

Data Regulations, Open Data and Open Science

Ludovica Paseri, PhD.

EOLE 2024, Torino

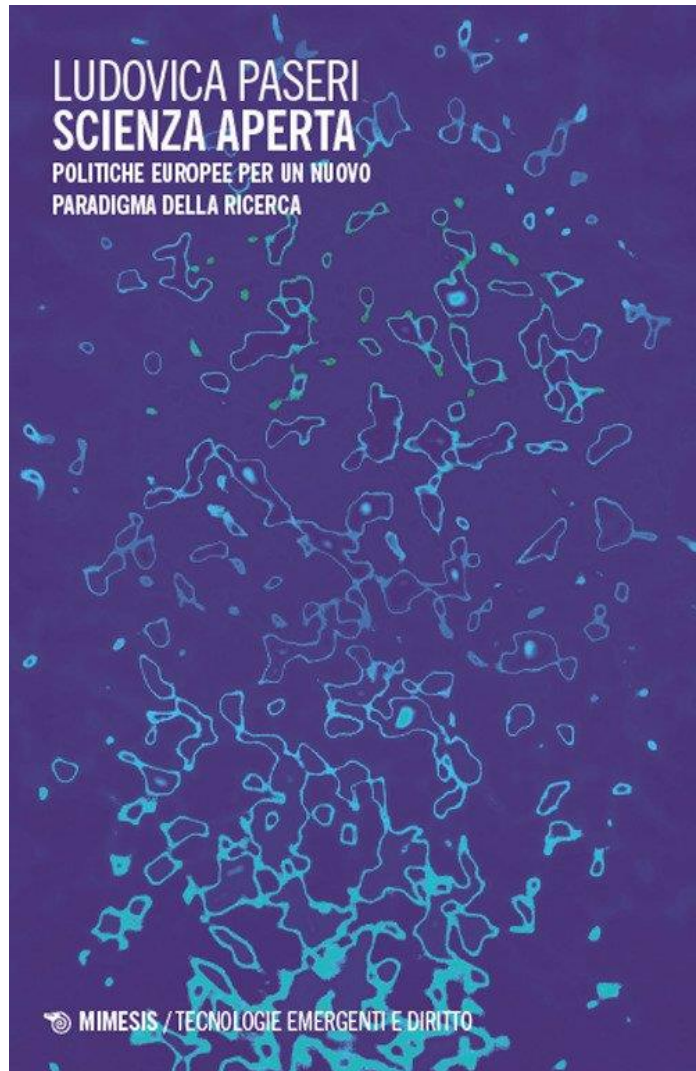
29 November 2024



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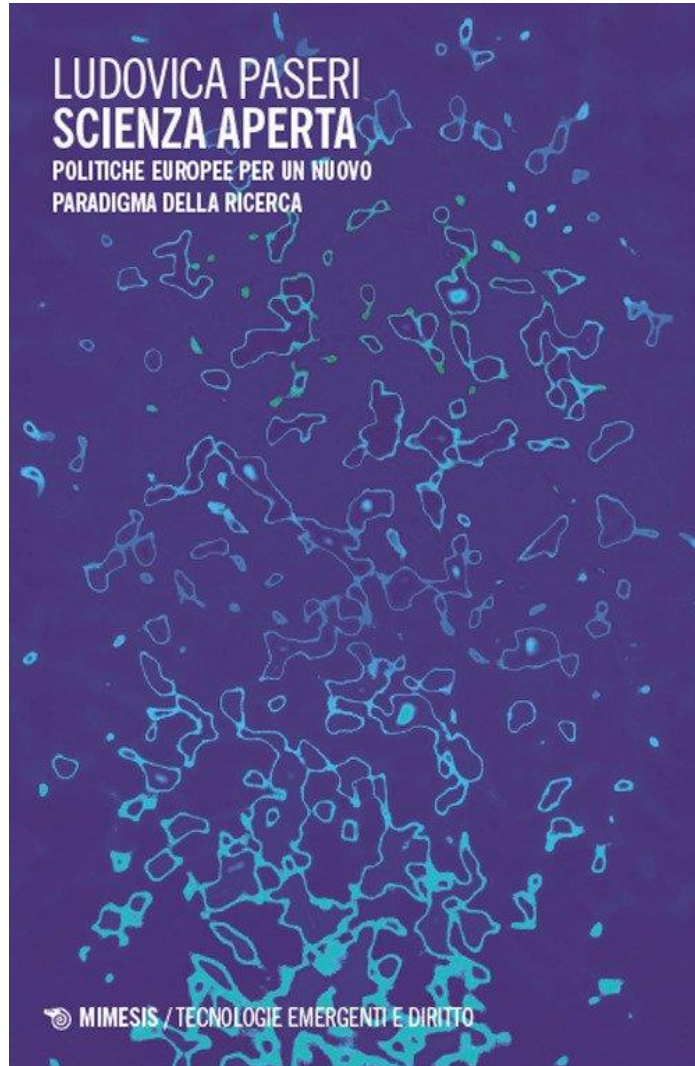
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LUDOVICA PASERI,
***Scienza aperta. Politiche europee
per un nuovo paradigma della
ricerca***, Mimesis Edizioni, Milano-
Udine, 2024.



