IMPROVING ACCESS AND REUSE OF RESEARCH RESULTS BY ADRESSING COPYRIGHT AND DATA LEGISLATIVE & REGULATORY ISSUES

A LIBER ACTION PLAN

EXECUTIVE SUMMARY

COMPLEX LEGAL FRAMEWORK AT THE EUROPEAN LEVEL

There are nine directives and acts at the European level concerning copyright and data-related issues. Most of these are designed to regulate both public and private actions. This has resulted in a complex legal framework for scientific research, creating barriers and challenges that hinder access to and reuse of research outputs. To address these issues, the European Commission commissioned an extensive study to identify the barriers and propose potential solutions with a view to developing an EU Copyright and data legislative and regulatory framework fit for research. The results of this study have been published in the report 'Improving access to and reuse of research results, publications and data for scientific purposes' - in this Action Plan labelled as the EC Report[1].

THE EC REPORT

The EC Report provides (1) a comprehensive overview of the EU's research and innovation legal landscape, (2) extensive survey results from researchers, research performing organisations (RPOs) and publishers and (3) proposals to improve the current EU framework for copyright and data, making it more suitable for research and better aligned with Open Science principles.

PRESSING ISSUES AND TRENDS

The report highlights a number of pressing issues and trends. The most important are:

- Access remains problematic, with a large majority of researchers reporting difficulties in accessing pay-walled scientific literature.
- Researchers underutilise their rights due to legal uncertainty caused by the complexity of regulations.
- Researchers and their institutions face excessive burdens due to the legal complexities of data laws.
- An imbalance in negotiating power exists between large commercial enterprises, such as publishers, and individual researchers and their research institutions.

SCOPE OF ACTION PLAN

In this action plan, LIBER, supported by funding from Knowledge Rights 21, has translated the findings of the EC report into practical guidance for research libraries. The plan outlines possible actions for research libraries and their research organisations. In addition, the plan outlines potential actions at the national level and preferred policy interventions, based on those outlined in the report, to be undertaken by the European Commission. These proposed policy interventions will also have implications for research libraries and institutions and this action plan aims to ensure library readiness to support and implement these interventions. The Action Plan focuses on three areas: access to content, usage of content and data:

ACCESS

As reported by 80% of the surveyed researchers, paywalled, copyright-protected content. This is in spite of the rise of open access. In addition, commercial practices increasingly limit the ability of libraries to acquire and develop research collections appropriately and provide access to digital

content in a manner that meets the needs of current and future researchers. Moreover, there is a lack of legal clarity regarding cross-border interlibrary loan. This leads to the following:

- Nine proposed actions aimed at accelerating open access, including Rights Retention and Secondary Publishing Rights.

USAGE

Although EU legislation includes copyright exceptions for educational and research purposes, these exceptions are implemented inconsistently across national laws, leading to fragmentation throughout the EU. The research-specific exception permitting TDM is so complex to interpret that 20% of the researchers report avoiding TDM. Another obstacle hindering usage is technical and contractual restrictions imposed by publishers. This leads to the following:

- Five proposed actions to enable research activities by helping to overcome legal issues
- Three proposed actions to enable researchers to use TDM and AI-tools
- Three proposed actions to challenge restrictive commercial practices by publishers.

DATA

Data-driven research is booming, and in response, research libraries are collaborating with other institutional stakeholders to develop Research Data Management (RDM) services. However, the EC Report finds that large percentages of researchers face a range of restrictions or contractual conditions when re-using or sharing data. The EC Report also notes that the EU's various data regulations and acts make it complex and challenging to identify obligations and opportunities. EOSC is an important instrument of the European Commission designed to overcome legal and technical barriers to data sharing. This leads to the following:

- Three action lines (comprising 11 actions): Investing in legal expertise and education, further developing Research Data Management services, and implementing and managing data repositories. These actions aim to support data-driven research by enabling FAIR research data and software.
- Two actions focus on providing library collections as FAIR datasets.

GOALS OF THE ACTION PLAN

The EC study is the first comprehensive analysis of how EU legislative frameworks impact research and interoperate with Open Science. Addressing the issues raised in this study will increase the impact of European research and advance Open Science. Whilst it is clear that policy intervention at EU level is the preferred way forward, research libraries also have a role in supporting researchers to navigate access to and use of research information. The purpose of this Action Plan is to mobilise the network of LIBER research libraries across Europe to implement actions at the library level and to address proposals at the institutional and national levels. LIBER, in collaboration with other organisations, will advocate for actions proposed at the European level.

