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OPEN SCIENCE STRATEGY OF *NICOLAE TESTEMITANU* STATE UNIVERSITY OF MEDICINE AND PHARMACY OF THE REPUBLIC OF MOLDOVA FOR THE PERIOD 2021-2026



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INTRODUCTION

Nicolae Testemitanu State University of Medicine and Pharmacy of the Republic of Moldova (hereinafter *Nicolae Testemitanu* University) recognizes the strategic importance of Open Science in the context of ensuring performance in research and innovation and dissemination of scientific knowledge in the spirit promoted by Budapest Open Access Initiative, 2002; Bethesda Statement on Open-Access Publishing, 2003; Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities, 2003; European Union Recommendations 2018/790 of 25 April 2018 on access to and preservation of scientific information; "Plan S" on Open Access; Open Access Initiative, 2020; Code on Science and Innovation of the Republic of Moldova, 2004; *Moldova 2030* National Development Strategy; National roadmap for the integration of the Republic of Moldova into the European Research Area for 2019-2021; National program in the fields of research and innovation for the years 2020-2023; Mandatory principles on public access to research results funded by the European Research Council, 2008, European Union Commission Recommendation of 25 April 2018 on access to and preservation of scientific information.

By approving the Strategy for Strengthening the Research and Innovation Field at *Nicolae Testemitanu* State University of Medicine and Pharmacy for the period 2020-2030, the Action Plan on its implementation (Senate Decision no. 5/1 of 28.05.2020) and the Corrective Action Plan for the adjustment of the implementation of the Human Resources Strategy for Researchers to the requirements of *Excellence in Human Resources in Research* logo (Senate Decision No. 4/7 of 23.04.2020), the institution aims to carry out a set of coordinated actions, which would contribute to the creation of a favorable environment for increasing the efficiency, relevance and national and international competitiveness of the research and innovation activity at *Nicolae Testemitanu* University, including for the implementation of Open Science principles.

The general objective of the Strategy for Strengthening the Research and Innovation Field at *Nicolae Testemitanu* State University of Medicine and Pharmacy for the period 2020-2030 provides for the adjustment of research and innovation to contemporary requirements in terms of organization, infrastructure, management of research processes and research itself, as well as ensuring University's competitiveness in these areas nationally and internationally, as an institution where medical education is achieved through research, the level of research in medicine and health corresponds to European rigors, and research subdivisions are part of regional and international networks of scientific values and technology transfer in accordance with the principles of Open Science.

The university has a considerable scientific potential: 12 academicians and corresponding members of the Academy of Sciences of Moldova, 177 Doctors Habilitated in medical, pharmaceutical and biological sciences, 558 doctors of sciences, 308 researchers, 1268 scientific-teaching staff members, 313 doctoral students and 5763 students. Capitalizing on human potential (scientific, didactic), as well as encouraging, supporting and developing academic skills represents a very important opportunity for the development of research and innovation based on Open Science principles.

According to international initiatives, open access seeks to grant free, permanent and unlimited online access to information. Open access to publicly funded scientific results, exercised in a correct form, pursuant to ethical criteria of scientific research, is granted to any user who wishes to read, download, copy, distribute, print, search or refer to the full texts of these articles, browse them for indexing, pass them as software data or use them for any legal purpose without any financial, legal or technical barrier. The only limitation on reproduction or distribution, as well as the sole role of copyright in this area, should reside in giving authors control over the integrity of their work with the right to be recognized and cited in an appropriate manner.

(https://www.budapestopenaccessinitiative.org/boai10/boai-romanian-translation)

The university supports national and international initiatives on open access to information, promotes its movement and benefits within the university community. In this context, as of July 13, 2021 *Nicolae Testemitanu* University is among the signatories of Berlin Declaration under number 694 (Senate Decision no. 6/14 of June 27, 2021, https://openaccess.mpg.de/319790/Signatories).

The elimination of access barriers to scientific publications developed at *Nicolae Testemitanu* University will lay the foundation for effective scientific communication and will increase both the visibility and the impact of research in the context of social responsibility.

I. CURRENT SITUATION, IDENTIFIED PROBLEMS AND GENERAL TRENDS AT INSTITUTIONAL LEVEL

I.1. Evolution of Open Access

Supporting open access to information was a first step in the implementation of Open Science at *Nicolae Testemitanu* University. Since 2011, the University has been actively involved in the organization of the International Open Access Week, a global event that promotes Open Access as a new norm in training and research. In this context, the Health Sciences Library of *Nicolae Testemitanu* University annually organizes an extensive program of activities aimed at informing and promoting Open Access to information, for the country's medical scientific community. At the same time, the opinion of the University researchers regarding the Open Access Initiative was evaluated. The summative evaluation of questionnaires allowed the identification of essential factors that motivate researchers in their research activity: increased visibility in the international scientific community, prestige and career development. It is gratifying to see that most researchers support the Open Access to Information Initiative and are willing to place research results in open access.

