WEBINAR

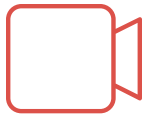
# Data sovereignty & data governance: how can data holders stay in control?

data.europa academy

22 March 2024

10.00 — 11.30 CET

# Rules of the game



The webinar will be recorded

For questions, please use the ClickMeeting chat.

Please reserve 3 min after the webinar to help us improve by filling in our feedback form

data europa academy

# Introduction

**Hans Graux**
**Lawyer IP, IT and data protection law, Partner at Timelex**

**Gard Thomassen**
**IT Director**
**University of Oslo**

**Jaana Sinipuro**
**Chief Executive Officer**
**DataSpace Europe Oy**

**Juhani Luoma-Kyyny**
**Business Architect**
**DataSpace Europe Oy**

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# Agenda

| | |
|---|---|
| 10.00 – 10.10 | Opening and introduction<br>*Hans Graux* |
| 10.10 – 10.40 | Norwegian Trusted Research Environment<br>*Gard Thomassen* |
| 10.40 – 11.10 | Data intermediation services – DataSpace<br>*Jaana Sinipuro & Juhani Luoma-Kyyny* |
| 11.10 – 11.25 | Q&A session |
| 11.25 – 11.30 | Closing statements |

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# NORTRE

TSD

NTNU | HUNT Cloud

UNIVERSITY OF OSLO

NTNU

UNIVERSITY OF BERGEN

# AGENDA

- What is NORTRE – Norwegian Trusted Research Environment
- TSD – Services for Sensitive Data, University of Oslo
  - Status
  - Examples of data sharing from the TSD-view
  - How to build and operate a TRE / SPE
- FAIR sensitive data
- Road ahead

# NORWEGIAN TRUSTED RESEARCH ENVIRONMENTS

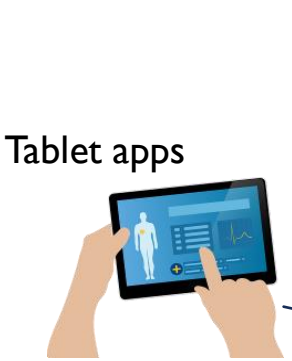
- NORTRE= Services for sensitive data (TSD) + Hunt Cloud + Safe
- Collaboration between University of Oslo, University of Bergen, NTNU, UiT – The Arctic University
- Secure storage and analysis with federated trust between platforms
- Simplify data movement between platforms
- Interoperability between platforms

# TSD – SERVICES FOR SENSITIVE DATA

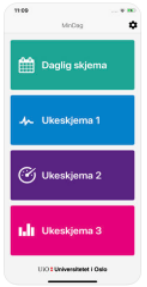
UNIVERSITY OF OSLO

- 8000 users, over 1800 active research projects
- 90 institutions, multiple countries
- Secure Platform as a Service (PaaS)
  - HPC
  - Databases
  - Virtual desktops
  - Survey and consent solution
  - Apps
  - APIs
  - Daily import of 1+TB data
  - 8+ PB storage