Colophon

This draft Action Plan is the result of an expert meeting with the co-chairs of the Copyright & Legal Working Group Susan Reilly (Irish Research e-Library, Ireland), Alex Fenlon (University of Birmingham, United Kingdom) and Judith Ludwig (Technische Informationsbibliothek, Germany), supported by Olivier Hersperger (LIBER) and Maurits van der Graaf (Pleiade Management & Consultancy, The Netherlands) and with contributions of Caterina Sganga (Sant'Anna, School of Advanced Studies, Pisa, Italy), Martin Senftleben and Kacper Szkalej (Institute for Information Law, University of Amsterdam, The Netherlands), Thomas Margoni and Kasper Drazewski (KU Leuven Centre for IT & IP Law, Belgium). In addition, the section on data has been reviewed by the co-chairs of the Research Data Management Working Group of LIBER - Mari Elisa Kuusniemi (Helsinki University Library, Finland) and Elisa Rodenburg (Vrije Universiteit Amsterdam, The Netherlands) - and Laurents Sesink (SURF, the Netherlands) and Marta Teperek (Open Science NL, The Netherlands).

1. THE EC REPORT

This comprehensive report supports the Action 2 objectives of the European Research Area (ERA) Policy Agenda 2022-2024, which aims at proposing an EU legislative and regulatory framework for copyright and data that is fit for research. The report provides a comprehensive analysis of barriers to the access and reuse of publicly funded research, including scientific publications and data. It assesses existing EU copyright legislation and EU data and digital legislation. It also assesses regulatory frameworks and national initiatives and identifies potential areas for improvement.

Using a methodological, evidence-based approach, the study includes literature reviews, surveys among researchers, research institutions and publishers and interviews with legal experts and stakeholders. The study proposes legislative and non-legislative measures to improve the current EU copyright and data framework and align it with the needs of scientific research and open research data principles.

2. PRESSING ISSUES AND TRENDS

The report provides a comprehensive overview of the legal environment for research and innovation in the EU and offers valuable insights for policymakers, researchers and organisations involved in the European research landscape. Pressing issues and trends

The current EU legal framework for copyright and data comprises nine Directives and Acts (see Appendix A), designed to regulate both private and public actors. Its impact on scientific research is described by the EC Report[a] as follows:

- **Access remains problematic:** The limits to OA available scientific literature mean that in practice, a large majority of researchers report problems in accessing and using scientific literature.
- **Legal uncertainty due to complexity leads to underutilisation of rights:** The complexity of the legal issues, the divergences of the translation in the national laws of Member States and ambiguous terminology result in researchers underusing their rights and thereby hindering research activities.
- **Legal complexities of data laws overburden researchers and research organizations:** The intricate legal landscape of data laws and regulations poses significant challenges, risking excessive burdens on researchers and their institutions.
- **An imbalance in negotiating power** exists between large commercial enterprises such as publishers on one hand and individual researchers and their research institutions on the other hand.
- **Value shift towards large corpora of literature**: There is a growing shift in value from individual articles intended for reading to larger corpora of literature, driven by tools that leverage text and data mining as well as AI techniques.
- **Data-driven research is on the rise but constrained by limited availability of FAIR data:** The increasing reliance on data-driven research is hindered by the insufficient availability of data that meets FAIR (Findable, Accessible, Interoperable, and Reusable) principles.
- **Restrictions to non-commercial purposes do not match the reality of scientific ecosystem**: Restrictions tied to non-commercial purposes contradict the fundamental reasons why states and research funders invest in scientific research: (1) to support academic progress and (2) to enable

[a] See paragraphs 1.2.4 and 2.10 of the EC Report

knowledge transfer. Many academic research projects are, in fact, conducted in collaboration with private companies, further highlighting this misalignment.

