

TRUSTCHAIN OC4: MULTI CHAINS SUPPORT FOR NGI PROTOCOLS

Second webinar for Applicants

TRUSTCHAIN Consortium

24/07/2024

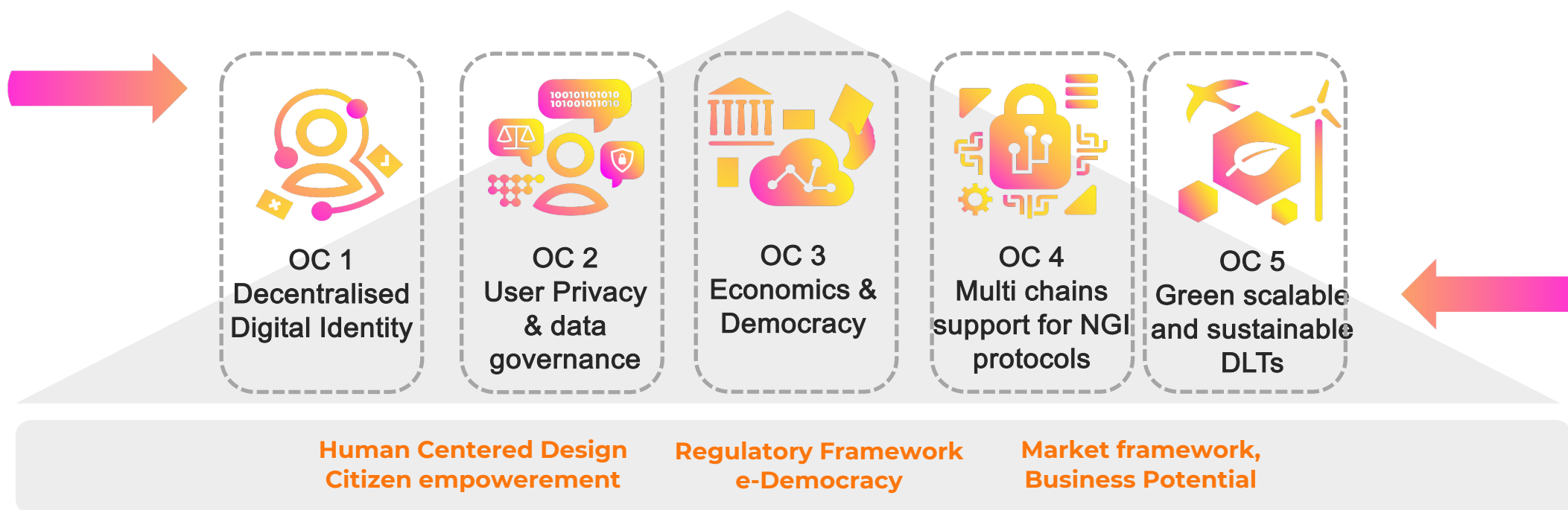
TRUSTCHAIN

TRUSTCHAIN OVERALL OBJECTIVE

- To achieve a human centered, trustworthy and sustainable decentralised internet
- To empower innovators and end users **through 5 Open Calls** to create a portfolio of Next Generation Internet protocols and an ecosystem of **decentralised identity management software solutions** that are transparent to the user, interoperable, privacy aware, regulatory compliant and that can seamlessly integrate and interoperate with any of existing decentralised applications.

TRUSTCHAIN IMPLEMENTATION: 5 OPEN CALLS

TRUSTCHAIN : Human centered, trustworthy & sustainable decentralised internet



Each Open Call provides key technologies that can be used as basis for development in the subsequent calls, while also the opposite interaction can be employed by later calls.

TRUSTCHAIN OVERALL APPROACH

Whatever the call:

- Co-creation with engagement of end users since the requirement/specification phase till the validation of the proposed solution
- **Provide democratic, transparent, traceable, and regulatory compliant mechanisms** that can support any ecosystem of entities and actors participating with their **digital identities**.
- Use **decentralised digital identity architectures** together with **IoT, AI, Cloud-to-Edge, DLT and DT** and **embed in such solution's important societal goals** in accordance with objective **truth** and therefore, **trustworthiness**.



TRUSTCHAIN OC4

MULTI CHAINS SUPPORT FOR NGI PROTOCOLS

AGENDA



- **OC4 – Multi Chains support for NCI protocols**

(To design and build the gateways that will make it possible to transfer knowledge/data/requirements from on chain to another in a trustworthy and secure manner)

- **Focus on some specific aspects to be covered in your proposal**

- **Some FAQs**

- **Q&As**

OC3 ECONOMICS AND DEMOCRACY



15th May 2024 until 17th July 2024 (17:00 CET)



- **€ 1 989 000** distributed among up to 17 selected projects for 9 months
- Up to **K€ 117** per project



The target applicants of this call are developers, innovators, researchers, SMEs, and entrepreneurs working on different NGI relevant topics and application domains at the intersection between the technical field the Social sciences and Humanities as well as any others including economics, environment, art, design, which can contribute to the NGI TrustChain relevant vision.