In order to regulate the process of organization and functioning of the Institutional Repository, a set of documents has been developed:

1. Open Access Policy of Nicolae Testemitanu State University of Medicine and Pharmacy of the Republic of Moldova (approved by the Minutes of Senate meeting No. 1/4 of 24.03.2016; updated and approved by Senate Decision No. 8/18 of 23.09.2021)

- https://library.usmf.md/sites/default/files/inlinefiles/Politica%20institutionala%20AD%20%281%29_0.pdf (Ro)
- https://library.usmf.md/sites/default/files/inlinefiles/Open%20Access%20Policy_2.pdf (En)
- https://www.usmf.md/sites/default/files/2021-10/POLITICA%20privind%20AD_2021.pdf (23.09.2021_RO)
- https://www.usmf.md/sites/default/files/2021-10/Open%20Access%20Policy_Nicolae%20Testemitanu%20University_2021.pdf (23.09.2021_EN)

The institutional policy has been registered in the international Registry of Open Access Repository Mandates and Policies (ROARMAP) (http://roarmap.eprints.org/1054).

2. Regulation on the Organization and Functioning of the Repository of Nicolae Testemitanu State University of Medicine and Pharmacy of the Republic of Moldova (approved by the Minutes of Senate meeting No. 1/4 of 24.03.2016; updated and approved by Senate Decision No. 8/19 of 23.09.2021)

- https://library.usmf.md/sites/default/files/inlinefiles/Regulamentul%20Repozitoriului%20Institutional_1.pdf
- https://www.usmf.md/sites/default/files/2021-10/Regulamentul%20RI_2021.pdf (23.09.2021_RO)
- https://www.usmf.md/sites/default/files/2021-10/Regulation%20of%20IR_Nicolae%20Testemitanu%20University_2021.pdf (23.09.2021_EN)

3. Declaration regarding the archiving of publications in Nicolae Testemitanu University's Repository

<u>https://library.usmf.md/sites/default/files/inline-files/Acord%20declaratie_2.pdf</u> 4.Guide for archiving publications in the Institutional Repository, 2016,

https://library.usmf.md/sites/default/files/inline-

files/ghid_de_arhivare_a_documentelor_in_RI%20%281%29.pdf

The guide has been developed in order to facilitate the archiving of publications in the Repository for both librarians and authors. It reflects the technological process of creating and updating document metadata, determines the minimum level of metadata, explains step by step how to fill out each description field.

In order to manage, preserve and ensure operational and efficient access to the digital contents of institutional scientific production, as well as increase visibility in the global academic space, the University has undertaken actions to mobilize its community to promote the Open Access Movement. The implementation of TEMPUS project Modern Information Services for Improving Study Quality (MISISQ) constitutes a development in promoting and archiving the scientific results of *Nicolae Testemitanu* University and an important step forward as regards Open Science.

The objectives of the project envisaged several actions: creation of a shared catalog of university libraries from the Republic of Moldova, developed based on the integrated Aleph library software, creation of the institutional repository that supports EU protocols and standards on Open Archive Initiative (OAI) – Repository of *Nicolae Testemitanu* State University of Medicine and Pharmacy of the Republic of Moldova (http://repository.usmf.md), integrated on PRIMO information platform (http://primo.libuniv.md).

The institutional repository was registered in:

- OpenDOAR Repository Directory (OpenDOAR)

https://v2.sherpa.ac.uk/view/repository_by_country/Moldova_=28Republic_of=29.html

- Registry of Open Access Repositories (ROAR) http://roar.eprints.org/cgi/search/simple
- Webometrics Rank https://repositories.webometrics.info/en/transparent .



Publicații RI

Figure 1. Number of publications placed in the Repository of *Nicolae Testemitanu* University for the period 2016-2021

Created in 2010, the Didactic Electronic Library (DEL) continues to develop in order to facilitate the access of study beneficiaries to the didactic publications of *Nicolae Testemitanu* University academic staff members. The Didactic Electronic Library offers access to 724 online publications (https://library.usmf.md/ro/library).

I.2. Evolution of Open Data

In the context of *open data*, data are considered information or records stored electronically or on paper, such as: documents, databases, audio-video recordings, maps, tables, etc. (Methodology for publishing open data, 2018, 65 p. <u>http://ogp.gov.ro/nou/wp-content/uploads/2018/07/Metodologie-date-deschise_iulie2018.pdf</u>).

The most well-known and widely used definition of open data was developed by the non-profit organization *Open Knowledge International* in 2005: Open data is data that can be used, reused and redistributed freely by anyone (<u>https://okfn.org/opendata</u>).

For data to be considered open, at least two conditions must be met:

- *technical*: the data are published online in the form of files that can be processed automatically using computer programs (machine-readable), which are, as far as possible, available to anyone, free of charge (free and open source software);

- *legal*: at the time of publication, a license is attached to the data by which the owner and publisher sets the conditions for their re-use.

(Methodology for publishing open data, 2018, 65 p. http://ogp.gov.ro/nou/wpcontent/uploads/2018/07/Metodologie-date-deschise_iulie2018.pdf)

The data must also have the following essential characteristics:

• Availability and accessibility: data must be available as a whole, in a friendly format;

• *Reuse and redistribution*: data must be provided under a license to allow redistribution and reuse, including aggregation with other data sets;

• *Universal participation*: access to data must not be conditional, anyone can use it for any purpose, including commercial.

