CiNES
Centre Informatique National de l'Enseignement Supérieur

Emerging Domains in EOSC-France

5th French National Tripartite Event
Paris, 11-12 September 2025

MINISTÈRE DE L'ENSEIGNEMENT SUPÉRIEUR ET DE LA RECHERCHE
Direction générale de l'enseignement supérieur et de l'insertion professionnelle
Direction générale de la recherche et de l'innovation

e-Infrastructures for Health Data

Dr Pascal Dugénie

CENTRE INFORMATIQUE NATIONAL DE L'ENSEIGNEMENT SUPÉRIEUR

Deputy Director
Responsible for the mission AI for Health

CINES in a nutshell

MINISTÈRE
DE L'ENSEIGNEMENT
SUPÉRIEUR
ET DE LA RECHERCHE

Board of directors

- **Pr. Michel ROBERT**
- Dr. Pascal DUGENIE
- Karima LAMRI

60 people

CINES in a nutshell

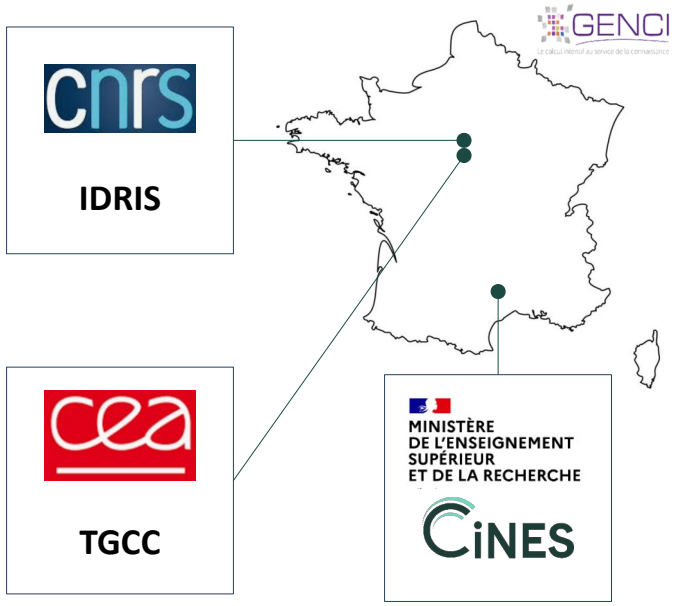
MINISTÈRE
DE L'ENSEIGNEMENT
SUPÉRIEUR
ET DE LA RECHERCHE

Board of directors

- **Pr. Michel ROBERT**
- Dr. Pascal DUGENIE
- Karima LAMRI

60 people

One of the 3 HPC national centers



CINES in a nutshell

MINISTÈRE
DE L'ENSEIGNEMENT
SUPÉRIEUR
ET DE LA RECHERCHE

Board of directors

- **Pr. Michel ROBERT**
- Dr. Pascal DUGENIE
- Karima LAMRI

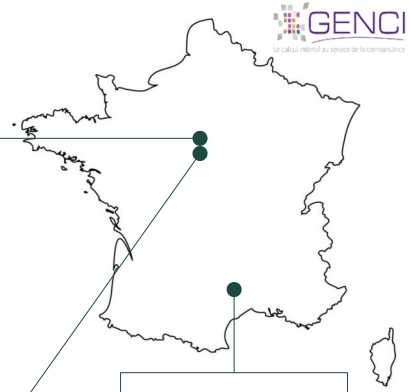
60 people

One of the 3 HPC national centers

cnrs
IDRIS

cea
TGCC

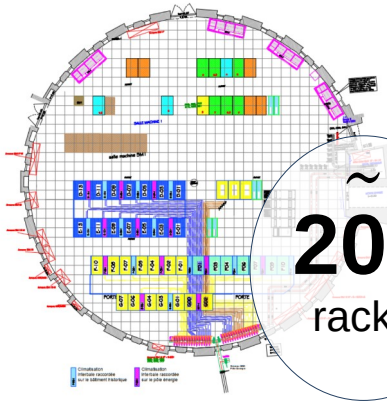
GENCI



MINISTÈRE
DE L'ENSEIGNEMENT
SUPÉRIEUR
ET DE LA RECHERCHE
CINES

CAPACITIES

Hosting



~ 200 racks

Long-term storage

PROGRAMME vitam
archivage numérique

~ 70 Poctets

HPC & AI