3. ROLES OF RESEARCH LIBRARIES

The primary role of research libraries is to support and facilitate scientific research. One of the ways of achieving this is by assisting researchers in exercising their rights to access and (re-)use scientific publications and data for their research. Therefore, LIBER sees the following roles for research libraries to play in the domain of copyright and data legislation and regulation:

1. **Providing access to content and making content accessible** by supporting OA, making collections AI ready, by best practices in licensing, and by preservation of digital content.
2. **Support and provide guidance to researchers**: Research libraries provide guidance and support to researchers navigating complex legal issues, working to reduce their administrative burden. In some cases, libraries and universities must step in to ensure that individual researchers can assert their legal rights.
3. **Influence institutional policies regarding open access and FAIR data and software**: Libraries play a key role in initiating Open Science policies within their institutions, while simultaneously are an important actor implementing these policies.
4. **Shape national policies regarding open access and FAIR data and software**: Through their national consortia or membership organisations, research libraries contribute to shaping national policies that promote open access and FAIR data and software practices.
5. **Advocate for improved legislative EU approaches**: Collaboration of research libraries at the European level should lead to a coordinated and harmonized voice. With that voice, research libraries can influence the EU-level regulatory framework through the lobbying efforts of LIBER and others, ensuring the interests of the research community are represented.

Changes in policies and practices are often most effectively achieved through an interplay between library services, institutional and national policies, and EU-level policies. Consequently, this Action Plan outlines actions for each of these three levels.

4. ACCESS

SITUATION NOW

PAYWALLS HINDERING ACCESS

The vast majority of researchers (80%) report facing difficulties in accessing copyright-protected scientific literature due to paywalls and limited subscription access provided by their research organizations[1]. Although open access is on the rise, a key factor is the ongoing pressure on researchers to publish in high-impact journals, which favours established subscription-based journals. When publishing in these journals, researchers are often unable to negotiate publishing agreements that do not require the transfer of copyright, largely due to the previously mentioned imbalance of power.

Options to support researchers in retaining rights when publishing in subscription journals include:

- **Right retention:** An increasing number of universities have implemented a right retention policy. Under this institutional policy, the university holds a prior, non-exclusive right to publish the author-accepted manuscript (AAM) of its researchers with a CC BY licence. Since this right is established before the researcher enters into a publishing agreement with the publisher, it cannot be overridden. However, most institutions provide researchers the option to opt out of this arrangement in specific cases.
- **Secondary publishing rights (SPR):** SPR is now enshrined in the national laws of six Member States: Germany, the Netherlands, Austria, France, Belgium, and Bulgaria. This right allows researchers to republish their scientific publications open access (for example in the repository of their research institution), regardless of the terms of their publishing agreements with publishers. In other words, SPR is a right that cannot be overridden by contractual obligations. These SPR rights primarily apply to journal articles (with varying definitions), are generally limited to the Author Accepted Manuscript (AAM), include differing embargo periods, and are restricted to research that is at least partially publicly funded. These legal complexities make it challenging for individual researchers to exercise these rights independently. As an example to “solve” this challenge, in the Netherlands, university libraries and universities have collaborated to address this issue. They developed a shared interpretation of the law, established a service to relieve researchers of administrative burdens, and agreed to collectively finance legal proceedings if the SPR rights are challenged in court[2,3].

COMMERCIAL PRACTICES BY PUBLISHERS HINDERING ACCESS

Commercial practices by publishers such as bundling titles, imposition of digital rights management form an obstacle for libraries to develop a collection that serves their users best. Often this practice means that the library cannot afford a subscription.

INTERLIBRARY LOAN

Interlibrary loan is a core function of research libraries in the print domain. However, regarding digital publications, cross-EU ILL is difficult due to a lack of legal clarity.

ACTIONS FOR RESEARCH LIBRARIES

ACCELERATING OPEN ACCESS

Actions regarding accelerating open access		
Research libraries	**Institutional/National level**	**EU-level**
1. OA supporting services for a diversity of routes to OA 2. Encourage the use of licences that maximize the availability and reusability of the outputs for all research purposes 3. Create a service/workflows to help researchers to exercise their rights (e.g. Right Retention or SPR) 4. Align the activities of various library departments with Open Science objectives	5. Monitor the progress of OA 6. Advocate for Open Science policy (institutional or national level) 7. Advocate for a Right Retention institutional policy (with an opt-out option) 8. Set-up a collective action to support the exercising of SPR rights if SPR is implemented in the national law	9. An EU-wide, harmonized SPR with minimal restrictions

Research libraries can accelerate open access (OA) by developing services that support a variety of OA pathways (Action 1). These include institutional repositories for Green OA, OA funds for Gold OA, Read & Publish agreements for hybrid journals, and initiatives to promote and sustain Diamond OA and OA infrastructures.

