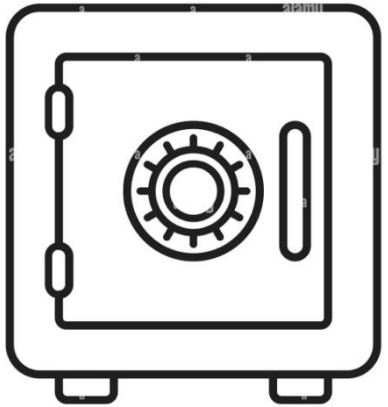
NORTRE styremøte 08. juni 2026

I-sak 2026/18
Presentasjon av teknisk infrastruktur

Trusted Research Environments

- Secure processing environments (SPE)
- Secure analysis rooms
- Secure data environments
- Secure servers
- Secure desktops
- Safe haven
- …



= dedicated resources for storage and analysis of sensitive data

NORTRE

- > 10 år
- Brukernær



NORTRE > Σ HUNT Cloud, TSD, SAFE



- Leverage and build on existing services
- Robust and flexible: 3 distributed infrastructures → 3 complementary environments
- Adopt emerging technologies, continuous improvement.
- Integrations with the health sector
- Digital host for several clinics
- Hosting data registries, -collections and -archives
- Data capture tools
- HPC
- Compliance ISO27001
- Towards federation

