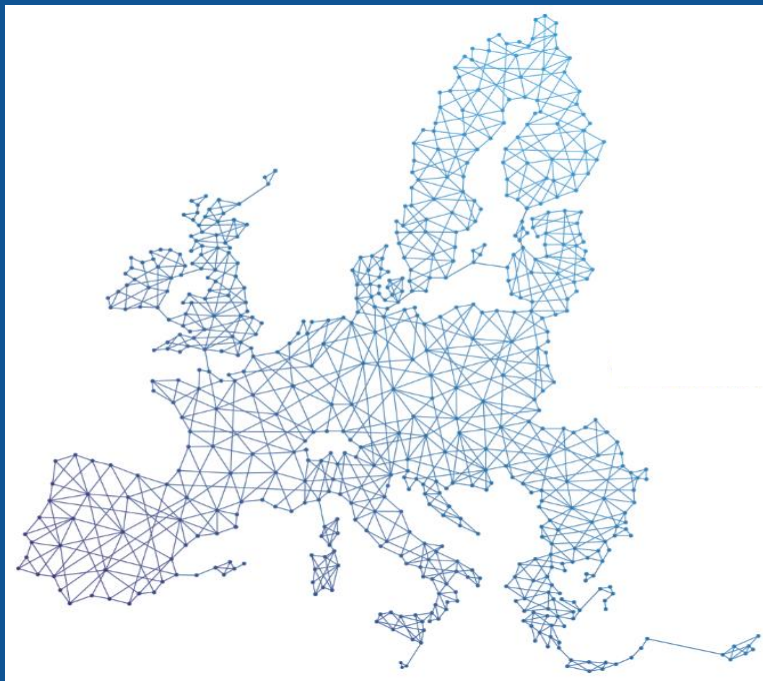


Blockchain: EU strategy and key objectives



**ITU workshop,
KIEV, Ukraine
16th May 2019**

**Massimiliano Dragoni
Digital Innovation and Blockchain Unit
Digital Single Market – DG CONNECT
EUROPEAN COMMISSION**

Why Blockchain?

- *New paradigms and collaborative models in the digital economy (more 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 to operations and successful uses

- *Major actors from various industrial sectors engaged in projects (users / suppliers)*
- *Vibrant start-up communities*
- *Value for citizens*
- *High interest in governments - EU (EC/EP/ECA), national, local*
- *Map of existing initiatives*
- *EU regulatory framework*

	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 	Loyyal
	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 	Loyyal

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]

In order to harness the many opportunities of blockchain and avoid a fragmented approach, the signatories of this declaration agree to cooperate to establish a European Blockchain Partnership with a view to developing a blockchain **infrastructure** that can enhance value-based, trusted, user-centric digital services across borders within the Digital Single Market.

3 DELIVERABLES BY END OF 2018

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

By September 2018, identifying an initial set of existing cross-border digital public sector services that would gain added value from the support of a blockchain services infrastructure, and start exploring other use cases;

By the end of 2018, assisting the Commission in preparing the technical specifications of this initiative, defining the appropriate governance model and identifying other framework conditions which are essential to its success (including compliance with regulatory requirements). Due consideration should be given to possible cooperation between the public and private sector;

European Blockchain Partnership

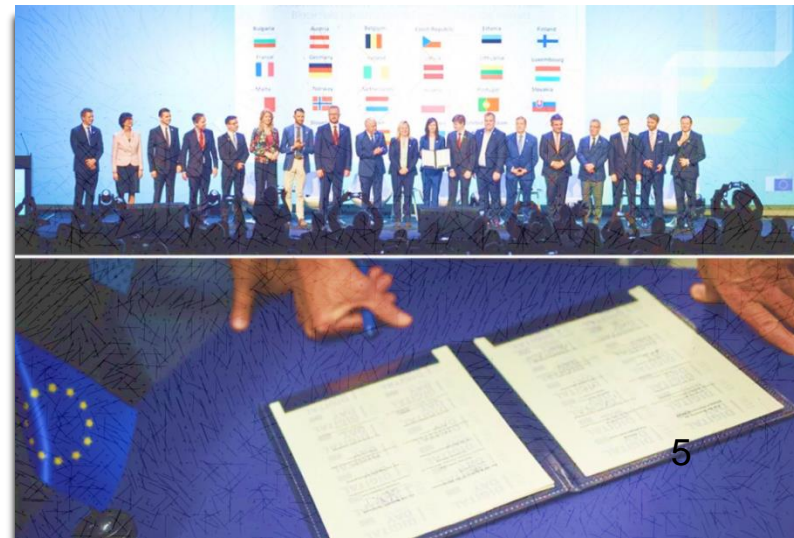
29 countries, including Norway and Liechtenstein, to cooperate towards a European blockchain Services Infrastructure (EBSI): focus on cross border public services first

- ✓ **Uses cases identified (Common registers / excise exchange in Europe, Notarisation of documents; Diplomas)**
- ✓ **European Self Sovereign Identity – eSSIF / eIDAS**
- ✓ **Infrastructure (Guiding principles addressed by EBP)**

