

Blockchain ETAC

OPPORTUNITY

Trigger

Bitcoin

Players

Many vendors (e.g., Gartner lists 33 in [52]), but no clear Winner(s)

Drivers

Policy Decisions

Need for Trust

Preference for Decentralization

Security Concerns

IMPACT

Macro

Network Effects & Interactions

Decentralization

<-> Security

-> Integration

Disruptees

Internet Companies

Financial Sector

Micro

Competitive Advantage

Agility from reduced Friction for Transactions and Ad-hoc trust

Financial Benefits

Reduce Cost due to reduced Fraud, better Security, and reduced Friction

Better Visibility & Auditing

Supply Chain

Better Security

Agility through Smart Contracts

TECHNICAL FEASIBILITY

Technical Merit

Immutable Ledger

Limited Privacy

Limited Latency and Scalability

Overconsumption of Power

Lack of Governance

Overconsumption of Storage

Tools, Ecosystem & Skills

Good Developer Community

Weak Developer Tools

Lack of Verification Methods

Friction

Impact on Critical Infrastructure

Harder to understand and debug

FUTURE

Timeline

Need 5-10 years to solve core Technology Problems

Risks

Hard to reason about the Risk of Attacks

Lack of Standards for Applications

Lack of a Responsible Party

Lack of understanding about the Macroeconomic Impact

Irrevocability

Regulations and Policy Uncertainty

SUMMARY

Blockchain can transform the world fundamentally. It is ready for limited applications in use cases Digital Currency, Lightweight financial systems, Ledgers, Provenance, and Disintermediation. However, it faces significant technical gaps and needs at least 5-10 years to find answers to those problems. Challenge is sustaining the current activity (e.g., startups, research) to the conclusion.