NTNU
HUNT Cloud

SAFE



NORTRE

SAFE

Sikker Adgang til Forskningsdata og e-infrastruktur

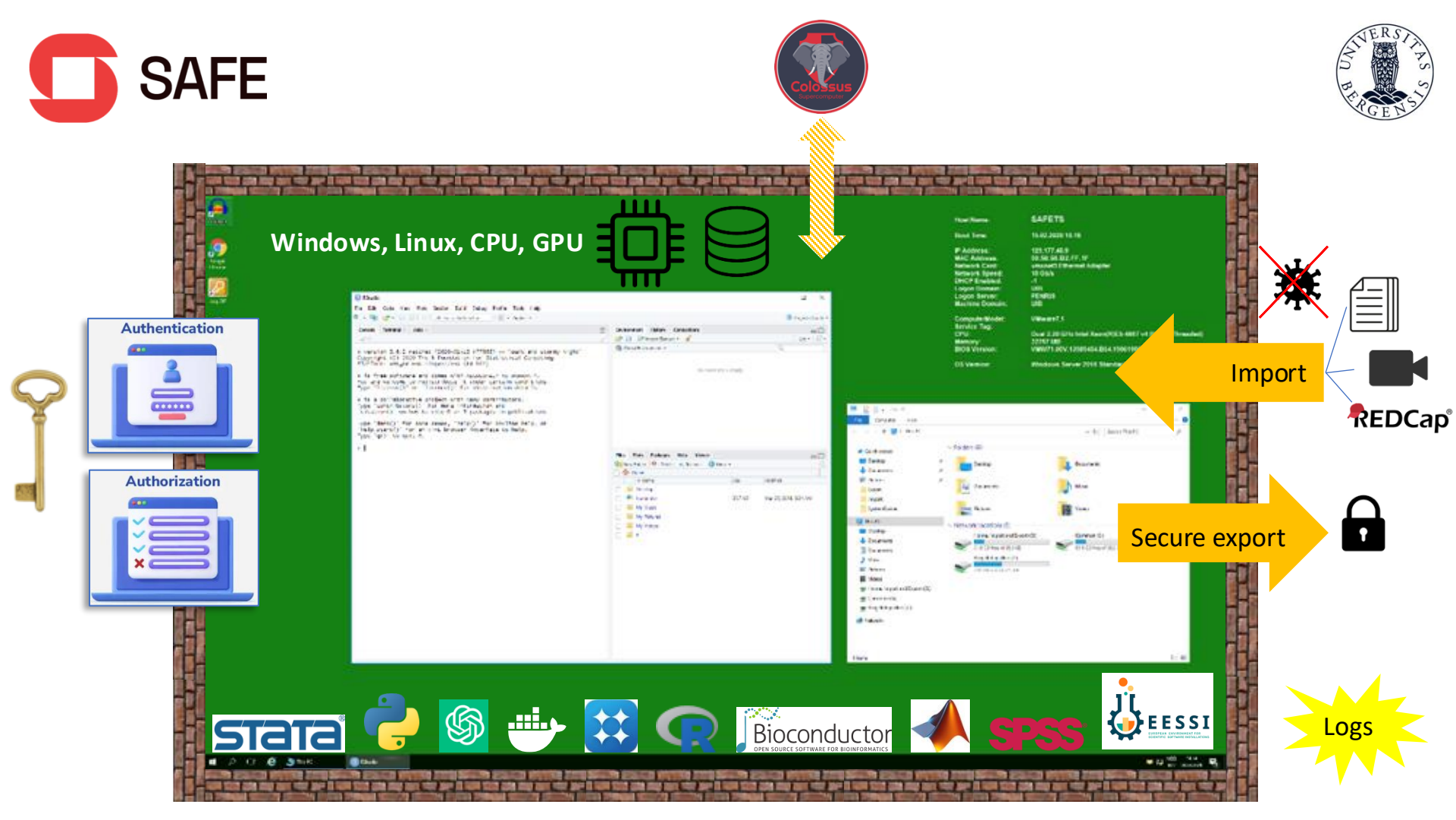
SAFE

UNIVERSITAS BERGENSIS

SAFE

sikker **a**dgang til **f**orskningsdata og **e**-infrastruktur

- Etablert 2015
- Utviklet i tett samarbeid med brukere
- ~ 500 servere / ~ 2000 brukere
- On-prem, på UiB IT infrastruktur
- VM-ware virtuelle maskiner – Windows + Linux (+ noen fysiske)
  - Mot programmerbar infra 2027
- NetApp, TSM
- Fleksibel: lagring, regnekraft (CPU/GPU), programvare, verktøy, default / custom
- Dataimport / -eksport
  - Sluse
  - Fil-API
  - REDCap - spørreskjema
  - Sikker Video
- Databaser
- Transkripsjon - Whisper
- LLM
- Basert på Normen, mot ISO27001 og EHDS-krav


SAFE
Colossus
Supercomputer
UNIVERSITAS BERGENSIS
Windows, Linux, CPU, GPU
Authentication
Authorization
Import
REDCap
Secure export
Logs
STATA
Bioconductor
OPEN SOURCE SOFTWARE FOR BIOINFORMATICS
SPSS
EESSI

500 servers, 2000 users:

Supporting key research centres, infrastructures and initiatives in Bergen and outside

Domains	Institutions	Centres of Excellence	Research infrastructures
Humanities	UiB	NeuroSysMed	Biobank Norway
Social sciences	NORCE	GEMRIC	ELIXIR Norway
Law	NIPH	Mohn Cancer Research	KODEM
Economics	HVL	Norment	NorSeq
Psychology	VFK	cMyc	BIOS
Art	HBe	BCEPS	NAPI
Life science	OUS	CCBIO	
Health	UiO	++	
	ISF		
	++		
	abroad		

