

## **EARTO Position Paper on EC Proposal for a revised PSI Directive: Openness of Government Data – Today’s Reality**

3 September 2018

In the frame of the European Commission’s review of the EU Directive on the re-use of public sector information (PSI Directive 2013/37) led by DG CONNECT extending the Directive’s scope to research data, EARTO would like to further contribute to the debate with this new position paper, with even more details on today’s reality on openness of public sector data and information. EARTO has already been actively involved in the discussions on Open Data with for instance the publications of the [EARTO paper on Open X](#), the [EARTO Background Note on the US Federal Agencies Data Sharing Policies](#) and the [EARTO Background Notes on the US Open Science Data Cloud](#) and on [Government Data and Innovation Performance](#). As a follow-up of [EARTO Analysis of EC Proposal revising the EU Directive on the re-use of public sector information](#), this paper aims at giving an even more detailed overview of today’s reality of governmental data openness.

### **Background**

As a short reminder, openness of governmental data is so far managed by the EU Directive on the re-use of public sector information (PSI). In this first EU PSI directive (last revision in 2013), the aim was to render when appropriate public sector information open to the public by opening when appropriate governmental data access to the public. In the previous edition of the PSI directive, means for distribution of eventual opened datasets, when appropriate, could be charged at full costs of distribution. The proposed new revision of this directive by the EC DG CONNECT has globally three main aims compared to the 2013 edition:

1. Pushing even more towards free access to public bodies datasets without charging the costs related to the collection, production, reproduction and dissemination of the datasets. According to the proposed changes in the Directive, costs should in principle be limited to the marginal costs at maximum and charging full costs would be now limited to exceptional cases.
2. Pushing even more to make it obligatory for the Member States to open an even larger number of public datasets by imposing on Member States the list of these datasets.
3. Adding the opening of research data to the opening of governmental data. This directive will then apply to all research (co-) financed by public authorities. The EC proposal for the revision of the PSI directive now considers that the research data are public data (governmental data) like the others, which is not the case in any other (competing) part of the world. In this context, it will have to be applied by most public research actors (RTOs, universities, science academies, etc.) and will affect their collaboration with their research partners (including industry, large & SMEs) working together under any subsidies received by any European public authorities.

Moreover, according to the high costs of collection, production, reproduction and dissemination of the research datasets, many research actors, including RTOs, using full costing as a good practice in performing RD&I projects and in price formation as well as in staff management, would be demotivated to open their research datasets when appropriate. Indeed, as they would not be able to charge the time that their full-time employees would spend for datasets distribution, it would be far too costly to do so. Full costing is considered as a good practice also for/by universities as noted by:

- the European Commission DG R&I Expert Group Report on [“Diversified Funding streams for University-based research: Impact of external project-based research funding on financial management in Universities”](#).
- the [European Universities Association \(EUA\)](#) in its 2008 report on [“Financially Sustainable Universities: Towards full costing in European universities”](#).

In this context, the relevant parts of the proposed revised PSI Directive about research data seem contradictory to the *“as open as possible, as closed as necessary”* principle defined by the European Council. Finally, it seems that the new provisions in respect of Research Data in the proposed revised PSI Directive are not well implemented and often seem “out of place” and “out of phase” with the parts that were derived from the existing PSI-Directive. EARTO believes that such an unbalanced open research data policy could seriously hamper globally knowledge transfer from research organisations to industry<sup>1</sup>.

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<sup>1</sup> See for a clear explanation the Lettre européenne of [ANRT](#) N°278, October 2016, Article “The opening of research data signals the end of knowledge transfer”.

## Public Sector Data

The [World Wide Web Foundation](#) measures the openness of government data (excluding research data) around the world and ranks countries according to their degree of openness to governmental data: see their [recommendations](#) and [data](#). Last published in May 2017, this ranking is based on the 2016 data. The 2018 edition has not yet been released. [World Wide Web Foundation notes that](#) "Overall, this year's Barometer shows that governments are slowing and stalling in their commitment to open data. *In some cases, progress has even been undone...only 7% of the data is fully open, only one of every two datasets is machine readable and only one in four datasets has an open licence*". It should be noted that 10% of the data was fully open in average the year before, so there is a clear regression of machine readable governmental data set openness, even before the political changes in the USA and in UK.