~ 90 Pflops

CINES in a nutshell

MINISTÈRE DE L'ENSEIGNEMENT SUPÉRIEUR ET DE LA RECHERCHE

Board of directors

- **Pr. Michel ROBERT**
- Dr. Pascal DUGENIE
- Karima LAMRI

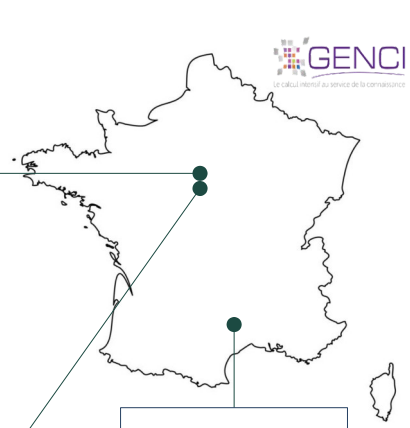
60 people

One of the 3 HPC national centers

cnrs — IDRIS

cea — TGCC

GENCI



MINISTÈRE DE L'ENSEIGNEMENT SUPÉRIEUR ET DE LA RECHERCHE — CINES

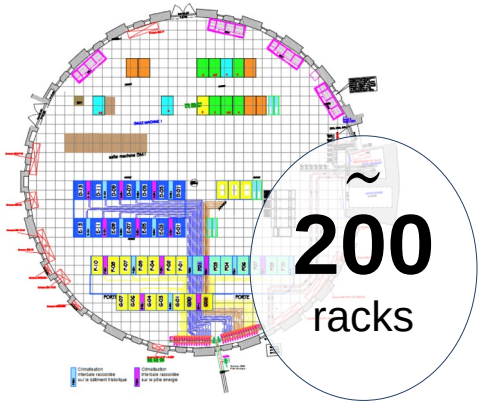
TOPICS

- Health
- Earth science

- Data repositories
- HPC & AI

CAPACITIES

Hosting



~ 200 racks

HPC & AI

~ 90 Pflops

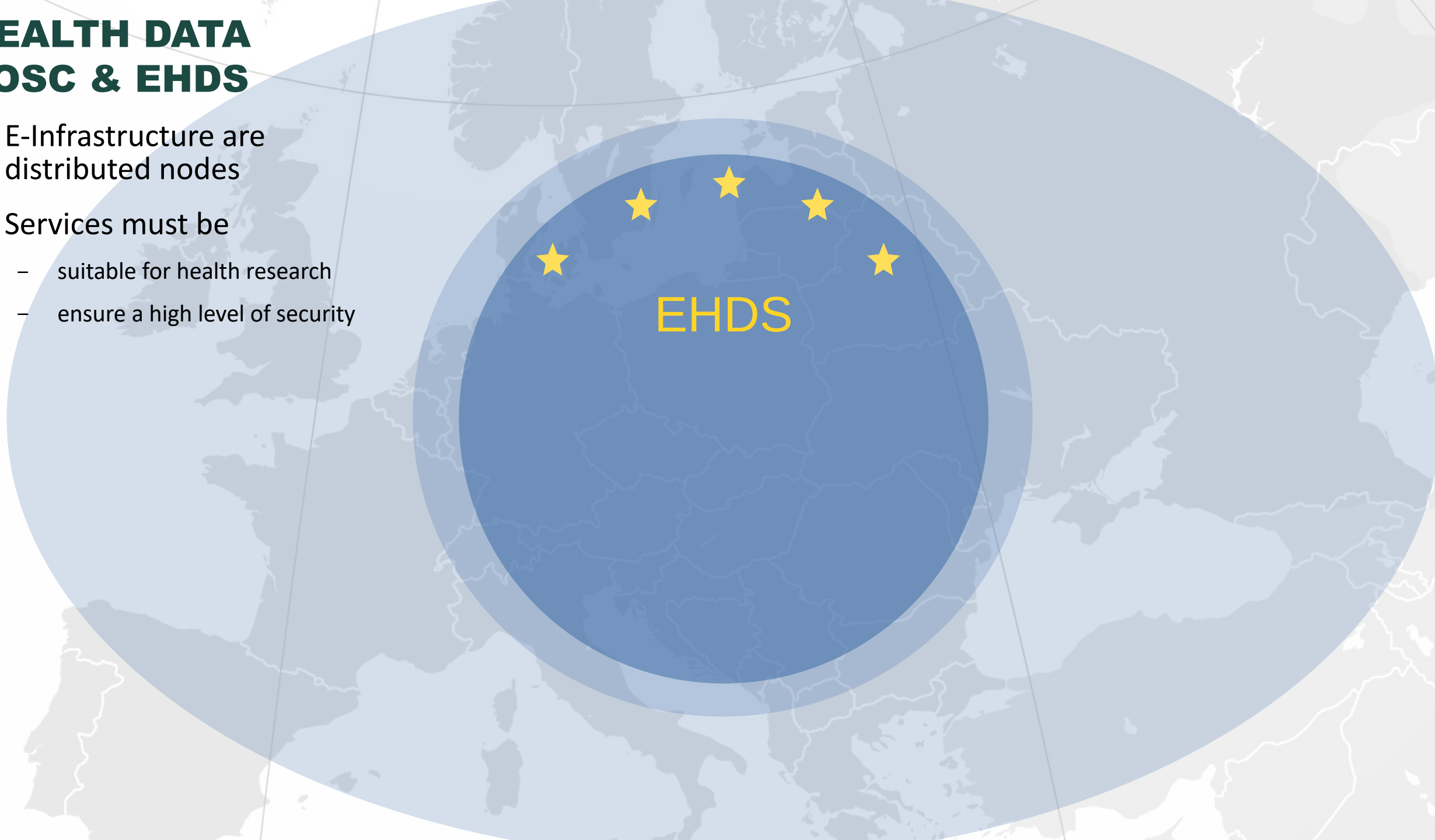
Long-term storage

PROGRAMME vitam archivage numérique

~ 70 Poctets

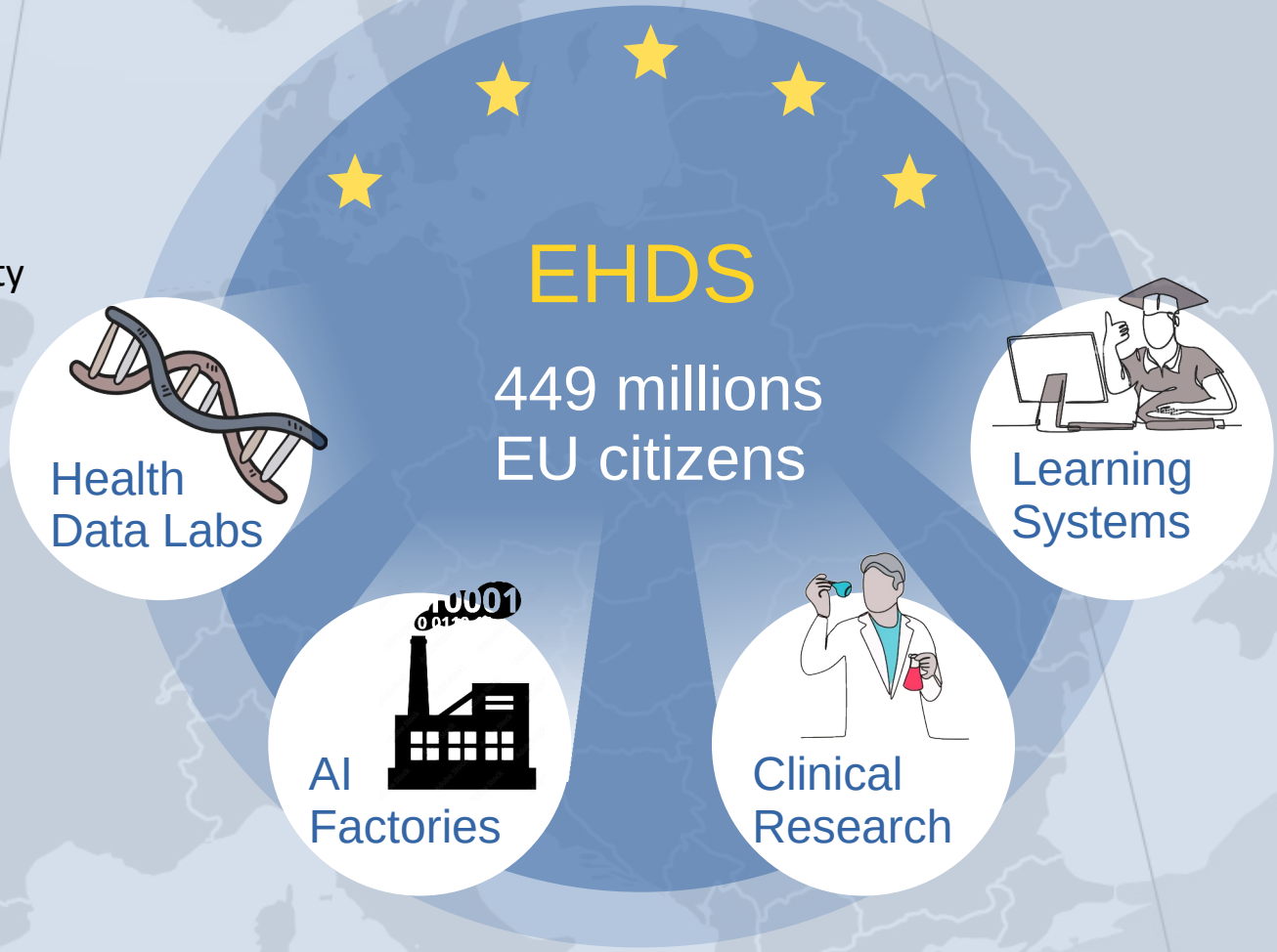
HEALTH DATA EOSC & EHDS

