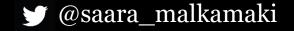
Health Data Ecosystems as a New Blue Ocean

Saara Malkamäki

Specialist, IHAN project Sitra – the Finnish Innovation Fund







Sitra in a nutshell

- 1. A gift from Parliament to the 50-year-old Finland 51 years ago. Under the direct control of the Finnish Parliament.
- 2. A think, do and connect tank. An independent future house.
- 3. Works towards a fair and sustainable future.
- 4. Funded by returns on endowment capital and capital investments.
- 5. The vision is implemented by three themes and hundreds of projects.

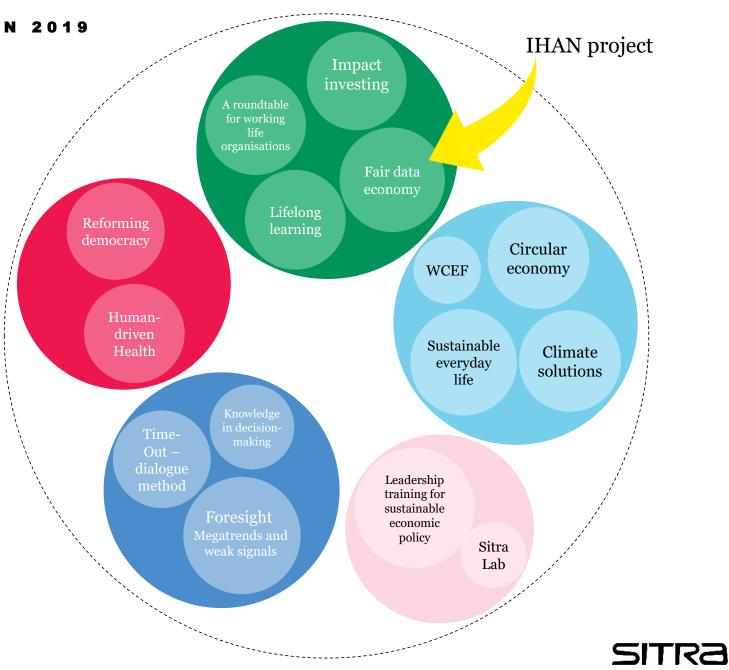
+ the most important of all

Building our future together.



SITRA'S FUTURE-ORIENTED WORK IN 2019

- FORESIGHT
- SOCIETAL TRAINING
- A CARBON-NEUTRAL CIRCULAR ECONOMY
- CAPACITY FOR RENEWAL
- NEW WORKING LIFE AND A SUSTAINABLE ECONOMY



IHAN® project

- Building the foundation for a **fair** and functioning **data economy** and creating a common **concept for data sharing**.
- Setting up European level rules and guidelines for fair use of data.
- **Piloting** new concepts based on personal data in **collaboration** with pioneering **businesses**.
- Developing an easy way for **individuals** to **identify reliable services** that use their data in a fair way.
- Project started 4/2018 and it runs until (6/2021)



A European strategy for data

MyData

Corporate Sustainability

Privacy and Digital Rights

Data Ethics

AWARENESS BUILDING

IHAN® FOR POLICY MAKERS

Facts for Policy Improvement, Roadmap, surveys and studies

IHAN® FOR CITIZEN

DigiTrail,
DigiProfile-test,
Campaigns, surveys and
studies

IHAN® FOR BUSINESSES

New Data Economy
Rainmakers –
programme
Corporate responsibility
Focus Group

CAPABILITIES BUILDING

IHAN® BUSINESS CAPABILITIES

IHAN® Rulebook for Fair Data Sharing IHAN® Business Programme Competence development

IHAN® ENABLING ARCHITECTURE

IHAN® Blueprint
IHAN® Testbed
[ihan.fi]
Technology Pilots
Governance

ONE OF SITRA'S IHAN PROJECT OBJECTIVE IS TO PROMOTE THE DEVELOPMENT OF DATA ECOSYSTEMS AND PARTNERSHIPS AND TO FIND ENTITIES WHO BUILD BUSINESS PILOTS IN ACCORDANCE WITH IHAN PRINCIPLES.



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- What is a data ecosystem?

- How value is created in a data ecosystem?

- An example of a data ecosystem



Content



- What is a data ecosystem?



- How value is created in a data ecosystem?



