## We start at 10.00 EET

## Examining emerging fair data economy business models in health data ecosystems

26.1.2022

10.00-12.00



From **EGO**systems to **ECO**systems!

## THE AIM IS TO PROMOTE THE COMPETITIVENESS OF FINNISH HEALTH DATA ECOSYSTEMS BY MEANS OF A FAIR DATA ECONOMY



## **Workshop objectives**



**Learn** from the **experiences of European health data ecosystems** – challenges, success factors, lessons learned and future development plans

Evaluate ecosystem **business model maturity** in Finnish health sector

Discuss and **share ideas** on how to create **more value** for ecosystem participants, scale internationally and make ecosystems thrive



## Agenda

1	10.00	<b>Creating new business in health data ecosystems</b> Saara Malkamäki, Sitra
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3	10.30	<b>Co-operation between 70 international country and regional ecosystems in ECHAlliance network</b> Andy Bleaden, ECHAlliance
4	10.40	<b>Panel: Experiences from European health data ecosystems and the</b> <b>wider global health data market</b> Bleddyn Rees, ECHAlliance (moderator), Oliver Harrison, Koa Health, Sohail Nourestani, Haut de France Ecosystem, Joana Feijó and Patrícia Patrício, Health Cluster Portugal
	11.15	Break (5 min)
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## Data economy

is technology-enabled solutions combined with customer-driven business



## Fair data economy

is the part of the economy that focuses on creating services and data-based products in an **ethical** manner.

Fairness means that the rights of individuals are protected, and the needs of all stakeholders are taken into account. Interests of individuals, companies/organisations and society are in balance.





The 100 biggest companies in the world worth **31.7 trillion** USD in 2021

**Seven** of the 10 most valuable companies globally are based on a platform business model

100 platform companies worth **15,5 trillion USD** (doubled since 2018)

Sources: <u>https://www.theoriginalplatformfund.com/blog/platform-economy-grows-by-1-6-trillion</u>, <u>https://www.visualcapitalist.com/the-biggest-companies-in-the-world-in-2021/</u>



## ECOSYSTEM DATA ECOSYSTEM



### **Ecosystem definitions and categories used today**

Knowledge ecosystems

Focus on information exchange and the creation of new information and technology

Regional and thematic knowledge ecosystems: Age technology, artificial intelligence or other themes, e.g. Hyteairo.

National centers of excellence and clusters and the ecosystems developing around them, e.g. Cancer Center, Finngen project

### Focus on creating customer and end user value

**Business** 

ecosystems

Refining ecosystems: Ecosystem introducing new technologies that refines a companies' product, service, or process, such as the digitization of clinical trials. Integrative ecosystems: Companies expand their offering through vertical or horizontal integration, e.g., "beyond the device" ecosystems with health tech companies. New business areas: Focus is on customer-oriented development of new businesses, services or products, such as digital therapies of pharma companies.

### Focus on the value creation between ecosystem actors

Innovation

ecosystems

Mission ecosystems: A multi-actor, cross-sectoral ecosystem with a common mission and impact goals e.g. Children-SIB, Horizon programme Cancer Challenge

**Regional ecosystems**: Support the strengthening of regional competence clusters, e.g. Kuopio Health, Health Capital Helsinki

Service innovation ecosystems: Built on collaboration and shared value, such as the welfare alliance, public-private-people (PPP) partnerships. Enablers of innovation

-

Focus on creating customer and end user value

**Infrastructure and publicly owned resources**, e.g. computing power, test environments, interfaces, data

Legislation and regulatory development, e.g. Secondary Use Law

Culture and reputation, e.g. cooperation

Funding, e.g. RDI subsidies, service system incentives and governance models

SITRA

Publication source: <u>Datalähtöisten ekosysteemien tulevaisuuden mahdollisuudet ja haasteet terveysalalla</u> (modified from VTT Reserach)

## DATA ECOSYSTEM IS A GROUP OF ENTITIES THAT WANT TO CREATE NEW BUSINESS BY SHARING DATA WITH EACH OTHER.

Data is shared with the individual's or organisation's permission and according to the rules set in the data ecosystem's <u>rulebook</u>. An ecosystem that follows fair rules creates value for all participants. Data can be shared in the ecosystem / more freely, transparently and safely.

