobservable inputs in which little or no market data exists, therefore requiring an entity to develop its own assumptions.

USD'000	As at December 31, 2022		As at December 31, 2021		Fair value level	Note ref.
	Carrying amount	Fair value	Carrying amount	Fair value		
<i>Nonrecurring fair value measurements</i>						
Accounts receivable	2,219	2,219	2,606	2,606	3	8
Accounts payable	6,735	6,735	7,256	7,256	3	17
Indebtedness to related parties, current	3,374	3,374	-	-	3	18
Bonds, mortgages and other long-term debt	1,489	1,489	-	-	3	33
Indebtedness to related parties, noncurrent	7,946	7,946	15,617	15,617	3	18

In addition to the methods and assumptions we use to record the fair value of financial instruments as discussed in the Fair Value Measurements section above, we used the following methods and assumptions to estimate the fair value of our financial instruments:

- Accounts receivable – carrying amount approximated fair value due to their short-term nature.
- Accounts payable – carrying amount approximated fair value due to their short-term nature.
- Indebtedness to related parties, noncurrent - carrying amount approximated fair value.

## Note 7. Cash and cash equivalents

Cash consists of deposits held at major banks.

**Note 8. Accounts receivable**

The breakdown of the accounts receivable balance is detailed below:

<b>USD'000</b>	<b>As at December 31, 2022</b>	<b>As at December 31, 2021</b>
Trade accounts receivable	2,269	2,656
Allowance for doubtful accounts	(50)	(50)
<b>Total accounts receivable net of allowance for doubtful accounts</b>	<b>2,219</b>	<b>2,606</b>

**Note 9. Inventories**

Inventories consisted of the following:

<b>USD'000</b>	<b>As at December 31, 2022</b>	<b>As at December 31, 2021</b>
Raw materials	4,523	950
Work in progress	2,987	1,760
<b>Total inventories</b>	<b>7,510</b>	<b>2,710</b>

In the years ended December 31, 2022, 2021 and 2020, the Group recorded inventory obsolescence charges in the income statement of respectively USD 204,211, USD 57,302 and USD 156,188 on raw materials, and USD 349,623, USD 404,509 and USD 301,215 on work in progress.

The inventory obsolescence provisions as at December 31, 2022, and 2021 are, respectively, USD 44,290 and USD 79,846 for raw materials, and USD 270,552 and USD 507,090 for work in progress.

**Note 10. Other current assets**

Other current assets consisted of the following:

<b>USD'000</b>	<b>As at December 31, 2022</b>	<b>As at December 31, 2021</b>
Value-Added Tax Receivable	224	188
Advanced payment to suppliers	1,025	220
Deposits, current	3	5
Other current assets	-	1
<b>Total other current assets</b>	<b>1,252</b>	<b>414</b>

**Note 11. Deferred tax credits**

WISeKey Semiconductors SAS is eligible for research tax credits provided by the French government (see Note 4 Summary of significant accounting policies). As at December 31, 2022 and 2021, the receivable balances in respect of these research tax credits owed to the Group were respectively USD 692,314 and USD 846,808. The credit is deductible from the entity's income tax charge for the year or payable in cash the following year, whichever event occurs first.

**Note 12. Property, plant and equipment**

Property, plant and equipment, net consisted of the following.

<b>USD'000</b>	<b>As at December 31, 2022</b>	<b>As at December 31, 2021</b>
Machinery & equipment	10,410	10,180
Office equipment and furniture	2,320	2,320
Computer equipment and licences	558	488
<b>Total property, plant and equipment gross</b>	<b>13,288</b>	<b>12,988</b>
<i>Accumulated depreciation for:</i>		
Machinery & equipment	(9,985)	(9,928)
Office equipment and furniture	(2,028)	(1,706)
Computer equipment and licences	(493)	(468)
<b>Total accumulated depreciation</b>	<b>(12,506)</b>	<b>(12,102)</b>
<b>Total property, plant and equipment, net</b>	<b>782</b>	<b>886</b>
Depreciation charge for the year	404	1,532

In 2022 and 2021, WISeKey Semiconductors SAS did not identify any events or changes in circumstances indicating that the carrying amount of any asset may not be recoverable. As a result, the Group did not record any impairment charge on Property, plant and equipment in the years 2022 and 2021.

The useful economic life of property plant and equipment is as follow:

- Office equipment and furniture: 2 to 5 years
- Production masks 5 years
- Production tools 3 years
- Licenses 3 years
- Software 1 year

### **Note 13. Intangible assets**

Intangible assets and future amortization expenses consisted of the following:

<b>USD'000</b>	<b>As at December 31, 2022</b>	<b>As at December 31, 2021</b>
<i>Intangible assets subject to amortization:</i>		
Patents	2,281	2,281
License agreements	1,699	1,699
Other intangibles	923	923
<b>Total intangible assets gross</b>	<b>4,903</b>	<b>4,903</b>
<i>Accumulated amortization for:</i>		
Patents	(2,281)	(2,281)
License agreements	(1,698)	(1,694)
Other intangibles	(923)	(923)
<b>Total accumulated amortization</b>	<b>(4,902)</b>	<b>(4,898)</b>
<b>Total intangible assets subject to amortization, net</b>	<b>1</b>	<b>5</b>
<b>Total intangible assets, net</b>	<b>1</b>	<b>5</b>
Amortization charge for the year to December 31,	4	5

The useful economic life of intangible assets is as follow:

- Patents: 5 to 10 years
- License agreements: 1 to 3 years
- Other intangibles: 5 years

Future amortization charges are detailed below:

<b>Future estimated aggregate amortization expense Year</b>	<b>USD'000</b>
2023	1
<b>Total intangible assets subject to amortization, net</b>	<b>1</b>

**Note 14. Leases**

The Group has historically entered into a number of lease arrangements under which it is the lessee. As at December 31, 2022, the Semiconductors Group holds five operating leases. The operating leases relate to premises. We do not sublease. All of our operating leases include multiple optional renewal periods which are not reasonably certain to be exercised.

