

# L-iffaċilitar ta' settur pubbliku infurmat dwar id-*data*

*Minn hype għal azzjoni bl-użu  
tal-Infrastruttura tat-Testijiet tal-Big Data  
(BDTI)*

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## **DĠ CNECT**

Direttorat Ġenerali għall-Komunikazzjoni  
Networks, Kontenut u Teknoloġija

## **DĠ DIGIT**

Direttorat Ġenerali  
Għall-Informatika



# Informazzjoni tas-Settur Pubbliku u r-rwol tal-Analitika tad-*data*

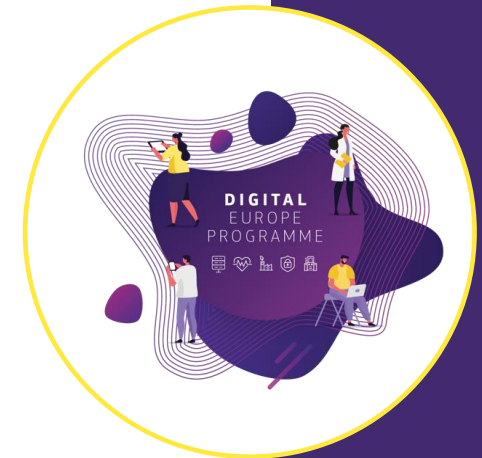
Id-*data* qiegħda kullimkien u qed tikber b'pass bla precedent.

- Il-Big Data 3V - Volum, Varjetà, Velocità



Id-*data* hija ingredjent ewlieni għas-servizzi, il-prodotti u t-tfassil effettiv tal-politika.

Hemm ambizzjoni li jinħoloq suq uniku Ewropew għad-*data* u li aktar *data* ssir disponibbli permezz ta' infrastrutturi u teknologiji b'saħħithom u affidabbli, f'konformità mal-valuri u r-regolamenti tal-UE, biex jiġu appoġġati ċ-ċittadini, is-settur pubbliku u l-kumpaniji.



# X'inhom l-Infrastruttura tat-Testijiet tal-Big Data (BDTI)?



BDTI: Mhux **biss** għall-big data, iżda għall-**informazzjoni** kollha **tas-settur pubbliku**



Sitt xhur servizz bla\* ħlas  
għall-amministrazzjonijiet pubbliċi  
tal-UE



Data analytics stack u appoġġ  
lesti għall-użu



Pjattaforma tal-cloud ibbażata fuq  
għodod b'sors miftuħ



Biex tgħin lis-settur pubbliku jikseb għarfien mid-*data* tiegħu u jaċcellera  
t-tranzizzjoni lejn **teħid ta' deċiżjonijiet immexxi mid-*data***

\* L-ispiza tal-proġett pilota trid tidhol fil-limiti tal-finanzjament tal-baġit tal-proġett pilota tal-BDTI

# Objettivi tal-Infrastruttura tat-Testijiet tal-Big Data

## Għanijiet

- Iżżid l-aċċessibilità, l-interoperabbiltà, il-kwalità u l-użu faċli tal-informazzjoni tas-settur pubbliku f'konformità mar-rekwiżit tad-**Direttiva dwar id-Data Miftuħa**
- Tagħti spinta lill-**użu mill-ġdid u lill-kombinazzjoni ta' data** pubblika miftuħa madwar l-UE għall-iżvilupp ta' prodotti u servizzi tal-informazzjoni, inklużi l-applikazzjonijiet tal-IA
- Settijiet tad-*Data* ta' Valur Għoli – Id-Direttiva dwar id-*Data* Miftuħa
- Ittestjar tal-kollaborazzjonijiet tal-kondiviżjoni tad-*data* min-Negozji għall-Gvern (B2G) għall-**gid pubbliku**
- Ċentru ta' Appoġġ għall-Ispazju tad-*Data*: esplora u esperimenta bid-*data* tiegħek\*
- BDTI tipprovdi **ambjent ta' ttestjar** sikur **biex jitwettqu esperimenti tal-big data** għall-klijenti tal-ispazju tad-*data*



\* <https://joinup.ec.europa.eu/collection/semic-support-centre/data-spaces>

# Dwar l-Infrastruttura tat-Testijiet tal-Big Data (BDTI)

Il-BDTI hija ffinanzjata mill-**Programm Ewropa Digitali (DEP)** iffokat fuq it-**twassil tat-teknoloġija digitali** lin-negozji, liċ-ċittadini u lill-**amministrazzjonijiet pubbliċi**.