- An example of a data ecosystem



ECOSYSTEM DATA ECOSYSTEM HEALTH DATA ECOSYSTEM



Some definitions

There are probably almost as many definitions of an ecosystem as there are definers.

Ecosystem

A network of businesses thought to resemble an ecological ecosystem because of its complex interconnected components

Data ecosystem

A group of entities that want to create new business by sharing data with each other (IHAN)

Data is shared with the individual's permission and according to the rules set in the data ecosystem's <u>rulebook</u>.

Health data ecosystem

"Beyond traditional sources of data generated from health care and public health activities, we now have the ability to capture data for health through sensors, wearables and monitors of all kinds."

(WHO)

Global ecosystem perspective



FROM EGOSYSTEM TO ECOSYSTEM

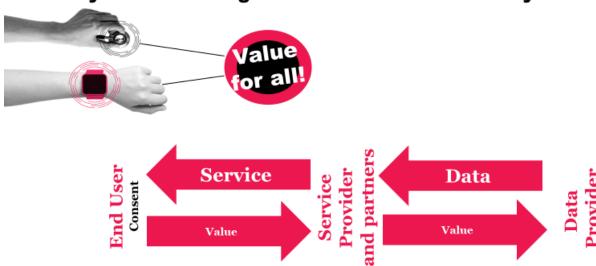


A successful ecosystem arises from a vision that all members want to achieve, but that no one can achieve alone

What makes an ecosystem successful?

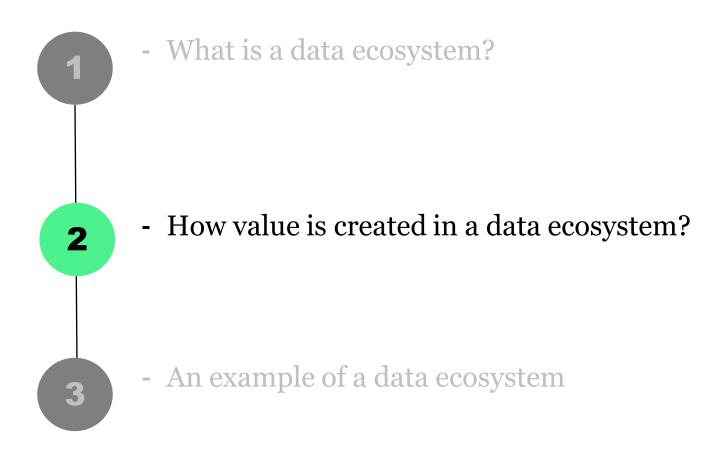
- The criterion for success is that the members of the ecosystem understand the value produced jointly and agree to act according to common rules
- An ecosystem that follows fair rules creates value for all participants
- Participating organisations need to decide on the model and role they will participate in the ecosystem in order to get the most out of it

Everyone needs to get value in a fair data ecosystem





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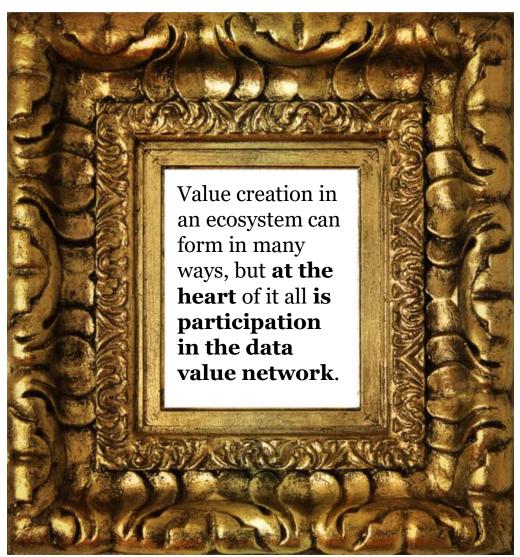


Value creation in an ecosystem can form in many ways

- The potential for value creation in the ecosystem business model is greater than in the traditional environment:
 - Access to a wider range of capabilities than a single organisation
 - Ability to scale activities quickly
 - Flexibility and resilience



NB! the complexity increases when moving from value chains to value networks





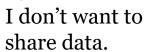
Data economy is evolving in two, partly contradictory directions

Data is a strategic resource that can be used to create significant value - **Data protection** needs are growing

Organisations
increase
collaboration and
interdependence –
Data sharing
needs are growing

- The more information is shared and used, the more its value and the risks of sharing increase
- Data ecosystems provide a secure environment for sharing data
- Data can be shared more freely, transparently and safely

We are so much more together!