# TSD SERVES THE ENTIRE RESEARCH PROCESS



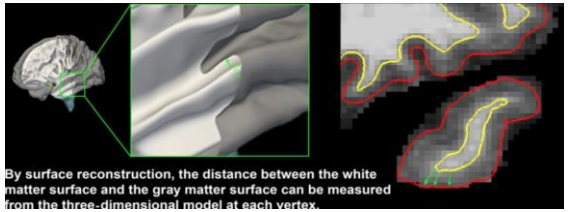
Tablet apps




Phone apps

Export/import API

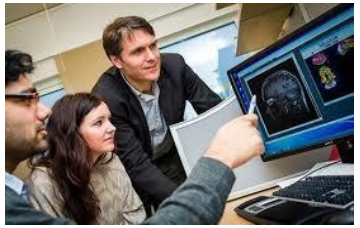
Self Service



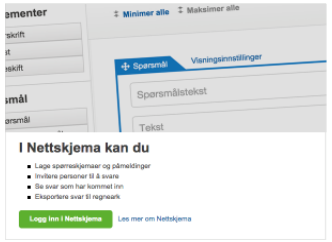

Compute, analyse and store data

TSD

Data capture



Collaborate / share




Web forms

Consent Service

Feedback services

Analysis

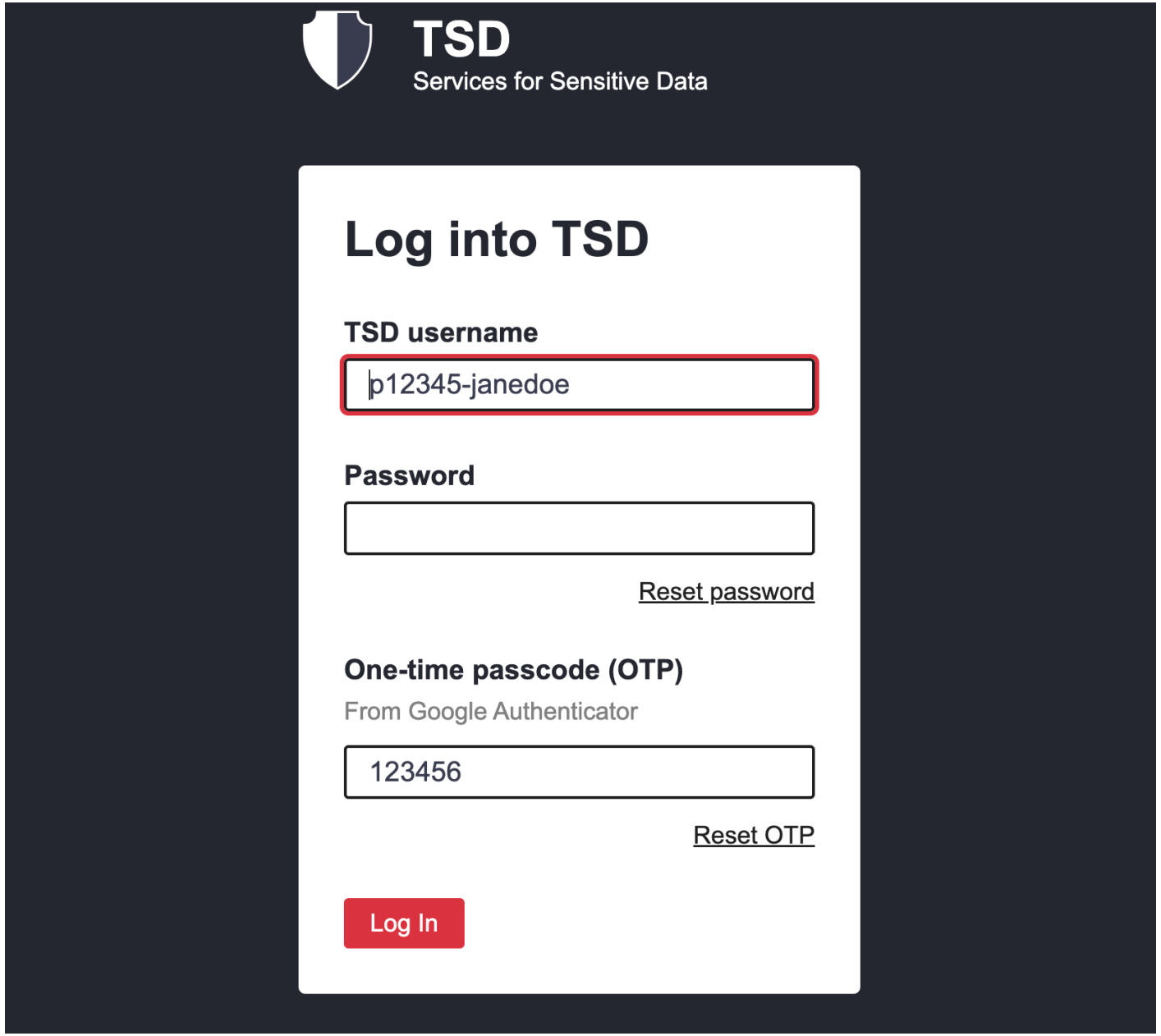
# BACKGROUND

Aftenposten Nyheter Meninger Podkast A-magasinet Vink Søk

Norge | E-helse

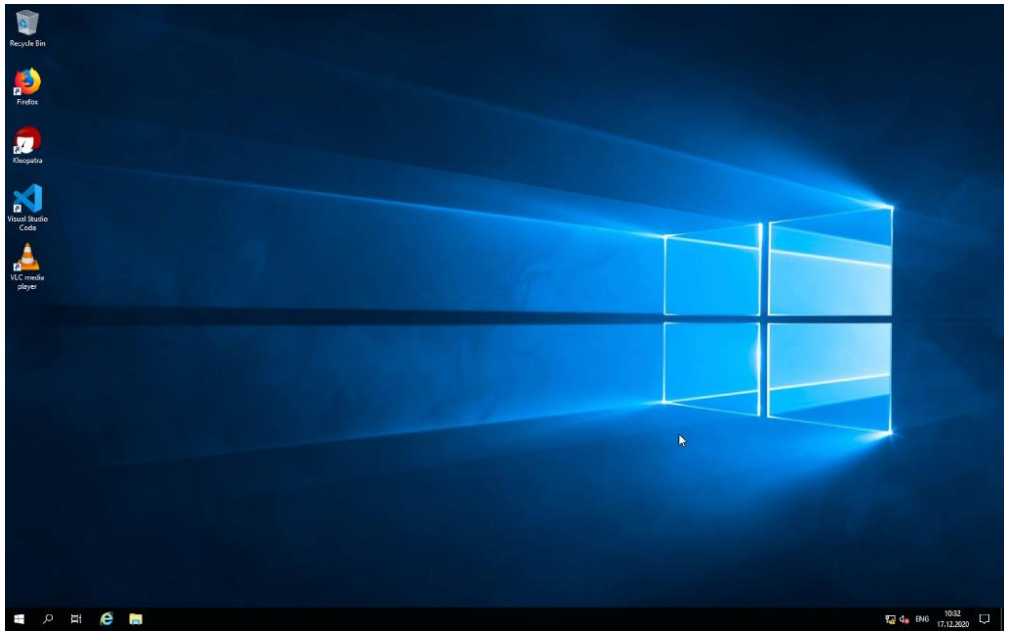
## Direktorat vraker IT-prosjekt etter å ha brukt 200 millioner kroner

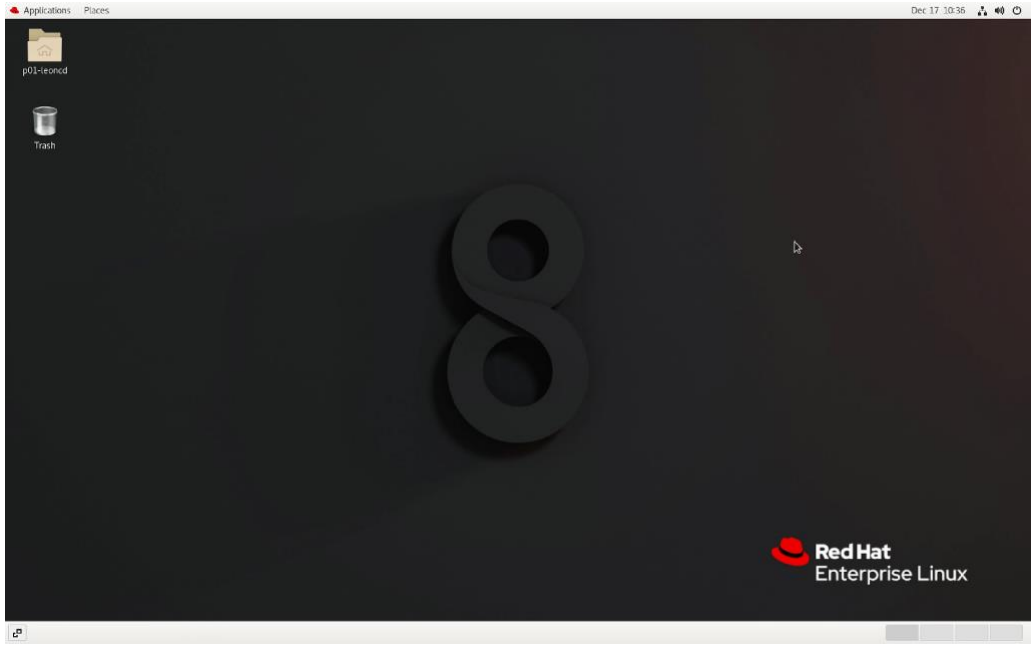
Direktoratet for e-helse leide inn konsulenter for å lage en plattform for å dele helsedata. Etter at store summer er brukt, blir prosjektet nå skrotet.


TSD
Services for Sensitive Data
Log into TSD
TSD username
p12345-janedoe
Password
Reset password
One-time passcode (OTP)
From Google Authenticator
123456
Reset OTP
Log In

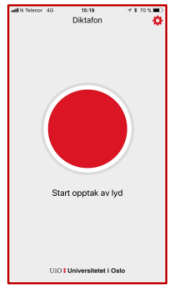
# TSD - SOFTWARE

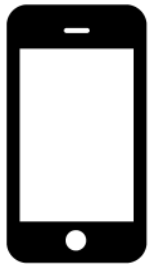
UNIVERSITY OF OSLO

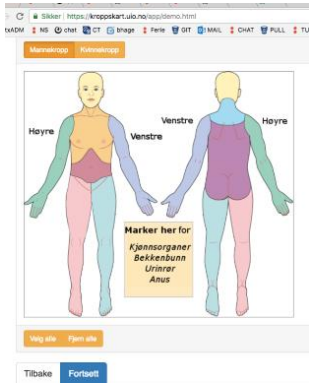


# TSD DATA COLLECTION





UiO : University of Oslo

# TSD / Data Portal

Import and export project research material

## Import Files

Upload files into your project area.

## Export Files

Download files from your project area.

## Record Video and/or Audio

Capture and upload data from camera, microphone, computer screen or speakers, into your project area.


