# WISeKey is Adapting its R&D and Extended Patents Portfolio to the Post-COVID 19 Economy with Specific Focus on Post-Quantum Cryptography

***With more than 25% of its 2019 annual turnover invested in R&D, WISeKey is a significant and recognized contributor to digital trust in an interconnected world. The Company's recent publication and a conference presentation about post-quantum cryptography illustrates once again that innovation is at the heart of the Company.***

***WISeKey is involved in this NIST PQC (Post-Quantum Cryptography) program with the only objective of providing future-proof digital security solutions based on existing and new hardware architectures***

**Geneva, Switzerland – May 28, 2020**: WISeKey International Holding Ltd. ("WISeKey") (SIX: WIHN, NASDAQ: WKEY), a leading global cybersecurity and IoT company, published today a technical article (https://www.wisekey.com/articles-white-papers/) discussing how to guarantee digital security and protect against hackers who will take advantage of the power of quantum information science. This research was presented (video here: https://www.wisekey.com/videos/) during the remote International Workshop on Code-Based Cryptography (CBCrypto 2020 – Zagreb, Croatia – May 9-10 2020).

IoT products are a major component of the 4th industrial revolution which brings together advances in computational power, semiconductors, blockchain, wireless communication, AI and data to build a vast technology infrastructure that works nearly autonomously.

According to a recent report published by Fortune Business Insights™ and titled "Internet of Things (IoT) Market Size, Share and Industry Analysis By Platform (Device Management, Application Management, Network Management), By Software & Services (Software Solution, Services), By End-Use Industry (BFSI, Retail, Governments, Healthcare, Others) And Regional Forecast, 2019 – 2026.", the IoT market was valued at USD 190.0 billion in 2018. It is projected to reach USD 1,102.6 billion by 2026, with a CAGR of 24.7% in the forecast period. Huge advances in manufacturing have allowed even small manufacturers to produce relatively sophisticated IoT products. This brings to the surface issues related to patents governing IoT products and communication standards governing devices.

Studies about quantum computing, namely "how to use quantum mechanical phenomena to perform computation", were initiated in the early 1980s. The perspectives are endless and the future computers will get an incredible computing power when using this technology. When used by hackers, these computers will become a risk to cybersecurity: all the cryptographic algorithms used today to secure our digital world are exposed. Therefore, the US National Institute of Standards and Technology (NIST) launched in 2016 a wide campaign to find new resistant algorithms.

WISeKey's R&D department is very much involved in this NIST PQC (Post-Quantum Cryptography) program with the only objective to provide the market with future-proof digital security solutions based on existing and new hardware architectures. The new article reports one of the Company's current contributions to

this safer cyber future. ROLLO-I, a NIST shortlisted algorithm, was implemented on some of WISeKey's secure chips (MS600x secure microcontrollers, VaultIC™ secure elements, …) with countermeasures to make them robust against attacks.

Although nobody exactly knows when quantum computers are going to be massively available, this is certainly going to happen. WISeKey is significantly investing to develop new technologies and win this race.

"With a rich portfolio of more than 100 fundamental individual patents and 20 pending ones in various domains including the design of secure chips, Near Field Communication (NFC), the development of security firmware and backend software, the secure management of data, the improvement of security protocols between connected objects and advanced cryptography, to mention a few, WISeKey has become a key technology provider in the cybersecurity arena," says Carlos Moreira, Founder and CEO of WISeKey. "This precious asset makes WISeKey the right Digital Trust Partner to deploy the current and future Internet of Everything."

**Want to know more about WISeKey's Intellectual Properties? Please visit our website: https://www.wisekey.com/patents/.**

**About WISeKey**

WISeKey (NASDAQ: WKEY; SIX Swiss Exchange: WIHN) is a leading global cybersecurity company currently deploying large scale digital identity ecosystems for people and objects using Blockchain, AI and IoT respecting the Human as the Fulcrum of the Internet. WISeKey microprocessors secure the pervasive computing shaping today's Internet of Everything. WISeKey IoT has an install base of over 1.5 billion microchips in virtually all IoT sectors (connected cars, smart cities, drones, agricultural sensors, anti-counterfeiting, smart lighting, servers, computers, mobile phones, crypto tokens etc.). WISeKey is uniquely positioned to be at the edge of IoT as our semiconductors produce a huge amount of Big Data that, when analyzed with Artificial Intelligence (AI), can help industrial applications to predict the failure of their equipment before it happens.

Our technology is Trusted by the OISTE/WISeKey's Swiss based cryptographic Root of Trust ("RoT") provides secure authentication and identification, in both physical and virtual environments, for the Internet of Things, Blockchain and Artificial Intelligence. The WISeKey RoT serves as a common trust anchor to ensure the integrity of online transactions among objects and between objects and people. For more information, visit www.wisekey.com.

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