In 2007, 8 principles of open data were established by a group of information specialists. Open public data should be made available in a form that is:

- complete;
- primary;
- timely;
- accessible;
- machine processable;
- non-discriminatory;
- non-proprietary;
- and license free.

Subsequently, these principles were supplemented with:

- published online, available free of charge, at most for a marginal cost;
- the place (website) of the publication must remain the same;
- reliable data must be published by an appropriate authority;
- ex officio openness;
- documented;

• safe to open – a principle that recommends to exclude executable files (computer programs) from raw data archives;

• interaction with the public - the data are open with the main purpose of being reused by the whole society, therefore the dialogue and the public input will lead to the openness of really useful datasets.

Open data offers a wide range of benefits:

- facilitates the management of research data;

- outlines the practices of collecting, organizing, updating, storing and preserving the data that will be generated;

- helps meet the requirements of research funding organizations and journal publishers;

- facilitates the justification of resources and the necessary research funding;

- allows the examination of research results, encourages the improvement and validation of research methods;

- ensures that research data is accurate, complete, safe and secure both during and after the completion of research;

- contribute to the critical review of the research project and to the development of an appropriate action plan to overcome any problem;

- avoids data loss by ensuring that the researcher uses secure storage applications;

- allows data to be reused and shared to increase citations, impact and visibility of research data, including researcher's image and profile;

- responds to legal and ethical concerns regarding research data.

Open communication of research results helps to obtain faster a larger volume of information by researchers, practitioners and students.

The field of research and innovation has a special role in the implementation of open data concept. According to the objectives of the Strategy for Strengthening the Research and Innovation Field at *Nicolae Testemitanu* State University of Medicine and Pharmacy for 2020-2030, the University's National Institute for Health and Medical Research has approved the concept that provides for the development of the Institutional Research Infrastructure Management Plan with the following components: (1) equipment, (2) services, (3) intellectual property objects (4) research data. *Nicolae Testemitanu* University is one of the promoters of Open Science as open data in the field of research and innovation aims at eliminating barriers to open access in order to encourage and accelerate research, increase the quality of higher medical education and lay the foundation of intellectual communication in the joint search of knowledge.

Thus, the University aims to develop a research data management plan, designed to provide researchers with an open research data management mechanism.

I.3. Evolution of Open Science Evaluation

Webometrics is a ranking system for universities around the world based on indicators that take into account both the volume of web content (number of web pages and files) and the visibility and impact of these web publications.

According to a report made public in July 2021, compared to the data obtained in July 2020, *Nicolae Testemitanu* University has climbed 1199 positions in the international ranking of higher education institutions and remains in the third place nationally among the 25 universities of the Republic of Moldova included in the Webometrics ranking. Progress has been noticed in two other areas (visibility and openness) evaluated in July 2021. As regards *openness* – an indicator directly proportional to the Google Scholar citations - *Nicolae Testemitanu* University surpassed 713 higher education institutions. As regards the *online visibility, Nicolae Testemitanu* University climbed 1288 positions, and in terms of *excellence*, which represents the number of works among the top 10% most cited, it lags 122 positions behind (Figure 2).





Figure 2. Webometric indicators of *Nicolae Testemitanu* University according to Webometrics ranking

The research activity of *Nicolae Testemitanu* University in recent years is characterized by an increase in the annual number of articles published in SCOPUS. According to data from 2021, for October *Nicolae Testemitanu* University has 78 published

articles. As regards the number of international publications, the institution surpassed the local universities. This positive trend has been maintained for 2 years.

Important progress can also be noticed in the number of citations of scientific articles published by *Nicolae Testemitanu* University (Figure 3). A positive evolution of the number of citations of University researchers' publications in SCOPUS database has been registered. Currently, there are 2303 citations, which will ensure an increase in *Hirsch index* in the future. According to data from October 2021, the works of *Nicolae Testemitanu* University's researchers are cited about 9 times a day, compared to 6 citations in 2020.



Figure 3. Dynamics of citations of *Nicolae Testemitanu* University researchers' publications in SCOPUS database

The Scientific Council of *Nicolae Testemitanu* University approved the research performance criteria based on international rating criteria (Decision No. 2/5 of 15.04.2021). These are the Hirsch index in Webometrics, Scopus and Google Scholar. Thus, in the future, the evaluation of the research activity impact will constitute the basis for the performance analysis of university's scientific-didactic subdivisions and respectively of each researcher. The evaluation of scientific data obtained until October 2021 confirms that *Nicolae Testemitanu* University manages to advance and improve its international rating.

• In 2015, *Nicolae Testemitanu* University implemented the anti-plagiarism procedure, regulated by the Regulation on the prevention of academic plagiarism at *Nicolae Testemitanu* State University of Medicine and Pharmacy (Minutes of Senate

meeting No. 2/3 of 25.03. 2015, <u>https://usmf.md/sites/default/files/2020-12/Regulament%20cu%20privire%20la%20prevenirea%20plagiatului%20academic.pdf</u>).

- The document regulates the protection of intellectual property, the observance of copyright, the protection of scientific works and research results. At the same time, the Regulation stipulates the types of plagiarism and the way of using the anti-plagiarism program at the University, as well as the consequences borne by the authors and coordinators who admit academic plagiarism.
- The anti-plagiarism procedure aims to prevent academic plagiarism at *Nicolae Testemitanu* State University of Medicine and Pharmacy. Each member of the university community is responsible for respecting intellectual property rights and academic ethics principles.

