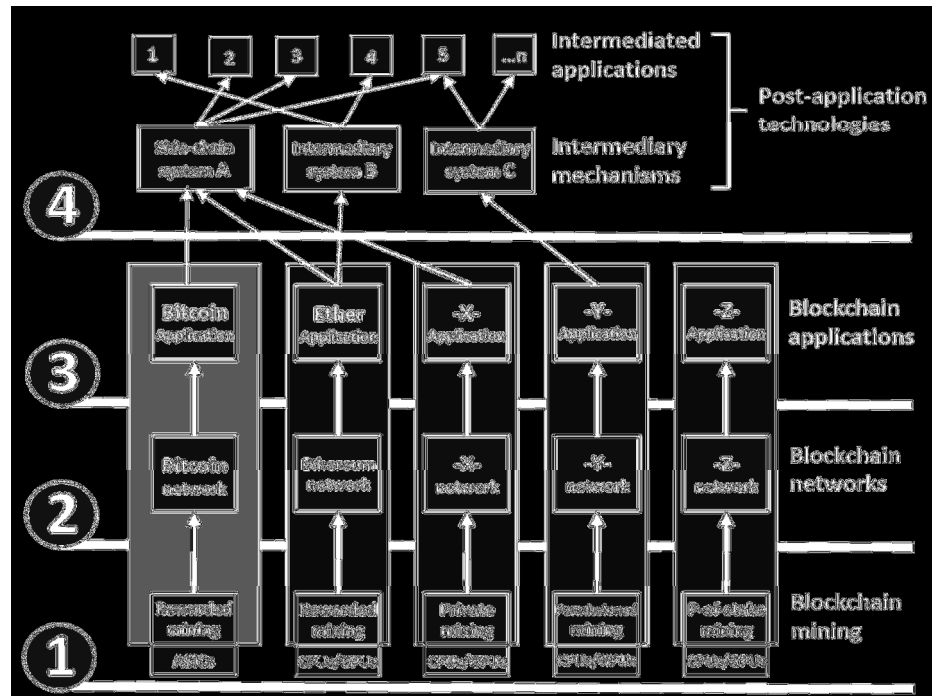


2.1 DEVELOPMENTS FROM THE SEMINAL WORKS

The above discussed seminal works form the genesis of all blockchain technologies, which are to some degree derived from those works. The following diagram illustrates the seminal work with regards to the present-day blockchain technology.



In the above image, the seminal work is highlighted in dark grey. It consists of the Bitcoin Network; the Mining mechanism, which supplies the Network with the necessary processing power; and the Bitcoin Application, which is the currency rewarded.

In fact, this basic approach (1 protocol--1 application--1 network--1 mining system) is used by nearly all the present-day blockchain networks. However, there have been some recent variations, like for example, in the illustration network -X- uses a “private mining” method, network -Y- a “permissioned mining” method, and network -Z- a “proof-of-stake” mining method.

All are trust-based⁴ and are therefore cryptographically inferior to the seminal trustless approach, which is now popularly referred to as “permissionless mining” and relies on the proof-of-work algorithm.

⁴ Both “private” and “permissioned” systems are supported by Eleutherus/GP and discussed below. A. Poelstra’s paper “On proof and consensus” focuses on two leading trust-based alternatives to trustless proof-of-work <https://download.wpsoftware.net/bitcoin/pos.pdf>