SUBMITTED: EIPR

Balancing rights in the European Research Area: the case of ERICs (European Research Infrastructure Consortium)

Lorna Ryan, City, University of London, UK

Abstract

Council Regulation 723/2009 on the Community Legal Framework for European Research Infrastructure Consortium (ERIC) provides for the inclusion of policies, including an intellectual property rights policy, in the statutes of ERICs. The manner in which research infrastructures with ERIC status have responded to this requirement varies. This paper reports findings of a preliminary study of the treatment of intellectual property rights in ERICs (2011-2018). The tension between the existence of IPRs and their exercise is a familiar one in competition law; the paper suggests that the 'fifth freedom' imports this issue into the European Research Area and the balance of rights forms the backcloth of considerations of IPRs and ERICs.

Introduction

The concept of the European Research Area (ERA), launched formally in the Communication *Towards a European Research Area'*[1] following the March 2000 European Council, was defined in the 2012 Communication as "…a unified research area, open to the world, in which researchers, scientific knowledge and technology circulate freely and through which the Union and its Member States strengthen their scientific and technological bases, their competitiveness and their capacity to collectively address grand challenges".[2]

The realisation of the European Research Area, its completion by 2014, was identified as a strategic objective of the Innovation Flagship initiative of Europe 2020[3] and confirmed in the ERA Progress Report of 2014.[4] The 'European Research Area' is anchored in the Lisbon Treaty (2007) and its goal of an ever-closer Union.[5] Research infrastructures are variously identified as "engines to drive forward the Innovation Union", as "pillars" of and as providing "the backbone" to the European Research Area.[6] They operate at regional, national, European

[1] COM (2000) 6 *Towards a European Research Area*
[2] COM (2012) 392 *A Reinforced European Research Area Partnership for Excellence and Growth*
[3] COM(2010) 2020 *Europe 2020: A strategy for smart, sustainable, and inclusive growth*
[4] COM (2014) 575 *European Research Area: Progress Report 2014*
[5] COM (2014) 575 *European Research Area: Progress Report 2014* , p.1
[6] European Strategy Forum on Research Infrastructures, *Inspiring Excellence: Research Infrastructures and the Europe 2020 Strategy* (2011) p.4

and international levels and a range of definitions are employed in academic and grey literature which holds relevance for the expectation as to the relevance of intellectual property rights for such entities.[7] Research infrastructures with the legal status of European Research infrastructure Consortium are defined by their founding regulation, Council Regulation on a *Community Legal Framework for a European Research Infrastructure Consortium (ERIC)*[8] introduced in June 2009 as amended in December 2013. The Regulation was introduced in response to a considerable effort by Member States to formulate a workable legal agreement under which states could agree to collectively fund and implement research infrastructures of 'pan-European relevance'. It offers a definition of 'research infrastructure' as follows: it "means facilities, resources and related services that are used by the scientific community to conduct top-level research in their respective fields and covers major scientific equipment or sets of instruments, knowledge –based resources such as collections, archives or structures for scientific information; enabling Information and Communications Technology-based infrastructures such as Grid, computing, software and communication, or any other entity of a unique nature essential to achieve excellence in research. Such infrastructures may be 'single-sited' or 'distributed (an organized network of resources)."[9]

To date (January 2019), 20 research infrastructures have been granted ERIC status by Commission Implementing Decisions.[10] The significant level of public funds allocated to the construction and operation of these research infrastructures is routinely acknowledged.[11]

---

[7] M. Verlinden, T Minessen and I. Huys 'Reconciling IPRs and openness in biobanking', EIPR (2016) 38, p. 1, 3

[8] Council Regulation (EC) No 723/2009 of 25 June 2009, Council Regulation (EU) No 1261/2013 of 2 December 2013 amending Regulation (EC) No 723/2009 concerning the Community legal framework for a European Research Infrastructures Consortium (ERIC)

[9] Council Regulation No 723 2009 Article 2 Definitions; it is notable that 'research infrastructure' is variously defined in Commission texts; for example, in its multi-annual funding programme, H2020, RIs are defined as follows: "Research infrastructures are facilities, resources and services that are used by the research communities to conduct research and foster innovation in their fields. Where relevant, they may be used beyond research, e.g. for education or public services. They include: major scientific equipment (or sets of instruments); knowledge-based resources such as collections, archives or scientific data; e-infrastructures, such as data and computing systems and communication networks; and any other infrastructure of a unique nature essential to achieve excellence in research and innovation. Such infrastructures may be 'single-sited', 'virtual' or 'distributed'. " (2015: 5) Horizon2020 Work Programme 2014-2015 *ResearchInfrastructures*,http://ec.europa.eu/research/participants/data/ref/h2020/wp/2014_2015/main/h2020-wp1415-infrastructures_en.pdf

[10] By the end of 2018, (31 December 2018), the number of research infrastructures with ERIC status stood at 20. European Marine Biological Resource Centre (EMBRC) and European Plate Observing System (EPOS) were respectively awarded ERIC status in June and October 2018.

[11] European Strategy Forum for Research Infrastructures*, Roadmap 2016*, www.esfri.eu <accessed 01052017>

However, in common with the wider European Union research policy field, little scholarly attention has been focused on these entities, with notable exceptions.[12] The exploration of specific ERICs includes the European Social Survey ERIC, the European Spallation Source ERIC and, within a wider literature relating to biobanking, to the BBMRI ERIC, with the exploration of the intellectual property policy of the European Spallation Source ERIC by Yu et al. the most detailed treatment of an ERIC available.[13] This current paper aims to contribute to this developing corpus of scholarship; it is additive, rather than exhaustive, presenting finding from a modest exploratory study of the treatment of intellectual property rights in ERICs. At the time of the original study (April 2015), there were 10 ERICs; the findings have been updated to include the additional 10 ERICs now operating (January 2019).

