

Open Science and Public Sector Information

Reconsidering the exemption for educational and research establishments under the Directive on re-use of public sector information

by Heiko Richter*

Abstract: The article discusses the possibilities of including public research and educational establishments within the scope of the Directive regulating the re-use of public sector information (2003/98/EC – ‘PSI Directive’). It subsequently evaluates the legal consequences of such an inclusion. Focusing on scientific information, the analysis connects the long-standing debates about open access and open education to open government data. Their common driving force is the call for a widespread dissemination of publicly funded information. However, the regulatory standard set out by the PSI Directive

is characterized by considerable legal uncertainty. Therefore, it is difficult to derive robust assumptions that can form the basis for predicting the effects of extending the PSI Directive’s scope to research information. A potential revision of the PSI Directive should reduce this uncertainty. Moreover, PSI regulation must account for the specific incentives linked to the creation and dissemination of research results. This seems of primary importance for public-private research collaborations because there is a potential risk that a full application of the PSI Directive might unduly affect incentives for such collaborations.

Keywords: Public Sector Information; Scientific Information; Open Access; Open Education; Database Protection; PSI Directive; Open Government Data; Re-Use of Information; Copyright; EU Copyright Reform

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A. Introduction

1 The PSI Directive¹ regulates the **re-use of public sector information (PSI)**. Since the Directive entered into force in 2003, it has contained an exemption for research and educational (R&E) establishments

in Article² 1(2)(e). As a consequence, rules for re-using a large amount of valuable information (such as research datasets, publications or educational material) are either non-existent or fragmented across the EU. In the process of amending the PSI Directive in 2013, the European Commission discussed whether to bring R&E establishments within its scope. However, this was rejected for three reasons: the high burden for clarifying the legal status of research data to make them re-usable under the rules of the PSI Directive would exceed the benefits; the existence of a dynamic and well-established system for disseminating and exploiting research findings and results; and the distinct character of the open access (OA) debate, which is separate from the PSI debate.³

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1 The term ‘PSI Directive’ refers to the Directive 2003/98/EC on the re-use of public sector information of 17 November 2003 as amended by Directive 2013/37/EU of June 2013. As there are different Recitals to both Directives, it is distinguished between Recitals (2003/98/EC) and Recitals (2013/37/EU) if necessary. Recitals of both Directives are relevant for the interpretation of the Directive in its current form, see Richter, H. (2018), Informationsweiterverwendungsgesetz (IWG), Einl para. 37 et seq.

2 Articles refer to the PSI Directive if not stated otherwise.

3 See SEC(2011) 1152 final, 33 et seq.

- 2 In the framework of the review of the PSI Directive, which needs to be carried out by July 2018 in accordance with Article 13, the European Commission is now reconsidering the exemption for R&E establishments. In its stakeholder consultation on the PSI Directive, the Commission has not only addressed re-use of scientific information but also explicitly considered access to it ; in fact, in its recently published draft for a recast of the PSI Directive (COM(2018) 234 final), the Commission explicitly proposes to include research data.⁴ This unites two worlds, which were separated 20 years ago⁵ – the scientific OA-world and the general PSI-world. As discourses have developed strictly in parallel, so far there is no in-depth analysis of R&E information from a PSI point of view.⁶ However, times have changed dramatically: the OA-discussions and models have matured, and digitization and “datafication” have also significantly advanced since 2013. Given these technological and socio-economic changes,⁷ a closer look at the functioning of the PSI Directive and its possible application to R&E establishments is desirable.
- 3 The analysis **focuses** on the legal aspects and mechanisms of the PSI Directive. The central question is what the legal consequences of applying the PSI Directive to R&E establishments would be. This can serve as a basis for economic research, which is necessary for predicting regulatory impact. What can already be said in general is that crucial provisions of the PSI Directive are not entirely clear. Therefore, their possible interpretations have to be discussed before applying the PSI Directive to R&E establishments. The analysis is structured as follows: At the outset, OA-policies and open education approaches are contrasted with the origin and general concept of PSI and information of R&E establishment in particular (*sub B.*). Subsequently, the core of the analysis elaborates on

4 For the stakeholder consultation, see especially question 12b of the European Commission’s “Public Consultation on the Review of the Directive on the Re-Use of Public Sector Information (PSI Directive)”, running from 12 September 2017 to 12 December 2017. The Commission has published the proposal for the recast of the PSI Directive on 25.4.2018, COM(2018) 234 final, which includes research data in its Article 10 (see also Recitals 23 and 24 of the proposal). However, as the focus is put on the current law, this article does not explicitly comment or discuss the recent proposal. Instead it shall provide the necessary background knowledge.

5 See the Commission’s Green Paper on Public Sector Information in the Information Society of 1998 as a starting point for the PSI Directive, COM(1998) 585 final.

6 As opposed to the title, focusing almost exclusively on cultural institutions Jančič, M./Pusser, J./Sappa, C./Torremans, P. (2012), Policy recommendation as to the issue of the proposed inclusion of cultural and research institutions in the scope of PSI Directive – Working Group 5, 6 Masaryk University Journal of Law and Technology 353.

7 For a recent overview see COM(2017) 228 final.

the hypothetical question of what would happen if one removes the exemption for R&E establishments (*sub C.*). The discussion focuses on what sort of R&E information would effectively fall within the scope of the PSI Directive under which circumstances and continues with elaborating the legal consequences for such information. In the next step, the analysis observes possible modifications (as opposed to a strict deletion of the exemption) of PSI rules that address R&E establishments (*sub D.*). The current provisions that address public libraries, museums, and archives can give some guidance. The final section draws a conclusion (*sub E.*).

B. ‘Open Access’, ‘Open Education’ and ‘PSI’

I. Overview

- 4 In the last two decades, the advancement of digitization and the global connection have brought up seminal debates and changes regarding the dissemination of information and knowledge. With respect to publicly funded information, the developments are driven by the general political thought that if production of information is financed by taxpayers’ money, it should be widely distributed for (almost) free and without any restrictions that apply to using such information. This basic rationale finds support in information economics and pervades three particular sorts of information that regulation has so far treated quite separately: first, the broad concept of ‘PSI’, which largely refers to Open Government Data (OGD); second, the ‘Open Access’ movement, which addresses scientific information (publications and data) in particular; third, the term ‘Open Education’, which relates to publicly funded teaching materials and coursework. All of these strands of debate converge when discussing the R&E exemption in the PSI Directive. Therefore, describing particular developments and frameworks sets a starting point for discussion.

II. Open access to scientific information

- 5 The OA-debate has a long-standing tradition in science.⁸ Basically it centers on the political claim of widely disseminating publicly funded scientific information.⁹ Historically, it was a reaction of

8 Seminal Suber, P. (2012), Open Access; for a comprehensive history of recent OA movements Scheufen, M. (2015), Copyright Versus Open Access – On the Organisation and International Political Economy of Access to Scientific Knowledge, 65 et seq.

9 See Recital 5, Recommendation 2012/417/EU.

academia to the increasing prices of scientific publications and subscriptions controlled by publishers and distributors.¹⁰ The idea is to make research output from **publicly funded research** establishments and projects available for free, with as few restrictions as possible. Central non-binding declarations and frameworks for OA are the “Berlin Declaration on Open Access to Knowledge in the Science and Humanities”, the “Bethesda Statement on Open Access” and the “Budapest Open Access Initiative”. Known as the “BBB-Declarations” they promote the free availability of works on the public Internet, permitting any use (e.g. read, download, copy, distribute, print, search or link). While there are slight differences, the basic idea of free access is to shift financing from the subscriber to the institution and/or the author.¹¹ There is a substantial body of literature that discusses and elaborates on the OA-movement and its legal and economic interfaces and implications.¹²

- 6 In the policy arena, basically two **reference points** can be identified when discussing OA-initiatives and regulating publicly funded research. The *organizational* reference point distinguishes between research establishments on the one hand and public funding organizations (e.g. governmental agencies or research councils) on the other hand. The *informational* reference point relates to the sort of information addressed. A main distinction can be drawn between publications and research data, both being subsets of “scientific information”.¹³ In general, research can be understood as “a systematic investigation intended to establish facts, acquire new knowledge and reach new conclusions”.¹⁴ However, categorizations and definitions are far from being exact or harmonized.¹⁵
- 7 Recent **EU policies** advocate that scientific information resulting from public funding should be openly accessible and re-usable as far as possible.¹⁶ There is considerable activity when it comes to EU funding policies. In its Communication of 2012, the Commission has set out OA-policy objectives

for research funded by “Horizon 2020”.¹⁷ The main idea is to lead by example and to request all funded projects to deposit an electronic version of their publication after an embargo period and to set up a pilot scheme on access and re-use to generated data.¹⁸ Therefore, each beneficiary must ensure OA to all peer-reviewed scientific publications relating to its results of research projects under Horizon 2020.¹⁹ Since January 2017, OA is also the default setting for research data generated in Horizon 2020. However, projects can opt out at any stage.²⁰

- 8 Regarding the **Member States’ policies addressing funders and institutions**, the Commission’s non-binding “Recommendation on access to and preservation of scientific information” calls to put measures into place that address OA to scientific publications, research data, preservation and infrastructure.²¹ Publicly funded research should be widely disseminated through OA-publication of scientific data and papers.²² Member States have developed different strategies in addressing these issues.²³ Policies of public research institutions and funders largely differ, although there is a clear trend towards openness.²⁴ Many universities, research institutions and funders have adopted mandates that require their researchers to deposit their findings and provide OA to them. There is, however, considerable uncertainty about the degree to which binding measures, rather than voluntary recommendations, are legitimate.²⁵

17 See COM(2012) 401 final.

18 See COM(2012) 401 final, 9.

19 See Article 29.2. of the Model Grant Agreement, which sets out detailed legal requirements on OA to scientific publications; see H2020 Programme, Guidelines to the Rules on Open Access to Scientific Publications and Open Access to Research Data in Horizon 2020, Version 3.2 of 21 March 2017, 5.

20 *Ibid.*, 8.

21 See Recommendation 2012/417/EU, which will be replaced by the Commission’s Recommendation of 25.4.2018 on access to and preservation of scientific information, C(2018) 2375 final in due course.x

22 See Recommendation 2012/417/EU, Recital 2.

23 See for example the U.K. Research Excellence Framework, as a system for assessing the quality of research in UK higher education institutions, available at: <<http://www.ref.ac.uk/>>.

24 For a comprehensive overview on the situation in the Member States, see the Report on the implementation of Commission Recommendation C(2012) 4890 final, “Access to and Preservation of Scientific Information in Europe” of 2015; see also <<http://roarmap.eprints.org/>>, a comprehensive searchable database covering OA-mandates of more than 600 public research institutions.

25 See the current debate before the German Constitutional Court on the OA-mandate of the Universität Konstanz: <<https://www.lto.de/recht/hintergruende/h/vgh-mannheim-normenkontrollantrag-9-s-2056-16-professoren-universitaet-konstanz-open-access-wissenschaft-urheberrecht/>>.

10 See Papadopoulos, M./Bratsas, C. (2015), Openness/Open Access for Public Sector information and works – the Creative Commons Licensing Model, European Public Sector Information Platform – Topic Report No. 2015/06, 9 et seq.

11 For the different modes of OA, see Suber, P. (2008), available at: <<http://legacy.earlham.edu/~peters/fos/newsletter/08-02-08.htm#gratis-libre>>.

12 See Scheufen (*supra* n 8).

13 See Recommendation 2012/417/EU.

14 See Information Commissioner’s Office U.K. (2017), Information intended for future publication and research information (sections 22 and 22A), No. 45.

15 See Guibault, L./Wiebe, A. (2013), eds., Safe to be open – Study on the protection of research data and recommendations for access and usage, 17.

16 See SMART 2017/0061, 3.

III. Open education

- 9 When it comes to education, one can also advocate that everything which is ultimately financed by taxpayers' money should be available for everyone at no cost. The broader term **“open education”** covers different aspects of that claim, such as open educational resources (OER) as well as distance learning and massive open online courses (MOOCs) in particular. A major debate centers on OER, which UNESCO defines as “teaching, learning and research materials in any medium, digital or otherwise, that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation, and redistribution by others with no or limited restrictions.”²⁶
- 10 Open education has been discussed in parallel with the OA-debate.²⁷ However, overarching policies and regulation on the EU-level²⁸ and coherent strategies of the Member States and their educational establishments seem much **less developed**. As compared to the opening of research information, one can say that this field seems to be in a premature stage. At the same time, the provision of distance learning and MOOCs can be seen as an emerging, quite dynamic field. Many private educational institutions also provide education as a service on the market. The effect of an inclusion of educational establishments within the scope of the PSI Directive is difficult to forecast. Without careful observation and consideration of markets and practices in the light of re-use, one should abstain from overhasty regulatory changes.
- 11 Therefore, the **prematurity, heterogeneity, and dynamics** in the education sector have a major implication for this study: the focus is deliberately put on research information rather than on educational information. However, the article contrasts educational information from research information, because both types of information follow different legal treatment when it comes to access and copyright regimes. Finally, should the PSI Directive only address research establishments and their information, delineation from educational establishments and their information is necessary.