When supporting OA publishing (such as advising researchers directly or negotiating agreements with publishers), research libraries should advocate for the use of licences that maximize the availability and reusability of the outputs for all research purposes[b]. This suggests also licences that allow reuse for commercial purposes. A key reason for this is that curiosity-driven research may lead to findings with potential commercial value. If researchers subsequently conduct a follow-up study with commercial purposes, they may be unable to reuse their own publications if a licence that excluded commercial purposes was applied. Similarly, issues may arise if a researcher contributes to a commercial course or activity (Action 2).

Research libraries can propose Open Science and rights retention policies[4] for their institutions (Action 6 and 7). To build institution-wide consensus, it is recommended to include an opt-out option for researchers in institutional rights retention policies. With SPR or rights retention policies in place research libraries and their research institutions need to implement measures that support researchers to exercise their rights (Action 3). To support and guide the further development of these policies, libraries should also contribute to the establishment of OA monitoring services (Action 5).Research institutions should act to protect researchers from potential legal challenge, ideally through collective action. (Action 8).

At EU-level, LIBER proposes an EU-wide, harmonized SPR that covers a broad range of scientific output, covers the Version of Record, without public funding requirements, maximizing availability and reusability , and with no or minimal embargo period (Action 9)[5].

[b] See Creative Commons Licenses for publications and data; for free and open software, other licences are advised, see https://choosealicense.com/

Finally, aligning various library services, such as collection development and licensing, repository management, OA services, scholarly communications, Research Data Management (RDM) services, copyright advisory services, and others, with Open Science objectives is essential to achieving maximum acceleration of OA (Action 4).

CHALLENGING RESTRICTIVE COMMERCIAL PRACTICES AND ENABLING ILL FOR DIGITAL PUBLICATIONS

Actions regarding challenging restrictive commercial practices regarding bundling		
Research libraries	**Institutional/National level**	**EU-level**
10. Challenging bundling practices by the acquisition or licensing department	11. Challenging bundling practices by the (national) consortium	12. Legislation supporting controlled digital lending and e-lending

Due to the earlier mentioned imbalance in negotiating power, the ability of research libraries to counter bundling practices by publishers is limited. However, it is essential to continue challenging these practices, both at the individual library level and through (national) consortia (Action 10 and 11).

At the EU level, clarification of the legal framework to enable controlled digital lending and fair e-lending of books is essential for the continuation of this important service of libraries in the digital domain (Action 12).

5. USAGE

SITUATION NOW

EU legislation includes copyright exceptions that allow some usage of copyright materials for educational or research purposes. However, these exceptions are often reduced to educational purposes when incorporated in national law for example by limiting them to illustrative purposes. As a result, the ability to use materials for research purposes is fragmented – i.e. researchers in one location are able to do certain acts that are not permitted in another location. Resources cannot be used across international borders, for example sharing an article with collaborative partners, or using a harvested dataset across a research group.

One notable research-specific exception in EU legislation permits text and data mining (TDM) on copyright materials. However, this exception is unclear in places and encumbered with legal constraints to the extent that more than 20% of researchers report avoiding TDM activities due to fears of copyright infringement[1].

Another obstacle hindering usage is the restrictive commercial practices of publishers. These include usage-limiting measures such as download restrictions, time-limits ('windowing'), and other Digital Rights Management (DRM) and technical protection measures. Also, sometimes clauses in licensing agreements of publishers directly conflict or limit the copyright exceptions that are enshrined in EU or national law (e.g. clauses that define restrictions related to TDM). Such practices and clauses lead to confusion in both libraries and amongst researchers, chilling research activity.

With the rise of generative AI there are also questions about the usage of library holding by AI-tools and the complexity in untangling the activities and the legal landscape. Research libraries describe a lack of resources, training, and clear strategies for mastering the transition to the AI-driven world and then communicating this to their researchers.