The current paper necessarily includes reference to some of the same points made by Yu et al for the purpose of scene-setting. However, it goes beyond the particular to the general - it provides an overview of the approach to intellectual property by the 20 currently operating ERICs, as evidenced in the publicly available statutes and website content. It considers common features relating to how intellectual property is defined; the nature of the intellectual property rights and evidence of IPR claiming strategies. The specific case of the European Spallation Source ERIC and its published Intellectual Property Rights Policy is not discussed, given the comprehensive treatment of it by Yu et al. in their recent study.

An additional update to the preliminary study also includes the changing policy context; in particular, the introduction of the European Open Science Cloud (EOSC) which seeks to federate European research data infrastructures to promote maximum access to data within the European Research Area.[14] Balancing rights of data owners and prospective users has been a prominent concern and a broad consensus exists as to the need for concerted action at EU level to seek to respond to the 'friction' between the intellectual property system and the open science system.[15]

---

[12]B. Kleiner, I. Renschler, B. Wernli, P. Farago and D. Joye (eds) *Understanding Research Infrastructures in the Social Sciences* (2013); M. Verlinden, T Minessen and I. Huys 'Reconciling IPRs and openness in biobanking', EIPR (2016) 38 ; H.Yu, J.B. Wested and T. Minssen 'Innovation and intellectual property policies in European Research Infrastructures Consortia – Part 1: the case of the European Spallation Source ERIC' *JIPLP* 2017

[13] H.Yu, J.B. Wested and T. Minssen 'Innovation and intellectual property policies in European Research Infrastructures Consortia – Part 1: the case of the European Spallation Source ERIC' *JIPLP* 2017

[14] European Council, *Council conclusions on Accelerating knowledge circulation in the EU*, adopted by the Council at its 3620th meeting of 29 May 2018

[15] E. Barbarossa, S. Grande and J.P. Tirialle, *IPR, Technology Transfer and Open Science: Challengs and Opportunities* (2017) Luxembourg: Publication Office of the EU

2. Intellectual Property Rights

Intellectual property rights, that is, the legally created rights granted to the creators ("IPRs express ownership's legal basis![16]) are produced and applied within this legal and policy context. There is consensus that 'intellectual property' is difficult to define; Cornish suggests that the term 'intellectual property' is 'nugatory'.[17] Cornish et al, providing an overview of rights granted by IP ("patents give temporary protection to technological investigations and design rights to the appearance of mass-produced goods; copyright gives longer lasting rights in, for instance, literary, artistic and musical creations, trademarks are protected against imitation so long at least as they continue to be employed in trade") assert that there is no generic term that "satisfactorily" covers them all.[18] The import of this point is that different rights "cover distinct subject matter and have different objectives".[19]

While EU-granted IPRs exist within an international system[20], the current focus is on EU intellectual property rights. Cornish et al provide a succinct overview of the situation relation to IP law in the European Union, noting that none of the documents, from the Treaty of Rome 1957 which established the European Economic Community (amended by The Single European Act 1985); the Maastricht Treaty 1992; the Amsterdam Treaty 1997, creating the Treaty Establishing the European Community; the Nice Treaty 2001; to the Lisbon Treaty 2007) ' has conferred a specific power on European Union institutions to enact laws relating to intellectual property rights. Only Lisbon has conferred a power on the Council and Parliament, which is limited in the context of the internal market, allowing them to establish measures for European intellectual property rights throughout the EU, together with centralized Union-wide authorisation, coordination and supervision arrangements.' [21]

A footnoted comment in their work notes that "Intellectual property remains unlisted in the general powers of exclusive or shared competence in TFEU arts 4-6." However, as they

---

[16] C May and S Sell *Intellectual Property Rights: A Critical History* (Lynne Rienner Publishers Inc. London 2006) 6 for a discussion on the creation of such rights, rather than their natural existence outside of the law.

[17] W. Cornish, *Intellectual Property Rights: Omnipresent, Distracting, Irrelevant?* Clarendon Lectures in Law for 2002 (Oxford, Oxford University Press, 2004), p.1

[18] W Cornish et al *Intellectual Property: Patents, Copyright, Trade Marks and Allied Rights* (2013) 3

[19] W Cornish et al *Intellectual Property* (2013) 7

[20] W Cornish et al *Intellectual Property* (2013) 7

[21] W Cornish et al *Intellectual Property* (2013) 22; they see this as amounting to 'an ex post facto recognition of what has already been achieved under the general legislative powers relating to the ability to make regulations and to issue directives; the former are binding; the latter binds the Member States but does not determine the implementation.

note, "Art 118 conferred the power to establish uniform protection of IPRs throughout the Union with centralized institutions." [22]

In addition, the Union may act under Articles 288-92; the Council, together with the Parliament, has power to make regulations having general application and to issue directives to Member States.[23] Cornish et al signal the particular significance of art 114 TFEU "which gives the Council and the Parliament power to issue directives for the approximation of the provisions laid down by law, regulation or administrative action in Member States, which have as their object the establishment and functioning of the internal market"[24].

