CoE DSC

Exploration of SSI in the data spaces context: research initiation & inspiration cases from Amsterdam commons on Web 3 Data Spaces

December 2024, Initial exploration report

Preface & reading guide

This is an exploration report on the topic of SSI and Web 3 Data Space developments put in the context of city commons

Starting point of this exploration & those involved

This document is a starting point for the joint exploration on the topic of Self-Sovereign Identity (SSI) in the context of data spaces, looking into the paradigm of personal data spaces, and Web 3 Data Spaces (W3DS)

In this exploration, CoE-DSC, Schluss and Post Platform Foundation are united under the mission of giving individuals control over their data. However there are differences in the way to approach the topic. And in this exploration, we are going to dive into this together holistically by going through different angles, scenarios and resulting research questions, as we continue with the research.

To relay this exploration to practice, 4 Amsterdam commons use cases are taken as a staring point. That is because Amsterdam commons are looking into "Self Sovereign Identity" and "Data Spaces" to reconnect people in neighbourhoods, in a way that is effective, privacy preserving and ensures easy uptake by individuals.

Involved parties:

CoE DSC · Amsterdam commons · schluss · Post Platforms Foundation

What can you find in this report

Results from our joint exploration so far:

1. **A conceptual common ground & interlinked perspectives** on topics of SSI in the context of data spaces.
2. **Initial take on value in practice: explored Amsterdam Commons cases** to determine the value, viability and impact in the use cases
3. **Development Roadmap** with defined research angles, topics, and areas to be aware of going further

Please note this report is the result of a short project and only meant to capture discussions for future work

Management summary of the exploration

3 Key takeaways

Discovery of a conceptual common ground:
SSI is taken as a corner stone for the exploration, nevertheless the conceptual paradigm needs to be clarified first due to the complexity of methodologies & approaches that can pre-determine choices for the eventual system design. For that this report sets the scene on concepts of SSI, Personal Data Spaces, and Web 3 Data Spaces.

Importance of diving into this paradigm:
- Main goal is giving power back to the data rights holder, enabling data autonomy
- This exploration goes in-line & is integral to EU regulatory developments: e.g., EU Data Strategy, Data Acts, EUDI Regulation etc.
- Clarity & common ground is needed to drive practical implementations with sound design that is societally beneficial & non-exclusionary
- Scenario planning is necessary to discover needs in different contexts (e.g., in light of geo-political changes, legal changes, infrastructural developments etc.)
- Current implementation are stepping stones, & we need to take it forward

Discovery of value & viability in practice:
We start exploring this in the context of city commons. That is because commons revolve around active individuals who need control over their own and their common projects' data and ways to autonomously and securely identify, authenticate and get access to this data via any app or service of their choice (as they all came from different domains).

With citizens controlling their data, various services can be offered on top of that, like e-voting, delegation, agenda-sharing, car-booking or aggregated statistics.

Below are 4 cases in the context of Amsterdam commons, used to explore this:
- Living commons (collectively managing shared space)
- Energy commons (sharing & distributing energy)
- Mobility commons (sharing cars)
- Data commons (research, analysis, benchmarking run by a municipality to measure economic & social impact)

Discovery of future outlook & next steps:
I. Explore ELSBI angles (Ethical, Societal, Legal, Business and Implementational) as opinions, solutions and expectations differ when going into details about implementations and roadmaps

II. Engage in scenario building & vision horizons: to generate ideas & parameters for scenario building is vital to ensuring societally beneficial outcomes at various moments in time

III. Define a matrix of resulting research questions: Things that require alignment and attention in approach based on:
- A cross-roads between ELSBI model, technical choices, and development horizons
- Discovered tension points: such as community economy & valorisation of the commons, electronic reputation, and persistent identifiers.
- Lessons learned on the difficulties of the voluntary aspect of commons to steer business ecosystems, ownership, and collaboration

IV. Explore practical use cases & prototypes that feed into I, II and III, and be agile to adapt to new insights

Content

1. Conceptual common ground
- Conceptual common ground: Interconnections & differences:
  - Self-Sovereign Identity (SSI), Personal Data Space (PDS), Web 3 Data Space (W3DS)

2. Value & applicability in practice:
- Relevance for commons
- Amsterdam Commons example cases

3. **Development roadmap:**
- Visions & focus points for development horizons
- Outlining aspects to be aware of on various dimensions:
  - Ethical, Legal, Social, Business, Implementational (ELSBI)

Appendix:
- Introductory information about involved organisations:
  - CoE-DSC, Post Platforms, Schluss and Amsterdam Commons\
- Practical project description by Post Platforms Foundation

