OPEN SCIENCE POLICY AT THE SLOVAK ACADEMY OF SCIENCES

The Slovak Academy of Sciences (hereinafter referred to as "SAS") is a self-governing scientific institution of the Slovak Republic, whose activities are focused on the development of science, education, culture, and the economy. SAS conducts its research activities through public research institutions it has established.

SAS recognizes openness in science as one of its core principles and is committed to promoting and implementing it by adopting practices that support open, reproducible, and responsible research. SAS endorses the principles of open access to the results of publicly funded research, particularly publications and research data affiliated with its public research institutions. It actively supports open publishing, archiving, and the accessibility of scientific publications and data, and is building the necessary infrastructure to support open science.

Open Science represents "an approach to the research process based on collaborative work, sharing, and open dissemination of knowledge through the optimal use of digital technologies and the application of openness principles in every stage of the research cycle." ¹

The Open Science Policy at SAS, mandated by the SAS Strategy 2023, is based on global open science initiatives² and aligns with the European Open Science Policy³ and the National Strategy for Open Science 2021–2028⁴.

This policy applies to all public research institutions established by SAS and to all researchers employed by SAS who are engaged in creative scientific research activities within the Academy.

SAS recognizes that the introduction of elements of open science is a gradual process, which requires the support of all SAS research institutions as well as all researchers in acquiring the skills necessary for publishing in open access mode, for proper management and preservation of research data, as well as knowledge of legal aspects and public licenses.

In this area, as well as in ensuring the necessary technical infrastructure, professional activities will be carried out by the infrastructural public research institutions of SAS, primarily the Central Library of SAS, v. v. i., as the operator and administrator of the SAS Institutional Repository, but also by organizational units of the SAS Center of Common Activities.

¹ Foster Open Science 2020, https://openscience.eu/foster-open-science

² For example: UNESCO https://www.unesco.org/en/open-science, Budapest initiative https://www.budapestopenaccessinitiative.org/

³ https://research-and-innovation.ec.europa.eu/strategy/strategy-2020-2024/our-digital-future/open-science en

⁴ https://www.minedu.sk/data/files/10833_narodna-strategia-pre-otvorenu-vedu-na-roky-2021--2028.pdf

1. Publication of scientific works by authors whose employer is a public research institution established by SAS (employee works)

- 1.1. SAS recommends that authors who publish employee works affiliated with a public research institution of SAS, when choosing a publication source (publisher, journal), take into account the need to meet the conditions of open access to publications fully or partially funded from public resources. Employers/authors must refrain from granting consent for such use of the work that would prevent the application of the so-called green route of open access, i.e., prevent the obligation to deposit and simultaneously make openly accessible the employee work in the SAS Institutional Repository in accordance with the Directive on the Institutional Repository of the Slovak Academy of Sciences of 25 June 2020. The Directive on the Institutional Repository of the Slovak Academy of Sciences becomes an integral part of this Open Science Policy.
- 1.2. In the case of concluding license agreements for the publication of a work by third parties, a non-exclusive license should be preferred, and sufficient copyright retained to meet the conditions of open access. Authors are recommended to use an addendum to the publishing agreement⁵, or to agree separately with the publisher on the deposit and conditions of accessibility of the publication in the SAS Institutional Repository.
- 1.3. SAS recommends that employees, when making employee works available in the form of open access, give preference to trustworthy and high-quality journals with full open access. Publishing in an open access journal (OA) does not affect the obligations under the Directive on the Institutional Repository of the Slovak Academy of Sciences.
- 1.4. At the national level, SAS supports the conclusion of transformative agreements (read and publish) with publishers of trustworthy and high-quality journals and encourages authors from SAS to take advantage of the benefits of these agreements.
- 1.5. SAS will monitor the amount and sources of APC (Article Processing Charges) fees for publications that have been paid from the resources of SAS public research institutions.

2. Use of Persistent Identifiers

2.1. SAS requires all researchers to establish and regularly update a permanent and unique ORCID⁶ identifier with a profile visible to the public (*Everyone Visibility*) and imposes the obligation to use it.

3. Periodical Publications

Periodical publications whose publisher or owner is a public research institution established by SAS shall, no later than 31 December 2029, become fully open access journals in their electronic version. The possibility of selling the printed version of the publication is not affected by this.

⁵ https://sparcopen.org/our-work/author-rights/sparc-author-addendum-text/

⁶ https://orcid.org/

- 3.1. Referring to the above, publishers or owners of periodical publications shall:
- a) be obliged to use persistent identifiers for articles (Digital Object Identifier DOI) and for author identification (ORCID),
- b) allow authors to retain adequate proprietary rights to their works to meet open access conditions and shall mandatorily introduce the dissemination of articles under a public license (§ 76 of Act No. 185/2015 Coll. Copyright Act); the use of Creative Commons public licenses is recommended, in particular CC BY 4.0 for journal articles⁷,
- c) in order to support the green route of open access and to define (self)-archiving policy, enable the author immediately after publication to deposit the publisher's version into the institutional repository or another non-commercial repository, and to publicly disseminate the article through such a repository in accordance with the applied CC license, without a time embargo,
- d) make every effort to achieve standards and good practices of open scientific publishing with the aim of registering the journal in the *Directory of Open Access Journals (DOAJ)*⁸,
- e) make every effort to register the (self)-archiving policy of the journal/publisher in Sherpa Romeo⁹,
- f) consider, according to editorial needs, the introduction of open editorial and publishing platforms, such as *Open Journal System*,
- g) in support of ethical principles of scientific publishing and academic integrity, consider the introduction of systems for checking the originality of manuscripts (*similarity check*) and transparent practices in the peer-review process¹⁰,
- h) aim towards the obligation to publish in articles references to related data or metadata on scientific data (under CC BY or CCO license), which are necessary to verify the facts stated in the articles.