Geiger states that probably, due to the absence of the Union's explicit competences, this meant that it was always necessary to act "in the light of the functioning of the internal market'",[25] with the result that, he contends, the economic point of view was privileged. He suggests that it was only recently, following the greater powers of the European Parliament, that the social aspect has been addressed. Barnard, as part of the recent UK Competence Review of the powers of the EU, comments a propos of the operation of the common market, now the internal market, that it "is a vast and complex area of law"; considering "positive and negative integration". In respect of the former, the EU can act only where the powers are expressly conferred on it; the principles of subsidiarity and proportionality are intended to limit the exercise of EU powers.[26]

As Barnard notes, further to establishing the competence of Union to act (i.e. the existence of the EU's power), the "next question is whether the EU should actually exercise those powers (the subsidiarity question) and if so, to what extent (the proportionality question): under the former, in areas which do not fall within its exclusive competence, the Union shall act only if and so far as the objectives of the proposed action cannot be sufficiently achieved by the Member States, either at a central level or at a regional and local level, but can rather , by reason of the scale or effects of the proposed action, be better achieved at Union level".[27]

---

[22] TFEU Art 118: In the context of the establishment and functioning of the internal market, the European Parliament and the Council, acting in accordance with the ordinary legislative procedure, shall establish measures for the creation of intellectual property rights throughout the Union and for the setting up of centralized Union-wide authorization, coordination and supervision arrangements.
[23] Key issues relating to legislative reach are the doctrines of direct effect and direct applicability.
[24] Cornish et al *Intellectual Property* (2013) pp.22-23
[25] C Geiger "The construction of intellectual property in the European Union: searching for coherence' in Geiger C (ed.) *Constructing European Intellectual Property: Achievements and New Perspectives* (Cheltenham UK/Northampton MA: Edward Elgar, 2013) p.8
[26] C Barnard 'Competence Review: the internal market' (2013) Foreign and Commonwealth Office, http:www.gov.uk/…/bis-13-1064-competnece-reivew-internal-market.pdf, <accessed 15 April 2015>
[27] C Barnard 'Competence Review: the internal market' (Foreign and Commonwealth Office, 2013) http://www.gov.uk/…/bis-13-1064-competence-review-internal-market.pdf

Jones and Sufrin state that "the existence and exercise of IPRs…has some times created *tension* with the EU rules both on free movement and competition."[28] Suffice it to note for current purposes the relevant case law following the seminal case of *Parke Davis*[29] in which the ECJ ruled that Community law did not affect the *existence* of an IP right recognised by the law of a Member State but did regulate its *exercise.* Thus the rights accorded under Article 345 are maintained.

However, if the exercise of such right involves an agreement, decision or concerted practice between the IPR holder and those economically or legally dependent on the holder (for example, licensees), art. 101 will be used in adjudicating a dispute and where there is an abuse of a dominant position. Key cases which illustrate the application of art. 101 and 102 to constrain the exercise of an IPR include *Magill* (copyright, art.102), IMS Health (database right; art. 101) and *Microsoft* (patent; art. 102).[30] Geiger comments that

> Astonishingly, the more intellectual property rights have become the centre of economic activity, the more their legitimacy has been contested within public opinion and in various circles. Amongst economists, in particular certain voices have been raised against a development of the law that tends towards 'over-protection' and the consequences of which on the economy and the collective well-being have in part been insufficiently evaluated.[31]

Similarly, Cornish et al refer to how 'As…the demand for increased protection has arisen, so…has the level of suspicion and criticism of intellectual property protection.[32]The concern with 'overprotection' is not confined to economists; Judge Alex Kozinski in a dissenting opinion stated:

> *Overprotecting intellectual property is as harmful as underprotecting it***.** Creativity is impossible without a rich public domain. Nothing today, likely nothing since we tamed fire, is genuinely new: Culture, like science and technology, grows by accretion, each

[28] A Jones and B Sufrin *EU Competition Law: Texts, Cases, Materials* (fifth edition, Oxford University Press 2014) 846
[29] Parke Davis & Co v Probel (24/67) EU: C: 1968: 11; CMLR 47
[30] *RTE and ITP v Commission* (Magill) (C-241/91) EU:C:1995:98 [1995] 4 C.M.L.R 718; *IMS Health v Commission* (C-418/01) EU:C: 2004: 257 [2004] 4 C.M.L.R. 28; *Microsoft v Commission* (T-201/04) EU:T:2007:289 [2007] 5 C.M.L.R. 11.
[31] C Geiger 'Introduction' (2013) xxi
[32] W Cornish et al *Intellectual Property* (2013) 33

> new creator building on the works of those who came before. Overprotection stifles the very creative forces it's supposed to nurture.[33]

This need for 'balance' is recognised in the European Commission's Communication *A single market in intellectual property rights:*

> Care should be taken to ensure that the right balance between the protection of rights and access, i.e. to develop fair regimes rewarding and incentivizing inventors and creators whilst ensuring the circulation and dissemination of goods and services, the exercise of other fundamental rights and the promotion and preservation of linguistic diversity….[34]

Achieving the balance of rights within an internal market thus has to take account not only of the interaction of laws and the maintenance of the four freedoms but also to meet the needs of the innovation system. Barnard comments that given their exclusive and territorial nature, intellectual property rights represent a serious challenge to the creation of the single market.[35] The legal monopolies granted to the different IPs, for different purposes and different durations, may be suspended by exemptions. This chapter has also signalled that specific regulations are in place in relation to the applicable law governing different intellectual property rights. A central observation is the tendency in current policy discourse to present IPRs and their protection as the 'panacea for all ills; as Geiger points out, the Commission Communication *A single market in intellectual property rights* emphasises that

