Data simplification: from governing data to making data usable

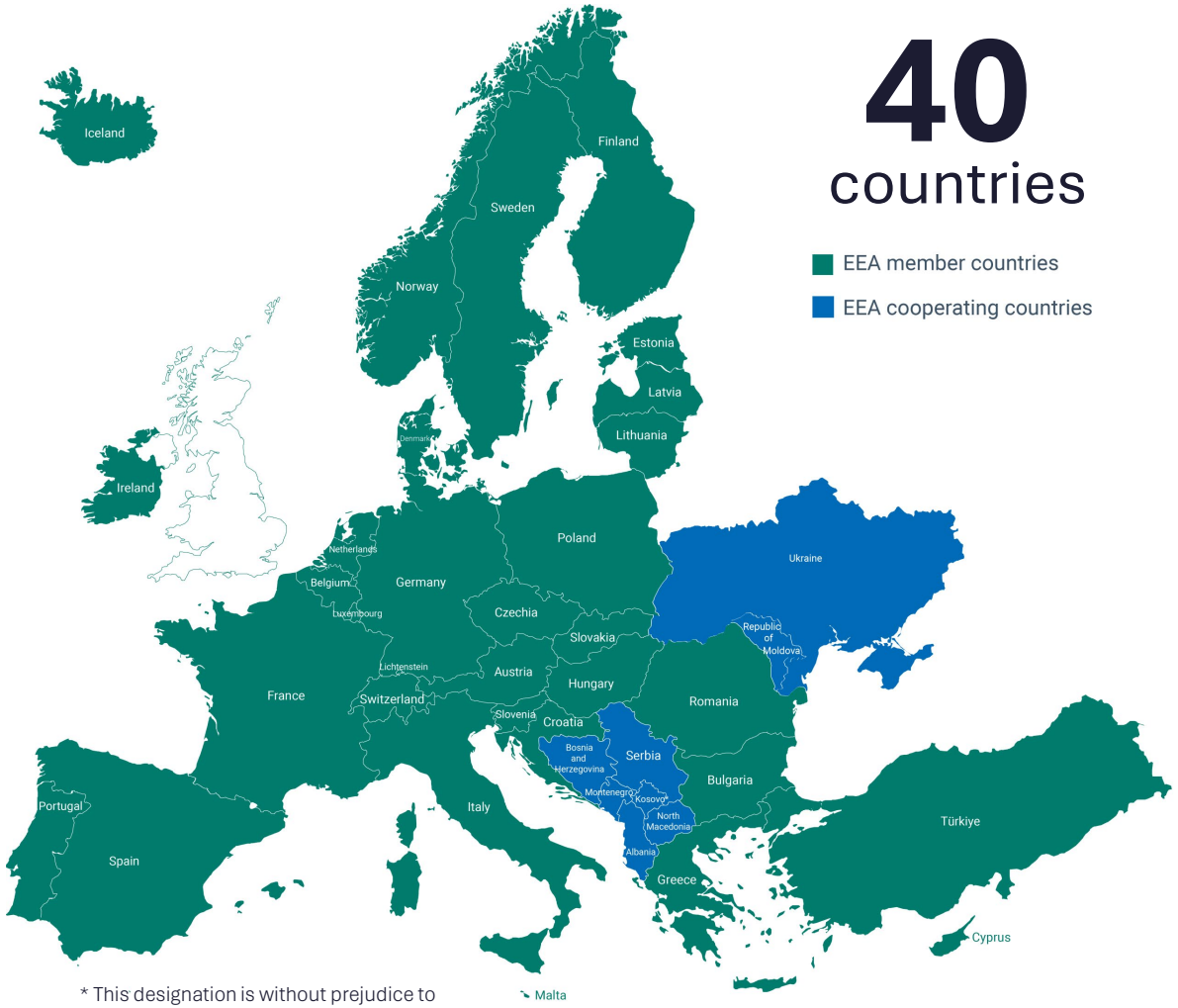
Athanasios Demiris
Jan Bliki



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Eionet – Environment Information and Observation Network



40
countries

- EEA member countries
- EEA cooperating countries

* This designation is without prejudice to positions on status and is in line with UNSCR 1244/99 and the ICJ Opinion on the Kosovo Declaration of Independence.