Nicolae Testemitanu University performs the anti-plagiarism evaluation by using the computer program Sistemantiplagiat.ro. The connection to the system is made by accessing the site https://sistemantiplagiat.ro, and data processing takes place on a service provider's server. System users upload texts to the system, their content is compared to the databases within the system, and after the analysis, the system issues a Similarity Report, which indicates fragments detected to be similar to those from other sources, their size and the sources from which they were taken.

The similarity report does not give a verdict on the originality of a text, but is a tool on the basis of which an assessment can be made on the originality and quality of the text.

Since 2015, all doctoral and postdoctoral theses have been evaluated for similarities at *Nicolae Testemitanu* University.

I.4. Evolution of Open Science Tools

In 2021, the Repository of *Nicolae Testemitanu* State University of Medicine and Pharmacy of the Republic of Moldova (hereinafter the Institutional Repository or IR) climbed 556 positions in the ranking of institutional repositories present online globally, remaining in the second place nationally. According to the report made public by Ranking Web of Repositories in May 2021 (Webometrics, https://repositories.webometrics.info/en/institutional), the Institutional Repository ranks 498th and has 8,750 records indexed in Google Scholar.

Clasamentul la nivel național	Clasamentul la nivel global	Denumirea instituției	Publicații din Ri îndexate în Google Scholar
1	467	Universitatea Tehnică a Moldovei	9460
0	498	Universitatea de Stat de Medicină și Farmacie "Nicolae Testemițanu"	8750
ш	954	Universitatea de Stat "Alecu Russo" din Bălți	3490
IV	1139	Universitatea de Stat din Moldova	2420
v	1189	Universitatea Agrară de Stat din Moldova	2180

	491	Repositorio Institucional Universidad EAFIT	8910
	492	University of Huddersfield Repository	8890
	493	Core Scholar Wright State University Research	8870
	494	National Institute of Polar Research Institutional Repository	8820
	495	Archivio istituzionale dell'Università di Bergamo Aisberg	8800
	495	Colecciones Digitales Uniminuto Corporacion Universitaria Minuto de Dios	8800
	497	Claremont Colleges Scholarship	8770
	498	Boston University Digital Research Archive	8750
[498	Institutional Repository Nicolae Testemitanu State University of Medicine and Pharmacy	8750
	500	edoc University of Basel Institutional Repository	8720
	501	University of Strathclyde Institutional Repository	8710
	502	Lancaster University Institutional Repository	8700
	503	CSUSB ScholarWorks California State University San Bernardino Research	8630
	504	DigitalCommons UNO Institutional Repository of the University of Nebraska Omaha	8570

Figure 4. Nicolae Testemitanu University Repository according to Webometrics Source: https://repositories.webometrics.info/en/institutional

I.5. SWOT Analysis

Strengths	Weaknesses
 - University's joining national and international initiatives on Open Science - Strategy for Strengthening the Research and Innovation Field at <i>Nicolae Testemitanu</i> University for 2020-2030 - Institutional Policy on Open Access to Information approved and registered in the international Registry of Open Access Repository Mandates and Policies (ROARMAP) - Approval of the Corrective Action Plan of <i>Nicolae Testemitanu</i> University regarding the adjustment of the implementation of the Human Resources Strategy for Researchers to the requirements of the logo <i>Excellence in Human Resources in Research</i> - Creation of the National Institute for Health and Medical Research - University Scientific Council - Doctoral School in Health Sciences in consortium with other Public Health Institutions of the country - Research Ethics Committee - Quality Manual in the field of research - Potential of scientific and teaching staff - Continuous development of the Institutional Repository - Systematic participation in campaigns to promote Open Science - High-performance equipment for long-term preservation of publications - Institutional repository registered in the Registry of Open Access Repositories (ROAR) - Traffic metering on the page of the Institutional Repository - Institutional Repository Monitoring through Google Analytics 	 Insufficient knowledge of the benefits of Open Science by the university community (Open Access, open data, open evaluation, open tools) Insufficient human resources (engineers) with the necessary skills for the development of the Institutional Repository Lack of a research data management plan Lack of staff qualified in open research data management (Big data management) Lack of a website of the Moldovan Journal of Health Sciences, which would allow registration in the DOAJ
Opportunities	Risks
 Active communication of researchers, without barriers, open at national and global level Methodological and technical support of national and international bodies targeted for promoting Open Science principles Implementation of new information technologies targeted in the technical support of Open Science principles application: (Open Access, open data, open evaluation, open tools) Integration in national and international information systems (BASE search systems - Bielefeld Academic Search Engine etc.), infrastructure, (ERRIS - European Research Infrastructure System etc.). 	 Lack of a National Strategy on Open Science Researchers' reluctance as regards Open Science perceived as copyright limitation at international level Efficient quality control (self-archiving) Limited financial resources for research and innovation Migration of young researchers due to country's economic situation Unpredictable legislation

