

# The Open Science: The Legal Challenges of the European Approach for Research Data and Infrastructures

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# 1. What is the open science approach?

The origin of the phenomenon: **OPEN**  **ACCESS**

 **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/>

*"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.

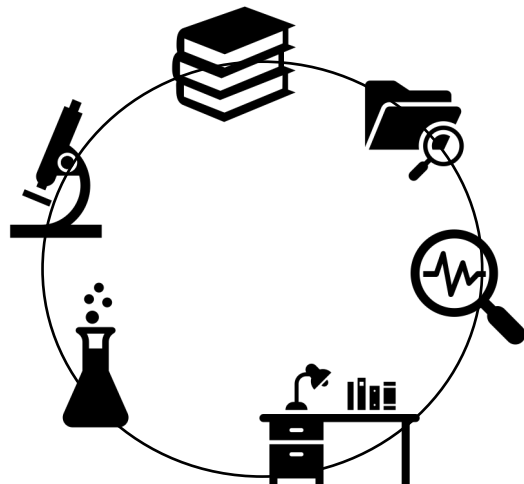
# 1. What is the open science approach?



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## Openness

The openness of every phase of the research cycle.



A good science: based on communication, cooperation, no waste of efforts, transparent, based on new technologies.

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



Taking full advantage of the use of new technologies in scientific research.

# 1. What is the open science approach?



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**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**

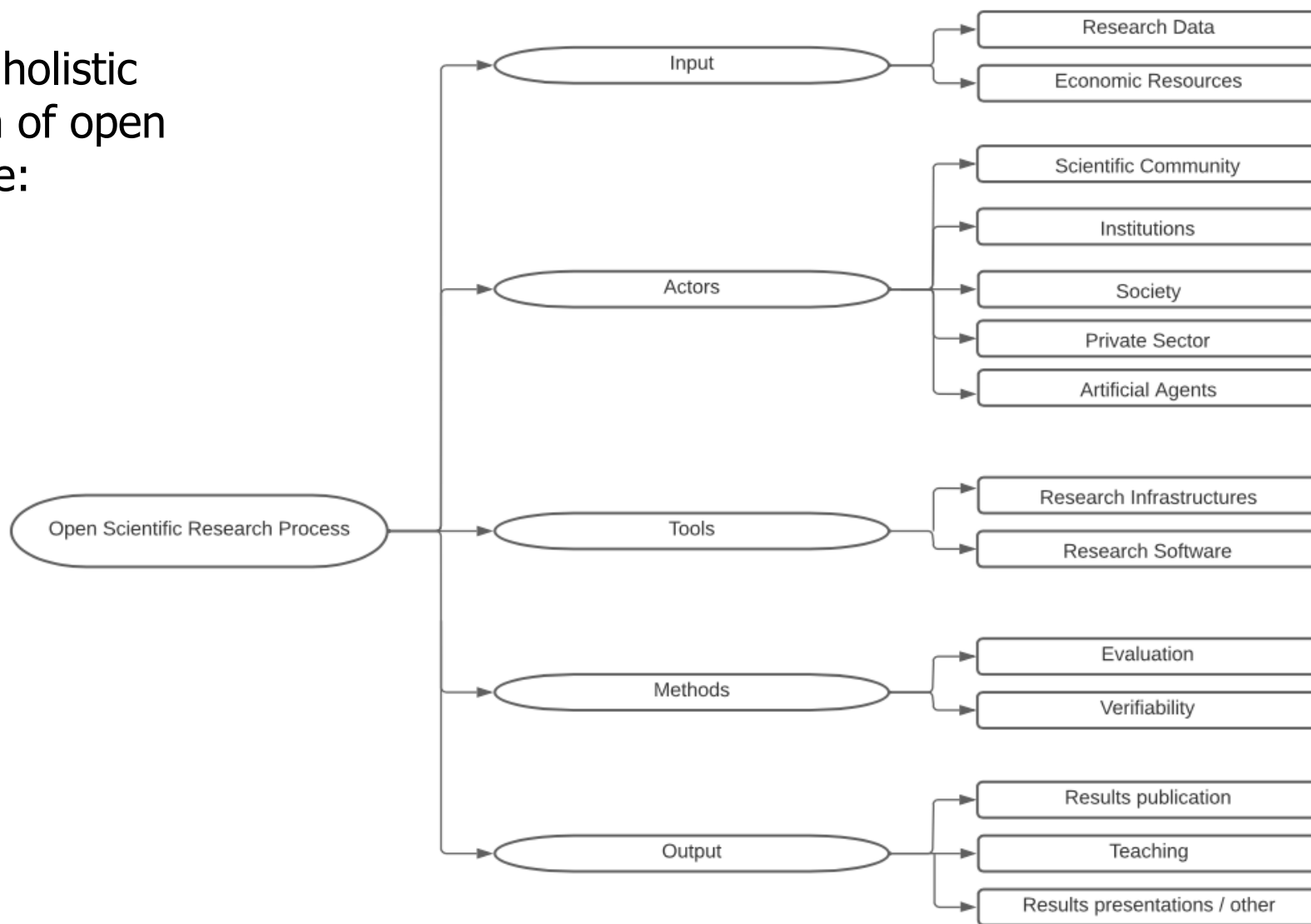
<https://eur-lex.europa.eu/eli/reg/2021/695/oj>

