Findynet Cooperative

Seamless trust and control of your own data

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Agenda

- Brief history of Findynet, how it came to be and our mission

- Our use case funnel

- Our services to trust ecosystems

- About our planned infrastructure services and technologies that we will be using

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Findynet Cooperative

We want people and organizations to be able to interact smoothly and securely.

We provide tools to increase trust in transactions and help develop common practices and rules.

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We govern the Findynet network and serve trust ecosystems.

The Findynet network includes providers of digital wallets and credential agents. As a neutral party, **Findynet Cooperative is responsible for governing the Findynet network**. We establish interoperability rules for the network and promote cooperation among participants.

A trust ecosystem is comprised of the issuers, users, and verifiers of a specific digital credential—or a set of credentials. **Findynet serves trust ecosystems.** We help establish trust ecosystems and coordinate their activities, ensuring the ecosystem functions reliably and smoothly.

F Findynet

Who Are We?

We are a non-profit open cooperation organisation founded by public and private sector entities, currently with 9 members.

The Ministry of Finance has granted Findynet Cooperative €3 million in government grant for the years 2022–2024.

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Our purpose and history

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www.findynet.fi

Findynet Cooperative aims to establish a national trust network for verifiable data

Purpose

Ensure technical and legal interoperability between organizations providing digital wallets and credential agents to end-customers.

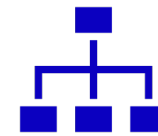Avoid vendor lock-in associated with centralized services.

Technologies based on open-source code, open standards, and specifications.

Non-profit nature

Does not aim for speculative market value.

Any surplus is reinvested into operational development and member service fee reductions.

Collaborative governance

Easy to join and leave the cooperative.

Jointly governed by organizations from various fields and sectors.

Cooperative model protects against hostile takeover attempts.

Shared financing

Requires a separate entity to channel membership fees, usage fees, and external funding into joint activities.

Expected to cover costs through membership fees and service usage fees.

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Our Governance Model

Findynet Cooperative's governance reflects our aim to act as a promoter of national objectives.

The cooperative model itself lays the foundations for a democratic and participatory approach, where members are actively involved in decision-making and planning.

As the Findynet cooperative aims to create a national trust network for verifiable data, our activities are based on trust, transparency and open collaboration.
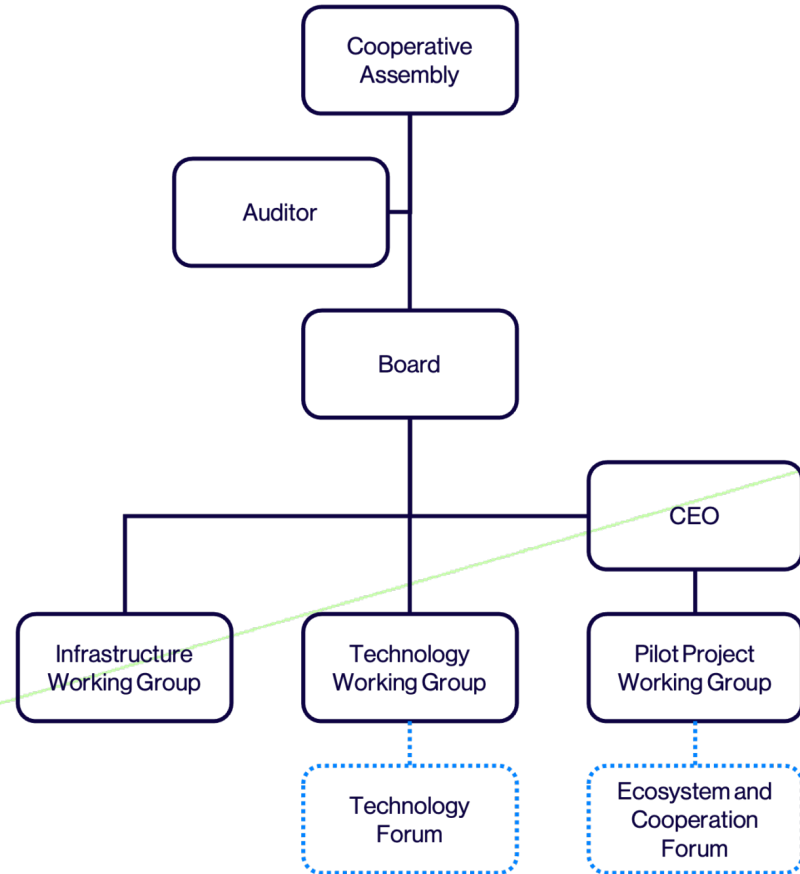
Key milestones