You are invited to submit your proposals on any topic that serves the OC3 vision and objectives with as minimal requirement :

- **Adopt a co-creation process with end users from requirements elicitation till validation**
- **Use standard technology for full stack development,**
- **Be open source and desirably reach TRL 7,**
- **Extend the state-of-the-art in the domain of user privacy, and/or solve existing real-world problems with data governance and provide new highly usable software solutions.**

**FOCUS ON SOME SPECIFIC ASPECTS
TO BE COVERED IN YOUR PROPOSAL**


WHAT DO YOU NEED TO EXPLAIN?



Use the mandatory
TRUSTCHAIN proposal
template

- The **specific Open Call #4 challenges** your solution will address,
- The **specific technological innovation** you propose to develop and how it is clearly different from alternative solutions that are already available in the market, or developed by previous EU research and innovation actions (i.e., the EU ONTOCHAIN Project and any other projects),
- The **specific User Centric Approach and co-creation process** you are going to implement,
- The specific **user privacy and data governance needs or challenge** you propose to address and **who would benefit from it** immediately and in the longer term,
- The specific **legal and regulatory framework** you are going to follow/contribute to,
- Whether the innovation will focus on the **development of new solutions** for existing areas, **or a totally disruptive approach or idea**,
- **Any work you have already done** to respond to this need, for example if the project focuses on developing an existing capability or building a new one, define the baseline of your proposed work,
- Any challenges or opportunities relating to **equality, diversity, ethics, and inclusion** arising from your project,
- Explain how your **proposed solution will align with the building blocks developed as part of the Open Call #1 & 2 on digital identity, user privacy and data governance** (more details are available on the [TrustChain webpage](#)) as well as **identify and justify how the proposed solution, or specific services and/or modules provided by it, can be used by other service and application developers of the TRUSTCHAIN ecosystem.**

WHAT ARE WE LOOKING FOR? (INDICATIVE/ NOT LIMITED TO)




The objective of this OC is to design and build the gateways that will make it possible to transfer knowledge/metadata/data/process/requirements from one chain to another in a trustworthy and secure manner. Interoperability across multiple chains, privacy by design, trustworthiness by design, scalability, greenness, openness, and legal compliance should be carefully considered. Innovative projects should implement techniques such as:

- Transfer of Non-Fungible Tokens (NFTs) across different chains. This might include the ability to execute contracts that depend on the state or ownership of an NFT, irrespective of which chain the NFT currently resides on.
- Semantic standards and open ontology schemas that enable the effective transfer of information and knowledge across chains and allow data interoperability.
- Mechanisms and procedures that enable the trustworthy use of digital identities across wallets, applications and blockchains or the secure binding of digital identities on multiple chains.

WHAT ARE WE LOOKING FOR? (INDICATIVE/ NOT LIMITED TO)

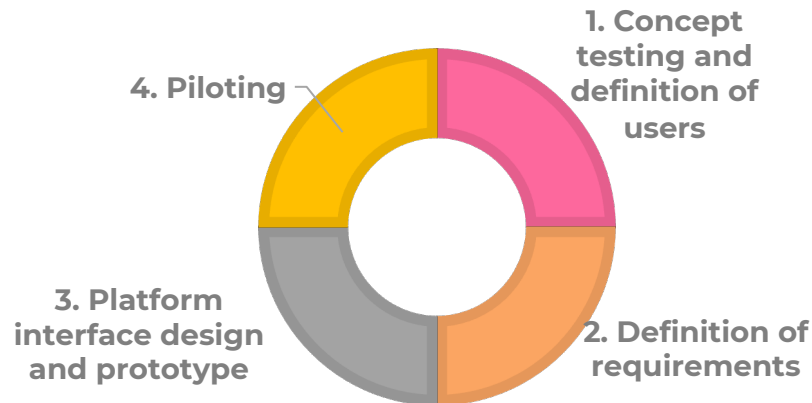
- Models and procedures to support simple and seamless user experience of cross-chain functionality.
- Techniques to carry out DID rotation and translation so that we can minimize the DID management.
- Platforms that can build on top of the existing work that has been undertaken in Open Calls 1, 2 and 3. (Details can be found from the TRUSTCHAIN portal).
- Infrastructures that are inclusive, energy efficient, and usable.
- Platforms and infrastructures that follow European standards.