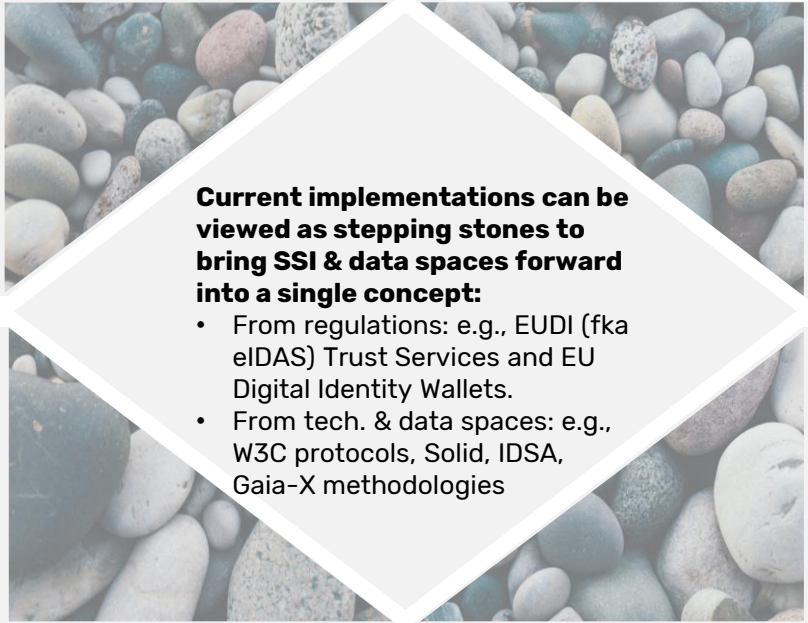
SSI & data spaces can enable data autonomy, security & sovereignty. Regulatory & tech developments are stepping stones

Importance of diving into the paradigm of SSI in the context of data spaces

What is observed now related to data spaces & SSI

In the EU landscape, a main goal is to give power back to the data rights holders, both in regulation e.g., EU Data Strategy, Data Acts, EU Digital Identity Regulation (eIDAS), as in research and solutions e.g. EUDS, Gaia-X

Grass-roots projects for sovereignty and trust: We see demand (e.g. Amsterdam commons) and supply (e.g. W3DS, Solid) from people and organisations who would like to have a sovereign data world



Current implementations can be viewed as stepping stones to bring SSI & data spaces forward into a single concept:

- From regulations: e.g., EUDI (fka eIDAS) Trust Services and EU Digital Identity Wallets.
- From tech. & data spaces: e.g., W3C protocols, Solid, IDSA, Gaia-X methodologies

What is needed to go forward with future-proof design

Clarity & common ground is needed to define specific research topics and future proof implementations for use cases that are societally beneficial & non-exclusionary, such as in participative democracy

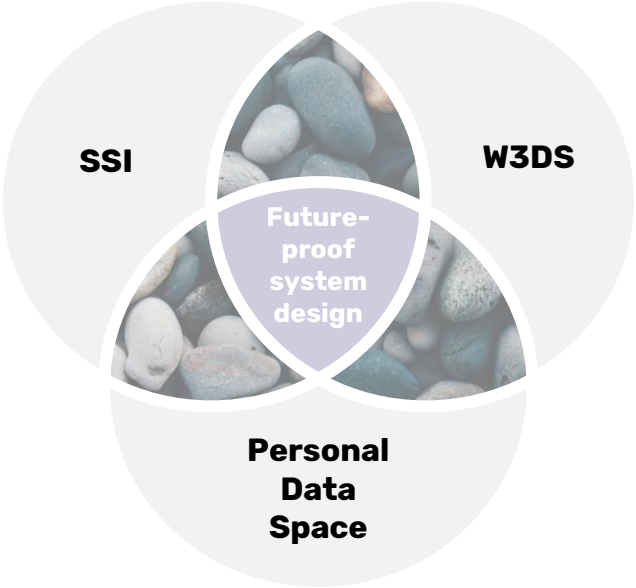
Scenario planning is necessary to discover needs in different contexts (e.g., in light of geo-political changes, legal changes, infrastructural developments etc.).

Practical Prototype development can go hand-in-hand

Building a common understanding of conceptual paradigm brings clarity & influences choices to be made in practice

Preliminary findings

Differences in conceptual perception influence choices/approaches in practice



SSI is taken as a corner stone for the exploration, nevertheless the conceptual paradigm needs to be clarified first due to the complexity of methodologies & approaches that can pre-determine choices for the eventual system design. For that an exploration is needed into similarities & differences of methodologies on SSI, Personal Data Spaces, and Web 3 Data Spaces