Definition of Open Science (art.2.5):

'open science' means an approach to the scientific process based on open cooperative work, tools and diffusing knowledge

# 1. What is the open science approach?

A proposed holistic interpretation of open science:



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## 2. The foundations of open science



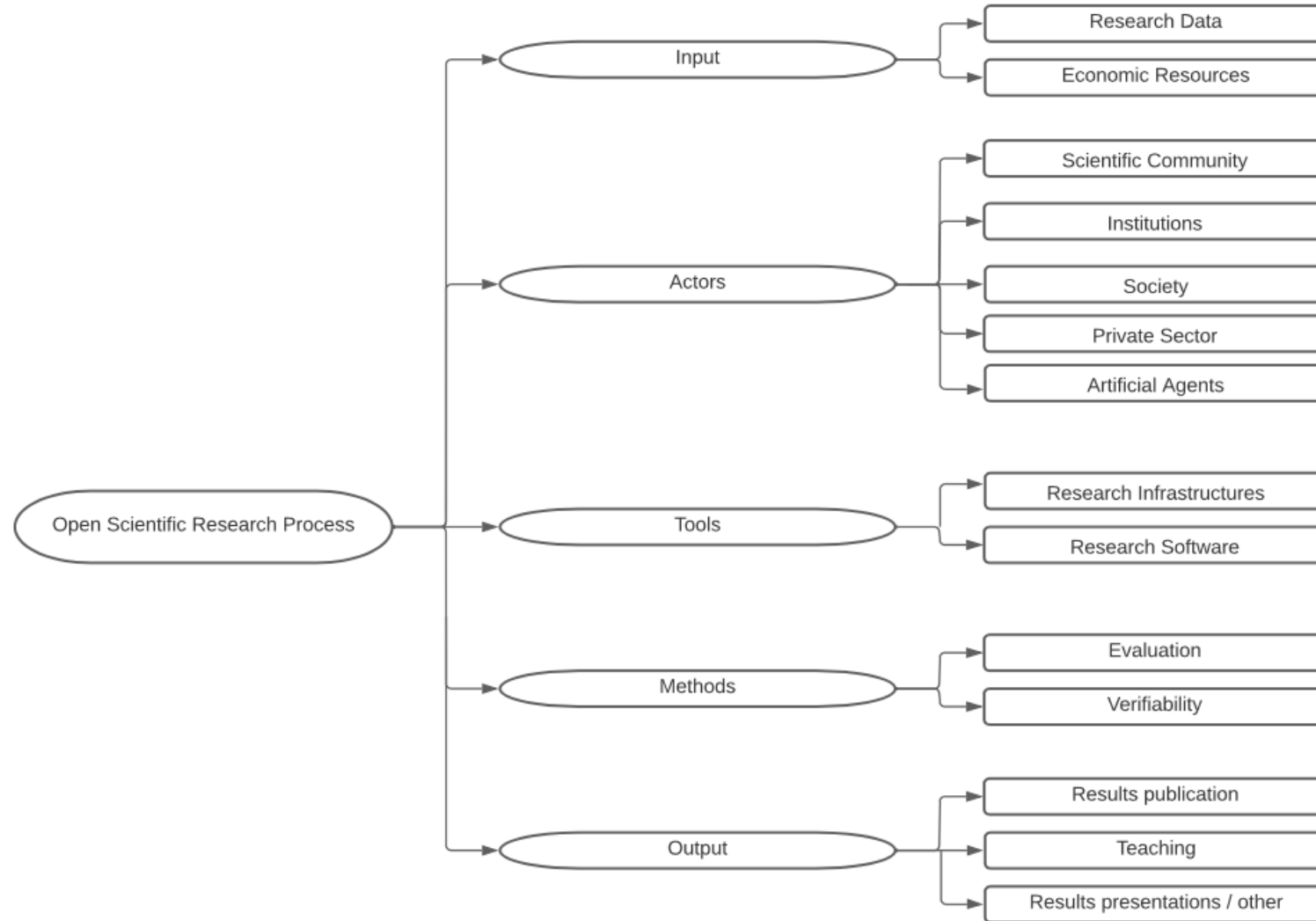
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<p>International level</p> 	<p><i>Article 27(1)</i> Everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits.</p>
<p>European level</p> <p>CHARTER OF FUNDAMENTAL RIGHTS OF THE EUROPEAN UNION</p>	<p><i>Article 13</i> <b>Freedom of the arts and sciences</b> The arts and scientific research shall be free of constraint. Academic freedom shall be respected.</p>
<p>National level</p>	<p>Constitutional safeguards</p>