What we do:

- Reporting services (data flows)
- Data services
- Knowledge services
- Networks and Collaboration services

AI as a key enabler of the Digital Capability Strategy



6 missions: holistic approach to transform our agency through digitalisation to 2030

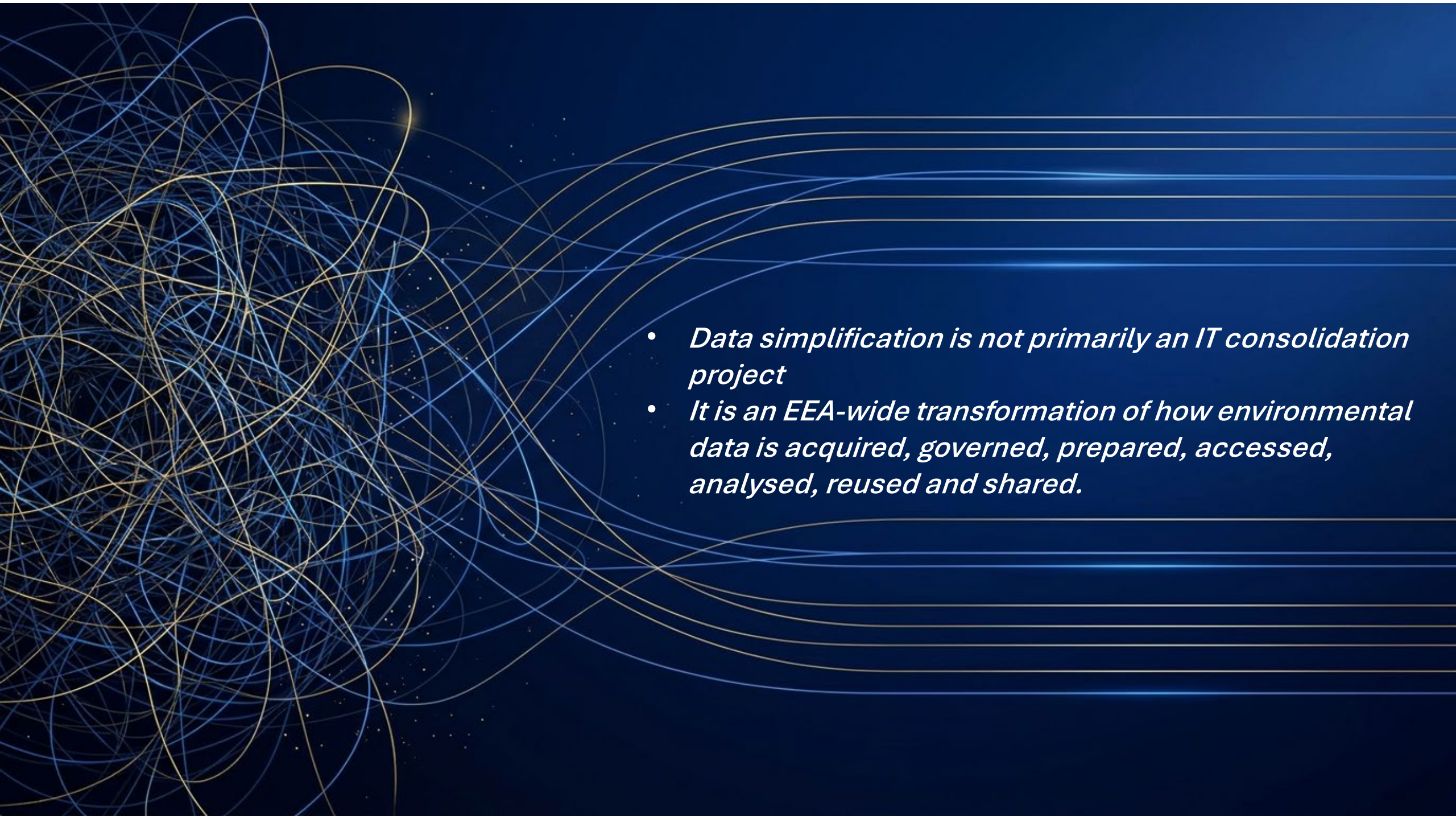
- **Operational resilience** - future proofed services
- **Data reuse, interoperability and global reach**
- **Increased customer focus** in our services
- **Delivering simplification** for countries
- **Better agility** to respond to EU priorities
- **Safeguarding our impact** well into the future

[EEA Digital Capability Strategy 2025-2030]