In the years 2022, 2021 and 2020 we recognized rent expenses associated with our leases as follows:

USD'000	12 months ended December 31, 2022	12 months ended December 31, 2021	12 months ended December 31, 2020
<i>Operating lease cost:</i>			
Fixed rent expense	332	378	339
Short-term lease cost	-	3	15
<b>Net lease cost</b>	<b>332</b>	<b>381</b>	<b>354</b>
Lease cost - Cost of sales	-	-	-
Lease cost - General & administrative expenses	332	381	354
<b>Net lease cost</b>	<b>332</b>	<b>381</b>	<b>354</b>

In the years 2022 and 2021, we had the following cash and non-cash activities associated with our leases:

USD'000	As at December 31, 2022	As at December 31, 2021
<i>Cash paid for amounts included in the measurement of lease liabilities:</i>		
Operating cash flows from operating leases	328	380
<i>Non-cash investing and financing activities :</i>		
Net lease cost	328	380
<i>Additions to ROU assets obtained from:</i>		
New operating lease liabilities	56	33

The following table provides the details of right-of-use assets and lease liabilities as of December 31, 2022:

USD'000	As at December 31, 2022
<b>Right-of-use assets:</b>	
Operating leases	1,379
<b>Total right-of-use assets</b>	<b>1,379</b>
<b>Lease liabilities:</b>	
Operating leases	1,312
<b>Total lease liabilities</b>	<b>1,312</b>

As at December 31, 2022, future minimum annual lease payments were as follows:

Year	USD'000 Operating	USD'000 Short-term	USD'000 Finance	USD'000 Total
2023	313	-	-	313
2024	293	-	-	293
2025	285	-	-	285
2026	285	-	-	285
2027 and beyond	442	-	-	442
<b>Total future minimum operating and short-term lease payments</b>	<b>1,618</b>	<b>-</b>	<b>-</b>	<b>1,618</b>
Less effects of discounting	(306)	-	-	(306)
<b>Lease liabilities recognized</b>	<b>1,312</b>	<b>-</b>	<b>-</b>	<b>1,312</b>

In line with ASU 2018-11, future minimum lease payments under legacy ASC 840 are disclosed in the table below:

<b>Year</b>	<b>USD'000</b>
2023	313
2024	293
2025	285
2026	285
2027 and beyond	442
<b>Total future minimum operating and short-term lease payments</b>	<b>1,618</b>
Less effects of discounting	(306)
<b>Lease liabilities recognized</b>	<b>1,312</b>

As of December 31, 2022, the weighted-average remaining lease term was 5.92 years for operating leases.

For our operating leases, we calculated an estimate rate based upon the estimated incremental borrowing rate of the entity holding the lease. The weighted average discount rate associated with operating leases as of December 31, 2022 was 3.02%.

#### **Note 15. Other noncurrent assets**

Other noncurrent assets consisted of noncurrent deposits. Deposits are primarily made up of rental deposits on the premises rented by the Group.

#### **Note 16. Accounts payable**

The accounts payable balance consisted of the following:

<b>USD'000</b>	<b>As at December 31, 2022</b>	<b>As at December 31, 2021</b>
Trade creditors	5,001	5,680
Factors or other financial institutions for borrowings	-	27
Accounts payable to underwriters, promoters, and employees	1,071	792
Other accounts payable	663	757
<b>Total accounts payable</b>	<b>6,735</b>	<b>7,256</b>

Accounts payable to underwriters, promoters and employees consist primarily of payable balances to employees in relation to holidays, bonus and 13th month accruals across the Group.

Other accounts payable are mostly accruals of social charges in relation to the accrued liability to employees.

#### **Note 17. Other current liabilities**

Other current liabilities consisted of the following:

<b>USD'000</b>	<b>As at December 31, 2022</b>	<b>As at December 31, 2021</b>
Other tax payable	28	22
Customer contract liability, current	84	111
Other current liabilities	36	47
<b>Total other current liabilities</b>	<b>148</b>	<b>180</b>

#### **Note 18. Indebtedness to related parties**

On October 1, 2016, the Group entered into a Revolving Credit Agreement (the "**Revolving Credit**") with its parent WISeKey International Holding AG ("**WISeKey**") to borrow funds within a credit period starting on October 1, 2016 and ending on December 31, 2017 when all outstanding funds would become immediately due and payable. Outstanding loan amounts bear an interest rate of 3% per annum. Repayments before the end of the credit period are permitted. On November 1, 2017, the Group and WISeKey entered into the First Amendment to the Revolving Credit Agreement extending the credit period by 2 years to December 31, 2019. On March 16, 2021, the Group and WISeKey entered into the Second Amendment to the Revolving Credit Agreement extending the credit period by another 2 years to December 31, 2022. On November 1, 2022, the Group and WISeKey entered into the Third Amendment to the Revolving Credit Agreement pursuant to which the interest rate was amended to 2.5% per annum.