- E-Infrastructure are distributed nodes
- Services must be
  - suitable for health research
  - ensure a high level of security



HEALTH DATA EOSC & EHDS

- E-Infrastructure are distributed nodes
- Services must be
  - suitable for health research
  - ensure a high level of security



ABOUT HEALTH DATA

- Health Data is classified as **sensitive data**

ABOUT HEALTH DATA

security issues

- HDS
- SecNumCloud

- Health Data is classified as **sensitive data**

ABOUT HEALTH DATA

- Data is a **strategic asset** in the heart of the European digital sovereignty
- Health Data has a **high economical value**

legal issues

state-owned operator

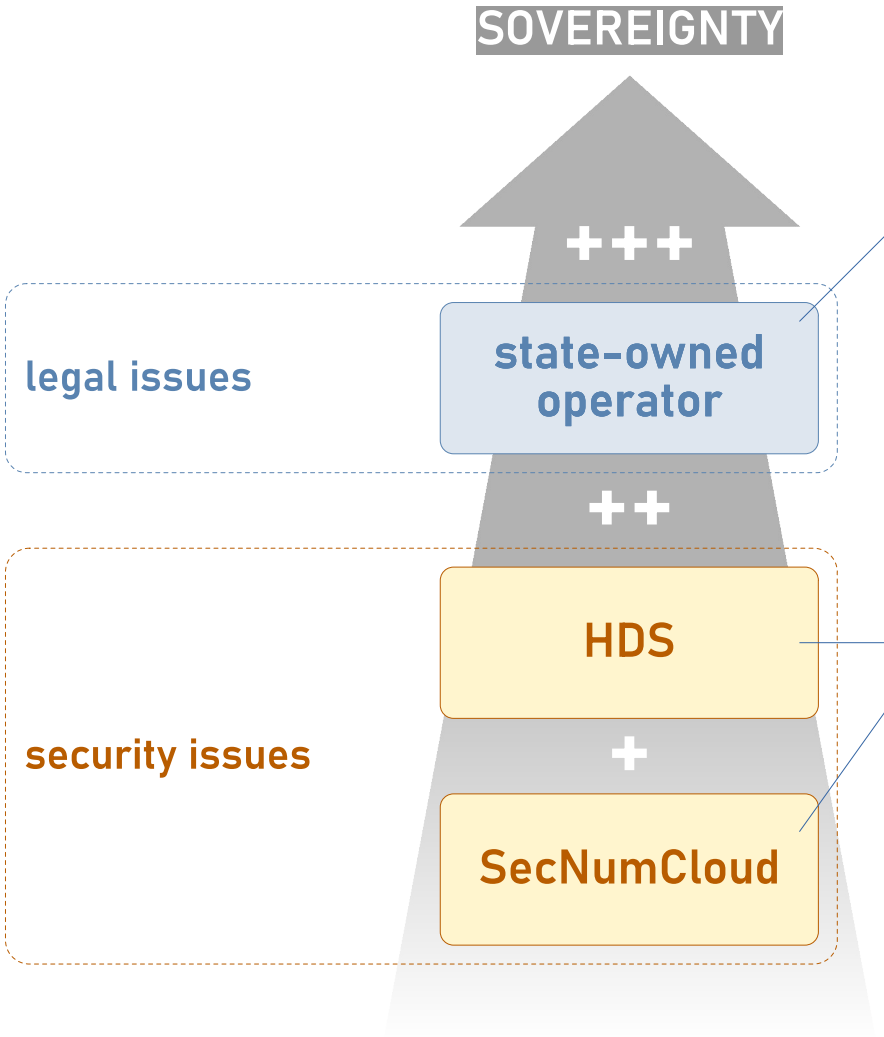
- Health Data is classified as **sensitive data**