26 See UNESCO, Paris OER-Declaration of 2012.

27 See Miao, F./Mishra, S./McGreal, R. (2016), eds., *Open Educational Resources: Policy, Costs and Transformation*.

28 For a comprehensive overview see Inamorato dos Santos, A./Punie, Y./Castaño-Muñoz, J. (2016), *Opening up Education: A Support Framework for Higher Education Institutions*, JRC Science for Policy Report.

IV. PSI Directive and exemption for research and education

1. PSI Directive

- 12 On 31 December 2003, the Directive on the re-use of public sector information (2003/98/EC) entered into force. It was revised by Directive 2013/37/EU, which entered into force on 17 July 2013. According to Article 1(1), the **PSI Directive** “establishes a minimum set of rules governing the re-use and the practical means of facilitating re-use of existing documents held by public sector bodies of the Member States”. This definition implies a very broad concept of PSI that accommodates a vast variety of information, such as weather, geographical, tourist, economic, legal, and business information.²⁹ Legal literature has widely dealt with the PSI Directive from various perspectives.³⁰
- 13 The **Directive’s goal** is to stimulate further development of the market for services based on PSI and to enhance cross-border use and application of PSI.³¹ Also, the PSI Directive addresses divergence as to re-use rules between the Member States and seeks to strengthen competition in the internal market. While initially designed as a regime with a strong competition rationale,³² the revision extended the PSI Directive to a regulatory instrument that supports OGD efforts of the Member States.³³ This

29 See also Recital 4 (2003/98/EC).

30 In the course of the PSI Directive’s revision, considerable legal research had been conducted by the research network LAPSI (Legal Aspects of Public Sector Information) which published many of its results in the Masaryk University Journal of Law and Technology of 2012 and 2015. A comprehensive analysis of the PSI Directive (2003/98/EC) was conducted by Janssen, K. (2010), *The Availability of Spatial and Environmental Data in the European Union*; elaborate analyses from a competition perspective were undertaken by Drexl, J. (2015), *The Competition Dimension of the European Regulation of Public Sector Information and the Concept of an Undertaking*, in: Drexl, J./Bagnoli, V. (eds.), *State-Initiated Restraints of Competition*, 64 and Lundqvist, B. (2013), *Turning Government Data into Gold: The Interface between EU Competition Law and the Public Sector Information Directive – With some Comments on the Compass-Case* (September 19, 2012), 44 *International Review of Intellectual Property and Competition Law* (IIC) 79; see also for background of the PSI Directive in connection with the German Informationsweiterverwendungsgesetz (IWG) Richter (*supra* n 1); for a comprehensive examination of the rules for cultural PSBs see Wirtz, H. (2017), *Die Kommerzialisierung kultureller Informationen der öffentlichen Hand – Auswirkungen der Einbeziehung kultureller Einrichtungen in den Anwendungsbereich der PSI-Richtlinie*.

31 Recitals 1, 8, 25 (2003/98/EC).

32 Cf. Recital 9 (2003/98/EC), see Drexl (*supra* n 30) and Lundqvist (*supra* n 30).

33 Recitals 3, 5 (2013/37/EU).

is in line with several national and multilateral OGD initiatives, which have gathered momentum in the last 10 years.³⁴

- 14 For achieving its objectives, the Directive requires public sector bodies (PSBs) to make information **re-usable** for commercial and non-commercial purposes under non-discriminatory conditions for comparable categories of re-use. Charges are limited to the marginal costs of reproduction, provision, and dissemination. Also, PSBs may not unnecessarily restrict re-use and have to justify if they grant exclusive rights for re-use. It is important to mention that the PSI Directive sets out a minimum standard. Therefore, Member States are free to pursue more re-use-friendly policies. Furthermore, in the course of the Directive's revision in 2013, libraries, museums and archives have also been included within its scope. However, they are subject to a specific regime regarding re-use, charging, and exclusive arrangements.

2. Research and educational exemption

a.) History of the exemption

- 15 Amongst other types of information and institutions, **research and educational establishments have been explicitly exempted** from the Directive's scope. Article 1(2)(e) states that the PSI Directive is not applicable to "documents held by educational and research establishments, including organizations established for the transfer of research results, schools and universities, except university libraries". While this exemption had been included in the PSI Directive in 2003,³⁵ its deletion was considered for the revision in 2013. Even though the high economic and social value of the re-use of R&E establishment's information holdings had been recognized, several reasons – as already outlined in the introduction – were put forward in disfavor.³⁶ Only a definition of university has been included, which should enable a

more accurate delineation of university libraries to which the PSI Directive was extended.

b.) Affected establishments

- 16 In general, to fall within the scope of the PSI Directive, information must be held by a PSB. Article 2(1) and (2) define PSB by following the definition of public procurement rules.³⁷ While the legal entity's form is irrelevant, it must be predominantly controlled by the state, be it by financial or managerial means. Many R&E establishments across the EU would meet this definition. There is neither a PSI-specific nor an EU-wide definition of '**research establishment**'. The legislature has deliberately refrained from defining this term, due to the problem of subsidiarity and the different traditions within the Member States.³⁸ However, a recent approach has been made in the course of the ongoing copyright reform, where the Commission defined a research organization as an organization "the primary goal of which is to conduct scientific research or conduct scientific research and provide educational services".³⁹ There is no doubt that the PSI Directive would accommodate establishments dedicated to basic and applied research. Such establishments can be independent or held by universities or other organizations. Article 1(2)(e) makes clear that this also includes organizations established for the transfer of research results. However, should they be organized as public undertakings, the definition of PSB is not met (Recital 10 (2003/98/EC)).
- 17 Also, the PSI Directive does not clearly define **educational establishments**. Article 2(9) defines the term 'university' as a PSB that provides "post-secondary-school higher education leading to academic degrees". But 'educational establishment' not only refers to higher education, but also to schools for primary and secondary education.⁴⁰
- 18 As the PSI Directive is already applicable to **university libraries** (Article 1(2)(e)), a deletion of the exemption would also bring research related libraries other than university libraries within the scope of the PSI Directive. This would also eliminate major uncertainty associated with the problem to determine whether a university library has legal personality – and is therefore to be considered as PSB – or forms a mere part of the university itself.⁴¹

34 See the "Memorandum on Transparency and Open Government" (2009) of former U.S.-president Obama; the G8 Open Data Charter of 18 June 2013; for the EU strategy on Open Data see COM IP/11/1524.

35 On the attempt to remove the exemption during the legislative procedure already in 2003 see Pas, J./De Vuyst, B. (2004), Re-Establishing the Balance Between the Public and the Private Sector: Regulating Public Sector Information Commercialization in Europe, 9 Journal of Information Law & Technology.

36 SEC(2011) 1152 final, 33 et seq., explicitly referring to generated scientific data (observational, experimental data, databases), patents, scientific publications, unpublished material (pre-prints, non-refereed publications), output of educational establishments (such as theses, lectures, conference proceedings).

37 See Recital 10 (2003/98/EC).

38 See SEC(2011) 1152 final, 34.

39 See Article 2(1) COM(2016) 593 final – Proposal for a Directive of the European Parliament and of the Council on copyright in the Digital Single Market.

40 More detailed Richter (*supra* n 1) at § 1 para. 514 et seq.

41 See Guibault, L./Salamanca, O. (2017), Public sector

c.) Affected information

19 The PSI Directive applies to all existing ‘documents’ held by a PSB (see Article 1(1)).⁴² According to Article 2(3) the rather old-fashioned term ‘document’ means “any content whatever its medium (written on paper or stored in electronic form or as a sound, visual or audiovisual recording)”. Therefore, ‘document’ can be understood as reproducible⁴³ information. For the sake of simplicity, the term ‘information’ is used in this sense in the following.⁴⁴ **The broad definition** of ‘document’ shows that the PSI Directive applies to a vast range of information. This contains structured and unstructured data, raw data, meta data or compiled data. Also, the form of the media in which data are recorded is irrelevant. Information can therefore be digital files or physical devices of text documents, numerical data, spreadsheets, charts, notebooks, questionnaires, test responses, transcripts, codebooks, images, videos, audios, slides, reports etc. However, the PSI Directive does not apply to one important form of research output: according to Recital 9 (2003/98/EC) the definition of ‘document’ does not cover computer programs. Therefore, the PSI Directive does not apply to software.

20 One can see that both the amount and variety of **information held by R&E establishments** are infinite. However, the most valuable – and therefore relevant – information for re-use can be grouped into three categories – research, educational and administrative information:

- **Research information** can be broadly divided into research data and publications. Due to the broad meaning of ‘document’ according to Article 2(3), the scope of both categories is much wider than defined under the conventional OA-regimes: research data can be collected or created and is usually stored in databases. In particular, research data consists of a broad variety of *observational data*, such as data captured and transmitted in real-time by sensors, survey data, sample data, neurological images, or

information and university libraries, in: Wiebe, A./Dietrich, N. (eds.), *Open Data Protection, Study on legal barriers to open data sharing – Data Protection and PSI*, 228 et seq.

42 See also Recital 11 (2003/98/EC): “A document held by a public sector body is a document where the public sector body has the right to authorise re-use.” However, it seems debatable if the legal question of the right to authorize should be part of the definition that constitutes what a ‘document’ or an ‘information’ is; for discussion see Richter (*supra* n 1) at § 2 para. 73.

43 The requirement of reproducibility is based on the idea that a PSB can transfer the information to persons without losing the information itself.

44 Also national implementation refers to both, see e.g. § 2(2) IWG (Germany) referring to ‘information’, while § 4(2) addresses ‘documents’.

clinical trials. Just as important is *experimental data*, which is the outcome of a test method or an experimental design. This concerns e.g. data from lab equipment, such as gene sequences, chromatograms or magnetic field data. In general, research data can be derived from other data elements or compiled from a number of different sources. Furthermore, all publications can be qualified as ‘documents’ within the meaning of Article 2(3). This contains scientific publications,⁴⁵ no matter if refereed or not, as well as datasets linked to them. In principle, monographs and articles are affected, as well as drafts and unpublished material.⁴⁶

- Information that is usually directly related to **education** comprises multimedia material, lecture manuscripts and slides, recorded lectures, theses and conference proceedings,⁴⁷ as well as exams.
- Both educational and research establishments hold huge amounts of **administrative information**. This includes e.g. information regarding planning, budgets, correspondence, human resources and statistics. Some information is closely related to research, such as project information, contracts with funders and plans for future research. Other administrative information is related to teaching, such as timetables, room plans, curricula, examination regulations, enrolment statistics, course descriptions and evaluations.

C. Deletion of the research and educational exemption

I. Overview

21 What would happen if one completely deletes the R&E exemption of the PSI Directive? Taking this **extreme position** as a starting point helps to understand how the legal mechanisms of the PSI Directive work and to what extent and in what way this would effectively influence the creation and use of information held by R&E establishments. At first glance, the PSI Directive becomes applicable to all the information as outlined above. However, a detailed look at the scope of the PSI Directive shows that a significant amount of information would be excluded due the filtering function of other exemptions provided for in Article 1(2). Moreover, Member States and R&E establishments themselves can influence

45 See SEC(2011) 1152 final, 33.

46 *Ibid.*

47 *Ibid.*

whether they would fall under the exemptions to a considerable extent. For the remaining information of R&E establishments that fall under the scope of the PSI Directive, the legal consequences must be carefully considered. While the aim is not to draw a universally applicable conclusion on the economic effects, some crucial problems of the PSI Directive can be spotted with relevance for information held by R&E establishments in particular.

II. Applicability of the PSI Directive

1. Overview

22 Article 1(2) sets out several **exemptions** under which the PSI Directive does not apply. Many of them seem clear at first glance, but at second glance there appears to be considerable legal uncertainty about their interpretation. This causes a general problem for answering the question regarding how relevant the PSI Directive ultimately is for information held by R&E establishments. In the following, the analysis focuses on three exemptions that appear to be most relevant for the information in question. Put in positive terms: the PSI Directive can only apply if the information concerned is accessible in an unrestricted manner (*sub 2.*), if no intellectual property rights are held by a third party (*sub 3.*), and if the supply of this information falls under the scope of the PSB's public task (*sub 4.*). In principle, the PSI Directive can be applicable to personal data, but it does not affect data protection laws of the EU or the Member States in any way (*sub 5.*).

2. Unrestricted accessibility

a.) Legal standard

23 The PSI Directive only concerns the re-use of information and **does not regulate access to information**. Article 1(3) makes clear that the PSI Directive “builds on and is without prejudice to access regimes in the Member States”. The Directive does not contain an obligation concerning access to documents.⁴⁸ Therefore, it largely⁴⁹ remains in

the domain of the Member States and PSBs what information they choose to make accessible.⁵⁰ The reason lies in the limited competencies of the EU legislature to generally regulate access to information of national PSBs.⁵¹ For that reason, Article 1(2)(c) exempts “documents which are excluded from access by virtue of the access regimes in the Member States”. Article 1(2)(c) also exempts “documents access to which is restricted by virtue of the access regimes in the Member States, including cases whereby citizens or companies have to prove a particular interest to obtain access to documents”. Furthermore, Recital 9 (2003/98/EC) states that the PSI Directive “should apply to documents that are made accessible for re-use when public sector bodies license, sell, disseminate, exchange or give out information.”

b.) Unrestricted right of access to information

24 Taking all these references together, there is no doubt that documents fall under the PSI Directive if **national access regimes provide unrestricted access** to these documents to everyone. The exemptions make sure that even those documents shall not be re-usable that are accessible on request in privileged cases or under additional requirements. Otherwise the PSI Directive would undermine legitimate intentions of national legislators for differentiating access regimes and introducing certain requirements, to prevent the risks associated with uncontrolled circulation of information as a consequence of its mandatory re-use.⁵²

25 Ultimately, it depends on national legislation whether and to what extent information of R&E establishments is affected. Member States have different regimes in place that grant individual rights of access to information. However, only such access legislation is relevant that grants **unrestricted and unconditional** access rights. This means that the access right may neither apply only to a particular group (e.g. the press or other researchers) nor require a particular justification or proof of interest (e.g. research or educational interest). There are some sector-specific regimes in place that oblige PSBs to make their information accessible in an unrestricted manner.⁵³ On a cross-sectoral level, freedom-of-

48 See Recital 7 (2013/37/EU).

49 There are cases in which EU legislation provides access to information, e.g. the Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information and repealing Council Directive 90/313/EEC and Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE).