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Simplification


• *Reduce the overall cost and complexity of delivering data services*
• *Create capabilities at scale, particularly cross-thematic integration, analytics, interoperability and AI-ready data*

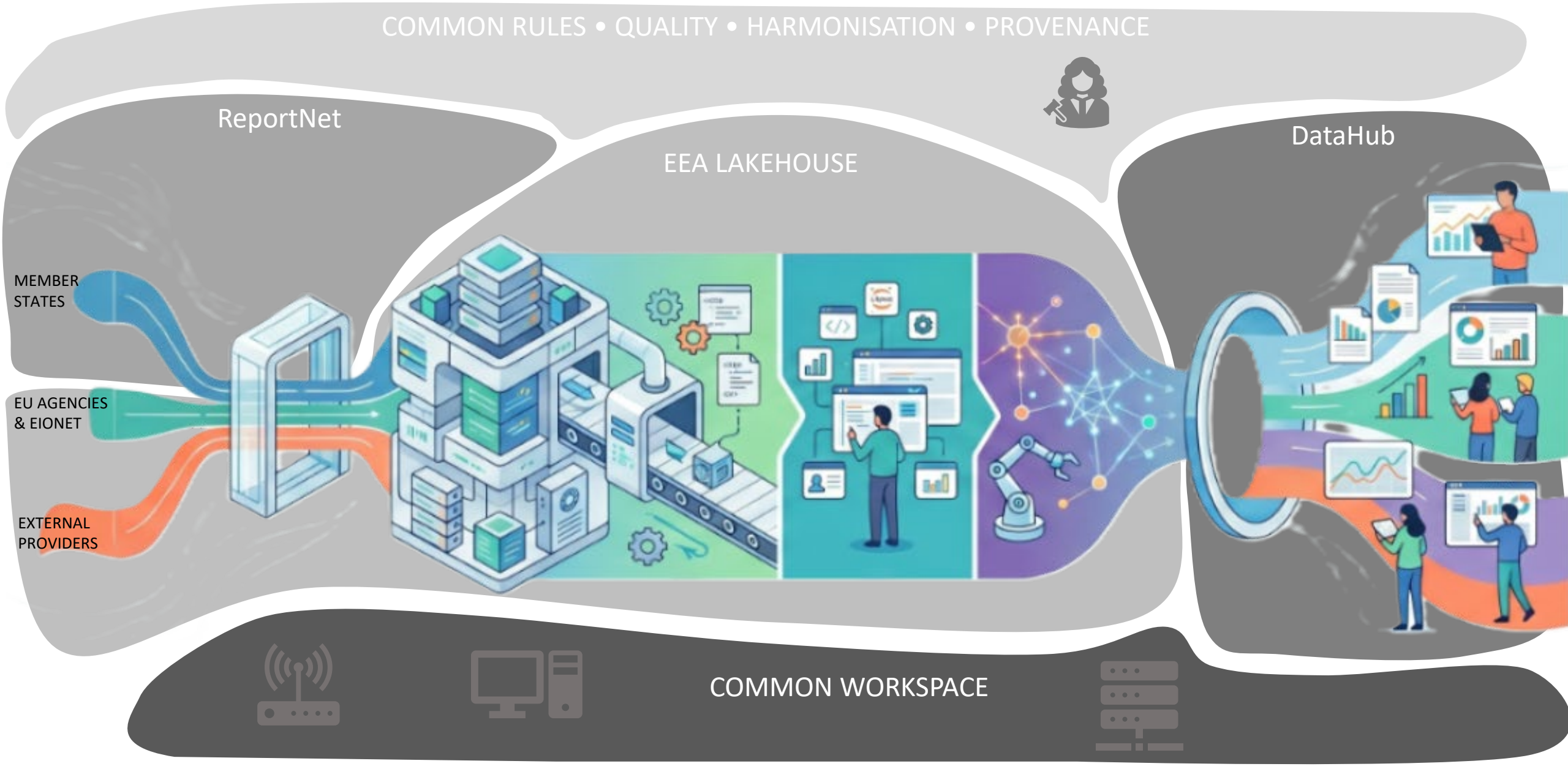


- *Data simplification is not primarily an IT consolidation project*
- *It is an EEA-wide transformation of how environmental data is acquired, governed, prepared, accessed, analysed, reused and shared.*