Concept	Definition	Impact on system choices
Self-Sovereign Identity (SSI)	A digital identity framework in which individuals or organizations have complete ownership and control over their identities and personal data.	Typically associated with 10 principles of Christopher Allen[1]. In practice sometimes seen as too libertarian, since not every individual is capable of data management and government can have legitimate, but conflicting interest in accessing data (e.g. criminal records)
Personal Data Space	Personal data spaces are collaboration environments of interoperating organisations that include service providers for individual people	Concept used by the EC, under the Interoperable Europe programme[2]. It is explored by focusing on Solid & MyData Common European Data Space tecnological implementations[3]
Web 3 Data Space (W3DS)	A specific advanced architecture for European Data Spaces aimed to decouple content from platforms and store it in personal eVaults (advanced, secure web servers)	The concept is developed by The Post-Platforms Foundation[4], leveraging Web 3.0 technology created by Tim Berners-Lee (Solid)[5] & combining that with EU Data Spaces methodologies & EUDI Regulation (eIDAS)[6]

Content

1. Conceptual common ground
- Conceptual common ground: Interconnections & differences:
  - Self-Sovereign Identity (SSI), Personal Data Space (PDS), Web 3 Data Space (W3DS)

2. Value & applicability in practice:
- Relevance for commons
- Amsterdam Commons example cases

3. **Development roadmap:**
- Visions & focus points for development horizons
- Outlining aspects to be aware of on various dimensions:
  - Ethical, Legal, Social, Business, Implementational (ELSBI)

Appendix:
- Introductory information about involved organisations:
  - CoE-DSC, Post Platforms, Schluss and Amsterdam Commons\
- Practical project description by Post Platforms Foundation

Value in practice: why city commons are a good starting ground for exploration

Differences in conceptual perception influence choices/approaches in practice

What are commons and what they are not*?
The Commons: a collective group of people which share common resources, necessary for their livelihood, and manage those according to the agreed rules.

Characteristics of commons:

- **Self-organized:** tackling problems themselves, (neither a governmental nor a business set up)
- **Locally based:** always a small local environment (not on a member state/EU level)
- **Open for participation & entry:** growth & onboarding rules & procedures are in place, (but does not grow exponentially out of the specific locale)
- **Non-hierarchical & peer-to-peer:** Should be democratic, voluntary & non-for-profit (is not built on purely financial/market incentives)

Why commons is a great starting point to explore SSI & Data Spaces paradigms in practice?
(based on characteristic of commons):

- Commons are the most active part of society and can act as early adopters.
- Commons deeply and actively support the idea of independence from platforms and the state, and they are willing to explore new Data Space technologies further if these technologies truly promise them such digital sovereignty.
- Commons are geographically compact entities, allowing for the concentration of a new data sharing initiatives/data spaces to launch.
- Commons are complex entities requiring a variety of services from different fields (from finance to project management), which allows for testing implementations in a fairly complex environment.
- Commons have high requirements for security and user identification, where various communities are formed based on common interests and rebalance power in society towards citizens.

Note: *For more insights, please consult Elinor Ostrom research on the topic.

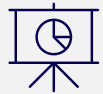
Identified 4 focus cases in urban commons to discover their system design needs

4 focus cases from Amsterdam Commons

Living commons
(collectively managing shared space, e.g., shared housing or a park area)

Energy commons
(sharing & distributing energy)

Mobility commons
(sharing cars in the neighbourhood)



Data commons
(research, analysis, benchmarking run by a municipality to measure economic & social impact)

Through these use cases the needs of commons* are studied.
As the result the future research steps are identified on how to satisfy those with SSI & data space solutions

***Explored needs are based on 8 rules for commons management by Elinor Ostrom:**

1. Need for a clearly defined boundaries: in particular, who is entitled to access what?
2. Need for a way to create rules by participants that fit local circumstances.
3. Need for facilitation of participatory decision-making (e.g., voting)
4. Need for monitoring of the upkeep of the rules
5. Need for sanctions for those who abuse the commons (Ostrom observed that successful commons have systems of warnings and fines, and reputational impact)
6. Need for accessible conflict resolution mechanisms
7. Need for connecting/nesting to a larger networks for wider cooperation (e.g., on a regional level)

The next step of the research is to dive into possible ways to meet those needs

Note: *For more insights, please consult Elinor Ostrom research on the topic.

4 focus cases: “living commons”

Case description

Housing Commons represent one of the most complex cases, as dozens of individuals come together to build and manage a property and its surrounding area. Each member has their own job or commitments, leaving only limited time to dedicate to the project.

This means they require
(1) Tools for remote collaboration
(2) Mechanisms for reaching agreements and resolving conflicts.
(3) The ability to create comprehensive Charters and protocols
(4) Robust security systems to enforce those protocols and record taken actions, as mistakes can be extremely costly
(5) Reliable long-term storage of decisions and outcomes

Topics for future consideration

Indicative, non-exhaustive

What needs are observed in the case

- Digital identity mechanisms: for Identification, authentication and authorisations (IAA) for access to data & resources
- Delegation cases: authorize data use by external parties (e.g. government or researchers)
- Legally supported e-Signing
- Different types of e-Voting
- Reputation
- Ways to avoid freeriding behaviour
- Ability to work simultaneously with dozens of platforms over the same data
- Long-term data preservation
- Cross-domain integration
- Ability to create cross-commons communities
- Statistical analysis, e.g., for benchmarking
- Controlled anonymization

Points for future consideration & what needs exploration:
Based on this the input was created forTRL3 Topics that should be further investigated (see list in the appendix).