Contact us

tsd-contact@usit.uio.no

Responsible for this page

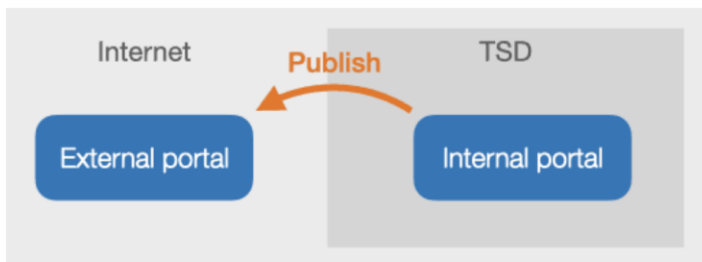
Services for sensitive data (TSD)

# Share data with associated members with TSD Publication Portal

The **TSD Publication Portal** lets you share data inside of TSD with persons without a TSD account. The process is called ‘publication’.

## Table of Contents

- The Publication Portal
- Share files with individuals
- Share files with groups




## The Publication Portal

- An internal portal where project members with publishing rights select which files are to be shared with whom. Inside your TSD-project, open the following link, in a browser: https://internal.publication.tsd.usit.no/
- An external portal where the selected files are available to the selected recipients.

Reset

## Groups

Search group: Group name

Rikshospitalet, Blodsykdommer

## Persons

Search person: Person name

[redacted]

## My files

Search file: File name

My files [2] | Files about persons [6]

| File name | Publisher | Published | Expiry | Usages |
|---|---|---|---|---|
| report1.txt | — | 2021-07-07 15:26 | — | — |
| report2.txt | — | 2021-07-07 15:26 | — | — |

python

OpenID
Connect

OAUTH
OAUTH

HTML

FreeBSD

HAPROXY

NGINX

{REST}

JS

podman

docker

SQLite

PostgreSQL

RabbitMQ

Kreft registeret

FHI
Folkehelseinstituttet

KORONASTUDIEN

nykode

moba

## Avdeling for medisinsk genetikk

Avdeling for medisinsk genetikk er landets største medisinsk genetiske avdeling og arbeider med utredning av arvelige sykdommer og forskning på arvelige årsaker til sykdom.

Les om Avdeling for medisinsk genetikk →

# IMPRESS-Norway - clinical trial for cancer patients

Care for your patient

Do you provide support for malnourished patients?

# TSD – BUILDING INFRASTRUCTURE IN TRL

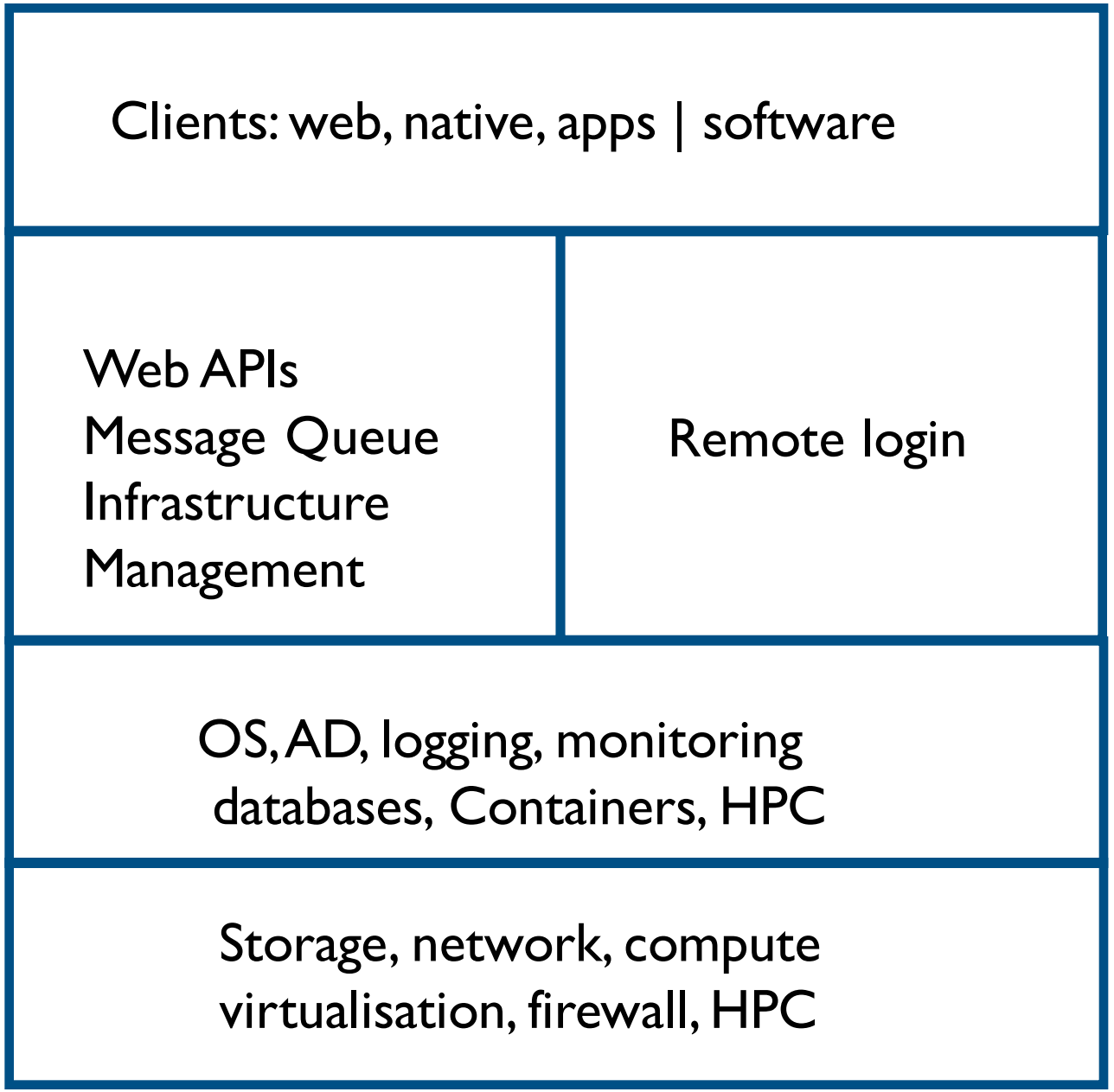
- Build a specific solution for a paying customer, refactor, generalise, resell
- Every internal service should be externalisable, APIs for everything
- Do things that do not scale when they have a high impact
  - Software installation
  - Data management
  - Advanced user support