Value for end-user, service provider, data provider and others...



We are so much more together!



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



#### Everyone needs to get value in a fair data ecosystem



# How is value created in a data ecosystem?



# Pioneering organisations are already entering the fourth stage of the data economy





# 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





# 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 scarce 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
  - decide on the model and main role they will participate in the ecosystem



How ecosystem business models differ from traditional **business** models?

- 1. **Platform business models**: the key difference is that platforms are multisided, and they cater to multiple user groups. Platforms create value by bringing people and businesses together and enable them to exchange value.
- 2. Ecosystem business models: "If designing a traditional business model is like planning and building a house, designing an ecosystem is more like developing a whole residential district: more complex, more players to coordinate, more layers of interaction and unintended emergent outcomes." A true system perspective and value distribution among ecosystem members is needed. Business ecosystems also emerge which is one of their major strengths.



## Seven ecosystem business model types

- Symbiotic most technology platform companies have symbiotic business models and as dominant orchestrators, all value creation is shape around their core platform (SAP, Microsoft)
- 2. Marketplace marketplace operator is the orchestrator, and the members pay the operator a fee to participate in the marketplace (Amazon, Apple, Google, Uber)
- **3. Scaling** jointly orchestrated by ecosystem members that generally are all in same business 7. and technically could be considered competitors (Airline alliances)
- **4. Accretive** an arrangement between just a few entities, where all parties have a portion of an overall customer value proposition that combined is worth substantially more than the sum of its parts. The members generally don't

compete with each other. (EY-P&G Alliance)

- **Coopetive** competitors cooperate to create higher customer value. Similar to accretive model but the member are competitors. (P&G + Clorox)
- 6. Value chain the participants all manage their pieces, but with an orchestrator at the center, the overall efficiency of the collective participants is optimized (blockchain-enabled global trading platform orchestrated by EY)
  - **Integrator** an orchestrator brings together a set of ecosystem participants to create a fully integrated end-to-end solution for customers (open finance ecosystem)

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## Pioneering organisations are already entering the fourth stage of the data economy



In which phase are most Finnish<sup>"</sup> health data ecosystems in? Reflect on the four phases of the data economy.

a = a



(14) Phase 2: External and open data

(15) Phase 3: Data sharing

(3) Phase 4: Data-based shared services



- Based on the voting result why do you think most Finnish health data ecosystems are in that phase?
  - Challenges in co-operation and regulation to build data-based shared ecosystems -> clear intentions to do that
  - Implementation takes time
  - Regulations and many separate registries
  - Lack of capabilities and knowledge
  - Operational focus on data integration, unsecure for legal obligations, and lack of understanding the value of data sharing (limited capability to envision the future)
  - Finland is already talking about it many other ecosystems are not
  - A lot of possibilities and ideas -> the final push to ecosystems is needed
  - it is cultural and time-taking change to work

and make business together

- Data sharing between different organisations is not always possible in health care/education sector. People are also scared because of situations where data was hacked.
- PHR security and law, short-sighted business interests
- Business models are perhaps still missing
- IT and data is not easy to integrate because of the different solutions
- The market for health data products and services is still emerging -> early stage development of health data ecosystems
- Ecosystems have gained some form of maturity and have an easy access to data sharing platforms
- In Finland there are pioneering organisations that really are at phase 4

Do you know an example of a phase 4 ecosystem (Finnish/international)? If yes, please describe it?

- One possibility for a good ecosystem in the future "Hyvinvointialueen tiedolla johtamisen ekosysteemi": <u>https://soteuudistus.pirkanmaa.fi/yleinen/komas-hankkeen-tulokset-tiedolla-johtaminen/</u>
- Internationally DiGA/DiHA model: <u>https://diga.bfarm.de/de</u>
- Proposed (not yet active) ecosystem for digital health solutions "ecosystem for diabetes apps": <u>https://www.dropbox.com/s/i2dvdi18rqlbtqf/Ecosystem-for-Diabetes-Apps.pptx?dl=0</u>
- The biobank network FINBB: <u>https://finbb.fi/en/</u>
- Data for Good Platform in Denmark: <u>https://dataforgoodfoundation.com/</u>
- European Health Data Space: <u>https://ec.europa.eu/health/ehealth-digital-health-and-</u> <u>care/european-health-data-space\_en</u>
- "App stores" of Electronic Health Record system vendors are a nice promise <u>https://apporchard.epic.com/</u> and <u>https://code.cerner.com/apps</u>. Similar to app stores like AppStore and Google Play
- Findata one-stop shop for Finnish health data from registries: <u>https://findata.fi/en/</u>
- Kanta system for sharing data. It has common services, rules, and operating models, used by practically all healthcare providers, and also quality registers: <u>https://www.kanta.fi/en/system-developers</u>



