D3.9
TRUST CHAIN SUPPORT TO THIRD PARTIES - GUIDE FOR IMPLEMENTATION

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D3.9 - TrustChain Support to third parties - Guide for implementation

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Authors	Pablo Vela (ALA)

Reviewers	Thanasis Papaioannou (NKUA), Andrés del Álamo (CIB)
Abstract	This document presents the coaching, monitoring, and evaluation activities in the context of the TRUSTCHAIN project OC3 and provide the information needed for the selected applicants to successfully conduct their subproject work.
Keywords	Coaching, monitoring, evaluation of open call activities

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EXECUTIVE SUMMARY

This document presents the coaching, monitoring, and evaluation activities in the context of the TRUSTCHAIN project OC3 and provide the information needed for the selected applicants to successfully conduct their subproject work.

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ABBREVIATIONS

DC	Dissemination and Communication
DID	Decentralised Identifiers
DIH	Digital Innovation Hub
DLT	Distributed Ledger Technology
EDIH	European Digital Innovation Hub
EEN	European Enterprise Network
EIC	European Innovation Council
EU	European Union
GA	Grant Agreement
GDPR	General Data Protection Regulation
NCP	National Contact Point
NGI	Next Generation Internet
NGO	Non-Governmental Organisations
OC	Open Call
OC#3	Open Call #3

SEO   Search Engine Optimization

SME   Small and Medium-sized Enterprises

SSI   Self-Sovereign Identities

WP   Work Package

1 CONTEXT

In an ever-evolving digital landscape, the importance of user privacy and data governance has taken a central stage. The internet has transformed the way we live, connecting us through our digital identities and influencing various aspects of our lives, from health and well-being to education and information access. However, this digital transformation has brought forth a multitude of challenges related to identity, trust, and the safeguarding of personal data.

As we navigate the digital realm, concerns such as delusion and manipulation, privacy violations, personal data exploitation, misinformation, and security breaches have become prevalent. The initial spirit of the internet, rooted in individual freedom, progress, and community values, is facing a paradigm shift towards individualism, materialism, and moralism, often straying from essential ethical and democratic principles.

In response to these challenges, Trustchain, a groundbreaking blockchain project, emerges as a beacon of hope. It recognizes that the convergence of Internet of Things (IoT), Decentralized Oracles, Artificial Intelligence (AI), Cloud-to-Edge computing, Distributed Ledger Technology (DLT), and Digital Twin (DT) technologies demands the creation of democratic systems that eliminate central points of control. Trustchain seeks to bridge the gap between universally agreed objectives in the physical world and their digital representations, thereby fostering trusted relationships in the Next Generation Internet.

To achieve this, Trustchain leverages various consensus mechanisms, pairing proofs with digital representations to help individuals discern the objective truth. This empowers users to make well-informed decisions, whether manually or through automated processes, fostering a Next Generation Trusted Internet that supports humanity in all facets of life.

In an era marked by global challenges and the United Nations' call for achieving 17 Sustainable Development Goals, Trustchain's mission is clear: to embed principles of human rights, sustainability, ethics, and other enduring values into the fabric of the Next Generation Internet. The core concept of Trustchain revolves around co-creating this future by deploying decentralized digital identity architectures in conjunction with IoT, AI, Cloud-to-Edge, DLT, and DT. Trustchain envisions an ecosystem of user-centric blockchain solutions, processes, and business models with a strong market potential, particularly in trusted blockchain-based data management, metadata, ontology, knowledge, and information exchange. These solutions hold the promise of fostering trustworthy content handling, information exchange, and service delivery within the Next Generation Internet and vital sectors of the European economy.

This document is a comprehensive guide for the implementation of Open Call 3 (OC3) under the TRUSTCHAIN project. The main objective of this guide is to provide new

teams with detailed instructions, resources and support during the development of their projects. TRUSTCHAIN is an innovative initiative that relies on advanced technologies such as blockchain, Internet of Things (IoT), Decentralized Oracles, Artificial Intelligence (AI), Cloud-to-Edge computing, Distributed Ledger Technology (DLT) and Digital Twin (DT) to create a digital ecosystem that is more secure, private and above all generating an environment based on trust. In the context of OC3, the focus is placed on Economics & Democracy. This call seeks to address the critical challenges associated with fostering economic empowerment and democratic participation through innovative and decentralized solutions. By leveraging the TRUSTCHAIN infrastructure, the goal is to create a robust digital framework that enhances transparency, accountability, and citizen engagement in economic and democratic processes.

To implement this, a series of key activities have been undertaken as part of Trustchain's overall project structure:

- **Preparation**: This phase involves the meticulous creation of all necessary open call documents, including the open call text, guidelines, materials, and contract templates for sub-grantees. These templates are designed based on the collective experience of past partners in third-party financing.

- **Publication and Promotion**: Trustchain actively disseminates open call proposals on platforms like F6S while coordinating closely with the Dissemination WP to ensure effective promotion to a wide audience.

- **Evaluation**: A rigorous and transparent evaluation process is employed, which includes the selection of an evaluation board to assess the submitted proposals.

- **Contracting**: The Trustchain consortium is dedicated to preparing and signing sub-grantee agreements. This process is executed by the coordinator, representing the consortium. Every sub-grantee, in turn, brings a set of administrative tasks to ensure adherence to the principles outlined by Horizon Europe.

- Analysis: Continuous monitoring and statistical analysis of open call results are conducted to gauge performance and impact.

For the selected applicants participating in OC3 and future Open Calls, Trustchain provides comprehensive support through key project work packages:

- **Coaching**: Applicants receive valuable guidance and feedback, aligning their efforts with Trustchain's expectations.

- **Monitoring**: Regular follow-up activities are carried out to oversee experiments, deliverables, and outcomes, ensuring that projects remain on track.

- **Evaluation**: Trustchain defines Key Performance Indicators (KPIs) and evaluates the deliverables of selected applicants against these performance metrics.

This Implementation Guide serves as an indispensable resource to elucidate the coaching, monitoring, and evaluation activities within the context of the Trustchain project, with a specific focus on OC3: Economics & Democracy. It is designed to equip selected applicants with the necessary information to successfully navigate their subproject work in this critical domain of data privacy and governance. Trustchain remains dedicated to driving innovation and ensuring data security, paving the way for a more secure and user-centric digital future.

2 THE TRUSTCHAIN OPEN CALL 3: ECONOMICS & DEMOCRACY

This Open Call is designed to facilitate an ecosystem economy of data and associated services. In our semantic marketplace, data will be accompanied by quality proofs, verification, and certificates to establish the value of such data using inherent and external properties and the broader usage context. The investigation will include data supply chain and data tokenization for value sharing. Data price determination schemes will be defined, and various democratic means (e.g., Decentralized Autonomous Organizations, DAOs) for establishing data management policies will be explored. Additionally, the use of tokenomics (such as various ERC-20, 721, and 1155 tokens) will be examined throughout the data lifecycle.

2.1 TRUSTCHAIN OC3 SPECIFIC OBJECTIVES

The objective of this Open Call is to define and build market mechanisms for data exchange and data trading, as well as innovative win-win federated business models for open data. This should be in compliance with GDPR and other regulations, implementing techniques such as:

- **Federated Business Models**: Create business models that ensure fair rewarding of participants.

- **Marketplaces**: Establish new or enhance existing marketplaces, ensuring privacy-preserving data sharing on third-party platforms.

- **Fair Data Marketplaces**: Develop mechanisms for publishing, searching, discovery, and negotiation of data prices in decentralized environments.

- **Market Competition**: Foster a market competition that is fair and regulated in favour of innovators.

- **Tokenization of Assets**: Implement fair trading and protection against scams such as rug pulls and ICO fraud in digital asset trading.

- **Coin Valuation**: Establish the value of coins based on their quality contents and create liquidity in existing data marketplaces.

- **Decentralized Governance Models**: Develop governance models that are fair and trustworthy for all parties in a data exchange ecosystem.

- **eIDAS2 Integration**: Utilize eIDAS2 on EU marketplaces.

Data Monetization Strategies: Create effective data monetization strategies and business models to incentivize data providers to share their data on exchange platforms.

Applications should cover real needs of end-users in specific sectors such as banking,

education, healthcare, or e-government.

2.3 CHALLENGES TO BE ADDRESSED

Navigating the data exchange/trading arena proves challenging due to the involvement of multiple parties, leading to issues of trust, privacy, consent, and regulatory complexities. The existing market mechanisms for data exchange face hurdles exacerbated by the dynamic nature of data and the digital landscape. Additionally, challenges in market competition, fair settlement practices, and determining ownership rights further complicate the ecosystem. Organizations must grapple with these challenges, ranging from establishing trust frameworks to addressing evolving privacy regulations and ensuring fair compensation for data contributors. Tackling these complexities necessitates collaborative efforts and innovative solutions to create a secure, transparent, and ethical data exchange environment.

A **user-centric design approach** should frame the developed solution carefully consider the following:

- The real needs of the target users, with evidence of the existence of such needs.
- Identification of the user's target group
- User/Citizens privacy protection, Data retention and data deletion, right to be forgotten, data minimization,
- Digital sovereignty of the user and citizen over its data,
- Data minimization and user informed data deletion.
- Ease of use of the solution's interface
- A senseful integration of the solution in the life of users
- Proven co-creation and validation of the tool by users with established methodologies and reports

2.2 EXPECTED OUTCOMES AND POSSIBLE APPLICATION DOMAINS

With this Open Call, the following outcomes are expected:

- New Data Governance Model: Considering data value.
- Innovative Business Models for Data Sharing: Promoting efficient and fair data exchange.

- New Data Exchange Framework: Establishing robust mechanisms for data trading.
- Innovative Data Trading Platform: Ensuring privacy policies of data owners are respected.

These outcomes will help individuals and organizations to better govern and share their data when participating in joint value chains where cooperating partners can also be competitors.

Possible Use Cases and Application Domains:

- Tokenization of Physical Assets: Utilizing NFTs to represent and trade physical items.
- Tokenization of Virtual Assets: Implementing tokenomics for digital goods.
- Copyrights Management: Enhancing the protection and trading of intellectual property.
- Customer Relationships and Awards: Leveraging data to improve customer engagement and reward systems.

2.4 TRUSTCHAIN OC3 SELECTED PROPOSALS

TABLE 1: OC3 SELECTED PROPOSALS

Proposals	Objectives & expected outcomes	Challenges expected to be tackled
ZKorum	Create a verifiable and privacy-preserving social network based on Zero Knowledge technology and the use of W3C Verifiable Credentials. The platform aims to enhance civic engagement and serve as a gateway to bottom-up eDemocracy. Develop a trust-minimized Verifiable Moderation solution that will make our social network, or any application generating verifiable data, more censorship-resistant.	Ensuring user privacy, combating Sybil attacks on social platforms, and building censorship resistance.
AI Metabloq	Develop a decentralized AI platform that provides secure, privacy-preserving AI services and applications. Creation of AI models and services that are compliant with GDPR and other	Ensuring data privacy and security in AI applications, creating a decentralized infrastructure for AI model

	privacy regulations, integration with blockchain for transparent and secure data management.	training and deployment
Tru-IP AMICA	Build a market-ready demonstrator targeting real-world experimentation with new tokenization mechanisms for the protection, exchange, and IPR management of artistic, cultural, and heritage assets. Implementation of a blockchain-enabled solution for the trustworthy creation and reuse of data within/across data spaces for cultural heritage.	Addressing economic and democratic capabilities enabled by next-gen internet, focusing on the creative/cultural/IP spaces
Didimo	DIDimo aims to provide interoperability and build trust among various applications by utilizing decentralized identities and verifiable credentials. This is essential for services like KYC in federated businesses, proof of humanity in democracy platforms, data ownership in marketplaces, and authentication via eIDAS 2. Given the evolving standards, a tool for testing, interoperability, compliance assessment, and a marketplace for comparing offerings is crucial.	Preserving privacy while performing authentication to platforms such as data marketplaces, federated platforms, DAOs, or other blockchain-based applications. Ensuring the platform is up-to-date with a growing and ever-changing set of standards.
TAC	Enhance traceability and trust in the agrifood supply chains through blockchain and other emerging technologies. A transparent and secure system for tracking and managing agrifood products.	Ensuring data integrity, compliance with food safety regulations, and enhancing consumer trust
ValueAll	Develop a platform for valuing and trading digital assets in a secure and transparent manner. Creation of a marketplace for digital assets, integration with blockchain for secure transactions.	Ensuring the security and transparency of digital asset transactions, creating a fair and efficient marketplace
AuthBond	Develop a decentralized authentication and authorization system that ensures user privacy and security. This includes the implementation of a secure and user-friendly authentication mechanism integrated with blockchain technology for decentralized identity management. Creating a tamper-proof system that	Ensuring the security and privacy of user authentication processes, integrating seamlessly with existing identity management systems, and achieving widespread user adoption.