What was achieved

- ✓ **From 22 to 29 members**
- ✓ **Agreement on 3 deliverables**
- ✓ **Implementation through CEF in 2019-2020**

Continue exchange of experiences,
dialogue on regulatory/legal aspects



EBP Governance Roadmap 2019



EUROPEAN BLOCKCHAIN PARTNERSHIP

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



CARRY-OUT A SURVEY ON BLOCKCHAIN AND FUTURE DIGITAL SERVICES OF PUBLIC INTEREST (FEED INTO DEP)

CREATE AN OVERVIEW OF EU, NATIONAL AND GLOBAL
DEVELOPMENTS RELATED TO – 1. BLOCKCHAIN AND HIGH
PERFORMANCE COMPUTING
2. BLOCKCHAIN AND ARTIFICIAL INTELLIGENCE
3. BLOCKCHAIN AND SKILLS GAPS FOR SERVICES OF PUBLIC
INTEREST
4. OTHERS



INPUT INTO GLOBAL REGULATORY DIALOGUES (WITH INATBA)

TO BE LAUNCHED BY OCCASION OF THE WORLD
BLOCKCHAIN CONGRESS (FALL 2019)

OTHERS...

EBSI USER GROUPS

NOTARISATION U-G

DIPLOMAS U-G

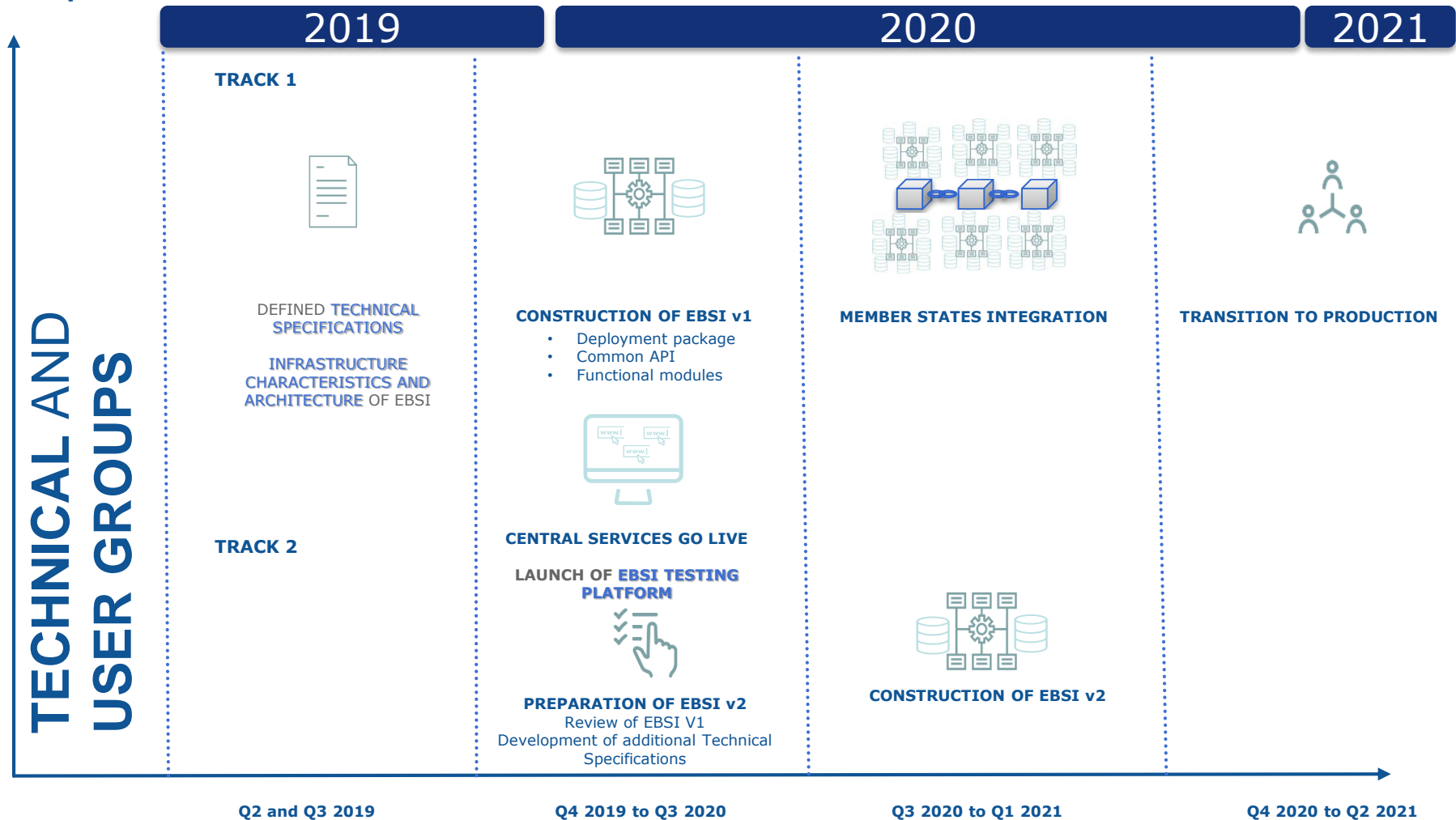
ESSIF U-G

TAXATION – IOSS U-G*

EBSI Roadmap Implementation



EUROPEAN BLOCKCHAIN SERVICES INFRASTRUCTURE (EBSI) Development



EU Blockchain Observatory and Forum

Stakeholders engagement



**An Observatory and
a Forum, an online
and offline community,
a map of 630+ projects,
workshops organised,
reports prepared, available trainings**



#EUBlockchain

EU
BLOCKCHAIN
OBSERVATORY
& FORUM



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



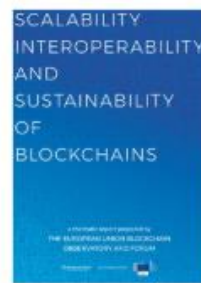
3300
views/downloads



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

More details in our [special edition newsletter](#)

EU Blockchain Observatory and Forum *Achievements*



The Observatory and Forum is leading a large and active community of experts



The public face and knowledge repository

130k pages viewed
33k users



All blockchain initiatives in one place

610 initiatives registered



An open and attractive forum discussion

1620 forum members



An active twitter account spreading awareness

6000 followers
450 tweets published



Workshops and events videos available in replay

5800 views total
35 videos published



BLOCKCHAIN AND DIGITAL IDENTITY

a thematic report prepared by
THE EUROPEAN UNION BLOCKCHAIN
OBSERVATORY AND FORUM

EU Blockchain

An initiative of the



- *ID has become multiple and multifaceted*
- *Today ID is centralised and fragmented (siloes and monopolies)*
- *ID in a digital world needs digital proofs and credentials*
- *Digital identity: atomic and cumulative (growing and evolving data points in digital realm)*
- *Self-Sovereign Identity may offer user-owned decentralised digital identities*
- *Assessing possible anchoring with eIDAS*
- *Through the EBSI – EU Self-Sovereign Identity Use Case (implementation)*
- *Blockchain*

Focus – Decentralised digital identity



"Decentralised identities are digital identities that are created by an individual and remain under his or her control. By attaching trusted information (credentials) from authoritative sources to these identities, the individual can create trust in the claims he or she makes about his or her identity, while still maintaining that control".