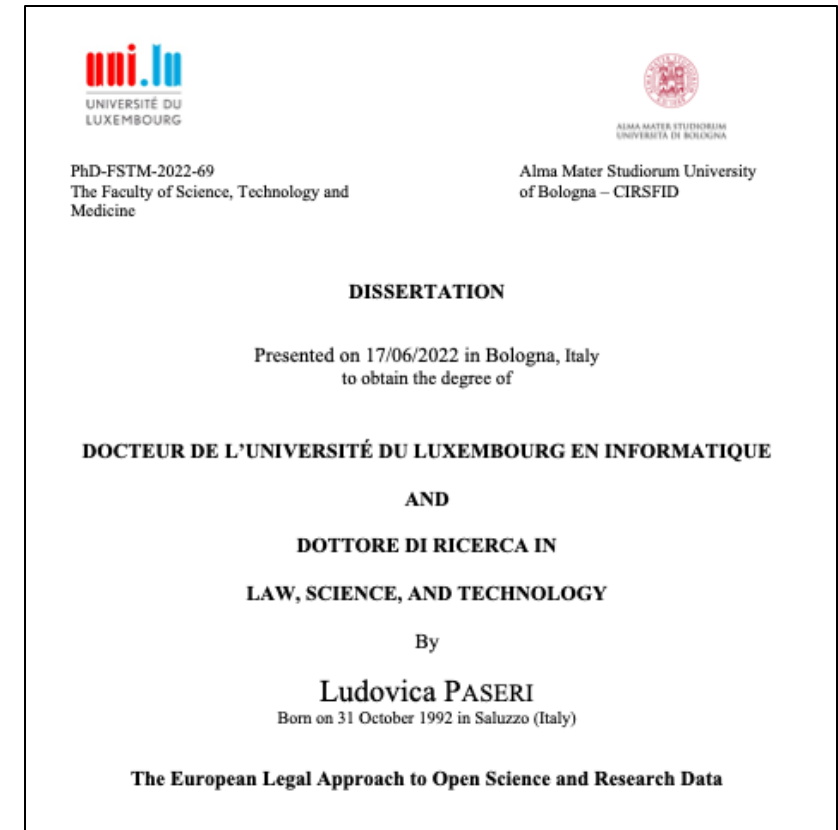
OPEN  ACCESS



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1. Introduction: Open Science Evolution



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The origin of the phenomenon:



 **BOAI** December 1-2, 2001.

BUDAPEST OPEN ACCESS INITIATIVE

<https://www.budapestopenaccessinitiative.org>

Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities

The Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities was published on 22 October 2003 in English. It is one of the milestones of the Open Access movement. The wording of the English version shall prevail.

<https://openaccess.mpg.de/Berlin-Declaration>

**Bethesda
Statement on
Open Access
Publishing**

2003

<https://www.ouvrirlascience.fr/bethesda-statement-on-open-access-publishing/>

1. Introduction: Open Science Evolution



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Open Science



"Open access (OA) literature is digital, online, free of charge, and free of most copyright and licensing restrictions."

P. Suber, Open access, The MIT Press (2012), p. 4.

1. Introduction: Open Science Evolution



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Open Science

**Open
Education**

**Open
Research
Data**

**Open
Access**



**Citizen
Science**

**Open
Peer
Review**

**Open
Source**

**Open
Notebooks**

**Crowdfunding
of science**

**Open
Infrastructures**

**Open
Methodology**

2. The notion of openness



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Open Science

1st Premise

The openness of the research process currently means many different things

2nd Premise

A crucial moment in the development of Open Science (OS) policies

2. The notion of openness



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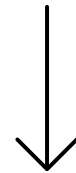
Open Science