On November 12, 2020, WISeKey provided a Funding Commitment to extend shareholder loans (each the “**Shareholder Loan**”) to the Group for a maximum aggregate amount of USD 4 million to be drawn down over six months from the date of the commitment, in instalments of between USD 1 million and USD 1.5 million. The Shareholder Loans bear interest of 3% per annum. There are not set repayment dates for the Shareholder Loans.

All entities in the Semiconductors Group are subject to management fees from WISeKey and WISeKey’s affiliates. There is no set payment date for these fees, as a result they have been classified as noncurrent.

On April 1, 2021, the Group entered into a Debt Remission Agreement (the “**Debt Remission**”) with WISeKey pursuant to which an outstanding amount of EUR 5 million (USD 5,871,714) owed to WISeKey was remitted without any compensation from the Group. Per the terms of the Debt Remission, WISeKey will have the right to reinstate the debt and ask for repayment in fiscal years when WISeKey Semiconductors SAS achieves a positive income before income tax expense, in an amount calculated based on the income before income tax expense. As such, because of the repayment clause, the loan amounts covered by the Debt Remission continue to be shown as noncurrent liabilities under the line Indebtedness to related parties, noncurrent.

On June 28, 2021, the Group entered into a Debt Transfer Agreement with its parent WISeKey International Holding AG (“**WISeKey**”) and an affiliate of WISeKey, WISeKey SA, pursuant to which WISeKey extended a loan of USD 1,463,664 to the Group to repay an overdue creditor balance in that same amount owed to WISeKey SA. The loan bears interest at the rate of 3% per annum and is repayable by December 31, 2022.

On December 31, 2021, the Group entered into a Debt Transfer Agreement with WISeKey pursuant to which WISeKey extended a loan of USD 1,910,754 to the Group with an interest rate of 3% per annum, repayable on December 31, 2023.

On June 30, 2022, the Group entered into a Debt Transfer Agreement with WISeKey pursuant to which WISeKey extended a loan of USD 444,542 to the Group with an interest rate of 3% per annum, repayable on December 31, 2024.

On August 31, 2022, the Group entered into a Debt Transfer Agreement with WISeKey and WISeKey SA pursuant to which WISeKey extended a loan of USD 381,879 to the Group with an interest rate of 3% per annum, repayable on December 31, 2024.

On December 15, 2022, and in view of the negative equity position of the Group, WISeKey as sole shareholder of the Semiconductors Group resolved to recapitalize the Group by forfeiting EUR 7 million (USD 7,348,397) out of the loans outstanding in exchange for the issuance of 175,000 new shares in WISeKey Semiconductors SAS, par value EUR 1. Under French law, such a recapitalization is only possible if the loans to be forfeited are immediately repayable. Therefore, respectively on November 1, 2022 and November 3, 2022, the Group entered into a First Amendment to the Debt Transfer Agreements and into the Fourth Amendment to the Revolving Credit Agreement pursuant to which the loans owed under the Debt Transfer Agreements dated June 28, 2021, December 31, 2021, June 30, 2022 and August 31, 2022 as well as all amounts due under the Revolving Credit became due and payable on November 30, 2022.

Because of the requirement under French law, we analyzed the amendment of the maturity of the loans and Revolving Credit as being part of the substance of the recapitalization transaction. We assessed the recapitalization as a capital transaction between related parties in line with ASC 470-50 and, therefore, recorded a credit entry of USD 183,710 in share capital corresponding to the new issue of 175,000 shares and a credit of USD 7,164,687 to additional paid-in capital, with a total debit entry of USD 7,348,397 to Indebtedness to related parties, noncurrent.

On December 31, 2022, the Group entered into a Debt Transfer Agreement with WISeKey pursuant to which WISeKey extended a loan of USD 283,754 to the Group with an interest rate of 3% per annum, repayable on December 31, 2024.

As at December 31, 2022, the Semiconductors Group owed WISeKey and WISeKey’s affiliates a total of USD 11,354,925 and the unamortized debt discount balance was USD 35,340, hence a carrying value of USD 11,319,585 as at December 31, 2022, made up of Shareholder Loans and unpaid management fees. In 2021, an aggregate debt discount charge of USD 355,327 was amortized to the income statement.

## **Note 19. Employee benefit plans**

### ***Defined benefit post-retirement plan***

In 2022, the Group maintained one defined benefit post retirement plan for the employees of WISeKey Semiconductors SAS.

The plans are and were considered defined benefit plans and accounted for in accordance with ASC 715 Compensation – Retirement Benefits. This model allocates pension costs over the service period of employees in the plan. The underlying principle is that employees render services ratably over this period, and therefore, the income statement effects of pensions should follow a similar pattern. ASC 715 requires recognition of the funded status or difference between the fair value of plan assets and the projected benefit obligations of the pension plan on the balance sheet, with a corresponding adjustment recorded in the net loss. If the projected benefit obligation exceeds the fair value of the plan assets, then that difference or unfunded status represents the pension liability.

The Group records net service cost as an operating expense and other components of defined benefit plans as a non-operating expense in the statement of comprehensive loss.

The liabilities and annual income or expense of the pension plan are determined using methodologies that involve several actuarial assumptions, the most significant of which are the discount rate and the long-term rate of asset return (based on the market-related value of assets). The fair value of plan assets is determined based on prevailing market prices.

The defined benefit pension plan maintained by WISeKey Semiconductors SAS, and their obligations to employees in terms of retirement benefits, is limited to a lump sum payment based on remuneration and length of service, determined for each employee. The plan is not funded.

The pension liability calculated as at December 31, 2022 is based on annual personnel costs and assumptions as of December 31, 2022.