- separate platforms and access points
- duplicated transformations and storage
- bespoke cross-thematic integration
- significant manual metadata/data-management work
- data organised largely around individual systems and reporting processes

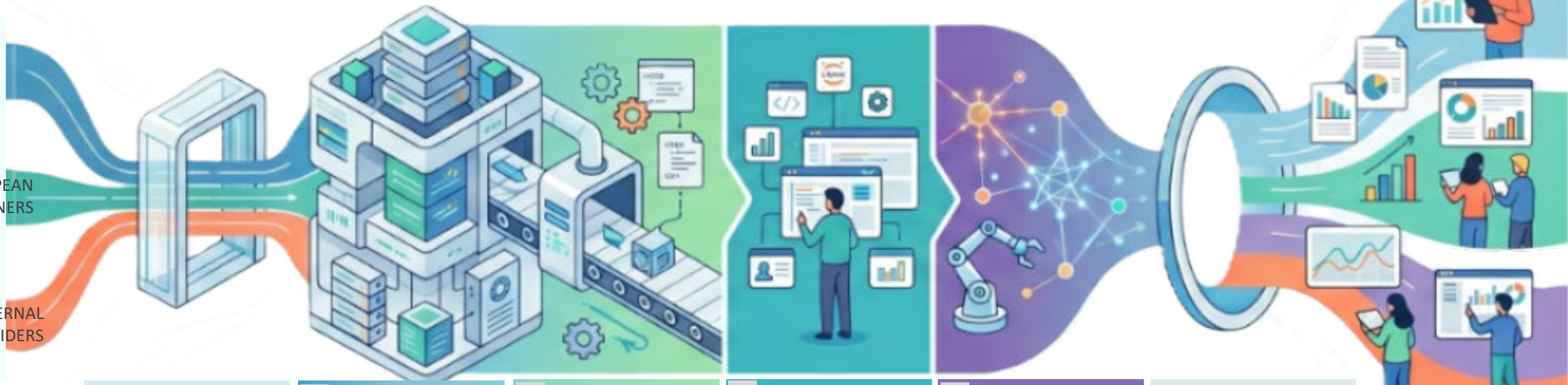
- common storage and computational foundations
- a coherent DataHub
- governed data domains and reusable data products
- integrated analytical workspaces
- API and machine-to-machine access
- automated processing
- cross-domain analytics
- data prepared for trustworthy AI use

Consolidation of different platforms



BETTER DATA GOVERNANCE BECOMES CRUCIAL

DATA PROVIDERS	DATA AQUISITION	CENTRAL STORAGE	AUTOMATION	INTEGRATED WORKSPACE	AUGMENTED AI	PUBLIC DISSEMINATION
MEMBER STATES						
EUROPEAN DATA PARTNERS						
EXTERNAL DATA PROVIDERS						



REPORTNET INTEGRATION	2026 DATA LAKE HOUSE	2026 MONITORING	2026 CODING / SCRIPTING	2026 SUPPORT DATA MANAGERS	EU DATA SPACES	
ECHA DATA IMPORT	2026 RDBMS DATABASES	2026 EXTERNAL DATA SYNCS	ANALYSING	SUPPORT ANALYSTS	EUROSTAT INDICATORS	2026 DATASET EXPLORATION
2026 EUROSTAT DATA SYNC	2026 DOCUMENTS	POST PROCESSING	2026 DATA MANAGEMENT	SUPPORT WRITERS	ECHA DATA REPORTING	2026 DATA PACKAGES
	2026 META DATA	2026 PRODUCT UPDATING	PRODUCT CREATION		2026 DATA REST API ACCESS	DATA QUERY & VIEW
	2026 NOTEBOOKS	ETL INTEGRATION (FME)				

GOVERNANCE

ACCESS & SECURITY	LOGGING & MONITORING	OWNERSHIP		ACCESS & SECURITY
2026 ATA & DOC STRUCTURE		POLICY & COMPLIANCE		
DATA TRUST & QUALITY				
2026 VERSIONING				
DATA LIFE CYCLE & RETENSION				

What simplification should deliver

Three outcomes for three user groups.