The TrustNet project was launched in cooperation by several companies and research institutes. The aim of the project was to explore the introduction of a decentralised digital identity network in Finland.

Formation of Findy consortium
It was concluded that a digital identity network should be governed at national level, so a national consortium was founded for this purpose.

Founding of Findynet Cooperative
Nine public and private sector organizations joined forces to create the Findynet Cooperative.

Findynet becomes operational
Management team onboarded
Launch of Test Network

2017

2019

2021

2023

2018

2020

2022

2024

Early use cases
Several SSI proof-of-concepts were developed by the now-members of the cooperative.

Government grant negotiations
The Government grant was granted by the Finnish Ministry of Finance in August 2022

Launch of first pilot initiative
Verification of the right to a public transport discount – joint initiative with Kela (the Social Insurance Institution of Finland) and HSL (Helsinki Regional Transport Authority)
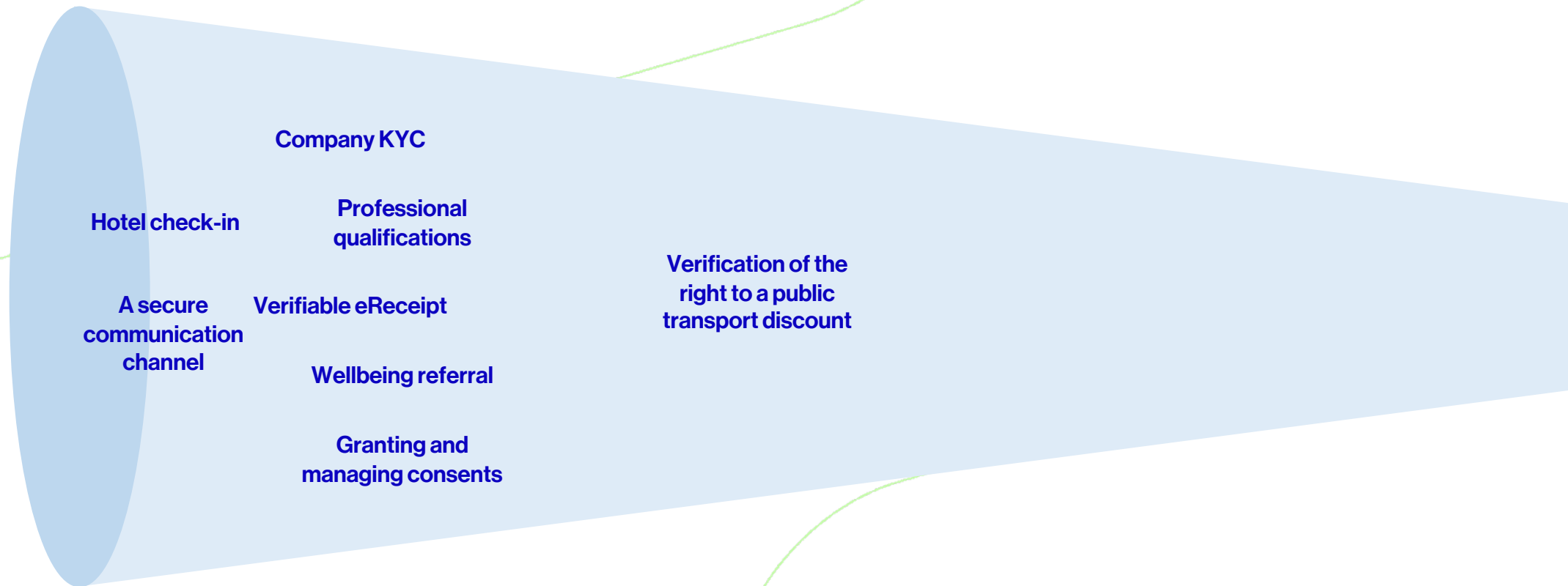
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Our Use Case Funnel