	empowers users with full control over their personal data, enhancing trust and security in digital interactions.	
Trust-ICMF	Introduce an open-source framework that simplifies, accelerates, and enhances the development and execution of digitized international trade contracts using a decentralized model. Allowing parties to compose contracts as Verifiable Credentials (W3C standard), using controlled vocabularies (JSON-LD) from the UNECE Trade Programme and ICC standards.	Creating interoperability, standardization, and trust among parties in international trade. Tackle the need for decentralized data governance, ensuring autonomous blockchain-based validation mechanisms without a central intermediary
QX Travel Wallet	Create a Web3 ecosystem that connects cities and tourists through a decentralized identity and reward system. Development of a travel wallet that integrates decentralized identity and reward tokens, promoting secure and privacy-preserving travel experiences.	Bridging the gap between centralized and decentralized technologies, ensuring user privacy and data security in travel applications
Predictive Liquid Democracy	Develop a liquid democracy platform that uses predictive analytics to enhance decision-making processes. Implementation of a liquid democracy system with integrated predictive analytics, promoting more informed and efficient decision-making.	Ensuring the accuracy and reliability of predictive analytics, creating a transparent and inclusive decision-making process
FLORA	Develop a user-oriented mobile application for precise ovulation tracking, ensuring user privacy through Federated Learning and blockchain technology. Accurate ovulation predictions, enhanced data privacy using fully homomorphic encryption, and a blockchain-based reward system for user participation.	Addressing privacy concerns in health applications, ensuring data sovereignty, and promoting ethical AI usage
TC	Establish a secure, transparent, and verified model for engaging citizens in smart city governance, utilizing a DAO system to facilitate resident participation in city policies, projects, and initiatives. Development of a community rewards program through city tokens and integration with eID/eIDAS infrastructure for secure identity verification.	Enhancing civic engagement and democratic participation, ensuring data privacy and security, and fostering transparency in city governance

Spark-It	Develop a platform for secure, decentralized collaboration and innovation management, connecting innovators with experts through an AI-powered recommendation system. Enhanced collaboration through secure, decentralized protocols; integration with eIDAS 2.0 Regulation.	Ensuring data privacy and security, effective matching of innovators with relevant experts, and creating a robust reputation system for experts
SecureOpinion	Create a decentralized and secure platform for public opinion sharing using zero-knowledge blockchain technology. Development of a platform that ensures data privacy and integrity while allowing secure and anonymous opinion sharing.	Ensuring user privacy, preventing unauthorized data access, and promoting transparency and trust in public opinion platforms
FitChain	Create a blockchain-based platform for managing fitness and health data, ensuring data privacy and user control. Development of a secure and privacy-preserving platform for fitness and health data, integration with wearable devices and health apps.	Ensuring data privacy and security, integrating with existing health and fitness ecosystems, and promoting user engagement and trust

2.5 TRUSTCHAIN OC3 REQUIREMENTS

2.5.1 Technical Requirements

When implementing their projects, all the selected projects will have to consider whenever relevant and applicable the following aspects in a technical manner according to the solution they envisioned:

- TR1 - Privacy and Data Protection
- TR2 - Interoperability
- TR3 - Scalability
- TR4 - Usability and User Experience
- TR5 - Data Management and Consent Control

- TR6 - Ethical Data Use and Fairness
- TR7 - Cross-Border Data Flow Compliance
- TR8 - Tokenization of Assets
- TR9 - Decentralized Autonomous Organizations
- TR10 - Smart Contracts for Economic Transactions

Each of these aspects are described in more details regarding the challenges they raised, the requirements to be addressed and the expected outcomes at the level of the envisioned solution in the tables below.

TR1 - Privacy and Data Protection

TABLE 2: TR1

TR1 - Privacy and Data Protection	
Definition	Addressing privacy concerns and implementing robust security measures to protect user data while maintaining compliance with relevant regulations like GDPR.
Challenges to be tackled	- Privacy incidents: Number of privacy incidents reported within a given time frame. - Compliance gaps: Number of identified compliance gaps related to privacy regulations. - Data breaches: Number of data breaches that occurred, indicating potential vulnerabilities. - Employee training: Percentage of employees trained on privacy policies and procedures. - Audit findings: Number of privacy-related findings identified during internal or external audits. - Customer complaints: Number of customer complaints related to privacy concerns or data protection.
Requirements to be addressed	- Consent management: Percentage of user consents obtained and documented for data processing activities. - Privacy policy updates: Number of privacy policy updates made to ensure compliance with relevant regulations. - Data minimization: Percentage reduction in unnecessary or redundant data collected and stored. - Privacy impact assessments (PIAs): Number of PIAs conducted to identify and mitigate privacy risks. - Data subject access requests (DSARs): Average response

	time for handling DSARs in compliance with regulatory timeframes.
	• Security controls: Implementation and effectiveness of technical and organizational security measures to protect data.
Expected outcomes at the level of your solution	• Compliance level: Percentage of compliance achieved with relevant privacy regulations (e.g., GDPR). • Data breach incidents: Reduction in the number and impact of data breach incidents. • Consent rates: Increase in the percentage of users providing informed consent for data processing. • Privacy awareness: Improvement in employees' understanding and awareness of privacy policies and practices. • Data retention policy: Implementation and adherence to a documented data retention policy. • Third-party risk management: Implementation of processes to assess and manage privacy risks associated with third-party vendors or partners.

TR2 – Interoperability

TABLE 3: TR2

TR2 - Interoperability	
Definition	Ensuring that solutions are interoperable with other systems and promoting standardization in the field of privacy and data governance.
Challenges to be tackled	• System compatibility: Ensuring that solutions can seamlessly integrate with existing systems and platforms. • Data format and protocol mismatches: Overcoming issues related to data format and communication protocols. • Lack of industry standards: Addressing the absence of standardized practices in the privacy and data governance domain.
Requirements to be addressed	• Interoperability frameworks: Implementing interoperability frameworks and APIs. • Data format standardization: Adopting standardized data formats and communication protocols. • Integration guidelines: Providing guidelines and documentation for system integration.

	• Industry collaboration: Engaging in industry collaboration efforts to promote standardization.
	• Testing and validation: Conducting interoperability testing to ensure compatibility.
Expected outcomes at the level of your solution	• Seamless integration: Easy integration with other systems and platforms.
	• Data exchange compatibility: Compatibility with various data formats and protocols.
	• Alignment with standards: Adherence to industry-standard practices.

TR3 – Scalability

TR3 - Scalability	
Definition	Designing decentralized identity systems that can handle a massive number of users and transactions without compromising performance and speed.
Challenges to be tackled	• User Growth Rate: Measure the rate at which the number of users in the decentralized identity system is increasing over time. • Transaction Volume: Track the total number of transactions processed within the system to assess its scalability in handling increasing transaction loads. • Response Time: Measure the time taken by the system to respond to user requests, ensuring that it remains within acceptable performance limits. • Concurrent Users: Monitor the number of simultaneous users accessing the decentralized identity system to ensure it can handle a large user base without degradation in performance.
Requirements to be addressed	• Throughput: Measure the number of transactions processed per unit of time to ensure the system meets the required performance levels. • Latency: Monitor the time taken for a transaction to be processed from initiation to completion, ensuring it meets the specified latency requirements. • Scalability Testing: Perform load and stress tests to evaluate the system's ability to handle increased user and transaction volumes while maintaining performance standards. • Resource Utilization: Monitor the system's resource usage (CPU, memory, network bandwidth) to ensure efficient utilization and identify potential bottlenecks.
Expected outcomes at the level of your solution	• Scalability Index: Develop a metric or index that quantifies the scalability level achieved by the decentralized identity system. • Improved Performance: Measure the improvement in response time and throughput compared to the system's initial performance before scalability enhancements. • Increased User Base: Monitor the growth in the number of users utilizing the decentralized identity system as a result

| | of improved scalability, indicating its broader adoption. |
| | • Cost Efficiency: Evaluate the cost-effectiveness of the scalability enhancements by analysing the ratio of performance improvement achieved to the investment made in scaling the system. |

TR4 - Usability and User Experience

<p align="center">TABLE 5: TR4</p>

TR4 - Usability and User Experience	
Definition	Ensuring that solutions are user-friendly and provide a positive user experience as well as respond to user's needs.
Challenges to be tackled	• User adoption: Ensuring that users can easily adopt and use the solutions. • User comprehension: Ensuring that users understand privacy-related features and options. • Understanding of user's and citizen's needs and demands regarding privacy.
Requirements to be addressed	• User-centric design: Designing solutions built around on user needs and preferences. • Testing and validation: Conducting usability testing to identify and address usability challenges. • Co-creation: ensure that target users are involved in the process of creation of the solution in several stages.
Expected outcomes at the level of your solution	• User-friendly interfaces: Interfaces that are intuitive and easy to navigate. • High user adoption: Increased user acceptance and adoption of the solutions. • User satisfaction: Positive feedback and satisfaction among users.

TR5 - Data Management and Consent Control

<p style="text-align:center">TABLE 6: TR5</p>

TR5 - Data Management and Consent Control	
Definition	Addressing data management and consent control concerns to ensure user data is handled appropriately.
Challenges to be tackled	- Data retention and deletion: Ensuring that data is not retained beyond its necessary lifespan and retained and deleted as per user preferences. - Data erasure effectiveness: Guaranteeing that data erasure processes are thorough and irreversible. - Consent tracking and compliance: Managing and tracking user consent for data processing activities. - User data retrieval: Developing mechanisms for users to request and confirm data deletion.
Requirements to be addressed	- Data retention policies: Establishing clear policies for data retention and deletion as per user preferences. - Consent tracking and compliance: Managing and tracking user consent for data processing activities. Providing users with the ability to revoke consent at any time. - User data retrieval: Developing mechanisms for users to request and confirm data actions. - Data deletion: Creating a user-friendly process for users to request data deletion. Implementing automated user-friendly processes for data erasure which provides confirmation. Maintaining records of data deletion activities. Ensuring that deleted data cannot be recovered.
Expected outcomes at the level of your solution	- Effective data management: Efficient collection, retention, and deletion of user data. - Consent compliance: Alignment of data processing with obtained consents. - User empowerment: Empowering users to control their data and consent preferences. - Transparent data history: Providing a clear and transparent history of data actions and consent changes.

TR6 - Ethical Data Use and Fairness

<p align="center">TABLE 7: TR6</p>

TR6 - Ethical Data Use and Fairness	
Definition	Ensuring that user data is used in an ethical and responsible manner, aligning with ethical principles and guidelines.
Challenges to be tackled	• Ethical data use gaps: Identifying and addressing areas where data usage may not align with ethical principles. • Bias and fairness: Ensuring that data-driven decisions are fair and unbiased. • Informed consent: Obtaining informed consent from users regarding data usage in ethically sensitive contexts.
Requirements to be addressed	• Ethical data use guidelines: Establishing clear guidelines for ethical data usage. • Bias detection and mitigation: Implementing mechanisms to detect and mitigate biases in data and algorithms. • Algorithmic transparency: Providing transparency in how algorithms make decisions. • Ethical impact assessments: Conducting assessments to identify and address ethical risks in data usage. • Ethical AI governance: Implementing governance structures to ensure ethical AI and data use.
Expected outcomes at the level of your solution	• Ethical data use: Alignment of data usage practices with ethical principles. • Fair and unbiased algorithms: Mitigation of biases in data-driven decision-making. • Informed user consent: Users provided with information about ethical considerations related to data usage. • Ethical data culture: Fostering a culture of ethical data use within the organization.

TR7 - Cross-Border Data Flow Compliance

<p align="center">TABLE 8: TR7</p>

TR7 - Cross-Border Data Flow Compliance	
Definition	Ensuring compliance with international regulations and standards related to cross-border data transfers.
Challenges to be tackled	- Data sovereignty and jurisdiction: Navigating complex legal and jurisdictional requirements for cross-border data flows. - Data localization: Adhering to regulations that require data to be stored or processed within specific geographical boundaries. - Data transfer mechanisms: Identifying and implementing secure mechanisms for cross-border data transfers.
Requirements to be addressed	- Legal compliance framework: Establishing a framework to ensure legal compliance in cross-border data flows. - Data localization solutions: Implementing solutions to address data localization requirements. - Secure data transfer protocols: Using secure protocols and encryption for data transfers. - Jurisdiction mapping: Mapping data flows to relevant jurisdictions and regulations.
Expected outcomes at the level of your solution	- Legal compliance: Ensuring compliance with cross-border data transfer regulations. - Efficient data flows: Facilitating secure and efficient cross-border data transfers. - Data localization solutions: Implementing effective solutions to address data localization requirements.