The data ecosystem forms a strong link between its partners

- In the data ecosystem, the raw material = data, is processed into services
- There are many different reasons to form a data ecosystem, but most often the goal is to:
 - Reduce costs
 - Optimise operations
 - Create new services
 - Get access to limited information and/or expertise
- By sharing and processing data new innovations, business, collaboration opportunities and better services and

products can be created

- Ecosystem partners need to
 - Have sufficient common goals and business models
 - Be reliable and willing to cooperate
 - Follow common rules

Check Sitra's data ecosystem <u>rulebook</u>.



Leader (s)

Entities who drive the vision and realisation of the data ecosystem to function. Takes the lead role (can be temporary) in coordinating the data ecosystem.

External stakeholders

Entities that have a specific interest in the data ecosystem success.

Roles in a data ecosystem

Business enabler (s)

Entities providing services to the data ecosystem but do not share data in the ecosystem.

End-user (s)

Entities interested in consuming, utilizing, accessing the value that is created in the data ecosystem.



Service provider (s)

Entities interested in creating value by providing services to end users.

Partner (s)

Entities interested in creating value by providing services to service providers.

Data sources

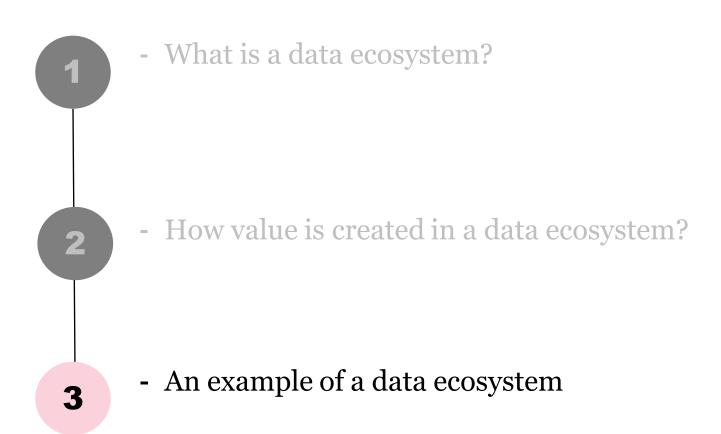
Entities interested in creating value by providing data to the ecosystem.

Technical enabler (s)

Entities providing services for identity, consent management, logging, and service management for the data ecosystem. Can act as system integrators between ecosystem members if needed.



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iShare – Harbour Logistics

iSHARE is a uniform set of agreements or scheme that enables organisations in the logistics sector to give others access to their data, including new and previously unknown partners. In addition to reducing integration costs, iSHARE offers organisations new opportunities to monetise currently untapped data assets.

Standardisation

Standardised and re-usable way of identifying, authenticating and authorizing M2M and H2M



Trust

Provide a trust framework based on perfection







Provide access to your data without the risk to share more data as required



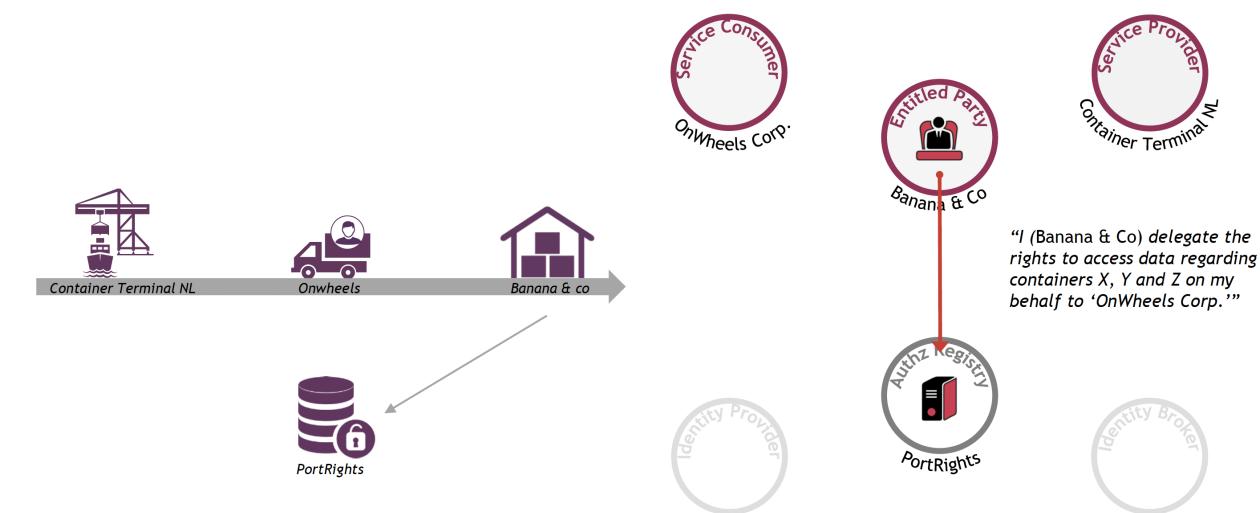
Portable trusted identities to log in at other iSHARE Participants