- What is needed for Finnish health data ecosystems to enter phase 4?
- More true collaborative discussion between parties (companies, authorities, research organisations)
- Easier process between public sector and businesses
- Business models need to be understood first. First movers to show how things are done in real business world.
- We need a value-based mindset if we want to find a true business model for data ecosystem. Business models in health are focused on transactions when a person is already sick rather than value-based models for prevention and/or keeping people well and out of expensive interventions.
- Legislation
- Trust between organisations to be able to work in new ways
- Rewards, incentives and business models for the ecosystem members
- Tap into global data ecosystems
- PPP; much more argumentation for the added value from various viewpoints
- Clearer definitions; language and meaning
- More understanding what next generation anonymization technologies can provide (GDPR freedom many use cases)
- Maybe more "stick" -> there should be a balance between stick and carrot

- The measure of value creation is money which is a tough topic for many public organisations and needs to be talked about
- To find the value to stakeholders in ecosystems
- Language = currency
- We should get the government bodies currently operating the widest ecosystems to understand the value of business models. And, to acknowledge their responsibility in crafting those business models. Currently government bodies wish that someone else would create the business models on top of their existing systems, without their involvement. It is incredibly hard to stick a business model on top of an ecosystem that does not support it natively.
- Nordic equivalent to the DiGA/DiHA model where doctors can prescribe apps, and public healthcare (in Finnish case, KELA) reimburses the use of the app
- Enable easier access to EHR systems and EHR data for integration
- More detailed tools/knowledge and case stories are needed for implementing phase 4. Also, testing for ecosystem ideas needs to be supported more with ICT infra.

Impact driven development



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## The Global Connector for Digital Health

**European Connected Health Alliance** 

#### **Andy Bleaden**

Communities Director at ECHAlliance

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## WHO

## Member Organisation (900+ organisations)

Companies, policy-makers, research orgs, health & social care providers, patient groups, insurance, procurers, government ministries



#### 20,000+ experts / professionals



#### Not for Profit Organisation

Registered in Ireland and in the UK



Global reach across 78 Countries and 4.6 billion people

#### International Network of 70+ Digital Health Ecosystems (200+ ecosystem gatherings a year)

WHAT



Connecting the dots

Network of Geographical & Thematic Health Ecosystems



Comms & networking







Global

**Events** 



Funding/ Tenders



...bring together a permanent community of stakeholders to develop a joint health agenda, aiming to address and find common solutions to regional health challenges

#### **Match Need and Solution**

The main benefit of working together in an Ecosystem is the multiplier effect of collaborating in our International Network of Ecosystems.

#### **Ecosystems:**

- break down silos,
- transform healthcare delivery,
- create economic growth



### ECHAlliance Ecosystems: Structure & Content

#### Flexible legal structure, if any formal structure

at all;

- ECHAlliance is not prescriptive
- Flexible geographic size (regions and countries)
- Ideally cover all aspects of health and care transformation;
- Over time we want the community to include all stakeholders in our "wheel"
- Some Ecosystems will be Life Science or Technology led
- The 70 plus Ecosystems are at different stages of development and maturity;

- No data led Ecosystems to date
- But Data is a key resource and asset of each Ecosystem and for the international network of Ecosystems
- We are creating a thematic Digital Health Data
   Ecosystem
- Country or Region culture and legal framework
   circumscribe the work of the Ecosystem
- We have a strategic relationship with SITRA and support the concept of a FAIR DATA ECONOMY



#### **Our International Network of Ecosystems**











**RECOVERY & ·RESILIENCE** CONNECTOR

> #NextgenerationEU #EUBudget

https://us02web.zoom.us/webinar/register/WN zR8s4 QbRQkC106l4xlulig



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Bleddyn Rees

Deputy Chair at **ECHAlliance** 

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#### Fair Data Economy Survey with selected ECHAlliance Ecosystems & Members

