

HUS hematologian tietoaallas OMOP kickoff

25.08.2020

Aiheita

- Esittely
- Projektin kuvaus (Kimmo)
- Projektin tavoitteet
- Aikataulutus
- Muuta
- Seuraava kokous

HUS OMOP-team/hematology



Kimmo Porkka (hema)
Oscar Brück (hema)
Otso Brummer (hema)
Perttu Koskenvesa (hema)

Kari Laukkanen (HUS-IT)
Annu Kaila (HUS-IT)
Jani Salmi (HUS-IT)

Anja Kajanne (HUS-CleverHealth, eCare4Me)
Mirka Tammi (HUS-CleverHealth)

HUS CleverHealth / eCare4Me

K. Porkka
HUS Syöpäkeskus

Head of Dept of Hematology
Helsinki University Hospital Cancer Center
Professor of hematology
University of Helsinki



eCare for Me

CleverHealth Network

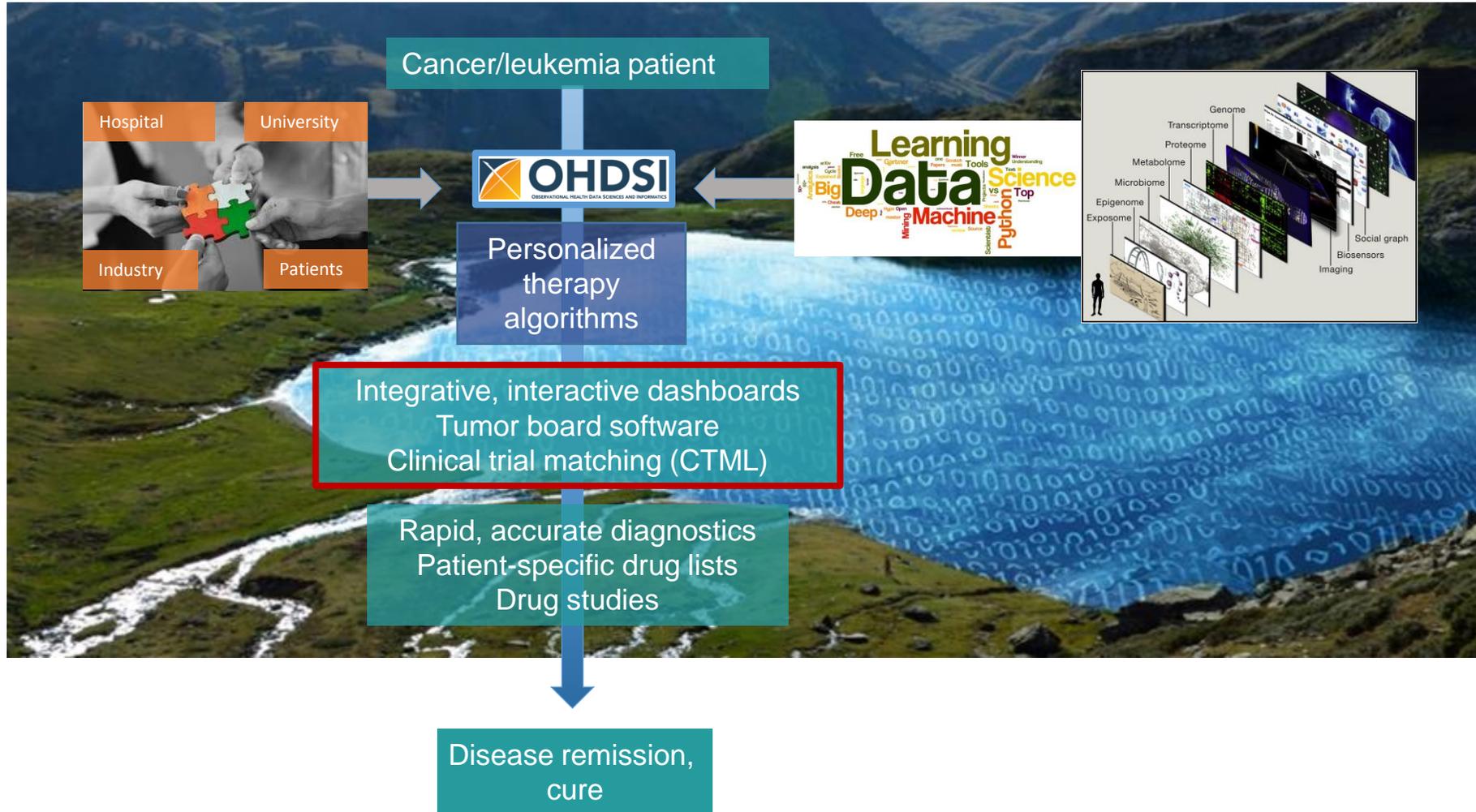
BLOCK 2: Automated diagnostics and treatment selection