4 focus cases: “energy commons”

Case description

In this case, Commons will own (the output of a) solar or wind power plant. Commons will either consume the energy or sell it on the grid to others.

Commons could also pool energy production capacity and compete with traditional, commercial energy organisations. Therefore, this project lies at the intersection of Commons and commercial businesses.

This case is highly demanding due to potential regulatory isues, both with energy law

Topics for future consideration

Indicative, non-exhaustive

What needs are observed in the case

- Internet of things implementations, where energy generating equipment collects and stores data
- Controlled, anonymized (likely paid) access to detailed data on energy production and consumption to researchers, the government, and corporations.
- Energy data can be considered personal data when connected to household usage.
- Any commons solution should comply to current energy regulations, energy market dynamics, and generic market regulations (e.g. can a commons bid in a tender?), which is challenging.

Points for future consideration & what needs exploration:
Based on this input was created for TRL3 Topics that should be further investigated (see list in the appendix).

4 focus cases: “mobility commons”

Case description

There are many possible use cases for sharing mobility in the neighborhood. For example:

1. Members of commons could share their cars. In fact, non-members could do this as well.
2. A housing commons could rent parking spaces in the garage during the day, while residents are at work, and this data should be available to navigation and car-sharing apps for automatic customer engagement. (Note that this is futuristic, and currently in the Netherlands in regular Dutch VVE’s(house owner associations) this is typically not legally allowed)
3. A commons could run minibuses on a fixed or flexible schedule, and this schedule should be integrated into most route-planning platforms

Topics for future consideration

Indicative, non-exhaustive

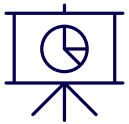
What needs are observed in the case

- Solutions for car sharing schedules and usage calendars, etc.
- Solutions to identify, authorize and authenticate users that wish to use shared mobility (e.g., digital proof of a drivers license)
- The system should be convenient. For example, to provide garage rentals to tourists, residents of the building should not have to install another application but simply maintain their travel calendar, and can learn when a parking space in the garage is available (futuristic)
- More to be added as research continues

Points for future consideration & what needs exploration:
Based on this the input was created forTRL3 Topics that should be further investigated (see list in the appendix).

4 focus cases: “research data commons”

Case description



Commons accumulate an array of data as they continue generating social and economical benefits. Local municipalities see this as multi-value creation projects that are part of the economy of commons that is not monetized in accordance with typical market dynamics.

Nonetheless it is interesting for municipalities to monitor, benchmark and measure effectiveness of social contributions that commons make (e.g., enhanced social relations, improved neighbourhood dynamics and conditions, enhanced youth engagement etc.)

For this municipalities would need to do run statistical analysis on collected data without revealing personal information of people involved.

Topics for future consideration

Indicative, non-exhaustive

What needs are observed in the case

- PETs (Privacy-Enhancing Technologies)* possibly offer a solution for this. The ability to incorporate for statistical analysis by municipalities or researchers, without accessing/revealing single individual’s data seems promising.
- Technologies for this are AI based technologies, such as Algorithm-to-the-Data/Federated Learning, or encryption based technologies, such as secure multiparty computation or homomorphic encryption.
- By deploying PETs in a correct way, researchers or policy makers could generate statistical insights over the content of many Vaults, without actually revealing the underlying sensitive data.

- More to be added as research continues

Points for future consideration & what needs exploration:
Based on this input was created for TRL3 Topics that should be further investigated (see list in the appendix).

Note: *For more insights on the similar use case, see CoE DSC case on Dutch Elderly care monitoring by municipalities & nursing homes using PETs

Content

1. Conceptual common ground
- Conceptual common ground: Interconnections & differences:
  - Self-Sovereign Identity (SSI), Personal Data Space (PDS), Web 3 Data Space (W3DS)

2. Value & applicability in practice:
- Relevance for commons
- Amsterdam Commons example cases

3. **Development roadmap:**
- Visions & focus points for development horizons
- Outlining aspects to be aware of on various dimensions:
  - Ethical, Legal, Social, Business, Implementational (ELSBI)

Appendix:
- Introductory information about involved organisations:
  - CoE-DSC, Post Platforms, Schluss and Amsterdam Commons
- Practical project description by Post Platforms Foundation

Development roadmap & painting next steps: there is a need to tap into scenarios, collect research topics & further align

