



Number: 63100-1/2023/5  
Date: 31. 5. 2023

**Action plan for Open Science**  
for the implementation of  
**Objective 6.2: Open Science to improve the research quality,  
efficiency, and responsiveness**  
of the Resolution on the Slovenian Scientific Research and  
Innovation Strategy 2030 (ReZrIS30)

## LIST OF NAMES and ABBREVIATIONS

ADP	Social Science Data Archive
ARNES	Academic and research network of Slovenia
ARIS	Public agency for scientific research and innovation activity of the Republic of Slovenia
CoARA	Coalition for Advancing Research Assessment
COBISS	Cooperative online bibliographic system and services
COMARC	Format for bibliographic data for COBISS
CTK	Central Technical Library of the University of Ljubljana
dCOBISS	COBISS digital repository
DOI	Digital object identifier
DORA	The Declaration on Research Assessment
EHEA	European Higher Education Area
EOSC	European Open Science Cloud
ERA	European Research Area
FAIR	Findable / Accessible / Interoperable / Reusable
GDI - 1+MG	Genomic Data Infrastructure (GDI) - '1+ Million Genomes'
IZUM	Institute of Information Sciences
JRO	Public research organizations
MVZI	Ministry for Higher Education, Science and Innovation
NAKVIS	National Agency of the Republic of Slovenia for Quality in Higher Education
RRF	Recovery and Resilience Facility
OSIC	Central specialized information center
RDA	Research Data Alliance
ReZrIS30	Resolution on the Slovenian Scientific Research and Innovation Strategy 2030
SICRIS	Information system on research activity in Slovenia
SSOZ	Slovenian Open Science Community
SVIZ	Education, Science and Culture Union of Slovenia
UKM UM	Maribor University Library, University of Maribor
UL	University of Ljubljana
UL MF	University of Ljubljana, Faculty of Medicine
UM FERI	University of Maribor, Faculty of Electrical Engineering, Computer Science and Informatics

## 1. Implementation of Horizontal Objective 6.2: Open Science to improve research quality, efficiency, and responsiveness of the Resolution on the Slovenian Scientific Research and Innovation Strategy 2030 (ReZrIS30).

The Action Plan for Open Science for the implementation of Objective 6.2: Open Science to improve research quality, efficiency, and responsiveness of the Resolution on the Slovenian Scientific Research and Innovation Strategy 2030 (hereinafter referred to as the Action Plan for Open Science) is an implementing document of the Resolution on the Slovenian Scientific Research and Innovation Strategy 2030 (Official Gazette of the Republic of Slovenia, No. 49/22<sup>1</sup>), which is a key strategic document for research and innovation in Slovenia and serves as the basis for shaping research and development policies. It encompasses the main strategic objectives in the field of scientific research and innovation activities. The purpose of the measures under Horizontal Goal 6, Objective 6.2: Open Science to improve research quality, efficiency, and responsiveness within the ReZrIS30 is the proactive implementation of the principles of Open Science. The content of the Action Plan for Open Science is linked to its predecessor, the Action Plan for the implementation of the National Strategy of Open Access to Scientific Publications and Research Data in Slovenia 2015-2020<sup>2</sup>.

## 2. Table 1: ReZrIS30 - Objective 6.2: Open Science to improve research quality, efficiency, and responsiveness

Measure nr.	Description of Measure	Short measure description
M6.2.1	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.	Internationally aligned national Open Science ecosystem.
M6.2.2	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, and ERAC guidelines to increase the quality and impact of research).	Evaluation of scientific research activities in accordance with the Open Science principles.
M6.2.3	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).	Compliance of scientific research results with the FAIR principles and openness.
M6.2.4	Establish a national Open Science community to implement and monitoring Open Science in Slovenia, as well as integration into European Research Area (ERA) and beyond.	National Open Science community.
M6.2.5	Promote the development of citizen science and public involvement in scientific research.	Citizen science
M6.2.6	Promote the development of national scientific publishing that will operate according to the principles of Open Science.	Open access national scientific publishing.

<sup>1</sup> <https://www.gov.si/assets/ministrstva/MIZS/Dokumenti/ZNANOST/Nacionalni-dokumenti/Resolution-on-the-Slovenian-Scientific-Research-and-Innovation-Strategy-2030>

<sup>2</sup> <https://www.gov.si/assets/ministrstva/MIZS/Dokumenti/ZNANOST/Strategije/Akcijski-nacrt-izvedbe-nacionalne-strategije-odprtega-dostopa-do-znanstvenih-objav-in-raziskovalnih-podatkov-v-Sloveniji-2015-2020.pdf>

**3. Action Plan for Open Science for the implementation of Objective 6.2: Open Science to improve the quality, efficiency, and responsiveness of research.**

Table 2: Action plan for Open Science for the implementation of the Resolution on the Scientific Research and Innovation Strategy for Slovenia 2030 - Objective 6.2: Open Science to improve the quality, efficiency, and responsiveness of research.