> Innovation not only helps the European economy to flourish. It is indispensable to address the challenges that humankind is facing in the 21st century: ensuring food security, containing climate change, dealing with demographic change and improving citizen's health. It also has an essential role to play in the quality of daily life by fostering cultural diversity.[36]

And, as he notes, this document concludes that

---

[33] *White v. Samsung Electronics America, Inc.*, 989 F.2d 1512, 1512 (9th Cir. 1993) (*dissent*), cited in http://trove.nla.gov.au/work/60608130?q&versionId=73631994

[34] European Commission *A single market in intellectual property rights: Boosting creativity and innovation to provide economic growth, high quality jobs and first class products and services in Europe.* COM (2011) 287 p7

[35] C Barnard *Intellectual Property and the Free Movement of Goods* (2013), http://global.oup.com/uk/orc/law/eu/barnard4e/student/additional/ <accessed 1 April 2015>
C. Barnard *The Substantive Law of the European Union* (Oxford: OUP, 5th ed, 2016) p.164

[36] C Geiger (ed.) *Constructing European Intellectual Property* (Edward Elgar, Cheltenham 2013) xxi

> Intellectual property law, or more generally the law of intangibles, will therefore inevitably play an essential role in the future, since it will have the delicate function of being the main factor for development and the guarantee for the survival of the competitiveness of the European economy.[37]

This role accorded to IPRs has to be set alongside the role allocated to competition laws; while they may pursue a variety of goals, it is acknowledged that they too seek to "pursue the common aim of improving innovation and consumer welfare".[38] However, this same goal is accorded to research policy; European Research Area and its key pillars, research infrastructures with the legal status 'European Research Infrastructure Consortium'. The *European Charter for Access to Research Infrastructures* identifies research infrastructures as being

> At the core of the knowledge triangle of research, education and innovation [and] help in structuring the scientific community and play a key role in the construction of an effective research and innovation environment. Support to the effective and efficient construction and operation of Research Infrastructures is a key priority in realizing the European Research Area and in promoting open science and open innovation [39]

3. European Research Area and ERICs

The preamble to the Regulation notes that "[r]esearch infrastructures should help to safeguard the scientific excellence of Community research and the competitiveness of the Community's economy….through the efficient support of European research activities. To achieve this they should be effectively open to the European research community at large in accordance with the rules established in their statutes and should have the aim of enhancing European scientific capabilities beyond the current state of the art and should thereby contribute to the development of the European Research Area."[40] In addition, a requirement relating to the infrastructures is that it 'represents an added value in the strengthening and structuring of the European Research Area (art 4).

[37] C Geiger (ed.) *Constructing European Intellectual Property* (Edward Elgar, Cheltenham 2013) xxi
[38] S Anderman and J Kallaugher cited in A Jones and B Sufrin *EU Competition Law* (OUP Oxford, 204) 852
[39] *European Charter for Access to Research Infrastructures*, DG Research and Innovation, European Commission, 2016, p.6
[40] Regulation 723/2009; Article 4

4. ERICs and IPRs

Research infrastructures with the legal status 'European Research Infrastructure Consortium' provide a novel opportunity to explore how intellectual property rights in the European Research Area intersect with data access/open access.

The Regulation *Community Legal Framework for a European Research Infrastructure Consortium (ERIC)*[41] was introduced in June 2009 in response to a considerable effort by Member States to formulate a workable legal agreement under which states could agree to collectively fund and implement research infrastructures of 'pan-European relevance'.[42] It defined 'research infrastructure' as "facilities, resources and related services that are used by the scientific community to conduct top-level research in their respective fields and covers major scientific equipment or sets of instruments, knowledge –based resources such as collections, archives or structures for scientific information; enabling Information and Communications Technology-based infrastructures such as Grid, computing, software and communication, or any other entity of a unique nature essential to achieve excellence in research. Such infrastructures may be 'single-sited' or 'distributed (an organized network of resources)".[43] Research infrastructures range from data archives in the social sciences and humanities to biomedical databanks. Research infrastructures operate across disciplinary fields, as per the ESFRI Roadmap 2018[44].

[41] Council Regulation (EC) No 723/2009 of 25 June 2009 [amended December 2014], Council Regulation (EU) No 1261/2013 of 2 December 2013 amending Regulation (EC) No 723/2009 concerning the Community legal framework for a European Research Infrastructures Consortium (ERIC)

[43] Council Regulation No 723 2009 Article 2 Definitions; it is notable that 'research infrastructure' is variously defined in Commission texts; for example, in its multi-annual funding programme, H2020, RIs are defined as Research infrastructures are facilities, resources and services that are used by the research communities to conduct research and foster innovation in their fields. Where relevant, they may be used beyond research, e.g. for education or public services. They include: major scientific equipment (or sets of instruments); knowledge-based resources such as collections, archives or scientific data; e-infrastructures, such as data and computing systems and communication networks; and any other infrastructure of a unique nature essential to achieve excellence in research and innovation. Such infrastructures may be 'single-sited', 'virtual' or 'distributed' (2015: 5) Horizon2020 Work Programme 2014-2015 *ResearchInfrastructures*,http://ec.europa.eu/research/participants/data/ref/h2020/wp/2014_2015/main/h2020-wp1415-infrastructures_en.pdf