Id-DEP jipprovdi finanzjament strateġiku f'**ħames oqsma kruċjali**:

**Computing ta' prestazzjoni għolja**

**Ċibersigurtà**

**Intelligenza artifiċjali**

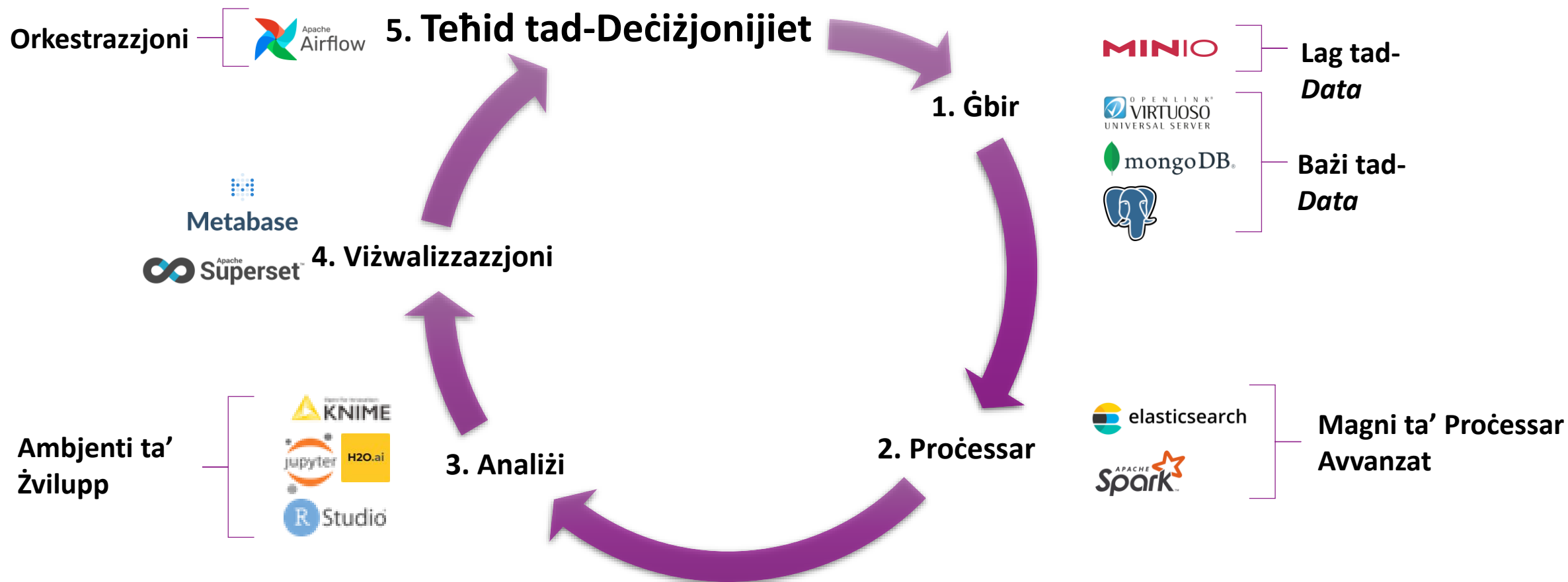
*(Cloud, data u IA)*

**Ħiliet digitali avanzati**

**Il-varar u l-użu wiesa' tat-teknoloġiji digitali**



# Għodod b'sors miftuħ biex jappoggaw il-vjaġġ tad-*data* tiegħek



# II-portal tal-BDTI



portal.p1.bdti.dataplatform.tech.ec.europa.eu

European Commission

- Home
- My Account
- Service Catalog
- My Services
- My Data

Logout

v0.9.4

## Welcome

BDTI is a Platform-as-a-Service (PaaS), hosted in the cloud, that offers the necessary managed infrastructure and software frameworks for statistical analysis to data engineers, data scientist, and data analysts for a variety of use cases. The platform enables users to select from different components a deployment suited as a solution for their use case. Standard deployments are readily available, but BDTI allows combining components for a custom solution.

## Documentation

[Learn more](#)

### BIG DATA TEST INFRASTRUCTURE (BDTI)

Watch on YouTube

<https://youtu.be/fdzNCB1CVUM>

### Optimisation of Public Lighting - Dún Laoghaire County

The goal of this dashboard is to support you to achieve savings and CO2 emission reduction by turning lighting off when and where the least necessary. By default, lighting is always on between sunset and sunrise.