Concept   Proof of Concept   Pilot   Production

Company KYC

Hotel check-in

Professional qualifications

A secure communication channel

Verifiable eReceipt

Verification of the right to a public transport discount

Wellbeing referral

Granting and managing consents

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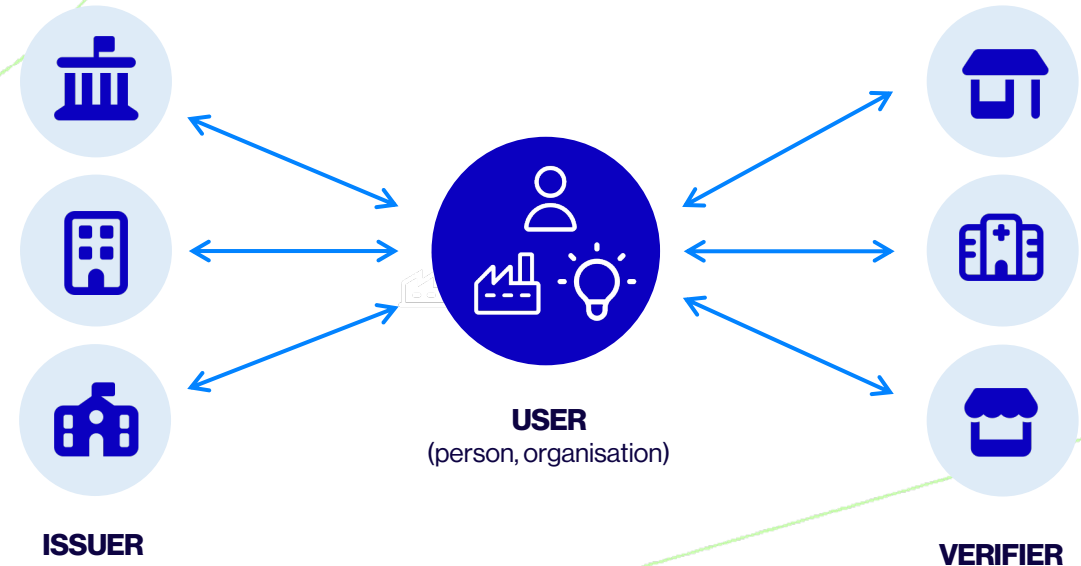
Our services for Trust Ecosystems

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Our Services

Expert Services

- We help organisations to identify opportunities to use digital credentials.