Clients

Interfaces
and applications

Infrastructure integrations
and management

Infrastructure

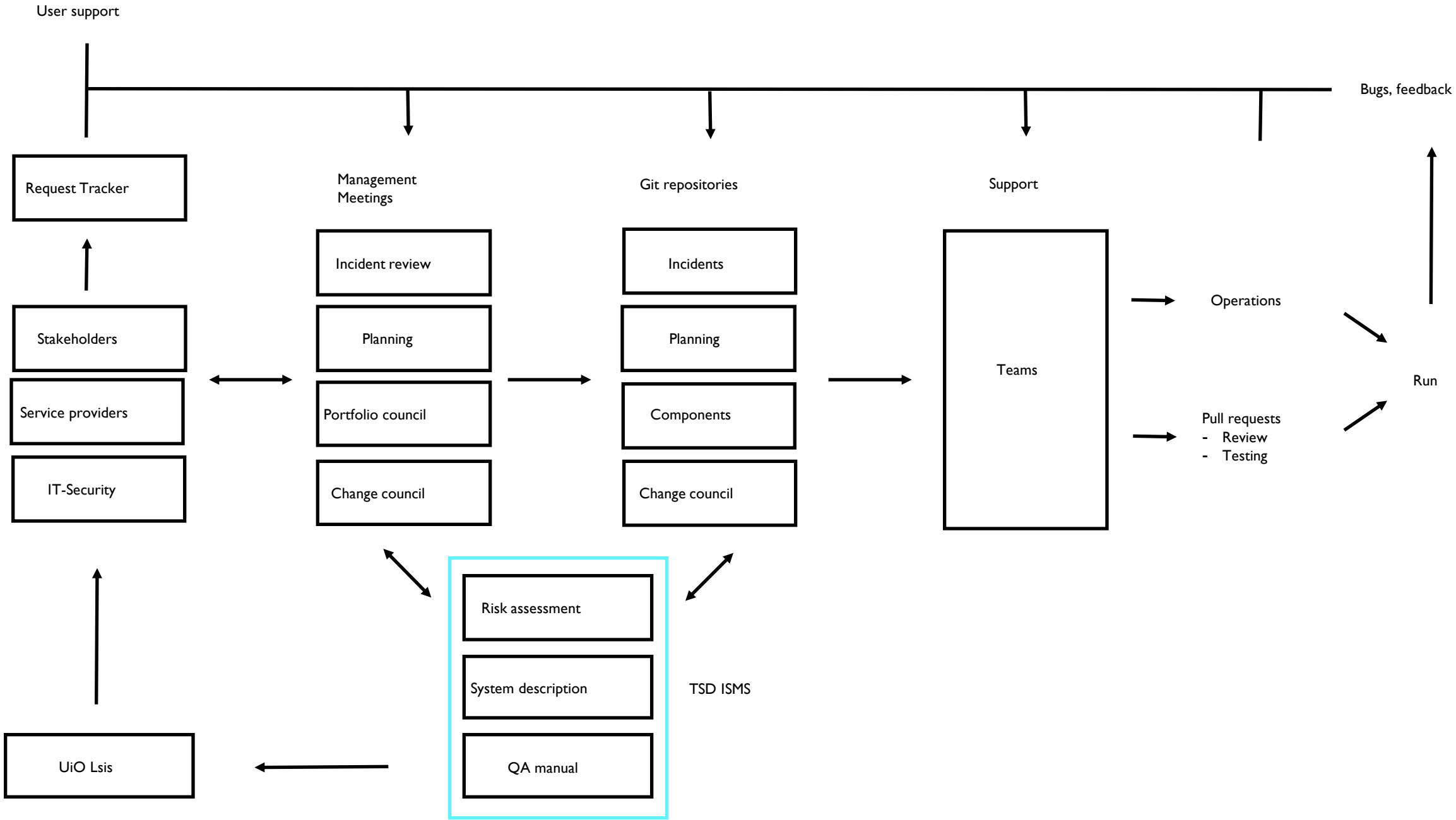



**DEV, Support**

Research Services

**OPS**

Datacenter


User support
Bugs, feedback
Request Tracker
Management
Meetings
Git repositories
Support
Stakeholders
Service providers
IT-Security
Incident review
Planning
Portfolio council
Change council
Incidents
Planning
Components
Change council
Teams
Operations
Pull requests
- Review
- Testing
Run
Risk assessment
System description
QA manual
TSD ISMS
UiO Lsis

Identity

Compute

Storage

Backup

Data collection

Remote login

API hosting

APIs

Access control

Hardware hosting

Development

Data sharing

Consulting /Support

# FAIR sensitive data ?

# FAIR sensitive data ?

Metadata

Some-data-portal.eu

# FAIR sensitive data ?

Metadata

Some-data-portal.eu

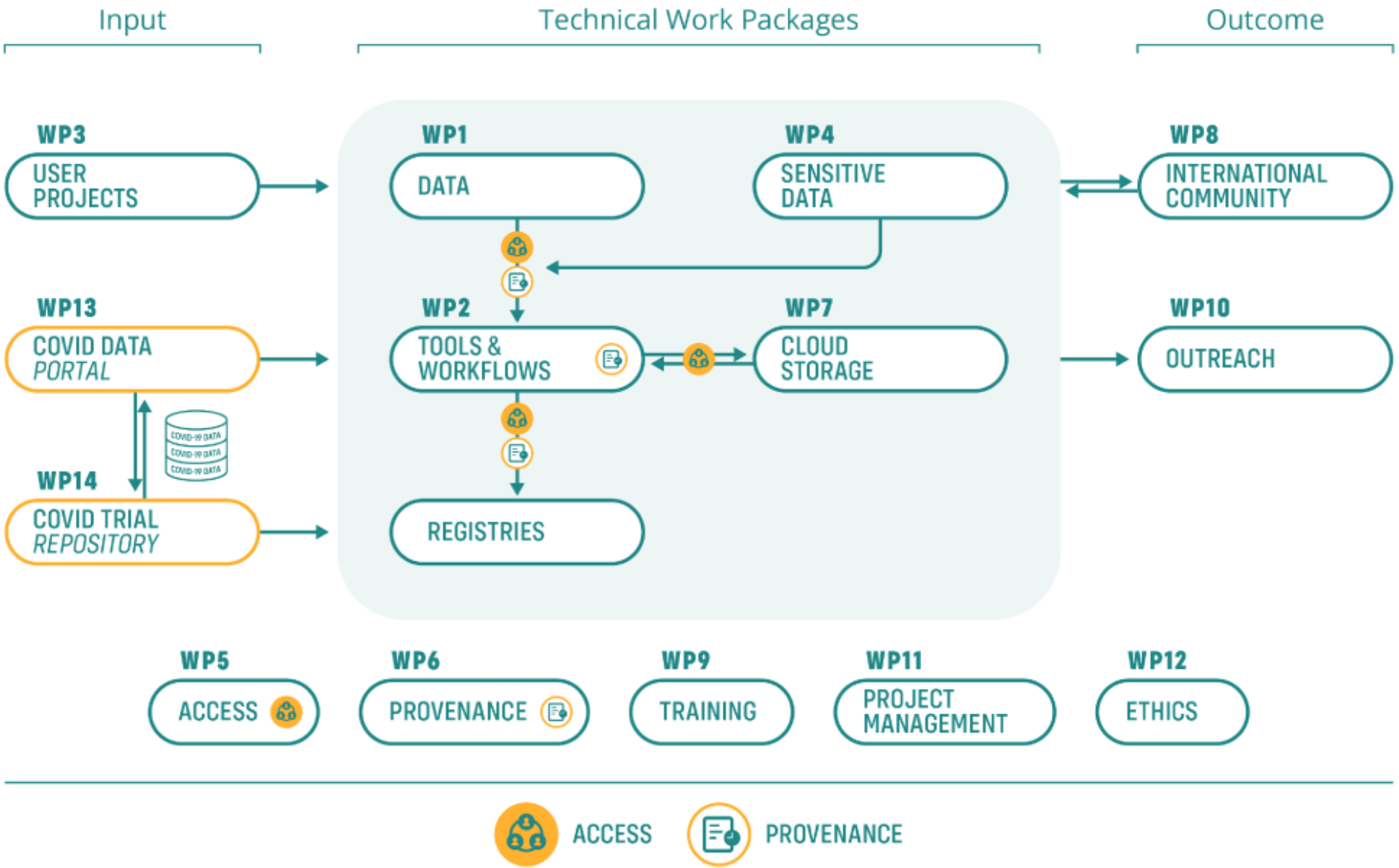
Access comittee

Citizen / researcher

EBRAINS

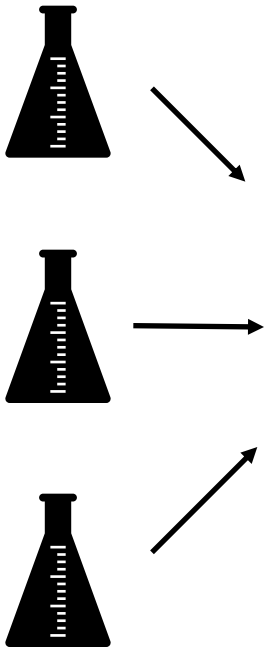
BY-COVID
€12
million
53
partners
19
countries
36
months