#### **Respondents included:**

- **Global Pharma**
- European Health Data Consultancy
- Data team at Health Ministry
- Global Consultancy
- German, French & Danish Ecosystems
- Digital Health Startup

#### **Countries with responses:**

- Belgium
  - Denmark
- Estonia
  - France
  - Germany
  - Ireland
  - UK



### **1.** Do you or your Ecosystem use health data? If so is it:

Anonymised data	45%
Personal data	33%
Pseudoanonymised data	11%
Do not use health data	11%



## 2. What do you use the data for?

Internal and external uses	42%
To provide data-based shared services	34%
Internal use only	8%
To share with third parties	8%
Do not use health data	8%



## 3. From where do you obtain the health data?

Patients and health system partners

Collaborations/PPPs; Contract datasets; Licensing

NHS

**Cluster Partners** 

We have a health data center of excellence and use health data sources in several European and non-European countries

Own services

National health information system.

Healthcare providers

Registries, clinical trials for research use, claims databases, market research surveys, social media, hospitals



## 4. How do you pay?

Do not pay at all	56%
A combination	33%
In cash	11%
In kind	0%
Another payment arrangement	0%



# 5. Are you aware of the concept of a fair data economy?

Yes	80%
No	10%



# 6. What future business models do you expect to see for the use of health data?

A hybrid model with the operational and strategic value of health data mirrored in commercial value and payment mechanisms to align incentives.

Using an electronic wallet in a Blockchain, each person should have the ownership of their own health data, giving access to those interested for free or for a fee.

A mixed economy, as is today, but also preferably with an egalitarian layer of health data for research purposes at a societal level.

Less focus on the data crossing borders and more on insight

N/A

Foundations that manage health data on behalf of citizens - including data donation mechanisms by citizens and data licensing for commercial users

Automated (AI-based) health advice. Integrated service workflows. New treatment discovery.

Outcome based business model



### 7. Paying on the basis of volume and quality of Data



- Very Unacceptable
- Unacceptable
- Neither Unacceptable nor Acceptable
- Acceptable
- Very Acceptable



#### 8. Paying on the basis of expected future sales arising from the data access



- Very Unacceptable
- Unacceptable
- Neither Unacceptable nor Acceptable
- Acceptable
- Very Acceptable



#### 9. Contributing financially to the cost of curating and accessing the data set



- Very Unacceptable
- Unacceptable
- Neither Unacceptable nor Acceptable
- Acceptable
- Very Acceptable



#### **10.** Contributing financially towards setting up and running a data access infrastructure



- Very Unacceptable
- Unacceptable
- Neither Unacceptable nor Acceptable
- Acceptable
- Very Acceptable



#### 11. Contributing the organisational's health data sets for others to use



- Very Unacceptable
- Unacceptable
- Neither Unacceptable nor Acceptable
- Acceptable
- Very Acceptable



Panel Discussions

## **Contact information for panellists**

- **Oliver Harrison**, <u>oliver.harrison@koahealth.com</u>, Koa Health
  - More info on Koa Health Solutions: <u>https://www.koahealth.com/</u> and <u>https://echalliance.com/?s=koa</u>+
- Sohail Nourestani, <u>snourestani@eurasante.com</u>, Haut de France Ecosystem
  - More info on the Eurasante Ecosystem in Haut de France: <u>https://echalliance.com/ecosystem/hauts-de-france-health-nutrition-ecosystem/</u>
- **Patrícia Patrício**, <u>ppatricio@healthportugal.com</u>, and **Joana Feijó** <u>jfeijo@healthportugal.com</u>, Health Cluster Portugal
  - More info on the Health Cluster Portugal: <u>https://echalliance.com/ecosystem/portugal-health-cluster-portugal/</u>



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- 1. What did you learn from the ECHAlliance ecosystems that could help you?
- Complex issue and many possible routes to take: "which one is the correct route for my case?"
- We are not the only ones who struggle to explain business model and make others to understand it
- Important references on actions already performed in Europe
- Learn by doing; focus on simplicity
- To see the development in other ecosystems
- Connections



