European Charter for Access to Research Infrastructures

Principles and Guidelines for Access and Related Services

European Charter for Access to Research Infrastructures

Principles and Guidelines for Access and Related Services

LEGAL NOTICE

Neither the European Commission nor any person acting on behalf of the Commission is responsible for the use which might be made of the following information.

The views expressed in this publication are the sole responsibility of the author and do not necessarily reflect the views of the European Commission.

More information on the European Union is available on the internet (http://europa.eu).

TABLE OF CONTENT

PREAMBLE

Research Infrastructures, including e-infrastructures, are at the core of the **knowledge triangle of research, education and innovation** and therefore play a vital role in the advancement of knowledge and technology and their exploitation. By offering high quality services to Users from different countries, engaging young people, attracting new Users and preparing the next generation of researchers, Research Infrastructures help in structuring the scientific community and play a key role in the construction of an efficient research and innovation environment. Support to the effective and efficient construction and operation of Research Infrastructures is a key priority in realising the European Research Area and in promoting **open science** and **open innovation**. Because of their ability to assemble a critical mass of people, knowledge and investment, Research Infrastructures contribute to **regional, national, European and global development** and are one of the most efficient tools to facilitate international cooperation in science.

Research Infrastructures are also crucial in helping Europe lead a global movement towards open, interconnected, data-driven and computer-intensive research, experimental development, as well as education and training. They increase the creativity in and efficiency of research and bridge the gap between highly developed and lesser-developed regions. To an increasing extent, Research Infrastructures comprise elements of **digital services,** making the infrastructures and their services more accessible and enabling collaboration among Users across scientific domains and geographical boundaries. From a User´s perspective, the remote access can lead to a situation in which the physical location of the Research Infrastructure becomes less relevant. This nature of Research Infrastructures (and data involved) poses a number of challenges in relation to data ownership and to the necessity of providing transparency and Access to it. The exponential growth of data moreover poses challenges to its effective handling and its costs of curation and storage.

Just as public infrastructures are key to civil society, Research Infrastructures are the backbone of scientific communities and by now are well established in all disciplines. This spread has happened not least under the influence of increasingly important interdisciplinary User communities, digital science and of the move towards open access to scientific publications and data.

Strong investment in research and innovation is needed to address pressing **global societal challenges,** such as climate change, health and ageing population, and the move towards a resource efficient society. Research Infrastructures play a vital role in addressing these challenges. However, it is essential to optimise the use of scarce resources for increasingly expensive facilities, to overcome the fragmented Research Infrastructure spending, not only across Europe, but at a more global scale and to join forces to address these challenges. As such, the scale and scope of scientific investigation and the challenges driving the development of large Research Infrastructures deserve particular attention. When Access to Research Infrastructures is granted among research organisations, it should not be burdened by inappropriate taxation.

Stronger interaction and cooperation between Research Infrastructures, Users and **providers from industry** and public services builds bridges between the public, commercial and Research Infrastructure worlds. Dedicated initiatives can help increase knowledge and **technology transfer** from science to industry and public services and

help **driving innovation**. In addition to acting as Users, industry also plays an increasing role in the construction, operation and innovation of Research Infrastructures.

Finally, the nature and complexity of the societal challenges require a **global approach** and Access to the best Research Infrastructures, regardless of their location, is a prerequisite to achieve scientific excellence and socio-economic impact.

1. PURPOSE

In the context of the implementation of the European Research Area, this Charter sets out **non-regulatory principles and guidelines** to be used as a reference when defining Access policies for Research Infrastructures and related services.

While not having any legally binding nature, Research Infrastructures are encouraged to use this Charter as a reference when updating existing or defining new Access policies. In addition, the funding organisations of Research Infrastructures are invited to promote this Charter's provisions.

This Charter promotes **Access to Research Infrastructures** in order to conduct innovative research and development, to improve the related methods and skills in the workforce and to foster collaboration.

This Charter moreover promotes interaction with a wide range of social and economic activities, including, as appropriate, **business, industry and public services**, in order to maximise the return on investment in Research Infrastructures and to drive innovation, competitiveness and efficiency in terms of use of the scarce resources available.

2. APPLICABILITY

This Charter addresses Access to Research Infrastructures as defined below and may be taken into account when defining policies for providing Access in order to conduct research, to undertake experimental development, to provide education and training and to deliver services.

This Charter is primarily targeted at those responsible for the definition of the Access policy to any given Research Infrastructure and, therefore, at the Research Infrastructures themselves, at the institutions to which they belong and at their respective research funding organisations.