- RWD/RWE + deep phenotyping (biological, digital)
 - data harmonization & federation



Block 2: automated diagnostics, treatment selection (POC: acute leukemia)

PI: prof. Kimmo Porkka



eCare for Me: acute leukemia datasets at HUS datalake

- Training data set

- Acute leukemia patients 2011-2019 (n=420)
 - Exome seq, RNAseq, ex vivo drug testing, imaging

- Validation, model refinement data set (n=350)

- Acute leukemia patients 2019-2021
 - WGS, RNAseq, deep panel seq, immunopofiling, *ex vivo* drug testing, imaging

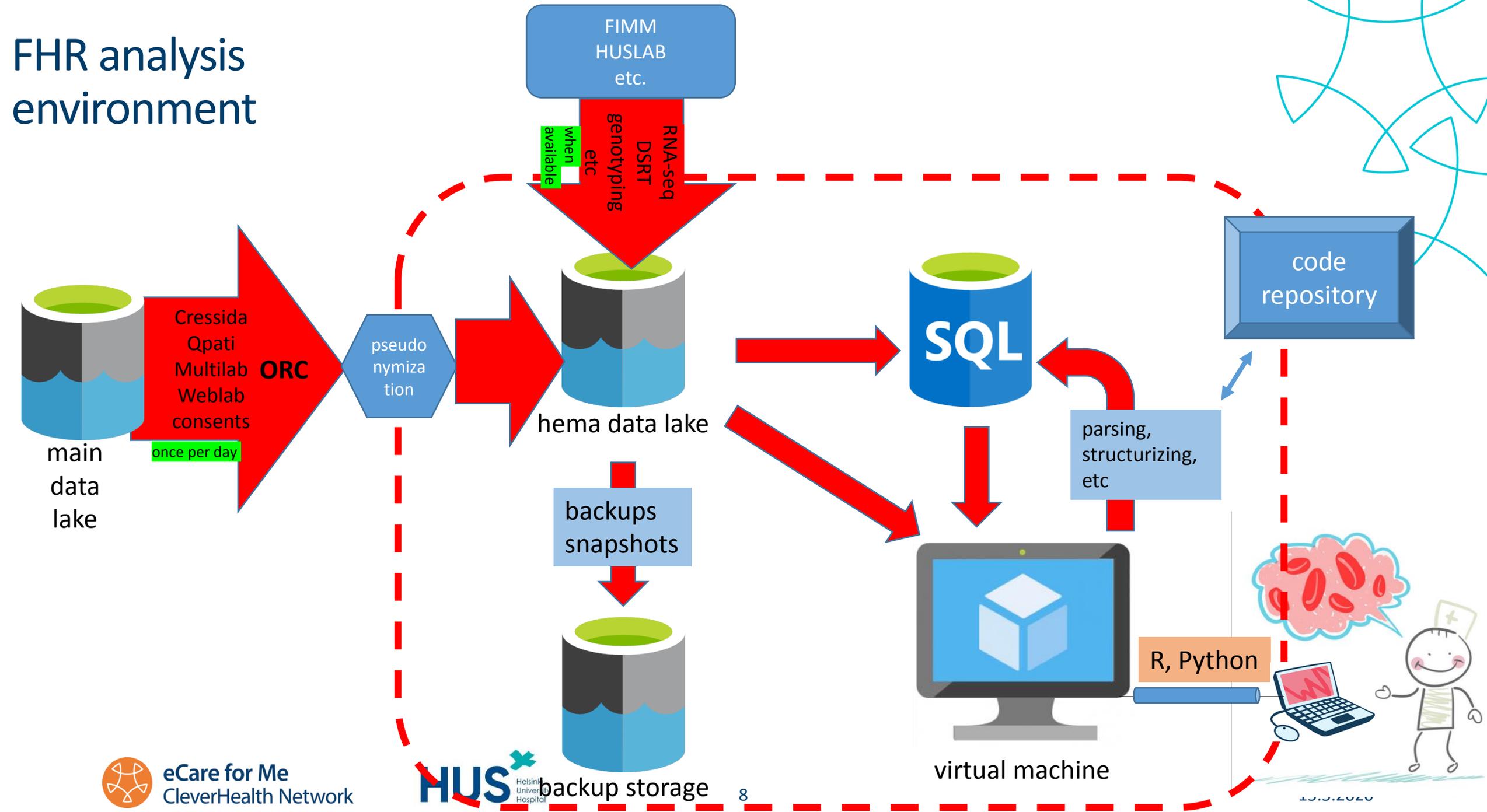
Specific informed consent
(Finnish Hematology
Registry, HRUHLAB2)