Nr.	Activity	Indicator	Lead and participants	Start of implementation	End of implementation	Necessary financial resources in EUR for the entire duration of the activity	Funding source
<b>M6.2.1</b>	<b>Internationally aligned national Open Science ecosystem.</b>						
<b>M6.2.1/1</b>	<b>Adaptation of the national Open Science ecosystem to work according to the principles of Open Science.</b>						
	A6.2.1/1.1 Preparation and adoption of the Decree on the implementation of scientific research work in accordance with the principles of Open Science, as a bylaw to the Scientific Research and Innovation Activities Act.	I6.2.1/1.1.1: Decree on the implementation of scientific research work in accordance with the principles of Open Science is adopted by the Government of the Republic of Slovenia.	Government of the Republic of Slovenia, MVZI	2023	2023		
<b>M6.2.1/2</b>	<b>Adaptations in Public Research Organizations (JRO) to operate according to the principles of Open Science.</b>						
	A6.2.1/2.1: Implementation of a project for adaptations in operation of Public Research Organizations (JROs) and Central Technical Library of the University of Ljubljana (CTK) according to the principles of Open Science.	I6.2.1/2.1.1: A properly planned, published, and executed project involving the participation of as many JROs as possible.	MVZI, JRO, CTK	2023	2026	(4.071.720)	RRF (MVZI)
	A6.2.1/2.2: Support to HR development of JROs in the field of support structures necessary for implementing Open Science activities (Data stewards, Data librarians, archivists, and Open Science infrastructure maintainers).	I6.2.1/2.2.1: Stable funding of JROs through the institutional pillar is planned also in terms of implementing this measure. The contracts signed with JROs include necessary HR	MVZI, ARIS, JRO	2026	2030	4.000.000	ARIS

Nr.	Activity	Indicator	Lead and participants	Start of implementation	End of implementation	Necessary financial resources in EUR for the entire duration of the activity	Funding source
		support for carrying out Open Science activities.					
	A6.2.1/2.3: To set up the issues related to the position of "Data steward" (job systematization, career development, inclusion in the collective agreement, salary grade H2 or equivalent for specialized support staff).	I6.2.1/2.3.1: The job position is included in the collective agreement, with a salary grade H2 or equivalent (specialized support staff), and there is clear job systematization and career development.	SVIZ, JRO	2024	2026		
<b>M6.2.1/3</b>	<b>Open Science Infrastructure.</b>						
	A6.2.1/3.1: Establishment of the National Open Science Infrastructure Council to support the development of the national Open Science infrastructure ecosystem. (See: M6.2.4/2).	I6.2.1/3.1.1: National Open Science Infrastructure Council is established.	MVZI, SSOZ (UKM UM, ARNES, IZUM, JRO, SLING)	2023	2023		
	A6.2.1/3.2: Development, maintenance, and operation of the national Open Science infrastructure.	M6.2.1/3.2.1: Operation, maintenance, and further development of the national Open Science infrastructure.	UM FERI, (ARNES, IZUM)	2023	2030	1.800.000	ARIS, MVZI
	A6.2.1/3.3: Upgrading the functionality of the Central Specialized Information Centres for Research Activity (OSIC) in managing researchers' research outputs records in the COBISS.SI system, considering the diversity of research results (besides publications also research data, software, and other outputs).	I6.2.1/3.3: a) International comparative analysis of solutions in this field is made and an action plan for the operation of OSICs is prepared. b) Rules and guidelines for work are adapted	ARIS, IZUM	2023	2025		

Nr.	Activity	Indicator	Lead and participants	Start of implementation	End of implementation	Necessary financial resources in EUR for the entire duration of the activity	Funding source
		along with the associated supporting infrastructure.					
	A6.2.1/3.4: Operation of dCOBISS in accordance with international recommendations, standards, and requirements of ARIS regarding the compliance with open publishing provisions (See also M6.2.1/2.4).	I6.2.1/3.4.1: operation of dCOBISS is aligned with international recommendations (e.g., EOSC), standards, and requirements of ARIS in the Open Science field.	IZUM, UM FERI	2023	2030	Included in the activity M6.2.1/3.2	MVZI
	A6.2.1/3.5: Upgrading the bibliographic records in the COBISS system with metadata about digital objects in accordance with standards that enable FAIR (Findable, Accessible, Interoperable, and Reusable) metadata description of digital objects.	I6.2.1./3.5.1: Expansion of the COMARC metadata schema with data elements that enable FAIR metadata description of digital objects.	IZUM (UM FERI)	2023	2026	Included in the activity M6.2.1/3.2	
	A6.2.1/3.6: Establishment of the Slovenian Open Science Monitor, which will quantitatively demonstrate Slovenia's performance in the field of open access to research publications, data, purpose-built research software, and other relevant digital objects. Taking into account role models in other countries, the monitor will illustrate the level of openness in the Slovenian publicly funded research system. Open access monitoring and analytics will be organized within the dCOBISS application, which will be aligned with the European Union-level Open Science Monitor	I6.2.1/3.6.1: Slovenian Open Science Monitor is established.	MVZI, ARIS IZUM, UM FERI, SSOZ	2023	2024	Included in the activity M6.2.1/3.2	

