European Union Leadership in Blockchain

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Digital Innovation and Blockchain
Digital Single Market
DG CONNECT
European Commission
Why using blockchain?

- New collaborative models in the digital economy (creating trust)
- Transformative capacities (disintermediation, incentives through use of tokens)
- Potential alternative model to dominant platforms (decentralisation, user empowerment)
- Higher quality and efficiency (traceability, immutability)
- New opportunities for European companies
Transformative power of blockchain

Blockchain Potential Applications & Disruption

The blockchain is radically changing the future of transaction-based industries

- E-commerce
- Global Payments
- Remittance
- P2P Lending
- Microfinance
- Healthcare
- Title Records
- Ownership
- Voting
- Intellectual Property

Source: IBM, Making Blockchain Real for Businesses, 2015
Role for public bodies in transformative technologies

- Foundational converging technologies that will underpin the future of digital transformation across whole economy
  - deep-tech at a stage of development where volumes of investments make a difference
  - embedding values of society
- Leadership role of Europe
  - The EU has leading research, innovation, knowledge and developers
  - High AI, Blockchain and IoT standards (data privacy protection, interoperability, ethical guidelines and cybersecurity)
  - Engine for innovation-led economic growth

AI declaration joined by all 28 Member States and Norway
Blockchain declaration with all 28 Member States, Norway and Lichtenstein
EU blockchain strategy

ESTABLISHING GLOBAL LEADERSHIP IN BLOCKCHAIN AND DISTRIBUTED LEDGER TECHNOLOGIES

JOINED-UP POLITICAL VISION (EU-MS)

PUBLIC-PRIVATE PARTNERSHIP
SUPPORTING THE CREATION OF THE INTERNATIONAL ASSOCIATION OF TRUSTED BLOCKCHAIN APPLICATIONS [INATBA]; A MULTISTAKEHOLDER ORGANISATION TO PROMOTE TRUST AND INTEROPERABILITY AT GLOBAL LEVEL

CONNECTING GLOBAL AND EUROPEAN EXPERTISE
THE EU BLOCKCHAIN OBSERVATORY AND FORUM BRINGS TOGETHER THE LEADING GLOBAL EXPERTS TO IDENTIFY OBSTACLES, INCENTIVES AND PRACTICAL SOLUTIONS TO PROMOTE BLOCKCHAIN UPTAKE.

INVESTING IN EU RESEARCH, INNOVATION, START-UPS AND SKILLS DEVELOPMENT
THROUGH THE CONNECTING EUROPE FACILITY AND HORIZON PROGRAMME, THE EU IS CO-INVESTING IN THE MOST ADVANCED DIGITAL INFRASTRUCTURE AND THE MOST INNOVATIVE EU START-UPS. EU INVESTMENT SCHEME FOR AI AND BLOCKCHAIN.

PROMOTING AN ENABLING LEGAL FRAMEWORK, INTEROPERABLE STANDARDS
The European Blockchain Partnership

MANDATE OF THE EUROPEAN BLOCKCHAIN PARTNERSHIP
JOINT DECLARATION 10th OF APRIL 2018

SIGNATORIES AGREE TO ENGAGE IN COOPERATION TO
ESTABLISH A EUROPEAN BLOCKCHAIN SERVICES
INFRASTRUCTURE [EBSI]

FROM 22 MEMBERS TO 30 MEMBERS
WORKING TOGETHER TO DEVELOP THE 3 DELIVERABLES OF THE JOINT DECLARATION

AGREEMENT WITH THE ORIENTATIONS IN 3 DELIVERABLES
D1: INITIAL SET OF USE CASES FOR EBSI DEPLOYMENT
D2: PRINCIPLES AND TECHNICAL FEATURES OF THE EBSI INFRASTRUCTURE
D3: GOVERNANCE MODEL FOR 2019-2020 TO SUPPORT THE DEVELOPMENT OF THE EBSI

CONNECTING EUROPE FACILITY FOR EBSI DEVELOPMENT
SUPPORT TO THE DEPLOYMENT OF CROSS-BORDER DIGITAL SERVICES INFRASTRUCTURES IN THE EUROPEAN UNION

3 DELIVERABLES BY END OF 2018
Use-cases for cross border public sector services
Functionalities and architecture of the EBSI Governance Model
SELECTED USE CASES FOR 2019

Notarisation of Documents for Auditing Purposes

Leveraging the power of blockchain to create trusted audit trails, to prove data integrity for audit purposes (e.g. in structural funds management)