Personnel Costs USD'000	As at December 31,	As at December 31,	As at December 31,
	2022	2021	2020
Wages and Salaries	4,286	4,345	4,955
Social security contributions	1,940	2,049	2,250
Net service costs	42	68	75
<b>Total</b>	<b>6,268</b>	<b>6,462</b>	<b>7,280</b>

Assumptions	As at December 31,		
	2022	2021	2020
	France	France	France
Discount rate	3.65%	0.75%	0.30%
Expected rate of return on plan assets	n/a	n/a	n/a
Salary increases	3%	3%	3%

As at December 31, 2022 the Group's accumulated benefit obligation amounted to USD 395,786.

Reconciliation to Balance Sheet start of year			
USD'000			
Fiscal year	2022	2021	2020
Projected benefit obligation	575	1,015	981
<b>Surplus/deficit</b>	<b>575</b>	<b>1,015</b>	<b>981</b>
<b>Opening balance sheet asset/provision (funded status)</b>	<b>575</b>	<b>1,015</b>	<b>981</b>
<b>Reconciliation of benefit obligation during the year</b>			
Projected benefit obligation at start of year	575	1,015	981
Net Service cost	43	71	72
Interest expense	4	3	7
Net benefits paid to participants	(24)	(116)	(30)
Actuarial losses/(gains)	(170)	(141)	(106)
Curtailment & Settlement	0	(187)	-
Currency translation adjustment	(32)	(70)	91
<b>Projected benefit obligation at end of year</b>	<b>396</b>	<b>575</b>	<b>1,015</b>
<b>Reconciliation to balance sheet end of year</b>			
Defined benefit obligation - funded plans	396	575	1,015
<b>Surplus/deficit</b>	<b>396</b>	<b>575</b>	<b>1,015</b>
<b>Closing balance sheet asset/provision (funded status)</b>	<b>396</b>	<b>575</b>	<b>1,015</b>
<b>Amounts recognized in accumulated OCI</b>			
Net loss (gain)	(364)	(205)	(68)
<b>Deficit</b>	<b>(364)</b>	<b>(205)</b>	<b>(68)</b>
<b>Estimated amount to be amortized from accumulated OCI into NPBC over next fiscal year</b>			
Net loss (gain)	52	51	-

**Movement in Funded Status**

USD'000

Fiscal year	2022	2021	2020
<b>Opening balance sheet liability (funded status)</b>	<b>575</b>	<b>1,015</b>	<b>981</b>
Net Service cost	43	71	72
Interest cost/(credit)	4	3	7
Settlement / curtailment cost / (credit)	-	(194)	-
Currency translation adjustment	0	(1)	(1)
<b>Total Net Periodic Benefit Cost/(credit)</b>	<b>47</b>	<b>(121)</b>	<b>78</b>
Actuarial (gain)/loss on liabilities due to experience	(170)	(142)	(105)
<b>Total gain/loss recognized via OCI</b>	<b>(170)</b>	<b>(142)</b>	<b>(105)</b>
Employer contributions paid in the year + Cashflow required to pay benefit payments	(24)	(116)	(30)
<b>Total cashflow</b>	<b>(24)</b>	<b>(116)</b>	<b>(30)</b>
Currency translation adjustment	(32)	(61)	91
<b>Closing balance sheet liability (funded status)</b>	<b>396</b>	<b>575</b>	<b>1,015</b>
<b>Reconciliation of Net Gain / Loss</b>			
Amount at beginning of year	(205)	(68)	34
Liability (gain) / loss	(170)	(142)	(105)
Currency translation adjustment	11	5	3
<b>Amount at year-end</b>	<b>(364)</b>	<b>(205)</b>	<b>(68)</b>

The table below shows the breakdown of expected future contributions payable to the plan:

Period	France
USD'000	
2023	26
2024	8
2025	29
2026	50
2027	49
2028 to 2032	331

The Group expects to make contributions of approximately \$26,000 in 2023.

**Note 20. Commitments and contingencies****Lease commitments**

The future payments due under leases are shown in Note 14.

**Guarantees**

Our software and hardware product sales agreements generally include certain provisions for indemnifying customers against liabilities if our products infringe a third party's intellectual property rights. Certain of our product sales agreements also include provisions indemnifying customers against liabilities in the event we breach confidentiality or service level requirements. It is not possible to determine the maximum potential amount under these indemnification agreements due to our lack of history of prior indemnification claims and the unique facts and circumstances involved in each particular agreement. To date, we have not incurred any costs as a result of such indemnifications and have not accrued any liabilities related to such obligations in our consolidated financial statements.

**Note 21. Stockholders' equity**

Stockholders' equity consisted of the following:



WISeKey Semiconductors SAS	As at December 31, 2022	As at December 31, 2021
<b>Share Capital</b>	<i>Common stock</i>	<i>Common stock</i>
Par value per share (in EUR)	1.00	1.00
Share capital (in USD)	1,955,441	1,771,732
Total number of authorized shares	1,473,162	1,298,162
Total number of fully paid-in issued shares	1,473,162	1,298,162
Total number of fully paid-in outstanding shares	1,473,162	1,298,162

## Note 22. Accumulated other comprehensive income, net of tax

USD'000	
<b>Accumulated other comprehensive income as at December 31, 2020</b>	<b>487</b>
Total net foreign currency translation adjustments	(8)
Total defined benefit pension adjustment	142
Total other comprehensive income/(loss), net	134
<b>Accumulated other comprehensive income as at December 31, 2021</b>	<b>621</b>
Total net foreign currency translation adjustments <sup>(1)</sup>	(16)
Total defined benefit pension adjustment	170
Total other comprehensive income/(loss), net	154
<b>Accumulated other comprehensive income as at December 31, 2022</b>	<b>775</b>

(1) Adjusted for rounding

There is no income tax expense or benefit allocated to other comprehensive income.