## 2. What are the business challenges in health data ecosystems?

- All the new wellbeing services counties in Finland have their own projects around data; a huge challenge to integrate the systems and practices in the future to optimize data utilization to create customer value and promote private sector business
  - This new reform will also slow down the development of new initiatives, as most of the resources of the new "wellbeing counties" are used to transfer the existing systems from municipalities.
- the biggest ecosystems are orchestrated by the Ministry of Social Affairs and Health. They don't see that their mandate covers business models and they only resort to the "stick" in legislation. This results in having successful health data ecosystems - with no business models. Any ideas on how to address this challenge?
- Trust, cash, risk
- Data management and to create a common GDPR compliant European platform(s)

- Interoperability between ecosystems will most likely become a challenge in the future. There may be smaller successful initiatives, but do any of them scale to be fully European or global? → European Health Data Space?
- To maintain and increase safety, security and trust when developing new businesses to clients
- Collaboration depth development
- Finding a fair indirect business model in our health data business (e.g. Google's model in a fair way)
- Health care reform
- Ecosystems are not always aware of the latest next generation anonymization technologies that could bring new capabilities and opportunities for the ecosystems
- Too narrow focus -> think bigger in a global scale
- Scaling of services between member states -> how similar/standard are the data sources?
- GDPR gold plating by officious regulators of relatively simple tools
- Pricing
- Data business does not happen without somebody being responsible for the data operation -> this is a cost and scaling is needed to pay this cost back



## 3. Are you seeking to scale up in other countries and if so, what would be the benefits and challenges?

- <u>VEIL.AI</u> is already active in some transborder data collaboration projects. Advanced anonymization provide new capabilities to health data ecosystems.
- Most interested in the DiHA model -> both in getting involved in Germany and France, and in adapting the model to the Nordic healthcare model (funded by tax money instead of insurance). Benefits of this model: it shows a promise of revenue for data-based solution providers. A challenge is that the model is not pan-European.
- Yes we are. To get data to compare different countries and to see how for example legislation affects people's well being e.g. illegal drug use legislation
- Yes, in UK and in Estonia, at the moment'
- Public organisations/operations/platforms can be a catalyst for the scaling of health data based added value (especially for private added value providers) -> should be considered far more often than done today



#### Strategy and competitive background

How should health regulation, practices and steering be developed to increase the competitiveness of Finnish health data ecosystems?

- The law for secondary use of health data
  - The law should take into consideration the way EU medical research is done in practice. Currently the law is far too restrictive.
  - The law is not currently ideal for development and innovation purposes. This should be corrected.

#### - Sote-reform - new wellbeing services counties

- Practices and steering are in turmoil in the newly appointed sote-areas; we can expect to see many different solutions nationwide. Make sure that the best practices get shared.
- New sote-areas and hospital districs should be steered to take steps towards "data harmonization" in order to march towards better interoperability
- Ministry of Social Affairs and Health should acknowledge and embrace the need for business models.
- Public open data policy development for data utilization by private companies
- Learn from the best and analyse those cases when

planning on building Finnish health data ecosystem e.g. mobile telecom business in Finland, Google, Amazon

- Making the path of sharing data easier between at least same health sector organizations
- More co-operation between private, public and third sector service providers.
- Using private platforms as catalyst for improving the competitiveness of Finnish health data ecosystem.
- Focusing both on niche innovations and large-scale ecosystem and finding a balance between them. Having nation-level health data service platforms developed on top of health data ecosystems are easier to scale in big, whereas in some cases high end & niche data based added value can also be competitive

#### COMPETITIVENESS ANALYSIS OF FINNISH HEALTH DATA ECOSYSTEMS

Sources of competitiveness	Knowledge ecosystems	Business ecosystems	Innovation ecosytems
Strategy and competitive background: Regulation, practices and steering in health sector that has an impact in the competitiveness of an ecosystem.	L		
Resources: Resources such as infrastructure, human capital (skills, knowledge, experience) R&D&I (mding and data that boosts the competitiveness.		L	L
Needs and solutions: Demand factors such as procurement and reimbursement processes for products and services in health care sector.			
Other sectors: Cooperation between ecosystem actors from other sectors and health sector that create value and competitiveness.	L		L