EU Self-Sovereign Identity Framework

Implementing a European Self-Sovereign Identity Scheme to allow users to control and manage their own data to access cross-border services

Certification of Diplomas

Facilitating cross-border access to certified diplomas, education and qualification credentials, significantly reducing verification costs and improving authenticity trust

Trusted Data Sharing

Leveraging blockchain to securely share data (e.g. VAT identification numbers) amongst customs and tax authorities in the EU
INATBA is bringing together members to:

- Develop open, transparent & inclusive governance models
- Support interoperability of DLT/Blockchains
- Make industry sector specifications
- Promote convergence of policy by establishing regulatory dialogues between industry & public authorities at global level
- Working groups on supply chain, financial services, energy, mobility...
European Parliament – Resolution on Blockchain: a forward-looking trade policy

“Use of blockchain can increase the efficiency, speed and volume of global trade by limiting the costs associated with international transactions”

In particular:

➢ Notes that Free Trade Agreements (FTAs) in the EU are underutilized — only 67 percent of EU exporters and 90 percent of EU importers make use of the preferential tariffs.

➢ Blockchain’s potential in providing trust in the provenance of products.

➢ Could enable customs authorities to obtain the required information for customs declarations.
An Observatory and a Forum, an online and offline community, a map of 770+ projects, workshops organised, reports published, trainings
Content produced and workshops organized by the Observatory drive a lot of attention worldwide.

Our thematic reports are viewed as strong thought leadership pieces.

- Blockchain Innovation in Europe: 4300 views/downloads
- Blockchain and the GDPR: 4800 views/downloads
- Blockchain for Government and Public Services: 3200 views/downloads
- Scalability, Interoperability and Sustainability of Blockchains: 1600 views/downloads
- Blockchain and Digital Identity: 2400 views/downloads
- Legal and Regulatory Framework of Blockchains and Smart Contracts: Just released

Workshops and events videos available in replay:
- 5800 views total
- 35 videos published

An active Twitter account spreading awareness:
- 6000 followers
- 450 tweets published
Blockchain Deployment in Europe

Sectors currently using blockchain in Europe

- 25.76% Tech, IT, Telecommunications
- 19% Government Services
- 14.90% Financial Services, FinTech, KYC, AML
- 8.83% Education
- 6.07% Media, Entertainment, Publishing
- 7.58% Supply Chain, Transportation, industrial manufacturing
- 5.56% Non-Profit or Social Impact
- 4.30% Energy, Environment, Utilities
- 5.30% Other
- 2.53% Healthcare

By the Financial Sector for payment solutions, securities and insurance products.

By the Transport Sector for connecting mobility services and autonomous vehicles.

By the Energy Sector to integrate renewable electricity generation in Europe’s grids.

By the Health & Pharma Sectors to trace the origins of goods in a reliable manner.

By the Public Sector to protect democracy, improve e-voting and use of e-identities.

Source: European blockchain observatory and forum April 2019 based on self-declarations by 400 startups and other blockchain initiatives

https://www.eublockchainforum.eu/initiative-map
Investments in AI/Blockchain

- Investment for start-ups, early and growth stages
- EUR 100 million (EU contribution in 2020)
- With ambitious objectives:
  - **Financing a portfolio** of innovative AI/blockchain companies
  - Developing a **dynamic EU-wide investors community** focusing on AI and Blockchain
  - **Scaling up the volume of investments** at the national level by involving the national promotional banks that are willing to participate
  - **Incentivising further private sector investments**
  - Making **Europe more attractive for start-ups** to stay and grow
- Prepare **future support through InvestEU** (starting in 2021)
• Energy consumption
• Scalability
• Interoperability
• Integration with existing IT systems and organisations
• Smart contract resilience and legal enforceability
• Framework for use of tokens incentivising users
• Lack of complete EU regulatory framework / lack of clarity
Legal framework

**Smart Contracts**: Is the current legal framework sufficiently clear to ensure the mutual recognition of smart contracts and clarify jurisdiction in case of legal disputes?

**Tokenisation**: Is the current legal framework appropriate for issuing and trading tokens (crypto assets), when they are not considered as financial instruments?

=> EU Blockchain Observatory Working Group "Legal"
=> Opinion EBA, ESMA Jan 2019 (gap analysis)
=> Study EU Commission 2019
=> New Commission from 1 December 2019
Thank you!

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