[44] European Strategy Forum on Research Infrastructures, *Roadmap 2018: Strategy Report on Research Infrastructures*, http://roadmap2018.esfri.eu/media/1066/esfri-roadmap-2018.pdf <accessed 20 February 2019>

ERICs exist, in the first instance, 'for' the scientific community. However, while the recital (point 8) to the Regulation states that

> An ERIC…should have as its principal task the establishment and operation of a research infrastructure on a non-economic basis and should devote most of its resources to this principal task. In order to promote innovation and knowledge and technology transfer, the ERIC should be allowed to carry out some limited economic activities.[45]

The context within which the ERIC Regulation was drafted is important – the 'ESFRI process' which is a 'channel' for research infrastructures to progress to the stage of an application for ERIC status included the publication of a series of Roadmaps for European Research Infrastructures (2006, 2008, 2010, 2016, 2-18); the RIs included in the Roadmaps are those which are determined to be of 'pan-European relevance'.

The concept of 'pan-European relevance' is operationalized in art. 4 of the Regulation. 'The research infrastructure to be established by an ERIC shall meet the following requirements:

(a) it is necessary for the carrying out of European research programmes and projects, including for the efficient execution of Community research, technological development and demonstration programmes;

(b) it represents an added value in the strengthening and structuring of the European Research Area (ERA) and a significant improvement in the relevant scientific and technological fields at international level;

(c) effective access…is granted to the European research community, composed of researchers from Member States and from associated countries;

(d) it contributes to the mobility of knowledge and/or researchers within the ERA and increases the use of intellectual potential throughout Europe; and

(d) it contributes to the dissemination and optimization of the results of activities in Community research technological development and demonstration'.[46]

The policy imperatives of the 'fifth freedom', the creation of an internal market for researchers and knowledge are evident in the final requirements of Article 4; the position of an ERIC as

[45] Regulation 723/2009 Recital Point 8

[46] Regulation 723/2009 Art 4 *Requirements relating to infrastructure*

'added value' in 'strengthening and structuring' the European Research Area directs attention to art 179[47].

The Impact Assessment accompanying the Proposal for a Council Regulation on the Community Legal Framework for a European Research Infrastructure (ERI)[48] directly situates the effort within the wider context of the Green Paper on the ERA (*The European Research Area: New Perspectives*) and notes that "a number of key areas have been identified where effective action in partnerships between Member States would have the potential to deliver significant gains for Europe's research system and help to create a 'fifth freedom' in Europe – the free movement of knowledge".[49] 'Developing world class research infrastructures' is put forward as one of the pillars of an ambitious ERA vision. The *Impact Assessment* notes that the proposed Regulation sought to "provide an easy to use legal framework with high commonalities on key issues, while leaving enough flexibility to individual consortia to develop rules for specific infrastructures".[50] ERICS are explicitly identified as "contributors" to the development of the ERA and "central to the success of" the Europe 2020 Strategy. [51]

5.3 The Application Process

The process of applying for ERIC status is set out in the Regulation. Applicants are required to submit a suite of documents to the European Commission for approval. The details of this process are set out in the Regulation and include the ERIC Management Committee, established in line with comitology procedure.[52]

Significantly, the European Commission, [on behalf of the EU], although not a member of an ERIC, should it determine that the ERIC is acting in 'serious breach' of the Regulation, may (ultimately) repeal the decision establishing the ERIC. It must be informed of specified

[47] TFEU art. 179 – 'The Union shall have the objective of strengthening its scientific and technological bases by achieving a European research area in which researchers, scientific knowledge and technology circulate freely, and encourage it to become more competitive, including in its industry…'
[48] Proposal for a Council Regulation on the Community legal framework for a European Research Infrastructure (ERI), COM (2008) 467 final; Commission Staff Working Document, Accompanying Document to the Proposal for a Council Regulation on the Community legal framework for a European Research Infrastructure (ERI), SEC (2008) 2279, 25/7/2008
[49] COM (2007) 161, Green Paper *The European Research Area: New Perspectives,* http://ec.europa.eu/research/era/progress-on-debate_en.html
[50] Proposal for a Council Regulation on the Community legal framework for a European Research Infrastructure (ERI), COM (2008) 467 final page 4
[51] Regulation 723/2009 Recital point 9
[52] The European Commission has published guidance for applicants: *ERIC Practical Guidelines* (March 2015) *https://publications.europa.eu/en/publication-detail/-/publication/2acfa363-f0a8-4b97-9f6f-176ff2a49381/language-en/format-PDF/source-search*

changes to the Statutes, including principles relating to intellectual property rights but notably not to those relating to the data access.[53] The importance of the intellectual property policy as a reserved item of the Statutes indicates its perceived importance.

Articles on Intellectual Property in the ERIC Statutes

Article 10 of the Regulation requires that the Statutes of an ERIC shall contain at articles which set out, inter alia, the intellectual property rights policy. For the purpose of this preliminary exploration of the treatment of IPRs, the relevant articles (on IPR and data policy) were extracted from the (publicly available) Statutes of ERICs. These articles were reviewed to assess how intellectual property rights were to be addressed. Notably, to date, the European Spallation Source ERIC is the only ERIC to have published an Intellectual Property Rights policy. Three specific categories or themes emerged from the inductive coding exercise carried out; firstly the definition of intellectual property used; secondly, the identification of specific intellectual property rights; and (iii) the applicable law and jurisdiction identified.