Nr.	Activity	Indicator	Lead and participants	Start of implementation	End of implementation	Necessary financial resources in EUR for the entire duration of the activity	Funding source
	and compliant with the European Open Science Cloud (EOSC).						
	A6.2.1/3.7: Establishment of a system and processes for the long-term digital preservation of scientific heritage.	I6.2.1/3.7.1: The digital archive for the long-term preservation of digital objects from the national open access infrastructure is established.	UM FERI	2023	2025	Included in the activity A6.2.1/3.2	
	A6.2.1/3.8: Establishment of a national service for assigning persistent digital unique identifiers (DOIs) to digital objects and other digital entities.	I6.2.1/3.8.1: The national service for assigning and coordinating persistent digital unique identifiers (DOIs) to digital objects and other digital entities is established.	UM FERI	2023	2024	Included in the activity A6.2.1/3.2	
	A6.2.1/3.9: The establishment of two separate data centres for long-term storage of research data.	I6.2.1/3.9.1: Two separate data centres for long-term storage of research data are established within the Public Infrastructure Institute ARNES. Both established data repositories for research data are compliant with the provisions of the European Open Science Cloud (EOSC).	ARNES (UM FERI, IZUM)	2023	2026	(11.500.000)	RRF (MVZI)

Nr.	Activity	Indicator	Lead and participants	Start of implementation	End of implementation	Necessary financial resources in EUR for the entire duration of the activity	Funding source
	A6.2.1/3.10: Establishing of a policy for open access of researchers to publicly financed research e-infrastructures.	I6.2.1/3.10.1: Policy for open access of researchers to e-infrastructures is adopted.	MVZI, SSOZ, ARIS, SLING, ARNES, IZUM	2024	2025		
	A6.2.1/3.11: Establishment of a national data repository for Slovenian genomic data based on FAIR principles as part of the GDI (Genomic Data Infrastructure) - +1MG project.	I6.2.1/3.11.1: The genomic data repository and national service node for processing these data are established. The national infrastructure is connected to the European Genomic Infrastructure (GDI).	UL MF, UM FERİ (ARNES, IZUM)	2023	2026	628.000	ARIS, MVZI
	A6.2.1/3.12: Establishment of the AI4SI (Artificial Intelligence for Open Science) ecosystem of cloud services to support Open Science, which is linked with AI support ecosystems at the EU and broader levels.	I6.2.1/3.12.1: The ecosystem of cloud services for artificial intelligence to support Open Science, AI4SI, is established. The ecosystem is linked with adequate ecosystems in the EU and beyond.	IJS, (UM FERİ)	2023	2030	360.000	ARIS, MVZI
<b>M6.2.1/4</b>	<b>Skills and Competencies for Open Science.</b>						
	A6.2.1/4.1: Organization of a network of information support for Open Science to provide coordinated training of researchers in support to FAIR and Open Science in Slovenia.	I6.2.1/4.1.1: The network of information support for Open Science, consisting of training providers and	CTK, UKM UM, UK UP, UK UNG, (JRO)	2023	2030	3.821.600	MVZI, ARIS



Nr.	Activity	Indicator	Lead and participants	Start of implementation	End of implementation	Necessary financial resources in EUR for the entire duration of the activity	Funding source
		ongoing professional support, is established.					
	A6.2.1/4.2: Establishment of professional support for addressing copyright and ethical issues in research work within the context of Open Science.	I6.2.1/4.2.1: The professional support for ethical and copyright issues is established.	CTK, UKM UM, UK UP, (JRO)	2023	2030	1.404.000	MVZI
	A6.2.1/4.3: Online training for handling open (FAIR) research data for the needs of JROs.	I6.2.1/4.3.1: An educational website is established as a service utilizing ARNES infrastructure and support.	UL, ADP, (ARNES)	2023	2030	420.000	ARIS, MVZI
	A6.2.1/4.4: Promotion of Slovenian science in the context of Open Science principles.	I6.2.1/4.4.1: Innovative communication activities established for the promotion of Slovenian science are established.	CTK, UKM UM, UK UP, (JRO)	2023	2030	See; K6.2.5/1.6.1	
	A6.2.1/4.5: Conducting courses for researchers in the field of open source.	I6.2.1/4.5.1: A training program is developed, and the training sessions are being conducted. The educational materials are being published online.	IZUM, ARNES, (SSOZ)	2023	2030		
<b>M6.2.2</b>	<b>Evaluation of scientific research activities in accordance with the principles of Open Science.</b>						
<b>M6.2.2/1</b>	<b>Changes and amendments to ARIS regulations.</b>						
	A6.2.2/1.1: Adaptation of ARIS and their terms of funding for research activities, considering the Decree on the Implementation of Scientific Research Work in Accordance with the	I6.2.2/1.1.1: Amended and changed regulations and calls of ARIS.	ARIS, (SSOZ)	2023	2024		

Nr.	Activity	Indicator	Lead and participants	Start of implementation	End of implementation	Necessary financial resources in EUR for the entire duration of the activity	Funding source
	Principles of Open Science (I6.2.1./1.1.1), as well as related policies and recommended/good practices of ERA for the evaluation and assessment of research activities.						
<b>M6.2.2/2</b>	<b>Changes and amendments to NAKVIS regulations.</b>						
	A6.2.2/2.1: Adjustments in the regulations of the National Agency for Quality in Higher Education - NAKVIS, considering the Decree on the Implementation of Scientific Research Work in Accordance with the Principles of Open Science (I6.2.1./1.1.1) and related policies and recommended/good practices of ERA and EHEA for the evaluation and assessment of scientific research and educational activities.	I6.2.2/2.1.1: Amended and changed regulations and calls of NAKVIS.	NAKVIS, (SSOZ)	2023	2024		
<b>M6.2.2/3</b>	<b>Changes and amendments to the regulations/criteria of JROs.</b>						
	A6.2.2/3.1: Amendments and changes to the regulations/criteria of JROs for the elections to academic titles of university professors, university associates, and research titles, considering the revised national regulations and related policies and recommended/good practices of ERA, EHEA, and beyond, for the evaluation and assessment of scientific research and educational activities.	I6.2.2/3.1.1: Amended and changed regulations/criteria in JROs.	JRO	2023	2026		Activities will be eligible for funding in accordance with the rules of the public call RRF - project A6.2.1./2.1
<b>M6.2.2/4</b>	<b>Incentives for Engagement in Open Science</b>						
	A6.2.2/4.1: Amending internal regulations/criteria of the JROs in line with the recommendations/best practices ERA and EHEA regarding the evaluation and	I6.2.2/4.1.1: Amended and changed regulations/criteria in JROs.	JRO	2023	2026		Activities will be eligible for funding in accordance