WHAT SHOULD BE IMPLEMENTED (INDICATIVE / NOT LIMITED TO)

- 
- Transfer of knowledge, metadata, data, processes, and requirements from one chain to another in a trustworthy and secure manner.
 - Seamless communication and data transfer between different blockchain networks.
 - Strong encryption and privacy-preserving techniques to safeguard sensitive data during cross-chain transfers.
 - Solutions that can handle increasing transaction volumes efficiently while minimizing energy consumption.
 - Adherence to diverse regulatory landscapes for the legal and compliant transfer of knowledge between blockchains.
 - Focus on online user privacy and data governance with a user-friendly design, especially considering the needs of the general population and vulnerable groups.
 - Integrate the work from previous Open Calls, ensuring compatibility with existing data sharing frameworks and European standards.

USER CENTRIC APPROACH FLOW AND REQUIREMENTS

USER-CENTRED APPROACH



Requierelements	Challenges	Expected Outcomes
sample needs to be representative	Identify the variables relevant for a representative sample	Adequent sample and user personas defined
The different methods should be qualitative	The sample size should fit qualitative methods (not too big)	Methodological roadmap
Onboarding of users during the co-creation phase	Access to the end-users	Realistic plan for reaching participants
All the tools are validated by the end- users	Conveying developing and testing	Description of the pilot execution process and analysis
Iteration (if possible)	Empathic design	Users' final report is satisfactory

USER CENTRIC APPROACH FLOW AND REQUIREMENTS

- **Show your solution responds to user real needs.** A good way is to show this is through preliminary concept testing.
- **Define your methodology.** Say what methods you will employ and why
 - Frame and **justify the sample selection** of participants
 - Prepare an **implementation roadmap describing all the phases**
 - Define and **describe all the recruitment process and plan.** How and when will you recruit your users? How will you ensure access and engagement with them?
- Show how you will analyse the data and **how the results from the pilots will have an impact in your tool.**
- **Show you have the expertise in the team to carry out these activities.** This adds a lot of credibility to your user centric approach. **UX Research profiles are highly recommended.**

SOME FAQs



What are OC4 TRUSTCHAIN timelines?

- Call announcement: 15 May 2024
- Call closure and submission deadline: 17 July 2024 at 17:00 CET
- Evaluation period: Up to three months after call closure
- Signature of sub-grant agreement: Up to one month after the announcement of the final list of selected projects
- Projects: From November 2024 to July 2025 (9 months)

Where does the funding come from?

Funding is given by the TrustChain project under a Sub-Grant Agreement signed by selected applicants and the TrustChain consortium. Funds are from the European Commission (Horizon Europe Framework Programme), which uses TrustChain as intermediary.

How does the funding mechanism work?

The funding mechanism relies on a cascade-funding scheme involving Horizon Europe funds. The scheme is based on a Grant Agreement signed by the European Commission and the TrustChain consortium partners. The Consortium partners receive the HE funds which are then transferred to the winners of the TrustChain Open Calls based on the rules and regulations explained in the Guide for Applicants. It means that funds received by call winners are Horizon Europe funds.

Who is eligible for TrustChain Open Calls?

Applicants can apply as individuals or linked to a legal entity. Hence, the participation is possible in several ways:

- **Team of natural persons:** Team of individuals, all established in any eligible country. This does not consider the country of origin but the residence permit.
- **Legal entity(ies):** One or more entities (consortium) established in an eligible country. It can be universities, research centres, NGOs, foundations, micro, small and medium sized enterprises (see definition of SME according to the Commission Recommendation 2003/361/EC), large enterprises working on Internet or/and other related technologies are eligible.
- **Any combination of the above.**

What are the countries eligible for funding under TrustChain Open Calls?

Only applicants legally established/resident in any of the following countries (hereafter collectively identified as the “Eligible Countries”) are eligible:

- The **Member States** (MS) of the European Union (EU), including their outermost regions.
- The **Overseas Countries and Territories** (OCT) linked to the Member States;
- **Horizon Europe associated countries**, as described in the Reference Documents and the List of Participating Countries in Horizon Europe according to the latest list published by the European Commission.



Can I submit several projects to one specific call?

Open Calls are competitive and applicants should focus on one specific topic, so TrustChain consortium recommends you to submit one application per call, whether you are a legal entity and/ or a team of natural persons. In the event of multiple submissions, only the last one received (timestamp of the F6S system) will be considered for the evaluation process. Any other submitted proposals involving the same applicant will be declared non-eligible and will not be evaluated in any case.

Can I apply to TrustChain five Open Calls?

Yes, you can. However, note that the maximum funding eligible per third party within the TrustChain project is limited to €200,000.

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trustchain.ngi.eu



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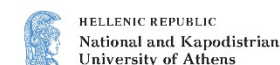


<https://www.linkedin.com/showcase/ngi-trustchain>



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Thank you!



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