In addition regarding data for innovation, the [World Wide Web Foundation](#) explains that "Open data has significant potential to foster innovation. It is used in applications by entrepreneurs, and can unlock significant value for enterprises. It can also help to increase the efficiency and productivity of current public services. For example, innovation and significant economic value can be created by using datasets such as map data, public transport timetables, and data on international trade or crime. With innovation data the most abundant of the three clusters (Innovation, Social Policy, Accountability), we can reasonably assume that governments are prioritising these particular datasets. **However, even in countries with strong open government data initiatives, the number of these datasets has declined since the last edition of the Barometer**".

The [World Wide Web Foundation](#) shows also net decline in countries that used to be the most advanced in terms of data openness, including in European Nordic countries (DK, SW, IS, FI) and notes that "the Nordic countries, which were once open data leaders, do not seem to be prioritising open data as highly as before, as evident by their decreasing rankings". The following table summarises the data of the WWW Foundation ranking:

Source : <a href="#">The World Wide Web Foundation</a>	1st WWW Ranking (2014, data of 2013)	2nd WWW Ranking (2015, data of 2014)	3rd WWW Ranking (2016, data 2015)	4th WWW Ranking (2017, data 2016)
% Openness of Governmental Data (world-wide average)	7	10	10	7

Those data show that we are back to 2013 value. Clearly, the first pilots promoting opening of governmental data have not been convincing. [The World Wide Web Foundation](#) even concludes: "The open (governmental) data movement is at a turning point...it could fade into a ghost town of abandoned pilots, outdated data portals, and unused apps". Accordingly, the first target of governmental data is not yet reached by the current PSI Directive.

## No link between Openness of Government Data and Innovation Performance

Furthermore, looking at [our last analysis](#) on Openness of Government Data and Innovation Performance, we already know that there is no correlation between the openness of governmental data and the innovation performance of a country. We do not understand this proposal as adding to our EU competitiveness as already stated by few of our key European industrial partners<sup>2</sup> as well as our Austrian colleagues heading now the current EU Presidency<sup>3</sup>

## Global Competitors' Policies

Looking at our global competitors is very important for research actors such as RTOs especially set up by their national governments with the view to support national industries. When adding research data to the mix of the PSI directive, the proposed PSI directive then needs to be looked at from a perspective of global industrial competitiveness. In today's context, we see a clear closure of research data in China<sup>4</sup> (like other governmental data).

For governmental data openness, **China is ranked low at the 71<sup>st</sup> place in the World Wide Web ranking of global governmental openness. In parallel, China has entered the TOP 20 of WIPO/Cornell University/INSEAD's innovation ranking**<sup>5</sup>. Co-published by Cornell University,

<sup>2</sup> See [Digital Europe](#) & [Business Europe](#) Positions.

<sup>3</sup> See [Austrian Federal Economic Chamber \(WKO\)](#) Position on Open Data-Principle in Horizon 2020: Inappropriate for Applied R&D and Businesses Subject to Competition, March 2017

<sup>4</sup> See [Financial Times](#).

<sup>5</sup> See [Global Innovation Index: GII](#).

INSEAD, and the World Intellectual Property Organisation (WIPO, an agency of the United Nations), the Global Innovation Index ranks the innovation performance of 127 countries. Its 81 indicators capture elements of the national economy that enable innovative activities with a broad vision of innovation, through five input pillars: 1. Institutions, 2. Human capital and research, 3. Infrastructure, 4. Market sophistication, 5. Business sophistication. Two additional output pillars capture actual evidence of innovation outputs: 6. Knowledge and technology outputs, 7. Creative outputs.