Nr.	Activity	Indicator	Lead and participants	Start of implementation	End of implementation	Necessary financial resources in EUR for the entire duration of the activity	Funding source
	assessment of the work of researchers, university professors, and staff (for the purposes of recruitment, career advancement, determination of monthly or annual performance, etc.) with the aim of promoting the implementation of Open Science principles.						with the rules of the public call RRF - project A6.2.1./2.1
	A6.2.1/4.2: Support for early-career researchers to encourage engagement in Open Science (promoting the practice of Open Science through procedures for obtaining a doctoral degree, implementing activities to acquire knowledge and skills for Open Science among early-career researchers, establishing a scheme to identify and recognize early-career researchers who have achieved notable results in the field of Open Science).	I6.2.2./4.2.1: An activity plan is developed, and its implementation is ensured until 2030 (until 2026, funded by RRF - project: A6.2.1./2.1, later by other relevant sources as defined in the activity plan).	JRO, SSOZ, ARIS, MVZI	2023	2025		Activities will be eligible for funding in accordance with the rules of the public call RRF - project A6.2.1./2.1
<b>M6.2.2/5</b>	<b>Engagement in ERA and EHEA Activities, related to the reform of research assessment in accordance with the principles of Open Science.</b>						
	A6.2.2/5.1: Encouragement to JROs and other relevant institutions to join the CoARA coalition and establishment of a national consortium to support the implementation of changes in the evaluation of scientific research work, following the provisions of CoARA and the best practices of ERA and EHEA.	I6.2.2/5.1.1: Promotional as well as professionally directed mutual learning activities, and dissemination of best practices, supported by mechanisms developed within CoARA. Establishment of a national consortium.	ARIS, SSOZ, MVZI	2023	2030		

Nr.	Activity	Indicator	Lead and participants	Start of implementation	End of implementation	Necessary financial resources in EUR for the entire duration of the activity	Funding source
<b>M6.2.3</b>	<b>Compliance of scientific research results with the FAIR principles and openness.</b>						
<b>M6.2.3/1</b>	<b>Incentives to support the implementation of Open Science.</b>						
	A6.2.3/1.1: Creating incentives for JROs to implement Open Science principles at various areas of research and education (open access to research outputs, open research data, data sharing, etc.) in line with best practices of public research funders within ERA and beyond.	I6.2.3/1.1.1: The call conditions for co-financing research projects or scientific research activities consider the costs of open access to scientific publications, research data, and other research results, including the preparation of a Research Data Management Plan and sharing of research results, as eligible costs.	ARIS				
		I6.2.3/1.1.2: Incentives for research projects are created to: - Openly publish significant research results of prior research that are currently not openly available. - Promote the use of existing open access research results (international and interdisciplinary use of research results).	ARIS				

Nr.	Activity	Indicator	Lead and participants	Start of implementation	End of implementation	Necessary financial resources in EUR for the entire duration of the activity	Funding source
<b>M6.2.3/2</b>	<b>Open Access to Peer-reviewed Scientific Publications/Research Results.</b>						
	A6.2.3/2.1: Renovation and update of the system for co-financing the purchase of international scientific journals to enable contracting of transformative consortium agreements during a transitional period and later on contracting the consortium agreements for open access publishing in gold journals and open access publishing platforms.	I6.2.3/2.1.1: A renewed system of co-financing the purchase of international scientific journals has been established.	ARIS	2023	2025		
	A6.2.3/2.2: Ensuring funds for financing article processing charges (APCs) in the case of publications in gold journals, open access publishing platforms, publications in journals covered by transformative agreements where authors are not employed by institutions, members of consortia with transformative agreements, and journals where publishers do not offer transformative agreements.	I6.2.3/2.2.1: The renewed public call for reimbursement of costs for scientific publications in gold open access.	ARIS	2023	2025		
	A6.2.3/2.3: Increasing the proportion of scientific publications and research data published in open access that arise from publicly funded research.	I6.2.3/2.3: 100% of scientific publications and research data sets (that are co-funded by public sources at a rate of 50% or more and do not fall under exceptions regarding open access) openly published according to FAIR principles.	JRO	2023	2027		