ACTIONS FOR RESEARCH LIBRARIES

ENABLE A WIDE VARIETY OF USAGE BY RESEARCHERS

Actions regarding enabling research activities by helping to overcome legal issues		
Research libraries	**Institutional/National level**	**EU-level**
13. Coordinate and invest in expertise in copyright and legal issues related to research data and software in order to provide practical guidance to researchers 14. Incorporate copyright and legislative/regulatory data issues in training and education of researchers	15. Form a national copyright and legal data issues competence center 16. Create a platform to discuss research-related legal copyright and data issues	17. An EU-wide, open-ended, mandatory copyright exception for research with no contractual override

As researchers increasingly face copyright- and data-related challenges in their work, research libraries should prioritize investment in copyright expertise in order to give practical guidance on these issues to researchers (Action 13). Furthermore, these topics should be integrated into the library's educational offerings for researchers, with the goal of raising awareness and understanding (Action 14). Still, some of these issues can be complex and therefore we advocate for the establishment of a national copyright competence centre and the creation of a platform to discuss research-related copyright and data issues at the national level (Action 15 and 16).

At the international level, LIBER proposes an EU-wide, open-ended, mandatory copyright exception for research. Such an exception would establish a uniform rule across the EU, replacing the current patchwork of divergent national approaches. Additionally, it would ensure that no contractual overrides are allowed (Action 17). An EU-wide SPR will also enable researchers to overcome some legal restrictions in their usage of information (see Action 9).

ENABLING TEXT AND DATA MINING AND AI USAGE FOR RESEARCH PURPOSES

Actions regarding enabling Text- and data mining (TDM) and use of AI-tools by researchers		
Research libraries	**Institutional/National level**	**EU-level**
18. Challenge licence clauses that restrict types of usage by researchers using TDM- or AI-tools	19. Challenge licence clauses that restrict types of usage by researchers using TDM- or AI-tools through consortia 20. Non-legislative guidance: develop a common definition of TDM and illustrative use-cases that would be permitted under the law with all research stakeholders	See also Action 17: An EU-wide, open-ended, mandatory copyright exception for research with no contractual override

Enabling TDM activities by researchers forms a special use-case. As discussed above, the existing exception for research at the EU level is translated into national laws with many potential legal pitfalls. Non-legislative guidance is therefore needed at the national level. We advocate for the development of a common definition of TDM, permitted under the national law, with a number of illustrative use-cases, with all research stakeholders. Such a common definition would provide legal certainty to researchers and to their institutions (Action 20). At the local level, research libraries and/or their (national) consortia could use this guidance to more robustly challenge licence clauses that restrict the use of TDM-tools by their researchers (Action 19).

As Artificial Intelligence is transforming scientific research methods, it is imperative that researchers can access library holdings with AI-tools. Therefore, it is important to challenge any licence clause that restricts the use of AI for research, teaching and learning purposes[6] (Actions 18 and 19).

CHALLENGING RESTRICTIVE COMMERCIAL PRACTICES REGARDING TYPES OF USAGE

Research libraries	**Institutional/National level**	**EU-level**
21. Challenge licence clauses that restrict types of usage by researchers, such as scholarly sharing	22. Challenge licence clauses that restrict types of usage by researchers, such as scholarly sharing by national consortia	See also Action 17: An EU-wide, open-ended, mandatory copyright exception for research with no contractual override

Publishers frequently impose restrictions to various kinds of usage via clauses in the licence or via technical measure under the label of DRM. These measures hinder the processing of information (downloading, copying parts of a text et cetera) or – as earlier mentioned - limit the use of TDM- or AI-tools. Because of the imbalance in negotiating power, there are limits of what a research library can do. Nevertheless, it remains important to challenge these restrictive licence clauses and technical impediments by individual libraries and by (national) consortia (Action 21 and 22). Library initiatives to include clauses in licences that allow specific types of uses such as scholarly sharing can be a good first step but are not seen as replacing the pursued EU-wide open-ended mandatory research exception mentioned earlier. After all, it is unfeasible to incorporate such clauses into the hundreds of

licences a university library typically negotiates and this would place an undue burden on researchers, who would need to verify which licences allow or not allow specific types of sharing.

6. DATA

SITUATION NOW

RESEARCH DATA MANAGEMENT SERVICES BY RESEARCH LIBRARIES

Data-driven research is booming as researchers increasingly generate new research data and re-use existing data. In response, many research libraries in Europe provide RDM support services and infrastructures to researchers that cover the entire data life cycle. The data life cycle consists of three stages:

(a) Preparation of the research project, including the development of a data management plan (DMP) and/or (re-)use of existing data.

(b) Managing the so-called 'active data' during the research project.

(c) Sharing and preserving the resulting datasets in a FAIR manner with the aim to support re-use and reproducibility.