II. PRIORITY STRATEGIC AREAS, STRATEGIC AND SPECIFIC

OBJECTIVES

The priority strategic areas, strategic and specific objectives of Open Science are the following:

STRATEGIC PRIORITY AREA 1: OPEN ACCESS
Strategic objective 1.1 Promotion of Open Access in the university community
Specific objective 1.1.1. Development and dissemination of promotional materials
Specific objective 1.1.2. Initiation of young researchers into Open Access benefits
Specific objective 1.1.3. Increasing the visibility of researchers in the global
information space
Strategic objective 1.2. Promotion of the Golden Way of Open Access
Specific objective 1.2.1. Increasing the visibility of the institutional publication
Moldovan Journal of Health Sciences
STRATEGIC PRIORITY AREA 2: OPEN DATA
Strategic objective 2.1. Promotion of the open data principle implicitly
Specific objective 2.1.1. Cultivation of positive attitudes in the university community
Strategic objective 2.2. Strengthening the premises for the implementation of open
data in research
Specific objective 2.2.1. Providing competent human resources in data management,
including Big Data
Specific objective 2.2.2 Planning the implementation of research data management.
Specific objective 2.2.3. Development of the research data regulatory framework
STRATEGIC PRIORITY AREA 3: EVALUATION OF OPEN SCIENCE
Strategic objective 3.1. Improving the impact of research results
Specific objective 3.1.1. Increasing the transparency and visibility of research results
Specific objective 3.1.2. Strengthening research excellence
Specific objective 3.1.3. Improving the review process of articles published in
Moldovan Journal of Health Sciences
Strategic objective 3.2. Improving plagiarism monitoring in research
Specific objective 3.2.1. Expanding the process of verifying similarities in research
Specific objective 3.2.2. Increasing researchers' responsibility for research integrity
STRATEGIC PRIORITY AREA 4. OPEN SCIENCE TOOLS
Strategic objective 4.1. Development of the Institutional Repository
Specific objective 4.1.1. Implementation of CRIS DSpace version 7
Specific objective 4.1.2. Implementation of Altmetrics
Specific objective 4.1.3. Continuous development of researchers' skills and
competencies of self-archiving publications

III. MEASURES / ACTIVITIES NECESSARY TO ACHIEVE THE EXPECTED OBJECTIVES AND RESULTS

Specific objective 1.1.1. Development and dissemination of promotional materials Activities: 1.1.1.1. Establishment of a working group Conceptualization and development of informative and promotional 1.1.1.2. materials 1.1.1.3. Dissemination of informative and promotional materials 1.1.1.4. Participation in the International Open Access Week 1.1.1.5. Ceation of a video tutorial Specific objective 1.1.2. Initiation of young researchers into Open Access benefits 1.1.2.1. Organization of information activities at Nicolae Testemitanu University departments Development and publication of a course support material on the page of 1.1.2.2 the Academic Writing Center of the Health Sciences Library Specific objective 1.1.3. Increasing the visibility of researchers in the global information space 1.1.3.1. Indexing the Institutional Repository in BASE (Bielefeld Academic Search Engine) 1.1.3.2. Providing support in calculating bibliometric indicators 1.1.3.3. Organizing orientation trainings regarding the creation of the academic profile 1.1.3.4. Assistance in creating the researcher profile (ORCID, Google Scholar, Scopus, Publons)

Specific objective 1.2.1. Increasing the visibility of the institutional publication *Moldovan Journal of Health Sciences*

1.2.1.1.	Development and approval of the Editorial Policy of the <i>Moldovan</i> Journal of Health Sciences
1.2.1.2.	Creation of a website of the Moldovan Journal of Health Sciences
1.2.1.3.	Inclusion of the <i>Moldovan Journal of Health Sciences</i> in international databases with the possibility of applying for A category from the national registry
1.2.1.4.	Registration of the <i>Moldovan Journal of Health Sciences</i> in the Directory of Open Access Journals (DOAJ)

Specific objective 2.1.1. Cultivation of positive attitudes in the university community

2.1.1.1.	Informing the university community about open data principles		
2.1.1.2.	Raising awareness among the university community members about the benefits of open data		
Specific object including Big	tive 2.2.1. Providing human resources competent in data management, Data		
2.2.1.1.	Training of <i>Nicolae Testemitanu</i> University researchers in the field of bioinformatics and data management		
Specific object	tive 2.2.2. Planning the implementation of research data management		
2.2.2.1.	Development of a (institutional) General Plan for <i>Nicolae Testemitanu</i> University research infrastructure management that would include a Research Data section		
2.2.2.2.	Development of the concept and Implementation Plan for research data management at <i>Nicolae Testemitanu</i> University		
Specific object	tive 2.2.3. Development of the regulatory framework on research data		
2.2.3.1.	Development of the Regulation for the Organization and Functioning of the institutional archive as regards the research data		
Specific object	tive 3.1.1. Increasing the transparency and visibility of research results		
3.1.1.1.	Development and approval of scientific <i>rating</i> criteria at <i>Nicolae Testemitanu</i> University"		
3.1.1.2.	Ensuring the registration of scientific and teaching staff in international databases (Google Scholar, Scopus, etc.)		
3.1.1.3.	Monitoring the scientific rating according to the approved criteria by faculty, subdivision and individually		
3.1.1.4.	Placement of international and national projects in the Institutional Repository		
Specific object	tive 3.1.2. Consolidation of excellence in research		
3.1.2.1.	Increasing the number of articles published in ISI and / or WoS, SCOPUS indexed journals		
3.1.2.2.	Increasing the number of articles published with open access in ISI and / or WoS, SCOPUS indexed journals		
3.1.2.3.	Promoting research in international co-supervision		
3.1.2.4.	Attracting international grants for research projects		
3.1.2.5.	Systematic review and adjustment of University's policy in the field of employment, promotion of scientific staff, free access to information and research results funded from public funds, while maintaining the obtained logo <i>Excellence in Human Resources in Research</i>		