Nr.	Activity	Indicator	Lead and participants	Start of implementation	End of implementation	Necessary financial resources in EUR for the entire duration of the activity	Funding source
	A6.2.3/2.4: All funding instruments for scientific research activities financed by the public budget must require immediate open access to all peer-reviewed scientific publications, research data, software, and other digital objects, along with a Data Management Plan.	I6.2.3/2.4.1: Revised funding instruments for scientific research activities in accordance with the Decree on the Implementation of Scientific Research Work in Accordance with the Principles of Open Science (I6.2.1/1.1.1).	ARIS, (MVZI)	2023	2024		
	A6.2.3/2.5: Amendment of regulations and organizational instructions of JROs and other stakeholders, to ensure open access to all types of scientific publications or digital objects.	I6.2.3/2.5.1: Regulations and organizational instructions to ensure open access to all types of scientific publications or digital objects by all stakeholders are adopted.	JRO	2023	2025		Activities will be eligible for funding in accordance with the rules of the public call RRF - project A6.2.1./2.1
	A6.2.3/2.6: Supplements in the typology of documents for managing bibliographies in the COBISS system for all types of digital objects.	I6.2.3/2.6.1: The supplemented typology of documents.	ARIS	2023	2025		
	A6.2.3/2.7: Upgrading the processes of the national open access infrastructure to ensure FAIR-compliant open access publishing of digital objects throughout all stages of the research lifecycle.	I6.2.3/2.7.1: Processes for open publishing, based on principles for managing FAIR digital objects are established.	UM FERİ, ARIS, JRO, SSOZ	2023	2026	Included in A6.2.1/3.2	
	A6.2.3/2.8: Establishing a system of open peer reviews in the repositories of the national open access infrastructure.	I6.2.3/2.8.1: Processes to support open peer review in the	UM FERİ	2024	2025	Included in A6.2.1/3.2	

Nr.	Activity	Indicator	Lead and participants	Start of implementation	End of implementation	Necessary financial resources in EUR for the entire duration of the activity	Funding source
		repositories of the national open access infrastructure are established.					
	A6.2.3/2.9: Agreement between ARIS and ORE (Open Research Europe, open access publishing platform), enabling Slovenian researchers to openly publish scientific publications resulting from ARIS-funded scientific research activities.	I6.2.3/2.9.1: An appropriate agreement has been concluded, and the associated funding for the service has been ensured.	ARIS (MVZI)	2023	2025 (according to ORE deadlines)		ARIS
<b>M6.2.3/3</b>	<b>Open Research Data</b>						
	A6.2.3/3.1: Selection and evaluation of research data (the system, defining the content of a research Data Management Plan, criteria for evaluating and selecting research data for submission to a data centre or other appropriate infrastructure).	I6.2.3/3.1.1: General criteria and procedure for evaluating research data across all scientific disciplines have been adopted.	ARIS	2023	2025		
	A6.2.3/3.2: Development and maintenance of the data services ecosystem.	I6.2.3/3.2.1: Short-term and long-term financial resources and an organizational framework for the sustainable operation of the data services ecosystem have been ensured.	Regional data centres, UM FERİ	2023	2023	Included in A6.2.1/3.2 for repositories and data archives serviced by UM FERİ	

Nr.	Activity	Indicator	Lead and participants	Start of implementation	End of implementation	Necessary financial resources in EUR for the entire duration of the activity	Funding source
	A6.2.3/3.3: Establishment of a tool for creating machine-readable research Data Management Plans, connected to the Slovenian Information System for Research Activities (SICRIS).	I6.2.3/3.3.1: Machine-readable tool for preparing research Data Management Plans has been provided.	UM FERI, IZUM, ARIS	2023	2024	Included in A6.2.1/3.2 for services provided by UM FERI	
	A6.2.3/3.4: Organization of an effective support for research data management at JROs.	I6.2.3/3.4.1: JROs have effectively organized and trained data support services, and public funds are ensured for their operation.	JRO, ARIS, SSOZ	2023	2030	Included in A6.2.1/4.1	Funding for some of activities will be available by the RRF project until 2026 A6.2.1./2.1.
	A6.2.3/3.5: Support for the operation of the RDA Node Slovenia.	I6.2.3/3.5.1: Conditions for the long-term, sustainable, and financially stable operation of the RDA Node have been ensured.	ADP	2023	2030	280.000	ARIS, MVZI
<b>M6.2.3/4</b>	<b>Other open digital objects</b>						
	A6.2.3/4.1: Upgrading the infrastructure of Open Science (repositories) with processes for storing and archiving software, workflows, containers, educational and multimedia materials, and streaming content.	I6.2.3/4.1.1: A system for storing and archiving software, workflows, containers, educational and multimedia materials, and streaming content is established.	UM FERI	2023	2025	Included in A6.2.1/3.2	



Nr.	Activity	Indicator	Lead and participants	Start of implementation	End of implementation	Necessary financial resources in EUR for the entire duration of the activity	Funding source
<b>M6.2.4</b>	<b>National Open Science community.</b>						
<b>M6.2.4/1</b>	<b>Identification of Open Science Stakeholders</b>						
	A6.2.4/1.1: Identification of Open Science stakeholders (JROs, research infrastructures, e-infrastructures, libraries, computing centres, service providers for researchers, European and international RI initiatives, etc.) in Slovenia, who play a significant role in the implementation and development of Open Science.	I6.2.4/1.1.1: List of Open Science stakeholders in Slovenia.	UKM UM, (ARNES, SSOZ)	2023	2023		
<b>M6.2.4/2</b>	<b>Establishment of the Slovenian Open Science Community - SSOZ</b>						
	A6.2.4/2.1: Agreement on collaboration in the field of Open Science - national initiative for the European Open Science Cloud - EOSC.	I6.2.4/2.1.1: Agreement on collaboration with Open Science stakeholders in Slovenia. Inaugural meeting of Open Science stakeholders in Slovenia.	MVZI, SSOZ (UKM UM, ARNES, JRO)	2023	2023		
	A6.2.4/2.2: Connecting the Slovenian research community with the European Open Science Cloud - EOSC and representing Slovenia in the EOSC Association.	A6.2.4/2.1.2: Representative to the Governing Board of the EOSC Association appointed, mechanisms for informing research organisations established.	ARNES, SSOZ, MVZI	2023	2030		
	A6.2.4/2.3: Establishment of a coordinating body (National Open Science Infrastructure Council, which will act as the governing body of the Slovenian Open Science Community)	I6.2.4/2.3.1: Coordinating body (National Open Science Infrastructure Council)	SSOZ	2023	2023		