## Note 23. Revenue

### Nature of goods and services

The following is a description of the principal activities from which the Group generates its revenue.

The Group recognizes revenue when a customer takes possession of the chips, which usually occurs when the goods are delivered. Customers typically pay once goods are delivered.

### Disaggregation of revenue

The following table shows the Group's revenues disaggregated by product or service type:

Disaggregation of revenue	Typical payment	At one point in time			Total		
		2022	2021	2020	2022	2021	2020
<b>USD'000</b>							
<b>Secure Microcontrollers Segment</b>							
Secure chips	Upon delivery	18,336	14,850	11,289	18,336	14,850	11,289
<b>Total Secure Microcontrollers Segment</b>		<b>18,336</b>	<b>14,850</b>	<b>11,289</b>	<b>18,336</b>	<b>14,850</b>	<b>11,289</b>
<b>All Other Segment</b>							
Secure chips	Upon delivery	4,862	2,145	3,028	4,862	2,145	3,028
<b>Total All Other Segment</b>		<b>4,862</b>	<b>2,145</b>	<b>3,028</b>	<b>4,862</b>	<b>2,145</b>	<b>3,028</b>
<b>Total Revenue</b>		<b>23,198</b>	<b>16,995</b>	<b>14,317</b>	<b>23,198</b>	<b>16,995</b>	<b>14,317</b>

For the years ended December 31, 2022, 2021 and 2020 the Group recorded no revenues related to performance obligations satisfied in prior periods.

The following table shows the Group's revenues disaggregated by geography, based on our customers' billing addresses:

Net sales by region USD'000	12 months ended December 31,		
	2022	2021	2020
<b>Secure Microcontrollers Segment</b>			
France	147	37	64
Rest of EMEA	2,775	2,944	1,861
North America	13,408	10,234	7,922
Asia Pacific	1,939	1,588	1,421
Latin America	67	47	21
<b>Total Secure Microcontrollers segment revenue</b>	<b>18,336</b>	<b>14,850</b>	<b>11,289</b>
<b>All Other Segment</b>			
France	64	175	466
Rest of EMEA	3,791	1,099	2,116
North America	201	397	294
Asia Pacific	806	474	105
Latin America	-	-	47
<b>Total All Other segment revenue</b>	<b>4,862</b>	<b>2,145</b>	<b>3,028</b>
<b>Total Net sales</b>	<b>23,198</b>	<b>16,995</b>	<b>14,317</b>

\*EMEA means Europe, Middle East and Africa

#### **Contract assets, deferred revenue and contract liability**

Our contract assets, deferred revenue and contract liability consist of:

USD'000	As at December 31,	As at December 31,
	2022	2021
<b>Trade accounts receivables</b>		
Trade accounts receivable - Secure Microcontrollers Segment	1,794	2,321
Trade accounts receivable - All Other Segment	475	335
<b>Total trade accounts receivables</b>	<b>2,269</b>	<b>2,656</b>
Contract liabilities - current	84	111
<b>Total contract liabilities</b>	<b>84</b>	<b>111</b>
Revenue recognized in the period from amounts included in the deferred revenue at the beginning of the year	-	150

Increases or decreases in trade accounts receivable, contract assets, deferred revenue and contract liability were primarily due to normal timing differences between our performance and customer payments.

**Remaining performance obligations**

As of December 31, 2021, approximately USD 2,083,589 is expected to be recognized from remaining performance obligations for contracts. We expect to recognize revenue for these remaining performance obligations during the next year approximately as follows:

Estimated revenue from remaining performance obligations as at December 31, 2022 (USD'000)	Total
2023	84
<b>Total remaining performance obligation from continuing operations</b>	<b>84</b>

**Note 24. Other operating income**

USD'000	12 months ended December 31,		
	2022	2021	2020
Accounts payable write-off	1,899	-	-
Other operating income - other	108	91	-
<b>Total other operating income</b>	<b>2,007</b>	<b>91</b>	<b>-</b>

The accounts payable write-off relates to a liability recorded in 2013 by WISeKey Semiconductors SAS which the creditor in insolvency can no longer claim.

**Note 25. Non-operating income**

Non-operating income consisted of the following:

USD'000	12 months ended December 31,		
	2022	2021	2020
Foreign exchange gain	926	482	117
Financial income	9	-	8
Other	-	1	21
<b>Total non-operating income</b>	<b>935</b>	<b>483</b>	<b>146</b>

**Note 26. Non-operating expenses**

Non-operating expenses consisted of the following:

USD'000	12 months ended December 31,		
	2022	2021	2020
Foreign exchange losses	383	-	728
Financial charges	1	1	1
Interest expense	250	-	-
Other	4	95	20
<b>Total non-operating expenses</b>	<b>638</b>	<b>96</b>	<b>749</b>

**Note 27. Income taxes**

The components of income before income taxes are as follows:

Income / (Loss) USD'000	12 months ended December 31,		
	2022	2021	2020
France	2,879	(4,429)	(8,806)
Foreign	(354)	(392)	(390)
<b>Income/(loss) before income tax</b>	<b>2,525</b>	<b>(4,821)</b>	<b>(9,196)</b>

