

UNCEFACT Chain project

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Domain	eData Management Domain
Project Identifier	P1087
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Project Proposal Status	Official
Project Page	UNCEFACT Chain project
Supporting VC	Steven Capell
Project Lead	Nena Dokuzov
HoD Support	N/A
Status	In development
Version	1.3
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Project Purpose

European Blockchain Partnership is in the final phase of development of the concept of European Blockchain Services infrastructure.

Blockchain services infrastructure will be an efficient supporting tool for implementation of services and actions, in order to facilitate the achievement of social value proposition of blockchain technology, which is composed by at least five principles:

- (1) self- sovereignty (digital identity, enabled through authentication and authorization and data ownership and its availability under personal discretion),
- (2) traceability (of data, materials, products, services, assets),
- (3) immutability (which enhances safety and security and reduces the risk of fraud and irregularities, which create the risk of loss),
- (4) no-intermediaries (P2P or peer to peer communication, which reduces the costs of intermediaries and enhance the access to businesses, communities and society,
- (5) democracy and trustworthiness (based on immutability and traceability, equal participation and consensual decision making).

With those principles blockchain technology can contribute to the facilitation of achievement of all Sustainable Development Goals, while strengthening governance and evidence based decision making process. UN/CEFACT (april 2019) adopted the document Blockchain in Trade Facilitation: Sectoral challenges and Examples (UN/CEFACT, ECE/TRADE/C/CEFACT/2019/INF.3: Blockchain in Trade Facilitation: Sectoral challenges and Examples, http://www.unece.org/fileadmin/DAM/cefact/cf_plenary/2019_plenary/CEFACT_2019_INF03.pdf).

Blockchain services infrastructure will be crossborder interoperable facilitating tool for businesses, societies, communities and individuals, at the first stage European Blockchain Partnership is developing 3 use cases to be implemented on the infrastructure: (1) digital identity (Self sovereign Identity), (2) diplomas on blockchain (with proposed upgrade to digital skills and competences for mutual recognition between universities, for simplified access to employment, ensuring the safe and secure transfer of authenticifiable data), (3) notarization and authentication (a use case developed for tracing the expenditures from EU budget for EU funded projects). Version 1 will be extended to Version 2 use cases, adding additional use cases (in the area of health, city blockchain infrastructures for sustainable cities and communities with the purpose to bring closer and empower the communities to use blockchain technology for socially and economically inclusive and participatory environment, etc.).

For this reason we need blockchain technology, which will be high speed (at least 200.000 transactions per second) and environmentally friendly (low energy consumption), which will enable the real time connectivity and collaboration of wide range of population efficiently. For this reason we will use Hashnet protocol. Standards shall be implemented to ensure the interoperability principle in the region covered by UNECE and wider.

The proposal follows the purpose to build user friendly blockchain infrastructure with high speed and scalable 4th generation blockchain technology, while implementing common standards under consensually agreed protocol.

The project proposal is compliant with UN/CEFACT Work programme 2019-2020 (Chapter III, point 11, paragraph b: An emphasis on supporting interoperability across the many existing, new and future technology platforms (in other words the ability of these systems to exchange data) by acting as a semantic hub that advances the development of technology neutral semantics, code lists, process and data reference models and best practices)

Project Scope

The proposed project scope is:

(1) To develop a framework/mechanism for development and implementation of Blockchain services infrastructure, which will be compatible and in line with European Blockchain services infrastructure and usable or extendable globally;

(2) To create a Whitepaper on strategy for development and implementation of interoperable global blockchain technology infrastructure, taking into consideration existing standards for implementation of cross border Blockchain infrastructure in an interoperable manner: within this we will use the references on suggested way forward for UN/CEFACT, as mentioned in the Chapter 6 of UNECE, UN CEFACT White Paper of Technical Applications of Blockchain to UN/CEFACT deliverables, regarding (i) UN/CEFACT architecture reference model for an interoperable inter-ledger framework with support for resource discovery, trade data semantics and legal and regulatory aspects, (ii) process modeling in support of Smart Contracts to test, deploy and implement use cases and (iii) Blockchain application data needs.

Whitepaper on strategy for development and implementation of interoperable global blockchain technology infrastructure will have an intention to serve as a tool for development of use cases using blockchain services infrastructure and framework for sandbox implementations for the use cases with relevance for SDGs.

Project Deliverables

Deliverable 1: Whitepaper on strategy for development and implementation of interoperable global blockchain technology infrastructure

Exit Criteria

The exit criteria for Deliverable 1: Whitepaper ready for publication

Project Team Membership and Required Functional Expertise

Membership is open to experts with broad knowledge in the areas of: Blockchain technology and/or trade facilitation and related business processes. In addition, Heads of Delegations may invite technical experts from their constituency to participate in the work. Experts are expected to contribute to the work based solely on their expertise and to comply with the UN/CEFACT Code of Conduct and Ethics and the policy on Intellectual Property Rights.

Geographical Focus

The geographical focus of the project is global.

Initial Contributions

- EBP (European Blockchain Partnership) EBSI (European Blockchain services infrastructure)
- Document: Blockchain in Trade Facilitation: Sectoral challenges and Examples

Resource Requirements

Participants in the project shall provide resources for their own participation. The existence and functioning of the project shall not require any additional resources from the UNECE secretariat. The project will be prepared in between Forums, in face-to-face meetings, if feasible, and using conference call facilities.

Project Proposal Files

File	Modified
PDF File 200217-3a SI-HoD Blockchain project proposal v1_3.pdf	Feb 26, 2020 by Lance THOMPSON