SAFE

KOORDINERT DATAINNSMALING

KODEM: Koordinerte online paneler

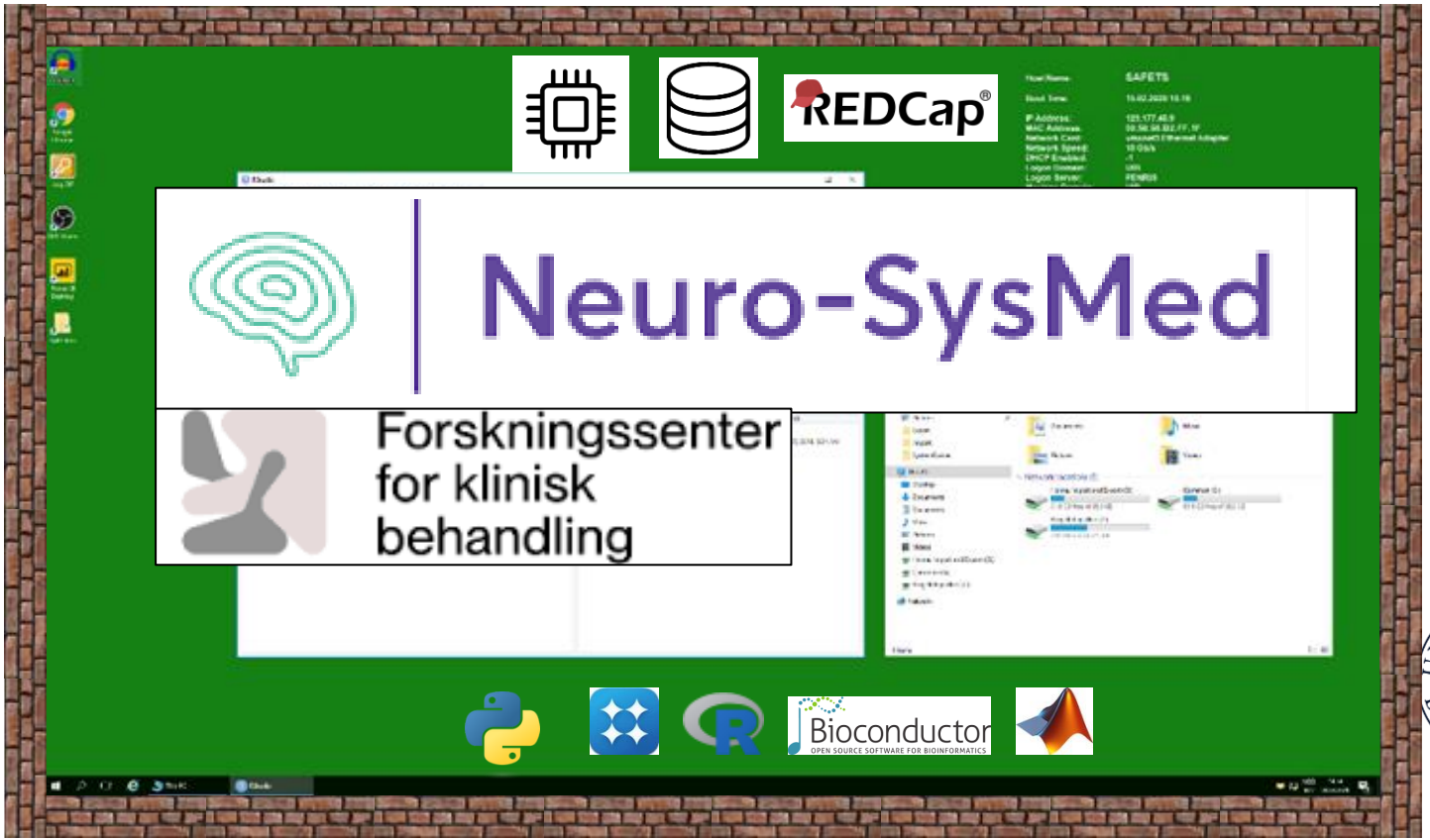
Gjennom KODEM kan forskere stille de samme spørsmålene i fire ulike sub-populasjoner på samme tid. Dette er et pilotprosjekt for forskning på demokrati og styresett i Norge.