LIBER has created a guide for research libraries with actions to help create FAIR data[7]. In addition, LIBER – in collaboration with ADBU – has created a toolkit for the set-up of RDM services that are often delivered by an ecosystem of RDM support professional, i.e. a partnership of the library, the IT department, Research Office, Data Protection Officers, Ethics Board, and the Technology Transfer Office[8]. An important role of the library is to connect and coordinate the activities of these stakeholders and bundle their RDM support services for the researchers. However, it is estimated that a significant proportion of research libraries in Europe still lack fully developed RDM services[9].

The FAIR principles are increasingly applied to research software as well[10,11]. Increasingly, services and guidance[12,13] for researchers in this domain are being developed.

PRESENT SITUATION REGARDING RE-USING OR SHARING DATA

According to the survey of the EC Report[c], researchers regularly encounter restrictions or contractual conditions when re-using or sharing data:

- 55,2%of the researchers have faced restrictions regarding data protection and privacy.
- 41,90% have faced restrictions regarding intellectual property rights such as copyright.
- 33,9% noted commercial confidentiality requirements.
- 14,9% report having to pay fees for the use of data.
- 10,9% report the obligation to share subsequent (enriched) own research data.
- 10,9% of the researchers report other restrictions, such as: ethical approval, use for non-commercial purposes, bureaucracy, obligation not to give away data to other persons, restrictions to republish data and permission to use only a small of amount of data.
- Research institutions see obstacles as well: about half of the research institutions think that 'conflicting rights[d]' might cause problems for their organisation and will lead to a chilling effect on data sharing. Furthermore, the Open Data Directive assumes the existence of data repositories, for which the costs have to be borne by research organisations.

[c] Page 972 of the EC Report

[d] Conflicting rights regarding sharing data are – among others – legitimate commercial interests or pre-existing intellectual property rights or data from databases that are protected by *sui generis* database rights (such rights can be claimed by the database owner for publicly available data when a significant investment went into the collection of the data and in the creation of the database).

EU DATA LEGISLATION AND REGULATIONS

At the European level, six data directives or laws related to data are relevant to researchers and research institutions. Some of these have been in effect for several years, while others, such as the Data Governance Act and the AI Act, have been entered into force more recently. The legislation introduces some obligations for researchers and institutions, as well as opportunities for researchers. According to the EC Report however, the terminology and definitions of these laws and regulations are not harmonised, nor are they implemented the same way across Members States, making the identification of the obligations and opportunities complex and challenging.[e].

On the positive side, the Open Data Directive (ODD) mandates the reuse of publicly funded research data and requires that they be made available in data repositories. Additionally, the ODD asks Member States to implement the FAIR principles in national law (as does the European Code of Conduct[14]). Research institutions are thus required to make research data 'as open as possible and as closed as necessary' if publicly funded. A special provision in the ODD exempts research institution from request and appeal procedures for these data in some cases.

This matrix of EU legislation does provide some opportunities for new fields of research. For example, the Digital Services Act introduces a data access mechanism specifically designed for researchers investigating "systemic risks" posed by so-called Very Large Online Platforms (VLOPs) or Very Large Search Engines (VLOSEs). This provision grants researchers the ability to request access to data held by these entities solely for the purpose of studying systemic risks. Researchers are required to make their findings publicly available free of charge within a reasonable period after completing their research.

The AI Act of the EU has taken a risk-based approach, seeking to regulate high-risk AI systems while allowing flexibility in low-risk applications. This has led to a clause in the AI Act, which exempts AI models developed for research purposes and used during the research process from the obligations that are put in place for commercial providers of AI-models.

EUROPEAN OPEN SCIENCE CLOUD

An important instrument of the European Commission supporting data-driven research and innovation across Europe is the European Open Science Cloud (EOSC). EOSC is a federated research ecosystem designed to overcome legal and technical barriers to data sharing by combining necessary tools and infrastructures while addressing trust issues through common rules. Its primary goal is to provide seamless access to and reliable reuse of research data. EOSC serves a wide range of target groups, including European researchers, innovators, companies, and citizens. The development of EOSC began in 2015 and has recently transitioned into its operational phase with the launch of the EOSC EU Node and in the coming years the development of other nodes in a network of interconnected nodes.