Specific objective 3.1.3. Improving the review process of articles published in the *Moldovan Journal of Health Sciences*

3.1.3.1.	Using the mechanisms for open review (peer review)	
3.1.3.2.	Inclusion of international researchers in the review process	
Specific objective	e 3.2.1. Expanding the process of verifying similarities in research	
3.2.1.1.	Inclusion of Bachelor theses in the anti-plagiarism verification process, by random selection	
3.2.2.2.	Inclusion of all master's theses in the plagiarism verification process	
3.2.2.3.	Inclusion in the anti-plagiarism verification process of articles submitted for publication in the <i>Moldovan Journal of Health Sciences</i>	
Specific objective	e 3.2.2. Increasing researchers' responsibility for research integrity	
3.2.2.1.	Ensuring the technical capabilities of the Anti-Plagiarism Center	
3.2.2.2.	Development and approval of the methodology for verifying the works by training cycle: bachelor's, master's and doctorate	
3.2.2.3.	Holding the leaders and members of the Guiding Committee accountable for the quality of guided scientific work as regards academic integrity	
Specific objective	e 4.1.1. Implementation of CRIS DSpace version 7	
4.1.1.1.	Installing the necessary programs	
4.1.1.2.	Data migration	
4.1.1.3.	Staff training	
4.1.1.4.	Data verification and editing	
4.1.1.5.	Inclusion of new metadata	
4.1.1.6.	Creation of researcher profiles	
4.1.1.7.	Diversification of the Institutional Repository structure	
4.1.1.8.	Monitoring of altimeter indicators	
4.1.1.9.	Organizing and providing feedback from users of the Institutional Repository	
4.1.1.10	Importing metadata from third sources	
4.1.1.11.	Installing the necessary programs	

Specific objective 4.1.2. Altmetrics Implementation

4.1.2.1.	Design of Altmetrics connection logistics
4.1.2.2.	Implementation of Altmetrics program
4.1.2.3.	Data monitoring

Specific objective 4.1.3. Continuous development of researchers' skills and competencies in self-archiving publications

- 4.1.3.1. Development of educational materials
- 4.1.3.2. Organization of trainings for researchers
- 4.1.3.3. Updating the Self-Archiving Guide

IV. ESTIMATIION OF THE IMPACT, FINANCIAL AND NON-FINANCIAL COSTS OF IMPLEMENTATION

The costs of implementing this Strategy can be quite high and are difficult to estimate in the absence of additional details on how to specifically implement the priority actions. Consequently, the exact costs for the implementation of the Strategy will be estimated by *Nicolae Testemitanu* University in the strategic planning process, especially during the annual budgeting period, as well as in the process of prioritization of financing requests from development partners. The financing of the Strategy's implementation processes will be carried out from the University budget, by attracting grants, funds, sponsorships and other legal sources at national and international level.

V. EXPECTED RESULTS AND PROGRESS INDICATORS

Priority	Strategic objective	Indicator
Open	1.1. Promoting	Working group formed to promote the Open Access
Access	Open Access in the	movement
	university	One concept and 30 promotional materials - developed
	community	Promotional materials - disseminated in 30 copies
		25 trainings
		5 Advocacy Campaign
		4 tutorials
		10 information activities
		Indexed repository
		Systematic reports
		15 orientation trainings
		5 reports
	1.2. Promoting the	Policy - updated and submitted for approval to Nicolae
	golden way of	Testemitanu University Senate
	Open Access	Created site
		Moldovan Journal of Health Sciences included in
		international databases (number of databases in which
		it has been included)
		Journal registered in DOAJ
Open Data	2.1 . Promoting	Information placed on the subsite of the Research
	open data principle	Department
	implicitly	Information placed on the Health Sciences Lybrary
		subsite
		10 information sessions held jointly with those on
		Open Access
	2.2.Strengthening	At least 10 Nicolae Testemitanu University's
	the premises for	researchers - trained in the field of Bioinformatics
	implementation of	General plan for Nicolae Testemitanu University
	open data in	research infrastructure management, which includes a
	research	Research Data section - developed and submitted for
		approval to the Scientific Council / Senate
		Implementation concept developed and submitted for
		approval to the Scientific Council
		Implementation plan developed and submitted for
		approval to the Scientific Council
		Regulation developed and submitted for approval to
		the Scientific Council/Senate
Evaluation	3.1. Improving the	Scientific rating criteria at Nicolae Testemitanu
of Open	impact of research	University - developed and approved by the Scientific
Data	results	Council
		The share of scientific and teaching staff members
		registered in international databases (Google Scholar,