#### Daily full-lighting expenses versus projected expenses

Date	Full-lighting (Euro)	Projected (Euro)	Savings (%)
Tuesday, April 18	22.4k	17.7k	17.7%
Wednesday, April 19	22.4k	17.5k	17.5%
Thursday, April 20	22.4k	16.5k	16.5%
Friday, April 21	22.4k	16.3k	16.3%
Saturday, April 22	22.4k	19.9k	19.9%
Sunday, April 23	22.4k	15.7k	15.7%
Monday, April 24	22.4k	17.3k	17.3%

#### Projected savings next week

27.3k Euro

#### Projected emission reduction next week

3.36 tCO2

#### Scenario comparison of projected cumulative savings over 1 year \*

Traffic level name	Cumulative emission savings (tCO2)	Cumulative savings (Euro)
5 Very high traffic	179k	3,342k
4 High traffic	84.4k	1,604k
3 Medium traffic	726.91	5,809k
2 Low traffic	466.0	3,784k
1 Very low traffic	221.5	1,794k
0 None	0	0



# IT-portal tal-BDTI

100 %   
komponenti b'sors  
miftuħ



## Service Catalog

- Home
- My Account
- Service Catalog**
- My Services
- My Data

### Airflow - v2.3.0

**Description**  
Airflow is a platform created by the community to programmatically author, schedule and monitor workflows.

[Launch](#)

### Apache Superset - v1.0

**Description**  
Apache Superset is a modern data exploration and visualization platform. It is fast, lightweight, intuitive, and loaded with options that make it easy for users of all skill sets to explore and visualize their data, from simple line charts to highly detailed geospatial charts.

[Launch](#)

### Apache Superset v2.1

**Description**  
Apache Superset is a modern data exploration and visualization platform. It is fast, lightweight, intuitive, and loaded with options that make it easy for users of all skill sets to explore and visualize their data, from simple line charts to highly detailed geospatial charts.

[Launch](#)

### ElasticSearch - v7.17.3

**Description**  
Elasticsearch is the distributed, RESTful search and analytics engine at the heart of the Elastic Stack.

[Launch](#)

### H2O-3 - v36.1.1

**Description**  
H2O is an in-memory platform for distributed, scalable machine learning. H2O uses familiar interfaces like R, Python, Scala, Java, JSON and the Flow notebook/web interface, and works seamlessly with big data technologies like Hadoop and Spark.

[Launch](#)

### Jupyterlab - lab-3.2.8 - datascience-notebook

**Description**  
The Jupyter Notebook is a web application for creating and sharing documents that contain code, visualizations, and text. It can be used for data science, statistical modeling, machine learning, and much more.

[Launch](#)

### Jupyterlab - lab-3.4.2 - all-spark-notebook

**Description**  
The Jupyter Notebook is a web application for creating and sharing documents that contain code, visualizations, and text. It can be used for data science, statistical modeling, machine learning, and much more. Used for spark.

[Launch](#)

### Jupyterlab - lab-4.0.4 - all-spark-notebook

**Description**  
The Jupyter Notebook is a web application for creating and sharing documents that contain code, visualizations, and text. It can be used for data science, statistical modeling, machine learning, and much more. Used for spark.

[Launch](#)

### Jupyterlab - lab-4.0.4 - datascience-notebook

**Description**  
The Jupyter Notebook is a web application for creating and sharing documents that contain code, visualizations, and text. It can be used for data science, statistical modeling, machine learning, and much more.

[Launch](#)

### Kibana - v7.17.3

**Description**  
Kibana is your window into the Elastic Stack. Specifically, it is a browser-based analytics and search dashboard for Elasticsearch.

[Launch](#)

### Knime - v4.5.3

**Description**  
KNIME Analytics Platform is the open source software for creating data science. Intuitive, open, and continuously integrating new developments, KNIME makes understanding data and designing data science workflows and reusable components accessible to everyone.

[Launch](#)

### Knime - v5.1.0

**Description**  
KNIME Analytics Platform is the open source software for creating data science. Intuitive, open, and continuously integrating new developments, KNIME makes understanding data and designing data science workflows and reusable components accessible to everyone.

[Launch](#)

### Metabase - v0.43.3

**Description**  
Metabase sets up in five minutes, connecting to your database, and bringing its data to life in beautiful visualizations. An intuitive interface makes data exploration feel like second nature—opening data up for everyone, not just analysts and developers.