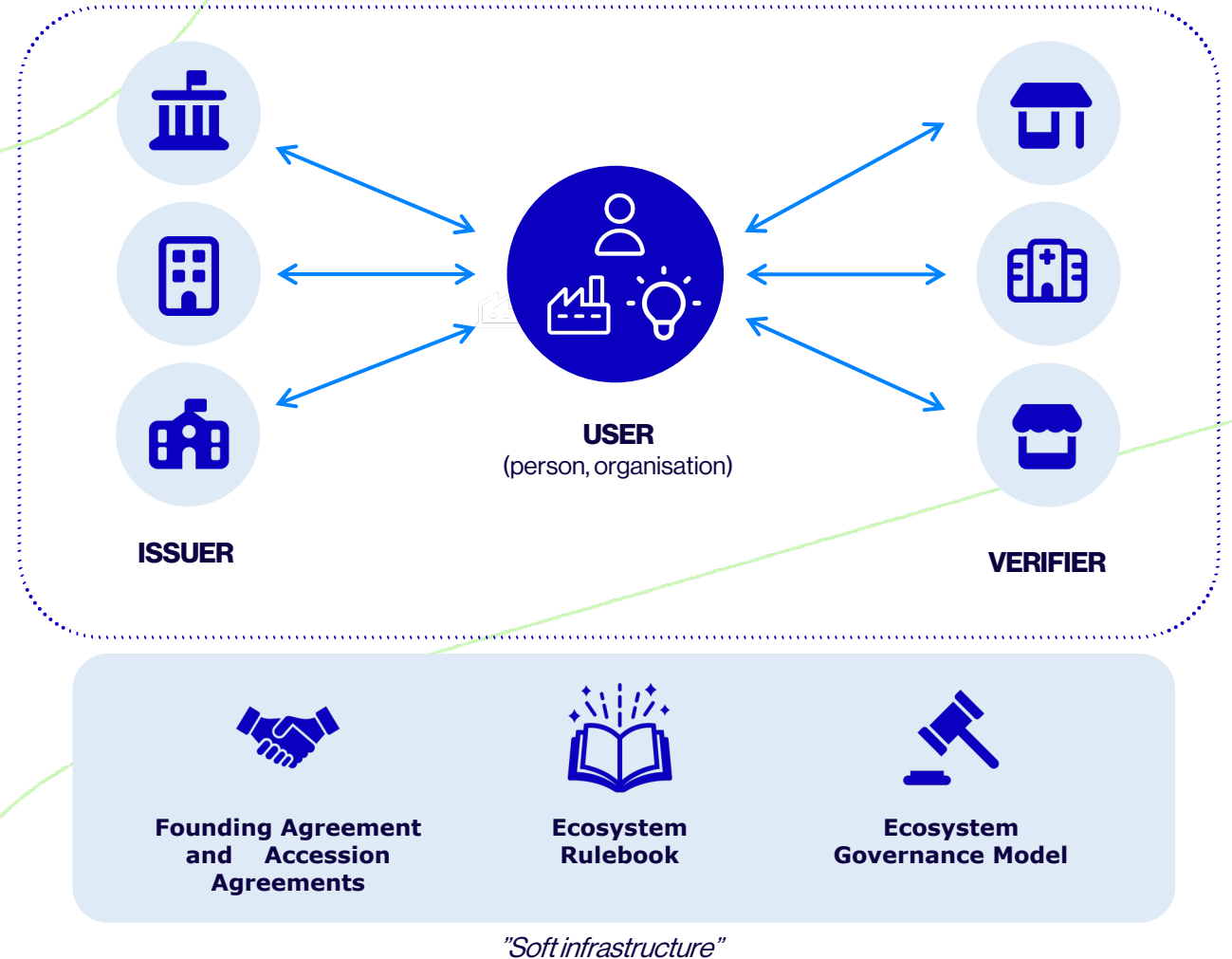- We establish trust ecosystems around use cases and support their coordination

Technology & infrastructure services

- Credential agent as a service for issuers and verifiers

- Infrastructure services such as trust registry and revocation registry as a service

ISSUER

USER
(person, organisation)