EOSC-*Life*




WP14 – Extra covid emergency WP

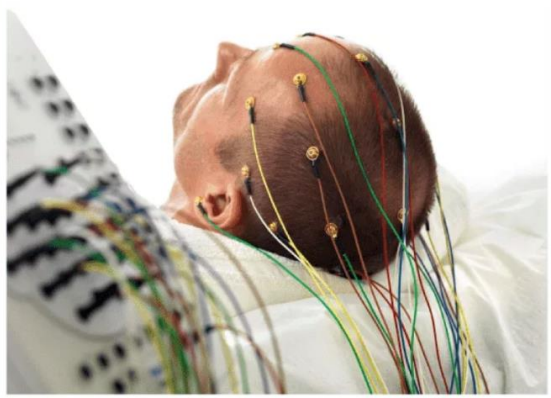
https://data.tsd.usit.no/i/265ce083-2d47-4818-868c-dfee4fdf699c



DATA INPUT

AI-BASED DIAGNOSTICS SUPPORT

OUTCOME



EEG surface → Source reconstruction

Genetic tests

Digitalised cognitive tests (CANTAB)

AI-Mind Connector

Fully automated screening of funtional brain connectivity

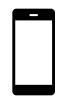
AI-Mind Predictor

Assessing risks of developing dementia

Identification of network disturbance

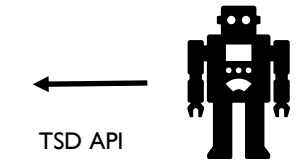
Accurate prediction for clinical decision making

API



CANTAB API

TSD API



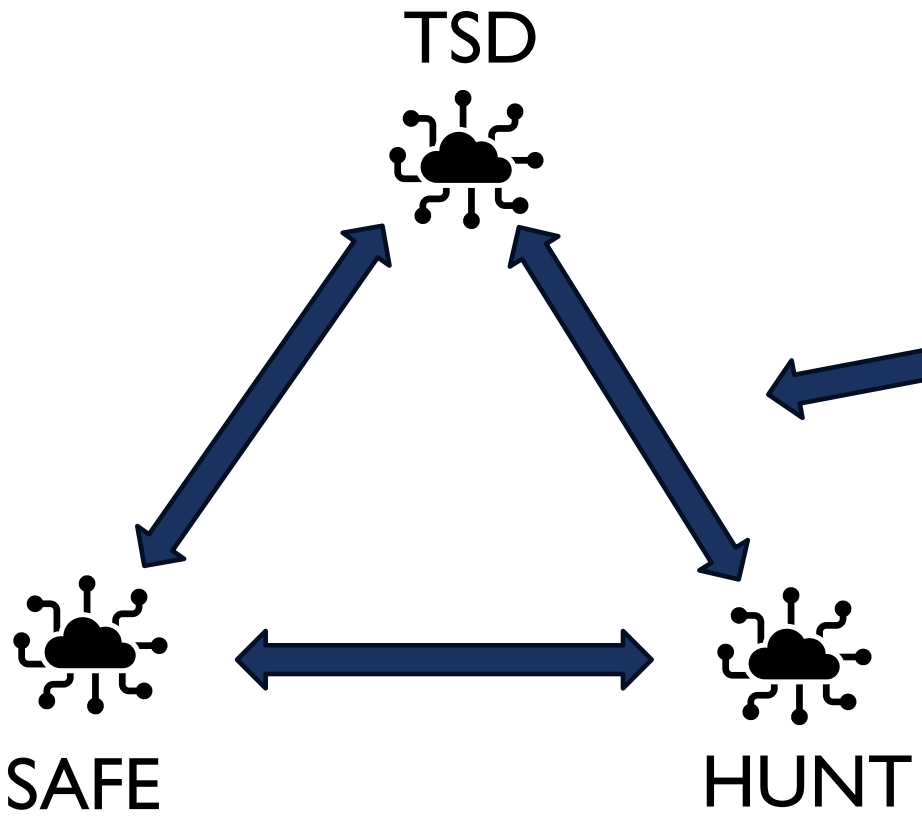
docker

PyTorch

APPTAINER

TensorFlow

# SHARING – FURTHER DEVELOPMENT AS PART OF EOSC-ENTRUST




TEHDAS

Towards
European
Health
Data
Space

HTTPS://WWW.UIO.NO/ENGLISH/SERVICES/IT/RESEARCH/SENSITIVE-DATA/INDEX.HTML

# THANKS

gardot@uio.no

# DataSpace Europe

**Profitable business from collaborative data.**

Jaana Sinipuro, CEO
Juhani Luoma-Kyyny, Enterprise Architect

Data Space Europe

DataSpace Europe Oy is a pioneer of data spaces in Europe.

Our vision is to be Europe's leading data intermediary, which enables the creation and development of data ecosystems in accordance with the principles of a fair data economy.

We develop and offer data intermediation services across Europe for various industries, and we support organizations in the development of data-driven business.

We work daily for a fairer data economy with European networks.

Our solution is the lightweight but reliable data intermediation service Tritom® that complies with EU requirements.

# Europe's first data intermediation service registered in Finland

Published 15.01.2024 8:55

**Finnish DataSpace Europe is the first data intermediation service registered in Europe. Finnish Transport and Communications Agency Traficom confirmed at the start of January the company's registration and that it fulfils the conditions of the Data Governance Act. Data economy grows fast and new operators are needed so that Finland can act as the leading country in data economy in the future.**

The national legislation based on the Data Governance Act came into force in full on 2 January 2024 when Traficom opened the electronic registration service for data intermediation services. The purpose of data intermediation services, as independent parties, is to enable data to move as agreed between different operators and applications. If a company wants to offer data intermediation services according to the Act, the operations must be registered at Traficom. Traficom delivers the information to the EU Commission that keeps a public register of all providers of data intermediation services.