		Scopus, etc.) by:
		1) Subdivision
		2) Faculty
		3) Nicolae Testemitanu University
		1) Number of faculties with established scientific
		rating
		2) Number of subdivisions with established
		scientific rating
		3) Number of scientific-teaching staff members
		with an established scientific rating
		Number of international and national projects placed in
		the Institutional Repository
		Annual number of articles published in ISI and / or
		WoS, SCOPUS listed journals
		Annual number of articles published with open access
		in ISI and / or WoS, SCOPUS listed journals
		Co-supervised (at least 10%) doctoral theses
		Research projects carried out in international
		cooperation of at least 10%
		1) The logo <i>Excellence of Human Resources in</i>
		Research maintained
		2) University's policy in the field of employment
		of researchers systematically updated
		according to requirements
		Open review policy developed and approved by the
		Scientific Council / Senate
		The share of international reviewers of at least 10%
		per year
	3.2. Improving	Up to 10% of all annual bachelor's theses by faculty
	plagiarism	Share of master's theses evaluated annually
	monitoring	Share of published articles evaluated annually
		1. Anti-Plagiarism Center technically equipped
		2. A functional Anti-Plagiarism Center
		Anti-plagiarism Regulation updated and approved
		according to the procedure
		Inclusion in the Anti-Plagiarism Regulation of
		provisions on personal responsibility of leaders for the
		conformity of guided work in terms of academic
		integrity
Open	4.1. Development	Installed programs - 100% of the necessary ones
Science	of the Institutional	Migrated data - 100% of the necessary ones
Tools	Repository	Trained staff 100%
		Edited data - 100% of the necessary ones
		Metadata 100% of the necessary ones
		Profiles created - 100% of what is needed

New communities and subcommunities
Altmetric data
1 Form
5 Reports
Metadata imported - 100% of the required
1 Plan
1 implemented Program
20 Statistical Reports
5 developed materials
35 organized trainings
1 updated Guide
Installed programs - 100% of the required ones

VI. IMPLEMENTATION, MONITORING AND EVALUATION OF THE STRATEGY

The evaluation of this strategy will be carried out on regular basis throughout the entire implementation period and will include the development of implementation reports based on progress and performance indicators. Activities of the Open Science Strategy will be reflected in the annual activity plans of *Nicolae Testemitanu* University subdivisions, including the Research Department, the Health Sciences Library, the Information and Communications Technology Department, the Human Resources Department, the Legal Department, the Economics, Budget and Finance Department, the Doctoral School in Health Sciences, the Project Support Center, the Anti-Plagiarism Center, the Editorial Board of the *Moldovan Journal of Health Sciences*, the Department of Teaching and Academic Management, faculties, departments, etc. The monitoring, evaluation and reporting procedure will be implemented together with the Strategy for Strengthening the Research and Innovation Field. The designated officials will prepare annual progress reports that will be included in the University's Annual Report. The coordination of the entire monitoring and evaluation process will be conducted in accordance with the procedures established at *Nicolae Testemitanu* University.

VII. RISKS IN THE STRATEGY IMPLEMENTATION PROCESS

The approach to risk issues aims to identify the major risks for the strategy, as well as the probability of their occurrence. The risks are related to the underestimation of costs, the overestimation of revenues, the change of the internal and external environmental conditions of the university. The analysis should reveal whether the risks were taken into account in estimating the costs, which are the measures envisaged to mitigate the negative impact of major risks and the measures considered to minimize the risks.

In the medium and long term, this strategy highlights low risks in terms of implementation. The main risks identified are:

-Financial risks: lack of financing of science in the Republic of Moldova which may lead to a lack of complementary funding sources. The management of these risks will consist in the most realistic estimation of operating and implementation costs, the provision in the organization's budget of financial resources related to financing.

-Legal risks: frequent and unpredictable legislative changes, for example the country now does not have a national legislation on Open Science, and in case of its development, there may be changes in the university's strategy. The management of these risks is difficult to control because they are completely independent of the organization, but a proactive approach to the national legal framework and working with them by providing recommendations, will minimize the negative impact of this type of risk.

-Technical Risks, for example the server may not work properly in case of overloading. The management of this risk is to monitor the technical issues all the time and try to increase the server capacity.

-Risks connected with Human resources: Low level of academic staff capacities for conducting international research. The management of this risk is to organize consultations, classes, apply incentive system, enlarge international cooperation, and include the research work component in the educational workload.

-Risks connected with Intellectual Property: There may be situations, when others may copy the texts of our authors from our open sources without citation. The management of this risk is to forbid copying from the site, also to mention clearly, that in case of improper citation, intellectual property issues may arise.

The impact of the assessed risks can be managed through a risk-taking strategy. Complete risk elimination is a utopian picture of the problems or, at best, a cost-effective option. Risk management does not completely eliminate this phenomenon, organizational efforts should not be directed to achieve this goal, but to monitor it, and when the risk threshold becomes unacceptable, action should be taken to reduce the negative impact.

