



Common European Data Spaces

Building the single market for data

Data is reshaping the way we produce, consume and live. From real-time navigation to improved personalised medicine, precision farming or reducing CO₂ emissions, data is a key ingredient for innovative products and services.

To harness the value of data for the benefit of the European economy and society, the [European strategy for data](https://digital-strategy.ec.europa.eu/en/policies/strategy-data) (<https://digital-strategy.ec.europa.eu/en/policies/strategy-data>) of February 2020 set out the path to the creation of Common European Data Spaces in a number of strategic fields: health, agriculture, manufacturing, energy, mobility, finance, public administration, skills, the European Open Science Cloud and the green deal.

Since then, data spaces have emerged in other important areas such as media, language, tourism, research and innovation, and cultural heritage. Together, the data spaces will gradually be interconnected to form the [single market for data](https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/european-data-strategy_en#a-single-market-for-data) (https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/european-data-strategy_en#a-single-market-for-data).

Concept

Stakeholders drive the evolution of data spaces. Users within each distinct sector contribute to shaping these spaces, resulting in the emergence of unique forms and characteristics. Yet, what underpins all European data spaces is common *data infrastructures* and *governance frameworks*, which facilitates data pooling, access and sharing. In addition, the Common European Data Spaces have these key features. They:

- are **open** for the **participation** of all organisations and individuals.
- have a **secure and privacy-preserving** infrastructure to pool, access, share, process, and use data.
- are a clear and practical structure for accessing and using data: common European data space have **fair, transparent, proportionate and non-discriminatory access rules**, due to well-defined and trustworthy data governance mechanisms.
- **respect EU rules and values**, especially **personal data** and **consumer protection**, and **competition** law.
- enable data holders to **grant access** to or to **share** certain **personal** or **non-personal data**.
- **empower data holders** to make their data available for **reuse** for **free** or **against compensation**.

Objectives

The Common European Data Spaces will help unleash the enormous potential of data-driven innovation. They will allow data from across the EU to be made available and exchanged in a **trustworthy and secure** manner. EU **Businesses, public administrations**, and **individuals** will **control the data they generate**. At the same time, these data holders will benefit from a safe and reliable framework to share their data for innovation purposes.

Common European Data Spaces will enhance the development of new data-driven products and services in the EU, forming the core tissue of an **interconnected and competitive European data economy**.

State of play

Two staff working documents have been published in response to a request from the European Council, providing an overview of the state of play of the Common European Data Spaces. The [latest report](https://digital-strategy.ec.europa.eu/en/library/second-staff-working-document-data-spaces) (<https://digital-strategy.ec.europa.eu/en/library/second-staff-working-document-data-spaces>) on the state of play was published in January 2024.

You can also check the [First staff working document on data spaces](https://digital-strategy.ec.europa.eu/en/library/staff-working-document-data-spaces) (<https://digital-strategy.ec.europa.eu/en/library/staff-working-document-data-spaces>), published on February 2022.

Next steps

In 2024, stakeholders will continue to work toward the rollout of Common European Data Spaces.

The EU is funding several initiatives related to Common European Data Spaces for sector and domain-specific initiatives, notably the [Data Spaces Support Centre](https://dssc.eu) (<https://dssc.eu>) and [Smart Open-source Middleware \(SIMPL\)](https://digital-strategy.ec.europa.eu/en/policies/simpl) (<https://digital-strategy.ec.europa.eu/en/policies/simpl>) under the Digital Europe programme and Horizon Europe.

In addition, the EU will focus on implementing the enabling legislative instruments. In particular, the [European Data Innovation Board \(EDIB\)](https://ec.europa.eu/transparency/expert-groups-register/screen/expert-groups/consult?lang=en&groupID=3903) (<https://ec.europa.eu/transparency/expert-groups-register/screen/expert-groups/consult?lang=en&groupID=3903>) - established under the Data Governance Act - will work on guidelines. The creation of [recognised data altruism organisations](https://digital-strategy.ec.europa.eu/en/policies/data-altruism-organisations) (<https://digital-strategy.ec.europa.eu/en/policies/data-altruism-organisations>), [data intermediaries](https://digital-strategy.ec.europa.eu/en/policies/data-intermediary-services) (<https://digital-strategy.ec.europa.eu/en/policies/data-intermediary-services>), and the [European register for protected data held by the public sector](https://data.europa.eu/data/datasets?superCatalogue=erpd&locale=en) (<https://data.europa.eu/data/datasets?superCatalogue=erpd&locale=en>) will enable the safe and secure sharing of large volumes of data.

The Commission also provides [support for developing Common European Data Spaces](https://joinup.ec.europa.eu/collection/semic-support-centre/data-spaces) (<https://joinup.ec.europa.eu/collection/semic-support-centre/data-spaces>) in the form of reference architecture, building blocks, semantics, interoperability specifications and data models, accompanied by related advisory services, provided by the Data Spaces Support Centre.