The **Global Innovation Index** "aims to capture the multi-dimensional facets of innovation and provide the tools that can assist in tailoring policies to promote long-term output growth, improved productivity, and job growth. The GII helps to create an environment in which innovation factors are continually evaluated. It provides a key tool and a rich database of detailed metrics for economies, which in 2017 encompasses 127 economies, representing 92.5% of the world's population and 97.6% of global GDP". **China was ranked 23<sup>rd</sup> in last year's edition of this index and gained 5 places to rank now 17<sup>th</sup>.** Moreover, GII defines also the efficiency of a country's innovation system by the ratio innovation outputs/innovation inputs. **China is now 3<sup>rd</sup> out of 127 countries in this innovation efficiency ranking.**

In [our Background Note on the US policy](#), we also show a remaining balanced approach to opening of research data in the USA, under Obama as well as under Trump's administrations. The USA have never legally linked research data with governmental data. The USA policy's objective is clearly to maximize access to data, but while:

- protecting confidentiality and personal privacy,
- recognizing proprietary interests, business confidential information, and intellectual property rights and avoiding significant negative impact on intellectual property rights, innovation, and U.S. competitiveness, and
- preserving the balance between the relative value of long-term preservation and access and the associated cost and administrative burden.

The US government is taking many precautions as well as recall the importance of cost / benefit analyzes of data preservation and management. Unfortunately, these analyzes are almost non-existent in the EC proposals linked to open data documents.

As already explained in our [EARTO Background Notes on the US Open Science Data Cloud](#), the same precautions are taken by the US government in their Open Science Cloud initiatives where, to advance science faster, the US make sure that:

- The distinction between INPUT data and OUTPUT data is clear. Input data are to be used within research programs and are in general open to all such as for e.g. health data provided by patients, satellite maps provided by NASA, etc. While, output data coming from research projects financed by research programmes are in general in restricted access rights.
- They take a bottom-up, case-by-case, approach for each programme,
- They develop a cloud's business model including costs analysis,
- In all cases, they work with paying access models to computing resources and data storage to compel their research labs to prepare their intervention on the cloud and optimize calculation time and store only useful data.

**Citizens' Access to Data**

One of the arguments given for openness of governmental data is the fact that citizens must be able to access such data. The latest information also shows the very limited impact in terms of citizens access and interest to such data. Indeed, the data published by [the European data portal](#) show a very limited interest by citizens as well as private companies to access such data via the public portals made available:



Source: [The European data portal](#)

This most probably explains the net recession in openness in what used to be the most advanced countries in Europe as noted earlier by the WWW Foundation.

Moreover, the [European data portal](#) highlights a decline of 11% of the public governmental datasets opened by UK, compared to previous year. Indeed, as noted by the World Wide Web foundation

references as soon as for 2016 Data, <sup>6</sup>: “ *Meanwhile, the UK appears to be softening some of its policy commitments through a new ‘open government data when appropriate’ default policy*”. The “when appropriate” (which leaves a lot of latitude of interpretation) was not in the previous versions of the documents on the UK governmental openness.

### **Opening Governmental Data without Proper Costs/Benefits Analysis**

One well known area of openness of governmental data are cadastre and geographic data of each country. The French experience of the [French National Geographic Institute \(IGN\)](#) who was pushed to open its data on a free of charge basis without planning proper costs/benefits analysis. The unfortunate mix between openness combined with a “free of charge” model brought today the IGN is a very difficult financial situation. Its Board has even noted in March<sup>7</sup> this year that IGN “*budget shows a worrying development due to the weakness of the investment budget. An institution such as the IGN, engaged in a sector of permanent technological innovations, can hardly continue to operate with less commercial revenue and less subsidy; It is to be feared that the public actors (including the ministries) will eventually decide not to appeal to him if it cannot maintain high quality services*”. In turn, openness of government data without proper Costs/Benefits Analysis and business model may end up in no data available, which would be the complete opposite to supporting science and innovation.