(i) Definition*s of 'Intellectual Property' and 'Intellectual Property Right'*

The Statutes of the different ERICs do not refer to Community laws relating to intellectual property rights. Rather, the reference to art. 2 of the Convention establishing the World Intellectual Property Organisation is used by 10 of the 20 ERICs (EPOS; EU OPEN SCREEN; CESSDA ERIC, ECCSEL ERIC; EMSO ERIC; European Spallation Source ERIC; CERIC-

[53] The Regulation provides for the content of the Statutes, in both the detail and generally. In specific detail, Statutes must include
a. a list of members, observers…and the conditions of and the procedure for changes in membership and representation
b. the tasks and activities of the ERIC
c. the statutory seat…
d. the name of the ERIC…
e. the duration, and the procedure for winding-up…
f. the liability regime
All bar (b) are detailed in the Regulation. In addition, the basic principles covering a number of issues have to be included in the Statutes:

(i) the access policy for users;
(ii) the scientific evaluation policy;
(iii) the dissemination policy;
(iv) the intellectual property rights policy;
(v) the employment policy, including equal opportunities;
(vi) the procurement policy…
(vii) a decommissioning, if relevant;
(viii) the data policy

ERIC, ECRIN-ERIC, EATRIS-ERIC and SHARE-ERIC[54]); this article provides that "intellectual property" shall include the rights relating to

- linguistic, artistic and scientific works,
- performances of performing artists, phonograms and broadcasts
- inventions in all fields of human endeavor,
- scientific discoveries,
- industrial designs,
- trademarks, service marks and commercial names and designations,
- protection against unfair competition,

and all other rights relating from intellectual property in the industrial, scientific, literary or artistic fields.[55]

At first sight, and noting that while the subsequent *Agreement on Trade-related aspects of Intellectual Property Rights (*TRIPS Agreement) 1994 adopted this definition of intellectual property, as it incorporated this article in its art 2 *Intellectual Property Conventions*, it was striking that no reference is made to TRIPS (1994) as it sets out the minimum standards of intellectual property protection. This is not withstanding Taubman's comment that "TRIPS defines standards that define what national partners can legitimately expect of one another as to how IP is protected. But the protection itself effectively takes place at the level of national law…So domestic law and institutions…give effect to the standards and principles of TRIPS. It is up to them to deliver on the objective that IP protection should produce public benefits and a balance of rights and obligations".[56]

That TRIPS is a Word Trade Organisation (WTO) treaty to which its members are obliged to adhere. WTO's mission is to remove barriers to trade; WIPO, under the UN, aims to promote economic development of countries through intellectual property. On a more pragmatic note, the adoption of similar wording for the mandatory articles of the ERIC statutes has often simply be down to the relatively small group of country representatives who participate in a number of applications for ERIC status.

[54] This feature alone does may t hold any significance and is more likely to be related to the organization of applicant groups – the same officials from countries' Research Ministries (or other relevant bodies) attended applicant group meetings across the scientific domains.
[55] *Convention Establishing the World Intellectual Property Organisation*, 1967, art .2 as amended on September 28, 1979, see www.wipo.int/treaties/en/convention/
[56] A Taubman *A Practical Guide to Working with TRIPS (2011 OUP Oxford) 17*

(ii) Nature of the intellectual property right

Cornish et al note that, notwithstanding that the one characteristic shared by all types of IPR is that they are essentially negative, it is important to distinguish "the different types of intellectual property rights – patents for inventions, copyright for literary and artistic works and associated products, and trade marks and names for the goodwill attaching to marketing symbols – cover distinct subject matter and have different objectives. The law on each varies accordingly in strategic ways".[57]

A notable feature of the provisions on intellectual property is that there is rarely a direct reference to a *specific* intellectual property right in the Articles – whether patent, trade mark, registered design right, copyright or database right -. The EU OPENSCREEN ERIC includes an Annex on IPRs in which provision is made that 'the layout of the homepage, the used graphics and all other contents are protected by copyright'.' Of note is the explicit recognition of background IPRs in the relevant article of the statutes of EMSO ERIC.

Noting that provisions of the Statutes are expected to be elaborated upon in implementing rules (as instituted by the European Spallation Source ERIC and EPOS ERIC), the absence of any reference to specific IPRs is of interest.[58]

(iii) *Jurisdiction and applicable law*

In considering the articles on intellectual property, it is notable that art.15 of the ERIC Regulation relates to 'Applicable law and jurisdiction'; it provides that

> The setting up and internal functioning of an ERIC shall be governed: (a) by Community law, in particular this Regulation…;(b) by the law of the State where the ERIC has its statutory seat in the case of matters not, or only partly regulated by acts referred to in point (a); (c) by the statutes and their implementing rules.[59]

That the 20 RIs established are largely distributed RIs is of note; this means that they are multi-sited across Europe, with a statutory seat in one Member State or Associated Country, but operational in more than one state, thus foregrounding the issue of applicable law. While to date no disputes have been recorded,[60] the potential for protracted legal disputes to arise is evident. Clarity as to the applicable law in respect of the different IPRs would be expected.

[57] W Cornish et al. *Intellectual Property* 2013 6-7

[58] No provision has been made in any budget of the ERICs for intellectual property strategies; for example, for costs for filing patents or for enforcement of rights.

