

Blockchain technology

Briefing Series

0/5

Clarifying the hype and demystifying the impact

Hype vs. reality: Potential depends on leveraging the right blockchain features

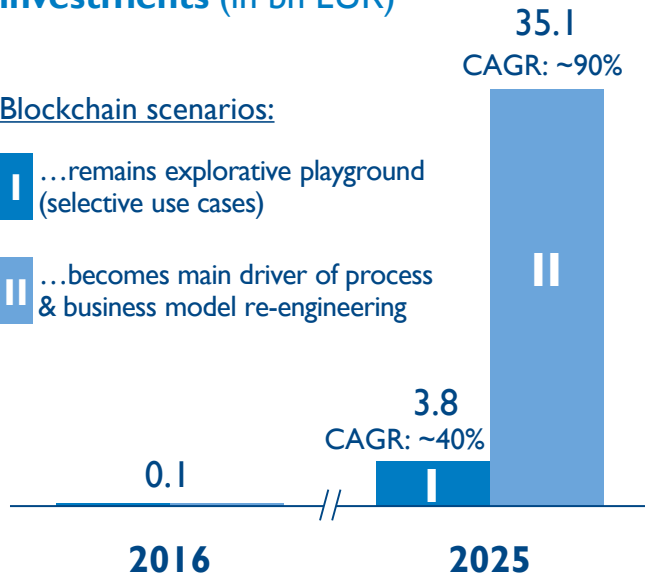
What to expect?

Radical growth of blockchain investments (in bn EUR)

Blockchain scenarios:

I ...remains explorative playground (selective use cases)

II ...becomes main driver of process & business model re-engineering



Source: Markets & Research, analyst reports, ADL expert survey

Companies still struggle find their place

70%+ of senior management have little to no blockchain understanding

90%+ of companies have no solid in-house expertise

80%+ of companies believe there is no use case for their industries

<10% of operational solutions outside fintech & energy industries

In this series:

- Blockchain = Technology:** Brief explanation of what blockchain is
- Paradigm shift:** Analysis of the feasible changes due to blockchain features
- Strategic impact:** Three areas of blockchain impact for business
- Use cases today:** Materializing potential with blockchain already today
- 4-step blockchain readiness?** Four questions to identify blockchain potential

Arthur D. Little contribution

- **Clarifying** the strategic impact for businesses/in the commercial context
- **Evaluate** company & industry potential
- **Define use cases and deployment plan** to realize potential (in line with business targets)
- **Navigate ecosystem** for own industry and “hot-tech” to watch in blockchain

For further information, please contact:

Contact

Fabian Dömer, Partner



Contact

Volker A. Pfersching, Partner



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Blockchain = Technology: Focusing on a decentralized way of organizing data

What to expect?

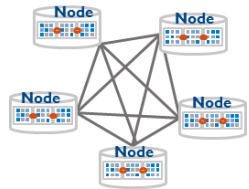
Four elements of how a blockchain works



1. Events = transactions
Recording all (information) events as transactions with instant encryption



2. Chain of transactions
Linking all individual transactions to a sequential chain



3. Storing chain decentrally
Distribution of new chain transactions to all computers



4. Validating data
Continuous validation of data authenticity and integrity

Blockchain language

Address
Encryption
Token

Hashing
Block

Peer-to-peer network

Mining
Proof-of-work
Proof-of-stake

Arthur D. Little recommendations

- Blockchain **management workshops**; Discussing logic behind and value of blockchain
- **Technology radar** for identifying new technical developments and commercial blockchain technology solutions
- Evaluation of company-wide **blockchain technology strategy**
- **Due diligence** of technical blockchain solutions and partners
- **Creating awareness** of potential and risks

Next edition:
Blockchain, the paradigm shift

For further information, please contact:

Contact

Fabian Dömer, Partner



Contact

Volker A. Pfersching, Partner



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Clarifying the hype and demystifying the impact

Paradigm shift: Unlocking the value from the network
(and avoiding the need for high upfront central invest)

What to expect?

from ...



Central authority,
source of trust

... to



Democracy: Self-
governed, decentral
network

Aspect

Information availability

Centralized,
non-transparent



Always transparent for
everyone (but encrypted!)

Real-time information
available, anytime!