TR8 - Tokenization of Assets

TABLE 9: TR8

TR8 - Tokenization of Assets	
Definition	Implement mechanisms for the tokenization of physical and digital assets to facilitate secure and transparent trading and management.

Challenges to be tackled	- Ensuring the security and authenticity of tokenized assets. - Creating a user-friendly interface for the management of tokenized assets. - Developing legal frameworks to support the tokenization process. - Ensuring interoperability with existing financial systems and platforms. - Managing the volatility and liquidity of tokenized assets.
Requirements to be addressed	- Robust security protocols to protect tokenized assets from fraud and cyber-attacks. - Clear legal and regulatory guidelines to support the tokenization of assets. - User-friendly platforms that enable easy tokenization, management, and trading of assets. - Interoperable systems that can integrate with existing financial and digital asset platforms. - Mechanisms to ensure liquidity and manage the volatility of tokenized assets.
Expected outcomes at the level of your solution	- A secure and user-friendly platform for tokenizing physical and digital assets. - Enhanced liquidity and accessibility of assets through tokenization. - Compliance with legal and regulatory frameworks for asset tokenization. - Integration with existing financial systems for seamless asset management. - Increased trust and transparency in asset trading and management processes.

TR9 - Decentralized Autonomous Organizations (DAOs)

TABLE 10: TR9

TR9 - Decentralized Autonomous Organizations (DAOs)	
Definition	Develop infrastructures for the creation and management of

	DAOs, enabling decentralized and democratic governance.
Challenges to be tackled	• Ensuring the security and reliability of DAO infrastructures. • Creating effective and transparent governance mechanisms. • Ensuring legal compliance and regulatory recognition of DAOs. • Managing the decision-making process in a decentralized environment. • Facilitating user participation and engagement in DAO activities.
Requirements to be addressed	• Secure and scalable blockchain infrastructures to support DAOs. • Transparent and efficient governance frameworks for decision-making. • Legal and regulatory frameworks to recognize and support DAOs. • User-friendly interfaces to facilitate participation and engagement. • Mechanisms to ensure accountability and prevent malicious activities within DAOs.
Expected outcomes at the level of your solution	• A secure and scalable platform for creating and managing DAOs. • Transparent and effective governance mechanisms for decentralized decision-making. • Legal recognition and compliance of DAOs with relevant regulations. • High levels of user participation and engagement in DAO activities. • Increased trust and accountability in decentralized governance structures.

TR10 - Smart Contracts for Economic Transactions

TABLE 11: TR10

TR1 - Privacy and Data Protection

Definition	Addressing privacy concerns and implementing robust security measures to protect user data while maintaining compliance with relevant regulations like GDPR.
Challenges to be tackled	• Privacy incidents: Number of privacy incidents reported within a given time frame. • Compliance gaps: Number of identified compliance gaps related to privacy regulations. • Data breaches: Number of data breaches that occurred, indicating potential vulnerabilities. • Employee training: Percentage of employees trained on privacy policies and procedures. • Audit findings: Number of privacy-related findings identified during internal or external audits. • Customer complaints: Number of customer complaints related to privacy concerns or data protection.
Requirements to be addressed	• Consent management: Percentage of user consents obtained and documented for data processing activities. • Privacy policy updates: Number of privacy policy updates made to ensure compliance with relevant regulations. • Data minimization: Percentage reduction in unnecessary or redundant data collected and stored. • Privacy impact assessments (PIAs): Number of PIAs conducted to identify and mitigate privacy risks. • Data subject access requests (DSARs): Average response time for handling DSARs in compliance with regulatory timeframes. • Security controls: Implementation and effectiveness of technical and organizational security measures to protect data.
Expected outcomes at the level of your solution	• Compliance level: Percentage of compliance achieved with relevant privacy regulations (e.g., GDPR). • Data breach incidents: Reduction in the number and impact of data breach incidents. • Consent rates: Increase in the percentage of users providing informed consent for data processing. • Privacy awareness: Improvement in employees' understanding and awareness of privacy policies and practices. • Data retention policy: Implementation and adherence to a documented data retention policy. • Third-party risk management: Implementation of processes to assess and manage privacy risks associated with third-party vendors or partners.

2.5.2 Cross-Cutting Requirements

When implementing their projects, all the 15 selected projects will have to address the cross-cutting requirements according to the solution they envisioned:

- **CCR1 - User Centred Approach:** Implementation of a User Centred Approach

- **CCR2 - Legal, Regulatory and Ethical framework:** Adherence and compliance to the current legal, regulatory and ethical framework

- **CCR3 - Business Plan:** Design and evaluation of a business plan based on a detailed market and cost-benefit analysis in the TRUSTCHAIN context

- **CCR4 - Standardisation activities:** Leverage existing standards and/or contribute to standardisation activities in the TRUSTCHAIN context

- **CCR5 - Environmental sustainability:** Commitment to EU sustainable goal and six environmental objectives of the EU Taxonomy Regulation presented hereafter

- **CCR6 - Democratic Participation and Transparency:** Promote democratic participation and ensure transparency in governance processes.

- **CCR7 - Economic Impact and Inclusion:** Assess and promote the economic impact and inclusion of diverse stakeholders, ensuring equitable access to economic opportunities

CCR1 - User Centred Approach

TABLE 12: CCR1

CCR1 - User Centred Approach	
Definition	In the context of OC3's User Centred Approach, the definition extends to a comprehensive methodology prioritizing the assessment of users' needs in the areas of economic empowerment and democratic participation. This approach entails a deep integration of user preferences, concerns, and rights into every phase of system development. It's a commitment to not only meet technical and functional requirements but also to align with ethical, legal, and social expectations. This perspective involves understanding the nuances of user interactions with technology, their expectations for transparency, and the implications of economic and democratic governance, thereby developing solutions that are empathetic, transparent, and user-focused.

Challenges	Adopting a User Centred Approach in the realm of Economics & Democracy presents unique challenges. These challenges are critical to address as they directly impact the success and acceptance of the solutions developed. They range from technical and design aspects to ethical and legal considerations. • Balancing User Experience with Security and Privacy • Identify and address Diverse User Expectations and Needs • Technological Implementation of users feedback and Integration • Building and Maintaining User Trust
Requirements	To effectively implement a User Centred Approach, certain requirements must be met. These requirements serve as guiding principles, ensuring that the developed solutions are not only effective in terms of economic empowerment and democratic participation but also resonate with the end-users. • Stakeholder Analysis: Understanding the needs and expectations of various stakeholders and potential end-users • User Engagement: Active involvement of users in the design and testing phases. • Privacy-by-Design: Integrating privacy features into the design from the outset. • Regulatory Alignment: Ensuring compliance with relevant legal and regulatory frameworks. • Transparency and Control: Providing users with clear information and control over their data and participation.
Expected outcomes	The adoption of a User Centred Approach in the context of Economics & Democracy aims to achieve specific outcomes. The overall expected outcome is to build solutions that are more efficient, satisfying, and user-friendly for the participants. • Defining the Sample and Ideal Candidates: Identifying the representative user groups to participate in research. • Recruitment Process: Detailed planning and execution of user recruitment for co-creation and validation stages. • Methodological Roadmap: Preparing a comprehensive methodological plan to meet project objectives. • Piloting Execution: Clearly describing the phases of piloting and user testing. • Pilot Analysis: Analyzing feedback from pilot sessions to identify key issues and areas for improvement. • Iterative Development: Reflecting on pilot results to make informed decisions about necessary iterations and improvements.

CCR2 - Legal, Regulatory and Ethical framework

CCR2 - Legal, Regulatory and Ethical framework	
Definition	All the projects funded by OC3 are required to comply with the legal, regulatory, and ethical framework which is relevant to the respective projects. Compliance with the legal and regulatory framework is essential, as all participants must adhere to the law. The ethical requirements are made equally binding through the Horizon Europe legal and contractual framework. The legal and regulatory framework relevant in the context of OC3 is diverse and multilayered, governed by instruments at regional, national, and supranational levels. These instruments dictate how participants set up their projects, conduct research, collaborate, collect and manage data, develop and market solutions, and publish their findings. While it is challenging to identify all applicable legal instruments for every project, several EU-level instruments are expected to be central to all selected projects considering the focus on "Economics & Democracy": • General Data Protection Regulation (GDPR; Regulation (EU) 2016/679): Projects must ensure compliance with GDPR, particularly given the focus on human-centric approaches and the processing of personal data. Compliance includes assessing data categories, legal bases for processing, data quality, data subject rights, stakeholder agreements, and rules on data transfers outside the EEA. • eIDAS Regulation (Regulation (EU) 910/2014): Projects developing trust services, such as electronic identification, website authentication, and electronic signatures, must ensure compliance with eIDAS requirements. • Network and Information Security Directive (NIS; Directive (EU) 2016/1148 and Directive (EU) 2022/2555, NIS2): Projects offering digital or essential services must comply with cybersecurity obligations under NIS and NIS2, and consider the implications of the upcoming Cyber Resilience Act. • Other relevant regulations may include consumer protection law, digital services rules, intellectual property protection, and trade secrets. Participants must identify and comply with all applicable legal obligations. The TRUSTCHAIN Consortium will provide assistance and advice where possible. • In terms of ethical considerations, privacy and data protection are paramount. Participants must ensure compliance with GDPR to meet ethical standards. • Regulatory Compliance Across Different Jurisdictions

Challenges	The main challenges in relation to the ethical, legal, and regulatory framework include:
	• Correctly identifying and acknowledging applicable legal, regulatory, and ethical obligations. • Drafting the necessary notices, policies, procedures, and contracts to ensure compliance. • Seeking assistance from legal experts to understand and comply with relevant rules and to draft required documentation.
Requirements	Participants must demonstrate that they have identified and complied with the legal, regulatory, and ethical requirements relevant to their projects.
Expected outcomes	The necessary notices, policies, procedures, and contracts should be drafted and implemented to ensure compliance. This will include: • Comprehensive documentation of legal and regulatory compliance. • Implementation of ethical guidelines and practices. • Ensuring all legal requirements are met through structured and well-documented processes.

CCR3 – Business Plan

TABLE 14: CCR3

CCR3 - Business Plan	
Definition	All projects funded by OC3 are expected to deliver mature prototype solutions in an operational environment (TRL7), which are close to market readiness. Towards the business exploitation of the OC3 project results, the projects should study and report on their market context, including market size, value proposition, potential competitors, potential partners, and the business models of their competition. OC3 projects should collect realistic cost and benefit parameters from the market to employ in their economic analysis. More detailed information on the business analysis methodology can be found in the Annex.
Challenges	The main challenges for projects include: • Clearly describing their customers, competitive advantage, and added value relative to the competition.

	• Identifying all cost and revenue parameters to define cost and revenue streams, as well as different customer channels. • Defining a robust and viable business model. • Convincing stakeholders of the projected market share or market penetration.
Requirements	Participants should perform a comprehensive market analysis and clearly position their solution within the market. Specific and realistic market penetration scenarios should be defined. Economic analysis tools such as business model canvas, value chain/network, SWOT/TOWS analysis, and cost/benefit analysis should be employed.
Expected outcomes	Each OC3 project should deliver (at least) the following: • Market Overview: Detailed analysis of the market size, growth potential, and key market trends. • Business Model Canvas: A comprehensive business model canvas outlining the value proposition, customer segments, channels, revenue streams, and cost structure. • Value Network: Description of the value network including potential partners and collaborators. • Cost-Benefit Analysis: Realistic cost-benefit analysis based on current market tariffs/costs and penetration scenarios. • Risk Analysis: Identification and assessment of potential risks and mitigation strategies.

CCR4 - Standardisation activities

TABLE 15: CCR4

CCR4 - Standardisation activities	
Definition	TRUSTCHAIN aims to contribute to industry-wide standards and protocols for decentralized economic and democratic systems to facilitate interoperability, compliance, and regulatory harmonization. This includes developing standards for tokenization of assets, Decentralized Autonomous Organizations (DAOs), and smart contracts, ensuring they can be integrated seamlessly with existing financial and governance frameworks.
Challenges	• Integrating tokenization methods to serve various aspects of digital and physical asset management. • Ensuring interoperability of DAOs and smart contracts with existing systems.