[59] Council Regulation No 723/2009

[60] *pers com* author and Paul Tuinder, Legal Officer, European Commission B3 Research Infrastructures, email 10 October 2014

The provisions of Brussels I and the Luango Convention are not referred to, [61] nor or those relating to Rome II. The e-IRG Support Programme, as part of the wider discussions about the legal issues relating to the establishment of e-infrastructures, comments that

> the determination of applicable law is also important, since grids enable the cross-border collaboration, distributed access and joint generation of new data, techniques etc. The laws governing ownership and allocation across such works may differ across borders.[62]

Notably, that statutes of the ERICs are silent about the matter of enforcement.

5. 4 Claiming rights –empirical evidence

Noting the absence, bar the EU OPENSCREEEN ERIC example above, of any reference to a specific IPR in the Articles of the 20 ERICs, the question arises as to whether any IPRs are, in fact, claimed by ERICs? While there is no registration requirement for copyright, it is notable that a review of all of the websites of the ERICs indicated that 16 of the 20 ERICS assert a claim to copyright of their webpages.[63] The direct inclusion suggests that there is some awareness of intellectual property rights but it is instructive to note that copyright is asserted in respect of website content in the first instance. BBMRI ERIC is the sole ERIC to have sought trade mark protection through registration.

[61] See Bainbridge 2007 , 803-804
[62] e-IRGSP2 *First Legal Issues Report*, 63-64, http://e-irg.eu/support, <accessed 01/6/2008>
[63] ECRIN-ERIC, EARTIS ERIC, DARIAH ERIC, ESS ERIC, SHARE ERIC and JIV ERIC all include the copyright symbol © on their websites; CLARIN ERIC has a creative commons notice - CC-BY 2.0. Only BBMRI and CERIC-ERIC have not reference to copyright.

Table 1: ERICs' websites—IPRs identified[64]

ERIC Details	
1. EPOSERIC	https://www.epos-ip.org/glossary/eric
	Creative Commons: CC BY-SA 4.0
2. EU OPENSCREEN	https://www.eu-openscreen.eu
	Copyright of website included in its legal policy statement
3. EMBRCERIC	https://www.embrc.eu
	No details
4. INSTRUCT	www.instruct-eric.eu/contents/terms
	Copyright attributed to host institution, University of Oxford; Terms of Use – website is operated by the University of Oxford on behalf of the INSTRUCT ERIC consortium
5. CESSDA ERIC	htpp://www.cessda.eu
	Copyright
6. ECCSEL ERIC	www.eccsel.org
	No details
7. Lifewatch ERIC	https://www.lifewatch.eu
	copyright (asserted as follows: Copyright LifeWatch ERIC – © 2018)
8. EMSO ERIC	www.emso.eu
	No details
9. ICOS ERIC	https://www.icos-ri.eu
	Creative common Attribution 4.0 International licence
10. European Spallation Source ERIC	https://europeanspallationsource.se/
	Copyright
11. JIVE ERIC	www.jive.nl
	Copyright
12. DARIAH ERIC	https://www.dariah.eu
	Creative commons attribution (CC BY) licence
13. C-ERICERIC	https://www.ceric-eric.eu
	Copyright
14. Euro AGRO ERIC	https://www.euro-argo.eu
	Legal notice <link broken, 5 January 2019>
15. ECRIN ERIC	https://www.ecrin.org
	Copyright
16. BBMRI ERIC	www.bbmri-eric.eu
	Legal notice and privacy notice;
	Registered trade mark and copyright: (© BBMRI-ERIC®)
17. ESS ERIC	www.europeansocialsurvey.org
	Copyright ESS ERIC, privacy and disclaimer
18. EATRIS ERIC	https://www.eatris.eu
	Partner Czech Republic asserts copyright
19. CLARIN ERIC	https://www.clarin.eu
	CC-BY SA Licence
20. SHARE ERIC	www.share-project.org/organisation
	copyright SHARE ERIC; copyright notice and disclaimer

[64] The IP strategy of ERICs is evolving and this table represents a cursory, preliminary overview of the situation at 5 January 2019, with an expectation that its content will change over time.

This section has considered how intellectual property rights are addressed in the ERICs. A review of the IPR provisions in the Statutes of the ERICs suggests that these are extremely limited in scope and detail. This is surprising given the stated importance of IPRs for EU competiveness and noting the role that ERICs are accorded in securing a competitive knowledge based economy and society. In general terms, and noting the exception of the European Spallation Source which has developed its dedicated IRP Policy in December 2016, and, in July 2018, EPSO ERIC, which issue a Data Policy containing a section on intellectual property, across the ERICs, little attention is given to the basic definition of what is meant by 'intellectual property rights'; no ERIC identifies the nature of the IP right it anticipates it will seek to protect, excepting EU OPENSCREEN ERIC and the appeal to the national legislatures for resolution of IP related disputes, understandable in respect of some intellectual property rights which have been harmonized, such as trade marks, in overall terms does not pay due regard to either the fact of differences across Member States nor to the international treaties and EU Directives. Johnson, discussing 'strategic IP management' presents an overview of potential areas of intellectual property protection; an adapted version is presented below.[65]

Table 2 Mapping potential areas of intellectual property protection[66]

Potential IP	Ideas invention	Information	Music, literature, art	software	Process	Industrial material	Device	Branding	Cell culture	Plant
Patent	○	○	○	○	○	○	○	○	○	○
Trade Secret	○	○	○	○	○	○	Possibly		○	Possibly
Copyright	○	○	○	○	○	○	Possibly	○		
Design rights				Graphical User Interface			○	○		
Database rights										
Trade mark							Possibly	○		
Trade dress/unfair competition							Possibly	○		
Domain name								○		