Incentive scheme

Self-serving
rewards



Agreed conditions with
mutual interests

No self-serving
interests

Security

Single point
of failure



Network of verification
and backup

Built-in security
mechanism

Arthur D. Little recommendations

- Definition of **company-specific blockchain benefits and technology mix**
- Unbiased understanding of **industry-specific pros and cons**
- Definition of a **company-specific set-up**:
 - Technological solution
 - Steering & governance
 - Incentive systems
 - Security & scalability

Next edition:
Strategic impact of blockchain

For further information, please contact:

Contact

Fabian Dömer, Partner



Contact

Volker A. Pfirsching, Partner



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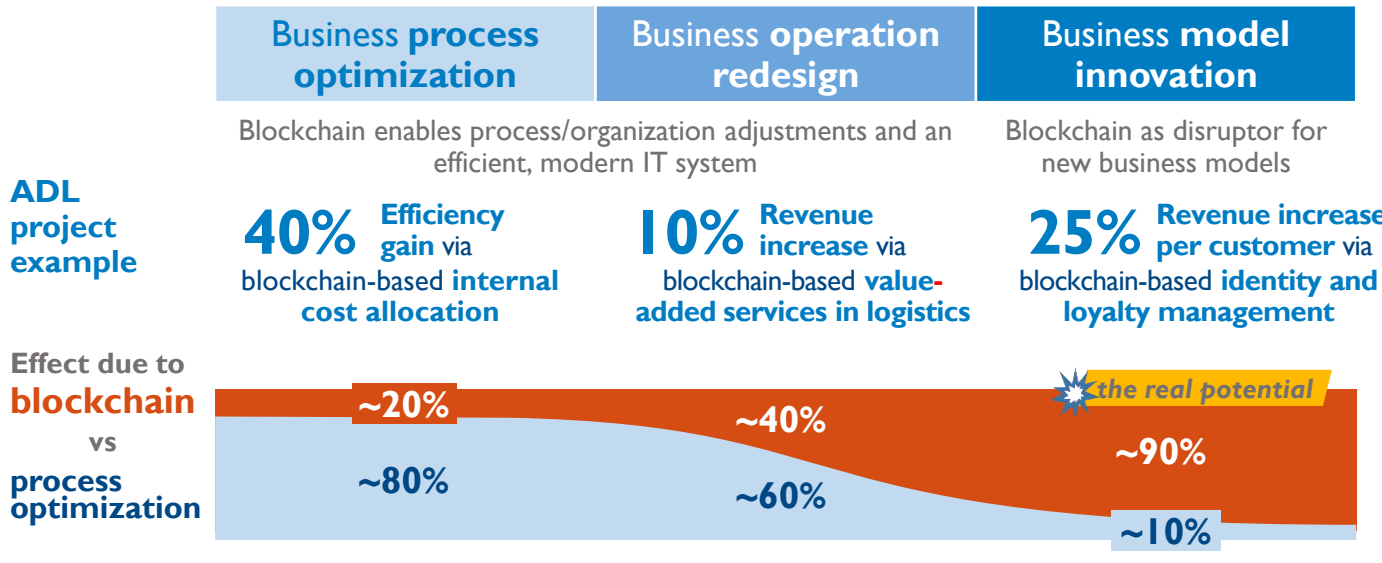
Briefing Series

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Clarifying the hype and demystifying the impact

Strategic impact: Optimizing organization today & creating future business

What to expect?



Arthur D. Little recommendations

- In-depth development and analysis of **blockchain scenarios** for your organization
- Analysis of **strategic and operational impact** of blockchain
- **Design of business processes** maximizing the benefit of blockchain
- Evaluation of **blockchain technology architecture** to support business needs
- Development of **deployment roadmap for scaling blockchain** activities

Use cases (exemplary)

- Bitcoin payment
- Business-process management
- Internal cost allocation
- Supply-chain transaction automation
- Digital notary
- Electricity trading
- Data marketplace
- Identity management

Next edition:
Real-life use cases

For further information, please contact:

Contact

Fabian Dömer, Partner



Contact

Volker A. Pfersching, Partner



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Clarifying the hype and demystifying the impact

Use cases: Benefits can materialize for all business functions and all industries

What to expect?