	• Harmonizing new technologies with existing legal and regulatory frameworks.
Requirements	• Proofs: Implement mechanisms for proofs of ownership, transactions, and compliance (e.g., proofs of ownership for tokenized assets, proofs of participation in DAOs). • Zero-Knowledge Proofs: Utilize zero-knowledge proofs to assert the achievement of goals (e.g., validating transactions without revealing details). • Reputation Management: Develop systems for managing reputation within DAOs and economic networks without compromising user privacy. • Integration of Smart Oracles: Use smart oracles for real-time data integration from IoT devices and other sources in economic and democratic processes. • Proximity Solutions: Develop solutions that enable token transactions and DAO operations without constant internet connectivity. • High-Level Ontology: Create an ontology to address processes, costs, proofs, and other aspects of TRUSTCHAIN use cases.
Expected outcomes	• Contribution to Standards: Actively contribute to the development and adoption of standards for tokenization, DAOs, and smart contracts in collaboration with industry bodies such as the W3C. • Interoperability: Enhanced interoperability of TRUSTCHAIN solutions with existing financial and governance systems. • Regulatory Harmonization: Standards that ensure compliance with regulatory requirements across different jurisdictions, facilitating broader adoption. • Innovation and Adoption: Accelerated innovation and adoption of decentralized economic and democratic systems through standardized practices and protocols.

CCR5 - Environmental sustainability

TABLE 16: CCR5

CCR5 - Environmental sustainability	
Definition	The TRUSTCHAIN ecosystem is intended to be designed in a way that it does not significantly harm any of the six environmental objectives of the EU Taxonomy Regulation presented hereafter.

	• Climate Change Mitigation: Reducing the impacts of climate change by preventing or reducing the emission of greenhouse gases (GHG) into the atmosphere. • Climate Change Adaptation: Altering behaviours, systems, and ways of life to protect families, economies, and the environment from the impacts of climate change. • Ocean Sustainability: Managing oceans and the services they provide sustainably. Oceans and coastal areas are vital, hosting millions of species and providing essential ecosystem services. • Circular Economy: An economic system based on the reuse and regeneration of materials or products to ensure sustainable production. • Pollution Prevention: Eliminating or reducing the amount and toxicity of potentially harmful substances at their sources before they are generated. • Biodiversity Conservation: Protecting plant, animal, microbial, and genetic resources for food production, agriculture, and essential ecosystem functions.
Challenges	The EU Taxonomy Regulation on Environmental Sustainability provides guidelines that can be complemented with Key Performance Indicators (KPIs). TRUSTCHAIN technologies, due to their inherent decentralization, may stimulate new solutions that provide a sustainability level beyond current capabilities. The challenge is to implement TRUSTCHAIN solutions that address the environmental objectives of the EU Taxonomy Regulation.
Requirements	Solutions that, compared to alternatives, satisfy one or more of the following: • Consume less energy. • Have a longer life expectancy and reusability potential. • Enable peer-to-peer and/or circular economy practices. • Save costs in terms of human activity and energy. • Promote or incentivize sustainable objectives in the energy, societal, or economic domains. • Enable other specific sustainable solutions.
Expected outcomes	• Innovations for Sustainability: New innovations that educate, stimulate, or incentivize environmental sustainability and contribute to humanity's sustainability goals. • Sustainable Solutions: Innovations that enable sustainable outcomes in economic, energy, and societal terms. • Enhanced Circular Economy: Increased adoption of circular economy practices. • Reduced Environmental Impact: Solutions that significantly reduce the environmental impact of economic activities. • Increased Public Awareness: Greater public awareness and participation in sustainability initiatives.

CCR6 - Democratic Participation and Transparency

<p align="center">Table 17: CCR6</p>

CCR6 - Democratic Participation and Transparency	
Definition	Promote democratic participation and ensure transparency in governance processes. This requirement focuses on creating systems and platforms that facilitate active engagement from citizens in democratic processes and ensure that governance activities are transparent, accountable, and open to public scrutiny. By leveraging technologies such as blockchain and decentralized systems, the goal is to enhance trust and involvement in democratic activities.
Challenges	• Ensuring secure and anonymous participation in democratic processes. • Overcoming distrust in digital voting and governance systems. • Providing equitable access to democratic participation tools. • Ensuring the integrity and verifiability of voting results. • Balancing transparency with privacy concerns.
Requirements	• Secure and anonymous voting mechanisms. • User-friendly platforms for citizen engagement. • Transparent and verifiable processes for democratic participation. • Compliance with legal and regulatory frameworks. • Mechanisms to ensure inclusivity and equitable access.
Expected outcomes	• Increased citizen participation in democratic processes. • Enhanced trust and transparency in governance. • Secure and verifiable voting and participation systems. • Platforms that are accessible and easy to use for all citizens. • Strengthened democratic institutions through technology-enabled transparency.

CCR7 - Economic Impact and Inclusion

<p align="center">Table 18: CCR7</p>

CCR7 - Economic Impact and Inclusion

Definition	Assess and promote the economic impact and inclusion of diverse stakeholders, ensuring equitable access to economic opportunities. This requirement aims to create systems that provide economic benefits to a wide range of participants, including marginalized and underrepresented groups. By fostering inclusive economic growth, the goal is to reduce disparities and ensure that technological advancements benefit all sectors of society.
Challenges	- Addressing economic disparities and promoting inclusion. - Ensuring equitable access to economic opportunities for all stakeholders. - Overcoming barriers to participation for marginalized communities. - Measuring and assessing the economic impact of technological solutions. - Promoting sustainable economic growth.
Requirements	- Development of inclusive economic models. - Tools to assess and measure economic impact. - Mechanisms to ensure access to opportunities for underrepresented groups. - Strategies to promote sustainable and equitable economic growth. - Compliance with economic and social regulations.
Expected outcomes	- Increased economic opportunities for diverse and underrepresented groups. - Measurable positive economic impact on communities. - Sustainable and inclusive economic growth. - Platforms and tools that facilitate equitable access to economic resources. - Reduction in economic disparities through technology-enabled solutions.

Key Performance Indicators

The following tables summarize overall the KPIs of the selected projects with their assessment grid. They should be assessed on a regular basis by the selected innovators. Some of the KPIs might not be relevant to some selected projects. In that case, it must be justified and discussed with the TRUSTCHAIN consortium. In any case this assessment should be submitted to the TRUSTCHAIN consortium each time requested (see section 5).

These KPIs will be requested during deliverables throughout the project. However, it is important to note that they are generic for all projects, so it is possible that they do

not apply to your project, in which case "not applicable" will be indicated when requested.

KPIs Towards a More Trustworthy and Privacy-Aware Evolution of the Internet

- Number of solutions implementing advanced privacy-preserving technologies.
- Percentage of user data protected under GDPR-compliant mechanisms.
- Reduction in data breaches and privacy incidents.
- User satisfaction regarding data privacy and security.
- Number of decentralized identity solutions deployed.

KPIs Towards a More Decentralized NGI

- Number of decentralized applications (dApps) developed and deployed.
- Increase in the usage of blockchain and distributed ledger technologies.
- Number of new DAOs (Decentralized Autonomous Organizations) established.
- Degree of decentralization in project governance structures.
- Number of cross-border data exchanges facilitated by decentralized technologies.

KPIs Towards Sustainable Business

- Number of business models developed that promote sustainability.
- Increase in the adoption of circular economy practices.
- Reduction in carbon footprint and energy consumption of implemented solutions.
- Number of partnerships with green and sustainable organizations.
- Revenue generated from sustainable business solutions.

KPIs Towards New Forms of Human-Centered Interaction and Immersive Environments for NGI Users

- Number of new interfaces and interaction methods developed.
- User satisfaction with human-centred design elements.
- Adoption rate of new immersive technologies by target demographics.
- Impact on user behaviour and interaction patterns.

KPIs Related to the Pilot Studies

- Number of pilot studies conducted.
- Success rate of pilot implementations.
- User feedback and satisfaction from pilot participants.
- Number of improvements and iterations made based on pilot study results.
- User's needs addressed in the pilot studies
- User's needs covered by changes in the platform as a result of the pilot studies

Interoperability and Standardization

- Number of standards adopted and adhered to by the projects.
- Level of interoperability achieved with existing systems and platforms.
- Number of contributions made to standardization bodies and efforts.
- Degree of compliance with international interoperability frameworks.
- User feedback on the seamless integration of solutions.

Legal and Ethical Compliance

- Number of Solutions Reviewed for Compliance
- Number of ethical guidelines and policies implemented.
- Number of Reported Legal and Regulatory Issues
- Number of Legal and Regulatory Workshops Conducted
- Number of Reported Legal and Regulatory Issues

KPIs Towards a Greener NGI

- Reduction in energy consumption and carbon emissions by the solutions.
- Number of green technologies integrated into the projects.
- Increase in the use of renewable energy sources.
- User and stakeholder perception of the environmental impact of the solutions.
- Contribution to achieving EU environmental sustainability goals.

KPIs Towards Innovation

- Number of patents filed and granted based on project innovations.
- Level of innovation in developed solutions as assessed by experts.
- Number of research publications and presentations at conferences.
- Funding and investments attracted by the innovative solutions.

- User and market adoption rate of innovative technologies.

KPIs Related to the Implementation

- Timeliness and adherence to project timelines and milestones.
- Efficiency in resource allocation and usage.
- Success rate of project deliverables and outcomes.
- User and stakeholder satisfaction with the implementation process.
- Documentation and reporting quality of the project progress.

3 SUPPORT FOR THE OPEN CALL #3 WINNERS

To ensure an adequate integration of the technologies/solutions proposed by the selected applicant teams into the TRUSTCHAIN ecosystem, different layers of support have been defined:

- Coaching support
- Technical support with Alastria infrastructure
- Communication support

3.1 COACHING SUPPORT

Head coach role

A TRUSTCHAIN head coach is assigned to each OC3 winner (see section 3.1.2). The coach is the main TRUSTCHAIN contact point for the assigned applicant team, and will have the responsibility to support, guide, provide feedback, motivate, understand, and challenge the applicant team. More specifically, the head coach:

- Schedule weekly monitoring calls with their assigned selected innovator(s) (as described in detail in Section 5).
- Update the monitoring tool (described in Section 6.3).
- Connect their assigned selected innovator(s) with relevant other innovators to establish TRUSTCHAIN platform interoperability.

- Ensure that deliverables and milestones are submitted by their assigned selected innovator(s) at the end of each sprint (timekeeper).
- Engage their assigned selected innovator(s) on TRUSTCHAIN events.
- Liaise with the relevant TRUSTCHAIN partners based on their assigned selected innovator(s) needs.
- Attend the biweekly meeting for coaches to share experience and foster the support between coaches.

Head coach distribution per projects

The assignment of the selected projects per head coach and coaching team (TRUSTCHAIN consortium partner) is depicted in the table hereafter.

TABLE 19: SELECTED PROPOSALS AND ASSIGNED HEAD COACH OC3

Proposals	Head Coach
TAC	ICS
QX Travel Wallet	ICS
AI MetabloQ	ICS
Zkorum	AUEB/NKUA
AuthBond	AUEB/NKUA
Spark-it	AUEB/NKUA
Trust-ICMF	AUEB/NKUA
ValueAll	ALA
Flora	ALA
TC	ALA
FitChain	ALA

Tru-IP Amica	**UL**
Didimo	**UL**
PLD	**UL**
SecureOpinion	**UL**

Coaching and collaboration organigram - Communication flow

One of the key points for the success of all the TRUSTCHAIN initiatives in the OC3 Frame as well as for coaching and different collaboration activities is good communication between the different parties. To assure this, a workflow of communication between the different stakeholders is proposed in the following figure.

Head coach distribution per projects in OC2

The assignment of the selected projects per head coach and coaching team (TRUSTCHAIN consortium partner) is depicted in the table hereafter.