Better access

External users

- Navigate by need, not system
- Preview before download
- APIs and AI-accessible interfaces

Better management

Data custodians

- Fewer manual publishing steps
- Reusable metadata and transformations
- Lower duplication and operating cost

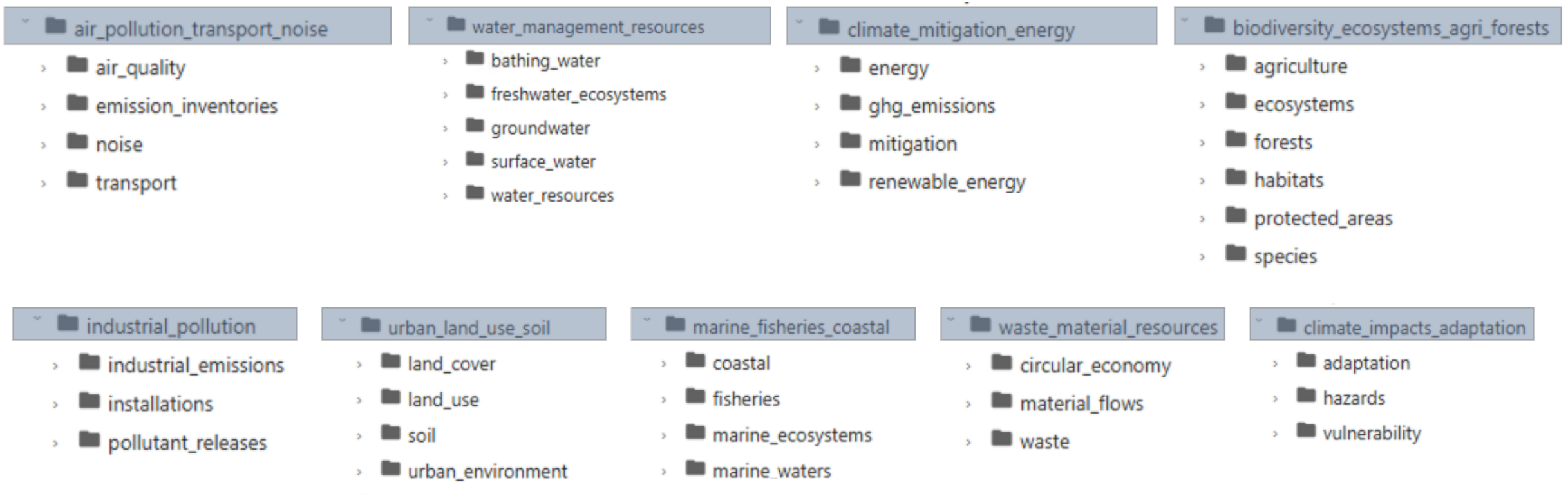
Better analytics

Analysts and scientists