SELECTION

Single business functions 

Functions focusing on transactions can immediately benefit from

- Payments in cryptocurrencies
- Internal cost allocation
- Digital notary
- Document management
- Shareholder and union votes
- Know-your-customer management
- Own (internal) currency
- Financial accounting

Arthur D. Little recommendations

- **Outside-in perspective** on relevant use cases for blockchain
- Definition of **company-specific use cases**
- Overview and visibility of the **blockchain developments/ ecosystem for your industry**
- **Commercial and technical evaluation** for use cases

Complete industries 

Industries upgrade processes, operations and business models

Automotive	Consumer & retail	Energy & utilities
<ul style="list-style-type: none"> ■ Maintenance log ■ On-demand services 	<ul style="list-style-type: none"> ■ Certification of origin ■ Loyalty management 	<ul style="list-style-type: none"> ■ Prosumer trading ■ Securitization of assets
Public services	Telecom	Travel & transportation
<ul style="list-style-type: none"> ■ Passport and visa administration ■ Real-estate registry 	<ul style="list-style-type: none"> ■ Fraud management ■ Seamless authentication 	<ul style="list-style-type: none"> ■ Billing for infrastructure usage ■ Asset maintenance log

The economy 

Instant data monetization through a trusted, decentralized marketplace

Next edition:
Do-it-yourself relevancy check

For further information, please contact:

Contact

Fabian Dömer, Partner



Contact

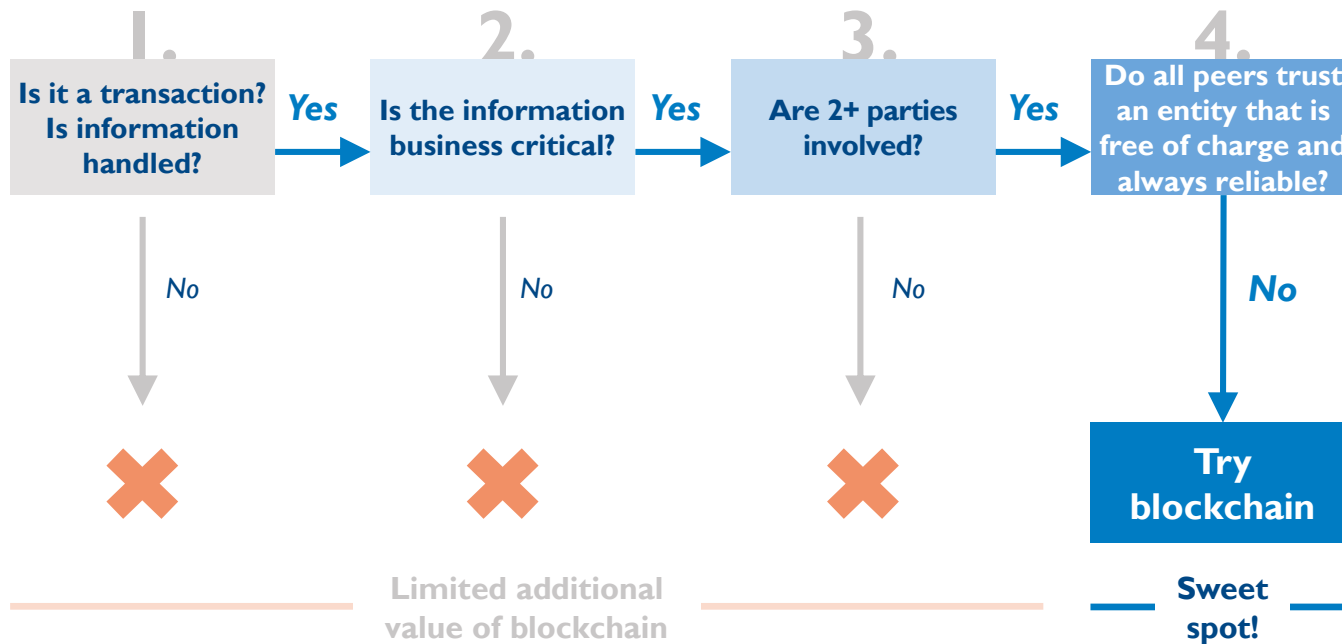
Volker A. Pfirsching, Partner



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Clarifying the hype & demystifying the impact

4-step blockchain readiness: Is blockchain relevant for a business context?



Source: Adapted from BlockchainHub

What to expect?

Arthur D. Little recommendations

- **Use cases & best practice** across industries and from peers
- **Completion of/support for “relevance analysis”** of blockchain technology for your situation
- **Impact analysis** of application of blockchain technology for your business area and functions (i.e., quantitative and qualitative)
- **Identification of blockchain use cases** for your organization (e.g., processes, operations, business models, etc.)
- **Blockchain training** for management to detect blockchain potential early

More information? Click here...

Contact

Fabian Dömer, Partner



Contact

Volker A. Pfirsching, Partner

