6 January 2023

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

**R&D Update – Quantum Computing**

The board of Quantum Blockchain Technologies (AIM: QBT) is pleased to update the market with the latest advances by its research and development ("R&D") team, which is working at developing proprietary methods to mine Bitcoin more cheaply, quickly and with improved energy efficiency.

QBT is pleased to announce that it has retained dr. Lov Kumar Grover (https://en.wikipedia.org/wiki/Lov_Grover), as a special consultant for the theoretical assessment of the company's proprietary quantum version of SHA-256 (i.e., the Quantum Mining algorithm).

Dr. Grover is a pioneer in quantum computing research and development. He authored the first quantum algorithm for database searches while he was a scientist at AT&T Bell Labs. Grover's Algorithm' improves markedly the speed, accuracy and efficiency of using large databases by employing quantum computing. This algorithm should have fundamental relevance to the complex task of mining Bitcoin. [1]

Dr. Grover has been retained by QBT on an initial contract of 3 months and has been granted 5 million warrants (included in the warrants announced on 20 December 2022) over QBT's ordinary shares, now exercisable at 5p per share before 31 October 2023 instead of 6 June 2023 as previously disclosed.

**Francesco Gardin, CEO and Chairman commented**: We are extremely pleased that dr. Grover has joined our team. As a leading light in the sector, his profound knowledge of quantum computing theory and optimisation will prove essential for further refining the proprietary SHA-256 quantum version developed by QBT.

"In science, like in many other human endeavours, it is the people who make the difference. In our case, we believe that dr. Grover's contribution to verifying the theoretical correctness of our quantum version of the SHA-256 algorithm will be key to the success of our project,"

**Dr. Lov Kumar Grover commented:** "QBT is lucky to have, what is, perhaps, the best management team in the area of quantum. Both Francesco and Rita [2] are thoroughly straightforward, honest and transparent in their operations and dealings with others - it is a pleasure to work with them."

The Company further reports that following the results achieved by its Quantum Computing R&D team over the last 12 months, with respect to the so called "Quantum Mining" algorithm (referred to in the announcements of 11 March 2022, 23 May 2022 and 15 November 2022) focus has now moved to the patent filing stage. Final theoretical checks on the quantum computing version of the SHA-256 algorithm, the core engine for BTC mining, are being carried out before the Company drafts its patent application.

[1] *Grover's Algorithm has proved the intrinsic power of quantum computers over classic ones, demonstrating the computational search time of one specific word among 'N' number of words in a database, which is reduced from N/2 attempts on a classic machine, to the square root of N on a quantum computer. For example, in a database of 10,000 words, instead of 5,000 average attempts to find a specific word with a classic computer, it will be found with an average of 100 attempts using a quantum computer: the larger the number of words in the database, the bigger is the quantum computer advantage over a classic computer.*

[2] *Dr Rita Pizzi*

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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.