IDSA

gaia-x

EU Recognised Data Intermediary

MOST INTERESTING DATA ECONOMY SOLUTIONS

Cinia

MTK

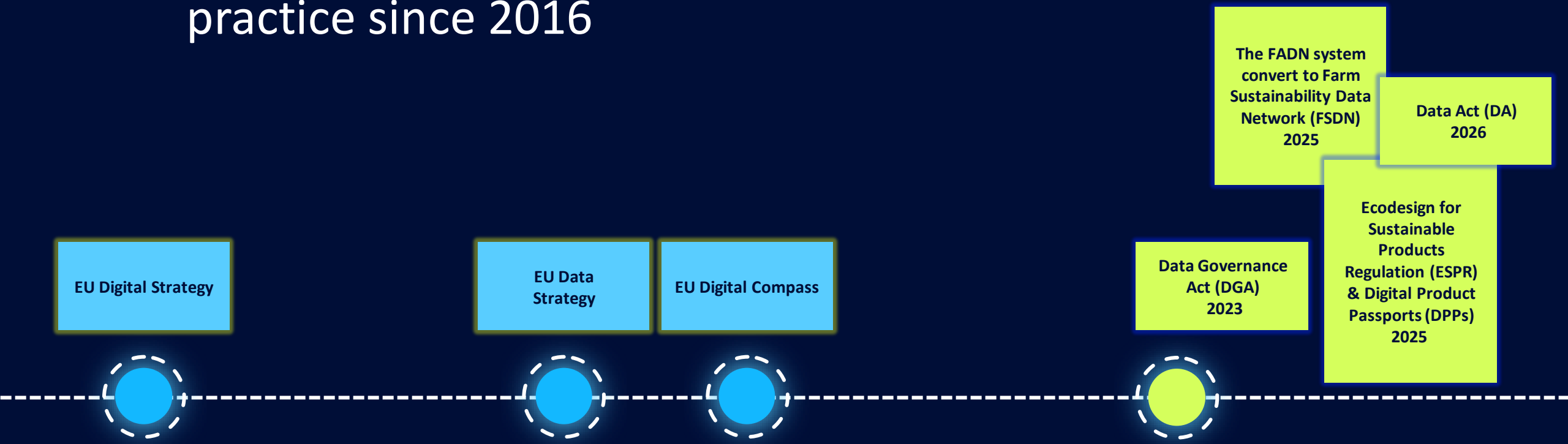
JSK Kiinteistöt Oy

Tikura Ventures Ky

BUSINESS FINLAND

ILMASTO-RAHASTO

# Finland has been implementing fair data principles into practice since 2016




ValueNet initiative (2016)

ValueNet first version (2018)

ValueNet presented to European Commission as ”a solution that implements the EU data strategy” (2019)

DateSpace Europe / Tritom launch

Tritom development towards ecosystem governance (2022)

Tritom 1.0 launched (2023)

Settlers of Data Field – community programme for Early Practioners

# Tritom® solution

**Tritom® Contracts** — Automated contracts, Trust

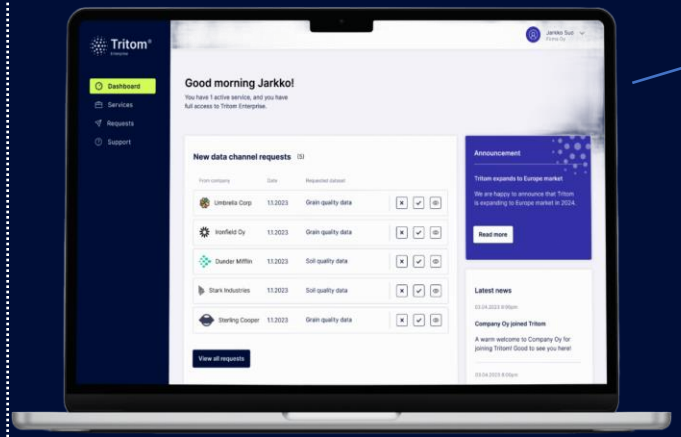
**Tritom® Essential** — Data permission management, Data sovereignty, Federation services within the ecosystem

**Tritom® Enterprise** — Business interface for data ecosystems, Interoperability, Data and services market

**Tritom® Connector**
**Tritom® Adapter** — Technical connectivity
- Applications
- IOT

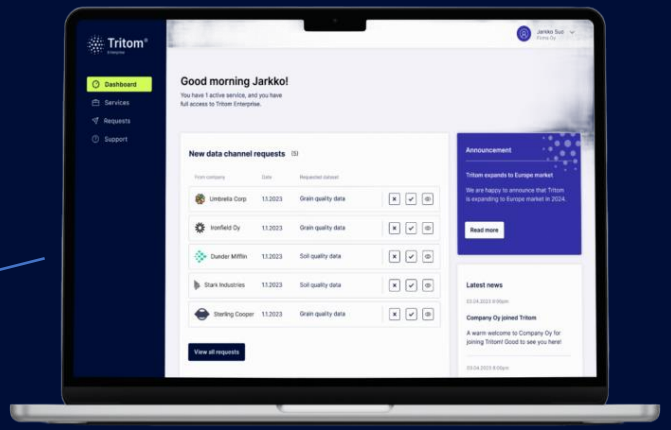
# Tritom ecosystem

Service agreement




- Data descriptions
- Terms of Use

- Acceptance of terms
- Request to open data channel

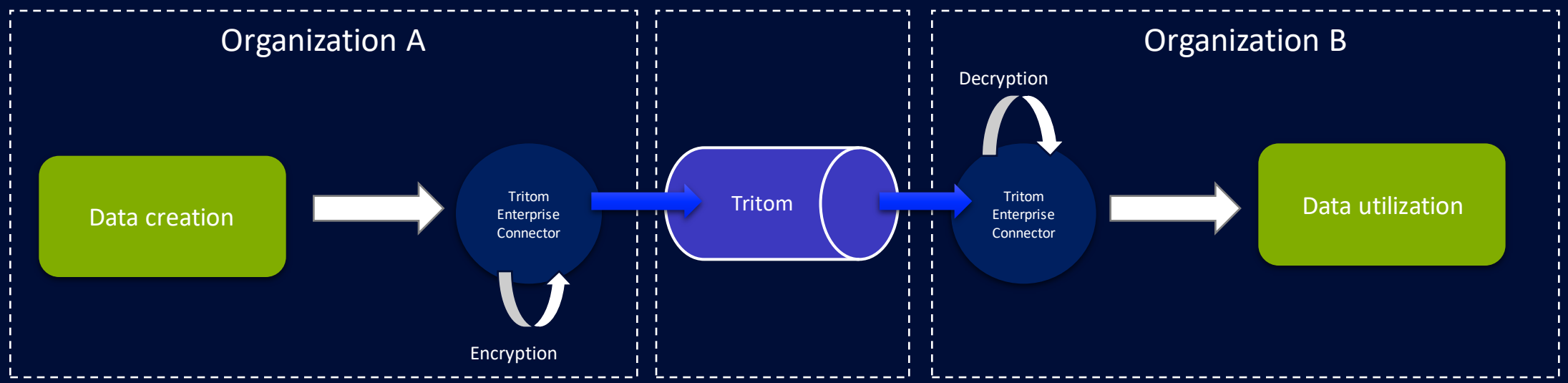



Organization A

Organization B

Tritom ecosystem

# Tritom flow


Organization A
Organization B
Data creation
Tritom Enterprise Connector
Encryption
Tritom
Decryption
Tritom Enterprise Connector
Data utilization

# Revolutionizing Business Ecosystems: Introducing Europe's Premier Data Intermediation Service

| Foundation for Data Sharing Ecosystem powered by Tritom® | Constitutive agreement | Market Place for Data-driven Services | Accession agreement | End Customers |
|---|---|---|---|---|
| **DATA HOLDERS** | STEERING BOARD FOR ECOSYSTEM GOVERNANCE | **DATA & SERVICE PROVIDERS** | ALL ECOSYSTEM PLAYERS ASKING ACCESS TO SHARED DATA | **INDUSTRY, RESEARCHERS, AUTHORITIES, SERVICE PROVIDERS** |

gaia-x

IDSA

**Potato-X: Use case on cross-border data sharing**

**DataSpace Europe** | **Stakeholders**



Jaana Sinipuro, CEO jaana.sinipuro@dataspace.fi

# Use case - farming

The farmer needs to make a decision whether to use additional fertilizing.