Roadmap

Going forward with the research 4 actionable steps were identified as follows:

I. Explore diverse & holistic angles:

- Ethical, Societal, Legal and Business Implications (following the ELSBI model)
- Our research indicated opinions, solutions and expectations differed on when going into details about implementations and roadmaps. Various world views

II. Engage in the scenario building & vision horizons:

- To generate ideas & parameters for scenario building is vital to ensuring societally beneficial outcomes & broader impact perception

III. Define a matrix of resulting research questions:

Things that require alignment, and care in approach based on:

- A cross-roads between ELSBI model, technical choices, and development horizons
- Discovered tension points: such as community economy & valorisation of the commons, electronic reputation, persistent identifiers.
- Lessons learned on the difficulties of the voluntary aspect of commons to steer business ecosystems, ownership, and collaboration

IV. Explore practical use cases & prototypes

- Use cases provide input into I, II and III. However, short term use-cases can miss the point on longer-term ethical questions emerging
- Be agile to adapt to new insights coming out of I, II and III

Outlining aspects to be aware of on 5 dimensions (Ethical, Legal, Social, Business, Implementational) & for Scenario Building

For future joint exploration | Indicative, non-exhaustive

Research topic/category	List of the example research questions
Ethical	• What ethical considerations should be kept in mind for SSI & data space system design that is inclusive, socially sustainable and beneficial, democratic etc. This can also be about mis-use of technology, e.g. reputation scoring • How to deal with situations where governments have a legitimate interest to obtain personal data against the will of an individual or business (e.g. criminal case)
Legal	• How is the EU legal landscape intertwined and impacting the SSI & data space developments? • What (international, national or sectoral) regulations are beneficial or detrimental to SSI, W3DS and personal data spaces • How to ensure a pro-active approach towards regulation to ensure data sovereignty
Social	• How to enable all individuals to regain a sufficient form of control over their personal data, including those not physically or mentally able. • How to insure that created systems are aiding to create social and economic value at large?
Business	• How to valorise commons, and sustain a “commons economy”? • How to attract “regular” service providers for creating a base layer of digital vaults, and on what business model? • How to attract “regular” service providers to create agnostic, commercial services on top of this base layer • How to attract “regular” persons or businesses to decouple their data from platforms? An answer is in preventing data silos, vendor lock-in, or fake news.
Implementational	• What technological implementations/services are needed? (e.g., Digital Identity solutions, trust & governance mechanisms etc.)
Scenario building related	• What parameters need to be considered for scenarios on development horizons, such as geo-political, societal or legal changes (e.g. the rise of a dictator), infrastructural developments • Relevant insights from ELSBI framework dimensions

Long list of the TRL3 topics for further exploration

Initial brainstorm list to be shaped further in co-creation, in no particular order

1. Persistent Identifiers
2. Registry services
3. Binding documents services
4. Discoverability in W3DS
5. Risks of deanonymizing via correlation analysis
6. Authorization
7. Web 3.0 Protocol
8. Ensuring the Security of eVaults in Web 3.0 Data Space
9. Use of PETs within Web 3.0 Data Space
10. eReputation based security
11. eReputation and its societal risks
12. Mathematical models for reputation
13. Gradual elimination of copies
14. Linked Data research
15. Global Graph - The interlinked world
16. Interoperability research
17. Platform Integration in Web 3.0 Data Space Through Web 3.0 Adapters
18. e-voting
19. e-money
20. IPR control
21. Cybersecurity for eVaults (including brute force, social engineering etc)
22. PKI system for Web 3.0 Data Space
23. Strategic Governance of the Web 3.0 Data Space Ecosystem
23. Development of proactive legislation
24. Legal implications of Web3.0 data spaces in various regulated sectors (e.g. energy, financial services)
25. Trust as the Foundation of the Economy in Web 3.0 Data
26. Economical models development
27. Fake news elimination
28. Counterfeit products and parts control
29. Eliminating data silos and vendor lock-in for people and businesses
30. Standardisation (regulatory or de-facto)
31. Business models for vault and service layers
32. Licensing models (e.g. open source) for vault and service layers
33. Outphasing the gateway
34. Roadmap towards data separated from services
35. A datalayer of personal vaults: could it have an undefined ownership status
36. And many others to come

Content

1. Conceptual common ground
- Conceptual common ground: Interconnections & differences:
  - Self-Sovereign Identity (SSI), Personal Data Space (PDS), Web 3 Data Space (W3DS)

2. Value & applicability in practice:
- Relevance for commons
- Amsterdam Commons example cases

3. **Development roadmap:**
- Visions & focus points for development horizons
- Outlining aspects to be aware of on various dimensions:
  - Ethical, Legal, Social, Business, Implementational (ELSBI)

Appendix:
- Introductory information about involved organisations:
  - CoE-DSC, Post Platforms, Schluss and Amsterdam Commons
- Practical project description by Post Platforms Foundation

Introductory information of organisations participating in the use case: CoE DSC, Post Platforms, Schluss & Amsterdam Commons

CoE-DSC

Short description:
CoE-DSC combines the former Data Sharing Coalition, NLAIC, and Dutch Gaia-X hub. It supports NL organisations in exploring and scaling up trusted mechanisms for trusted datasharing, and acts as a bridge between NL and EU developments.