Resources	Needs and solutions
How should resources such as infrastructure, human capital (skills, knowledge, experience) R&D&I funding and data be developed to increase the competitiveness of Finnish health data ecosystems?	How should demand factors such as procurement and reimbursement processes for products and services in health care sector be developed to increase the competitiveness of Finnish health data ecosystems?
moved away from the ministry and Kela as implementers with heavy processes, to stakeholders who can move faster and in a more agile way	<ul> <li>Ask patients more what they want</li> <li>Public-Private-People Partnership</li> <li>Move the focus in bigger initiatives like Terveyskylä (HealthVillage) and Omaolo that implement their own</li> </ul>
- We have many working systems already, so while designing new solutions, lets think what works, develop them forward and connect with new solutions.	<ul> <li>services from scratch to being platforms and integrators of existing apps and solutions</li> <li>We should adapt the procurement and reimbursement</li> </ul>
- Can we develop added value on top of high-quality health research data -> can this be an asset for health data business creation	model from DiHA to the Nordic model

#### COMPETITIVENESS ANALYSIS OF FINNISH HEALTH DATA ECOSYSTEMS

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Other sectors: Cooperation between ecosystem actors from other sectors and health sector that create value and competitiveness.	L		L

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#### **Other sectors**

How should cooperation between ecosystem actors from other sectors and health sector be developed to increase the competitiveness of Finnish health data ecosystems?

- Finland is known of secure digital services -> health sector should increase cooperation between companies specialised in secure digitalization
- MyData thinking is nice -> all data really, including transport data, energy data, grocery data, etc. is health data. Data can be shared when you enable the consumer to do so, and empower citizens with APIs and apps.
- To make health and social sector co-operation stronger -> in practice data goes hand in hand among people who work in those sectors
- ECHAlliance believes there are simple ways to facilitate links between sectors e.g banks are upskilling customers on digital literacy and this is key for the health sector too. We are seeing Barclays Bank extending their learning platform to health literacy and wellbeing which is why we started a Skills Thematic Ecosystem. By building these type of bridges you can extend to data, analytics, security etc. where the finance sector is more advance than health.

#### COMPETITIVENESS ANALYSIS OF FINNISH HEALTH DATA ECOSYSTEMS

Sources of competitiveness Knowledge ecosystem		Business ecosystems	Innovation ecosytems
Strategy and competitive background: Regulation, practices and steering in health sector that has an impact in the competitiveness of an ecosystem.	L		
Resources: Resources such as infrastructure, human capital (skills, knowledge, experience) R&D&I funding and data that boosts the competitiveness.		L	L
Needs and solutions: Demand factors such as procurement and reimbursement processes for products and services in health care sector.			
Other sectors: Cooperation between ecosystem actors from other sectors and health sector that create value and competitiveness.	L		L

## Agenda

1	10.00	<b>Creating new business in health data ecosystems</b> Saara Malkamäki, Sitra
2	10.15	Workshop part 1: Ecosystem business model maturity
3	10.30	<b>Co-operation between 70 international country and regional ecosystems in ECHAlliance network</b> Andy Bleaden, ECHAlliance
4	10.40	<b>Panel: Experiences from European health data ecosystems and the</b> <b>wider global health data market</b> Bleddyn Rees, ECHAlliance (moderator), Oliver Harrison, Koa Health, Sohail Nourestani, Haut de France Ecosystem, Joana Feijó and Patrícia Patrício, Health Cluster Portugal
	11.15	Break (5 min)
5	11.20	Workshop part 2: How to create more value, scale internationally and make ecosystems thrive?
6	11.50	<b>Summary, feedback and next steps</b> Saara Malkamäki, Sitra
	12.00	Workshop ends

## **Workshop series**





## **Reading recommendations**

- 11.)
  Finnish
- Publication: <u>Datalähtöisten ekosysteemien tulevaisuuden</u> <u>mahdollisuudet ja haasteet terveysalalla -julkaisu (</u>26.10.)
- Publication: <u>How can digital therapeutics help Europe?</u> (24.11.)
- <u>Rulebook</u> (version 1.3) available in English, Portuguese and Finnish
- How to use the Rulebook? <u>Rulebook for data sharing nine steps to get</u> <u>started</u>



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