50 See Recital 8 (2013/37/EU).

51 Janssen, K./van Eechoud, M. (2012), Rights of Access to Public Sector Information, 6 Masaryk University Journal of Law and Technology 471 at 476 et seq.

52 Access rules are usually the result of a balancing of interests by the legislature.

53 See Directive 2003/4/EC and INSPIRE Directive (2007/2/EC); for details see van Eechoud, M. (2015), Making Access to Government Data Work, 9 Masaryk University Journal of

information (FOI) regulation⁵⁴ – should it be in place at all⁵⁵ – typically follows this rationale. While FOI sometimes only addresses the core administration (executive agencies), it can also reach out to more independent PSBs, such as R&E establishments in particular.⁵⁶

- 26 FOI-legislation, however, might contain explicit block **exemptions for R&E establishments** or explicitly exclude certain types of information. The FOI-legislation of the German *Länder* frequently allows access to information of R&E establishments only insofar as the information does not relate to research, education, arts, performance evaluation and examinations.⁵⁷ According to the broad interpretation of a higher administrative court, this also covers the underlying contracts for third-party research assignments.⁵⁸ Ultimately, this significantly narrows down the scope to mere administrative information. In the U.K., the Freedom of Information Act (FOIA) contains Sec. 22A, which is explicitly dedicated to “information obtained in the course of, or derived from, a programme of research” and therefore to ongoing research. The exemption is subject to a public interest test. So even if access is granted under this rule, the PSI Directive would not apply to this information. The same applies to Sec. 22 of the U.K. FOIA. This clause exempts information that is intended for future publication and is therefore highly relevant for research establishments. On the

basis of Sec. 22, access to a PhD thesis⁵⁹ and clinical trial data⁶⁰ has been successfully denied. In both cases, interests were considered and balanced. So even if access had ultimately been granted, the PSI Directive would not apply to this information.⁶¹

- 27 Also, **other exemptions in access regimes** that do not explicitly address R&E establishments can prevent access to information they hold. First and most importantly, access can be denied for reasons of secrecy or sensitivity. Many of the U.S. open-records laws contain exemptions to protect sensitive and research information.⁶² There have been cases where these exemptions have effectively prevented public disclosure of their information.⁶³ Information related to business secrets and unpublished patents are exempt from rights to access. Second, copyright can already prevent access, especially if works are unpublished.⁶⁴ As a third rather general category, FOI-legislation can also exempt such information concerning internal operations or activities of bodies, in case the disclosure of such information would cause disturbances in operations or activities of the body.⁶⁵
- 28 The application of FOI-regulation is particularly peculiar when it comes to research institutions.⁶⁶ This

Law and Technology 61 at 70 et seq.

- 54 The term refers to ‘freedom of information acts’, ‘right to information laws’, ‘transparency acts’ and ‘public records acts’, see van Echoud (*supra* n 53) at 64.
- 55 Not every Member State has FOI-legislation, see e.g. the complex situation in Germany, where four *Länder* do not have FOI-legislation in place (for details see Richter (*supra* n 1) at § 1 para. 142).
- 56 See e.g. U.S., where the Federal FOIA (1966) and several state ‘open-records laws’ govern access to records in the possession of federal agencies and state entities, such as public universities. For the situation in the U.K. see <<https://www.gov.uk/government/publications/university-and-business-collaboration-agreements-model-agreement-guidance/university-and-business-collaboration-agreements-model-agreement-guidance>> at para. 3.68.
- 57 See § 2(3) IFG North Rhine-Westphalia: “Für Forschungseinrichtungen, Hochschulen und Prüfungseinrichtungen gilt dieses Gesetz nur, soweit sie nicht im Bereich von Forschung, Lehre, Leistungsbeurteilungen und Prüfungen tätig werden.“; § 2(3) No. 2 IFG Baden-Württemberg: “Dieses Gesetz gilt nicht gegenüber [...] den Einrichtungen mit der Aufgabe unabhängiger wissenschaftlicher Forschung, Hochschulen [...], Schulen [...] sowie Ausbildungs- und Prüfungsbehörden, soweit Forschung, Kunst, Lehre, Leistungsbeurteilungen und Prüfungen betroffen sind.“; see also § 2(2) AIG, § 1 SIFG, § 3(1) No. 9 LSA IZG, § 2(5) ThürIFG, § 1(1a) BremIFG.
- 58 See OVG Münster of 30 September 2016 (4B 601/16) “unmittelbar wissenschaftsrelevante Angelegenheiten wie Drittmittelverträge über Forschungsvorhaben“.

59 See U.K., ICO Decision Note FS 50349323.

60 See Queen Mary University London v. Information Commissioner & Mr Robert Courtney [EA/2012/0229] of 22 May 2013.

61 See also, Sec. 39 of the Irish FOIA, which follows a balancing approach when it comes to research.

62 See for a good overview Cardon, A./Bailey, M./Bennett, B. (2012), The Effect of Public Disclosure Laws on Biomedical Research, 51 Journal of the American Association for Laboratory Animal Science, 306.

63 For specific cases see *ibid.* at 308.

64 German Federal Administrative Court of 25 June 2015 – BVerwG 7 C 1.14 (ECLI:DE:BVerwG:2015:250615U7C1.14.0). However, copyright protection does not automatically protect the freedom of science (critical in this respect VG Braunschweig ZD 2014, 318, which was heavily criticized for good reasons, see Schnabel, ZD 2014, 318 and Schoch, F. (2016), Informationsfreiheitsgesetz (IFG), § 6 para. 24.

65 See e.g. Article 6(1) No. 11 of the Slovenian Zakon o dostopu do informacij javnega značaja (UPB2, Official Gazette of the Republic of Slovenia, No. 51/06); see also standard under U.K. FOIA according to which information is exempt from access if disclosure of the information would prejudice someone’s commercial interests and the public interest in withholding the information outweighs the public interest in disclosing it.

66 See the U.S. discussion of the OMB Circular A-110 amendment of 1999, which requires researchers to ensure that “all data produced under a [federally funded] award will be made available to the public through the procedures established under the Freedom of Information Act”. For a valuable illustration of the controversy whether FOIA is well placed to allow wider public access or rather harms the traditional process of scientific research, see Fischer, E. (2013), Public Access to Data from Federally Funded Research: Provisions in OMB Circular A-110, Congressional

is because the **fundamental right of the freedom of science** applies to publicly employed and/or funded researchers and seeks to protect their independence and autonomy.⁶⁷ This causes systematic tensions with the principle of informational freedom and might unduly affect the way research is being conducted. Most of the FOI-inquiries to research establishments have therefore addressed administrative information.⁶⁸ Member States have to strike a balance between the concerned interests. Therefore, the landscape of regulatory regimes that provide access to information of R&E establishments is greatly diverse. One has to keep in mind that the PSI Directive does not hinder the Member States from adjusting their access policies in whatever direction.

c.) Factual accessibility

29 There is some uncertainty about those documents which are in fact made accessible by PSBs, however, without any obligation to do so⁶⁹ and without any corresponding individual right to access. The PSI Directive is not clear on this crucial issue.⁷⁰ Commentators at the time expressed doubt as to whether the Directive covers information made public without a clear legal basis.⁷¹ Nowadays, however, the predominant reading of the PSI Directive, in principle, includes **all generally accessible information**. The U.K. legislature states that the PSI Directive does not apply “unless the information has already been provided to a requester, or the information is otherwise accessible to the applicant”.⁷² Also, the Irish legislature refers to

legitimate ‘accessibility’ as one decisive criterion.⁷³ In a landmark judgment, the Federal Administrative Court in Germany ruled that the PSI Directive also applies in cases where a PSB publishes information, even if there is no corresponding individual right to access it.⁷⁴ Therefore, the re-use of information made accessible by the PSB is also subject to the rules of the PSI Directive. While the German court based its view on Recitals 8 and 9 (2013/37/EU), its reasoning appears weak even though the outcome seems appreciable.⁷⁵ Should one require a corresponding individual right to access already accessible data, a hypothetical test would need to be put into place. However, there would not always be a definite answer to this test, because courts have discretion when applying exceptions.

30 Ultimately, the question about the exact **legal standard** for factual access remains. First, the information must have been published by the PSB itself.⁷⁶ Second, the information must be made accessible to everyone. This does not require that the information is for free. Most prominently, this case affects published information on websites or information provided in statutory registers or for a fee.⁷⁷ However, if information is provided only to one party but not made accessible to everyone, this does not constitute accessibility that triggers the Directive’s application.

31 A lot of R&E information is exempt from unrestricted individual access rights. Therefore, its factual accessibility is the predominant case for the PSI Directive being applicable in principle. This mainly affects all information provided on websites of **R&E institutions**. They supply a lot of research results through their own repositories.⁷⁸ This concerns text publications as well as datasets. Policies differ regarding the timing, the sort, and the status of publication. A lot of information is provided after an embargo period. This allows for private

Research Service Report for Congress, 16 et seq.; see also regarding public universities: <<https://www.theguardian.com/science/political-science/2014/dec/04/should-universities-be-exempt-from-freedom-of-information-requests>>.

67 Article 13 CFREU: “The arts and scientific research shall be free of constraint. Academic freedom shall be respected.” See also e.g. Article 5(3) of the Basic Law for the Federal Republic of Germany: “Arts and sciences, research and teaching shall be free. The freedom of teaching shall not release any person from allegiance to the constitution.”

68 For a good overview on actual requests in Germany see: <<https://fragdenstaat.de/suche/?q=universit%C3%A4t>>.

69 See for research institutions e.g. § 71a HG NRW (for transparency on third-party funding); § 5(7) HmbTG; § 16(3) TransparenzG RP.

70 Recital 8 (2013/37/EU) requires Member States to make all documents re-usable “unless access is restricted or excluded under national rules on access to documents”; therefore, one could argue that even if documents were made publicly accessible, the PSI Directive would not apply because in theory, access is only possible after proving a particular interest.

71 Janssen/van Eechoud (*supra* n 51) at 476 et seq.

72 See Guidelines from National Archives on “Links between

access and re-use” of 2008, para. 2.

73 See Explanatory note S.I. No. 525 of 2015.

74 See German Federal Administrative Court of 14 April 2016 – BVerwG 7 C 12.14 (ECLI:DE:BVerwG:2016:140416U7C12.14.0).

75 Recital 9 (2003/98/EC) can also be interpreted in a way that it only states examples according to which certain activities can be seen as making information accessible for re-use (as an additional requirement in addition to access as such). For a critique see Richter, H. (2016), Zur Weiterverwendung von Informationen der öffentlichen Hand: BVerwG klärt erstmals grundsätzliche Anwendungsvoraussetzungen des IWG, 35 Neue Zeitschrift für Verwaltungsrecht 35, 1143.

76 No matter if the law provides for mandatory publication or not.

77 See Guidelines from National Archives on “the implementation of the Re-use of Public Sector Information Regulations 2015 – For re-users”, 9.

78 This may not be confused with situations in which research information is published in private repositories.

commercialization of research results as well as for a research advantage over other researchers. When it comes to educational material, establishments make available e.g. slides, videos or other material before or after the lecture. There are also repositories that offer open educational resources (OER). In any case, the information must be accessible by everyone. This is not the case if access requires a log-in and/or a password provided to a particular group (e.g. university members). Furthermore, it affects all administrative information that is publicly accessible on the website (e.g. schedules or course descriptions and statistics).

3. No intellectual property rights of third parties

a.) Legal standard

(aa) Ambiguous standard of the PSI Directive

32 Intellectual property is of significant relevance for information held by R&E establishments. However, the PSI Directive is not applicable if third parties – meaning other parties than the PSB itself – hold intellectual property rights (IPRs). Article 1(2)(b) states that the PSI Directive does not apply to “documents for which third parties hold intellectual property rights”. The term “**intellectual property rights**” within the meaning of Article 1(2)(b) only refers to copyright and related rights (including *sui generis* forms of protection).⁷⁹ Therefore, the PSI Directive does not apply to information covered by industrial property rights, such as patents, designs and trademarks.⁸⁰ This interpretation is of highest relevance for research establishments and public technology transfer institutions, because a lot of valuable information they hold does not fall under the scope of the PSI Directive at all. Recital 22 (2003/98/EC) underlines that IPRs of third parties are not affected by the PSI Directive and clarifies the relationship between the PSI Directive and IPRs by stating that the PSI Directive does “not affect the existence or ownership of intellectual property rights of public sector bodies, nor does it limit the exercise of these rights in any way beyond the boundaries set by this Directive”. At least in theory, the rationale of the PSI Directive regarding IPRs seems straightforward:

- Should **third parties hold IPRs**, the PSI Directive is not applicable. However, under certain circumstances, Article 4(3) PSI Directive

obliges PSBs to name the rightholder;

- Should the **PSB itself hold IPRs**, the PSI Directive can be applicable; if so, the Directive affects the exercise of these rights.⁸¹ The PSB has to make such documents re-usable. Licensing according to Article 8 PSI Directive plays a seminal role then. Also, all the other requirements as set out in Article 3 et seq. apply;
- Should the information **not fall under any IPR protection**, re-use is possible also as set out by Article 3 et seq., but IPR licensing plays no role.⁸²

33 However, the crucial question is **how to define whether ‘third parties hold’ IPRs** or the PSB itself does. The PSI Directive is not clear on this binary criterion. This has been criticized for good reasons.⁸³ As a closer look at the legal status of R&E information demonstrates, clarification on this point is urgently needed.