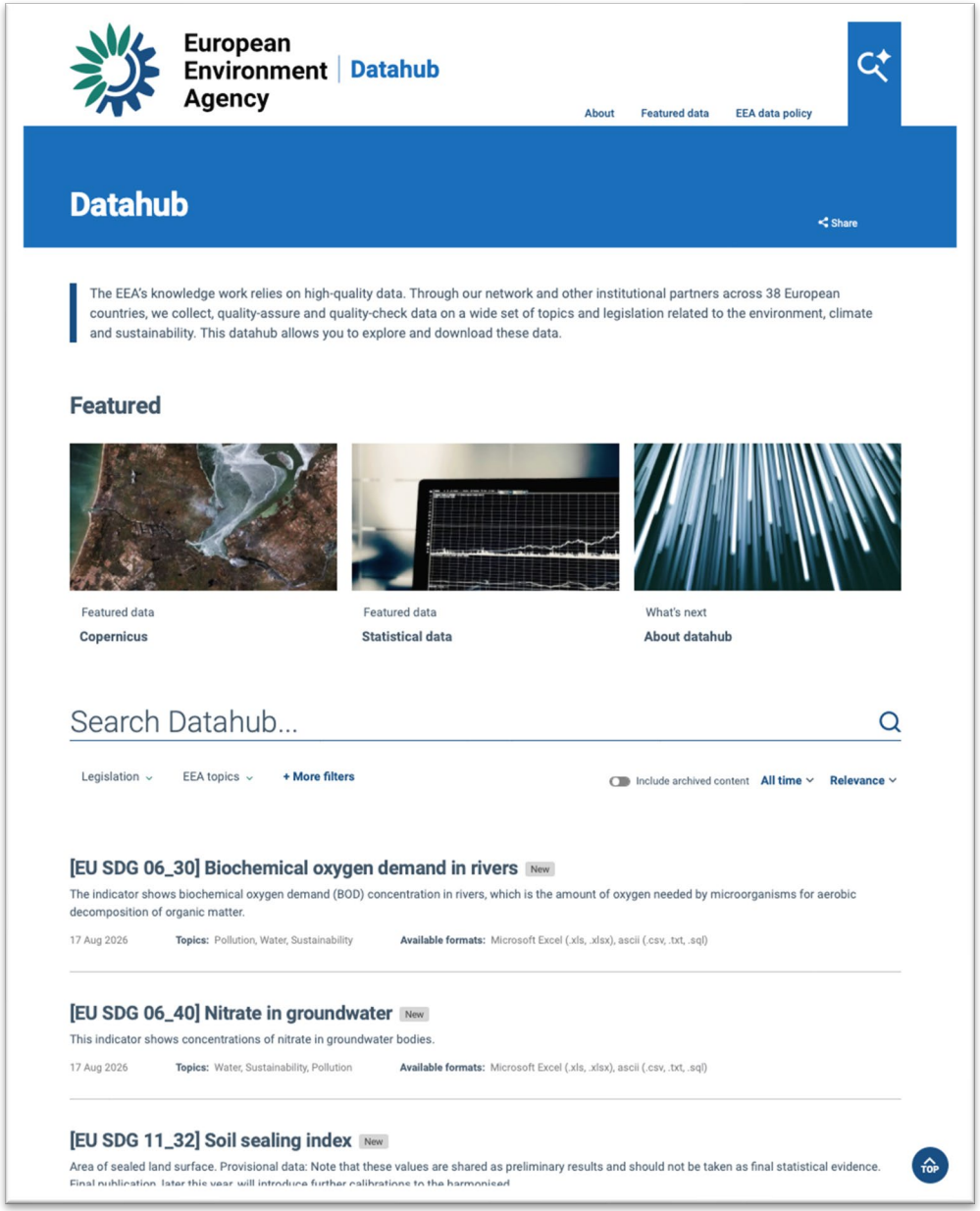
- Data ready for use
- Cross-thematic integration
- Analytics, automation and AI together

The common platform is valuable only when these user outcomes improve.

Nine individually managed domain areas



BETTER ACCESS TO OUR DATA



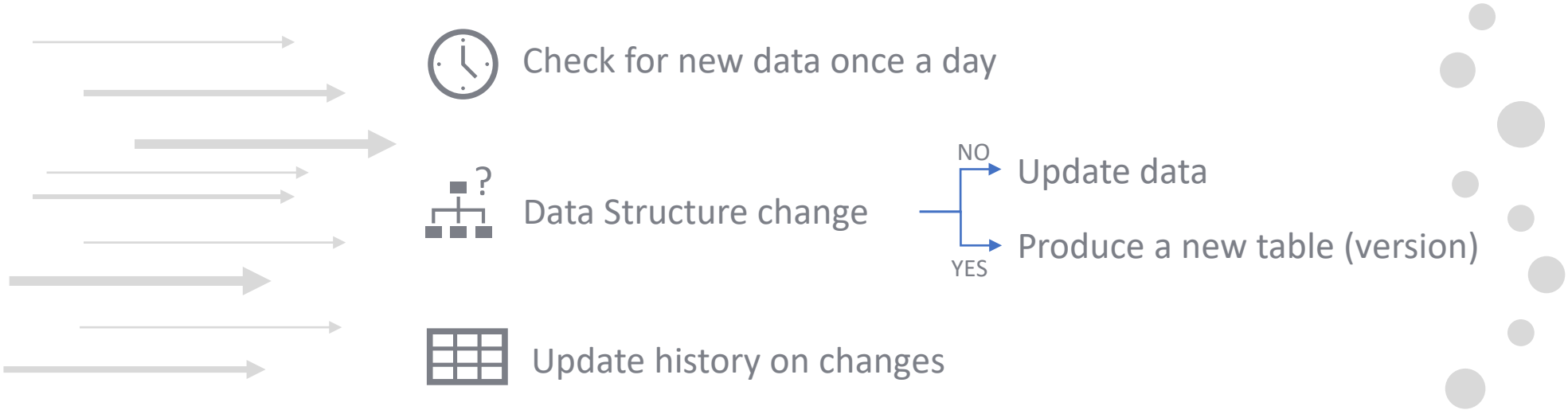
Go beyond the conventional "catalogue for data download"