The components of income taxes relating to the Group are as follows:

Income taxes USD'000	12 months ended December 31,		
	2022	2021	2020
France	(3,250)	-	-
Foreign	5	6	5
<b>Income tax expense / (income)</b>	<b>(3,245)</b>	<b>6</b>	<b>5</b>

The difference between the income tax recovery (expense) at the local statutory rate compared to the Group's income tax recovery (expense) as reported is reconciled below:

USD'000	12 months ended December 31,		
	2022	2021	2020
Net income/(loss) before income tax	2,525	(4,821)	(9,196)
Statutory tax rate	25%	26.5%	28%
Expected income tax (expense)/recovery	(631)	1,278	2,575
Change in valuation allowance	2,185	660	(1,940)
Change in tax loss carryforwards	(41)	(382)	(635)
Add back of loss carryforwards used for the debt remission	1,342	-	-
Permanent difference	390	(1,562)	(5)
<b>Income tax (expense) / recovery</b>	<b>3,245</b>	<b>(6)</b>	<b>(5)</b>

The Group assesses the recoverability of its deferred tax assets and, to the extent recoverability does not satisfy the “more likely than not” recognition criterion under ASC 740, records a valuation allowance against its deferred tax assets. The Group considered its recent operating results and anticipated future taxable income in assessing the need for its valuation allowance.

In the years up until and including 2021, the Group recorded a valuation allowance for the full amount of its deferred tax assets. However, in view of the Group's income before income tax in the year ended December 31, 2022, and of the anticipated future taxable income per management's forecast, the Group assessed that the recoverability of its deferred tax assets partially satisfied the “more likely than not” recognition criterion under ASC 740 as at December 31, 2022 and, therefore, partially reversed the valuation allowance previously recorded.

The Group's deferred tax assets and liabilities consist of the following:

Deferred income tax assets/(liabilities) USD'000	As at December 31, 2022	As at December 31, 2021
France	3,296	-
Foreign	-	-
<b>Deferred income tax assets/(liabilities)</b>	<b>3,296</b>	<b>-</b>

Deferred tax assets and liabilities USD'000	As at December 31, 2022	As at December 31, 2021
Defined benefit accrual	(29)	161
Tax loss carryforwards	3,599	3,640
Add back loss carryforwards used for the debt remission	1,342	-
Valuation allowance	(1,616)	(3,801)
<b>Deferred tax assets / (liabilities)</b>	<b>3,296</b>	<b>-</b>

As of December 31, 2022, the Group's operating cumulated loss carry-forwards of all jurisdictions are as follows:

Operating loss-carryforward USD'000	France	Total	Expiration date
As of December 31, 2022	14,396	14,396	None

In France, operating losses may be carried forward indefinitely, but may be offset against the taxable profits of a given fiscal year only up to an amount of €1 million, plus 50% of the taxable result in excess of that threshold.

The following tax years remain subject to examination:

Significant jurisdictions	Open years
France	2020 - 2022
Japan	2022
Taiwan	2022

As at December 31, 2020, the Group had a tax provision of USD 118,294, initially recorded in 2019 following a tax audit started in 2018 in relation to prior years, which was neither utilized nor released. There was no additional accrual in the year 2020. In 2021, the Group had decrease its tax provision to USD 47,368.

As at December 31, 2022, the Group had decrease its tax provision to USD 39,901. Although the final conclusions have not yet been communicated formally, management believes that it is more probable than not that the entity will have to pay additional taxes and has calculated the provision based on preliminary discussions with the tax authorities.

The Group has no unrecognized tax benefits.

**Note 28. Earnings/(Loss) per share**

The computation of basic and diluted net earnings/(loss) per share for the Group is as follows:

Earnings / (loss) per share	12 months ended December 31,		
	2022	2021	2020
Net income (USD'000)	5,770	(4,827)	(9,201)
Effect of potentially dilutive instruments on net gain (USD'000)	n/a	n/a	n/a
Net income / (loss) after effect of potentially dilutive instruments (USD'000)	5,770	(4,827)	(9,201)
<b>Shares used in net earnings / (loss) per share computation:</b>			
Weighted average shares outstanding - basic	1,473,162	1,298,162	1,298,162
Effect of potentially dilutive equivalent shares	n/a	n/a	n/a
Weighted average shares outstanding - diluted	1,473,162	1,298,162	1,298,162
<b>Net earnings / (loss) per share</b>			
Basic weighted average loss per share (USD)	3.92	(3.72)	(7.09)
Diluted weighted average loss per share (USD)	3.92	(3.72)	(7.09)

For the years 2020, 2021 and 2022, the group had no dilutive instruments to be considered for the computation of diluted earnings per share.

**Note 29. Legal proceedings**

We are currently not party to any legal proceedings and claims that are not provided for in our financial statements.

