Quantum Blockchain Technologies Plc
("QBT" or "the Company")

NDA signed to provide QBT with

5nm Technology for Proprietary Bitcoin mining ASIC

The board of Quantum Blockchain Technologies (AIM: QBT) is pleased to announce that it has made the key decision to focus on the development of the more efficient 5nm Application-Specific Integrated Circuit ("ASIC"), rather than a 7nm ASIC (as announced on 5 November 2021), to use as its proprietary Bitcoin mining tool.

This decision was taken following a recent market announcement by a leading international Bitcoin mining equipment manufacturer that it will use 5nm ASICs for its the next generation of Bitcoin miners, which it expects to release in the second half of 2022. Accordingly, QBT has updated its development programme for the prototyping and industrial manufacturing of its proprietary Bitcoin mining, to use the 5nm ASIC.

Based on the Company's internal projections, it believes that its previously planned optimised 7nm ASIC, would run at the same speed as the proposed 5nm ASIC, as announced by the above-mentioned Bitcoin miner manufacturer; this calculation is assuming the same number of ASICs will be used in the next mining model, as the above-mentioned miner currently applies to its existing model.

The rationale to move from a 7nm to 5nm, is because the estimated speed of QBT's proprietary Bitcoin mining ASIC is expected to be at least twice as fast as the leading international Bitcoin miner manufacturer, before taking into account the optimisations of a second patent under development, which are yet to be factored in.

The Company will, therefore, move directly to developing a 5nm ASIC prototype, although it will still consider a phase of testing, as an intermediate step, on the 12nm ASIC, as announced on 5 November 2021.

A Non-Disclosure Agreement ("NDA") has been signed with an international research & development organisation, which is active in the field of nanoelectronics, and which will give the Company access to one of the few 5nm semiconductor fabrication plants currently operational in the world.

The Company recognises that this significant step change, from 7nm to 5nm will, with regards to industrial production be significantly more expensive than its original strategy. However, as a first step, the initial phase of prototype testing of a 5nm ASIC will not cost the Company much more than the same process for a 7nm ASIC.

Assuming that the second patent application is filed by the Company's cryptography expert by the end of February 2022, a first 5nm prototype, which would include all the improvements of both QBT's first (ASIC UltraBoost) and second patent application, could be ready for manufacture in Q3 2022.

Detailed calculations on the energy consumption will be available only at the end of the ASIC design phase, before the small batch manufacturing of a prototype, when the ASIC software development platform will be able to perform a realistic estimate.

Francesco Gardin, CEO and Executive Chairman of QBT, commented: "Access to the 5nm technology for our ASIC Bitcoin mining chip is, after careful consideration, the natural choice for QBT in 2022. While the 12nm prototype is still an easy and relatively low-cost option, which we may still use for strategic 'time-to-mine' testing and early mining, the 5nm ASIC is now definitely our target.

"We have quickly identified a major international supplier, which will give us access to the 5nm technology and support our design team, given the very specific features and know-how involved when

designing a 5nm ASIC. By entering into an NDA with this party, we can now begin the assessment of the timeline of the project, including the costs to produce a 5nm prototype and take it to industrial production.

"We continue to move fast to develop our disruptive Bitcoin mining strategy, of which the ASIC component is one of the key directions of our multidisciplinary cross-fertilising R&D approach."

"This announcement contains inside information for the purposes of Article 7 of the Market Abuse Regulation (EU) 596/2014 as it forms part of UK domestic law by virtue of the European Union (Withdrawal) Act 2018 ("MAR"), and is disclosed in accordance with the Company's obligations under Article 17 of MAR"

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About Quantum Blockchain Technologies Plc

QBT (AIM: QBT) is an AIM listed investment company which has recently realigned its strategic focus to technology related investments, with special regard to Quantum computing, Blockchain, Cryptocurrencies and AI sectors. The Company has commenced an aggressive R&D and investment programme in the dynamic world of Blockchain Technology, which includes cryptocurrency mining and other advanced blockchain applications.

Glossary of Terms:

ASIC: An Application-Specific Integrated Circuit is an integrated circuit chip customized for a particular use, rather than intended for general-purpose use. ASIC chips are typically fabricated using metal-oxide-semiconductor (MOS) technology, as MOS integrated circuit chips

FPGA: A field-programmable gate array is an integrated circuit designed to be configured by a customer or a designer after manufacturing – hence the term "field-programmable". The FPGA configuration is generally specified using a hardware description language (HDL), similar to that used for an application-specific integrated circuit (ASIC).

Nanometer: A nanometer is a unit of measurement that is equivalent to one billionth of a meter. It is widely used as a scale for building tiny, complex, and atomic-scale computing and electronic components, such as ASIC chips.

SHA256: Secure Hashing Algorithm (SHA) -256 is the hash function and mining algorithm of the Bitcoin protocol, referring to the cryptographic hash function that outputs a 256 bits long value.