Nr.	Activity	Indicator	Lead and participants	Start of implementation	End of implementation	Necessary financial resources in EUR for the entire duration of the activity	Funding source
	and collaboration with the Ministry of Higher Education, Science and Innovation (MVZI) in terms of coordinating activities at the national level.	established. Rules of the Slovenian Open Science Community (SSOZ) regarding collaboration with the Ministry of Higher Education, Science and Innovation (MVZI) in coordinating activities at the national level, adopted.					
	A6.2.4/2.4: Appointment of permanent and ad hoc expert bodies of the Slovenian Open Science Community (SSOZ).	I6.2.4/2.4.1: Permanent and ad hoc expert bodies established.	SSOZ	2023	2030		
	A6.2.4/2.5: Open Science Observatory.	I6.2.4/2.5.1: Regular monitoring of Open Science developments. Collaboration in monitoring Open Science at the EU level, in line with EOSC and ERA. Collaboration with the National Observatory for Artificial Intelligence.	SSOZ (MVZI, UKM UM, ARNES, IZUM)	2023	2030		
<b>M6.2.4/3</b>	<b>Ongoing professional and administrative support to SSOZ</b>						
	A6.2.4/3.1: Establishment of permanent professional and administrative support to SSOZ and sustainable funding for the national community.	I6.2.4/3.1.1: Professional and administrative support established, and funding ensured.	UKM UM	2023	2030	410.000	MVZI

Nr.	Activity	Indicator	Lead and participants	Start of implementation	End of implementation	Necessary financial resources in EUR for the entire duration of the activity	Funding source
	A6.2.4/3.2: Establishment and maintenance of a SSOZ catalogue of national services, RIs, and other tools, as well as educations and trainings in open access.	I6.2.4/3.2.1: Updated SSOZ catalogue.	UKM UM	2023	2030	200.000	MVZI
	A6.2.4/3.3: Inclusion of national services, RIs, and other tools in open access into the catalogue of the European Open Science Cloud (EOSC).	K6.2.4/3.3.1: Services, RIs, and tools included into the EOSC catalogue.	UKM UM	2023	2030	See; A6.2.4/3.2	
<b>M6.2.5</b>	<b>Citizen science.</b>						
<b>M6.2.5/1</b>	<b>Observatory of Citizen Science</b>						
	A6.2.5/1.1: Establishment and operation of the national observatory of citizen science.	I6.2.5/1.1.1: The observatory is established and operational.	CTK	2023	2030	410.000	MVZI
	A6.2.5/1.2: Collaboration of the national observatory with other related European and international observatories of citizen science (COs).	I6.2.5/1.2.1: The national observatory is officially involved and collaborates within one of the European CO networks.	CTK	2023	2025	Included in A6.2.5/1.1.	MVZI
	A6.2.5/1.3: Inclusion and participation of the national observatory in European projects or providing support for the involvement of other citizen science actors in European projects (e.g., Horizon Europe).	I6.2.5/1.3.1: The national observatory or other actors participate as partners in at least one European project (e.g., Horizon Europe).	CTK	2023	2030	Included in A6.2.5/1.1.	MVZI

Nr.	Activity	Indicator	Lead and participants	Start of implementation	End of implementation	Necessary financial resources in EUR for the entire duration of the activity	Funding source
	A6.2.5/1.4: Establishment and operation of a citizen science network in Slovenia called citizenscience.si.	I6.2.5/1.4.1: The network is established, a functioning web portal is in place, and a system for promoting and training in citizen science is established.	CTK	2023	2030	Included in A6.2.5/1.1.	MVZI
	A6.2.5/1.5: Inventory of existing projects, initiatives, practices, and research infrastructure (RI) in the field of citizen science in the Republic of Slovenia.	I6.2.5/1.5.1: Projects and initiatives in citizen science are identified and regularly updated, and an inventory of RIs that can provide space or equipment to support citizen science is performed.	CTK	2023	2030	Included in A6.2.5/1.1.	MVZI
	A6.2.5/1.6: Support for the development of citizen science within the framework of the Open Science Information Support Network.	I6.2.5/1.6.1: Support for the development of citizen science is established.	UKM UM, UK UP, UK UNG, (JRO)	2023	2030	615.000	MVZI, ARIS
<b>M6.2.5/2</b>	<b>Incentives for Incorporating Citizen Science into Scientific Research Process</b>						
	A6.2.5/2.1: Designing incentives for JROs to integrate citizen science into various areas of scientific research in line with best practices of public research funders within the ERA and beyond.	I6.2.5/2.1.1: The call conditions for co-financing research projects or scientific research activities consider the costs of incorporating citizen science as eligible costs.	MVZI, ARIS	2023	2030		MVZI, ARIS

