



Standards supporting BC/DLT Interoperability EU Initiatives

ITU-T ITU Workshop on Distributed Ledger Technology Scalability and Interoperability, Geneva, 02/08/2019

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Why Blockchain?

- *New paradigms and collaborative models in the digital economy (trust)*
- *Transformative capacities (e.g. disintermediation, tokenisation)*
- *Potential alternative model to dominant platforms (decentralisation)*
- *Higher quality and efficiency (e.g. data integrity, traceability)*
- *New opportunities that Europe must seize NOW*
- *Role for public bodies and the private sector*

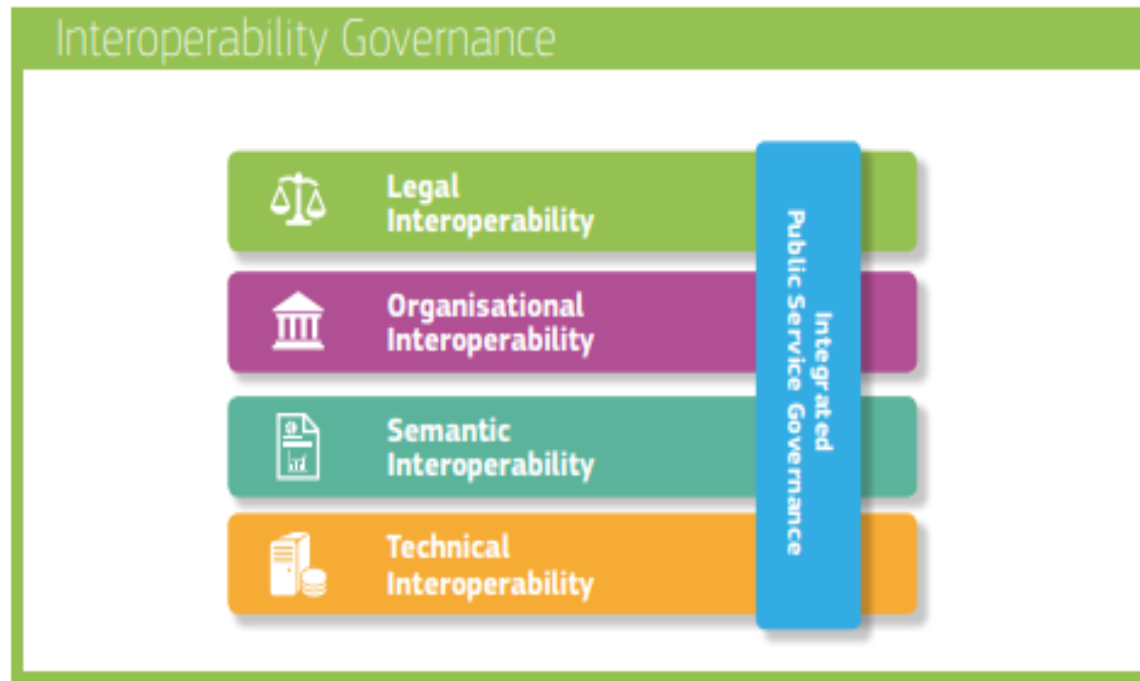
From high potential through proof of concept to successful use cases

- *Major actors from various industrial sectors engaged in projects and initial blockchain based services*
- *Vibrant startup communities*
- *High interest in governments, EU, national, local (cities)*
- *Value for customers, citizens*

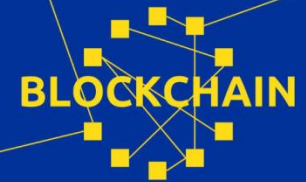
	Industry	Use cases	Start-ups
	Energy, utilities & mining	<ul style="list-style-type: none"> • Smart utility metering system • Decentralised energy data platform 	Bankymoon AutoGrid
	Entertainment & media	<ul style="list-style-type: none"> • Control of ownership rights of digital media • Disintermediation of record labels 	Ascribe Mycelia
	Financial services	<ul style="list-style-type: none"> • International P2P transactions • Anti-money laundering 	Bitcoin Coinfirm
	Government & public services	<ul style="list-style-type: none"> • Land ownership records • Tamper-proof voting records • Digital identity of citizens 	Factom Follow My Vote Tradle
	Healthcare	<ul style="list-style-type: none"> • Storage of healthcare records • Population health and clinical studies 	HealthNautica Tierion
	Hospitality & leisure	<ul style="list-style-type: none"> • Loyalty programmes 	Loyal
	Insurance	<ul style="list-style-type: none"> • Peer-to-peer flight insurance policies • Micro-insurance 	InsurETH Stratumn
	Transportation & logistics (freight transport)	<ul style="list-style-type: none"> • Trade documentation (e.g. Bill of Lading) • Trade finance • Supply chain transparency 	Wave Skuchain Provenance
	Transportation & logistics (aviation)	<ul style="list-style-type: none"> • Distribution of tickets and ancillary services • Loyalty programmes (cf. H&L) • Passenger identity management 	Loyal