What are the methods?

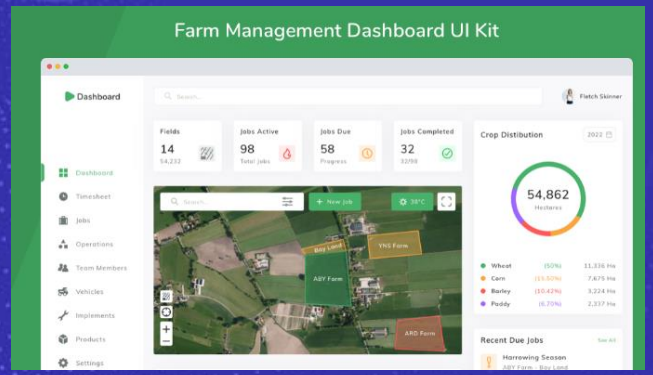
- Tradition (”this is the way”)
- Luck – good or bad

- Fact?

YIELD SYSTEMS

AI based crop potential forecasting solution

Farm Management Information Solution

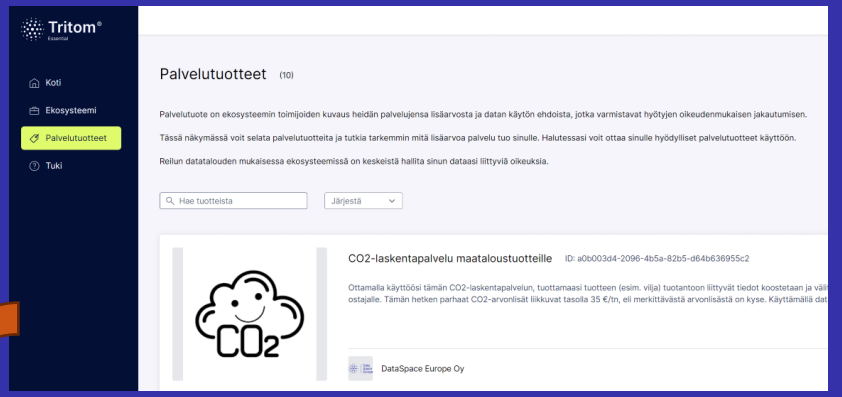


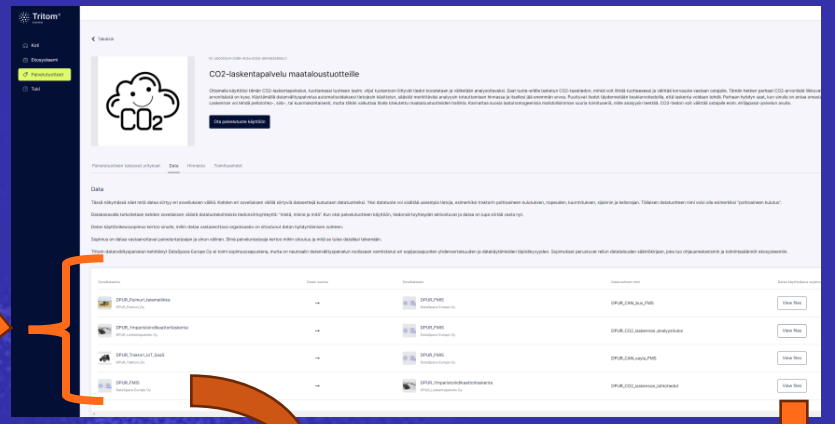

SOIL SCOUT

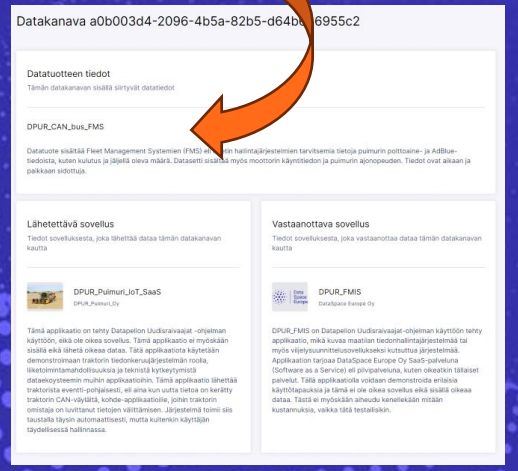
The Most Advanced Wireless Soil Moisture Sensor For Agriculture

