

PRIVACY ENHANCING CRYPTOGRAPHY IN DISTRIBUTED **LEDGERS**

PRIVILEDGE realises cryptographic protocols supporting privacy, anonymity, and efficient decentralised consensus for DLTs. In PRIVILEDGE, several European key players in cryptographic research and from the fintech and blockchain domains unite to push the limits of cryptographic protocols for privacy and security.

Common challenges



Strong Confidentiality



Verifiability



Identity Services



Private Communication Channels

Toolkits

- Anonymous authentication for Hyperledger Fabric
 - Flexible consensus for Hyperledger Fabric
 - Post-quantum secure protocols for ledgers
 - Zero-knowledge proofs for ledgers
 - Ledger-oriented secure two/multi-party computation protocols
 - Privacy-preserving data storage for ledgers

Verifiable online voting with ledgers

Verifiable online voting with a secret ballot in Estonia, led by Smartmatic-Cybernetica Centre of Excellence for Internet Voting OÜ.

University diploma record ledger

Authenticated blockchain record for Greek university diplomas, developed by Greek Research and Education Network and Academic Network.

Distributed ledger for insurance

Private transactions for DLT solutions in the insurance industry, led by Guardtime.

Cardano stake-based ledger

Stake-based cryptographically secure consensus for decentralised blockchains, led by INPUT OUTPUT RESEARCH LIMITED.























