



# The future of DLT and its applications in real-world scenarios

# How blockchain works?

- Distributed Ledger Technology
- Smart Contracts
- Characteristics
  - Cryptographic security
  - Privacy
  - Built-in redundancy
  - Process integrity

# What blockchain does?

- Transaction platform
- Eliminates need for trusted third party
- Providing additional:
  - Security
  - Transparency
  - Performance

# For blockchain, the future is now

- **Generation 1**
  - **Bitcoin**
- **Generation 2**
  - **Ethereum**
- **Generation 3**
  - **EOS, IOTA, HyperLedger...**
- **Generation 4**
  - **Tolar HashNET**
  - **Hedera Hashgraph**



# For blockchain, the future is now

	Bitcoin	Ethereum	EOS	NEO	Hyperledger	Hedera	HashNET
Network generation	Gen. 1	Gen. 2	Gen. 3	Gen. 3	Gen. 3	Gen. 4	Gen. 4
Speed (transparency)	7-9	20	3,000	1,000	2,000	10,000	50,000
Time to finality	30-60 min	6 min	3 sec	15 sec	2 sec	2-7 sec	2-3 sec (7s worst case)
Energy consumption	High	High	Low	Low	Low	Low	Low
Mainnet availability date	2009	2015	Q2/2018	Q4/2018	Q4/2015	Q3/2018	June 30, 2019
Private network possible	No	Yes	No	No	Yes	No**	Yes
Possible to join the project	n/a	n/a	n/a	n/a	n/a	No***	Yes

# Where blockchain fits?

- Identify pain problems
- Disruption of existing operating models
- Internal issues
- Launch a pilot!



# European Blockchain Services Infrastructure

- Delivery of cross-border digital public services, with the highest standards of security and privacy
- EBSI v1.0
  - Notarisation
  - Identity Framework
  - Certification of Diplomas
  - Trusted Data Sharing



# Finance applications

- Instant Payments
  - Create environment for secure SEPA instant credit transfer
  - Use DLT for high throughput and low latency





# Finance applications

- Smart Bonds
  - Instead of using traditional bonds, using smart contract technology investors can hold Smart Bonds instead. Smart Bonds are automated bond contracts that use blockchain technology to automate bond registry services. The use of smart contracts in this case also allows for instant settlement.



# Finance applications

- Bookkeeping and Auditing
  - Allow auditors to automatically verify the most important data behind financial statements
  - Easily prove the integrity of electronic files
  - audits can be conducted in real time and not last for days or weeks





# Digital identity

- Self sovereign identity
  - User has full control over their data
  - Validate personal documents and signatures
  - Blockchain systems would make it harder for a person to falsify a piece of information, and could effectively protect all sorts of data against frauds
- KYC/AML



# SUSTAINABLE DEVELOPMENT GOALS



Want to know more?

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