# Use case - granularity

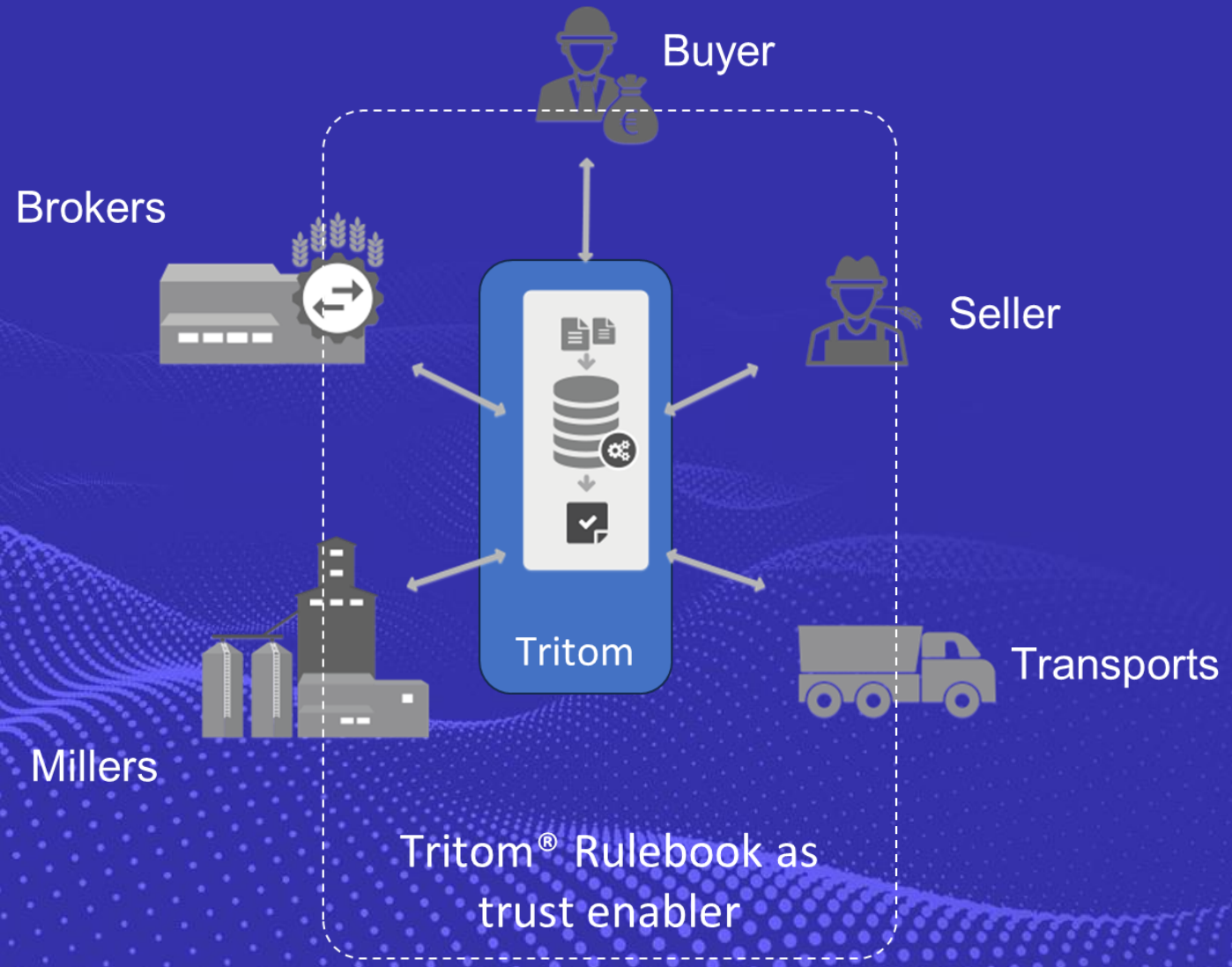
Farm Management Information Solution



# Use case: Digital Product Passport (DPP) for Grain



# Q&A

**Hans Graux**
**Lawyer IP, IT and data protection law, Partner at Timelex**

**Gard Thomassen**
**IT Director, University of Oslo**

**Jaana Sinipuro**
**Chief Executive Officer DataSpace Europe Oy**

**Juhani Luoma-Kyyny**
**Business Architect DataSpace Europe Oy**

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Stay up-to-date on our
**2024 activities!**

data.europa academy

WEBINAR

# Personal data management and altruism: how and when are individuals empowered to make data sharing decisions?

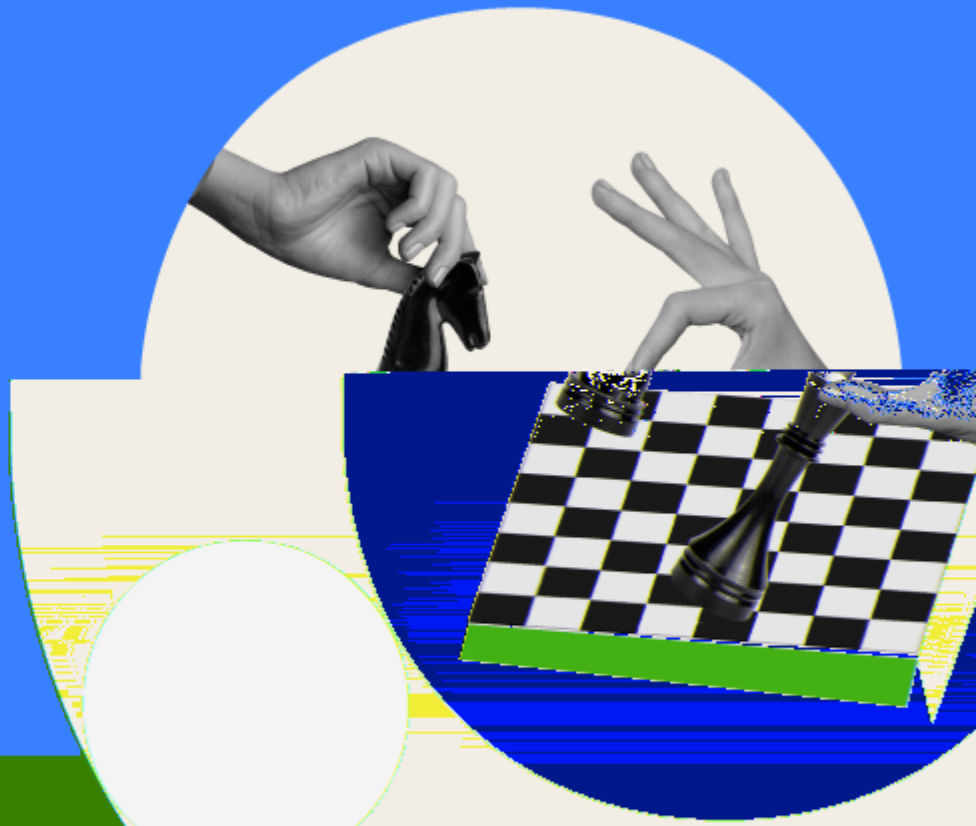
data europa academy

12 April 2024

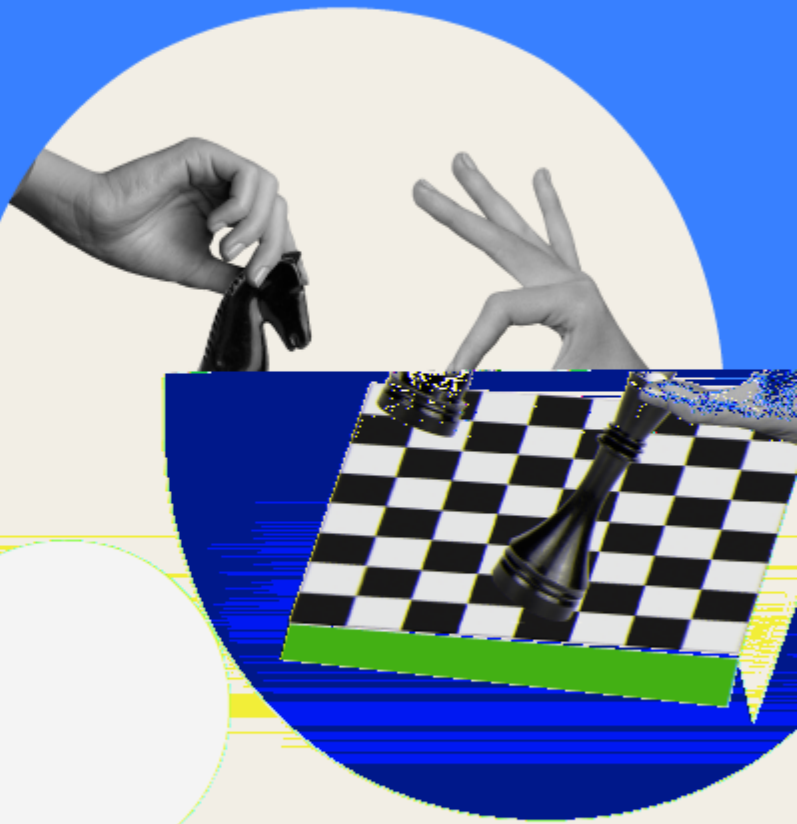
10.00 — 11.30 CET

data europa academy

# Please provide your feedback!



# Thank you



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