**Note 30. Related parties disclosure****Subsidiaries**

As at December 31, 2022, the consolidated financial statements of the Group include the entities listed in the following table:

Group Company Name	Country of incorporation	Year of incorporation	Share Capital	% ownership as at December 31, 2022	% ownership as at December 31, 2021	Nature of business
WISeKey IoT Japan KK	Japan	2017	JPY 1,000,000	100.0%	100.0%	Sales & distribution
WISeKey IoT Taiwan	Taiwan	2017	TWD 100,000	100.0%	100.0%	Sales & distribution

**Related party transactions and balances**

Related Parties (in USD'000)	Receivables as at		Payables as at		Net expenses to			Net income from		
	December 31, 2022	December 31, 2021	December 31, 2022	December 31, 2021	in the year ended December 31,			in the year ended December 31,		
	2022	2021	2022	2021	2022	2021	2020	2022	2021	2020
1 WISeKey International Holding AG	-	-	7,122	10,899	796	526	1,072	-	-	-
2 WISeKey SA	-	-	-	382	-	94	965	-	128	-
3 WISeKey USA Inc	-	-	154	883	558	883	-	-	-	-
4 WISeKey Semiconductors GmbH	-	-	773	615	105	401	161	-	-	-
5 WISeCoin AG	-	-	3,306	3,238	86	90	90	-	-	-
<b>Total</b>	<b>-</b>	<b>-</b>	<b>11,355</b>	<b>16,017</b>	<b>1,555</b>	<b>1,994</b>	<b>2,288</b>	<b>-</b>	<b>128</b>	<b>-</b>

1. The Semiconductors group is wholly owned by WISeKey International Holding AG, which provides financing and management services, including, but not limited to, sales and marketing, accounting, finance, legal, taxation, business and strategy consulting, public relations, marketing, risk management, information technology and general management. The expenses in relation to WISeKey International Holding AG in 2022, 2021 and 2020 relate to interest on the outstanding loans and the recharge of management services.

2. WISeKey SA is a subsidiary of the group headed by WISeKey International Holding AG (the "WISeKey Group") and provides management services to the Semiconductors Group, including, but not limited to, sales and marketing, accounting, business and strategy consulting, public relations, marketing, risk management and information technology. The expenses in relation to WISeKey SA in 2022, 2021 and 2020 relate to interest on the outstanding loans and the recharge of management services.

3. WISeKey USA Inc is part of the WISeKey Group and employs sales employees who work for the Semiconductors Group. The expenses in relation to WISeKey USA Inc. in 2022 and 2021 relate to the recharge of employee costs.

4. WISeKey Semiconductors GmbH is part of the WISeKey Group and employs sales employees who work for the Semiconductors Group. The expenses in relation to WISeKey Semiconductors GmbH in 2022, 2021 and 2020 relate to the recharge of employee costs.

5. WISeCoin AG was the parent of WISeCoin France R&D Lab SAS until it was acquired by the Semiconductors Group. WISeCoin AG is part of the WISeKey Group. The expenses recorded in 2020 relate to interest on the outstanding loans and the recharge of management services. The expenses recorded in 2022 and 2021 relate to interest on the outstanding loans.

### **Note 31. Subsequent events**

#### ***Reverse Acquisition***

On January 1, 2023, the Semiconductors Group was sold by WISeKey International Holding Ltd to its wholly owned subsidiary SEALSQ Corp. in exchange for a consideration of 1,499,700 SEALSQ Class F shares, par value USD 0.05 and 7,501,4000 SEALSQ ordinary shares.

The acquisition by SEALSQ Corp. of the Semiconductors Group is a transaction under common control in line with ASC 805-50 because both entities were wholly owned by WISeKey. The combination will be accounted for as a reverse acquisition from January 1, 2023, in line with ASC 805-40 "Reverse Acquisitions" because SEALSQ Corp., then a so-called empty shell private company with no operating activities that was not considered a business under US GAAP standards, acquired the Semiconductors Group, a private operating company and its affiliates. This transaction being a capital transaction in substance, it qualifies as a reverse acquisition that is considered a recapitalization under common control whereby SEALSQ is the legal acquirer and accounting acquiree, whereas the Semiconductors Group is the legal acquiree and accounting acquirer.

#### ***Indebtedness to related parties***

On January 1, 2023, the Group entered into a Loan Agreement (the "**New Loan Agreement**") with WISeKey pursuant to which all loans outstanding are replaced with the New Loan Agreement, meaning that all outstanding loan amounts are governed by the terms and conditions of the New Loan Agreement. Under the New Loan Agreement, the Group may borrow funds up to an aggregate amount of USD 5 million in instalments of no more than USD 1 million each. The New Loan Agreement loan bears interest at the rate of 2.5% per annum and is repayable by December 31, 2024.

**Note 32. Segment reporting**

The Group has one operating segment that meets the criteria set in ASC 280-10-50: Secure Microcontrollers. The Group's chief operating decision maker, who is its Chief Executive Officer, reviews financial performance of this operating segment for purposes of allocating resources and assessing budgets and performance.

The remaining non-reportable operating segments and other business activities that are not identified as operating segments are combined and disclosed in an "all other" standalone category.

The Secure Microcontrollers segment encompasses the design, manufacturing, sales and distribution of high-end, Common Criteria EAL5+ & FIPS 140-3-certified secure microprocessors.

12 months ended December 31,	2022			2021			2020		
	Secure			Secure			Secure		
	Microcontrollers	All Other	Total	Microcontrollers	All Other	Total	Microcontrollers	All Other	Total
USD'000									
Revenues from external customers	18,336	4,862	23,198	14,850	2,145	16,995	11,289	3,028	14,317
Intersegment revenues	-	368	368	-	415	415	-	4,930	4,930
Interest revenue	7	2	9	-	-	-	-	-	-
Interest expense	200	53	254	150	22	171	72	19	91
Depreciation and amortization	319	85	404	1,339	193	1,532	1,769	474	2,243
Segment income /(loss) before income taxes	526	2,017	2,543	(2,235)	(2,566)	(4,801)	(5,195)	(3,766)	(8,961)
Profit / (loss) from intersegment sales	-	18	18	-	20	20	-	235	235
Income tax recovery /(expense)	2,565	680	3,245	-	(6)	(6)	-	(5)	(5)
Segment assets	18,340	5,010	21,734	10,296	1,726	12,022	10,531	3,225	13,756