- Datalake data set (n=60 000+)

- All hematological cancer patients in HUS 2005-2020

GDPR secondary use of data

FHR analysis environment

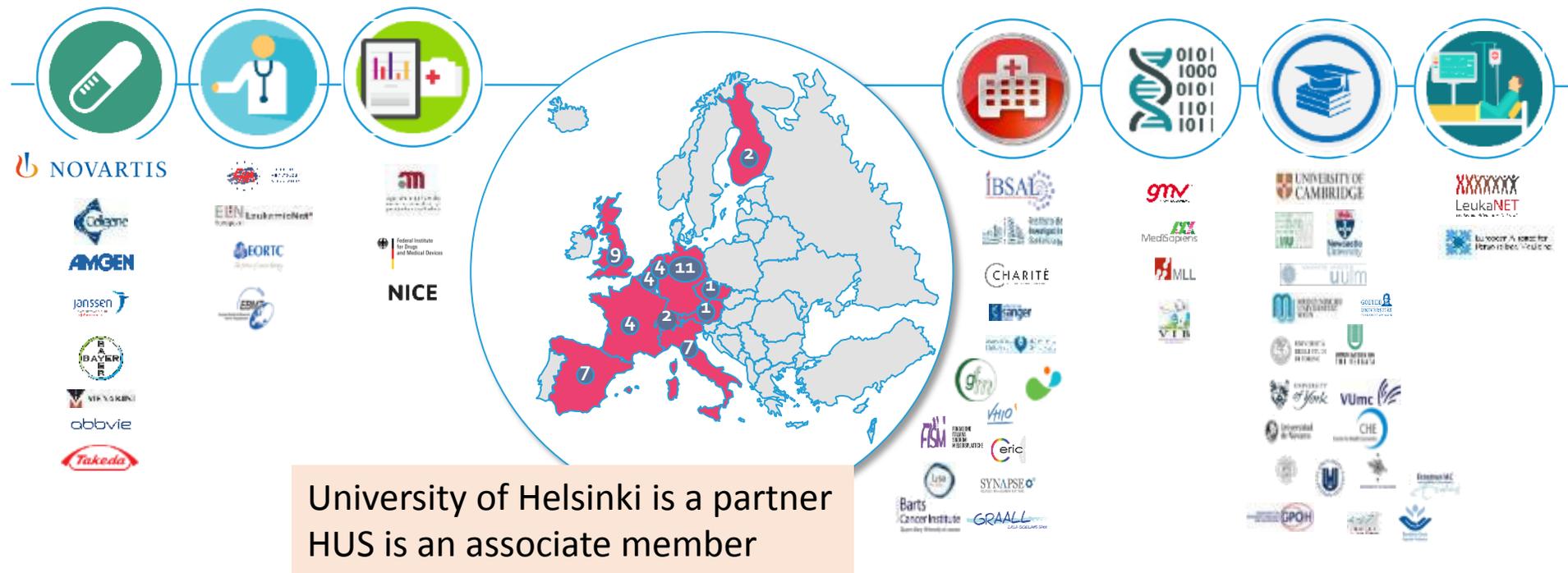


OHDSI OMOP CDM



- An international, rapidly adopted standard. Proven track record. Ca. 10% hospital patients in the world OMOP-mapped (>600 000000).
- Research-oriented (vs. claims/billing-oriented)
- Fully transparent, well-documented, open-source, active developer community
 - E.g. EPIC (Apotti) – OMOP integration available
 - Wealth of data manipulation & analytical tools available (e.g. SQL, R, Py, html)
- Compatible/mappings with almost any type of data (e.g. hospital, research, genomics, drug trial).

Involving every stakeholder group is necessary to truly advance care



53 Partners and 32 Associated Members: Patient Organizations and Societal Organizations focusing on ethical aspects .
 Hematologists and Clinicians . Medicines Authorities and Regulatory Institutions . Health Technology Assessment Organizations .
 Payers Policy makers and Funding Organization (Including IMI and the European Commission) . Pharmaceutical Industry .
 Information and Communications Technology Companies .



European Health Data and Evidence Network (EHDEN)



Project Start: November 2018
Project Duration: 5 years
Budget: 28 Million Euro



Vision

EHDEN aspires to be the trusted observational research ecosystem to enable better health decisions, outcomes and care.



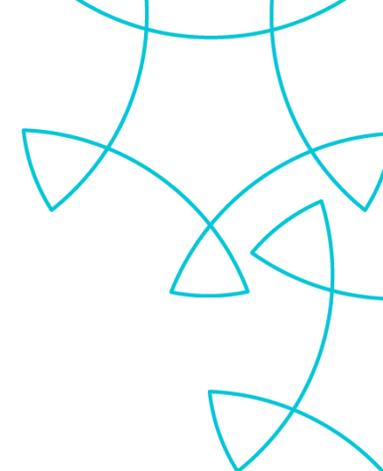
Mission

Our mission is to provide a new paradigm for the discovery and analysis of health data in Europe, by building a large-scale, federated network of data sources standardized to a common data model.