- Provide better navigation
- Make data viewing priority
- Streamline data accessiblity (for example AI accesible)
- Recognise users backgrounds and provide ready data
- One technology stack and one consultancy team

INTEGRATION OF EXTERNAL DATA PARTNERS

Latest statistics from Eurostat integratede into EEA Data lake house.
This allows for life views and consistant data values over multiple services.

eurostat → EEA Data Lake House



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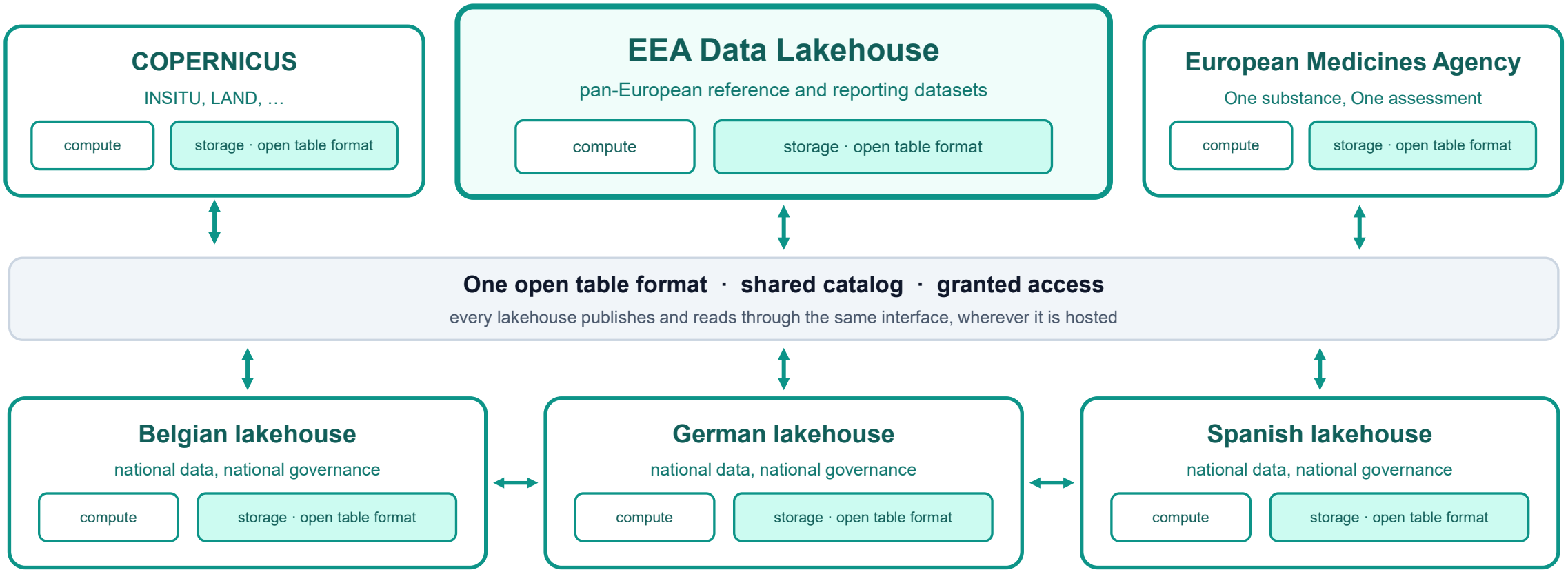
Future directions



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Federated, not centralized

Open storage in the cloud means each lakehouse keeps its own data and serves it to the others in place — no central copy



… and every other member country, joining on the same interface

No central copy

Nothing is shipped into one central store. Each lakehouse keeps, hosts and governs its own data.

It works both ways

EEA serves pan-European data to the countries; countries serve national data back — one mechanism.

Each owner stays in control

Every lakehouse decides which tables it publishes, and who is allowed to read them.

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Three takeaways for veterinary data and AI

A practical sequence from ambition to sustainable value.

1

Design for use

Start with decisions, users and reuse scenarios.

2

Build trust into the flow

Quality, lineage, semantics and access cannot be added at the end.

3

Scale through shared services

Automate recurring work and federate through common interfaces.

AI-ready data is not a separate product. It is the result of making governed data consistently usable.

Thank you

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