



REPUBLIC OF SLOVENIA
MINISTRY OF HIGHER EDUCATION,
SCIENCE AND INNOVATION

Open Science in Slovenia: The Scientific Research and Innovation Activities Act

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FAIR National Roadshows in Slovenia: PIDs, Metadata,
Interoperability: Open Science and Research Data management
Policies

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I FEEL
SLOVENIA

Publicly funded research capacities in Slovenia



- ▶ 4 universities (5000 researchers, 47 libraries)
- ▶ 19 research institutes (2000 researchers, 16 libraries)
- ▶ IZUM/Library and Research Information system Institute, ARNES/Academic and Research Network Institute;
- ▶ ARIS/Research funding organisation, other public funders

Legal and other policy framework for the Open Science in Slovenia

Scientific Research and Innovation Activities Act (ZZrID)

1.1.2022



The Resolution on the Slovenian Scientific Research and Innovation Strategy 2030 (ReZrIS30)

8.4.2022



Governmental Decree on the implementation of scientific research work in accordance with the principles of Open Science

14.6.2023



Action plan for Open Science

31.5.2023

Open Science in Scientific Research and Innovation Activities Act (ZZrID)

(come into force: 1.1.2022)

<https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.gov.si%2Fassets%2Fministrstva%2FMVZI%2FZnanost%2FNacionalne-strategije-in-dokumenti%2FScientific-Research-and-Innovation-Activities-Act.doc&wdOrigin=BROWSELINK>

ZZrID - Open Science provisions (1)

OPEN SCIENCE IS PART OF THE GENERAL PRINCIPLES OF THE SCIENTIFIC RESEARCH AND INNOVATION ACTIVITY ACT

Art.2: Principles

(6) Scientific research is based on the principles of open science, which includes in particular

- **open access** (as open as possible as closed as necessary) to all **research results** which must be findable, accessible, interoperable and reusable (**FAIR**),
- **the use of responsible metrics** for the assessment of scientific research activities and
- the involvement of **communities** and **citizen science**.

ZZrID - Open Science provisions (2)

OPEN SCIENCE FUNDS AND FINANCING

FUNDS FOR OPEN SCIENCE

Art. 12 (2): Funds for scientific research and innovation activities

Item 2: financing of scientific publications and scientific monographs, and openness and popularization of science;

Item 9: co-financing the implementation of open science measures;

FUNDING OF OPEN SCIENCE

Art 16: Scientific research activity

Open Science is considered as part of scientific research activity and is therefore subject to stable financing as stipulated in Art. 17.

ZZrID - Open Science provisions (3)

MAIN PARTS OF OPEN SCIENCE

Art. 40 (1)

- Open access to research results
- Evaluation of the quality and impact of scientific research work using responsible metrics
- Involvement of the interested public into the research process

ZZrID - Open Science provisions (4)

GOVERNMENTAL DECREE

Art. 40 (1)

Detailed requirements for the implementation of scientific research work according to the principles of open science shall be set by the Government, taking into account **Scientific Research and Innovation Strategy of Slovenia (ReZrIS30)** and the recommendations of European research policies.

OPEN SCIENCE ACTION PLAN

Art. 40 (1,3)

Open science measures shall be defined in an action plan adopted by the Government.

In order to co-finance the implementation of open science measures, the ministry responsible for science or ARIS may conclude direct co-financing agreements with providers of scientific research activities.

ZZrID - Open Science provisions (5)

OPEN ACCESS TO SCIENTIFIC PUBLICATIONS AND RESEARCH DATA

Art. 41 (1)

Research co-financed in the amount of at least 50% public funding:

- the funding provider shall request, and the provider of scientific research activities must provide **open access to all peer-reviewed scientific publications and research data and other research results**
- **The provider of scientific research or researchers shall comply with above obligation in the individual management of intellectual property rights, by reserving the appropriate scope of rights.**

Art 41(2)

- **The results of research co-financed from public sources must be open and accessible, subject to any restrictions imposed by the protection of intellectual property, the protection of personal data, the security of persons or the state**
- **Open research data must be published or otherwise accessible in a way that allows them to be findable, accessible, interoperable and reusable (FAIR).**

ZZrID - Open Science provisions (6)

EVALUATION OF SCIENTIFIC RESEARCH ACTIVITIES

Art. 40 (2)

The evaluation and assessment of researchers, research organisations, research programmes and projects shall promote open science.

Art 31: Institutional self-evaluation

During institutional self-evaluation of scientific research activity Open Science practices need to be assessed as well.

ZZrID - Open Science provisions (7)

SCIENTIFIC JOURNALS AND MONOGRAPHS OF SLOVENIAN PUBLISHERS

Art. 42 (1)

Scientific journals of publishers established in Slovenia and abroad, which contain peer-reviewed articles and whose publication is fully financed from state funds, shall ensure open access to their content.

Art. 42 (2)

The funding of scientific monographs by state funds shall be carried out under conditions that allow open access to the full contents of digital editions of scientific monographs at the time publication, taking into account intellectual property rights and copyright management through free licenses.