Nr.	Activity	Indicator	Lead and participants	Start of implementation	End of implementation	Necessary financial resources in EUR for the entire duration of the activity	Funding source
	A6.2.5/2.2: Preparation and publication of a targeted public call for citizen science that will provide funding and support for the implementation of various citizen science projects.	I6.2.5/2.2.1: Open call for citizen science has been published, implemented, and evaluated.	MVZI, ARIS	2023	2030	2.000.000	ARIS, MVZI
	A6.2.5/2.3: Promotion of citizen science within the scientific research community (among JROs), particularly among doctoral candidates and in the wider society.	I6.2.5/2.3.1: JROs are actively engaged in citizen science. They appropriately recognize and value citizen science in internal processes, in line with research autonomy.	MVZI, CTK, ARIS, JRO	2023	2030		MVZI, ARIS (Funding for some of activities will be available by the RRF project until 2026 A6.2.1./2.1.)
	A6.2.5/2.4: Development, publication, and dissemination of guidelines or a user manual for citizen science, as well as conducting training for practitioners in the field.	I6.2.5/2.4.1: User manual published and at least three training sessions conducted.	CTK	2023	2025		MVZI, ARIS
	A6.2.5/2.5: Design and organization of an annual citizen science event that brings together national stakeholders, facilitates the transfer of best practices from other countries, and strengthens the collaboration of the national network with other actors in Europe and worldwide.	K6.2.5/2.5.1: The annual event is designed and conducted on a yearly basis, with increasing national and international participation.	MVZI, CTK	2023	2030	35.000	MVZI, ARIS
<b>M6.2.6</b>	<b>Open access national scientific publishing.</b>						
<b>M6.2.6/1</b>	<b>National Contact Point for Scholarly Publishing</b>						
	A6.2.6/1.1: Establishment and operation of the National Contact Point for the development of national open access scholarly publishing.	I6.2.6/1.1.1: The National Contact Point has been established and is operational.	UK UP	2023	2030	410.000	MVZI

Nr.	Activity	Indicator	Lead and participants	Start of implementation	End of implementation	Necessary financial resources in EUR for the entire duration of the activity	Funding source
<b>M6.2.6/2 The establishment of the Slovenian network of scientific publishers.</b>							
	A6.2.6/2.1: Establishment of the Slovenian network of scholarly publishers advocating for Open Science.	I6.2.6/2.1.1: The Slovenian network of scholarly publishers has been established.	UK UP, JRO (science publishers)	2023	2025	See; A6.2.6/1.1	
		I6.2.6/2.1.2: Establishment of a joint portal for scientific books and scientific journals.	UK UP, JRO (science publishers)	2023	2025	See; A6.2.6/1.1 in	
<b>M6.2.6/3 Implementation of diamond open access in national scientific publishing.</b>							
	A6.2.6/3.1: Support for a publishing business model that does not rely on article processing charges (APCs) - diamond open access.	I6.2.6/3.1.1: Adoption of open access policies that introduce the diamond business model of open access.	UK UP, JRO (science publishers)	2024	2030		(Funding for some of activities will be available by the RRF project until 2026 A6.2.1./2.1.)
<b>M6.2.6/4 Development and innovation in the field of national scientific publishing.</b>							
	A6.2.6/4.1: Development of a strategy for scientific/academic publishing.	I6.2.6/4.1.1: Established advanced guidelines for scientific publishing.	UK UP, JRO (science publishers)	2023	2026		
	A6.2.6/4.2: Development of scientific publishing within institutional repositories.	I6.2.6/4.2.1: Established aggregation of articles from scientific journals and other publications into the national open access infrastructure and other aggregators.	UM FERi; Participating: JRO (science publishers)	2023	2030		

Nr.	Activity	Indicator	Lead and participants	Start of implementation	End of implementation	Necessary financial resources in EUR for the entire duration of the activity	Funding source
		I6.2.6/4.2.2: Display of metadata for individual journal articles in the publisher's repository or institutional author repository is established; tracking access and download statistics for articles are managed.	UM FERI; Participating: JRO (science publishers)	2023	2030		
<b>M6.2.6/5</b>	<b>Changes and Amendments to ARIS Regulations for Publishing.</b>						
	A6.2.6/5.1: Adaptation of ARIS regulations and calls for co-financing scientific monographs and journals.	I6.2.6/5.1.1: Mandatory open access publication of articles and monographs that are co-financed from public sources in accordance with the Scientific Research and Innovation Activities Act (ZZrID) and the Decree on the Implementation of Scientific Research Work in Accordance with the Principles of Open Science (I6.2.1/1.1.1).	ARIS	2023	2030		

Nr.	Activity	Indicator	Lead and participants	Start of implementation	End of implementation	Necessary financial resources in EUR for the entire duration of the activity	Funding source
		I6.2.6/5.1.2: Revised criteria for the inclusion of scientific publishers, which are considered in the categorization of scientific publications, on the ARIS list.	ARIS OSIC	2023	2024		



**Table 3:** Consolidated overview of the estimated necessary budgetary financial resources in EUR for the implementation of Action Plan Objective 6.2 "Open Science for Improving the Quality, Efficiency, and Responsiveness of Research 2021-2030," by measures and implementing entities:

Measure/Activity	Lead	Total budget in EUR	Budget per year, per lead in EUR							
			2023	2024	2025	2026	2027	2028	2029	2030
A6.2.1/2.2: Support to HR development of JROs in the field of support structures necessary for implementing Open Science activities (Data stewards, Data librarians, archivists, and Open Science infrastructure maintainers).	MVZI, ARIS, JRO	4.000.000				800.000	800.000	800.000	800.000	800.000
A6.2.1/3.2: Development, maintenance, and operation of the national Open Science infrastructure.	UM FERI	1.800.000	225.000	225.000	225.000	225.000	225.000	225.000	225.000	225.000
A6.2.1/3.11: Establishment of a national data repository for Slovenian genomic data based on FAIR principles as part of the GDI (Genomic Data Infrastructure) - +1MG project.	UL MF	628.000	91.578	91.578	91.578	91.578				
	UM FERI		65.422	65.422	65.422	65.422				
A6.2.1/3.12: Establishment of the AI4SI (Artificial Intelligence for Open Science) ecosystem of cloud services to support Open Science, which is linked with AI support ecosystems at the EU and broader levels.	IJS	360.000	45.000	45.000	45.000	45.000	45.000	45.000	45.000	45.000
<b>Measure/Activity</b>	<b>Lead</b>	<b>Total budget in EUR</b>	<b>Budget per year, per lead in EUR</b>							

			2023	2024	2025	2026	2027	2028	2029	2030
A6.2.1/4.1: Organizing a network of information support for Open Science to provide coordinated training for researchers in support to FAIR and Open Science in Slovenia.	CTK	3.821.600	105.900	105.900	145.900	155.900	155.900	165.900	165.900	165.900
	UKM UM		105.900	105.900	145.900	155.900	155.900	165.900	165.900	165.900
	UK UP		105.900	105.900	145.900	155.900	155.900	165.900	165.900	165.900
	UK UNG		40.000	40.000	40.000	40.000	40.000	40.000	40.000	40.000
A6.2.1/4.2: Establishment of professional support for addressing copyright and ethical issues in research work within the context of Open Science.	CTK	1.404.000	58.500	58.500	58.500	58.500	58.500	58.500	58.500	58.500
	UKM UM		58.500	58.500	58.500	58.500	58.500	58.500	58.500	58.500
	UK UP		58.500	58.500	58.500	58.500	58.500	58.500	58.500	58.500
A6.2.1/4.3: Online training for handling open (FAIR) research data for the needs of JROs.	UL	420.000	35.000	35.000	35.000	35.000	35.000	35.000	35.000	35.000
	ADP		17.500	17.500	17.500	17.500	17.500	17.500	17.500	17.500
A6.2.3/3.5: Support for the operation of the RDA Node Slovenia.	ADP	280.000	35.000	35.000	35.000	35.000	35.000	35.000	35.000	35.000
A6.2.4/3.1: Establishment of permanent professional and administrative support to SSOZ and sustainable funding for the national community.	UKM UM	410.000	43.550	43.550	51.250	51.250	51.250	51.250	58.950	58.950
A6.2.4/3.2: Establishment and maintenance of a SSOZ catalogue of national services, RIs, and other tools, as well as educations and trainings in open access.	UKM UM	200.000	25.000	25.000	25.000	25.000	25.000	25.000	25.000	25.000
Measure/Activity	Lead	Total budget in EUR	Budget per year, per lead in EUR							
			2023	2024	2025	2026	2027	2028	2029	2030

A6.2.5/1.1: Establishment and operation of the national observatory of citizen science.	CTK	410.000	51.250	51.250	51.250	51.250	51.250	51.250	51.250	51.250
A6.2.5/1.6: Support for the development of citizen science within the framework of the Open Science Information Support Network.	UKM UM	615.000	25.625	25.625	25.625	25.625	25.625	25.625	25.625	25.625
	UK UP		25.625	25.625	25.625	25.625	25.625	25.625	25.625	25.625
	UK UNG		25.625	25.625	25.625	25.625	25.625	25.625	25.625	25.625
A6.2.5/2.2: Preparation and publication of a targeted public call for citizen science that will provide funding and support for the implementation of various citizen science projects.	MVZI, ARIS	2.000.000		280.000	280.000	280.000	280.000	280.000	280.000	320.000
<b>Measure/Activity</b>	<b>Lead</b>	<b>Total budget in EUR</b>	<b>Budget per year, per lead in EUR</b>							
			<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>

A6.2.5/2.5: Design and organization of an annual citizen science event that brings together national stakeholders, facilitates the transfer of best practices from other countries, and strengthens the collaboration of the national network with other actors in Europe and worldwide.	MVZI, CTK	35.000	4.375	4.375	4.375	4.375	4.375	4.375	4.375	4.375	4.375
A6.2.6/1.1: Establishment and operation of the National Contact Point for the development of national open access scholarly publishing.	UK UP	410.000	51.250	51.250	51.250	51.250	51.250	51.250	51.250	51.250	51.250
<b>Total budget per year in EUR</b>			1.300.000	1.580.000	1.707.700	2.537.700	2.380.700	2.410.700	2.418.400	2.458.400	
<b>Total budget for Action plan for Open Science for the implementation of Objective 6.2: Open Science to improve the research quality, efficiency, and responsiveness of the Resolution on the Slovenian Scientific Research and Innovation Strategy for 2030</b>				<b>16.793.600</b>							