VERIFIER

Credential Agent   Credential   **Digital Wallet**   Proof   **Credential Agent**
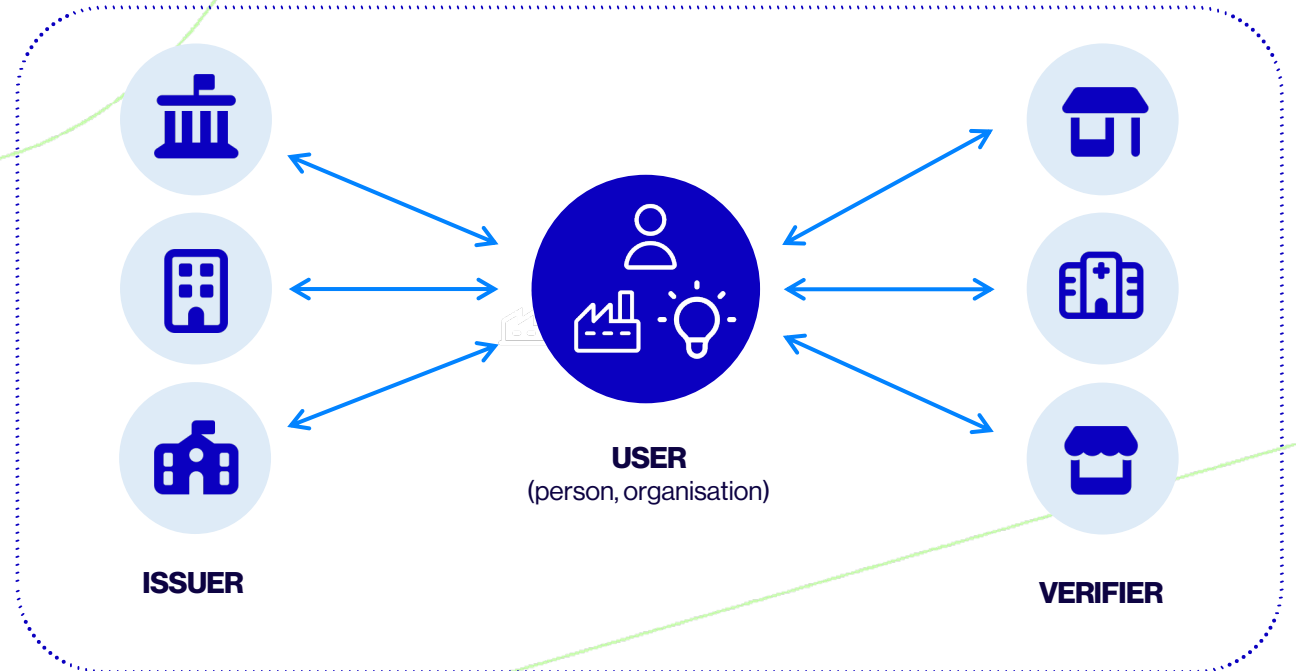
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Participants Together Form a Trust Ecosystem.

- A trust ecosystem is comprised of the issuers, users, and verifiers of a specific digital credential—or a set of credentials.

- Definitions, rules, and procedures agreed upon within the ecosystem ensure that various services are interoperable and trustworthy

- The Trust Ecosystem's rulebook and governance model (*"soft infrastructure"*) eliminates the need for bilateral agreements between issuers and verifiers, enabling the ecosystem to efficiently scale

USER
(person, organisation)

ISSUER

VERIFIER

Founding Agreement and Accession Agreements

Ecosystem Rulebook

Ecosystem Governance Model

"Soft infrastructure"

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Findynet Supports the Formation and Operation of Trust Ecosystems

- Findynet helps establish trust ecosystems by facilitating and coordinating cooperation between different actors

- Findynet helps develop a rulebook and governance model to which the trust ecosystem members commit to

- As a legal entity Findynet can host trust ecosystems and provide a legal framework for the ecosystem

- As coordinator of the trust ecosystem, we centrally manage the addition of new members, and monitor compliance with its rules

- Findynet contributes to the development of the ecosystem by coordinating the development of rules to meet new business requirements and adapt to regulatory changes

USER
(person, organisation)

ISSUER

VERIFIER

Founding Agreement and Accession Agreements

Ecosystem Rulebook

Ecosystem Governance Model

"Soft infrastructure"

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The Essential Agreements and Governing Documents

1. Founding agreement and accession agreements

- Participants render authority to the ecosystem by accepting the governance model and rulebook

- Governing law, interpretation rules, termination

- Potential fees

2. Governance model

- Roles and responsibilities of governance bodies

- Rules for admission and administration of the ecosystem

- Rules for compliance and dispute resolution within the ecosystem

- Rules for maintenance and evolution of the ecosystem, including a change management process.