Source: Innopay: https://www.innopay.com/en/ishare









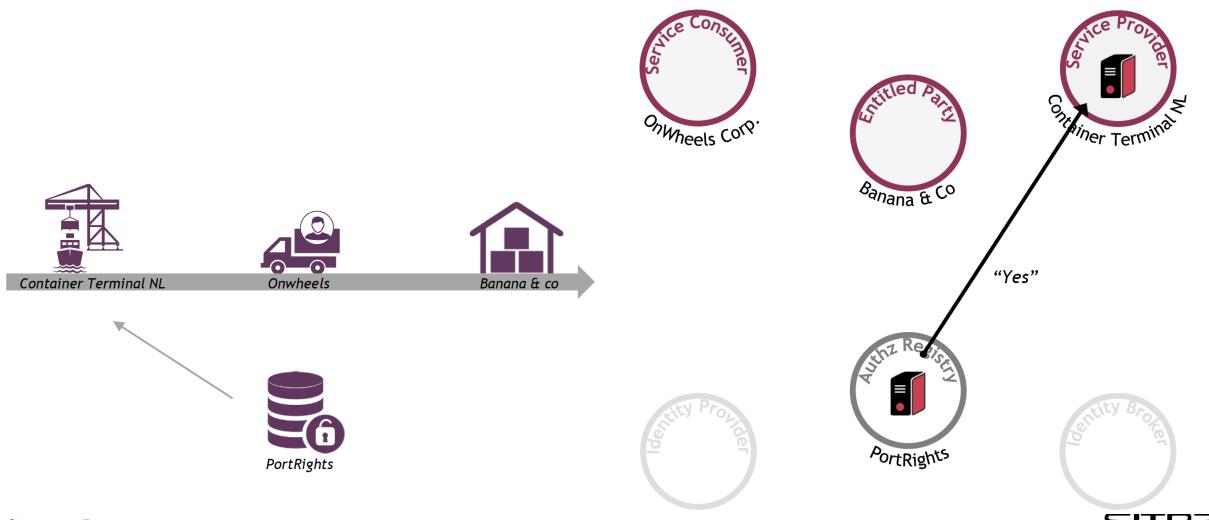


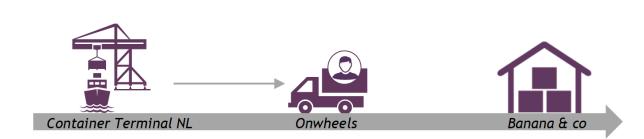


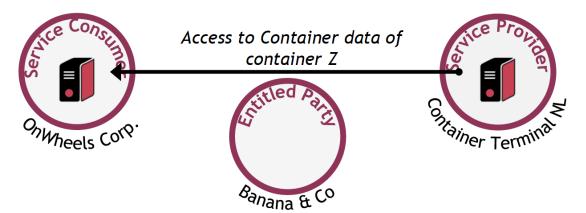




















Summary

- There are many definitions of an ecosystem
- A successful ecosystem arises from a vision that all members want to achieve, but that no one can achieve alone
- The potential for value creation in the ecosystem business model is greater than in the traditional environment
- Data economy is evolving in two, partly contradictory directions the more information is shared and used, the more its value and the risks of sharing increase
- The data ecosystem forms a strong link between its partners and a secure environment for sharing data







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SITRA