TABLE 20: SELECTED PROPOSALS AND ASSIGNED HEAD COACH OC2

Proposals	Head Coach
DOOF	**AUEB/NKUA**
UtiP-DAM	**AUEB/NKUA**
MorphMetro	**ALA**
SURE	**ICS**
dGUARD	**ICS**

NG-SC	UL
DUME	ALA
AURORA MINDS	ICS
OIDC PRINCE	ALA
PECS	AUEB/NKUA
EIDCMP- eIDAS	UL
DID-IMP	ICS
GUEDHS	UL
ProvenAI	ALA
LED-UP	AUEB/NKUA

Head coach distribution per projects in OC1

The assignment of the selected projects per head coach and coaching team (TRUSTCHAIN consortium partner) is depicted in the table hereafter.TABLE 2: SELECTED PROPOSALS AND ASSIGNED HEAD COACH

TABLE 21   SELECTED PROPOSALS AND ASSIGNED HEAD COACH OC1

Proposals	Head Coach
DidRoom	AUEB
CreatorCredentials.cc	ALA
MUSAP	ICS

TREVO	**AUEB**
Orchestral	**UL**
The Social Wallet	**ALA**
DID4EU	**UL**
IM4DEC	**ICS**
WIDE	**UL**
CLIENT-DIDS	**UL**
EVI Electric Vehicle Identity	**ICS**
IS-CIS	**ALA**
PRIVÈ	**NKUA**

FIGURE 1: ORGANOGRAM OF THE COACHING/COLLABORATION ACTIVITIES IN TRUSTCHAIN.
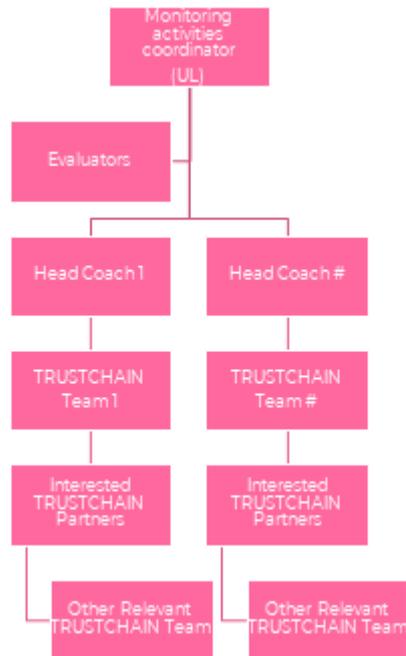
3.2 TECHNICAL SUPPORT WITH ALASTRIA INFRASTRUCTURE

The available infrastructure, described in the <u>Alastria's blockchain infrastructure for TrustChain</u> document, will be live since the start of the first OC until the end of the last OC, with great system performance and uptime, improving every day with work of their employees and most active members. During this time any TrustChain participant will have access to this infrastructure in a Blockchain-as-a-Service (BaaS) manner, described in the <u>Alastria Quick Reference for TrustChain</u> document.

The following subsections include the description of the TrustChain consortium's Service Level Agreement (SLA) and Operational Level Agreement (OLA).

SLA: Service Level Agreement

Blockchain network scope

Alastria networks, based on Consensys' GoQuorum and Hyperledger Besu technologies, are available to deploy blockchain based use case implementations.

Available IT infrastructure

Alastria's available IT infrastructure will ensure that there will be a different number of servers up to run the different needed nodes of Alastria networks. In addition, Alastria will ensure that enough servers will be up and running and up to date to enable good performance and great user experience for the selected projects that will use Alastria networks.

Available nodes

Regarding the available nodes, there will be a different number of nodes available. Alastria will ensure that enough nodes are active, updated and synchronised to enable good performance and great user experience.

SLA-related services

As part of the SLA, the TrustChain consortium will provide the following SLA-related services:

- **Documentation and examples about developing and deploying use cases:** Alastria will provide enough documentation in the form of guides, tutorial, and practical examples, already available in public GitHub repositories.

- **Support by email and Slack channels:** Alastria will provide support via email as well as the dedicated Slack channels, where the developers could send their questions and request. Support will be available during the on-boarding period as well as the rest of the Open Call, during the use cases deployment on the blockchain networks.

- **Maintenance:** Maintenance is performed daily on Alastria networks to make sure that the network is active and updated all the time. Alastria will maintain the IT infrastructure, based on servers, and the hosted nodes to keep the network up and synchronised.

- **Issue reporting and tracking:** Alastria will internally track any issue reported by the available channels (email and Slack).

OLA: Operational Level Agreement

Selected teams can contact Alastria for any issues or questions on the networks in any of the following ways:

Direct contact via email or the dedicated Slack channels: Support will be available from 9:00 – 14:00 CET during workdays (Monday to Friday) except public holidays in the EU. Regarding response times, Alastria technical experts will provide an answer within 4 hours via email or on Slack.

Specific help request: If any TrustChain participant could need special support, video

calls could be scheduled to help them to successfully use the Alastria blockchain networks.

Incidents will be tracked and resolved internally. Alastria will inform when the issue is received, when work on it is started and when it is resolved.

Alastria networks monitoring and maintenance

Monitoring

Regarding networks monitoring and to be aware of the network use and status, as well as to solve potential issues as soon as possible, Alastria will monitor the networks with the help of different software tools.

Maintenance

As for networks maintenance and to ensure the optima health status and availability of the networks, and solve potential issues as soon as possible, Alastria will work every day in the networks, testing new components, updating software and solving bugs and other issues.

Availability

Alastria will work on the networks during workdays from 9:00-17:00 CET (Monday to Thursday) and 9:00-14:00 CET (Friday). **24x7 support is not granted.**

3.3 COMMUNICATION SUPPORT

Each OC3 team will receive a communication toolkit from the F6S team, reference for all their communication/dissemination activities.

This kit is composed of the following:

- Press release template
- Social media content
- Co-branding suggestions
- NGI, TRUSTCHAIN and EU logos
- NGI textual recognition
- Official credits of the EU support
- Social media engagement information

For all other matters related to communication activities and community building, OC3 winners can refer to F6S.

4 MONITORING, FOLLOW-UP AND EVALUATION

DAY-TO-DAY COMMUNICATIONS

All OC3 team members will be invited to join a private Slack workspace where they can engage with the TRUSTCHAIN consortium members, coaches, and other participants. Slack is the preferred platform for day-to-day communications such as requesting help or asking questions to the other participants.

Three specific channels are open to OC3 innovators in Slack for communication.

The **TRUSTCHAIN-general channel** is the one of the TRUSTCHAIN Community. The TRUSTCHAIN consortium, the OC3 Innovators and later the innovators of the next OCs are all members of this channel. This is the place to share about TRUSTCHAIN in general, open discussion with OC3 innovators, exchange on specific orientations with all the TRUSTCHAIN Community, exchange experience and lessons learned.

The **OC3-general channel** is the one of the TRUSTCHAIN consortium and the OC3 Innovators. This is the place to share about TRUSTCHAIN OC3 in general. All information to be spread about TRUSTCHAIN OC3 to the consortium and/or to OC3 innovators are shared in this channel.

The **[project] channel** is a private channel only devoted to the direct sharing of information on the project itself between the related project team and its head coach and/or coaches that have been invited to the channel.

OC3 Team leaders are encouraged to provide their head coach with the list of team members who should be invited to this Slack workspace.

MONITORING, FOLLOW-UP AND EVALUATION PROCESS

In TRUSTCHAIN OC3, the monitoring, the follow-up and the evaluation activities will be sequenced by various reports and meetings defined hereafter.

The **kick-off meeting** will mark the start of the OC3 projects and will be held on the 26th of June 2024. It aims to present the TRUSTCHAIN OC3 framework within the TRUSTCHAIN project and the implementation approach (e.g., support, coaching/monitoring, activities assessment, KPI etc.), expected outcomes for OC3 innovators, as well as to get to know with OC3 innovators. For this last purpose, OC3 innovators will take the floor to describe their project of the support, coaching/monitoring, and evaluation activities (OC3 Monitoring Supervisor and Head Coaches).

The **TRUSTCHAIN community meeting**, following the model of the kick off meeting intends to strengthen the links within the TRUSTCHAIN Community and ensure that TRUSTCHAIN overall goals are achieved. OC3 project outcomes will be presented to the whole community. This type of meeting, including the kick off meeting, is planned to take place a total of 3 times within the duration of OC3 projects.

To explore collaboration opportunities between relevant OC3 projects, coaches will elicit a collaboration intention report after the kick-off event where applicants state up to five projects that they would consider collaborating with and then encourage and organize meetings among them. Specifically, each applicant should explain in their collaboration intention report the following:

- The synergies with their selected five projects.
- The quality of the synergies.
- The level of the interoperability with these projects.
- The added value for TRUSTCHAIN of these synergies.

Overall, all along the OC3 implementation, OC3 innovators will be monitored and guided following a **SCRUM methodology** depicted in the following figure.

FIGURE 2: SCRUM GUIDANCE AND EVALUATION METHODOLOGY
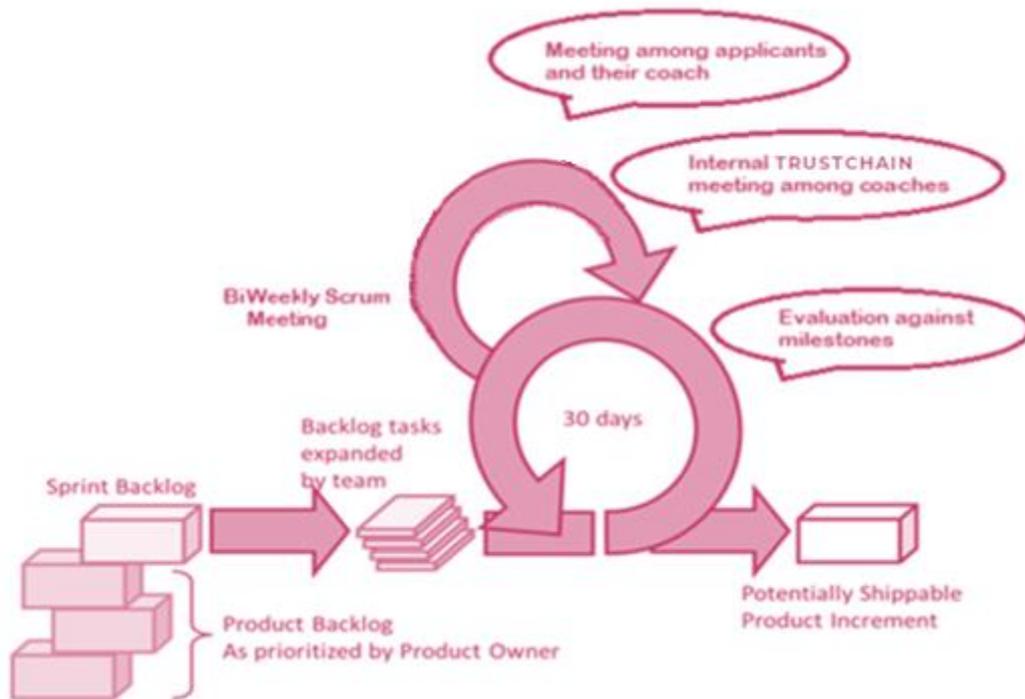
Sprint phases have been defined for which the duration has been set to one month. Each OC3 team has defined milestones in their submitted proposals and agreed on KPIs with their Head Coach. These are the basis for monitoring and evaluating their work progress during the execution of their projects. On top, 4 deliverables are requested according to contractual terms and will be evaluated as described in the next section.

A sprint phase includes the following meetings:

o **Biweekly SCRUM meeting** with head coaches. The goals of these meetings are to assess OC3 teams progress since the previous two weeks and offer specific assistance (e.g., technical, business, communication or administrative) when needed. During these meetings, participants discuss current blockers. Head

Coaches can suggest solutions in accordance with OC3 goals in real time or take the time for reflection and advice from other TRUSTCHAIN coaches (reasonable duration before the next scrum meeting) to unlock the issue quickly and in a relevant way according to OC3 goals. Different communication tools can be used for this purpose, but all-important items/tasks identified in each scrum meeting will be reported in the TRUSTCHAIN monitoring board of the considered sub project i.e., Agile board template of the GitHub KANBAN software (see section 6.3 Monitoring tool)

- o **Frequency**: recurring biweekly meeting. A meeting slot should be identified between the Head Coach and the team and be available on a biweekly basis. In case no team member can join the biweekly scrum meeting, they must inform their coach at least 24 hours before the planned time and provide availability for the next 72 hours.
- o **Who**: The Head Coach and the team, other coaches if deem necessary.
- o **Tool**: Any communication/video conference tool as far as agreed by the Head Coach and the Team (virtual meeting room to be agreed) and the GitHub KANBAN project Agile board to report on.
- o **Duration**: No more than 30 minutes.

- o **SPRINT meeting**: SPRINT meeting is no more than a particular SCRUM meeting. They occur the last week of each sprint at the usual time slot defined for the biweekly SCRUM meeting. The selected OC3 team:

    - o Present an overview of the work accomplished in the previous sprint as compared to the planned one,

    - o Show the progress in the respective phase of the project against the KPIs.

    - o Expose the synergies with their selected five projects, the level of the interoperability with these projects, the added value for TRUSTCHAIN of these synergies.

    - o Discuss any deviation and how they are handled.

    - o Answer questions from the coaches.

    - o Receive feedback from the coaches.

    - o Prioritize tasks for the next sprint.

The typical duration of this sprint meeting is however of a maximum of 1 hour.

- o **Coaches' Biweekly meetings** will be held online among all TRUSTCHAIN coaches to update each other on the progress of the OC3 projects that they supervise, to

identify common challenges, outline improvement strategies, share experiences and good practices. Any project will be summarised in a slide by the project head coach, followed by a discussion. The project head coach will record the minutes of the discussion about the concerned project and take adequate action for the OC3 project.

- o **Frequency:** Recurring biweekly meetings.
- o **Who:** The Head Coaches only.
- o **Tool:** Any communication/video conference tool agreed between the Head Coaches.
- o **Duration:** No more than 30 minutes.