Rollout of Common European Data Spaces

Common European Data Spaces are currently being developed across 14 sectors/domains. Additional updates (including links) will be published when they become available.

Agriculture	AgriDataSpace (https://agridataspace-csa.eu/), Divine (https://divine-project.eu/), CrackSense (https://cracksense.eu/), ScaleAgData (https://scaleagdata.eu/en/), AgDataValue (https://agridatavalue.eu/), 4Growth, Dig4Live
Cultural Heritage	Europeana pro (https://pro.europeana.eu/page/common-european-data-space-for-cultural-heritage), Eureka3D (https://eureka3d.eu/), 5Dculture (https://5dculture.eu/), DE-BIAS (https://pro.europeana.eu/project/de-bias), AI4Europeana (https://pro.europeana.eu/project/ai4europeana-an-ai-platform-for-the-cultural-heritage-data-space)
Energy	IntNET (https://intnet.eu/), OMEGA-X (https://omega-x.eu/), EDDIE (https://eddie.energy/), Enershare (https://enershare.eu/), Synergies (https://energydataspaces.eu/), Data cellar (https://datacellarproject.eu/)
Finance	Procurement under the Digital Europe programme (under development) GREAT (https://www.greatproject.eu/), AD4GD (https://ad4gd.eu/), B-Cubed (https://b-cubed.eu/), FAIRICUBE (https://fairicube.nilu.no/), USAGE (https://www.usage-project.eu/home),
Green deal	Smart cities and communities DS4SSCC (https://www.ds4sscc.eu/) DS4SSCC-DEP (under development)
Health	European Health Data Space: MyHealth@EU (https://health.ec.europa.eu/ehealth-digital-health-and-care/electronic-cross-border-health-services_en) HealthData@EU Pilot (https://ehds2pilot.eu/) Joint Action Towards the European Health Data Space – TEHDAS (https://tehdas.eu/) Cancer images: EUCAIM (https://cancerimage.eu/) Genomics: GDI (https://gdi.onemilliongenomes.eu/)
Language	European language data space (https://language-data-space.ec.europa.eu/index_en) Data Space 4.0 (https://manufacturingdataspace-csa.eu/)
Manufacturing	SM4RTENANCE (https://sm4rtenance.eu/) UNDERPIN (https://underpinproject.eu/)
Media	TEMS (https://tems-dataspace.eu/)
Mobility	PrepDSpace4Mobility (https://mobilitydataspace-csa.eu/) deployEMDS (https://deployemds.eu/)
Public administration	Legal (under development) OOTS - Once Only Technical System (https://ec.europa.eu/digital-building-blocks/sites/display/OOTS/OOTSHUB+Home) Public procurement: PPDS (https://single-market-economy.ec.europa.eu/single-market/public-procurement/digital-procurement/public-procurement-data-space-ppds_en) The European Open Science Cloud (EOSC) (https://eosc-portal.eu/), Skills4EOSC (https://skills4eosc.eu/), EOSC Focus (https://eosc.eu/eosc-focus-project), FAIR-IMPACT (https://fair-impact.eu/), RDA TIGER (https://www.rd-alliance.org/rda-tiger/), FAIRCORE4EOSC (https://faircore4eosc.eu/), AI4EOSC (https://ai4eosc.eu/), EuroScienceGateway (https://galaxyproject.org/projects/esg/), FAIR-EASE (https://www.fairease.eu/), RAISE (https://raise-science.eu/), SciLake (https://scilake.eu/), EOSC4Cancer (https://eosc4cancer.eu/), GrasPOS (https://graspos.eu/), CRAFT-OA (https://www.craft-oa.eu/), AquaINFRA (https://aquainfra.eu/), Blue-Cloud 2026 (https://blue-cloud.org/), OSCARs (https://oscars-project.eu/), EVERSE (https://everse.software/), OSTrails , EOSC Beyond (https://www.openaire.eu/eosc-beyond), EOSC-ENTRUST (http://eosc-entrust.eu/), SIESTA, TITAN
Skills	DS4Skills (https://www.skillsdataspace.eu/) EDGE-Skills (under development)
Tourism	DATES (https://www.tourismdataspace-csa.eu/) DFST (https://dsft.modul.ac.at/)

Source URL: <https://digital-strategy.ec.europa.eu/policies/data-spaces>

© European Union, 2025 - [Shaping Europe's digital future](https://digital-strategy.ec.europa.eu/en) (<https://digital-strategy.ec.europa.eu/en>) - PDF generated on 25/03/2025

Reuse of this document is allowed, provided appropriate credit is given and any changes are indicated (Creative Commons Attribution 4.0 International license).

For any use or reproduction of elements that are not owned by the EU, permission may need to be sought directly from the respective right holders.