Mission:
Our mission is to unlock the true value of data sharing by supporting NL organisations in realising scalable data spaces. Through the development of generic building blocks and collaborative efforts, we enable easier and cost-effective implementation of data spaces across sectors and geographies.

See more on COE-DSC website here

Amsterdam Commons

Short Description:
Commons is a well-established modus operandi for citizens of Amsterdam who wish to develop projects independently. This tradition has existed for centuries.

Mission:
To achieve true data and identity sovereignty, to identify trusted partners, maintain full control over project data, and organize self-governed Commons. This includes strict oversight of charters, voting processes, document management, and the ability to attract like-minded individuals into relevant Commons. The ultimate goal is to foster participatory democracy in the city.

See more on Amsterdam website here

Post Platforms

Short Description:
Post-Platforms Foundation is a Dutch not-for-profit, established with the purpose of "correcting" the main issues of Web 2.0 (the world of platforms): data silos, vendor lock-in and data sovereignty.

Mission:
Together with EU Data Space program we are developing the next generation of data spaces – Web 3.0 Data Space (W3DS), based on the idea of Tim Berners-Lee of decoupling data from platforms. In this change, the development of realistic win-win roll-out scenarios for stakeholders is paramount, and we strive to provide support in this.

See more on Post Platforms website here

Schluss

Short Description:
Schluss is a Dutch not-for-profit that creates awareness, develops community-based approaches and takes initial technical steps, integration and UX design towards its final goal: providing citizens with full control over their personal data without compromise.

Mission:
Schluss is built on a clear mission: achieving full control over personal data. This mission is not only at the core of its vision but also serves as the compass guiding its actions. The time has now come to further translate our vision into action.

See more on Schluss website here

Appendix

Post Platforms prototype project approach

The following appendix slides are provided by Post Platforms and give an indication into their current thinking into a practical implementation of Web 3 Data Spaces

Post Platforms stakeholder analysis. Why will they participate?

Data Space Community of professionals (incl CoE)
are interested in creating and testing new types of Data Spaces capable of addressing modern challenges such as data silos and vendor lock-in etc in a secure and sustainable (centuries) way

Expectations: global adaptation of W3DS architecture

Post-Platforms Foundation
is interested in testing the W3DS concept, developed over the past years, under the most challenging conditions.

Cities
are interested in:
- Identifying and establishing the reputation of commons to enable them to compete with private businesses.
- Engaging as many citizens as possible in various commons to improve the quality of life in the city.
- Building a resilient society capable of withstanding disasters and wars.

Expectations: new cities jointing the project

Commons
are interested in achieving sovereignty over their identity and data, as well as in tools that enable effective commons management and the creation of new commons based on shared interests of citizens.

Expectations: forest fire-like growth, globally

Business Sponsors
are interested in building an ecosystem that (1) fosters the development of participatory democracy and community economy and (2) serves as a foundation for creating socially beneficial commercial services in a competitive environment, enabling the development of economically sustainable solutions

Expectations: more sponsors by the end of Prototype

Start-up Platforms and Services
are interested in an ecosystem that can handle (1) User identification, (2) Management of all user data, (3) Controlled access for all platforms and services to users and their data, (4) Comprehensive security measures for the entire system. They expect significant (10x) reduction of rollout costs

Expectations: Dozens of platforms join the ecosystem

What services will be launched in the Post-Platforms Prototype?

eID service
The App will read passport and user photo, recognizing the user just like a typical bank app does.
In the end it will issue (1) eVault, (2) User Identifier (3) keys (4) eID (similar to X.509)

2x Social Platforms (similar to Twitter and Instagram)
Empty at launch these new platforms will allow basic services: chats, groups etc.
We need 2 to demonstrate that users of different platforms can communicate, create and manage groups (groups will get their own eVaults

Charter Service
Will allow any group (Commons) to create a Charter

Cerberus Service
Will ensure that Charters are effectively enforced.

Signing Service
Will allow to sign any documents (letters, contracts, diplomas etc)

eRating Service
Will allow calculation of reputation of Groups and Services based on user activities and opinion of other users.