A number of resources complement this Charter providing best practices and concrete guidance on the topics raised to those responsible for the definition of Access policies[1].

While expressing the European approach for Access to Research Infrastructures, this Charter is offered as a **reference document worldwide**.

---

[1] The Access to Research Infrastructures section of the European Commission's Research Infrastructure's website lists and provides links to such documentation: http://ec.europa.eu/research/infrastructures/index_en.cfm?pg=access_ri

3. DEFINITIONS

a. Research Infrastructures

'Research Infrastructures' are facilities, resources and services that are used by the research communities to conduct research and foster innovation in their fields. They include: major scientific equipment (or sets of instruments), knowledge-based resources such as collections, archives and scientific data, e-infrastructures, such as data and computing systems and communication networks and any other tools that are essential to achieve excellence in research and innovation. They may be 'single-sited', 'virtual' and 'distributed'[2].

b. Users

'Users' of Research Infrastructures can be individuals, teams and institutions from academia, business, industry and public services. They are engaged in the conception or creation of new knowledge, products, processes, methods and systems and also in the management of projects. Teams can include researchers, doctoral candidates, technical staff and students participating in research in the framework of their studies.

c. Access

'Access' refers to the legitimate and authorised physical, remote and virtual admission to, interactions with and use of Research Infrastructures and to services offered by Research Infrastructures to Users. Such Access can be granted, amongst others, to machine time, computing resources, software, data, data-communication services, trust and authentication services, sample preparation, archives, collections, the set-up, execution and dismantling of experiments, education and training, expert support and analytical services.

d. Access Unit

The Access Unit is a measure specifying the Access offered to the Users. Research Infrastructures are responsible for the definition of Access Units, which may vary from e.g. precise values like hours or sessions of beam time processing time, to gigabytes transmitted for the conduction of complex experiments and projects up to quotations based on an inventory of Users' needs.

---

[2] Article 2 (6) of Regulation (EU) No 1291/2013 of 11 December 2013: "Establishing Horizon 2020 – the Framework Programme for Research and Innovation (2014-2020)"

4. PRINCIPLES

a. Access policy

Research Infrastructures should have a policy defining how they regulate, grant and support Access to (potential) Users from academia, business, industry and public services.

b. Acknowledgement and co-authorship

Users should acknowledge the contribution of the Research Infrastructure in any output (i.e. publication, patent, data, etc.) deriving from research conducted within its realms. In accordance with good scientific practice, Users are encouraged to offer co-authorship to those working at the Research Infrastructure having made genuine scientific contributions to their work.

c. Legal conformity

Research Infrastructures must comply with national and international law and agreements, particularly, but not only, in areas such as intellectual property rights and the protection of privacy, ethical considerations as well as safety, security and public order regulations when designing rules and conditions for Access to and use of Research Infrastructures.

d. Costs and fees

Acknowledging a variety of financing models, costs need to be covered and fees for Access, to the extent found necessary, should contribute to the financial sustainability of the Research Infrastructure.

e. Ethical conduct and research integrity

Research Infrastructures and Users should undertake the necessary actions to adhere to the standard codes of conduct and ethical behaviour in scientific research and to research integrity[3].

f. Non-discrimination

In granting Access to Users Research Infrastructures shall not discriminate on any personal grounds and may consider establishing equal opportunities policies.

g. Implementation

The administration connected to requesting and granting Access to Research Infrastructures should be kept to a minimum.

---

[3] The European code of conduct for research integrity drafted by the European Science Foundation (ESF) and the European Federation of National Academies of Sciences and Humanities (ALLEA) sets out eight principles that Researchers need to abide to: honesty in communication, reliability in performing research, objectivity, impartiality and independence, openness and accessibility, duty of care, fairness in providing references and giving credit, and responsibility for the scientists and researchers of the future. http://www.allea.org/Content/ALLEA/Themes/Scientific%20Integrity/Code_Conduct_Research_Integrity.pdf

h. Research data management

Research Infrastructures should have a research data management policy ensuring that research data are appropriately maintained, archived for a reasonable period, and available for review and (re-)use. Research Infrastructures and Users should have an agreement on how to (re-)use the data. If appropriate, they are also encouraged to consider providing open access to research data.

i. User instruction

Research Infrastructures should provide the Users with instructions for the effective and efficient Access to a Research Infrastructure.