- o **Biweekly Plenary Meetings:** TRUSTCHAIN intend to embed key humanity principles in the co-creation of the Next Generation Internet and to provide autopoietic, evolutionary, decentralised, and therefore democratic, transparent, traceable, and regulatory compliant mechanisms that can support any ecosystem of entities and actors participating with their digital identities. With that respect, cross-cut aspects related to the user centricity of the ecosystem, to the legal & regulatory framework around digital decentralised identity and data sharing, to standards, interoperability and greenness of the ecosystem or business plan is crucial. To follow up on these aspects and elicit challenges and common orientation for the development of the TRUSTCHAIN ecosystem/network, biweekly plenary meetings will also take place.

  - o **Goal:** Consensus on common approaches and technologies to be used in the project; Discussion about any open issues proposed by any parties whether about the User Centric design, the legal regulatory framework, the business aspects, or standards to follow/contribute to; to strengthen a common vision about the TRUSTCHAIN ecosystem; to foresee a common understanding of the TRUSTCHAIN business models, etc.
  - o **Frequency:** Recurring biweekly meetings.
  - o **Who:** Organised by the TRUSTCHAIN technical coordinator with the following participants: TRUSTCHAIN consortium, whole TRUSTCHAIN community.
  - o **Tool:** Virtual meeting room to be agreed.
  - o **Duration:** maximum 1 hour.

TABLE 22: MEETING TYPES IN OC3.

Meeting name	Meeting objectives	Frequency	Head Coach (Rapporteur)	Coaches	OC3 Innovators	Community
TRUSTCHAIN Community Meeting	Socialize and fulfil TRUSTCHAIN overall goals	3 times	Everyone			
Scrum meeting	Heads up	Bi-weekly	✓	✓	✓	
Sprint retrospective/ planning	Planning	Monthly	✓	✓	✓	
Coaches Meeting	Progress tracking	Bi-weekly	✓	✓		
Plenary Meetings	Plenary Topic-Specific Sessions	Bi-weekly	✓	✓	✓	

EVALUATION OF OC3 DELIVERABLES

During TRUSTCHAIN OC3, 4 deliverables must be released by each OC3 Team. **According to the deadlines confirmed by the Head Coaches, OC3 teams will release their deliverables via email to their head coach and save them in their OC3 own repository in SharePoint** (see Section 6.1). TRUSTCHAIN evaluators will then evaluate them, have respective meetings with the OC3 teams if necessary and produce an evaluation report to approve or disapprove the submitted deliverables with recommendation for improvement action when needed. Financial support will be only granted if the deliverables have been approved by the evaluators. The deadlines of the various deliverables are depicted in Table below.

TABLE 23: PROJECT DELIVERABLES DESCRIPTION AND DEADLINES

Title	Deadlines
D1. State of the art overview, use case analysis and preliminary technical specification of the solution. The document should clearly specify how the proposed solution extends and/or upgrades the state-of-the-art.	M2
D2: Detailed technical specification of the solution, software implementation work plan, demo scenarios, the number of end users that will be involved in any pilots, and preliminary business plan.	M4
D3: Implementation, deployment in an appropriate TRUSTCHAIN platform, testing, demonstration, and validation roadmap in a real-life application (i.e., banking, education, healthcare, utilities, defence, or cross-border travel).	M7
D4: Modularised software components ready for distribution, full documentation for developers/users, final business plan and result of the validation process.	M9

1. For the Deliverable 1 "State of the art overview, use case analysis and preliminary technical specification of the solution." (D1) the expected outcomes are:

- Motivation and planned functionalities

- User needs assessment

- State of the art analysis, background and innovation

- Software design and analysis, component specifications (preliminary)

- Work plan for implementation and deployment (preliminary)

The KPIs for this deliverable are:
- Number of users needs and requirements identified.
- Depth and comprehensiveness of state-of-the-art analysis.
- Number of innovative features and functionalities planned.
- Detailed software design and component specifications.
- Completeness and clarity of the implementation and deployment work plan.

2. For the Deliverable 2 "Detailed technical specification of the solution, software implementation work plan, demo scenarios, the number of end users that will be involved in any pilots, and preliminary business plan." (D2) the expected outcomes   are:

- Software design and analysis, component specification (final)
- Software Modules
- Detailed API specification (preliminary)
- Detailed work plan for implementation and deployment (final)
- Risk Analysis in the implementation work plan.
- Business Model and Exploitation plan (preliminary)
- Preliminary pilot plan and user engagement plan

The KPIs for this deliverable are:
- Final software design and component specifications.
- Number of software modules developed.
- Preliminary detailed API specifications.
- Completeness of the final implementation and deployment work plan.
- Risk analysis completeness and comprehensiveness.
- Preliminary business model and exploitation plan.
- User engagement plan

3. For the Deliverable 3 "Implementation, deployment in an appropriate TRUSTCHAIN platform, testing, demonstration and validation roadmap in a real-life application (i.e., banking, education, healthcare, utilities, defence or cross-border travel)." (D3) the expected outcomes are:

- Detailed overview of the approach

- Detailed API specification (final)

- Software code of the solution

- Incorporation of user's feedback into design specifications

- Business model and exploitation (continuation)

- Early Demo and/or Initial Experimental (or Analytical) Results

- Detailed pilot plan

- Evaluation Methodology and/or Experimental Design

- Integration with global objectives of Trustchain impact

The KPIs for this deliverable are:

- Number of detailed API specifications finalized.

- Amount of user feedback incorporated into design.

- Quality and completeness of the software code.

- Progress and effectiveness of business model and exploitation activities.

- Quality of early demos and initial experimental results.

- Detailed pilot plan

- Robustness of evaluation methodology and experimental design.

- Degree of integration with Trustchain's global objectives.

4. For the Deliverable 4 "Modularised software components ready for distribution, full documentation for developers/users, final business plan and result of the validation process." (D4) the expected outcomes are:

- Full software documentation

- Clean software code of production quality (TRL 7)

- Final Demo

- Business Model and Exploitation plan (final)

- Economic analysis

- Impact Assessment

- Pilot Studies Results (mandatory for all applications, desirable for core functionality)

The KPIs for this deliverable are:

- Completeness and quality of full software documentation.

- Cleanliness and production readiness of the software code.

- Quality and effectiveness of the final demo.

- Completeness and feasibility of the final business model and exploitation plan.

- Thoroughness of economic analysis.

- Depth and breadth of impact assessment.

- Quality and comprehensiveness of pilot study results.

TIMELINE

The meeting dates must be treated in a tentative manner, while the deliverable deadlines are hard.

TABLE 24: MEETINGS AND DEADLINES TIMETABLE

Sprint #	Activity	Description	When	Who is involved
1	Biweekly meeting for coaches	Online meeting to collectively assess	**24/06/2024**	Coaches

		the monitoring activities		
1	**Projects kick-off meeting**	**Presentation of TRUSTCHAIN project, TRUSTCHAIN Architecture, services and functionalities,** **OC3 guidelines for implementation**	**26/06/2024**	OC3 Beneficiaries, TRUSTCHAIN Coaches, TRUSTCHAIN Projects Coordinator
1	Sprint Planning Meeting	Online meeting to plan the subproject activities	**01/07/2024 - 05/07/2024**	OC3 Team and their Coaches
1	Biweekly meeting for coaches	Online meeting to collectively assess the monitoring activities	**08/07/2024**	Coaches
1	Biweekly Plenary Meetings	**OC3 project pitches**	**10/07/2024**	OC3 Beneficiaries, Coaches
1	Sprint Refinement Meeting	Online meeting to refine and clarify subproject activities	**15/06/2024 - 19/06/2024**	OC3 Team and their Coaches

1	Biweekly meeting for coaches	Online meeting to collectively assess the monitoring activities	**22/07/2024**	Coaches
1	Biweekly Plenary Meetings	Follow up the integration activities and elicit challenges and common orientation for the development of the TRUSTCHAIN ecosystem/network	**24/07/2024**	OC3 Beneficiaries, Coaches
2	Sprint Review and Sprint Planning meeting	Online meeting to assess the subproject progress	**29/07/2024 - 02/08/2024**	One OC3 Team and their Coaches
2	Biweekly meeting for coaches	Online meeting to collectively assess the monitoring activities	**05/08/2024**	Coaches
2	Biweekly Plenary Meetings	Follow up the integration activities and elicit challenges and common orientation for the development of the TRUSTCHAIN ecosystem/network	**07/08/2024**	OC3 Beneficiaries, Coaches

2	Sprint Refinement Meeting	Online meeting to refine and clarify subproject activities	**12/08/2024** **-** **16/08/2024**	OC3 Team and their Coaches
2	Biweekly meeting for coaches	Online meeting to collectively assess the monitoring activities	**19/08/2024**	All Coaches
2	Biweekly Plenary Meetings	Follow up the integration activities and elicit challenges and common orientation for the development of the TRUSTCHAIN ecosystem/network	**21/08/2024**	OC3 Beneficiaries, Coaches
2	Delivery of the D1		**23/08/2024**	OC3 teams
3	Sprint Review and Sprint Planning meeting	Online meeting to plan the subproject progress	**26/08/2024** **-** **30/08/2024**	One OC3 team and their Coaches
3	Biweekly meeting for coaches	Online meeting to collectively assess	**02/09/2024**	All Coaches

3		the monitoring activities		
3	Biweekly Plenary Meetings	Follow up the integration activities and elicit challenges and common orientation for the development of the TRUSTCHAIN ecosystem/network	**04/09/2024**	OC3 Beneficiaries, Coaches
3	Sprint Refinement Meeting	Online meeting to refine and clarify subproject activities	**09/09/2024** **-** **13/09/2024**	OC3 Team and their Coaches
3	Biweekly meeting for coaches	Online meeting to collectively assess the monitoring activities	**16/09/2024**	All Coaches
3	Biweekly Plenary Meetings	Follow up the integration activities and elicit challenges and common orientation for the development of the TRUSTCHAIN ecosystem/network	**18/09/2024**	OC3 Beneficiaries, Coaches

4	Sprint Review and Sprint Planning meeting	Online meeting to assess the subproject progress	**23/09/2024 - 27/09/2024**	One OC3 Team and their Coaches
4	Biweekly meeting for coaches	Online meeting to collectively assess the monitoring activities	**30/09/2024**	All Coaches
4	Biweekly Plenary Meetings	Follow up the integration activities and elicit challenges and common orientation for the development of the TRUSTCHAIN ecosystem/network	**02/10/2024**	OC3 Beneficiaries, Coaches
4	Sprint Refinement Meeting	Online meeting to refine and clarify subproject activities	**07/10/2024 - 11/10/2024**	OC3 Team and their Coaches
4	Biweekly meeting for coaches	Online meeting to collectively assess the monitoring activities	**14/10/2024**	All Coaches

4	Biweekly Plenary Meetings	Follow up the integration activities and elicit challenges and common orientation for the development of the TRUSTCHAIN ecosystem/network	**16/10/2024**	OC3 Beneficiaries, Coaches
4	Delivery of the D2		**18/10/2024**	OC3 teams
5	Sprint Review and Sprint Planning meeting	Online meeting to assess the subproject progress	**21/10/2024 - 25/10/2024**	One OC3 Team and their Coaches
5	Biweekly meeting for coaches	Online meeting to collectively assess the monitoring activities	**28/10/2024**	All Coaches
5	Biweekly Plenary Meetings	Follow up the integration activities and elicit challenges and common orientation for the development of the TRUSTCHAIN ecosystem/network	**30/10/2024**	OC3 Beneficiaries, Coaches

5	Sprint Refinement Meeting	Online meeting to refine and clarify subproject activities	**04/11/2024** **-** **08/11/2024**	OC3 Team and their Coaches
5	Biweekly meeting for coaches	Online meeting to collectively assess the monitoring activities	**11/11/2024**	All Coaches
5	Biweekly Plenary Meetings	Follow up the integration activities and elicit challenges and common orientation for the development of the TRUSTCHAIN ecosystem/network	**13/11/2024**	OC3 Beneficiaries, Coaches
6	Sprint Review and Sprint Planning meeting	Online meeting to assess the subproject progress	**18/11/2024** **-** **22/11/2024**	One OC3 Team and their Coaches
6	Biweekly meeting for coaches	Online meeting to collectively assess the monitoring activities	**25/11/2024**	All Coaches

6	Biweekly Plenary Meetings	Follow up the integration activities and elicit challenges and common orientation for the development of the TRUSTCHAIN ecosystem/network	**27/11/2024**	OC3 Beneficiaries, Coaches
6	Sprint Refinement Meeting	Online meeting to refine and clarify subproject activities	**02/12/2024** **-** **04/12/2024**	OC3 Team and their Coaches
6	Biweekly meeting for coaches	Online meeting to collectively assess the monitoring activities	**09/12/2024**	All Coaches
6	Biweekly Plenary Meetings	*Follow up the integration activities and elicit challenges and common orientation for the development of the TRUSTCHAIN ecosystem/network*	**11/12/2024**	OC3 Beneficiaries, Coaches *Beneficiaries, Coaches*

