## Cardano (ADA)

**About:** Cardano is a decentralised public blockchain and cryptocurrency project and is fully open source. Cardano is developing a smart contract platform which seeks to deliver more advanced features than any protocol previously developed. It is the first blockchain platform to evolve out of a scientific philosophy and a research-first driven approach. The development team consists of a large global collective of expert engineers and researchers.

## **Technology:**

## PROOF OF STAKE MINING:

Cardano uses a new proof of stake algorithm called Ouroboros, which determines how individual nodes reach consensus about the network. The algorithm is a crucial part of the infrastructure that supports the Ada cryptocurrency and is a major innovation in blockchain technology. Ouroboros eliminates the need for an energy-hungry proof of work protocol, which stands as a barrier to blockchain scaling up for much wider use. Designed a team led by IOHK Chief Scientist, Professor Aggelos Kiayias, Ouroboros is the first proof of stake protocol that has mathematically been shown to be provably secure, and the first to have gone through peer review through its acceptance to Crypto 2017, the leading cryptography conference. The level of security demonstrated by Ouroboros compares to that of Bitcoin's blockchain, which has never been compromised.

The platform is being constructed in layers, which gives the system the flexibility to be more easily maintained and allow for upgrades by way of soft forks. After

the settlement layer that will run Ada is complete, a separate computing layer will be built to handle smart contracts, the digital legal agreements that will underpin future commerce and business. Cardano will also run decentralised applications, or dapps, services not controlled by any single party but instead operate on a blockchain.

This is the first blockchain project to be developed from a scientific philosophy, and the only one to be designed and built by a global team of leading academics and engineers. It is essential that the technology is secure, flexible and scalable for use by many millions of users. Consequently, considerable thought and care from some of the leading experts in their fields has been devoted to the project and informed design decisions. The scientific rigour applied to mission-critical systems such as aerospace and banking has been brought to the field of cryptocurrencies, with a high assurance implementation. We believe this is the first time that this has been done.

## **Advantages:**

A major innovation of Cardano is that it will balance the needs of users with those of regulators, and in doing so combine privacy with regulation. The vision for Cardano is that its new style of regulated computing will bring greater financial inclusion by providing open access for all to fair financial services.