security issues

HDS

SecNumCloud

ABOUT HEALTH DATA

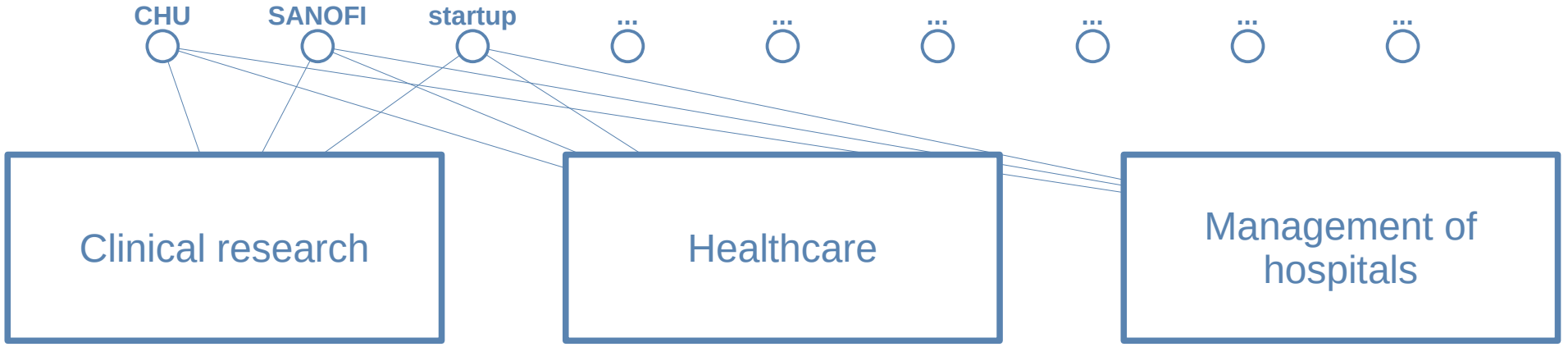


- Data is a **strategic asset** in the heart of the European digital sovereignty
- Health Data has a **high economical value**

- Health Data is classified as **sensitive data**

Protection is not only a matter of security It is a matter of **legal independence**: extraterritorial laws, such as cloud act, Patriot Act impose US operators to share data with UG government even if they are locate in Europe

HEALTH DATA USE CASES



HEALTH DATA USE CASES

CHU SANOFI startup ... ...

Clinical research

Healthcare

Management of hospitals

HEALTH DATA

HEALTH DATA USE CASES

CHU SANOFI startup ... ...