Reap all benefits => INTEROPERABILITY

European Interoperability Framework model



European Interoperability Reference Architecture



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]

AIMING AT SPECIFIC DELIVERABLES

- Use-cases cross border digital public sector services
- Functionalities and architecture of the EBSI
- Governance Model

EBP POLICY GROUP

EBSI TECHNICAL GROUP

EBSI FOCUS



SUPPORT EBSI DEVELOPMENT
IDENTIFICATION AND SELECTION OF NEW USE CASES
ALIGNMENT OF EBSI PRIORITIES WITH POLICY PRIORITIES

POLICY FOCUS



DEFINE POLICY AGENDA ON DLT
IDENTIFY POLICY AND REGULATORY AREAS THAT ARE CRITICAL FOR BLOCKCHAIN TECHNOLOGY DEPLOYMENT. E.G. SMART CONTRACTS

AGREE ON REPRESENTATION AND PARTICIPATION AT THE INATBA GLOBAL REGULATORY DIALOGUES INITIATIVE

NOTARISATION U-G

DIPLOMAS U-G

ESSIF U-G

TAXATION – IOSS U-G

...

The way forward Cooperation on



standardisation

European
Commission

UNE
Normalización.España



FC BC&DLT



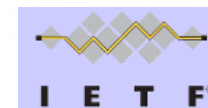
ISG PDL

DIN



FG DLT

FC DFS, SG20, SG16, SG13, SG17



DIN RG



TC 307



INFORMATION TECHNOLOGY STANDARDS
SC 27, SC42,



IEEE
Advancing Technology
for Humanity



OASIS
Advancing open standards for the information society

UN/CEFACT
SIMPLE, TRANSPARENT AND EFFECTIVE PROCESSES
FOR GLOBAL BUSINESS

INATBA

TBI

ALASTRIA



ESTABLISHING GLOBAL LEADERSHIP IN BLOCKCHAIN AND DISTRIBUTED LEDGER TECHNOLOGIES



JOINED-UP POLITICAL VISION (EU-MS)

JOINT DECLARATION ON THE ESTABLISHMENT OF THE **EUROPEAN BLOCKCHAIN PARTNERSHIP** [EBP] AND THE DEVELOPMENT OF THE **EUROPEAN BLOCKCHAIN SERVICES INFRASTRUCTURE** [EBSI] FOR CROSS-BORDER DIGITAL SERVICES OF PUBLIC INTEREST



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 AND START-UPS

THROUGH THE CONNECTING EUROPE FACILITY AND H2020 PROGRAMMES, THE EU IS CO-INVESTING IN THE MOST ADVANCED DIGITAL INFRASTRUCTURE AND THE MOST INNOVATIVE EU START-UPS
NEW EU INVESTMENT SCHEME FOR AI AND BLOCKCHAIN + SUPPORT PROGRAMME



PROMOTING AN ENABLING DSM LEGAL FRAMEWORK, INTEROPERABLE STANDARDS and SKILLS DEVELOPMENT

EU Blockchain Observatory and Forum Achievements

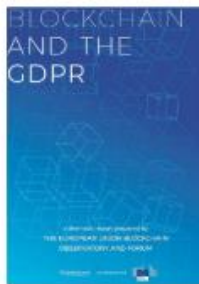


Content produced and workshops organized by the Observatory drive a lot of attention worldwide

Our thematic reports are viewed as strong thought leadership pieces



3300
views/downloads



3600
views/downloads



2200
views/downloads



700
views/downloads

Academic papers participate to the research effort

- On Blockchains and the General Data Protection Regulation (University of Southampton)
- Government services and digital identity (Open University)
- Legal Recognition of Blockchain Registries and Smart Contracts (Open University)
- An overview of blockchain scalability, interoperability and sustainability (Hochschule Luzern)
- Tokenization of physical assets and the impact of IoT and AI (Hochschule Luzern)



Eight workshops organized so far, gathering hundreds of experts

- Blockchain innovation in Europe
- GDPR
- Government services and digital identity
- Scalability, Interoperability and Sustainability
- Digital identity
- Legal recognition of blockchain and smart contracts
- Supply chain and traceability
- Convergence of Blockchain, AI and IOT
- **Blockchain and Governance**
- **Digital Assets**



30 June 2019

**June newsletter
of the EU
Blockchain
Observatory &
Forum**

"Convergence" The Global Blockchain Congress

- *11–13 November*
- *Málaga, Spain*



An event all about
Convergence
*(regulation, technologies, society
and new business models)*

More Info!

DG CONNECT:

CNECT-EUBLOCKCHAIN@ec.europa.eu

<https://ec.europa.eu/digital-single-market/en/blockchain-technologies>

Emilio.Davila-Gonzalez@ec.europa.eu

Observatory:

<https://www.eublockchainforum.eu/>

<https://eublockchain.mobilize.io/network-groups>



European
Commission

Thanks!