[Launch](#)

### MinIO - RELEASE.2022-06-20T23-13-45Z

**Description**  
MinIO offers high-performance, S3 compatible object storage. Native to Kubernetes, MinIO is the only object storage suite available on every public cloud, every Kubernetes distribution, the private cloud and the edge. MinIO is software-defined and is 100% open source under GNU AGPL v3.

[Launch](#)

### MongoDB - v4.4.13

**Description**  
MongoDB® is a relational open source NoSQL database. Easy to use, it stores data in JSON-like documents. Automated scalability and high-performance. Ideal for developing cloud native applications.

[Launch](#)

### PgAdmin4 - v6.8

**Description**  
PgAdmin is the most popular and feature rich Open Source administration and development platform for PostgreSQL, the most advanced Open Source database in the world.

[Launch](#)

### Postgresql - v14.2.0

**Description**  
PostgreSQL is a powerful, open source object-relational database system with over 30 years of active development that has earned it a strong reputation for reliability, feature robustness, and performance.

[Launch](#)

### RStudio - v4.1.2

**Description**  
An integrated development environment for R and Python, with a console, syntax-highlighting editor that supports direct code execution, and tools for plotting, history, debugging and workspace management.

[Launch](#)

### Spark - v3.2.1

**Description**  
Apache Spark is an open-source unified analytics engine for large-scale data processing. Spark provides an interface for programming clusters with implicit data parallelism and fault tolerance.

[Launch](#)

### Virtuoso - v7.2.7

**Description**  
OpenLink Virtuoso is a next-generation Universal Server that facilitates the development and deployment of a new generation of Enterprise-wide, Internet, Intranet, and Extranet-based solutions, transcending prevalent enterprise challenge areas such as Disparate Databases and Data Sources, Web Service Composition, and Business Process Management.

[Launch](#)



# Għal min hu l-BDTI?



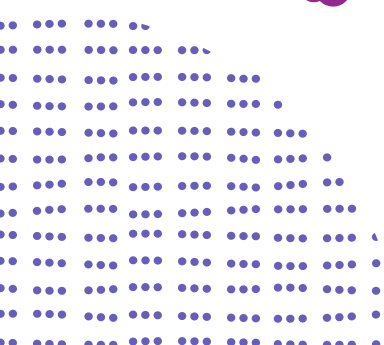
## Amministrazzjonijiet Pubbliċi Ewropej

L-Amministrazzjonijiet Pubbliċi Ewropej kollha fil-livell **lokali, reġjonali u nazzjonali** jistgħu japplikaw b'mod indipendenti għal proġett pilota BDTI



## Šhubijiet mal-akkademja u s-settur privat

L-akkademja (studenti tal-masters u tal-PhD) u negozji godda u kumpaniji (is-settur GovTech) jistgħu japplikaw jekk ikunu qed **jikkollaboraw** ma' amministrazzjoni pubblika



# Għaliex għandek tuża I-BDTI?



**Ibbenefika minn sitt xhur mingħajr ħlas**, inkluż **appoġġ konsultattiv u tekniku**



**Esperimenta bl-analitika tad-*data*** bl-użu ta' **infrastruttura ta' prestazzjoni** għolja li tuża s-saħħa tal-**elastic cloud**



**Irċievi gwida** biex tgħaddi mill-proġett pilota għal proċess **lest għall-produzzjoni**



**Ittestja l-idea tiegħek → Hu l-valur → Oħloq l-għarfien**

# Min digà uzaha?



Generalitat Valenciana kellha bżonn soluzzjoni biex tanalizza artikli kliniċi xjentifiċi vasti minn diversi sorsi bħal PubMed.gov u pubblikazzjonijiet relatati mal-COVID-19. L-isfida tagħhom kienet li jisiltu għarfien prezzjuż minn dan il-volum enormi ta' *data*.



L-Alleanza Ewropea tad-Demm u d-DĠ SANTE bdew sforz kollaborattiv biex jistabbilixxu pjattaforma komprensiva b'aċċess miftuħ fl-Ewropa. Din l-inizjattiva kellha l-għan li tiġbor *data* kruċjali għal studju ffukat dwar it-terapija tal-plażma ta' konvalexenti tal-COVID-19. L-isfida kienet li jiġu identifikati l-aktar kundizzjonijiet effettivi għal dan it-trattament, bl-użu tal-analiżi tad-*data* biex jittieħdu deċizzjonijiet infurmati u jiġu ssimplifikati l-isforzi tar-riċerka.