MarketPlace Service
Will demonstrate available services, their usage and reputation

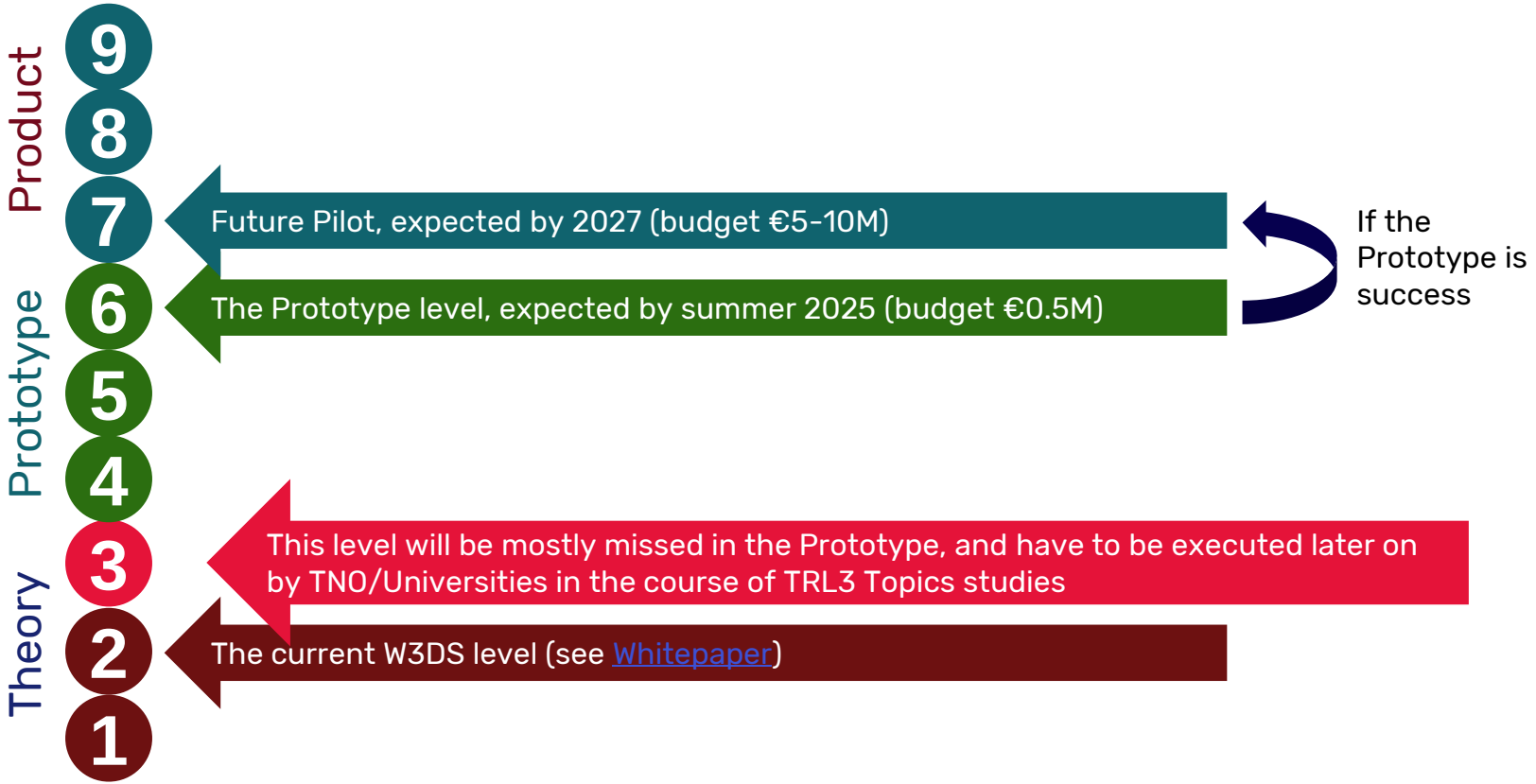
DreamSync Service
AI service which will connect people into Groups на основании анализа их wish lists, к which users create and store in their eVaults.