1st Premise

The openness of the research process currently means many different things

2nd Premise

A crucial moment in the development of Open Science (OS) policies



**How can we operate in this context?
What definition of openness should we adopt?**

2. The notion of openness



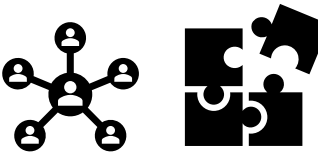
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Openness as the democratisation



Openness as institutional response



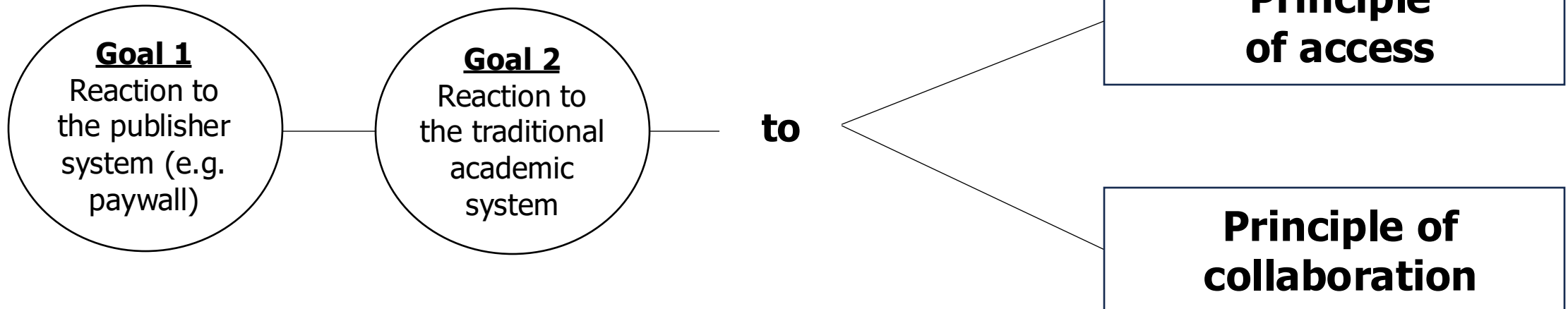
Openness *for* pluralism

2. The notion of openness



Openness as the democratisation

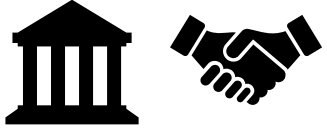
- A set of instances brought forward by part of the scientific community, associations and research entities fighting for broader and freer access to scientific knowledge;
- Open access **movement** and declarations;
- Strong relation with technological development.



2. The notion of openness



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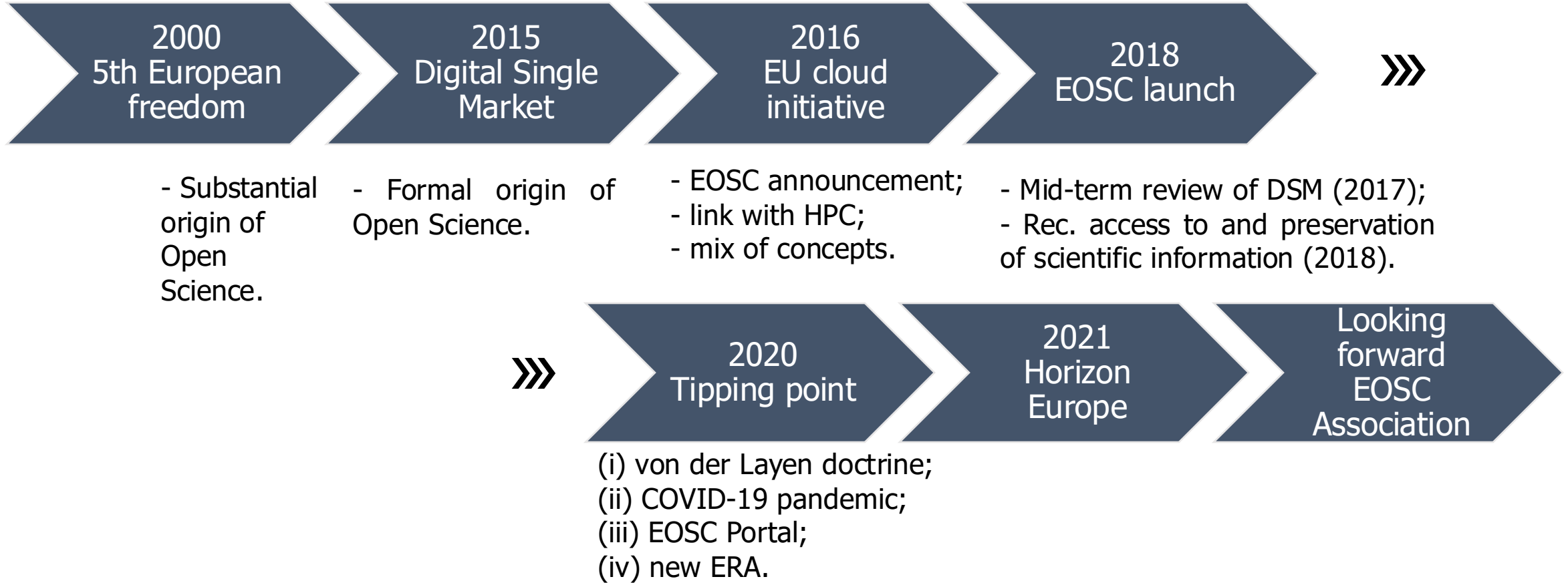