Foto/ill.: DIGSSCORE

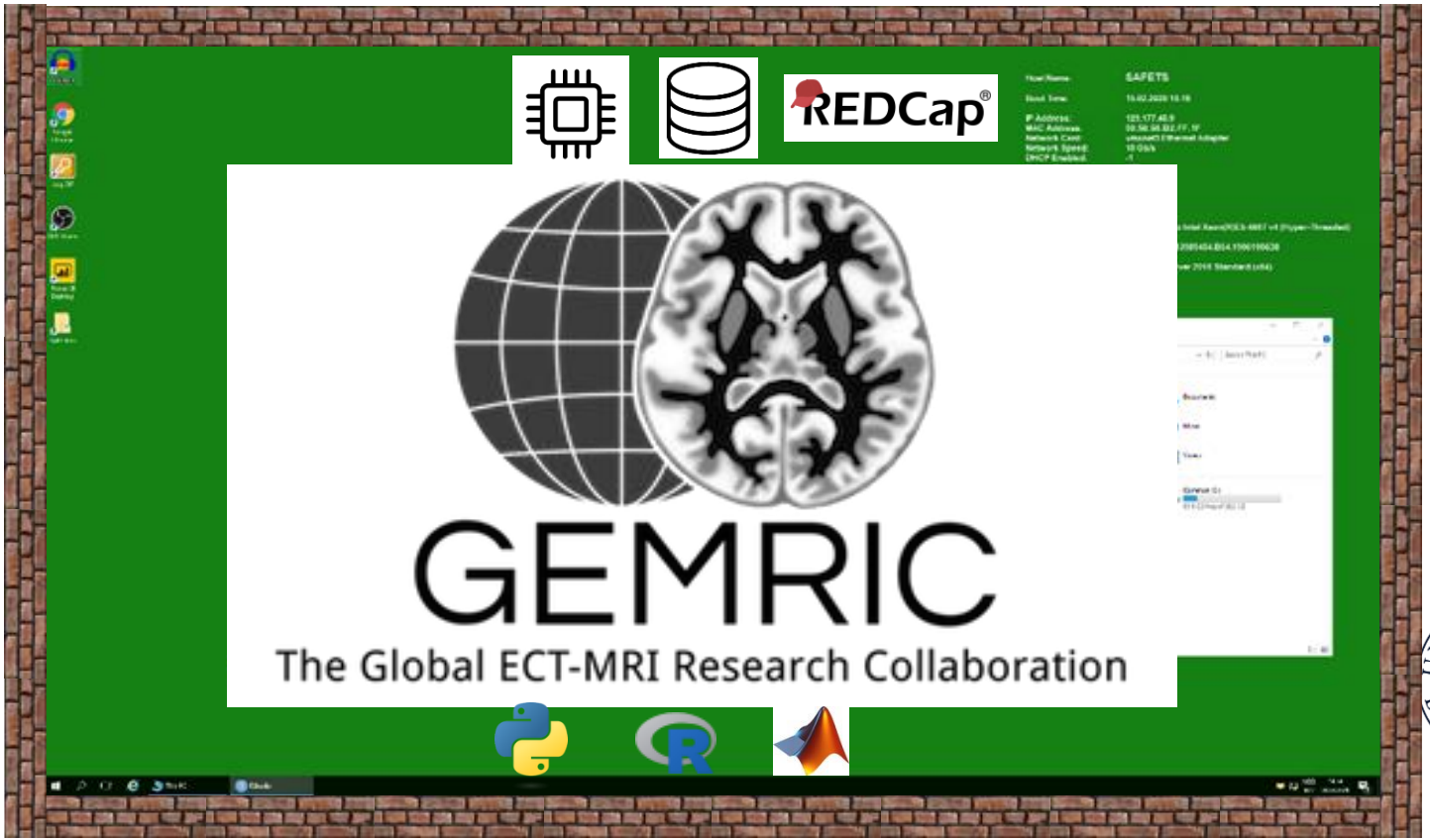
UNIVERSITAS BERGENSIS

SAFE



UNIVERSITAS BERGENSIS

SAFE

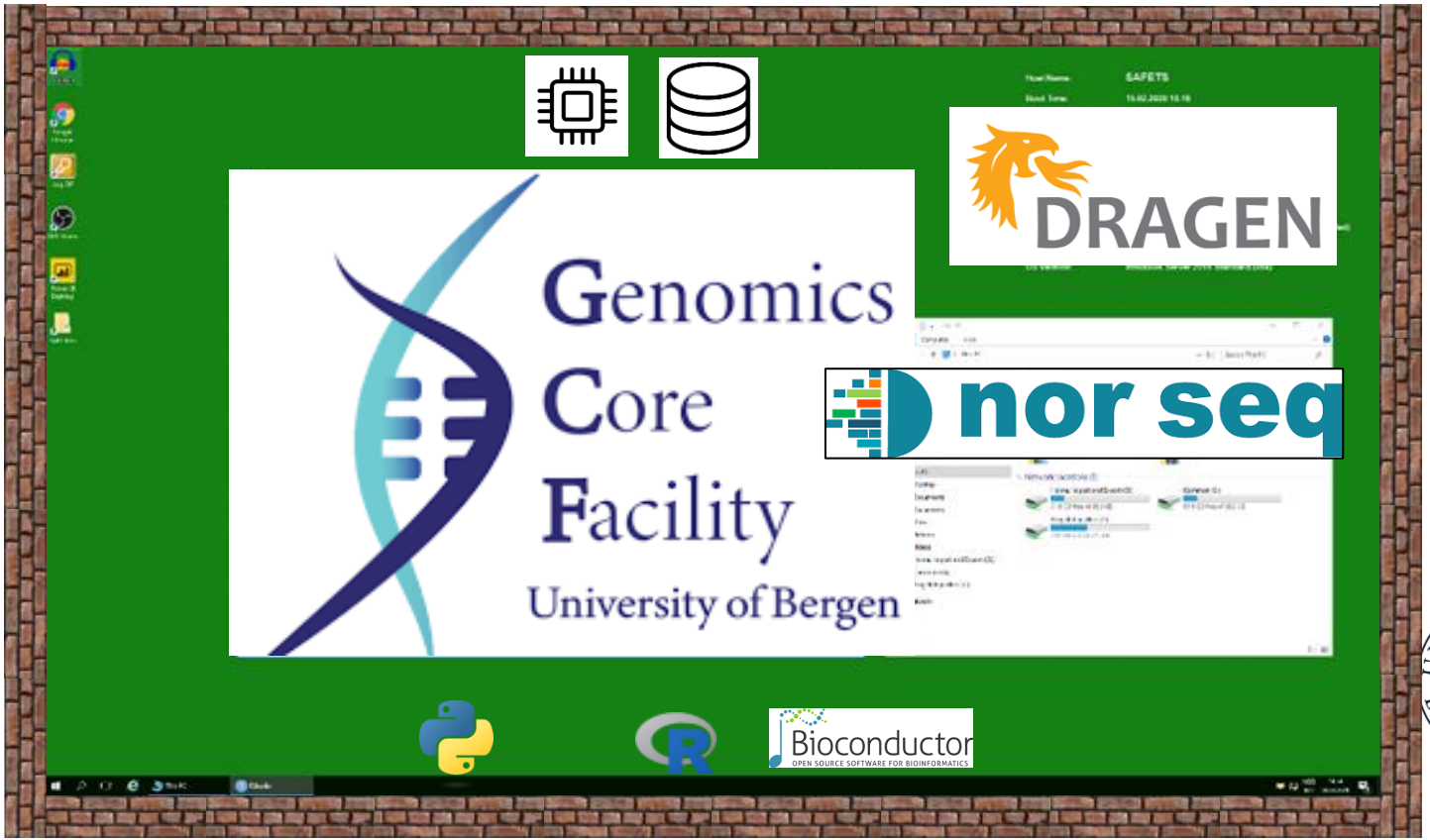


SAFE



UNIVERSITAS BERGENSIS

SAFE



UNIVERSITAS BERGENSIS

SAFE



UNIVERSITAS BERGENSIS

SAFE videre

ISO27001 certification	User management	Federation	SAFE 3.0
- In progress	- Self-service - Invoicing	- HPC at Colossus - CVMFS	- Fully program-able infrastruc-ture