(bb) Copyright

34 Whether third parties hold copyright under the meaning of Article 1(2)(b) requires looking at the different copyright systems of the Member States. In general, copyright gives an exclusive right to the natural person who has created the work. However, there are significant differences regarding the status of ownership between common and civil law systems.

- In **common law copyright systems**, there are basically three ways PSBs themselves – and not third parties – can be considered to “hold” IPRs. First, the governments of a number of Commonwealth realms are subject to Crown Copyright.⁸⁴ Second, if the creation is a “work for hire”, the person who employs someone to create the work (usually a legal entity) is the first owner of copyright and not the actual creator, unless there is an agreement to the contrary.⁸⁵ Third, common law copyright systems also allow

⁸¹ See below, especially Article 8 applies.

⁸² Therefore, Art. 1(2)(b) does not exclude public domain information. However, there is one exception to that rule related to cultural PSBs (see fiction of IP-protection according to Recital 9 (2013/37/EU), addressing the case where a third party was initial owner of the document; for good reasons critical Jančič/Pusser/Sappa/Torremans (*supra* n 6) at 366).

⁸³ See Drexel (*supra* n 30) at 71.

⁸⁴ According to Sec. 163 of the U.K. Copyright, Designs and Patents Act of 1988, Crown copyright applies “[w]here a work is made by Her Majesty or by an officer or servant of the Crown in the course of his duties”.

⁸⁵ See e.g. Sec. 11(2) of the U.K. Copyright, Designs and Patents Act of 1988.

⁷⁹ See Recital 22 (2003/98/EC).

⁸⁰ See Recital 22 (2003/98/EC); see also SEC(2011) 1152 final, 33.

for an assignment, which enables an irrevocable and permanent transfer of ownership to the PSB.⁸⁶ In all cases, no third parties would hold copyright within the meaning of Article 1(2) (b) PSI Directive. Thus, in principle, many copyright-protected works could fall under the PSI Directive in common law copyright systems.

- In contrast, only the natural person as creator qualifies as author in **civil law authors' rights systems**.⁸⁷ Due to their roots in personality rights, authors' rights cannot be transferred by assignment. Therefore, "ownership" always stays with the author. The sole form of a contractual transfer of rights is the grant of a license. However, even in that case the author retains ownership and only authorizes certain acts to be carried out. Obviously, in civil law authors' rights systems a literal reading of 'documents for which third parties hold intellectual property rights' would exclude almost all copyright-protected works from the scope of the PSI Directive. This strict interpretation is not just theory. In fact, commentators have put forward this reading of the PSI Directive⁸⁸ and also the German government seems to follow this interpretation, even if the PSB as an employer enjoys an exclusive license in works created by its employees.⁸⁹ In that regard, Recital 12 (2013/37/EU) causes confusion and has been interpreted contrary to its original intention.⁹⁰

35 Taking the rationale of the PSI Directive into account, this strict interpretation is not convincing. At least in those cases in which a **license granted to a PSB can be seen as a functional equivalent** to a transfer of ownership by assignment, there are good reasons to treat both cases similarly – provided that the re-use does not affect the interests of the author by any means. This is the case if exclusive licenses are granted and the PSB as licensee is the sole party that

is allowed to sub-license.⁹¹ However, the situation becomes blurred if the exclusive license is limited or revocable. Moreover, mandatory legislation can limit the duration of exclusivity.⁹² What would be the legal consequence? On the one hand, one could argue that the PSI Directive applies, but the PSB has to take restrictions into account when sub-licensing.⁹³ As a consequence, one has to decide on a case-by-case basis if the PSI Directive applies.⁹⁴ On the other hand, there are also good reasons to hold the PSI Directive not applicable in such situations, due to the potential risk of ultimately affecting the author's interests.⁹⁵

(cc) Database protection *sui generis*

36 Article 7 et seq. of the Database Directive (96/9/EC) (DB Directive) regulate the *sui generis* right for the protection of databases. The Directive has been implemented in the Member States and it harmonizes the legal treatment of databases to a large extent. The beneficiary of the right is the **"maker of the database"**,⁹⁶ whom Recital 41 defines as "the person who takes the initiative and the risk of investing; whereas this excludes subcontractors in particular from the definition of maker". In contrast to authors' rights, legal entities can also be qualified as makers and therefore hold the *sui generis* right. As a consequence, the *sui generis* right is highly relevant for PSI and for research establishments in particular as they have vast holdings of databases.

37 There is, however, a considerable and ongoing debate about **whether and to what extent databases of PSBs enjoy protection**.⁹⁷ The legal situation

86 See e.g. Sec. 90(1) of the U.K. Copyright, Designs and Patents Act of 1988.

87 There might be few exceptions, however, as e.g. in the case of inheritance (see § 28 of the German Act on Copyright and Related Rights (UrhG)).

88 See Dreier, T./Spiecker gen. Döhmman, I. (2016), Gegenrechte – Datenschutz/Schutz von Betriebs- und Geschäftsgeheimnissen, Geistiges Eigentum, in: Dreier, T./Fischer, V./van Raay, A./Spiecker gen. Döhmman, I. (eds.), *Informationen der öffentlichen Hand – Zugang und Nutzung*, 191; Wirtz (*supra* n 30) at 165.

89 See BT-Drs. 18/4614, 20. In Germany, employment agreements frequently grant the employer an exclusive license to any works the employee creates within the scope of obligations.

90 Recital 12 (2013/37/EU) states that the PSI Directive "should be without prejudice to the rights, including economic and moral rights that employees of public sector bodies may enjoy under national rules".

91 Without further reasoning Wiebe, A./Ahnefeld, E. (2015), Zugang zu und Verwertung von Informationen der öffentlichen Hand – Teil II, 2015 Computer und Recht 199, 205; see also Drexl (*supra* n 30) at 71 suggesting that this should be within the scope of the PSI Directive, however, casting doubts if this is the case *de lege lata*.

92 Also, there are jurisdictions if lump sum payment for exclusive license, exclusivity is reduced to 10 years (see § 40a UrhG).

93 See Richter (*supra* n 1) at § 1 para. 412.

94 This seems to be the U.K. standpoint: Sec. 5(1)(b) of The Re-use of Public Sector Information Regulations 2015 excludes documents if "a third party owns *relevant* [emphasize added] intellectual property rights in the document".

95 One also has to consider high transaction costs related to rights clearance. However, this is rather a policy consideration than a legal argument in this context.

96 See Article 7(1) DB Directive.

97 See for discussion Derclaye, E. (2008), Does the Directive on the Re-use of Public Sector Information affect the State's database *sui generis* right?, in: Gaster, J./Schweighofer, E./Sint, P. (eds.), *Knowledge rights – Legal, societal and related technological aspects*, Austrian Computer Society, 137, 161; Guibault/Wiebe (*supra* n 15) at 32 et seq. The CJEU as acknowledged *sui generis* protection for state databases, see ECLI:EU:C:2012:449 – *Compass Datenbanken* and also for a database created by academic staff of a publicly funded

significantly differs between Member States. The Netherlands explicitly grant no *sui generis* protection for public databases, unless the right is reserved explicitly by public act.⁹⁸ German courts have applied the exemption for official works to official databases by analogy.⁹⁹ In contrast, Austrian courts have explicitly recognized *sui generis* protection for official databases.¹⁰⁰ The legal standard on the EU-level is not entirely clear.¹⁰¹ In the *Compass-Datenbank* case the CJEU implicitly accepted *sui generis* database protection for a public register in Austria.¹⁰² However, this does not clarify whether the DB Directive allows Member States to set aside protection for public databases. Also, there are good reasons to doubt whether the making of a tax-funded database is subject to a “risk” as apparently required by Recital 41 DB Directive.¹⁰³ Taking this legal uncertainty into consideration, it is more than welcomed that the European Commission has explicitly addressed this issue in its public consultation on the DB Directive.¹⁰⁴

38 Whether or not a concrete database qualifies for protection depends – according to Article 7(1) DB Directive – on the substantiality of “**investment in either the obtaining, verification or presentation of the contents**”. Besides the vagueness of the substantiality requirement, EU jurisprudence has repeatedly confirmed that the creation of content does not qualify as ‘obtaining’, and therefore respective investments are not to be taken into account.¹⁰⁵ However, great uncertainty remains about the demarcation between ‘creating’ and ‘obtaining’. This is particularly relevant when it comes to investment into sensor-generated and measurement data.¹⁰⁶

39 Should the PSB as the legal entity be qualified as ‘maker’ of the database, the PSI Directive can

university, see ECLI:EU:C:2008:552 – *Directmedia Publishing GmbH vs. Albert-Ludwigs-Universität Freiburg*.

98 See Guibault/Wiebe (*supra* n 15) at 65 et seq.

99 German Federal Court of Justice of 28 September 2006 (I ZR 261/03) – *Sächsischer Ausschreibungsdienst*.

100 OGH of 9 April 2002 (40b17/02g).

101 German Federal Court of Justice of 28 September 2006 (I ZR 261/03) – *Sächsischer Ausschreibungsdienst*.

102 ECLI:EU:C:2012:449 – *Compass Datenbanken*, para. 47.

103 See Guibault/Wiebe (*supra* n 15) at 66 with reference to the Dutch “landmark case” where the District Court of Amsterdam ruled that a City Council did not qualify as a “producer of a database” and therefore did not own any database right in the information it gathered.

104 See <<https://ec.europa.eu/digital-single-market/en/news/commission-launches-public-consultation-database-directive>>.

105 See ECLI:EU:C:2004:695 – *The British Horseracing Board*; ECLI:EU:C:2004:697 – *Fixtures Marketing*.

106 For a detailed discussion on the protection of industrial data Wiebe, A. (2016), Protection of industrial data – a new property right for the digital economy?, 65 GRUR Int. 877.

apply. Before its amendment in 2013, there was some discussion about its relationship with the DB Directive.¹⁰⁷ However, since the general principle (Article 3) of the PSI Directive has been changed, the relationship seems clear: if a PSB is the maker of the database, the database can in principle enjoy protection under Article 7 et seq. DB Directive. At the same time, the PSI Directive can be applicable to the content of the database. Should re-use of that content require a substantial extraction within the meaning of Article 7(2)(a) DB Directive, Article 3 obliges the PSB to license according to Article 7(3) DB Directive. Article 8 sets out further conditions for licensing as discussed below.

b.) Research establishments

(aa) Overview

40 In general, the IPR exemption will exclude a large amount of information held by R&E establishments.¹⁰⁸ But due to the uncertainty about the exact legal standard of the IPR exemption, one can base its relevance for research establishments only on **assumptions**. Especially scientific publications (like articles, books, manuscripts etc.) are **copyright protected works**.¹⁰⁹ Databases can enjoy copyright and/or *sui generis* protection. Mere data will be discussed separately. Should information be non-protected subject matter, re-use is possible as set out by Article 8.

(bb) Works

41 The crucial question concerning protected works is whether copyright has been assigned/transferred to the PSB and no third party holds IPRs. In general, this depends on who creates the work under which circumstances. However, in academia the (fundamental) right of academic freedom affects the interpretation and application of copyright laws. Predominantly, the status of works created by **academic staff** (not by administrative staff) is concerned. Usually, employed researchers have no obligation to write on a particular topic or to publish in a particular form – these matters are for them to determine.¹¹⁰ Universities or other research

107 See Derclaye (*supra* n 97) at 161, answering the question whether the PSI Directive affects the *sui generis* right with “not sure, not really or absolutely no”.

108 SEC(2011) 1152 final, p. 33.

109 On the more fundamental discussion whether there should be copyright protection for scientific works at all see Shavell, S. (2010), Should copyright for academic works be abolished? 2 Journal of Legal Analysis 301; see also Scheufen (*supra* n 8) at 47 et seq., 143.