- *European Social Security Number to provide a unique identifier for each EU citizen to interact with social security administrations and institutions.*
- *Self Sovereign Identity to provide citizens with a unique identifier handled by users through their private/public encryption keys, decentralised fashion, digital by default (linked to verified eIDAS accounts with proper level of assurance?)*
- *Unique identifier is good to attach all our attributes, including social security ones (centrally / decentralised managed?)*



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.

1st World Blockchain Congress, Malaga, 11-13 November 2019

Focus INTBA Establishment



INATBA

International Association for
Trusted Blockchain Applications

- ✓ ***105 founding members on 6th March 2019***
- ✓ ***300+ requests for membership***
- ✓ **Over 4 continents**
- ✓ **ICANN-style ambitions**
- ✓ **Official launch on 3rd April in Brussels**
- ✓ **INATBA Declaration hashed on blockchains**
- ✓ **More info <https://www.inatba.org/>**



105 INATBA Founding Members



■ Micro
■ Small
■ Medium
■ Large
■ Not Profit





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

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

- => EU Blockchain Observatory WG "Legal"
- => Opinion EBA, ESMA Jan 2019 (gap analysis)
- => Study EU Commission 2019

The way forward



- **European strategic leadership in MFF 2021-2027, while continue funding R&I through existing EU programmes;**
- **Address regulatory aspects to exploit DSM**
- **Build EBSI with practical cross-border use cases**
- **Promote public-private cooperation with INATBA**
- **Engage in international outreach**
- **Work on Standardisation (ISO TC 307), Interoperability**
- **Prepare investment fund in "AI and blockchain"**
- **Education and skills development**



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

Next steps

How to engage?



- **INATBA** : solicit your stakeholders to become members; discuss interest for regulatory dialogues in the World Blockchain Congress
- **EU Blockchain Observatory and Forum**: dedicated meetings with DGs, engage in the next workshops (slide) and reports
- **EU Blockchain Partnership**: identify promising use cases to be submitted in 2019 (second wave); engage in more technical discussions on existing use cases and deployment; regulatory barriers and legal certainty framework.
- **Research and innovation activities**: continue mapping EU-funded projects – many DGs contributions still missing! Priorities for the next MFF.
- **Exploring areas of legal uncertainty and regulatory framework** e.g. smart contracts and tokenisation: EU study DG CNECT SMART 2018/0038



Thank you!
CNECT EU Blockchain
@EUBlockchain

