[European Blockchain Pre-Commercial Procurement (https://digital-strategy.ec.europa.eu/en/news/european-blockchain-pre-commercial-procurement)](https://digital-strategy.ec.europa.eu/en/news/european-blockchain-pre-commercial-procurement)

The European Commission is looking for novel blockchain solutions for the European Blockchain Services Infrastructure. The first solution design phase of the EU blockchain PCP was completed by 7 contractors. Phase 2A 'prototype development and lab testing' was completed by 5 contractors. Phase 2B 'final solution development and field testing' is now ongoing.

Objectives

The aim is to implement the Pre-Commercial Procurement (PCP) in cooperation with and building on the work of [European Blockchain Partnership (EBP) (https://ec.europa.eu/digital-single-market/en/news/european-countries-join-blockchain-partnership)](https://ec.europa.eu/digital-single-market/en/news/european-countries-join-blockchain-partnership). The EBP is a cooperation between the European Commission, all EU Member States and some countries of the European Economic Area to deliver together the [European Blockchain Services Infrastructure (EBSI) (https://ec.europa.eu/digital-building-blocks/wikis/display/EBSI/Home)](https://ec.europa.eu/digital-building-blocks/wikis/display/EBSI/Home). The EBSI aims to deliver EU-wide cross-border public services using blockchain technology with the highest standards of security and privacy.

In order to deploy cross-border blockchain services across Europe as soon as possible, ongoing EBSI work performed by the EBP is currently focusing mainly on developing use cases that can be implemented relatively easily by using existing blockchain technology. It is clear that there are gaps in existing blockchain solutions to enable the delivery of more demanding cross-border blockchain services (e.g. regarding full compliance with the EU legal framework, security, interoperability, robustness, sustainability). The future evolution of the EBSI thus requires new, improved blockchain solutions.

The blockchain PCP therefore focuses on the development and testing of a novel distributed ledger or blockchain solution which builds on the EU legal framework, in particular the GDPR Regulation, the eIDAS Regulation and the NIS Directive. Such a public infrastructure should meet core requirements of scalability and throughput, interoperability with other systems, security, robustness, high sustainability / reduced environmental footprint, energy efficiency and continuity of the service. It should anticipate the implementation of a wide range of new cross border use cases or services that could be public or private ones. The aim of the PCP is to go significantly further than what is offered by existing solutions. The tendering for the PCP started end 2020, with the objective to lead to the deployment of solutions within the next three years.

Scope

Based on the conclusions of the open market consultation (see below), the PCP focuses on the development of future capacities for EBSI in view of supporting new types of use cases that involve a high volume of transactions concerning physical or digital objects. Such use cases can concern for instance the digital product passport in the context of the circular economy, which requires tracking and exploitation of the data for a wide range of different products, including their components and materials, during their life cycles. Other use cases can concern the tracking of digital records and the rights associated to them or other IoT use cases.

Solutions should provide for the identification and characterisation of objects, their traceability, management and exploitation of data concerning them, automation of tasks (e.g. through smart contracts), exchanges with external solutions (e.g. IoT, AI algorithms) through relevant interfaces, as well as enabling reward and incentive models to be exploited through tokenised approaches etc.

This requires advanced capacities and possibly new approaches, for improving scalability (to deal in particular with high volumes of items and high velocity performances) and sustainability (being as green as possible), whilst providing top level security with capacity to evolve for addressing new cyber threats. They should also facilitate interoperability with other blockchain initiatives.

The call for tenders

The [contract notice for the EU blockchain PCP (https://ted.europa.eu/udl?uri=TED%3ANOTICE%3A565744-2020%3ATEXT%3AEN%3AHTML&src=0)](https://ted.europa.eu/udl?uri=TED%3ANOTICE%3A565744-2020%3ATEXT%3AEN%3AHTML&src=0) was published on 25 November 2020 on TED and the deadline for submission of offers was 28 January 2021. The package of [all the tender documents (https://etendering.ted.europa.eu/cft/cft-display.html?cftId=6507)](https://etendering.ted.europa.eu/cft/cft-display.html?cftId=6507) and Q&A are still available online in eTendering.

The [contract award notice (https://ted.europa.eu/udl?uri=TED%3ANOTICE%3A379169-2021%3ATEXT%3AEN%3AHTML&src=0)](https://ted.europa.eu/udl?uri=TED%3ANOTICE%3A379169-2021%3ATEXT%3AEN%3AHTML&src=0) was published on 27 July 2021 on TED. 7 contractors (including consortia) were selected for the first phase of the PCP (phase 1). Depending on the quality/price of the offers that will be received for phase 2 of the PCP, it is envisaged that, out of the 7 phase 1 contractors, around 4 contractors* will continue to the second phase (phase 2A) and around 3 contractors* to the last phase (phase 2B).