110 See Barendt, E. (2010), Academic Freedom and The Law: A

institutions do not supervise their work.¹¹¹ For that reason in all democratic, free societies, academic freedom strengthens their positions – at least to some extent – when it comes to copyright. In particular, the ‘works for hire’ doctrines do not strictly apply. There is a long-standing discussion about the “teachers’ exception”¹¹² in the U.S., according to which academic freedom exempts professors and other academics from the work for hire doctrine.¹¹³ As there is, however, still uncertainty about the current legal status,¹¹⁴ key provisions concerning the definition of ownership vary by institutional policy and factual context.¹¹⁵ Also the U.K. effectuates academic freedom in its copyright system¹¹⁶ and defines ownership of faculty-created works through university policies.¹¹⁷ German law and jurisprudence put great emphasis on the author’s academic freedom.¹¹⁸ The freedom of science under Article 5(3) Basic Law gives the freedom to determine if, when and how to publish their materials.¹¹⁹ Courts have ruled that the presumption of employees granting a license to their employer does not apply *per se* to professors of a publicly funded university.¹²⁰

42 These modifications affect mostly **those works** that are freely created by academic staff, especially scholarly work, such as articles, papers and books.¹²¹ Also theses and dissertations usually fall into this category.¹²² Even if there is a default assignment of rights for theses, their creators are usually eligible to apply for a waiver.¹²³ Furthermore, should an academic employee transfer ownership of copyright or grant licenses to the research establishment due to OA-policies, he retains some rights or grants licenses to the PSB on a non-exclusive basis.¹²⁴ Thus, even under a strict interpretation of Article 1(2)(b), the academic author as a ‘third party’ (still) ‘holds’ IPRs. As a consequence, the PSI Directive is inapplicable.

43 For **non-scholarly works and works of non-academic employees**, academic freedom does not apply (as e.g. administrative staff). Whether Article 1(2)(b) applies depends on the general principles and the interpretation of the (unclear) standard as stated above. The same holds true for third parties, in case the research establishment commissions or funds a work. The copyright status depends on the particular policy or agreement.

44 Should works be **funded by third parties**, the copyright status depends on the funding policies as well. Specific provisions regarding ownership, retention of and access to data can be included into the agreement. The funder can retain rights and set OA-mandates as mandatory.¹²⁵ While one can see some natural tensions with academic freedom here as well, the concern seems less than in case

Comparative Study, 216.

- 111 See for example § 1(6) of the Act of Higher Education (1992:1434) in Sweden: Research problems are to be freely chosen, research methods are to be freely developed, research results are to be freely published, see Carlson, L. (2016), *Academic Freedom and Rights to University Teaching Materials: A Comparison of Swedish, American and German Approaches* (January 10, 2016). Available at SSRN: <<https://ssrn.com/abstract=2713421/>>, 359.
- 112 Barendt (*supra* n 110) at 217 with reference to C. McSherry (2001), *Who owns academic work?*; see for a history in the U.S. Rooksby, J. (2016), *Copyright in Higher Education: A Review of Modern Scholarship*, 54 *Duquesne Law Review* 197; also Carlson (*supra* n 111) at 375 et seq.
- 113 Barendt (*supra* n 110) at 217 et seq. referring to *Williams c. Weisser* 273 Cal App 2d 726 (cal App 1969); *Weinstein v. University of Illinois* 811 F 2d 1091 (7th Cir 1987); *Hays v. Sony Corporation of America* 847 F2d 412 (7th Cir 1988); but with no clarification regarding the survival of the teacher exception, see Gertz, G. (2013), *Copyrights in faculty-created works: How licensing can solve the academic work-for-hire-dilemma*, 88 *Washington Law Review* 1465, 1473.
- 114 See Gertz (*supra* n 113) at 1482 et seq.
- 115 See Rooksby (*supra* 112) at 216 regarding U.S. with further reference; see also for different policies at U.S. universities Carlson (*supra* n 111) at 379 et seq.
- 116 See for particular examples for universities in the U.K. Barendt (*supra* n 110) at 217.
- 117 See Gertz (*supra* n 113) 1465; Rooksby (*supra* 112) at 206: But rather based on university policies than on case law or statute.
- 118 See Carlson (*supra* n 111) at 383 et seq.
- 119 See Barendt (*supra* n 110) at 218.
- 120 German Federal Court of Justice of 27 September 1990 (I ZR 244/88).

- 121 See University of Reading (2010), *Code of Practice in Intellectual Property, Commercial Exploitation and Financial Benefits of 16 June 2010*, para. 7.21, which defines this as works “produced solely in the furtherance of an academic career, such as articles in journals, papers for conferences, study notes not used to deliver teaching and books not commissioned by the universities”.
- 122 Dissertation in Germany are clearly no works for hire, see Leuze, D. (2006), *Die Urheberrechte der wissenschaftlichen Mitarbeiter*, 108 *GRUR* 552, 553; see also the exemption from ownership assignment at University of Reading (*supra* n 121) at para. 7.17.
- 123 See MIT copyright policies on theses, available at <<https://oedge.mit.edu/gpp/degrees/thesis/copyright/>>: “The Institute will retain ownership of the copyrights to theses only if the thesis research is performed in whole or in part by the student with financial support in the form of wages, salary, stipend, or grant from funds administered by the Institute, and/or if the thesis research is performed in whole or in part utilizing equipment or facilities provided to the Institute under conditions that impose copyright restrictions. In all other cases, ownership of a copyright shall reside with the student.”
- 124 While there is no 100 % proof, one gets a fairly good sense when comparing OA-policies and -mandates of research institutions on <<http://roarmap.eprints.org/>>.
- 125 On the crucial question of who retains the rights, see Scheufen (*supra* n 8) at 116 et seq.

of scholarly work.¹²⁶ Usually, there is no transfer of ownership made or an exclusive license granted to research establishments.

(cc) Data

45 The situation becomes even less clear, when it comes to **data**. Mere data, if defined as “raw data” or as processed data only to a very limited extent (put into a database), are not protected by IPRs.¹²⁷ As there is no right *in rem*, there is no IP-protected ownership right. This is for good reasons – facts are free and usually data document these facts.¹²⁸ As a consequence, research data – whether empirical, observed or measured – are in the public domain, assuming they are not protected as works.¹²⁹ This applies to separate items of research data as well as to datasets.¹³⁰

46 Whether the *sui generis* right ultimately protects **databases** must be decided on a case-by-case basis. If employees of the research institution create databases, the *sui generis* protection right – leaving aside the problem if PSBs can be seen as makers at all – is usually held by the PSB as legal entity. The *Directmedia* case¹³¹ nicely illustrates that: a research project at the University of Freiburg led to a publication of an anthology, a collection of verse from 1720 to 1933. The CJEU acknowledged the University of Freiburg, a public university, as the maker of the database and therefore as beneficiary of the *sui generis* right. At the same time, the project leader had been acknowledged as copyright holder for a database work.¹³² The requirements as set out by Article 7 et seq. DB Directive have to be met.

There is, however, considerable uncertainty about their interpretation.¹³³ A research database will not necessarily involve a substantial investment (meaning time, money and effort). Furthermore, even if investment is held to be substantial, it must be made in either the obtaining, verification or presentation of its contents. According to settled jurisprudence, the ‘obtaining’ means collecting existing data and not ‘creating’ new data.¹³⁴ This distinction is important when it comes to different ways of creating databases in the research process. It can make a decisive difference whether the independent items of the database are to be qualified as empirical, observed or measured data.¹³⁵ Ultimately, it might occur quite randomly if a research database is protected or not. Should it be protected, extraction and re-utilization require the PSB’s consent in principle.¹³⁶

47 Research establishments have developed different **data “ownership” policies**. Frequently, they establish guidelines or mandates that claim ownership of primary data.¹³⁷ However, the term ownership is misleading, as there is – by definition – no ownership in facts and data documenting those facts. For that reason, such policies can be seen as mere contractual terms, which bind the establishment’s employees or members only. While one could discuss these policies under the aspect of academic freedom as well, there is not (yet) much debate about that as compared to publications. However, when it comes to OA-mandates that require scientists to disclose their data to publications, this might have a negative impact on data generation and on the timing of publications.¹³⁸

126 See Leuze (*supra* n 122) at 559.

127 Only if datasets do not contain protected works; see SEC(2011) 1152 final, 33; definitions for research data largely differ, see e.g. Guibault/Wiebe (*supra* n 15) at 17; Hartmann, T. (2013), Urheberrechtliche Schutzfähigkeit von Forschungsdaten, in: Taeger, J. (ed.), Law as a Service (LaaS) – Recht im Internet- und Cloud-Zeitalter, 508.

128 For a differentiated discussion Kim, D. (2017), No One’s Ownership as the Status Quo and a Possible Way Forward: A Note on the Public Consultation on Building a European Data Economy, 66 GRUR Int. 697.

129 Certainly, photos, diagrams etc. can be seen as “data” that are protected subject matter.

130 When it comes to metadata of datasets, copyright protection significantly depends on the content. For a practical overview: <<https://irights.info/artikel/eigentum-an-metadaten-urheberrechtliche-aspekte-von-bestandsinformationen-und-ihre-freigabe-2/26829>>.

131 ECLI:EU:C:2008:552 – *Directmedia Publishing GmbH vs. Albert-Ludwigs-Universität Freiburg*.

132 ECLI:EU:C:2008:552 – *Directmedia Publishing GmbH vs. Albert-Ludwigs-Universität Freiburg*, para. 15; the DB Directive distinguishes between copyright protected databases (Art. 3 et seq. DB Directive) and the *sui generis* right (Art. 7 et seq. DB Directive).

133 The ambiguous results of the database consultation 2017 confirm this, see <<https://ec.europa.eu/digital-single-market/en/news/summary-report-public-consultation-legal-protection-databases>>.

134 See ECLI:EU:C:2004:695 – *The British Horseracing Board*; ECLI:EU:C:2004:697 – *Fixtures Marketing*.

135 As guidance for research data in particular see de Cock Buning, M./Ringnald, A./van der Linden, T. (2009), The legal status of raw data: a guide for research practice, Center for Intellectual Property Law (CIER), 25 et seq.

136 Of course, limitations as set out in Article 8 DB Directive may apply.

137 See e.g. Columbia University, <<https://research.columbia.edu/content/ownership-data>>: “research data and other records of University research belong to University, except [...]”; see also University of Bristol, <<http://www.bristol.ac.uk/research/environment/governance/research-data-policy/>>: “Where no external contract exists, the University normally has ownership of primary data generated in the course of research undertaken by researchers in its employment”.

138 See Mueller-Langer, F./Andreoli Versbach, P. (2014), Open Access to Research Data: Strategic Delay and the Ambiguous Welfare Effects of Mandatory Data Disclosure (June 20, 2014). Max Planck Institute for Innovation & Competition Research Paper No. 14-09, available at <<https://ssrn.com/abstract=2458362>>, who point to the problem of

c.) Educational establishments

- 48 Educational establishments hold a vast amount of protected subject matter. Their staff creates **teaching and learning materials** of which the copyright status is just as disputed as the status of research results.¹³⁹ However, academic freedom in relation to the work for hire doctrine could be limited, taking the argument into account that – as opposed to research – the academic staff is obliged to do coursework. Universities follow different policies. E.g. the University of Reading presumes an assignment of ownership to the establishment if the material had been produced within the context of the employee’s course duties, meaning in connection with a university course/module/program.¹⁴⁰ This also includes handouts, summaries, case studies, seminar papers, exams¹⁴¹ and syllabi.¹⁴² In general there is a tendency towards a stronger position of the educational establishment when it comes to Internet-based materials for distance learning courses or MOOCs. In that case, materials are typically commissioned by a university itself, which affects the presumption about copyright ownership.¹⁴³
- 49 As **students** are not employed, the work for hire rationale cannot apply. However, an assignment of copyright can be required under special circumstances.¹⁴⁴

d.) Ongoing EU copyright reform

- 50 As can be seen, clarifying the relationship between copyright protection and PSI Directive is crucial. Currently, the interface is further complicated in the course of the ongoing **copyright reform**.¹⁴⁵

“strategically delay” in order to fully exploit their data in subsequent research.

139 For a comparison of copyright status between Sweden, U.S. and Germany Carlson (*supra* n 111) at 357 et seq.; Rooksby (*supra* n 112) at 203; in the U.K. [1951] 69 RPC 10 on lecture notes of an accountant; the situation is not clear in Sweden, see Carlson (*supra* n 111) at 366.

140 See University of Reading (*supra* n 121) at paras. 5.2.6., 7.4 and 7.5; only providing for an exemption if learning materials are produced by the member of staff for personal use and reference in teaching (produced outside normal course duties).

141 See for Germany Leuze (*supra* n 122) at 557 for Germany; for the U.S. Rooksby (*supra* n 112) at 203.

142 See for the U.S. Rooksby (*supra* n 112) at 203.

143 See Barendt (*supra* n 110) at 217; Leuze (*supra* n 122) at 557 for Fernuniversität Hagen; Rooksby (*supra* n 112) at 205 with further references.

144 See e.g. University of Reading (*supra* n 121) at para. 5.7.

145 See <<https://ec.europa.eu/digital-single-market/en/modernisation-eu-copyright-rules>>; for an overview Hilty, R./Moscon, V. (2017), Position Statement of the Max Planck

Over the last years, there has been a tendency to introduce copyright exceptions for research purposes. A major step into this direction is an EU-wide copyright exception for text and data mining. However, there is some considerable uncertainty about beneficiaries, addressees and purposes of such a provision.¹⁴⁶ In the context of PSI, the relationship between copyright exceptions and the PSI-standard needs to be clarified. Copyright exceptions can effectively allow for less or more re-use than Article 3(1) does. The problem has been recognized already for cultural PSBs and was implemented in Article 3(2), as will be shown below.