12 months ended December 31,	2022	2021	2020
	USD'000	USD'000	USD'000
<b>Revenue reconciliation</b>			
Total revenue for reportable segment	23,566	17,410	19,247
Elimination of intersegment revenue	(368)	(415)	(4,930)
Total consolidated revenue	23,198	16,995	14,317
<b>Loss reconciliation</b>			
Total profit / (loss) from reportable segments	2,543	(4,801)	(8,961)
Elimination of intersegment profits	(18)	(20)	(235)
Income /(Loss) before income taxes	2,525	(4,821)	(9,196)

As at December 31,	2022	2021
	USD'000	USD'000
<b>Asset reconciliation</b>		
Total assets from reportable segments	21,734	12,022
Elimination of intersegment receivables	(75)	(178)
<b>Consolidated total assets</b>	<b>21,659</b>	<b>11,844</b>

**Revenue and property, plant and equipment by geography**

The following tables summarize geographic information for net sales based on the billing address of the customer, and for property, plant and equipment.

Net sales by region	12 months ended December 31,		
	2022	2021	2020
USD'000			
France	211	457	1,614
Rest of EMEA*	6,566	3,798	2,892
North America	13,609	10,631	8,217
Asia Pacific	2,745	2,062	1,526
Latin America	67	47	68
<b>Total net sales</b>	<b>23,198</b>	<b>16,995</b>	<b>14,317</b>

\* EMEA means Europe, Middle East and Africa

Property, plant and equipment, net of depreciation, by region	As at December 31,	As at December 31,
	2022	2021
USD'000		
France	782	886
<b>Total Property, plant and equipment, net of depreciation</b>	<b>782</b>	<b>886</b>

**Note 33. Bonds, mortgages and other long-term debt*****Production Capacity Investment Loan Agreement***

In November 2022, WISeKey Semiconductors SAS entered into a loan agreement with a third party client to borrow funds for the purpose of increasing their production capacity. Under the terms of the Agreement, the client has lent to WISeKey Semiconductors SAS a total of USD 2,000,000. The loan will be reimbursed by way of a volume rebate against future sales volumes from the Semiconductors group to the client during the period from July 1, 2023, through to December 31, 2025. The volume rebate is based upon quarterly sales volumes in excess of a base limit on a yearly projected basis. Any amount still outstanding as at December 31, 2025 falls due for repayment on this date. The loan does not bear any interest and there were no fees or costs attributed to the loan.

An unamortized debt discount totaling USD 511,128 was calculated and booked to APIC in 2022. WISeKey Semiconductors SAS has not repaid any amount as at December 31, 2022, and no debt discount charge was recorded to the income statement in 2022. The amortization of the debt will start in 2023.

Therefore, as at December 31, 2022, the loan balance was USD 2,000,000 and the unamortized debt discount balance was USD 511,128, leaving a carrying value of USD 1,488,872.

**Note 34. Business Update Related to COVID-19**

In March 2020, the World Health Organization declared the Coronavirus (COVID-19) a pandemic. The outbreak spread quickly around the world, including in every geography in which the Group operates. The pandemic has created uncertainty around the impact of the global economy and has resulted in impacts to the financial markets and asset values. Governments implemented various restrictions around the world, including closure of non-essential businesses, travel, shelter-in-place requirements for citizens and other restrictions.

The Group took a number of precautionary steps to safeguard its businesses and colleagues from COVID-19, including implementing travel restrictions, working from home arrangements and flexible work policies. The Group started to return to offices around the world, in line with the guidelines and orders issued by national, state and local governments, implementing a phased approach in its main office in France. We continue to prioritize the safety and well-being of our colleagues during this time.

The Group's major production centers, located in Taiwan and Vietnam, were quick to implement controls and safeguards around their processes that enabled us to continue delivering products with minimal interruption to our clients. In 2022, the impact upon the Group has been limited and we remain confident that we are able to fulfil all current client orders.

The Group retains a strong liquidity position and believes that it has sufficient cash reserves to support the entity for the foreseeable future (see note 2 for further details.) The Group continues to review its costs and suspended its share buy-back programs in order to reduce the cash burn. The Group has applied for, and received, support under the schemes announced by the Swiss government. Currently the Group remains able to meet its commitments and does not foresee any significant challenges in the near future. The Group currently does not anticipate any material impact on its liquidity position and outlook.

At this stage it remains impossible to predict the extent of the impact of the COVID-19 pandemic as this will depend on numerous evolving factors and future developments that the Group is not able to predict.

**Note 35. Impacts of the war in Ukraine**

Following the outbreak of the war in Ukraine in late February 2022, several countries imposed sanctions on Russia, Belarus and certain regions in Ukraine. There has been an abrupt change in the geopolitical situation, with significant uncertainty about the duration of the conflict, changing scope of sanctions and retaliation actions including new laws.

The Semiconductors group does not have any operation or customer in Russia, Belarus or Ukraine, and, as such, does not foresee any direct impact of the war on its operations.

However, the war has also contributed to an increase in volatility in currency markets, energy prices, raw material and other input costs, which may impact the group supply chain in the future.

As at December 31, 2022, the Semiconductors Group has assessed the consequences of the war for its financial disclosures and considered the impacts on key judgements and significant estimates, and has concluded that no changes were required. The Semiconductors group will continue to monitor these areas of increased risk for material changes.