eMoney Service
Will allow to transfer quazi-money in the Prototype

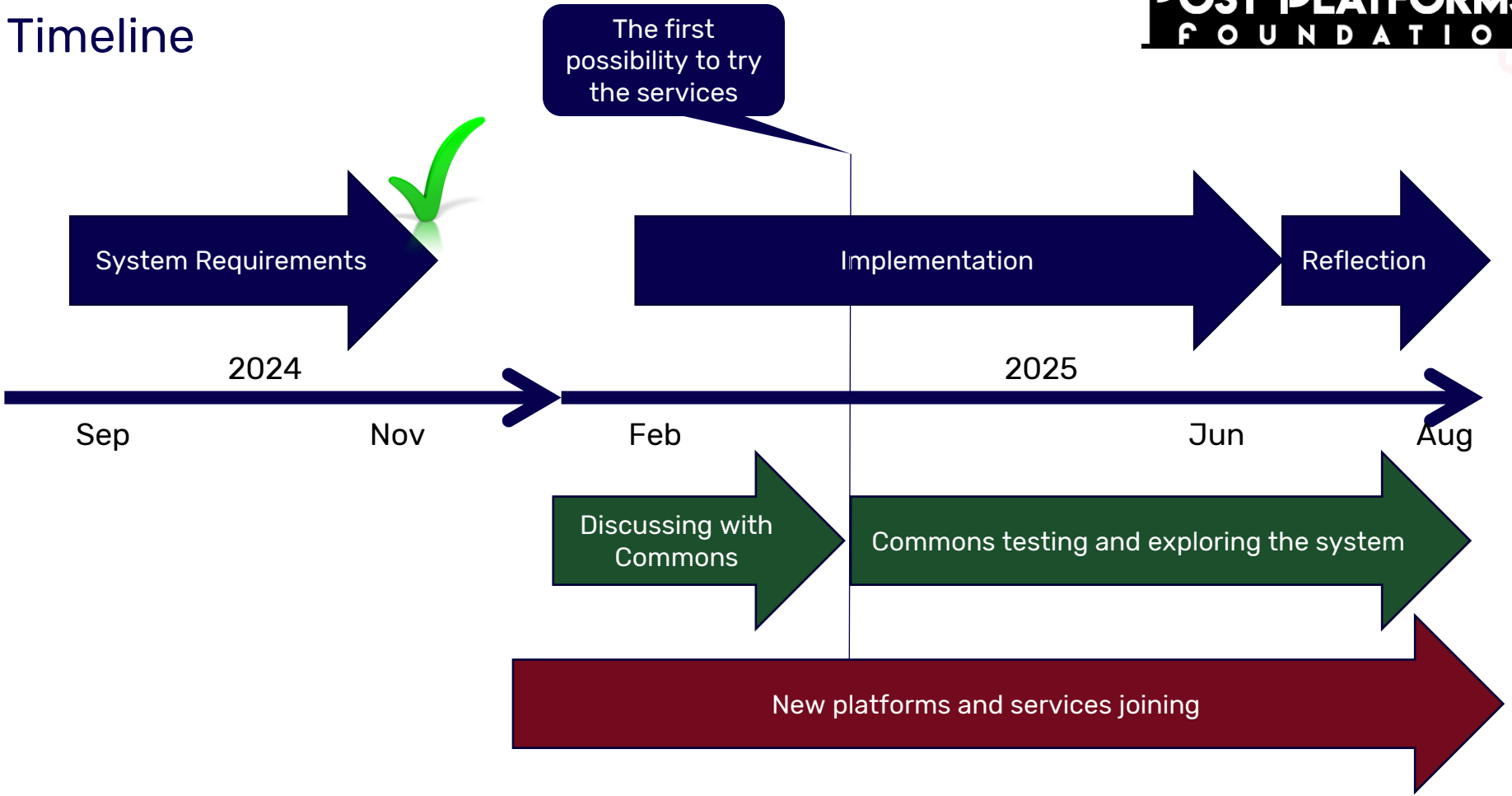
eVote Service
Will allow users to reliably vote on any subject in different types of voting

Web 3 Adapter
Will allow any new platform or service to get connected fast

Project TRL goals



Timeline



The fundamental concept behind the use case

The current use case was started the in-depth discussion on the issues with the modern democracy with specialists in participative democracy, and it finally led to the articulation of the following 3 problems and relevant Solution Approach. The Amsterdam Commons is the first "landing spot" of the proposed solution, which will be expanded globally to all areas where democracy is at risk. The project quickly attracted sponsors, communities of practice and specific technological frameworks (W3DS).

The Emergence of Self-Governing Communities

Problem: Communities cannot get united in safe and effective way.

Solution approach: We will create conditions under which people will begin to effectively and reliably unite into communities, with guaranteed identification of participants and compliance with community charters, voting procedures, etc.

Creating Healthy Competition for Leviathan

Problem: International (e.g.Red Cross) and national (e.g. Iran) bureaucrats and Super-platforms (e.g. facebook) monopolized powers.

Solution Approach: The ecosystem and the self-governing communities within it will be able to build a more effective balance of power, shifting from the state Leviathan and super-platforms to people and their communities, resulting in the transfer of bureaucratic functions to competitive businesses and systems. In the future, these changes should be recognized and accepted by states, gaining a legal basis.

Formation of Responsibility Based on Personal Sovereignty

Problem: Leviathans divide people by imposing the shortcomings of their national entities on people.

Solution Approach: We will create an environment where multiple competing services provide reliable reputation assessments. People's actions will be judged based on their own beliefs and values, independent of the Leviathan to which they are bound by birth. This will foster personal responsibility and a genuine reputation. One consequence of this should be the transition from the fictitious responsibility of populists to the real responsibility of experts and communities.