[e] See paragraphs 2.9, 2.10 and 2.11 of the EC Report

ACTIONS FOR RESEARCH LIBRARIES

ENABLE DATA-DRIVEN RESEARCH ACTIVITIES

Actions regarding enabling data-driven research by supporting FAIR research data and research software		
Research libraries	**Institutional/National level**	**EU-level**
23. Coordinate and invest in expertise in legal issues related to research data, research software and the use of AI-models in research with the aim to provide guidance to researchers 24. Incorporate legal issues related to data and research software in training and education of researchers 25. Further develop RDM services regarding FAIR and CARE principles for data and software in the light of the rapid developments in data-driven research 26. Implement and manage a data repository (or participate in a shared data repository at the national level) 27. Monitor the developments of EOSC and its operational framework and contribute where possible.	28. Form a national center of competence in copyright, legal data and software issues 29. Implement and manage a shared data repository 30. Monitor the developments of EOSC and its operational framework and contribute where possible.	31. Harmonization of the definitions and terminology in the various copyright and data legislation 32. A dedicated law for research and researchers (e.g. Researchers'/Digital Universities Act/Digital Knowledge Act) with a set of data access and reuse provisions 33. Contribute to the further development of EOSC

To enable data-driven research, we propose four action lines (with in total 11 actions):

- **Investing in legal expertise and education:** Research libraries should strengthen their expertise in data legislation alongside copyright with the aim to provide guidance to researchers in re-using data or sharing their own datasets (Action 23). In addition, these issues should be incorporated in the training and education of researchers (Action 24). At the national level, a competence center, and a platform for discussing complex use cases will support local experts (Action 28 and 29). At the European level, lobbying efforts should focus on harmonizing definitions and terminology across copyright and data legislation relevant to research organizations (Action 31) and, possibly, on a dedicated law for research and researchers (e.g. Researcher's/Digital Universities Act/ Digital Knowledge Act) with a set of mandatory data access and reuse provisions (Action 32).
- **Further developing Research Data Management services**: Many research libraries are actively developing RDM services in collaboration with other stakeholders within their research institutions. While some are still in the early stages, others have already established more advanced services. However, the rapid evolution of data-driven research and emerging opportunities—such as the development of FAIR research software practices, the emergence of data infrastructures and data spaces, the novel access mechanisms for Very Large Online Platforms (VLOPs) and Very Large Online Search Engines (VLOSEs) or the use of AI-models in research—highlight the need for RDM services to keep pace with these developments (Action 25).
- **Implementing and managing data repositories:** Data repositories for FAIR and CARE research datasets are crucial for data-driven research. In some EU countries, research libraries have established institutional data repositories alongside referral services to disciplinary data archives. In other countries, a national approach has been adopted, with shared data repositories set up at the national level (Actions 26 and 29). It is noted that data repositories are not merely technical services but also require support, training, and guidance.

- **Connecting to EOSC:** The European Open Science Cloud (EOSC) is envisioned as a safe and regulated environment for the Europe-wide access and reuse of research data. Over the coming years, EOSC will become fully operational, establishing itself as a vital environment for data-driven research. In addition, EOSC starts working on an interoperability framework (including a legal framework). Research libraries can follow and contribute where possible the developments of the EOSC interoperability framework and align their policies with it (Actions 27,30, 33).

COLLECTIONS AS DATA

Actions regarding collections as data		
Research libraries	**Institutional/National level**	**EU-level**
34. Provide special library collections as FAIR datasets 35. Follow the CARE principals[15] for those special library collections where CARE is relevant		

Many research libraries offer special collections with for example digitized or digital heritage materials. To support data-driven research, these collections can be offered as FAIR datasets, i.e. as a computationally accessible data (Action 34). If these heritage collections include data related to Indigenous peoples[f], libraries must consider the ethical guidelines outlined in the CARE Principles (Collective Benefit, Authority to Control, Responsibility, and Ethics) to ensure respectful and responsible data use (Action 35).

[f] The CARE principles are also relevant for responsible research involving human participants.