@EUBlockchain



Support slides

EU Blockchain Observatory and Forum

Stakeholders engagement



An Observatory and a Forum, an online and offline community, a map of 660+ projects, workshops organised every month, reports prepared, available trainings



#EUBlockchain

EU BLOCKCHAIN OBSERVATORY & FORUM



Focus EBP

Achievements 2018



WHAT WAS ACHIEVED



FROM 22 MEMBERS TO 29 MEMBERS

WORKING TOGETHER IN MONTHLY MEETINGS 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

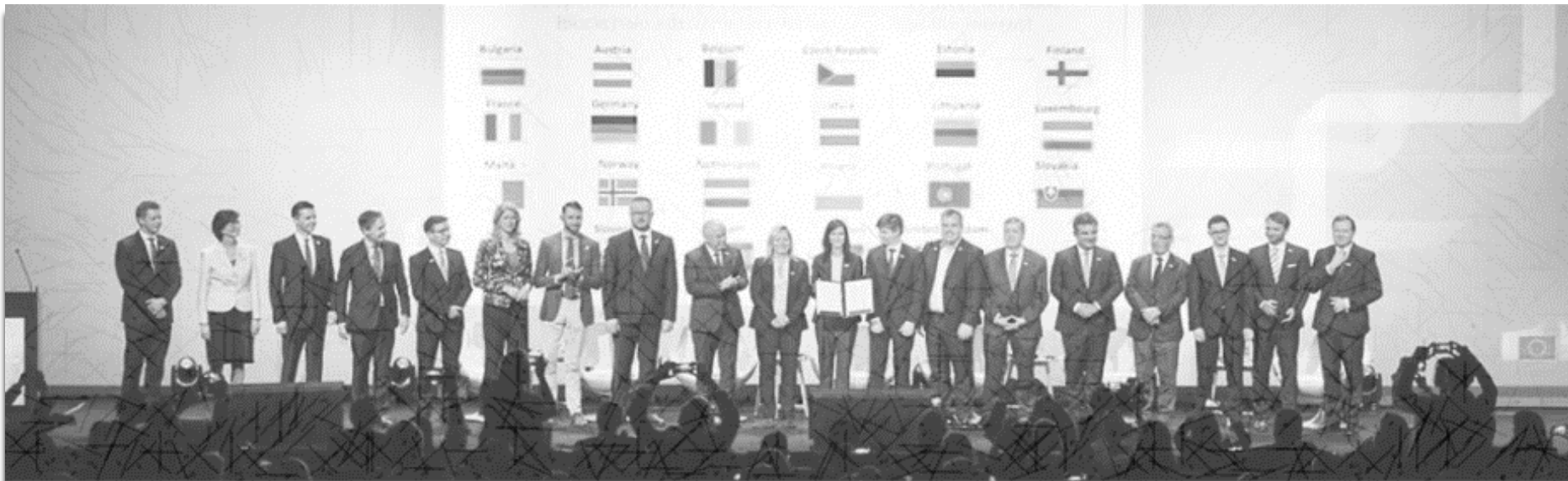
D2: PRINCIPLES AND TECHNICAL FEATURES OF THE EBSI INFRASTRUCTURE

D3: GOVERNANCE MODEL FOR 2019-2020 TO SUPPORT THE DEVELOPMENT OF THE EBSI



CONNECTING EUROPE FACILITY (CEF) FOR EBSI DEVELOPMENT

SUPPORT TO THE DEPLOYMENT OF CROSS-BORDER DIGITAL SERVICES INFRASTRUCTURES IN THE EUROPEAN UNION





INTERNATIONAL ASSOCIATION OF TRUSTED BLOCKCHAIN APPLICATIONS



Focus INATBA

Its mandate



The **IN**ternational **A**ssociation for **T**rusted **B**lockchain **A**pplications is an **open** and **inclusive multi-stakeholders** organisation, created in **Europe**, Brussels, bringing together all stakeholders committed to **promote interoperability, transparent governance, legal certainty and trust** in services enabled by blockchain and DLT, **worldwide**, through continued collaboration and openness.

INATBA is bringing together members to develop open, transparent & inclusive **governance** model; **Interoperability** of DLT/Blockchains; Sector-specific **specifications** & promote convergence of policy by establishing **regulatory dialogues** between industry & public authorities at global level.

Rolling Plan: Blockchain

ACTION 1 Taking into account the results from the EU Blockchain Observatory, the standardisation community should analyse possible standardisation needs and reflect on best way to achieve them.



ACTION 2 Regularly update the white paper on the EU perspective on blockchain/DLT standardisation.

ACTION 3 Identify use cases which are relevant for the EU (including EU regulatory requirements like from GDPR, ePrivacy, eIDAS, etc.) and submit them to global standardisation processes (ISO TC307 and ITU-T FG DLT).

ACTION 4 Identify actual blockchain/DLT implementations in the EU and assess the need for standardisation, harmonisation and workforce training or adaptation.

ACTION 5 Standardisation of the operation and reference implementation of permissioned distributed ledgers and distributed applications, with the purpose of creating an open ecosystem of industrial interoperable solutions.

