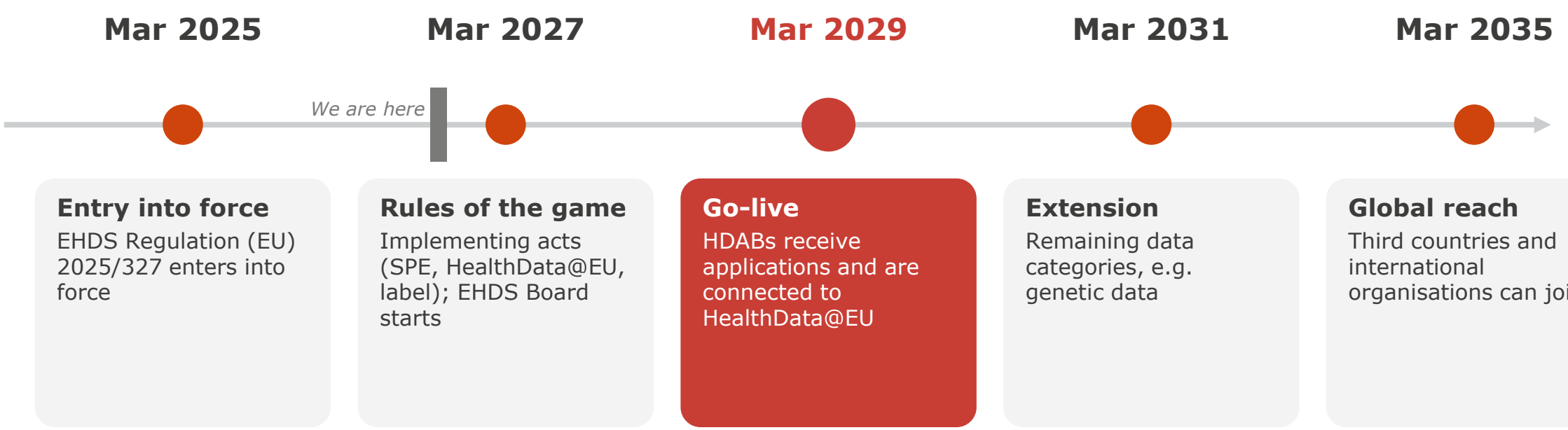
Implementing EHDS secondary use

Technical practicalities: what each Member State needs to set up

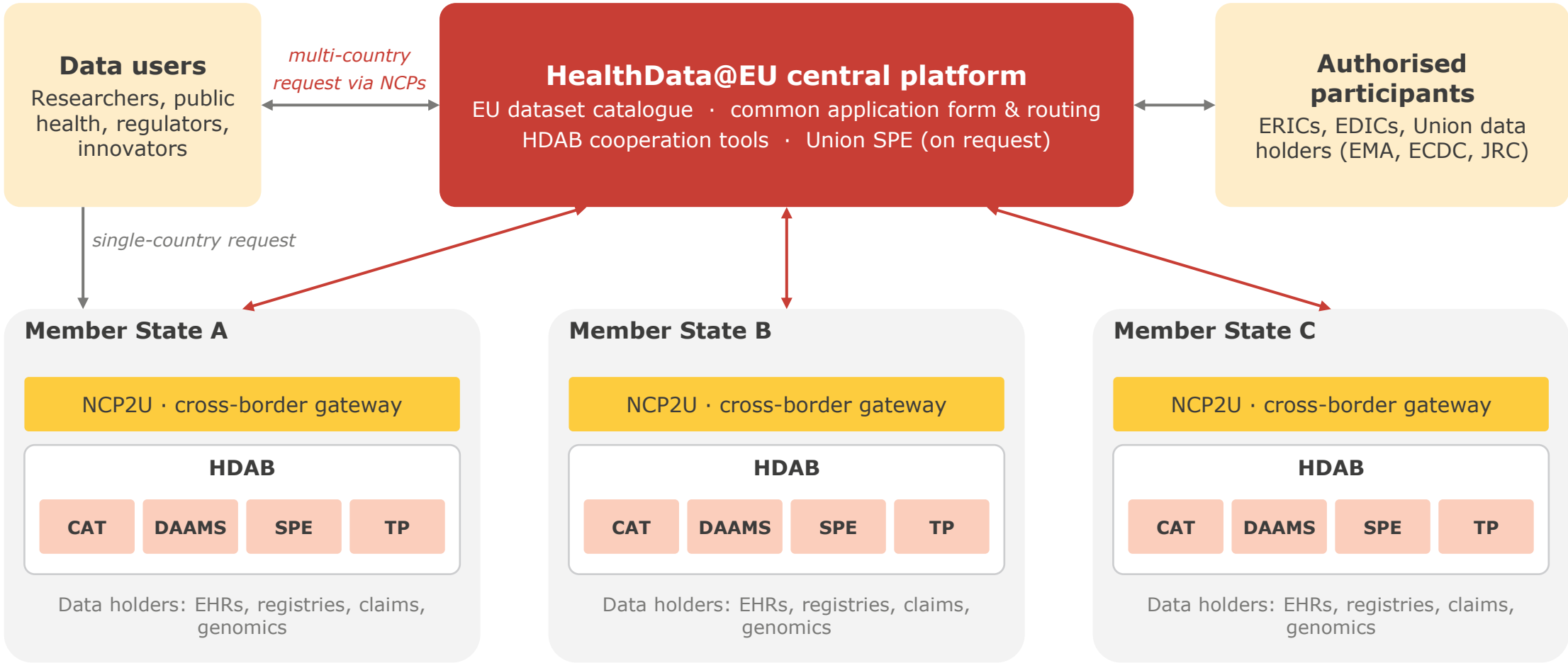
From regulation to running infrastructure



< 30 months

From today to design, procure/build and connect the national secondary-use infrastructure before HDABs must be operational on 26 March 2029.

HealthData@EU: an EU hub on national nodes



Five digital capabilities per Member State

nHDC

National Health Data Catalogue

Describes every dataset of the data holders so users can find it.

Built on
HealthDCAT-AP · RDF · quality & utility label

DAAMS

Data Access Application Management System

Receives applications and requests, runs the assessment with data holders, issues permits, tracks deadlines and communicates with HD@EU.

Built on
EU common application form (implementing act)

SPE

Secure Processing Environment

After data preparation (data linkage, pseudo/ano/mi - nimisation) hosts the analysis; only anonymous results leave.

Built on
Art. 73 + implementing act

TP

Transparency Portal & Opt-out

Publishes applications, permits, results and penalties; records citizens' opt-out and filters data.

Built on
Art. 71 opt-out · public reporting

CBG

Cross-Border Gateway

Connector to HealthData@EU: exchanges catalogues, applications and decisions securely.

Built on
eDelivery AS4 · 4-corner model

One HDAB can run all five, or tasks can be split across several HDABs (one coordinator), e.g. permit decisions vs. SPE provision.

Discover and apply for data

1 Discover: federated catalogues

Data holders describe their datasets → National catalogue publishes → Metadata pushed to EU catalogue