Openness as institutional response

**EU
institutions**

- Response to the demands of the scientific community (e.g., open access movement);
- Response to private actors involved in the scientific research process.

2. The notion of openness



2. The notion of openness



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THE INSTITUTIONALISATION OF OPEN SCIENCE

Article 14 *Open Science*

12.5.2021

EN

Official Journal of the European Union

L 170/1

I

(Legislative acts)

REGULATIONS

REGULATION (EU) 2021/695 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 28 April 2021

establishing Horizon Europe – the Framework Programme for Research and Innovation, laying down its rules for participation and dissemination, and repealing Regulations (EU) No 1290/2013 and (EU) No 1291/2013

**«as open as possible
as closed as necessary»**

1. The Programme shall encourage open science as an approach to the scientific process based on cooperative work and diffusing knowledge, in particular (...):
 - (a) open access to scientific publications resulting from research funded under the Programme;
 - (b) open access to research data, including those underlying scientific publications, in accordance with the principle 'as open as possible, as closed as necessary'.

2. The notion of openness



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Openness as institutional response

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- Response to the demands of the scientific community (e.g., open access movement);
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**Principle
of sharing**

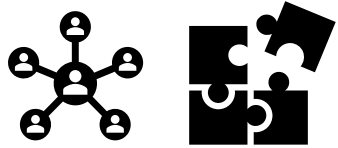
**Principle of
transparency**

**Principle
of integrity**

2. The notion of openness



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Openness *for* pluralism

Current phase of
open science policies
implementation

**Principle
of epistemic equality**

In order to take into account the conditions under which scientific research is carried out.

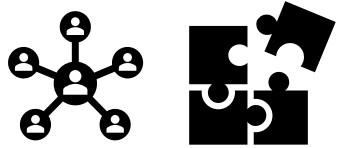
**Principle of
inclusiveness**

Aiming to encourage participation in science by the widest and most diverse range of actors.

2. The notion of openness



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Openness *for* pluralism

Current phase of open science policies implementation



<https://en.unesco.org/news/joint-appeal-open-science-unesco-who-hchr-cem>

Principle of epistemic equality



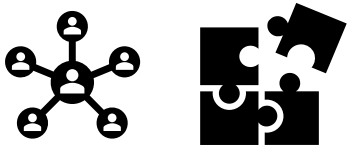
In order to take into account the conditions under which scientific research is carried out.

Principle of inclusiveness

Aiming to encourage participation in science by the widest and most diverse range of actors.

2. The notion of openness



 <p>Openness as the democratisation</p>	 <p>Openness as institutional response</p>	 <p>Openness for pluralism</p>
<ul style="list-style-type: none">- Principle of access- Principle of collaboration	<ul style="list-style-type: none">- Principle of sharing- Principle of transparency- Principle of integrity	<ul style="list-style-type: none">- Principle of epistemic equality- Principle of inclusiveness

3. Research data within the EU «politics of data»



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Legal framework



Cooperation & support in scientific research, ex article 167 TFEU

DIRECTIVE (EU) 2019/1024 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
of 20 June 2019
on open data and the re-use of public sector information
(recast)

REGULATIONS

REGULATION (EU) 2022/868 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
of 30 May 2022
on European data governance and amending Regulation (EU) 2018/1724 (Data Governance Act)

Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
LAYING DOWN HARMONISED RULES ON ARTIFICIAL INTELLIGENCE
(ARTIFICIAL INTELLIGENCE ACT) AND AMENDING CERTAIN UNION
LEGISLATIVE ACTS