4. Activity falling within the public task

a.) Legal standard

- 51 The public task is a **crucial criterion for delineating the scope and the application of the PSI Directive**. Article 1(2)(a) contains another important exception by constituting that the PSI Directive does not apply to “documents the supply of which is an activity falling outside the scope of the public task of the public sector bodies concerned”. Also, it follows from Article 2(4) that the PSB itself is considered to be a re-user if it uses the information for purposes outside of the public task.¹⁴⁷ Due to this double relevance, the application of the PSI Directive heavily relies on where and how the demarcation line between falling ‘within’ and ‘outside’ the public task is drawn. This is to be determined by the Member States and by the PSBs in particular.
- 52 Recital 9 (2003/98/EC) states performing activities falling outside the public task “will typically include supply of documents that are produced and charged for exclusively on a commercial basis and in competition with others in the market.” One can see that the conception of the PSI Directive is influenced by the Anglo-Saxon perception that the State can lawfully act outside of its public task. The National

Institute for Innovation and Competition on the Proposed Modernisation of European Copyright Rules, Part A – General Remarks, version 1.1.

146 For a discussion see Hilty, R./Richter, H. (2017), Position Statement of the Max Planck Institute for Innovation and Competition on the Proposed Modernisation of European Copyright Rules, Part B – Exceptions and Limitations (Art. 3 – Text and Data Mining), Max Planck Institute for Innovation and Competition Research Paper No. 17-02, 2017, for a recent comprehensive overview see Geiger, C./Frosio, G./Bulayenko, O. (2018), The Exception for Text and Data Mining (TDM) in the Proposed Directive on Copyright in the Digital Single Market – Legal Aspects, <[http://www.europarl.europa.eu/RegData/etudes/IDAN/2018/604941/IPOL_IDA\(2018\)604941_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/IDAN/2018/604941/IPOL_IDA(2018)604941_EN.pdf)>.

147 See also Recital 9 (2003/98/EC).

Archive's "Guidance on public task statements" clarifies that a public task relates to the core role and functions of a PSB.¹⁴⁸ As one criterion to determine whether PSBs produce information as part of the public task, the guidance mentions if the "creation and maintenance is funded through taxation rather than revenues or private investment".¹⁴⁹ It contrasts core responsibilities with "those of a more optional (and often commercial) nature".¹⁵⁰ One can see that according to this view, **PSBs have the discretion to determine where to draw the line.** In theory, even commercial activities could be explicitly designated as a public task – provided the transparency and review requirements according to Article 2(4) have been met.¹⁵¹

- 53 This functional conception of the PSI Directive, however, more or less breaks down in jurisdictions that regard state activities falling outside of the public task as illegitimate by definition.¹⁵² According to this view, all legitimate activities of PSBs are performed in fulfillment of a public task. Then Article 1(2)(a) would be entirely irrelevant as well as Article 10(2). The only way to escape that dead end is to apply a functional reasoning according to which one has to recall that the main goal of the PSI Directive in 2003 was to **avoid cross-subsidies and its anti-competitive effects** on markets for value-added information services.¹⁵³ Therefore, it makes sense to exempt such information from the scope of the PSI Directive, where market forces have determined both its production and its distribution. According to this rationale, it seems reasonable to see a re-use of information if it has been *produced* on the basis of public funding and is then commercialized by the PSB in (potential) competition with private providers (see Article 10(2)). Recital 9 (2003/98/EC) supports that view as it refers to information produced and charged for exclusively on a commercial basis and in competition with others in the market.¹⁵⁴

148 See National Archives, "Guidance on public task statements" of July 2015, 3.

149 See National Archives, "Guidance on public task statements" of July 2015, 3.

150 See National Archives, "Guidance on public task statements" of July 2015, 4.

151 See the problem in Office of Public Sector Information, Report on its investigation of a complaint, PinPoint Information Limited and The Coal Authority, December 2014, para. 23 et seq.

152 For Germany see Richter (*supra* n 1) at § 1 para. 260 et seq.

153 See Recital 9 (2003/98/EC).

154 See also Sec. 6(4) No. 1 ACT of 25 February 2016 on the re-use of public sector information, Poland, which refers to "which is not *produced* [emphasize added] by obliged entities as part of their public tasks defined by law", borrowing from Recital 9 (2003/98/EC) rather than from Article 1(2)(a), which refers to *supply* of information.

b.) Research and educational establishments

- 54 The practical relevance of Article 1(2)(a) for **R&E establishments** thus depends on the interpretation of the ambiguous legal standard. Following a literal interpretation, R&E establishments could escape the application of the PSI Directive if they define the public task narrowly. When following a more functional and competition related interpretation, information that has been produced on a commercial basis would fall under the exemption of Article 1(2)(a). This is often the case if the research establishment provides contract research to private parties under market conditions.¹⁵⁵ Such information produced by the PSB would not fall under the scope of the PSI Directive then. However, the situation might be different in cases of research collaboration with private partners. Due to the relevance of exclusive arrangements in the course of such collaboration, this topic is discussed below (*sub* III.4.).

5. Personal data

- 55 Article 1(4) clarifies that the PSI Directive "leaves intact and in no way affects the level of protection of individuals with regard to the processing of personal data" under EU and national data protection legislations. As a consequence, the PSI Directive is applicable to information that qualifies as personal data in general. However, **data protection law prevails** and normally sets significant limits to the re-use of personal data. Data protection – especially the GDPR and national data protection rules – is highly relevant for certain kinds of research data, such as contained in surveys or trials. The separation of regulatory layers is appreciable. However, the interface between PSI and personal data needs clarification, especially when it comes to balancing approaches. For good reasons, research establishments might be overly hesitant to make information re-usable if the interface is not clearly defined. Quite surprisingly, the interface between data protection regime and PSI is not (yet) really much discussed. While the European Data Protection Supervisor (EDPS) has provided some valuable guidance in 2013, an update is urgently needed.¹⁵⁶

155 See National Archives, "Guidance on the implementation of the Re-use of Public Sector Information Regulations 2015 – For the cultural sector" of July 2015, 12.

156 See the Opinion of the European Data Protection Supervisor on the 'Open-Data Package' of the European Commission including a Proposal for a Directive amending Directive 2003/98/EC on re-use of public sector information (PSI), a Communication on Open Data and Commission Decision 2011/833/EU on the reuse of Commission documents of 18 April 2012; furthermore, van Eechoud (*supra* n 53) at 74 who elaborates on data protection complications; Richter (*supra* n 1) at § 1 para. 585 et seq.; see for a recent study

III. Consequences

1. Overview

56 What happens if R&E establishments and their information fall under the scope of the PSI Directive? If the general principle of Article 3 applies, R&E establishments are obliged to make the information re-usable. However, the PSI Directive allows for determining re-use **conditions** under certain circumstances. While Article 8 delineates the general leeway for such limitations, the PSI Directive also regulates conditions regarding formats (Article 5) and charging (Article 6) of re-use. Article 10 and 11 address competition concerns by setting out principles for non-discrimination and against exclusivity. Beyond that, the PSI Directive also contains procedural and transparency requirements.¹⁵⁷ Although these aspects might affect the PSBs practice to a certain extent and cause costs, they are not further discussed in the following.

2. General principle: Re-usability (Article 3)

57 Since its amendment in 2013, the **general principle of Article 3(1)** provides an obligation for PSBs to ensure that documents “shall be re-usable for commercial or non-commercial purposes” in accordance with the conditions as set out in the PSI Directive.¹⁵⁸ Should the information not be excluded from the PSI Directive, permitting re-use is mandatory. Member States have developed different ways to effectuate this obligation.¹⁵⁹

58 Article 2(4) defines ‘**re-use**’ as “the use by persons or legal entities of documents held by public sector bodies, for commercial or non-commercial purposes other than the initial purpose within the public task for which the documents were produced”. The challenges for delineating the ‘public task’ have already been discussed above. But the definition contains some additional uncertainty, as it requires to determine what “for purposes ... *other* than the initial purpose” means. One could follow a substitutability test, asking if the concrete use of the information satisfies the same needs as the original purpose of the information’s production has addressed. Should that be the case (e.g. if a private party wants to create a register that is identical with the public register), no re-use would be given. As a consequence, one would not qualify cases of (mere) imitation as re-

use.¹⁶⁰ However, even in such cases, there are good reasons to argue for re-use, as – according to the rationale of the PSI Directive – a private party that is not designated to fulfill the public task must *per se* be understood as a re-user. Otherwise, re-usability would depend on a complicated assessment which Article 2(4) did not intend to stipulate.¹⁶¹

59 These different ways to interpret Article 2(4) might become relevant for **research institutions** if private re-users want to offer similar services, e.g. build up a parallel data repository. On the conceptual level, it seems favorable to also consider this as ‘re-use’ because licensing conditions may account for preventing unfair practices. Also, a transfer of research results to other research establishments can be considered as re-use. However, Article 2(4) sets out that this is not the case if an exchange of information between PSBs is purely in pursuit of their public task. Again, the interpretation depends on how the concept of ‘public task’ is understood. There are good reasons to acknowledge re-use at least in those cases in which research establishments commercialize research data supplied by other PSBs.¹⁶²

3. Conditions for re-use

a.) Restrictions

60 As a **general rule**, Article 3(1) PSI Directive obliges the Member States to allow for re-usability of information without any restrictions. The wording of the provision makes clear that this applies to commercial and non-commercial purposes. As a consequence, PSBs cannot allow only non-commercial re-use while prohibiting commercial re-use. The only thing they can do is to differentiate conditions for such re-use categories (see Article 10). Should a PSB hold IPRs, it has to license for re-use purposes if requested. The PSI-regime can be read as a duty to license in this respect.

61 However, there are **exceptions** to the rule of unrestricted re-usability, which can fall into two categories. In the first category, the PSB itself *must* restrict re-use. This is the case if data protection law does not prevent access for everyone, but restricts

Wiebe/Dietrich (*supra* n 41).

157 See Articles 4, 7, 9.

158 See Recital 8 (2013/37/EU) as opposed to Recital 9 (2003/98/EC).

159 Either by administrative procedure or by permission *de lege*.

160 See the problem in Office of Public Sector Information (OPSI), Report on its investigation of a complaint, PinPoint Information Limited and The Coal Authority, December 2014, para. 27 et seq.

161 See Richter (*supra* n 1) at § 2 para. 113, 114, 119.

162 Unless Article 1(2)(a) applies, see rationale according to Recital 9 (2003/98/EC).

re-use.¹⁶³ The PSB is also obliged to limit re-use due to contractual (and not IPR-related) obligations towards third parties. This can be very relevant for the re-use of mere datasets that usually lack IP-protection.¹⁶⁴ Furthermore, if one interprets the IPR-exemption narrowly, the sub-licensing PSB has to obey restrictions stemming from its own license with the licensor. In the second category, the PSB *can* restrict re-use and set conditions, either by contractual terms or by license according to Article 8.

b.) Licensing (Article 8)

62 Article 8 is the central provision that allows the PSB for setting **re-use conditions** and defines possibilities and limits. Article 8 – unlike its title might suggest – applies to information no matter if protected by IPRs or not. However, a distinction must be made due to the practical relevance of licensing IPRs for re-use under Article 8. In general, differential licensing is possible.¹⁶⁵ However, discrimination needs to be justified according to Article 10. It is common to differentiate conditions between commercial and non-commercial users.

63 If the information is **protected by IPRs** (of the PSB), consent is required for re-use. In general, Article 3(1) obliges the PSB to give consent and – as a consequence – to license re-use. As has been shown, unless the PSB itself is restricted when it comes to sub-licensing, it must allow for non-commercial as well as for commercial re-use.¹⁶⁶ As a consequence, the PSB cannot reserve commercialization of the information for itself. When it comes to other licensing restrictions, Article 8(1) gives some discretion by stipulating that imposed conditions “shall not unnecessarily restrict possibilities for re-use”. Recital 26 (2013/37/EU) specifies that licenses should “in any event place few restrictions on re-use as possible”. Therefore, restrictions shall be the exception.

64 If the information is **not protected by IPRs**, Article 8(1) allows for setting terms and conditions and also applies to individual contracts that concern the respective information. This is of particular

relevance for setting terms and conditions for the re-use of datasets that do not qualify for IP-protection. One could argue that PSBs have even less discretion as compared to situations in which they hold IPRs, because there are good reasons for why the legal regime does not protect the particular information as IP.

65 The PSI Directive encourages the use of **standard licenses** and the Commission’s PSI-notice gives more guidance in detail.¹⁶⁷ OA-policies usually make use of standard licenses, but which licenses are used in particular differs widely.¹⁶⁸ As re-usability is a general claim of OA, a significant number of OA-licenses would match the requirements of Article 8(1). Non-commercial-clauses are, however, not consistent with Article 3(1) and would normally be invalid. Furthermore, especially non-derivative and share-alike clauses can be seen as an obstacle for re-use. They have been identified as a source for potential incompatibilities between scientific projects.¹⁶⁹ In contrast, attribution clauses are a well-established practice regarding OA¹⁷⁰ and not of any concern (see Recital 26 (2013/37/EU)).