3. Rulebook

- Business model for the ecosystem

- Operating model with operational roles and responsibilities and process descriptions

- Technical standards and specifications to assure interoperability within the ecosystem

- A change management process for the rulebook

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SSI is based on blockchain

- **Findy**net - "Finnish Indy network" (using Hyperledger Indy)

- Following the lead of Sovrin

- Validation
  - We conducted an SSI technology survey in March 2023
  - "Lots of different standards, protocols, formats, algorithms, and mechanisms"
  - "If you want something that works now, go with Aries/Indy"
  - "For the future, keep your eyes open"
  - findynet.fi/en/news/ssi-technology-survey-2023

- Setup
  - In March 2023, we set up and launched an Indy test network (all nodes operated by us)

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eIDAS is based on SD-JWT/OID4VC and mDL

- The architecture reference framework for the European digital identity wallets (EUDI ARF) was published in January 2023 (version 1.0.0)

- We published an RFI for SSI solution vendors in the summer of 2023
  - supported technologies, roadmap
  - findynet.fi/en/news/ssi-rfi-2023

- 11 responses, followed by 9 demo sessions
  - findynet.fi/en/news/ssi-demos

- Almost all vendors were adding support for SD-JWT/OID4VC

- In April 2024, we shut down our Hyperledger Indy test network due to lack of interest

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Findynet technology principles

1. The ecosystems and pilots supported by Findynet may use either **Aries** or **EUDI ARF** compatible technology

2. In cases where privacy is paramount, we use **AnonCreds** and **Aries**

3. In cases where persistent connections are valuable, we use **DIDComm**

4. Where state-granted official identity is key, we follow EUDI ARF (the latest knowledge)

5. When semantic interoperability is of specific interest, we may use **JSON-LD**

6. We may use **EBSI** if the state assigns us duties related to it

7. If multiple principles apply, the one on top has preference

8. These principles are constantly evaluated and changed when necessary

Technology choices alone don't guarantee interoperability.

We are looking into specifying an interoperability profile (or choosing to follow an existing profile).

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Findynet core (technical) services
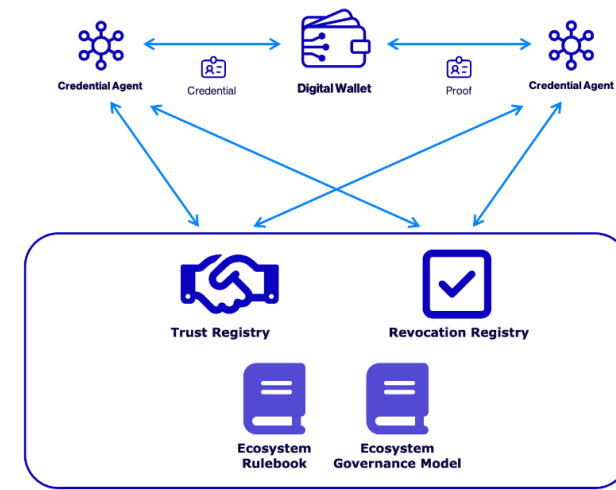
- **Trust registry**
  - Rather, software to implement a network of trust
  - Implemented by Sphereon (open-source components) and Northern Block (trust registry application)
  - Based on OpenID Federation, the trust registry application also supports ToIP Trust Registry Protocol
  - Minimum viable product delivered in August 2024, finalized by the end of the year

- **Revocation registry**
  - Rather, hosting of status lists
  - Based on IETF Token Status List (probably)
  - Implementation not started yet, solution to be designed in May/June
  - Status verification could be a paid service in some ecosystems – a way to compensate issuers

- **Credential agent as a service**
  - Reseller agreements being negotiated with multiple vendors

Hands-on experiments and demos

- Friend of Findy
  - Simple demo using Entra ID and Microsoft Authenticator
- Study credentials to your digital wallet
  - Converting data from a national registry into verifiable credentials (using Veramo)
- Pension credential demos
  - Issuing and verifying a credential using 5 vendors' solutions
- Job application demo
  - Using a web wallet (CHAPI) to fill in web forms

- findynet.fi/en/how-it-works/try-it-yourself

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Contact us and join the action!
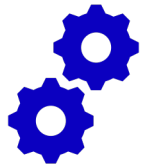
The Technology Forum showcases our progress from a technological perspective and discusses current topics:

findynet.fi/technology-forum/

The Ecosystem and Collaboration Forum is a forum for sharing information and discussing current and future pilot projects:

findynet.fi/ecosystem-and-collaboration-forum/

Contact us for more information or to arrange a presentation about Findynet:
info@findy.fi

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Thank you for your interest!

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