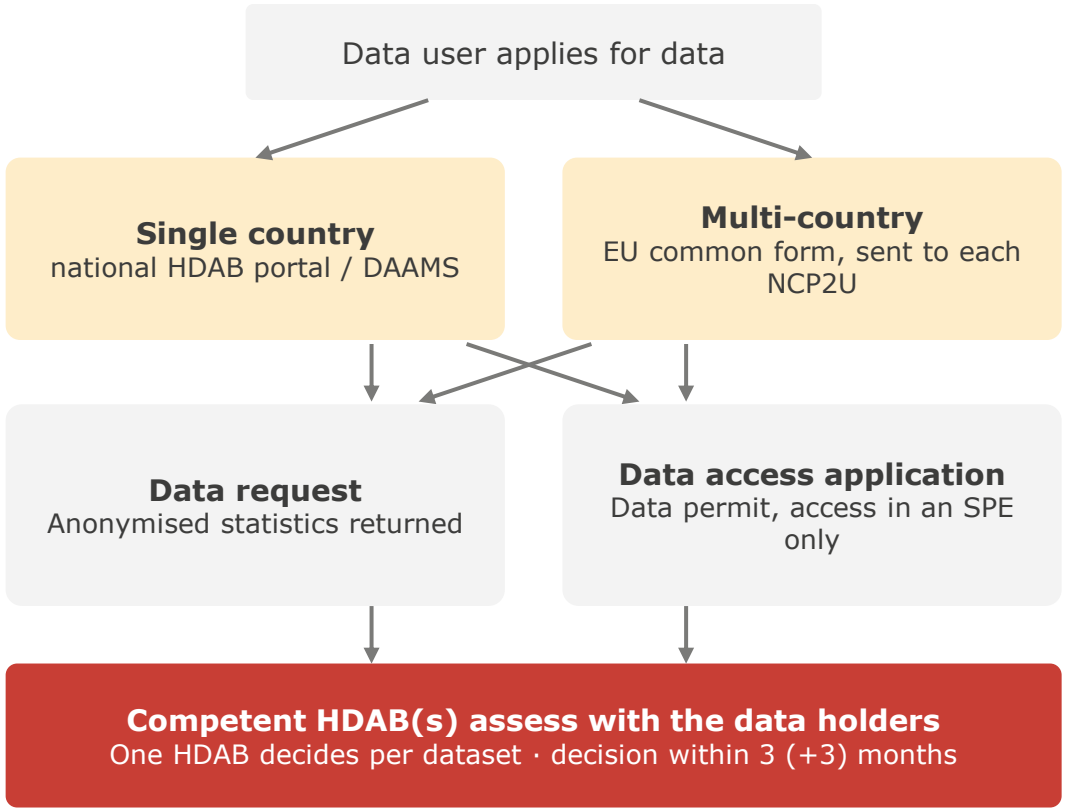
HealthDCAT-AP
Health: Art. 51 categories, EHDS access rights, HDAB roles

DCAT-AP
EU profile: mandatory properties, EU vocabularies

DCAT (W3C)
Catalogue · dataset · distribution · data service

Data quality & utility label: mandatory for publicly funded datasets (Art. 78)

2 Apply: routed to the right HDAB



Access: data stays inside the SPE

1 Create	2 Upload & prepare	3 Analyse	4 Check outputs	5 Close & archive
SPE operator sets up an isolated instance per permit, with no internet and no other projects.	Data pulled or pushed from data holders; HDAB links, pseudonymises, minimises, removes opt-outs.	Strongly identified users named in the permit work with the tools provided.	HDAB reviews every export request: only anonymous results leave.	Instance destroyed or archived when the permit ends; access logs kept for audit.

Who does what

"Permitting" HDAB: issues the permit, controls outputs, stays responsible for logs

SPE operator: sets up and runs the environment

Data holders: deliver the permitted data

Across borders: federation

Connect environments, not data: federated SPEs and federated analysis bring the computation to the data. A Union SPE can host multi-country projects on request.

Specifications still evolving (TEHDAS2, implementing act Art. 73(5)).

Implementation challenges: questions for EOSC

Open questions

	EHDS blury areas	Questions for EOSC
1	**Fragmented catalogues** 27+ national catalogues, uneven HealthDCAT-AP maturity, legacy metadata	Can EOSC's experience federating research catalogues speed up harvesting and validation? Support Data Holders ?
2	**Trust and identity** Researchers must be strongly identified across borders, in every SPE	Could research AAI federations act as the trust layer for health data users?
3	**SPE duplication** Each Member State builds its own SPE; federation still unspecified	Which EOSC compute and federated-analysis services could be reused rather than rebuilt?
4	**Semantic interoperability** Different coding systems and data models (FHIR, OMOP, local)	What role for shared vocabularies, PIDs and mapping services? Reuse of existing data is not enough, how to achieve standardization ?
5	**Research infrastructures** ERICs and EDICs must become authorised participants of HealthData@EU	How can EOSC-connected infrastructures plug into the EHDS application flow?


HDA