66 At the end of the day, Article 8 requires PSBs to **justify re-use conditions** and brings their justifications under scrutiny of the courts or other impartial bodies¹⁷¹. Whether such a particular restriction is justified needs to be decided on a case-by-case basis. Should the PSI Directive accommodate R&E institutions, a clarification in the recitals could give guidance by referring to the specific features and practice of licensing from R&E institutions in general and OA-practices in particular.

c.) Formats (Article 5)

67 Article 5 PSI Directive obliges PSBs to provide information in all pre-existing **formats** and – proportionality provided – even to create or adapt

163 In detail Richter (*supra* n 1) at § 1 para. 585 et seq.

164 For that reason, universities implement different “ownership” policies on a contractual basis.

165 See Recital 19 (2003/98/EC).

166 Therefore, e.g. CC-NC licenses would be void, see in detail van Eechoud, M. (2011), Friends or Foes? Creative Commons, Freedom of Information Law and the European Union Framework for Reuse of Public Sector Information, in: Guibault, L./Angelopoulos, C. (eds.), Open Content Licensing – From Theory to Practice, 199; Wiebe/Ahnefeld (*supra* n 91) at 207; Richter (*supra* n 1) at § 4 para. 82 et seq.

167 See Article 8(2) and Commission “Guidelines on recommended standard licences, datasets and charging for the reuse of documents” (2014/C 240/01); when it comes to differential licensing, it can be problematic to use standard licenses, see Papadopoulos/Bratsas (*supra* n 10) at 26 et seq.

168 See e.g. in particular for datasets: Open Data commons: <<https://opendatacommons.org/licenses/pddl/1.0/>>.

169 Guibault, L. (2013), Licensing Research Data under Open Access Conditions, in: Beldiman, D. (ed.), Information and Knowledge: 21st Century Challenges in Intellectual Property and Knowledge Governance, 63, 73, stating that the “Berlin declaration remains vague regarding the freedom to make changes and improvements and to distribute derivative works”.

170 See e.g. the Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities.

171 See regarding the German jurisprudence on particular re-use conditions Richter (*supra* n 1) at § 4 para. 86 et seq.

information accordingly. This clause becomes relevant in cases where the PSB hold a desired format, but only another format has been made accessible.¹⁷² According to the re-use friendly interpretation of the German Federal Administrative Court, Article 5 obliges the PSB to provide this non-accessible but existing format, even if there is no individual right to access to it.¹⁷³ Limits are set for reasons of data protection.¹⁷⁴ Also, this case must not be confused with situations in which one desires e.g. access to the underlying raw data of an accessible complied dataset. In this case, the contained information is not equivalent and Article 5 PSI Directive does not apply.

d.) Charging (Article 6)

68 Charging provisions were the most contested issue in the frame of the PSI Directive's amendment in 2013.¹⁷⁵ Article 6(1) sets **marginal cost pricing** as the default model for charging re-use. This does not affect charging for access, which lies beyond the scope of the PSI Directive. However, exceptions in Article 6(2) allow PSBs for charging above marginal costs if revenues based on charges cover a substantial part of the costs relating to the public task of the PSB or to the collection, production, reproduction and dissemination of the concerned information. These exceptions seek to not hinder the normal operations of PSBs¹⁷⁶ and they provide for discretion to determine their financing mix. In practice, it remains to be seen whether the exception is in fact the rule.¹⁷⁷

69 For this reason, one cannot say with certainty if charging provisions of the PSI Directive would affect pricing policies of **R&E establishments**. At least OA-policies can be held to be consistent with Article 6, as they call for a free dissemination of information by definition. Repositories use standard licenses and their financing is based on funds of the institution and/or by the authors who make their research available there.

172 See e.g. decision notice of the ICO U.K. of 4 April 2017 – Cambridgeshire County Council – FS50619465.

173 See German Federal Administrative Court of 14 April 2016 – BVerwG 7 C 12.14 (ECLI:DE:BVerwG:2016:140416U7C12.14.0).

174 E.g. if information is available on a single request base, but not as bulk export.

175 See Beyer-Katzenberger, M. (2014), Rechtsfragen des „Open Government Data“, Die Öffentliche Verwaltung 144, 150.

176 See Recital 22 (2013/37/EU).

177 For the application see Commission “Guidelines on recommended standard licences, datasets and charging for the reuse of documents” (2014/C 240/01); see also EFTA-court of 16 December 2013, Case E-7/13 – Creditinfo Lánstraust hf.

e.) Non-discrimination (Article 10)

70 Article 10(1) lays down a **non-discrimination principle** and requires that re-use conditions must be non-discriminatory for comparable categories. It allows PSBs to differentiate conditions, however, it does not allow for a mere approval of non-commercial re-use while prohibiting commercial re-use. As a specific non-discrimination rule, Article 10(2) concerns the case in which a PSB generates information within its public task but then uses this information as an input for commercial activities that fall outside its public tasks. In that case the PSB is obliged to apply the same conditions to the supply of information to third parties. This provision is rooted in competition reasoning. It sets a level playing field by preventing anti-competitive effects of cross-subsidization on the markets for value-added products or services. The application of this provision, however, requires the PSB to clearly distinguish between public task and its own commercial re-use.¹⁷⁸ The respective problems have already been discussed above.

71 When observing the relevance of this standard for **R&E establishments**, one has to keep in mind the context of the PSI Directive's creation in 2003: the Internet was developing, Google's search engine was in a premature phase, smartphones and Facebook did not exist yet, and systematic digitization efforts of cultural institutions were only beginning. Classical cases mainly concerned weather-, hydrological-, geo- and legal information¹⁷⁹ as well as public registers, since a lot of PSBs were about to implement online accessibility of that information. Nowadays the situation is different. Massive digitization and interconnection have enabled PSBs themselves to implement entirely new “business models”. Distance learning is a good example for that. Should it be offered on a commercial basis and fall outside the public task, educational institutions might have to provide the basic material for similar conditions to third parties – provided its initial creation falls within its public task and the application of the PSI Directive is not exempt for other reasons according to Article 1(2).

4. Prohibition of exclusive arrangements (Article 11)

72 Due to its **competition rationale**, the non-discrimination principle is closely related to Article 11, which requires the PSB to justify exclusive arrangements on re-use. Such arrangements would

178 See Drexl (*supra* n 30) at 75.

179 See for use cases e.g. de Vries, M. et al. (2011), Pricing Of Public Sector Information Study (POPSIS).

prevent the PSB from fulfilling its obligation of non-discriminatory treatment. Therefore, Article 11 states that exclusive agreements between PSBs and private partners concerning the re-use of information should be avoided as far as possible unless the exclusivity is not necessary for the provision of a service in the public interest (Article 11(2)).¹⁸⁰

73 Research collaboration between public research establishments and private partners (e.g. the industry) is widespread and prone to exclusive arrangements. Collaborations have to be distinguished from contract research, where research is provided as a service on a commercial basis under market conditions primarily in order to generate a financial return.¹⁸¹ Such contract research would most likely be exempt from the PSI Directive according to Article 1(2)(a). Third-party funding for collaborations significantly contributes to the budget of many public research establishments. The performance of such collaborations is widely regarded as falling within the scope of a university's public task.¹⁸² Usually the underlying agreements regulate ownership and exploitation of results (and therefore also information) stemming from the collaboration. While this predominantly concerns inventions and therefore patents (which are not covered by the PSI Directive), provisions of the agreements can also concern copyright and related rights and research data in general.

74 Collaboration agreements have to be carefully analyzed when determining whether information falls under the **scope of the PSI Directive**. In general, the allocation of rights follows the parties' respective contributions to the project.¹⁸³ Should the agreement allocate IPRs to the industry collaborator, a 'third party' holds IPRs according to Article 1(2)(b) and the PSI Directive is not applicable. Should the PSB retain all rights, the PSI Directive can be applicable in general. However, the collaboration contract might contain provisions that exclusively reserve re-use of this information for the industry partner (i.e. commercial exploitation of value-added products on the basis of datasets generated in the course of the collaboration). While one might intuitively hold Article 11(1) applicable in that case, it must not be forgotten that the PSI Directive only applies if the information that has been generated in

collaboration and is held by the PSB¹⁸⁴ is accessible without restrictions. This requires either that there is a right to unrestricted access, or that the PSB made the information accessible. As has been shown above, FOI-regulations provide for many exemptions that can prevent access in such cases. At the same time, collaboration contracts might often be used to derogate from public disclosure.¹⁸⁵ It can be seen that the PSI Directive does not tackle the quite common situation where non-accessible information is generated in public-private collaboration and its re-use is reserved to the private collaborator only.

75 However, the collaborator might allow for publication of the concerned information by the research establishment.¹⁸⁶ Should the research establishment make the information accessible,¹⁸⁷ Article 11(1) would be applicable if there was an exclusive license for its commercial re-use as set out in the collaboration agreement.¹⁸⁸ The exclusivity then has to meet the justification standard of Article 11(2) for not being rendered void. As a reaction, the collaboration partners can avoid the application of the PSI Directive and Article 11(2) by assigning initial ownership to the collaborator who then has to license back non-exclusive rights to the research institution. In that case, the PSI Directive will be not applicable according to Article 1(2)(b). One can see that – without the introduction of safeguards – an application of the PSI Directive **might significantly shift the incentive curve for the terms of collaboration** and might also diminish the general accessibility of research results.

IV. Analysis

76 The effects of removing the exemption for R&E establishments are not entirely clear. As can be seen in general, the exemptions are vague and they can be interpreted and applied narrowly or broadly. Practice differs between the Member States. Removing the exemption for R&E establishments cannot be done without carefully **assessing and clarifying**, what interpretation should set the minimum standard for re-use. Concerning the IPR exemption of Article 1(2) and copyright in particular, it must urgently be clarified how exclusive licenses are to be treated.

¹⁸⁰ See also Recital 20 (2003/98/EC).

¹⁸¹ See U.K. University and business collaboration agreements: model agreement guidance of 6 October 2016, 4.6.

¹⁸² See U.K. University and business collaboration agreements: model agreement guidance of 6 October 2016, under 6., qualifying that as "charitable research"; see also §§ 3(3), 71 Gesetz über die Hochschulen des Landes Nordrhein-Westfalen.

¹⁸³ See U.K. University and business collaboration agreements: model agreement guidance of 6 October 2016, 3.47.

¹⁸⁴ Also meaning: not held by the private collaborator and not referring to the value added, information-based product.

¹⁸⁵ See also U.K. University and business collaboration agreements: model agreement guidance of 6 October 2016, under 3.68, for different ways to achieve that.

¹⁸⁶ See U.K. University and business collaboration agreements: model agreement guidance of 6 October 2016, 3.62.

¹⁸⁷ E.g. by publication in a university repository.

¹⁸⁸ This was the problem with digitization partnerships – the whole purpose of digitization is to enable accessibility of the information.

Clarification would have general impact as it would affect all authors' rights systems, but also common law copyright systems allow for granting licenses. Furthermore, the debatable¹⁸⁹ *sui generis* protection of databases mostly raises factual uncertainty about whether a particular database enjoys protection. This is a problem that the DB Directive itself needs to address. In contrast, the different perceptions of the concept of 'public task' can only be harmonized to a certain extent. The actual underlying question is how much space for exclusive commercialization shall be left to the R&E establishments.

- 77 Even if one follows the narrowest reading of the exemptions and therefore the re-use-friendliest view, a large amount of information held by R&E establishments will effectively not fall under the **PSI Directive's scope**. This predominantly affects scientific publications (works) and teaching materials to a considerable extent. Also, information that has been produced as contract research for private parties under market conditions falls outside of the PSI Directive's scope. In contrast, many datasets and databases fall under the scope of the PSI Directive, at least if they are accessible without restrictions. University repositories play a significant role here. However, data protection has an important function and further narrows down the application of the PSI Directive.
- 78 Besides the general **benefits** of having as few exemptions as possible, a complete deletion of the R&E exemption would reduce the costs of delineating the PSI Directive's scope. There is no need to define R&E establishments anymore, which is especially relevant for cross-purpose organizations.¹⁹⁰ Furthermore, there seems to be no reason why re-use of administrative information of R&E establishments should be treated differently from the information held by other PSBs.
- 79 However, potential **costs of the deletion** might arise from dysfunctionalities concerning operations directly related to R&E due to the seminal role for the knowledge society and economic growth. One has to keep in mind that the creation of information and dissemination of knowledge and information is the main goal of R&E establishments and not a mere by-product. A deletion might interfere with well-established systems of knowledge creation

and dissemination. Furthermore, IPRs have been identified as crucial and their allocation determines whether the PSI Directive is applicable or not. Institutions therefore have to constantly screen and monitor the IPR status of the information they hold.¹⁹¹ This can be costly. One has to acknowledge, however, that this is not a new challenge for R&E establishments – OA-repositories have already found ways to address ownership disclosure and to formulate re-use conditions. Furthermore, in the framework of research collaborations, IP ownership is a central point, even though practice is much more advanced when it comes to inventions and patents as compared to mere datasets.

- 80 There is further **uncertainty** about the effect. R&E establishments themselves have discretion to submit information to the application of the PSI Directive for three reasons: first, Member States can still design access regimes and R&E establishments can still decide what information they choose to make accessible without restrictions. Legislative and institutional OA-policies can be authoritative in this respect. Second, it lies in the discretion of the establishments to determine copyright policies. Third, they can also determine their public task autonomously – provided this is done in a transparent way and subject to review. Depending on one's standpoint, this can be seen as favorable or problematic. On the one hand, it can be argued that it leaves enough autonomy and flexibility to the R&E establishments to respond to particular organizational needs, including those relating to the specific features of the information they hold. On the other hand, this flexibility can effectively water down the minimum standard for the re-use of R&E information in the internal market and a lot of valuable information would not be affected. It also increases the risk for activities or rules designed to circumvent the application of the PSI Directive and to uphold barriers to competition.