Il-Municipalità ffaċċat il-kompitu kumpless li tikkorrelata settijiet ta' *data* diversi fi ħdan il-belt. L-oġjettiv tagħhom kien li jifhmu x-xejriet tal-moviment tal-persuni f'distretti differenti matul iż-żmien. Din l-isfida tal-analiżi tad-*data* kienet essenzjali biex jinkiseb għarfien dwar ix-xejriet tal-mobbiltà u għat-tfassil mill-ġdid tas-servizzi biex jiġu promossi b'mod effettiv l-attivitajiet u l-avvenimenti kulturali.



Għodod avvanzati għall-viżwalizzazzjoni tad-*data* u t-tiftix fit-test biex jgħinu fl-estrazzjoni tal-għarfien li jinsab fid-dokumenti, l-għoti ta' appoġġ lit-tobba u lill-manigġers fil-prattiki kliniċi u fil-ħidma ta' kuljum tagħhom.



Ambjent virtwali lest għall-użu li fih *id-data* miġbura permezz ta' sit web mibni apposta tiġi iġġestita u anonimizzata, u mbagħad tiġi analizzata b'għodod ta' viżwalizzazzjoni avvanzata tad-*data* u analitiċi. Inizjalment, għet ipproċessata biss *data* dwar id-donazzjoni, imbagħad il-kamp ta' applikazzjoni żdied biex jinqabad il-proċess kollu tal-plażma tad-demm, mid-donazzjoni sal-pazjent/prova klinika.



Analiżi predittiva, deskrittiva u ta' serje kronoloġika dwar diversi settijiet ta' *data* miġbura qabel, matul u wara l-pandemija tal-COVID-19 bħal: *data* tas-sensuri pubbliċi tal-Wi-Fi, parkeġġi u ġeoreferenzjata tal-movimenti tan-nies (jiġifieri, turisti).



# Kif tapplika? proċess rapidu u sempliċi



Iffamiljarizza ruġiek mas-servizz tal-BDTI fuq [is-sit web](#) tagħna



» Iddefinixxi l-każ tal-użu tal-analitika tad-*data* tiegħek billi tuża [l-BDTI Canva](#) tagħna u mbagħad imla l-mudell tal-formola tat-talba (ara [s-sit web](#))



» Ibgħat it-talba tiegħek għal proġett pilota (mudell) permezz ta' email

[EC-BDTI-PILOTS@ec.europa.eu](mailto:EC-BDTI-PILOTS@ec.europa.eu)



» Iltaq' magħna biex telabora dwar il-każ tal-użu tiegħek



» Il-Proġett Pilota jiġi approvat jekk:

l-għib valur, jista' jsir f'6 xhur, ikunu disponibbli riżorsi suffiċjenti (ħiliet, tim, *data*)



» L-ambjent tat-test tiegħek jiġi stabbilit



» Tista' tibda tittestja u toħloq il-valur!

# Nirringrazzjawk tal-attenzjoni tiegħek!



Qed taħdem għal amministrazzjoni pubblika li teħtieg infrastruttura għall-analitika tad-*data*? Aghmel kuntatt magħna



[EC-BDTI-PILOTS@ec.europa.eu](mailto:EC-BDTI-PILOTS@ec.europa.eu)

[Is-sit web tal-  
BDTI](#)



[Il-paġna Joinup  
tal-BDTI](#)



[Newsletter tal-  
BDTI](#)



# Links u rizorsu

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- <https://big-data-test-infrastructure.ec.europa.eu/>
- <https://code.europa.eu/bdti/bdti-demonstrator>
- [https://commission.europa.eu/publications/interoperable-europe-act-proposal\\_en](https://commission.europa.eu/publications/interoperable-europe-act-proposal_en)
- [https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/european-data-strategy\\_en](https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/european-data-strategy_en)
- <https://digital-strategy.ec.europa.eu/en/policies/legislation-open-data>
- <https://digital-strategy.ec.europa.eu/en/policies/data-governance-act>
- <https://digital-strategy.ec.europa.eu/en/policies/european-approach-artificial-intelligence>
- <https://digital-strategy.ec.europa.eu/en/activities/digital-programme>
- <https://dssc.eu/wp-content/uploads/2023/03/DSSC-Data-Spaces-Glossary-v1.0.pdf>
- <https://digital-strategy.ec.europa.eu/en/library/staff-working-document-data-spaces>
- [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_22\\_1113](https://ec.europa.eu/commission/presscorner/detail/en/ip_22_1113)
- <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32019L1024>
- <https://joinup.ec.europa.eu/collection/egovernment/solution/big-data-test-infrastructure-bdti>