4. Non-periodical Publications

Non-periodical publications whose publisher is a public research institution established by SAS, and whose publication is financially supported fully or partially from public resources, shall be mandatorily published in electronic version under the open access regime. In other cases, open access publishing is recommended. The possibility of selling the printed version of the publication is not affected by this.

- 4.1 Referring to the above, publishers of online non-periodical publications shall:
- a) be obliged to use persistent identifiers for books or chapters/contributions (Digital Object Identifier DOI) and for author identification (ORCID),

⁷ https://creativecommons.org/

⁸ https://www.doaj.org/

⁹ https://www.sherpa.ac.uk/romeo/

¹⁰ https://publicationethics.org/peerreview

- b) allow authors to retain adequate proprietary rights to their works to meet open access conditions and shall mandatorily introduce dissemination of the electronic version of the publication under a public license (§ 76 of Act No. 185/2015 Coll. Copyright Act); the use of Creative Commons public licenses is recommended, and for book publications the CC BY NC ND 4.0 license is also permissible,
- c) in order to support the green route of open access and to define (self)-archiving policy, enable the author immediately after publication to deposit the publisher's version or the post-peer-review version of the publication into the institutional repository or another non-commercial repository, and to publicly disseminate the publication through such a repository in accordance with the applied CC license, without a time embargo; in the field of social sciences and humanities, a maximum embargo of 12 months is permissible,
- d) make every effort to achieve standards and good practices of open scientific publishing with the aim of registering the publisher of book publications in the *Directory of Open Access Books*¹¹.

5. Research Data

- 5.1. SAS requires that public research institutions of SAS devote sufficient attention to research data management.
- 5.2. For projects fully or partially funded from the state budget as an institutional form of support, it is recommended to prepare a Data Management Plan, which will become a mandatory element of open science in SAS from 1 January 2027.
- 5.3. For projects fully or partially funded from other public resources, the preparation of a Data Management Plan is governed by the rules of the project's funder.
- 5.4. SAS requires researchers to deposit research data necessary for the validation of results contained in scientific publication outputs, as well as other relevant data, into an open data repository¹², and to make metadata about scientific data (data record) available under a public license (§ 76 of Act No. 185/2015 Coll. Copyright Act); the use of Creative Commons public licenses CC BY or CCO is recommended. Once the SAS Institutional Repository is made available, depositing data into this repository will be required preferentially.
- 5.5. Public research institutions of SAS must, while respecting intellectual property rights and ethical principles, ensure that data are in accordance with the FAIR principles findable, accessible, interoperable, and reusable. Datasets should be marked with persistent identifiers.
- 5.6. The provision of scientific data follows the principle: "as open as possible, as closed as necessary." If research data cannot be made accessible for legitimate reasons (e.g., expectation of commercial use, protection of personal data, privacy, confidentiality, trade secrets, security rules, intellectual property rights), this should be clearly explained in the Data Management Plan. This does not affect the obligation to make metadata about scientific data openly accessible.

¹¹ https://www.doabooks.org/

¹² ZENODO, https://zenodo.org/

5.7. Details on the storage and accessibility of research data will be regulated by an internal regulation issued by the Presidium of SAS.

6. Open IT Tools, Software, Open Source Code

Open Source Software (OSS) is computer software released under one of the open licenses, in which the copyright holder grants other users the rights to use, study, modify, share, and distribute the software, its source code, or design. The selected public license must allow modifications, derivative works, and sharing under the same or compatible conditions.

- 6.1. SAS recommends that researchers maximize the availability of software and source code as much as possible and to the extent necessary, taking into account intellectual property rights, ethical standards, GDPR, and the level of confidentiality within individual projects and contractual collaborations.
- 6.2. SAS recommends using freely accessible repositories for publishing OSS¹³.

7. Open Infrastructure

SAS will support initiatives for sharing research infrastructure owned by public research institutions of SAS and will create conditions for its effective and fair use.

8. Citizen Science

SAS will support citizen science projects with the aim of involving the public in the scientific process, which contributes not only to the popularization of science but also creates an opportunity to build trust between the SAS scientific community and the public.

9. Final Provisions

By 1 January 2027, SAS shall ensure the adjustment of internal regulations of SAS internal grant schemes so that the publication of project outputs is in accordance with this Open Science Policy in SAS.

SAS will gradually introduce evaluation principles that will also encompass the application of good practices in all elements of open science, particularly in the area of fulfilling the SAS Institutional Repository and publishing periodical and non-periodical publications with financial support from SAS central resources, while the competences of the SAS Editorial Board are not affected by this.

This document *Open Science Policy in SAS* was approved by the Presidium of SAS at its meeting on 12 December 2024. The *Open Science Policy in SAS* enters into force on the date of signature and becomes effective on 1 January 2025.

Prof. RNDr. Pavol Šajgalík, DrSc., v. r. President

The document in Slovak is published here: https://uk.sav.sk/prezentacia/spracovatelia/PolitikaOtvorenejVedySAV.pdf

This is a translation using Al.

¹³ GitHub, https://github.com/