- 81 In **conclusion**, while empirical research is urgently needed for finding a prudent regulatory approach, it does not seem too far-fetched to delete the R&E exemption from the PSI Directive. As can be shown, some fears are not justified, however, other potential problems are highlighted. An inclusion of R&E establishments can also be understood as a chance to eliminate ambiguities of the PSI Directive, which can be beneficial to re-use in all other fields. However, cases have been identified where broadening the scope of the PSI Directive might result in less openness (contrary to the ambition of OA-policies) and change collaboration incentives. One can think of accounting for that by providing clarification in the recitals that would accompany a deletion of the R&E exemption. Should this not

189 See already Kur, A. (2006), Erste Evaluierung der Richtlinie 96/9/EG über den rechtlichen Schutz von Datenbanken – Stellungnahme des Max-Planck-Instituts für Geistiges Eigentum, Wettbewerbs- und Steuerrecht, 55 GRUR Int. 725.

190 There has been some confusion in cases where research information is held by non-research organizations (e.g. weather services); see also National Archives, "Guidance on the implementation of the Re-use of Public Sector Information Regulations 2015 – For the cultural sector" of July 2015, 12.

191 See Jančič/Pusser/Sappa/Torremans (*supra* n 6) at 359.

be sufficient, modification of the substantial rules of the PSI Directive tailored to R&E establishments might be a solution.

D. Modification of the research and educational exemption

I. PSI principles for cultural PSBs as model?

1. Legal standard

82 In 2013, the amendment of the PSI Directive included libraries (including university libraries), museums and archives (cultural PSBs) in its scope.¹⁹² The inclusion was based on a careful assessment¹⁹³ and was politically highly sensitive.¹⁹⁴ The deletion of the original exemption for these institutions¹⁹⁵ was justified with the advancement of digitization and rights clearance.¹⁹⁶ The PSI Directive contains **modified provisions** for the re-use of these institutions' information that account for the special features of cultural PSB and their information. One can easily see a general parallel, as information of R&E establishments have their specific features and their re-use policies are not less politically sensitive.

83 The **general principle** for re-use of information of cultural PSBs is set out in Article 3(2). It affects only such information in which cultural PSBs hold IPRs.¹⁹⁷ Given that that is the case, Article 3(2) – as opposed to Article 3(1) – contains a mere expectation to allow re-use but no enforceable obligation. Therefore, initially it lies in the hands of the cultural PSB whether to submit itself to the re-use regime. However, once the PSB allows re-use of the information, it is obliged to make it available for others to re-use. Therefore, the crucial question is whether the PSB has in fact allowed **re-use**. The different ways to interpret re-use as defined in Article 2(4) can lead to different outcomes. Furthermore, Article 3(2) also covers the re-use of the cultural PSB itself. As stated above, the rationale of Article 3(2) either follows the binary logic 'within' vs. 'outside' the public task can be applied¹⁹⁸

or one might follow a more functional, competition-related interpretation. Under the strictest view, the cultural PSB would submit itself to the PSI regime simply by commercializing information.

84 If the cultural PSB has allowed re-use, it must allow re-use for everyone in accordance with the PSI Directive. This includes applying non-discriminatory terms (see Article 10 and Article 8). Conditions may vary for different types of re-use, but not among different types of re-users.¹⁹⁹ One question without a definite answer is whether cultural PSBs have the discretion to allow **only non-commercial** while prohibiting commercial re-use. This view seems to be predominant in some Member States²⁰⁰ and it can be supported by the thought that allowing only for non-commercial re-use is better than no re-use at all. On the contrary, Article 2(4) clearly defines re-use as commercial or non-commercial use.²⁰¹ Should one follow the very re-use friendly view that commercial use by the PSB qualifies as re-use and the PSB then also has the obligation to license for commercial-use, it is likely that some cultural PSBs need to adapt their "business models".

85 The PSI Directive contains specific **provisions privileging cultural PSBs** in their re-use policies.²⁰² Article 6 allows for charging above marginal costs, including a reasonable return on investment. The provision seeks to not hinder their normal running, as cultural PSBs – rather than other PSBs – systematically rely on revenue-based income streams.²⁰³ Furthermore, Article 11 sets out special rules for exclusive arrangements regarding the digitization of cultural resources. This accounts for the wide-spread public-private-partnerships, which

implementation of the Re-use of Public Sector Information Regulations 2015 – For the cultural sector" of July 2015, 10: Transfer of information from a museum to its commercial trading arm is to be considered as re-use.

199 See National Archives, "Guidance on the implementation of the Re-use of Public Sector Information Regulations 2015 – For the cultural sector" of July 2015, 22.

200 National Archives, "Guidance on the implementation of the Re-use of Public Sector Information Regulations 2015 – For the cultural sector" of July 2015, 10, argue that re-use request can be declined or it can be allowed for restricted uses such as non-commercial research re-use, but be declined for commercial re-use.

201 See Richter (*supra* n 1) at § 2 para. 118 et seq.: Re-use clearly addresses commercial *and* non-commercial. See for a similar reasoning also the wording of the Cyprus Act 205(I)/2015, Sec. 4(2): "Public sector bodies shall ensure that, where the re-use of documents, information and data for which libraries, including university libraries, museums and archives, hold intellectual property rights, is allowed, these documents, information and data shall be re-usable for commercial or non-commercial purposes".

202 Overview in Richter (*supra* n 1) at § 1 para. 553 et seq.

203 See Recital 23 (2013/37/EU); Jančić/Pusser/Sappa/Torremans (*supra* n 6) at 367 et seq.

192 See for the course of the amendment Guibault/Salamanca (*supra* n 41) at 220 et seq.

193 See Jančić/Pusser/Sappa/Torremans (*supra* n 6) at 361.

194 See for a detailed history Wirtz (*supra* n 30).

195 See already discussion in COM(2002) 207 final, 9.

196 See SEC(2011) 1152 final, 34.

197 Also, there must be IP-protection, otherwise Article 3(1) applies. However, there is the exception of Recital 9 (2013/37/EU).

198 See example in National Archives, "Guidance on the

can facilitate the use of cultural collections.²⁰⁴

2. Suitability for research and educational establishments

86 As can be seen, the general principle and the modifying provisions account for both political consensus and special features of cultural PSBs. In both cases, the organization's main task is related to the production, storage or **dissemination of knowledge**.²⁰⁵ Information is not a mere by-product of the activities, but the establishment's main purpose centers on them. This explains why cultural heritage organizations are also among the signatories of the Berlin Declaration on OA. Also, IP-protection is relevant for R&E establishments. This corresponds with the general principle for cultural PSBs, which explicitly requires IP protection and would therefore not affect a considerable amount of research data.

87 However, there are also **differences** between cultural PSBs on the one hand and R&E establishments on the other. While digitization might be relevant to some extent, university libraries are already included within the scope of the PSI Directive. In comparison, charging for copyright protected information does not seem to be such a predominant problem for research institutions. Rather, income streams originating from patents are highly relevant, but they fall outside the scope of the PSI Directive. However, public educational establishments – depending on their financing structure – might largely depend on revenue based income streams stemming from the commercialization of information.

88 In **conclusion**, all of these possible aspects, however, need to be carefully assessed when looking for prudent regulatory approaches. What has been shown is that even the interpretation and application of the general principle for cultural PSBs is not entirely clear, especially when it comes to the possibilities and limits to reserve commercialization. Clarification is urgently needed, should the rules for cultural PSBs be used as a model for re-use rules governing R&E establishments.

II. Alternative modifications and limits

89 Whether or not alternative or additional modifications of the exemption are desirable depends on the specific needs and effects. Regarding the **scope** of

the PSI Directive, one might even see the application of the PSI Directive to research establishments as less critical compared to educational establishments, because the fundamental right of scientific freedom effectively prevents a considerable amount of research information from the application of the PSI Directive. This effect might be mitigated in the case of educational establishments, though it is sometimes difficult to draw the line (e.g. universities). If this corresponds with a market driven development of education (e.g. universities develop commercial strategies, also for distance learning), one has good reasons to argue that this field should be left entirely to the competition in the market – at least from a competition point of view.²⁰⁶ One could also take the function and use of the information as decisive criterion (as opposed to the nature of the establishment). However, definitions can be difficult as has been shown for the term 'research data'. Moreover, distinguishing between different sorts of information creates some costs of delineation and legal uncertainty. The classification of funding agreements (whether closer to administration or research) has illustrated that.

90 One could also think about modifying the legal **consequences** of the Directive's application. As exclusivity seems to enable research collaboration with third parties, the need for modifying the standard for exclusive agreements has to be considered in order to prevent cooperation incentives changing in an unfavorable way.²⁰⁷ In contrast, it does not seem advisable to extend the principle for cultural PSBs according to Article 3(2) to R&E to information that is not protected by IPRs. While one might think that this could foster re-use of non-protected datasets, this would bring back the situation prior to 2013, which has rightly been criticized as creating an 'illusionary property right' for PSBs.²⁰⁸

91 Regarding the scope, one could also think about extending it to **public funders** and providing for specific rules that would oblige them to implement OA-mandates in their grants.²⁰⁹ However, these specific provisions address accessibility and should be an instrument of sector specific regulation.

92 This reminds one of the fact that the current PSI Directive does not regulate access, but requires it

²⁰⁶ See Drexl (*supra* n 30) at 83.

²⁰⁷ See e.g. the provisions on digitization (Article 11(2a)).

²⁰⁸ See De Filippi, P./Maurel, L. (2015), The paradoxes of open data and how to get rid of it? Analysing the interplay between open data and sui-generis rights on databases, 23 International Journal of Law and Information Technology 1.

²⁰⁹ See e.g. the H2020 Programme (2017), Guidelines to the Rules on Open Access to Scientific Publications and Open Access to Research Data in Horizon 2020, Version 3.2 of 21 March 2017.

²⁰⁴ See Recital 30 (2013/37/EU).

²⁰⁵ See Jančíč/Pusser/Sappa/Torremans (*supra* n 6) at 356.

for being applicable. **Access regimes** can streamline accessibility and the main challenge is to find a fair and legitimate standard that balances out interests accordingly. It seems likely that extending the PSI Directive to R&E establishments stimulates the general debate on open science. Access regimes can also include re-use rules. Therefore, including research establishments in the PSI Directive would not preclude more re-use friendly, sector specific regimes. One has to make sure that if an access regime provides for a more re-use friendly standard than the PSI Directive, the re-use friendlier regime would prevail. This collision problem has been significantly discussed and has yet to be entirely solved with regards to the relationship between the PSI Directive and the INSPIRE Directive.²¹⁰

E. Conclusion

- 93 The preceding analysis brought together the discussions about open research data, open education, and PSI. Their common driving force is the call for a widespread dissemination of publicly funded information. While the OA-debate and common regulatory approaches on research information are well developed, regulatory approaches and markets for educational information seem heterogeneous, premature, and quite dynamic at that stage. Therefore, the analysis focused on research information rather than on educational information.
- 94 In principle, the OA-debate and the PSI Directive follow similar rationales. Thus, it does not come as a surprise that several connections occur. However, due to some general legal uncertainty about the PSI Directive's standard, it is difficult to derive robust assumptions that can form a basis for predicting the effect of including R&E establishments. Without any doubt, the Directive's exemptions will filter out a lot of information held by R&E establishments, especially information protected by IPRs from third parties. How much information is affected in total depends on the interpretation of the exemptions under Article 1(2); namely, accessibility, IP-protection, and the public task. Moreover, it must be understood that R&E establishments have considerable discretion to "opt-in" the application of the PSI-Directive by making information accessible, designing IP-arrangements, and re-defining their public task. This can be regarded as a positive element providing flexibility to reconcile the different needs and traditions of Member States and PSBs. But it is also critical because the application of re-use rules can be circumvented. In any case, clarification of the standard for all of the three exemptions is urgently
- needed.
- 95 When discussing the legal consequences of an application of the PSI Directive, the effect on exclusive arrangements seems of particular importance and requires cautious consideration. The PSI Directive might affect several public-private research collaborations. This issue must be addressed to prevent an unintended, significant change of collaboration incentives and terms. There are situations in which one might even end up with less re-use than before. In general, the PSI Directive could address specific features of R&E as it has also been done with cultural PSBs. Should this approach be followed, it definitely needs clarification whether R&E establishments could still reserve commercial re-use of the information for themselves while allowing non-commercial re-use to others.
- 96 Finally, one has to be reminded of what makes the PSI debate about R&E establishments unique and challenging. The common rationale of OA-initiatives and PSI lies in the claim that what is financed with taxpayers' money should "belong" to everyone. However, there is a seminal difference: unlike in any other PSB that is covered by the PSI-Directive, the employee himself (meaning the researcher and not the institution) decides to a considerable extent what and how information is supplied. Therefore, the researcher's personal incentives and the informal norms of research communities rather than conventional market mechanisms drive the creation and dissemination of information and knowledge. The PSI-Directive should not change these basic rules of the game. One can be optimistic that this will not happen if the crucial aspects mentioned are taken into account, discussed, and tested before PSI regulation might be revised.

²¹⁰ See Richter (*supra* n 1) at § 1 para. 559 et seq.