

UN/CEFACT Project Proposal

Proposed project name:	Recommendation for cross border interoperable blockchain infrastructure 4.0 – UNECE Chain		
Date submitted:	25.11.2019	Project proposed by:	Slovenia HoD
Date last updated:			

1. Project purpose

Required

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 trust (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 technologyneutral semantics, code lists, process and data reference models and best practices)

2. Project scope

Required

NOTE: Specify project scope in terms of in-scope and out-of-scope items within the context of the UN/CEFACT Programme of Work. Include a description indicating the relationship between this project and other UN/CEFACT projects, if known. In the case of a project whose deliverables include proposed Recommendations and Standards, include projects outside of UN/CEFACT of which this project could be considered a duplicate, if any, and explain why it is not.

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.

3. Project deliverables

Required

NOTE: Provide name and description of each deliverable.

Deliverable 1:	Whitepaper on strategy for development and implementation of interoperable global blockchain technology infrastructure
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Exit Criteria for Deliv. 1:	Whitepaper ready for publication
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5. Project Team membership and required functional expertise

Membership is open to UN/CEFACT experts with broad knowledge in the area of:	Standardization cross border requirements and blockchain technology development
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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.

6. HoD support

NOTE: At least three HoD support is required for Technical Standards, Business Standards and UNECE Recommendations – and at the request of the UN/CEFACT Bureau. (See annex IV for an optional template).

NOTE: Projects that require HoD support must obtain this within 6 months of Bureau provisional approval.

tbd

7. Geographical focus

The geographical focus of the project is global

8. Initial contributions

The following contributions are submitted as part of this proposal. It is understood that these contributions are only for consideration by the Project Team and that other participants may submit additional contributions in order to ensure that as much information as possible is obtained from those with expertise and a material interest in the project. It is also understood that the Project Team may choose to adopt one or more of these contributions “as is”.

List any initial contributions:

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

9. 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.

NOTE: If specialized resources are required to complete the project, and such resources are not available within the Project Team, then those requirements should be clearly identified.

Any additional request:

10. Proposed project leadership

Proposed:	Nena Dokuzov (HoD for Slovenia)	E-mail:	nena.dokuzov@gov.si
Proposed:		E-mail:	

11. Milestones

Note: repeat for each deliverable, if different.

The following are draft milestones of the project.

Yes/No*	ODP Stage	Expected Completion Date (Approval + XX months)
Yes	Project Inception	Approval + 1 month
	Requirements gathering	Approval + 1 month
	Draft development	Approval + 6 months
	Public Draft Review	Approval + 13 months
Yes	Project Exit	Approval + 14 months
Yes	Publication	Approval + 14 months

* NOTE: The following stages are obligatory: Project Inception, Project Exit and Publication. Public Draft Review is obligatory for recommendations, business standards and technical standards. The presence of "Yes" in the field indicates that the stage is required for the project and an expected completion date should be provided.