ANNEX A: OVERVIEW EU-LEGISLATIVE AND REGULATORY FRAMEWORK GOVERNING COPYRIGHT AND DATA

Below a short overview of the EU legislative and regulatory framework regarding copyright and data:

1. **Information Society Directive (ISD):** Protection of copyright in the digital environment including an exception for research and education.
2. **Copyright in the Digital Single Market directive (CDSM):** Introduces mandatory text and data mining exceptions for scientific research and has a provision for making out- of-commerce works available by cultural organisations.
3. **Open Data Directive (ODD):** Encouraging governments and public organisations (such as universities) to make their data freely available in order to stimulate innovation.
4. **Data Governance Act (DGA):** Providing a framework for sharing data within the EU with the aim to foster new services based on data. Includes the concept of data altruistic hubs.
5. **Data Act (DA):** Regulates B2B and B2G data sharing. Limited relevancy for research.
6. **Digital Services Act (DSA):** Regulates access to data from very large online platforms or very large search engines (VLOPs and VLOSEs) for researchers if they research systemic risks.
7. **Digital Markets Act (DMA):** Focuses on large platforms that function as gatekeepers. Relevancy for research: there are transparency professions that offer potential data access opportunities for researchers.
8. **Database Directive (DBD):** Establishes the *sui generis* database right.
9. **Artificial Intelligence Act (AIA):** Regulates AI-systems in order to contain its risks. Defines high-risk systems and obligations surrounding the systems.

See for the full text of these regulations, https://eur-lex.europa.eu/

ANNEX B: ACRONYM LIST

AAM: author-accepted manuscript (AAM)

ADBU: Association française des directeurs et personnels de direction des bibliothèques universitaires et de la documentation.

AI: Artificial Intelligence

CARE: Collective Benefit, Authority to Control, Responsibility, and Ethics

CC BY: Creative Commons licence: all reuse permitted, so long as attribution is given to the creator

DRM: Digital Rights Management

EC: European Commission

EOSC : European Open Science Cloud

EU: European Union

FAIR: Findable, Accessible, Interoperable, and Reusable

OA: open access

ODD: Open Data Directive

RDM: Research data management

SPR: Secondary publishing rights

TDM: text and data mining

VLOPs: Very Large Online Platforms

VLOSEs: Very Large Search Engines

REFERENCES

1. Directorate-General for Research and Innovation (European Commission). Improving Access to and Reuse of Research Results, Publications and Data for Scientific Purposes: Study to Evaluate the Effects of the EU Copyright Framework on Research and the Effects of Potential Interventions and to Identify and Present Relevant Provisions for Research in EU Data and Digital Legislation, with a Focus on Rights and Obligations. (Publications Office of the European Union, 2024). https://data.europa.eu/doi/10.2777/633395

2. Tsakonas, G., Zoutsou, K. & Perivolari, M. Secondary Publishing Rights in Europe: Status, Challenges & Opportunities. https://zenodo.org/records/8428315 (2023) doi:10.5281/zenodo.8428315.

3. You share, we take care! https://www.openaccess.nl/en/in-the-netherlands/you-share-we-take-care.

4. RetainYourRights. Knowledge Rights 21 https://www.knowledgerights21.org/retainyourrights/.

5. Zero Embargo Campaign - Are You With Us? LIBER Europe https://libereurope.eu/zeroembargo/.

6. ICOLC Statement on AI in Licensing | ICOLC Website. https://icolc.net/statements/icolc-statement-ai-licensing.

7. A Guide to FAIR Practices in Research Libraries. https://libereurope.eu/wp-content/uploads/A-Guide-to-FAIR-Practices-in-Research-Libraries_2024.pdf (2024).

8. Graaf, M. van der. Research Data Management Support Services by Libraries - A LIBER/ADBU Toolkit. (2023) doi:10.5281/zenodo.8101818.

9. Graaf, M. van der. Open Science Services by Research Libraries: Organisational Perspectives - A LIBER and ADBU Report. https://zenodo.org/records/8086627 (2023) doi:10.5281/zenodo.8086627.

10. Lamprecht, A.-L. et al. Towards FAIR principles for research software. Data Sci. **3**, 37–59 (2020).

11. Chue Hong, N. P. et al. FAIR Principles for Research Software (FAIR4RS Principles). (2022) doi:10.15497/RDA00068.

12. FAIR Research Software. FAIR Research Software https://fair-software.nl/home.

13. Barker, M. et al. Introducing the FAIR Principles for research software. Sci. Data **9**, 622 (2022).

14. ALLEA - All European Academies. The European Code of Conduct for Research Integrity. (ALLEA - All European Academies, DE, 2023).

15. CARE Principles. Global Indigenous Data Alliance https://www.gida-global.org/care (2023).