Indicative timeline for the PCP*:

- Phase 1 (solution design): Launched on 19 July 2021 for a duration of 3 months
- Phase 2A (prototype development and lab testing): Launched on 20 December 2021 for a duration of 6 months
- Phase 2B (further solution development/finalisation and field testing): Will start in continuity of the phase 2A for a duration of 12 months

The first phase of solution design was completed by the following 7 contractors:

- [IOTA Stiftung (https://www.iota.org)](https://www.iota.org), ([project description (https://ec.europa.eu/newsroom/dae/redirection/document/79732)](https://ec.europa.eu/newsroom/dae/redirection/document/79732))
- [IOV42 IP Ltd (https://iov42.com)](https://iov42.com), ([project description (https://ec.europa.eu/newsroom/dae/redirection/document/79733)](https://ec.europa.eu/newsroom/dae/redirection/document/79733))
- [Stichting Dyne.org (https://www.dyne.org)](https://www.dyne.org), [Infocert Spa (https://www.infocert.it/)](https://www.infocert.it/), [RIDDLE&CODE Gmbh (https://www.riddleandcode.com/)](https://www.riddleandcode.com/), ([project description (https://ec.europa.eu/newsroom/dae/redirection/document/79873)](https://ec.europa.eu/newsroom/dae/redirection/document/79873))
- [Orange Business Belgium SA (https://business.orange.be)](https://business.orange.be), ([project description (https://ec.europa.eu/newsroom/dae/redirection/document/79734)](https://ec.europa.eu/newsroom/dae/redirection/document/79734))
- [Chromaway AB (https://chromaway.com)](https://chromaway.com), ([project description (https://ec.europa.eu/newsroom/dae/redirection/document/79731)](https://ec.europa.eu/newsroom/dae/redirection/document/79731))
- [Billon Sp. Z O. O. (https://billongroup.com/)](https://billongroup.com/), ([project description (https://ec.europa.eu/newsroom/dae/redirection/document/79730)](https://ec.europa.eu/newsroom/dae/redirection/document/79730))
- [Westpole Belgium (https://westpole.be)](https://westpole.be), [Net Service Spa (https://www.netservice.eu/it/home)](https://www.netservice.eu/it/home), [Flosslab s.r.l (https://www.flosslab.com)](https://www.flosslab.com), ([project description (https://ec.europa.eu/newsroom/dae/redirection/document/79735)](https://ec.europa.eu/newsroom/dae/redirection/document/79735))

The phase 2A of prototype development and lab testing was completed by the following 5 contractors:

- IOTA Stiftung (https://www.iota.org)
- Stichting Dyne.org (https://www.dyne.org), Infocert Spa (https://www.infocert.it/), RIDDLE&CODE Gmbh (https://www.riddleandcode.com/)
- Orange Business Belgium SA (https://business.orange.be)
- Chromaway AB (https://chromaway.com)
- Billon Sp. Z O. O. (https://billongroup.com/)

The phase 2B of final solution development and field testing is now ongoing with the following 3 contractors:

- IOTA Stiftung (https://www.iota.org)
- Chromaway AB (https://chromaway.com)
- Billon Sp. Z O. O. (https://billongroup.com/)

The open market consultation

The open market consultation that took place before the call for tender provided market parties with a better understanding of the procurement objectives and the PCP process. It also collected market parties' input to assess the gap between the procurement need and ongoing market developments in the field of Blockchain. It offered stakeholders a unique opportunity to provide feedback on the scope of the future PCP, to ask questions and to be involved in and co-create the future development of innovative EU-wide blockchain solutions.

The open market consultation was organised in English in the form of several activities:

- Report that summarises the conclusions of the open market consultation. (https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=69281)
- The answers to the questions about the European Blockchain Pre-Commercial Procurement that were posed during the open market consultation were published in this Q&A document. (https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=64076)
- The open market consultation event took place in online format on 27/04/2020: Check out theagenda (https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=64940),pre-read slides (background info distributed before the online event) (https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=66375), slides used at the event (https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=66444), video of the intro session (https://vimeo.com/411960739/27c42a1722) and video session of the rest of the event (https://vimeo.com/412421392/7b9eab3092).
- Market parties were able to register online (https://ec.europa.eu/digital-single-market/events/cf/open-market-consultation-event-for-the-european-blockchain-pcp/register.cfm) anduse the online message functionality in the online networking space (https://ec.europa.eu/digital-single-market/events/cf/open-market-consultation-event-for-the-european-blockchain-pcp/networking.cfm) to contact other stakeholders that are looking for partners to team up for the pre-commercial procurement.
- An online questionnaire (https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=65545) took place between 17/1/2020 and 2/3/2020 to collect feedback about ongoing market developments relevant for the European Blockchain Service Infrastructure.
- A webinar took place on 14/01/20 in which the EC clarified the high-level European Blockchain Service Infrastructure and the main objectives of the pre-commercial procurement (slides

presented at webinar (https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=64208), recording of the webinar) (https://youtu.be/71A0fzFUR34)

- The Prior information notice that announced the open market consultation (https://ted.europa.eu/TED/notice/udl?uri=TED%3ANOTICE%3A590329-2019%3ATEXT%3AEN%3AHTML) was published in TED on 13 December 2019 together with the open market consultation document (https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=63965) that provided more information about the European Blockchain PCP and the organisation of the open market consultation. More background information about the European blockchain strategy (https://ec.europa.eu/digital-single-market/en/blockchain-technologies) and what is pre-commercial procurement (https://ec.europa.eu/digital-single-market/en/pre-commercial-procurement).

Related topics

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