5. GUIDELINES

a. Access policy

The Access policy of a Research Infrastructure should define the Access in terms of Access Units, state the specific Access mode, clarify the conditions for Access, describe the processes and interactions involved in the Access and elaborate on the support measures facilitating the Access, if existing.

b. Access modes

Access to Research Infrastructures may be provided according to three different Access modes, i.e. `excellence-driven`, `market-driven` and `wide`. Acknowledging the different purposes of Access, and in function of possible contractual and legal obligations, Access to any Research Infrastructure may be regulated according to one Access mode, or any combination of them.

1) Excellence-driven Access

The excellence-driven Access mode is exclusively dependent on the scientific excellence, originality, quality and technical and ethical feasibility of an application evaluated through peer review conducted by internal or external experts. It enables Users to get access to the best facilities, resources and services wherever located. This Access mode enables collaborative research and technological development efforts across geographical and disciplinary boundaries.

2) Market-driven Access

The market-driven Access mode applies when Access is defined through an agreement between the User and the Research Infrastructure that will lead to a fee for the Access and that may remain confidential.

3) Wide Access

The wide Access mode guarantees the broadest possible Access to scientific data and digital services provided by the Research Infrastructure to Users wherever they are based. Research Infrastructures adopting this mode maximise availability and visibility of the data and services provided.

c. Access restrictions

Research Infrastructures may restrict Access by means of quota or pre-defined User groups, as long as they clearly communicate such conditions to the Users. Such restrictions may be based on established acceptable practices such as, but not limited to, training and education, research programmes, ethics, legal and contractual obligations, financial contributions, resources and membership.

d. Access processes and interactions

The processes and interactions involved in the Access to Research Infrastructures may consist of application, negotiation, evaluation, feedback, selection, admission, approval, feasibility check, setting-up, use, monitoring and dismantling. Research Infrastructures should in any case clearly communicate and motivate their decision on the request for Access to the Users.

e. Support measures facilitating Access

In order to facilitate Access, Research Infrastructures are encouraged to offer support measures to Users such as guidance through User manuals, provision of User support, provision of accommodation, and guidance with immigration procedures.

f. Education and training

Research Infrastructures are encouraged to offer education and training in the areas of their activities and to collaborate with other institutions and organisations that benefit from using the Research Infrastructure for their education and training purposes.

g. Regulatory framework

Access to any given Research Infrastructure should be regulated by a framework that can range from generic terms and conditions for use accepted by the User, through a dedicated contract up to the provisions of international agreements and treaties. The regulatory framework should cover, at the least, Access, intellectual property rights, data protection, confidentiality, liability and possible fees.

h. Transparency

Each Research Infrastructure should have a single point providing clear and transparent information on the Research Infrastructure itself, its services, Access policy, data management policy and the terms and conditions. Where applicable, information should be provided on the available equipment, costs, fees, contractual obligations, health safety and environment rules and procedures, intellectual property rights and the legal settlement of disputes.

i. Research data management plan

Research Infrastructures and Users should agree on a data management plan, outlining how research data of the project will be handled.

j. Health, safety, security and environment

Research Infrastructures should undertake the necessary actions, including instruction, to ensure the health, security and safety of any User accessing the Research Infrastructure as well as to minimise the impact on the environment. Where applicable, Users must comply with security, safety and environmental rules and with procedures in force at the Research Infrastructures, in particular concerning the notifications on introduction of material and instrumentation that could induce risks or ethical issues to the facility.

k. Quality assurance

Research Infrastructures are encouraged to set in place mechanisms to evaluate the quality of the Access through e.g. feedback on the User satisfaction and the monitoring of the consequences of the Access to the Research Infrastructure.

l. Limitations

Access to Research Infrastructures may be limited, amongst others, by the following:
– national security and defence;
– privacy and confidentiality;
– commercial sensitivity and intellectual property rights;
– ethical considerations in accordance with applicable laws and regulations.

6. REVIEW AND UPDATE

The Charter reflects the state of the art of thinking and practice concerning Access to Research Infrastructures in Europe. Research Infrastructures as well as Users can, at any time, provide comments on this Charter and suggest possible improvements[4]. The European Commission, the European Strategy Forum on Research Infrastructures, the e-Infrastructure Reflection Group and the European Research Area stakeholder organisations will periodically review the relevance and applicability of this Charter and, whenever appropriate, update it accordingly.

---

[4] An on-line feedback channel has been set up for such purpose by the European Commission. More information can be found on the Access to Research Infrastructures section of the European Commission's Research Infrastructure's website: http://ec.europa.eu/research/infrastructures/index_en.cfm?pg=access_ri