3. Research data within the EU «politics of data»



Table 1 The sources of data politics in EU law

Acronym	Year	Source	Subject
AIA	2021	COM/2021/206 final	Artificial intelligence
CEAP	2020	COM/2020/98 final	Circular economy
Chips Act	2022	COM/2022/46 final	Semiconductors
Cyber Act	2019	Regulation 2019/881	Cybersecurity
DAct	2022	COM/2022/68 final	Fair data access and use
DGA	2020	COM/2020/767 final	Data governance
DHC	2018	COM/2018/233 final	e-Health and care
DMA	2020	COM/2020/842 final	Digital markets
DSA	2020	COM/2020/825 final	Digital services
ECL	2021	Regulation (EU) 2021/1119	Climate
EHDS	2022	COM/2022/197 final	Health data space
EU DS	2020	COM/2020/66 final	Overall data strategy
GDPR	2016	Regulation 2016/679	Personal data
Green Deal	2019	COM/2019/640 final	Climate, environment
ODF	2019	Directive 2019/1024	Open data framework

Pagallo, U. «The Politics of Data in EU Law: Will It Succeed?». *DISO* **1**, 20 (2022).
<https://doi.org/10.1007/s44206-022-00021-3>

3. Research data within the EU «politics of data»



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Legal framework



Cooperation & support in scientific research, ex article 167 TFEU


Member states leeway

DIRECTIVE (EU) 2019/1024 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
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REGULATIONS

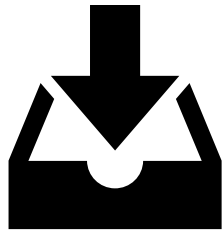
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3. Research data within the EU «politics of data»

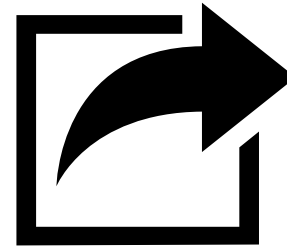


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INCOMING DATA

Data collected or created outside the field of research but reused for the benefit of science



OUTCOMING DATA

Data produced by the research sector and then shared

3. Research data within the EU «politics of data»



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OUTCOMING DATA

Article 10
Research data
Directive (EU) 2019/1024

Article 14
Open Science
Regulation (EU) 2021/695

L 172/56 EN Official Journal of the European Union 26.6.2019

DIRECTIVE (EU) 2019/1024 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
of 20 June 2019
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(recast)

12.5.2021 EN Official Journal of the European Union L 170/1

I
(Legislative acts)

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No 1291/2013

3. Research data within the EU «politics of data»



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INCOMING DATA

<p>4.5.2016 EN Official Journal of the European Union L 119/1</p> <p>Reg. (EU) 2016/679 GDPR</p> <p>I (Legislative acts)</p> <p>REGULATIONS</p> <p>REGULATION (EU) 2016/679 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation)</p>	<p>3.6.2022 EN Official Journal of the European Union L 152/1</p> <p>Reg. (EU) 2022/868 DGA <i>(Data altruism)</i></p> <p>I (Legislative acts)</p> <p>REGULATIONS</p> <p>REGULATION (EU) 2022/868 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 30 May 2022 on European data governance and amending Regulation (EU) 2018/1724 (Data Governance Act)</p>
<p>27.10.2022 EN Official Journal of the European Union L 277/1</p> <p>Reg. (EU) 2022/2065 DSA <i>(Art. 40)</i></p> <p>I (Legislative acts)</p> <p>REGULATIONS</p> <p>REGULATION (EU) 2022/2065 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 October 2022 on a Single Market For Digital Services and amending Directive 2000/31/EC (Digital Services Act)</p>	<p> Official Journal of the European Union EN L series</p> <p>Reg. (EU) 2023/2854 Data Act <i>(Art. 21)</i></p> <p>2023/2854 22.12.2023</p> <p>REGULATION (EU) 2023/2854 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 13 December 2023 on harmonised rules on fair access to and use of data and amending Regulation (EU) 2017/2394 and Directive (EU) 2020/1828 (Data Act)</p>

4. Conclusions



- Do public universities and research centres have (or will they have) the capacity to benefit from the «politics of data» opportunities?
- Are the proper structures/infrastructures in place for compliance?
- What direction is openness in scientific research taking?



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LUDOVICA PASERI,

ludovica.paseri@unito.it

Postdoc researcher,
Philosophy of Law and Legal Informatics
Law Department, University of Turin