# 3. Legal challenges



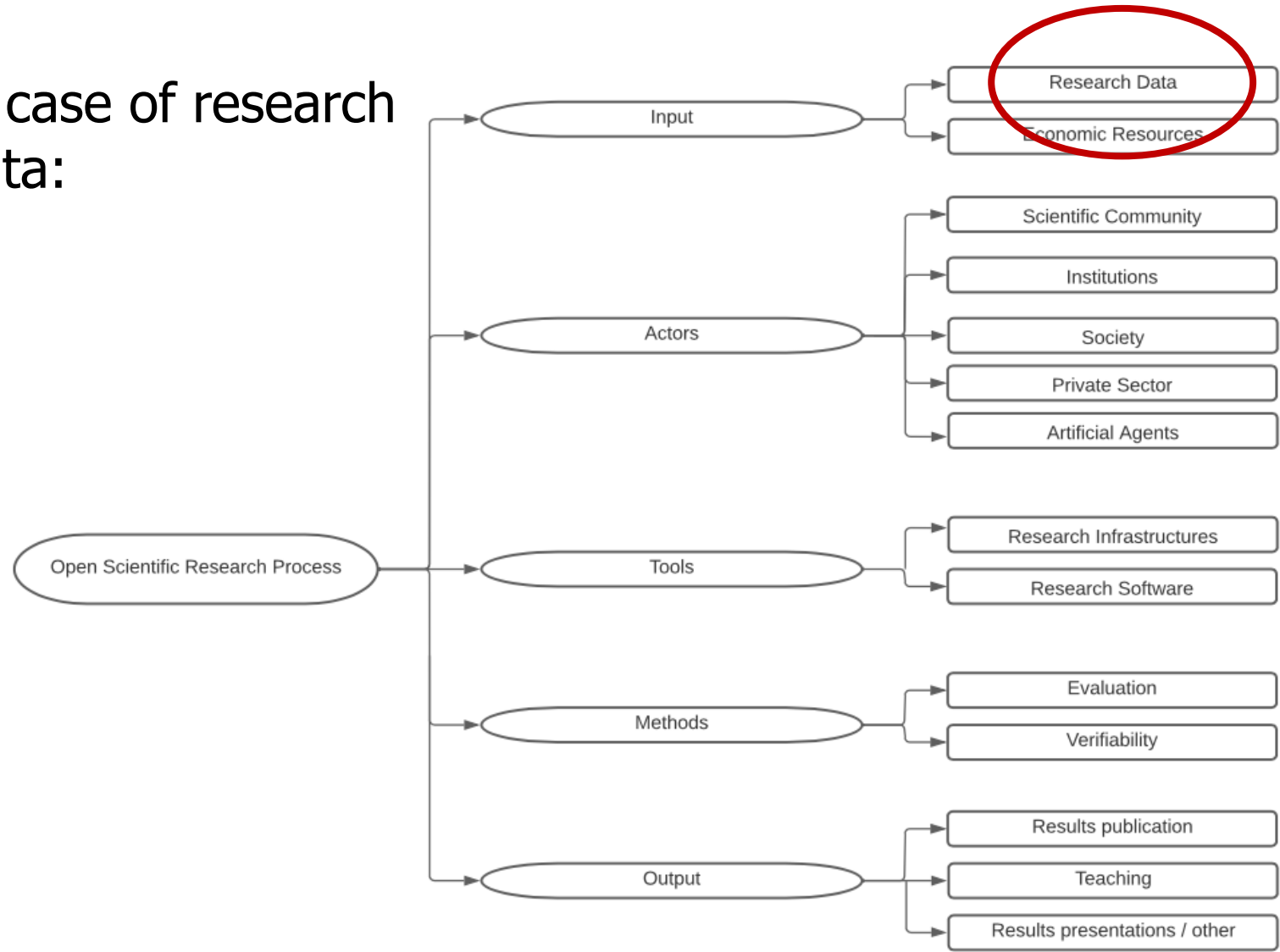
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# 3. Legal challenges

Considering the case of research data:



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# 3. Legal challenges



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Considering the case of research data:



Legal regime for sharing and re-using research data (Open Data Directive).



Data Ownership & intellectual property regulation.



Tension between openness and personal data protection (GDPR and national legislations).

# 3. Legal challenges



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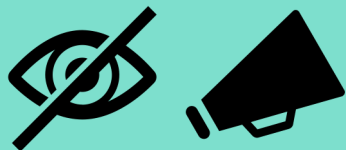
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**Special issue on  
"Open Science & GDPR"**

**JOAL**  
Journal of Open Access to Law,  
*forthcoming, 2023*

# 3. Research Question



How do we design a governance of **scientific research**

(1) oriented towards openness

(2) able to respond effectively to these legal challenges

(3) guaranteeing the framework of fundamental and human rights related to science?

# 4. A proposed model



<b>Interaction of different regulatory systems involved</b>	<b>Co-regulative approach</b>
<ul style="list-style-type: none"><li>• <u>Autonomy and independence of the scientific community.</u></li><li>• <u>Private sectors.</u></li><li>• <u>International institutions</u> → <i>global advancement.</i></li><li>• <u>European institutions</u> → <i>framework and purposes.</i></li><li>• <u>National institutions</u> → <i>effective implementation.</i></li><li>• <u>Local institutions</u> (organisations performing research)</li></ul>	<ul style="list-style-type: none"><li>(i) Emphasis on the decision-making role of <i>local institutions.</i></li><li>(ii) <u>Vertical</u> coordination (with national institutions).</li><li>(iii) <u>Horizontal</u> coordination (with other local institutions).</li><li>(iv) <i>Promotional function of law.</i></li></ul>



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