7	Sprint Review and Sprint Planning meeting	Online meeting to assess the subproject progress	**16/12/2024** **-** **20/12/2024**	One OC3 Team and their Coaches
7	Biweekly meeting for coaches	Online meeting to collectively assess the monitoring activities	**23/12/2024**	All Coaches
7	Biweekly Plenary Meetings	Follow up the integration activities and elicit challenges and common orientation for the development of the TRUSTCHAIN ecosystem/network	**25/12/2024**	OC3 Beneficiaries, Coaches
7	Sprint Refinement Meeting	Online meeting to refine and clarify subproject activities	**30/12/2024** **-** **03/01/2025**	OC3 Team and their Coaches
7	Biweekly meeting for coaches	Online meeting to collectively assess the monitoring activities	**06/01/2025**	All Coaches

7	Biweekly Plenary Meetings	Follow up the integration activities and elicit challenges and common orientation for the development of the TRUSTCHAIN ecosystem/network	**08/01/2025**	OC3 Beneficiaries, Coaches
7	Delivery of the D3		**10/01/2025**	OC3 teams
8	Sprint Review and Sprint Planning meeting	Online meeting to assess the subproject progress	**13/01/2025 - 17/01/2025**	One OC3 Team and their Coaches
8	Biweekly meeting for coaches	Online meeting to collectively assess the monitoring activities	**20/01/2025**	All Coaches
8	Biweekly Plenary Meetings	Follow up the integration activities and elicit challenges and common orientation for the development of the TRUSTCHAIN ecosystem/network	**22/01/2025**	OC3 Beneficiaries, Coaches

8	Sprint Refinement Meeting	Online meeting to refine and clarify subproject activities	**27/01/2025 - 31/01/2025**	OC3 Team and their Coaches
8	Biweekly meeting for coaches	Online meeting to collectively assess the monitoring activities	**03/02/2025**	All Coaches
8	Biweekly Plenary Meetings	Follow up the integration activities and elicit challenges and common orientation for the development of the TRUSTCHAIN ecosystem/network	**05/02/2025**	OC3 Beneficiaries, Coaches
9	Sprint Review and Sprint Planning meeting	Online meeting to assess the subproject progress	**10/02/2025 - 12/02/2025**	One OC3 Team and their Coaches
9	Biweekly meeting for coaches	Online meeting to collectively assess the monitoring activities	**17/02/2025**	All Coaches
9	Biweekly Plenary Meetings	Follow up the integration activities and elicit challenges and common	**19/02/2025**	OC3 Beneficiaries, Coaches

		orientation for the development of the TRUSTCHAIN ecosystem/network		
9	Sprint Refinement Meeting	Online meeting to refine and clarify subproject activities	**24/02/2025 - 28/02/2025**	OC3 Team and their Coaches
9	Biweekly meeting for coaches	Online meeting to collectively assess the monitoring activities	**10/03/2025**	All Coaches
9	Biweekly Plenary Meetings	Follow up the integration activities and elicit challenges and common orientation for the development of the TRUSTCHAIN ecosystem/network	**12/03/2025**	OC3 Beneficiaries, Coaches
9	Sprint and project Review	Online meeting to assess the project progress	**14/03/2025**	OC3 teams
9	Delivery of the D4		**21/03/2025**	OC3 teams

9	**Final Review Meeting** (Community meeting)	Online meeting to collectively assess the monitoring activities	**24/03/2025 - 28/03/2025**	All OC3 Projects Beneficiaries, Coaches

6   REPOSITORIES

PROJECT REPOSITORY

A specific OC3 repository has been created in SharePoint. In this repository, there is:

- OC3-General: Where all documents and material to be shared between TRUSTCHAIN consortium and OC3 projects can be stored (e.g., the contact list of OC3 Innovators, the OC3 guide for implementation and the OC3 Kick off meeting presentations are part of this repository.)

- OC3-[Project]: Each project has its own dedicated folders only accessible by the project itself and TRUSTCHAIN core members.   The folder name is composed by the OC topic number and the project acronym as depicted in the previous figure. It is decomposed in six subfolders:

  - **Proposal**: Where the proposal submitted by the respective OC3 selected innovators is saved, and which contains the project details.

  - **Contract**: After the signature of the sub-grant agreement a copy of it will be saved in this folder.

  - **Deliverables**: The place to save the OC3 4 deliverables requested according to the agreement.

  - **Communication**: The folder to save all relevant material related to the OC3 innovators communication activities.

  - **Monitoring**: The folder to save any kind of material related to the follow-up and progress monitoring of the project.

  - **Evaluation reports**: The folder to save the different evaluations reports done by the evaluators in reference to the different deliverables.

SOFTWARE REPOSITORY – GITHUB

TRUSTCHAIN has created its official GitHub organization: https://github.com/NGI-TRUSTCHAIN.

A private software repository for each applicant project has been created in TRUSTCHAIN GitHub organization, namely: https://github.com/NGI-TRUSTCHAIN/PROJECT-ACRONYM

An Issue Tracker per project for Feedback and Support can be found at: https://github.com/NGI-TRUSTCHAIN/PROJECT-ACRONYM/issues

Each individual project's repository must take into account the followings:

README.md: A detailed and well-written README file for providing an overview of the project that includes information about the purpose, goals, and key features. Additionally, it should contain instructions on how to set up and run the project, any dependencies, and relevant documentation links.

- **Project structure**: Organising the codebase in a well-structured manner and that makes possible navigating it in an intuitive and/or easy way.

- **Documentation**: Comprehensive documentation to help understand the codebase and its functionality: components, APIs, interfaces, and any other relevant information.

- **Usage examples**: Usage examples and code snippets to demonstrate how to use the project and to show the capabilities and potential of the project.

- **Tests**: A comprehensive suite of tests that cover the major functionalities and use cases of the project.

- **Licensing and Acknowledgement**: The licensing terms under which the project is released and the acknowledgement about all contributions to the project (including dependencies).

TRUSTCHAIN members and applicants will add material there (documentation, guides, etc).

MONITORING TOOL

Specially designed to support the OC3 monitoring activities, a specific template GitHub KANBAN board is available for each project. The responsibility of maintaining

the monitoring tool belongs to the core members of the SCRUM team and mainly to the selected OC3 projects. Note that a SCRUM team comprises the OC3 team members and the coach(es) from the TRUSTCHAIN consortium. The main lists of the GitHub KANBAN board are depicted in the figure below.

Figure 3: GitHub KANBAN BOARD FOR PROJECT MONITORING
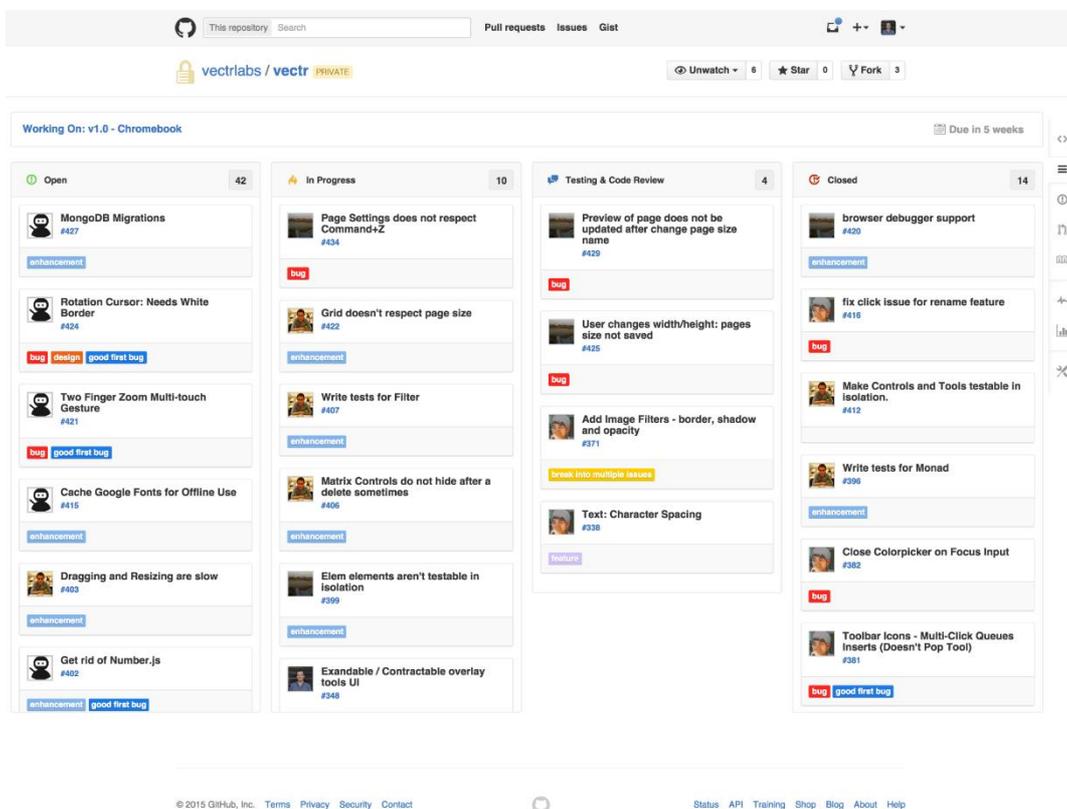
The GitHub KANBAN board for Agile project monitoring is composed by the following lists:

- **Contacts**: A list of the contacts involved in each OC3 project. For each contact, a full name (first name, last name), an affiliation, a role, an email, and a phone number are required.

- **Backlog**: In this list, each project should put all microtasks that will be

completed within the project. A microtask can ideally fit in the timeframe of one sprint, here one week. The approach to define microtasks employs the identification of user stories or use cases for the envisioned system, identify all needed functionality, define tasks to accomplish functionality and then split tasks to microtasks that ideally fit into one week, and necessarily are not longer than two weeks (two sprints). A first prioritization of tasks, not binding, can be agreed among members of the SCRUM team (including the product owner - the coach), which is not binding. Each microtask may be tagged with a colormap for prioritization or categorization.

- **Current Sprint**: This is the list where the microtasks to be performed for next week are removed from the backlog and put into during the weekly scrum meeting. The actual selection of the microtasks from the backlog represents the current work prioritization of the project. Moreover, an assignment of each microtask is made to a specific team member and the microtask is tagged with a colormap for prioritization or categorization.

- **In Progress**: In this list, the team puts microtasks from the current sprint that started. When a microtask is completed, then it is moved to the Done list. If a microtask is not completed within a sprint, then it will be discussed in the next SCRUM meeting, and it may be planned for the next sprint.

- **On hold**: This is the list where the team puts any microtasks that have been blocked for any reason, e.g., task dependency, lack of information, medical emergency, etc. with a description on the blocker. Microtasks that are on hold may go back in the In-Progress list, if possible, or otherwise discussed in the next SCRUM meeting and planned for the next sprint.

- **Done**: In this list, all accomplished microtasks are put. Eventually, the SCRUM process should result in the migration of all microtasks from the Backlog list to the Done list. If the microtasks are well defined, then the number of microtasks in the Done list over the number of sprints (weeks) provides an indication of the productivity rate of the team.

- **Questions**: Any questions that arise between SCRUM meetings are put in this list and discussed in the next SCRUM meeting.

- **Would Love to Do - Manifest**: In this list, team members put ideas for future work, or activities not initially conceived or anticipated in the project proposal. These are discussed in the next SCRUM meeting, and they may become microtasks and put in the backlog or they may be kept as notes.

- **Room for Improvement**: In this list, the team members can put thoughts or suggestions for accomplished microtasks in the Done list, where there is "Room for Improvement", describing in detail the value of the suggested improvement.

- Deliverables: A list of the pending deliverables with their respective deadlines. Moreover, the status of their evaluation can also be reported there.

- Invention: This is a list to report all invention activities, such as patent applications. An initial request for invention should be reported to TRUSTCHAIN first, so that the innovation potential is established through an internal search by patent experts. The information to be reported includes Invention identifier, Invention title, Inventor, Affiliation, Initial description of the contribution, Notification date to the TRUSTCHAIN, amended description of the inventor contribution after internal search report, Intention confirmed after search report (Y/N), Date of the conclusion of the internal search report.

- Dissemination Activities: To report all dissemination activities such as presentations in workshops/conferences, paper publications, active participation in venues, media coverage, press releases, etc., by each OC3 team. Necessary information to be reported is Name, Title, Venue, Date, Audience, Feedback, Abstract, Link and more detailed description may be provided if needed.