Resolution on the Slovenian Scientific Research and Innovation Strategy (ReZrIS30)

(come into force: 8.4.2022)

<https://www.gov.si/assets/ministrstva/MIZS/Dokumenti/ZNANOST/Nacionalni-dokumenti/Resolution-on-the-Slovenian-Scientific-Research-and-Innovation-Strategy-2030>

Chapter 6.2. Open science to improve the quality, efficiency and responsiveness of research

Measure 6.2.1: Effectively manage and finance the development of the national Open Science ecosystem and ensure its coherence with international standards, develop national structures and infrastructures related to Open Science, and foster their integration into international networks and infrastructures.

Measure 6.2.2: Introduce modern approaches to the evaluation of scientific research in accordance with Open Science principles (e.g. DORA -San Francisco Declaration on Research Assessment, Leiden Manifesto for research metrics, ERA Guidelines) to increase the quality and impact of research.

Measure 6.2.3: Ensure that the results of scientific research are consistent with the FAIR (Findable, Accessible, Interoperable, and Reusable) principles, and that full and immediate Open Access is provided (subject to justified exceptions).

Measure 6.2.4: Establish a national Open Science community to implement and monitor Open Science in Slovenia, as well as its integration into ERA and beyond.

Measure 6.2.5: Promote the development of citizen science and public involvement in scientific research.

Measure 6.2.6: Promote the development of national scientific publishing that will operate according to the principles of Open Science.

Governmental Decree on the Implementation of Scientific Research Work in Accordance with the Principles of Open Science („Decree on Open Science“)

(come into force: 14.6.2023)

<https://www.gov.si/assets/ministrstva/MVZI/Znanost/Obzorje-Evropa/Novice/2023-Open-Science/Decree-on-the-implementation-of-scientific-research-work-open-science.pdf>

Decree on Open Science

- Based on ZZrID
- Requirements are following:
 - the Plan S principles on open access to scientific publications
 - the Horizon Europe provisions on research data and other research outputs

Decree on Open Science - Main parts

I. GENERAL PROVISIONS

II. OPEN ACCESS TO SCIENTIFIC PUBLICATIONS

III. OPEN ACCESS TO RESEARCH DATA AND OTHER RESEARCH RESULTS IN DIGITAL FORM

IV. MANAGEMENT OF COPYRIGHT IN ACCORDANCE WITH THE PRINCIPLES OF OPEN SCIENCE (scientific publications, research data and other research results)

V. INVOLVEMENT OF THE INTERESTED PUBLIC IN SCIENTIFIC RESEARCH

VI. COSTS OF SCIENTIFIC RESEARCH WORK IN ACCORDANCE WITH THE PRINCIPLES OF OPEN SCIENCE

VII. EVALUATION AND ASSESSMENT OF RESEARCHERS, RESEARCH ORGANISATIONS, RESEARCH PROGRAMMES AND PROJECTS IN ACCORDANCE WITH THE PRINCIPLES OF OPEN SCIENCE

VIII. OPEN SCIENCE INFRASTRUCTURE

IX. CONTRACTUAL SANCTIONS

X. TRANSITIONAL AND FINAL PROVISIONS

Open access to research data and other research results

Requirements

Art 4

Main provisions:

- preparation and regular updating of a Research Data Management Plan (hereinafter: DMP)
- management of research data and other research results in accordance with the FAIR principles
- open access to research data and other research results in accordance with the principle of "as open as possible, as closed as necessary"

Open access to research data and other research results

Implementation

Art 5

Main provisions:

- Research data and other research results shall be stored in repositories and made openly accessible through repositories as soon as possible after their creation (end of project at the latest)
- Research data and other research results supporting a scientific publication shall be made openly accessible at the latest on publication of the scientific publication, in which a permanent access point identifier or persistent identifier (hereinafter: PID) shall be cited.

Research data and other research results shall be accompanied by metadata, including metadata on the tools and instruments needed for research data validation and reuse. When designing metadata, research providers shall take into account the specifics of scientific fields.

Action Plan for Open Science

Objective 6.2 of the Resolution on the Slovenian Scientific
Research and Innovation Strategy 2030

<https://www.gov.si/assets/ministrstva/MVZI/Znanost/Nacionalne-strategije-in-dokumenti/2023-Action-Plan-Open-Science-Slovenia.pdf>

Action plan for Open Science 2023-2030

16 activities, 16.7 mio EUR

complemented (2023-2026) by



Financira
Evropska unija
NextGenerationEU



REPUBLIKA SLOVENIJA
MINISTRSTVO ZA VISOKO ŠOLSTVO,
ZNANOST IN INOVACIJE

SP**ZNAJ**
PODPORA PRI UVAJANJU NAČEL ODPRTE ZNANOSTI V SLOVENIJI

Establishment (ARNES) of two
separate data centers for long
term storage of research data



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Thank you for the attention!

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