[65] S Johnson, *Guide to Intellectual Property: What it is, how to protect it and how to exploit it* (Profile Books Ltd, London 2015) 275

[66] S Johnson, *Guide to Intellectual Property: What it is, how to protect it and how to exploit it* (Profile Books Ltd, London 2015) 275

This table may be used as a tool by ERICs as part of a broader process of identifying/specifying which intellectual property right they wish to lay claim to, relating to specific areas of operation. Reasons for this 'minimalist' approach to intellectual property rights may include the primarily non-economic nature of the ERICs. Kaye et al report in their study of attitudes to specific laws that respondents in biobanks assessed the current IRP framework as negative, requiring effort with little certainly about the timeframe of the process. They report "In relation to IPR…it is noteworthy that the concerns relate specifically to the formal, legalistic boundaries on sharing materials – and that legal interventions in ownership are interlaced with issues about routine practice, scientific progress, ethics and professional careers".[67] Verlinden et al state in their review of IPR policies in the biobanking data lifecycle that

> we recognize that the feasibility of IPR policies depends on the specific types, set-ups and goals of biobanks and that some biobanks may have good reasons to refrain from getting (too much) involved in IPR protection. This could for example bet the case for certain biobanks that were deliberately established as non-profit organisations and/or as an European Research Infrastructure Consortium (ERIC) …such as BBMRI [ERIC]".[68]

While the primarily *non-economic* nature of the ERICs may account for the lack of attention to IPRs such an explanation has to consider the explicit requirement for the ERICs to include an article on Intellectual Property Rights in their respective Statutes and for the status of this article to require Commission approval if amended after the Commission implementing Decision.

The paucity of detail, suggestive of a lack of attention to IPRs, is puzzling; however, considering this paucity in the context of the concomitant requirement to include an article on data access directs attention to their situated nature – they are pillars in the European Research Area, an 'internal market for research' - and this, in turn, foregrounds issues of the balance between exclusive intellectual property rights and free access to knowledge.

[67] J. Kaye, S. MC Gibbons, C. Heeney, M. Parker and A. Smart *Governing Biobanks: understanding the interplay between law and practice*. (2012) 171-192
[68] supra note X at Y,

5. Discussion and Conclusion

The preliminary study undertaken in 2015, and updated in early 2019, considered how ERICs were treating intellectual property rights and cast the issue in terms of the familiar tensions arising from the need to balance the interests of intellectual property-rights holders with the public interest to freely access knowledge. Its underpinning argument was that the interaction of the 'fifth freedom of knowledge and researchers' in the European Research Area with intellectual property rights reproduces features of the more general interaction of the four freedom of the Union (goods, services, capital and people) and competition law with intellectual property rights: the existence of rights are not denied, rather their exercise is limited, a familiar principle in EU law. The Open Science agenda within the operation of the European Research Area seeks to ensure optimal modes of access to and circulation of knowledge; intellectual property rights are not denied but cast as secondary in achieving the goals of the European Research Area.

The recent Council conclusions on *Accelerating knowledge circulation in the EU* stresses that striking a fair balance between protecting intellectual property rights and dissemination of knowledge through open access [is] key to boost knowledge circulation. This preliminary overview of the IPR policies suggests that open science arrangements may be more immediately adopted, to the detriment of establishing robust IPR strategies. Verlinden ete al comment that

> mere acquisition of IPRs does not necessarily imply specific modalities for rights administration and user-generated solutions. *It does however call for decisions and agreements about the way IPRs are/can be used, and to be aware of the consequences of the different choices.*[69]

Research Infrastructures with European Research Infrastructure Consortium (ERIC) legal status represent significant ongoing public investment and, on this fact alone, the way in which they manage the protection and exploitation of their results is an area deserving of investigation. This exploratory study suggests, as a preliminary finding, that the position of the ERICs as 'pillars' of the European Research Area, which seeks to operate an internal market for research, has brought into sharp relief the tension between open access and a claim to intellectual property rights. This tension is not addressed in the Statutes of the ERICs with the result that whether and how IPRs will be asserted or exploited will be a matter for a case-by-

[69] M. Verlinden, T. Minssen I. Huys, 'IPRS in biobanking – risks and opportunities for translational research', IPQ 2015 2, 106-120

case consideration. Regulation No 723/2009 does not resolve this tension; nor does the Guidance issued by the European Commission to applicants for the ERIC legal status. In addition, the lack of clarity on the nature of the intellectual property right to be pursued and as a concomitant, the applicable law and jurisdiction, may signal problems once ERICs, largely distributed in nature, seek to exploit the IPRs generated across the distributed infrastructures.

Further empirical research is therefore required focusing on how, exactly, the provisions of the Statutes are implemented and what the effects are on the balance between open access to research results and protection of intellectual property. It will include a detailed analysis of the content of the elaborated policies relating to intellectual property (such as that undertaken by Yu et al. in respect of the European Spallation Source ERICs IPR and Inventions Policy. [70] Notwithstanding such future research, the current study has confirmed the enduring conflict between IPRs and the public interest.

Acknowledgements: Thanks to Dr Akalemwa Ngenda, Brunel Law School; Harry Tuinder, European Commission; Akko Maas; and Dr Iain Crinson, SGUL.

Disclaimer: The views expressed are those of the author alone.

[70] H.Yu, J.B. Wested and T. Minssen 'Innovation and intellectual property policies in European Research Infrastructures Consortia – Part 1: the case of the European Spallation Source ERIC' (2017) 12 *JIPLP*