- Software components: To track all different software components and their software versions delivered by each OC3 team. The necessary information to be filled for each component is Component Name, Owner, Architectural Components, Code Release (Y/N), version, source file(s) and/or binaries, license, checkbox for it being uploaded in the GitHub repository, documentation (link/file(s)).

- Participation in project events/meetings: To track all the relevant events/meetings attended by each OC3 team (excluding SCRUM meetings). Necessary information to be reported is Event Name, Date, Purpose, Participants, Main Outcomes. For example: Event Name: Kick-off OC3 Event, Purpose: Introduction, Date: June 26, 2024, Participants: TRUSTCHAIN community, Main Outcomes: Project Kickstart

- Awesome Things - WINS! This is a list for reporting some activity of high impact or value that does not fit into any of the other categories.

- Resources: The resources available for each team and any respective changes should be reported here. For example, a new team member should be announced in this list. Acquiring the license of a certain useful software should also be reported here.

- Marketing Ideas - Icebox: This list serves as a placeholder for aggregating and storing specific ideas on the future market exploitation of the results of the project.

- Recycle Bin: Microtasks or cards in general that have been created in GitHub KANBAN boards cannot be removed, and normally should not! If for any reason, the team decides to remove a certain card, then this card can be moved into the Recycle Bin list.

- The prioritization or categorization of microtasks can be labelled as depicted below.

FIGURE 4: GITHUB KANBAN LABEL OPTIONS
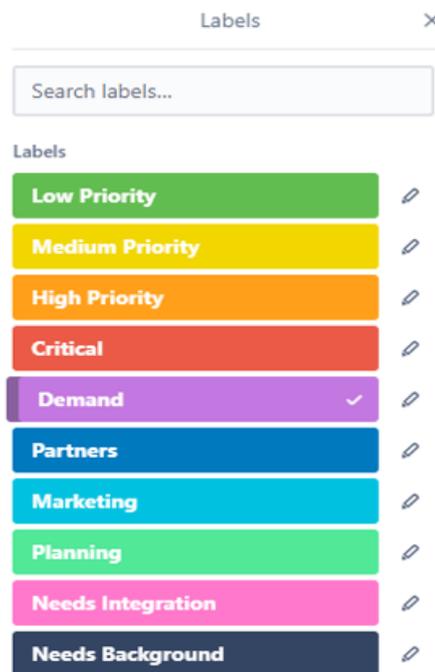
MAILING LISTS

OC1 winners' mailing list: TRUSTCHAIN_OC1winners@eurodyn.com

OC2 winners' mailing list: TRUSTCHAIN_OC2winners@eurodyn.com

OC3 winners' mailing list: TRUSTCHAIN_OC3winners@eurodyn.com

Table 26: contact list

Project Acronym	Contacts
DOOF	elena.pasquali@ecosteer.com
UtiP-DAM	erel@cs.co.il
MorphMetro	kruno@randomred.eu
SURE	shalini@clearbox.ai
dGUARD	jordi@bloock.com
NG-SC	aleksandar.tosic@innorenew.eu
DUME	nuno.feixa@logimade.pt
AURORA MINDS	tmanos@dotsoft.gr
OIDC PRINCE	bmsousa@dei.uc.pt
PECS	giamp@dmi.unict.it
EIDCMP- eIDAS	filipe.veiga@wallid.io
DID-IMP	bmaisseu@gmail.com
GUEDHS	anac.costa@promptlyhealth.com
ProvenAI	csekas@ctrlspace.dev
LED-UP	manuel.knott@yahoo.de
TAC	isabelladaddeo@enismaro.com
QX TRAVEL WALLET	darko@qx.ventures
AI METABLOQ	katsaounis-ceo@metab.io
Zkorum	Yuting.jiang@zkorum.com
Authbond	bb@acurraent.com

Spark-It	adrian.alexandrescu@academic.tuiasi.ro
Trust-Icmf	f.lecca@araneum.it
Valueall	smadariaga@arsys.es
Flora	pefraimi@athenarc.gr
TC	aleksandar@cityandme.app
Fitchain	marilena.athanassiou@neuronai.eu
Tru-Ip Amica	theo@compell.io
Didimo	andrea@forkbomb.eu
Pld-Predictive Liquid Democracy	samuel.kazen@gmail.com
Secureopinion	a.bashir@mmu.ac.uk
DidRoom	andrea@forkbomb.eu
CreatorCredentials.cc	sebastian@posth.me
MUSAP	jarmo.miettinen@methics.fi
TREVO	antonis.mygiakis@konnecta.io
Orchestral	suport@pangea.org
The Social Wallet	sfboender@sphereon-int.com
DID4EU	dominik@walt.id

IM4DEC	christoph@ownyourdata.eu
WIDE	matthew.scerri@gmail.com
CLIENT-DIDS	markus@danubetech.com
EVI Electric Vehicle Identity	c.stefanatos@parityplatform.com
IS-CIS	daniel.field@ust.com
PRIVÈ	agiannetsos@ubitech.eu

dTRUSTCHAIN coaches' list: TRUSTCHAIN_coaches@eurodyn.com

TABLE 26: COACHES MAILING LIST

TRUSTCHAIN partners	Head Coach details
ALA	Pablo Vela (pablo@alastria.io) Alexander Herranz (alexander@alastria.io)
UL	Vlado Stankovski (vlado.stankovski@fri.uni-lj.si) Petar Kochovski (petar.kochovski@fri.uni-lj.si) Arvin Jušić (arvin.jusic@fri.uni-lj.si) Iztok Škof (iztok.skof@fri.uni-lj.si) Gaber Polajnar (gaber.polajnar@fri.uni-lj.si) Pouriya Miri (pouriya.miri@fri.uni-lj.si)
AUEB	Vasilis Siris (vsiris@aueb.gr) George Stamoulis (gstamoul@aueb.gr) Dimitris Koutsoupakis (dkoutsoupakis@aueb.gr)
ICS	Muttukrishnan Rajarajan (r.muttukrishnan@city.ac.uk) Michal Krol (michal.krol@city.ac.uk) Veniamin Boiarkin (veniamin.boiarkin@city.ac.uk)
NKUA	Thanasis Papaioannou (atpapaioannou@uoa.gr) Dimitris Mantzonis (dmantzonis@uoa.gr) Vaios Ritas (vritas@uoa.gr)
TLX (legal & regulatory aspects)	Ruben Roex (ruben.roex@timelex.eu)
CIB (User Centric design)	Andrés del Álamo (andres.delalamo@cibervoluntarios.org)
ED (administrative duties)	Caroline Barelle (caroline.barelle@eurodyn.com) Spyridon Kountouris (spyridon.kountouris@eurodyn.com)

APPENDIX

ANNEX 1 - BUSINESS MODEL ANALYSIS METHODOLOGY

To define, describe, select and assess the most promising TRUSTCHAIN-enabled business models (BM), the project uses different methods. The process and associated methods are outlined in the figure below. Each step and its methods are described in the following sections.

Figure 5: Business model analysis methodology
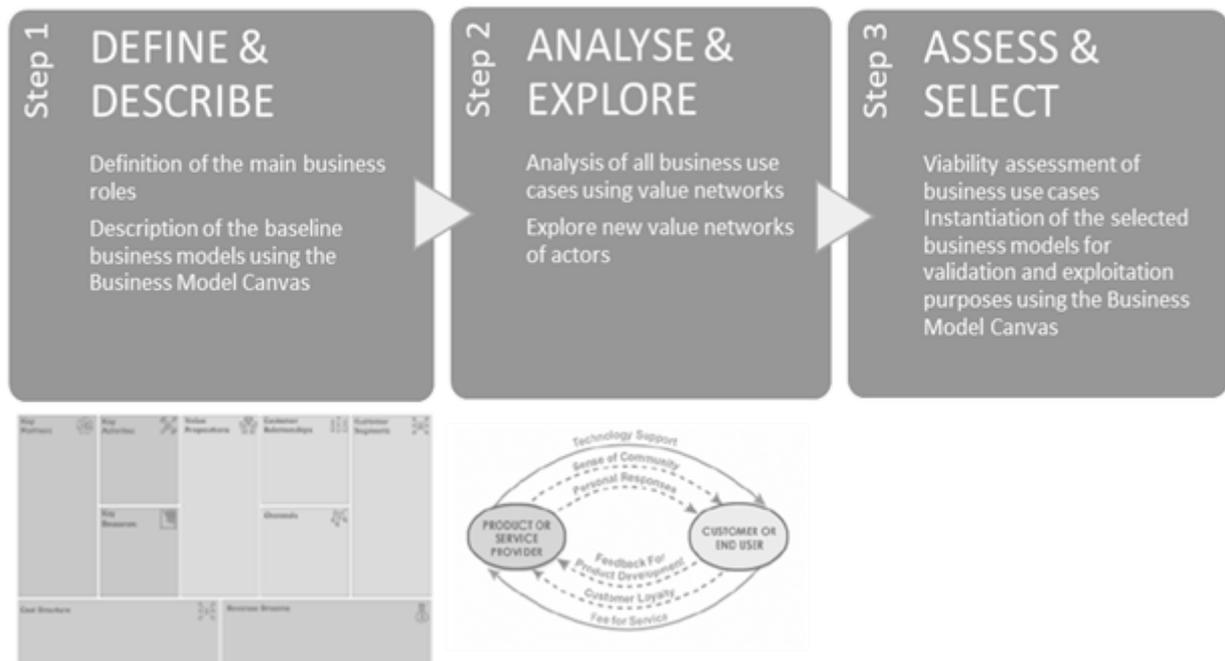
The business modelling steps and methods

STEP 1: DEFINE BUSINESS ROLES AND DESCRIBE BASELINE BUSINESS MODELS

To define the main business roles and describe the baseline business models, use the Business Model Canvas methodology. For each business role we can use the Business Model Canvas methodology in order to describe the baseline business model. The Business Model Canvas is developed by Alexander Osterwalder and Yves Pigneur in the context of the Business Model Framework (Osterwalder & Pigneur, 2010) and is considered an established way for describing and visualising business models, by describing the rationale of how an organization creates, delivers and captures value.

The baseline business models will serve as the starting point for the TRUSTCHAIN-enabled business models that will be proposed. The following table gives an overview of the business model canvas that will be used for describing candidate business models.

The template of the Business Model Canvas

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
The set of entities providing inputs (either physical or data) necessary for the service to be delivered. These partners can be upstream suppliers only, as well as peers that occasionally become downstream providers.	The most critical tasks, i.e., those business processes whose details must be kept secret from rivals.	The set of products / services and their properties (e.g., low-cost, high quality) an entity offers to meet the needs of its customers.	Automated & personalised relationships and gamification techniques.	The exact market that the business entity is focusing on. It can be a niche market (e.g., eco-friendly homeowners) or a very broad one (such as Low-Voltage households and businesses).
	Key Resources The most important inputs for the product/ service to be realized.		**Channels** The ways used for the value propositions to be delivered to customers. These can be privately owned or from third parties.	

| Cost Structure	Revenue Streams
The cost items that can be lump sum (such as the distribution network), repetitive but mostly fixed (for example personnel salaries), or repetitive and highly variable (like wholesale power bought).	The sources of revenue for the entity that can be either lump sum (e.g., connection fee), repetitive but fixed (such as monthly "all you can eat" prices) and repetitive but variable (like commission from sales of power).

STEP 2:   Generic value network

The value network (VN) concept originates from Michael Porter's well-known value chain concept (Porter, 1985), which is widely used in the business literature to describe the value producing activities of an organization. The concept has been expanded by Verna Allee to include non-linear interactions between one or more enterprises, its customers, suppliers and strategic partners (Allee, 1999). Furthermore, these exchanges can refer to raw material, upstream services and products, information as well as financial transactions.
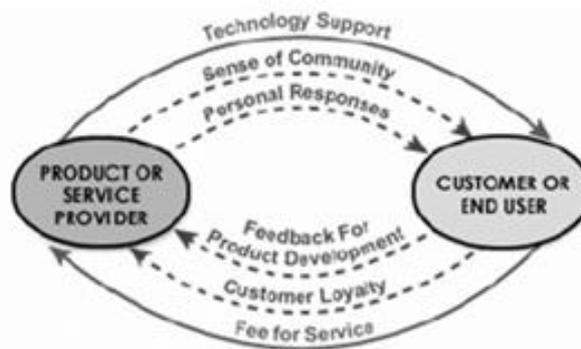
A generic value network

STEP 3: COST-BENEFIT ANALYSIS

Based on the value network, realistic cost and revenue parameters, and a market penetration scenario, an economic analysis is performed to assess the business viability and profitability of the solution, usually using spreadsheets. Economic indicators of interest include the Return on Investment (ROI), the Net Present Value (NPV) and the payback period in years.

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