Clinical research

Healthcare

Management of hospitals

HEALTH DATA

CAD

France Cohortes

INSERM

Hospitals

other

Private sector

France Génomique

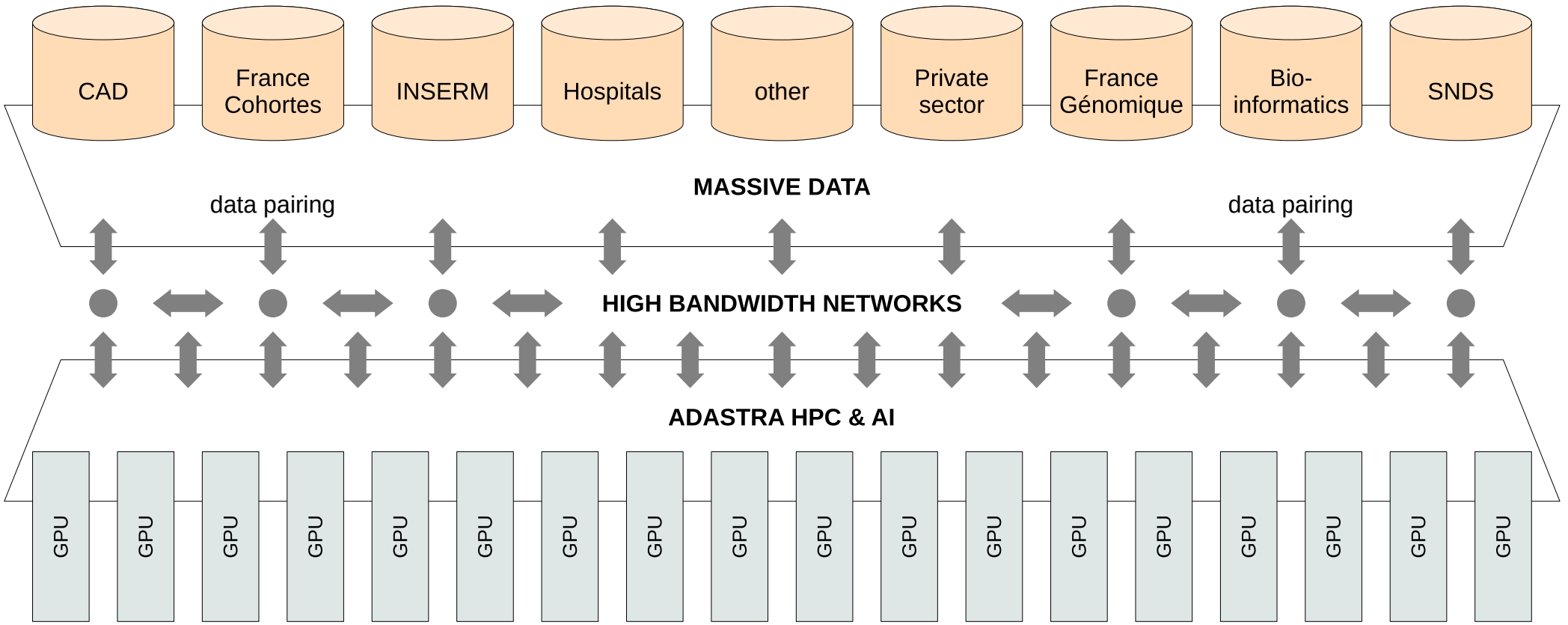
Bio-informatics

SNDS

REPOSITORIES

CINES ARCHITECTURE

PUBLIC HUB



AI & FAIR DATA MANAGEMENT

HYBRID ARCHITECTURE

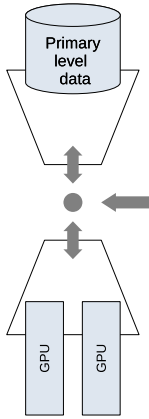
ON PREMISES

Processing data

- healthcare data
- data for hospital management

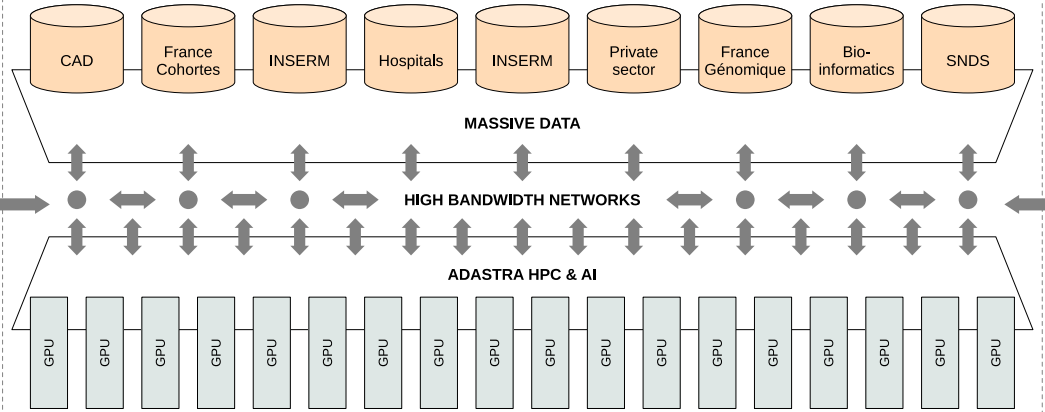
Building my own algorithm in hospital

Experimenting in real situation



PUBLIC HUB

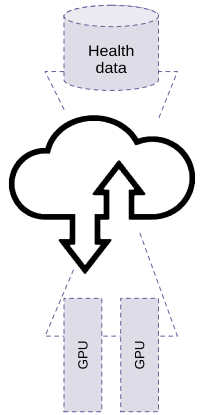
- Massive stockage
- High througput AI computing
- Multimodal training



AI & FAIR DATA MANAGEMENT

Scaleway PRIVATE CLOUD

- overflow & agility
- « bulles sécurisées » for health research



CiNES
CENTRE INFORMATIQUE NATIONAL
DE L'ENSEIGNEMENT SUPÉRIEUR

Thank you for your attention

E-INFRASTRUCTURES FOR HEALTH DATA

Dr Pascal Dugénie

Deputy director
Responsible for the mission AI for Health