### **2016 [EU Directive](#) on the protection of undisclosed know-how and business information (trade secrets) against their unlawful acquisition, use and disclosure**

In the context of open access to data, this directive is also important. This [EU Directive](#) explicitly states that public research can make open innovation with industry, particularly SMEs, in the form of exchanges of secret know-how (the reverse of open data model).

Indeed, the [EU Directive](#) on trade secrets clearly states: “*Businesses and non-commercial research institutions invest in acquiring, developing and applying know-how and information which is the currency of the knowledge economy and provides a competitive advantage. This investment in generating and applying intellectual capital is a determining factor as regards their competitiveness and innovation-related performance in the market and therefore their returns on investment, which is the underlying motivation for business research and development. Businesses have recourse to different means to appropriate the results of their innovation-related activities when openness does not allow for the full exploitation of their investment in research and innovation. Use of intellectual property rights, such as patents, design rights or copyright, is one such means. Another means of appropriating the results of innovation is to protect access to, and exploit, knowledge that is valuable to the entity and not widely known. Such valuable know-how and business information, that is undisclosed and intended to remain confidential, is referred to as a trade secret*” (page 1).

Finally, the [EU Directive](#) also understands that: “*Trade secrets have an important role in protecting the exchange of knowledge between businesses, including in particular SMEs, and research institutions both within and across the borders of the internal market, in the context of research and development, and innovation. Trade secrets are one of the most commonly used forms of protection of intellectual creation and innovative know-how by businesses, yet at the same time they are the least protected by the existing Union legal framework against their unlawful acquisition, use or disclosure by other parties*” (page 2).

Therefore, the revision of the PSI directive would be very clearly against this European Directive on trade secrets, harming RD&I collaborations between research actors such as RTOs and industry.

**All the information and evidence gathered in this document bring EARTO to advise the European Institutions to re-consider the interest of the proposed revision which is adding Research Data to this directive. In its review of the EC revised PSI directive proposal, EARTO advises in any case the European Council and European Parliament to ensure at minimum that:**

- **in case of “when appropriate” opening datasets to allow full costing for the collection, production, reproduction and distribution of the datasets.**
- **The “as open as possible, as closed as necessary” principle shall not be affected by any article of this this revised directive. In any case, only research data which was voluntarily when appropriate published / put in a data repository for open access by researchers should be in the scope of any article related to research data.**

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<sup>6</sup> See: [https://opendatabarometer.org/4thedition/report/#findings\\_recommendations](https://opendatabarometer.org/4thedition/report/#findings_recommendations) and [https://opendatabarometer.org/?\\_year=2016&indicator=ODB](https://opendatabarometer.org/?_year=2016&indicator=ODB):

<sup>7</sup> See IGN Board (i.e. Conseil administration) [Minutes of 8 March 2018](#). See [IGN budget reality](#) with opening its data free of charge.

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**EARTO - European Association of Research and Technology Organisations**

*Founded in 1999, EARTO promotes Research and Technology Organisations and represents their interest in Europe. EARTO network counts over 350 RTOs in more than 20 countries. EARTO members represent 150.000 highly-skilled researchers and engineers managing a wide range of innovation infrastructures.*

**RTOs - Research and Technology Organisations**

*From the lab to your everyday life. RTOs innovate to improve your health and well-being, your safety and security, your mobility and connectivity. RTOs' technologies cover all scientific fields. Their work ranges from basic research to new products and services development. RTOs are non-profit organisations with public missions to support society. To do so, they closely cooperate with industries, large and small, as well as a wide array of public actors.*

**EARTO Working Group Legal Experts:** *is composed of 45 corporate legal advisers working within our membership. Established in autumn 2013, this Working Group has also worked on the revision of the state aid rules & the GBER. Our experts also contributed to the setting-up of the DESCA Consortium Agreement model for Horizon 2020. More recently they were at the origin of the EARTO Paper on Open X, the EARTO Background Note on the US Federal Agencies Data Sharing Policies, and the EARTO Position Paper on the European Licencing Framework for Standard Essential Patents.*

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