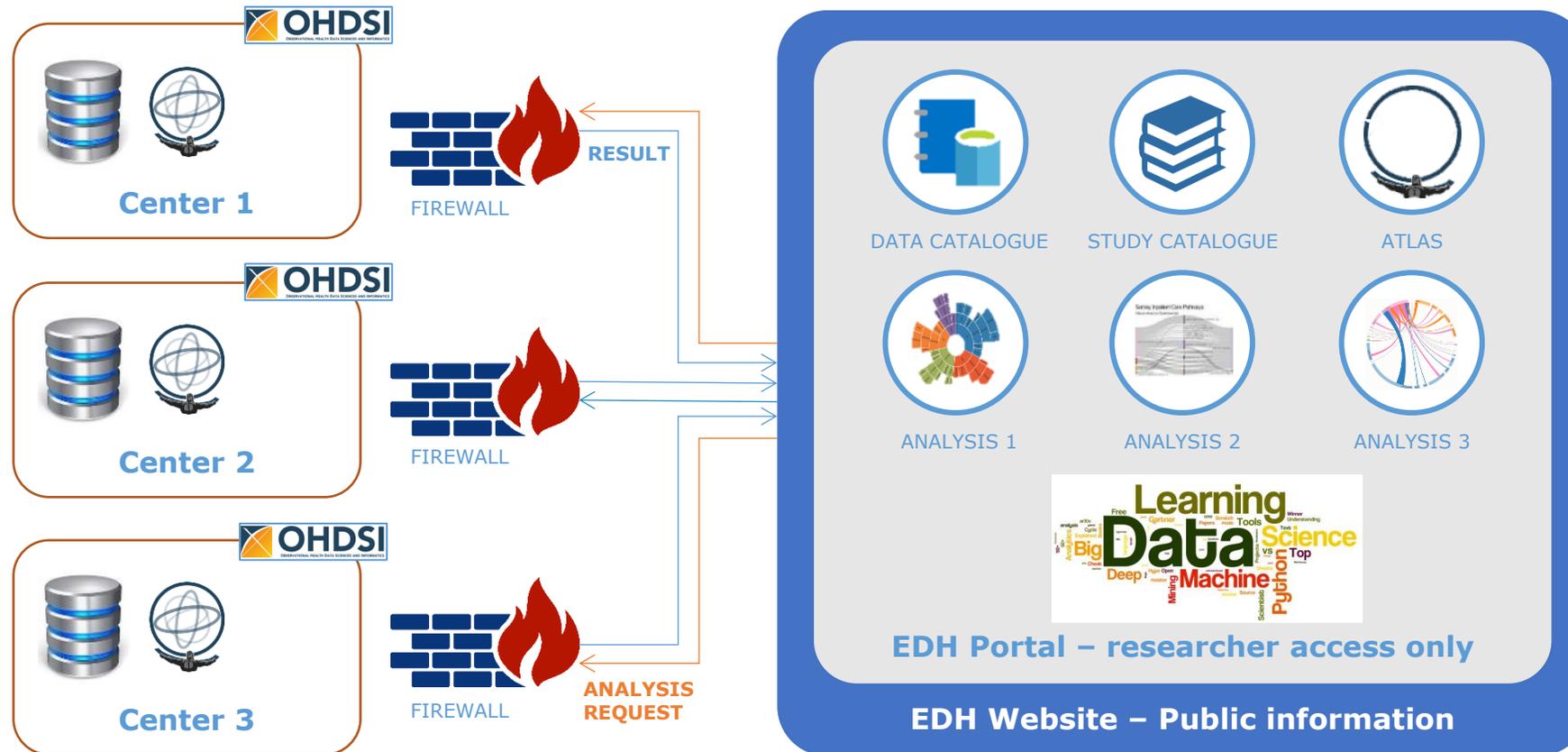


Values

Diversity	Sustainability	Beneficence
Excellence	Efficiency	Reproducibility
Quality	Community	Openness
Coverage	Perseverance	Education



Use case: EHA hub for federated (distributed) data analysis



No raw (patient-level) data transfer to EDH: distributed/federated analytics

Kansallinen yhteistyö

- Tays, Tampereen biopankki
 - Tutkimusjohtaja Tarja Laitinen
- Kansallinen yo-sairaaloiden hanke
 - Tutkimusjohtaja Anne Pitkäranta, HUS
- THL-rekisterit
 - Prof. Markus Perola
 - Tutkija Javier Gracia Tabuenca (Finngen)
 - Tutkija Esa-Matti Tolppanen

Sovittavia asioita

- Mappauksen tietolähde: ORC-tiedostot (HUS-päätietoallas)
- Mapattavat tiedot: 2 vaihetta?
- OHDSI-työkalut
 - White Rabbit/ORC-lisäosa
- ETL-työ: MS Aza Data factory
 - Versiointi, koodin jako?
- Aikataulukutus, työnjako