ANNEX I: ACTION PLAN

OPEN SCIENCE STRATEGY

OF NICOLAE TESTEMITANU STATE UNIVERSITY OF MEDICINE AND PHARMACY OF THE REPUBLIC OF MOLDOVA

ACTION PLAN for the period 2021-2026

STRATEGIC PRIORITY AREA 1: OPEN ACCESS

Strategic objective 1.1. Promotion of Open Access in the university community

Specific objective 1.1.1. Development and dissemination of promotional materials

No.	Activities	Period of implemen- tation	Responsible persons	Expected results
1.1.1.1.	Establishment of a working group	2022-2026	Health Sciences Library	A working group formed with a view to
				promoting Open Access movement
1.1.1.2.	Conceptualization and development of	2022-2026	Health Sciences Library	One concept and 30 promotional materials -

	informative și promotional materials			developed
1.1.1.3.	Dissemination of informative and	2022-2026	Health Sciences Library	Promotional materials disseminated in 300
	promotional materials			copies.
1.1.1.4.	Participation in the Open Access	2022-2026	Health Sciences Library	1. 25 trainings
	International Week			2. 5 advocacy campaigns
1.1.1.5.	Creation of video tutorial	2022	Health Sciences Library	4 tutorials
Specific	objective 1.1.2. Initiation of young r	esearchers i	nto Open Access benefits	
1.1.2.1.	Organization of information activities at	2022-2026	Health Sciences Library	10 information activities
	the departments of Nicolae Testemitanu			
	University			
Specific	objective 1.1.3. Increasing the visibi	lity of resear	rchers in the global information	n space
1.1.3.1.	Indexing of institutional Repository in	2022	Health Sciences Library	Indexed Repozitory
	BASE (Bielefeld Academic Search			
	Engine)			
1.1.3.2.	Support in bibliometric indicators	2022-2026	Health Sciences Library	Systematic reports according to established
	calculation			procedure
1.1.3.3.	Organization of orientation trainings on	2022-2026	Health Sciences Library	15 orientation trainings
	the creation of academic profile			
1.1.3.4.	Assistance for creation of researcher	2022-2026	Health Sciences Library	5 reports
	profile (ORCID, Google Academic,			
	Scopus, Publons)			

Strategic objective 1.2. Promotion of Open Access golden way							
Specific objective 1.2.1. Increasing the visibility of the institutional <i>Moldovan Journal of Health Sciences</i>							
1.2.1.1.	Development and approval of the publishing policy of the <i>Moldovan</i> <i>Journal of Health Sciences</i>	2022	Editor-in-Chief of the journal	Policy - updated and submitted for approval to the Senate of <i>Nicolae Testemitanu</i> University			
1.2.1.2.	Creation of the site of the <i>Moldovan</i> Journal of Health Sciences	2022-2023	Editor-in-Chief of the journal	Created site			
1.2.1.3.	Inclusion of the <i>Moldovan Journal of</i> <i>Health Sciences</i> in international databases with the possibility of filing documents for A category from the national registry	2022-2023	Editor-in-Chief of the journal	MJHS Journal included in international databases (number of databases in which it has been included)			
1.2.1.4.	Registration of the <i>Moldovan Journal of</i> <i>Health Sciences</i> in the Directory of Open Access Journals (DOAJ)	2025-2026	Editor-in-Chief of the journal	Journal registered in DOAJ			
	STRAT	EGIC PR	IORITY AREA 2: OPEN	DATA			
Strategi	Strategic objective 2.1. Promotion of open data principle implicitly						
Specific	objective 2.1.1. Cultivation of positi	ve attitudes	in the university community				
2.1.1.1.	Informing university community of	2021-2026	-Research Department, NIHMR	1. Information placed on the subsite of the			

	open data principle		-Health Sciences Library	Research Department
				2. Information placed on the HSL subsite
2.1.1.2.	Raising awareness among the university	2021-2026	-Research Department, NIHMR	1. 10 Information sessions held jointly with
	community members about the benefits of open data		-Health Sciences Library	those on Open Access
Strategi	ic objective 2.2. Strengthening premi	ses for the in	nplementation of open data in	research
Specific	objective 2.2.1. Supply of human re	sources com	petent in data management, in	cluding Big Data
2.2.1.1.	Training of Nicolae Testemitanu	2022-2023	Research Department, NIHMR	At least 10 researchers from Nicolae
	University researchers in the field of			Testemitanu University trained in the field of
	bioinformatics and data management			Bioinformatics
Specific	objective 2.2.2. Research data mana	gement imp	lementation planning	
2.2.2.1.	Development of the general	2023-2024	Research Department, NIHMR	General Plan for research infrastructure
	(institutional) Plan for research			management at Nicolae Testemitanu University,
	infrastructure management at Nicolae			which would include a Research Data section -
	Testemitanu University which would			developed and submitted for approval to the
	include a Research Data section			Scientific Council /Senate
2.2.2.2.	Development of the concept and Plan	2025-2026	-Research Department,	1. Implementation Concept - developed and
	1 1			
	for the implementation of research data		(Bioinformatics team), NIHMR	submitted for approval to the Scientific Council

	University		-Information and Communication	submitted for approval to the Scientific Council
			Technology Department	
Specific	objective 2.2.3. Development of the	research dat	a regulatory framework	
2.2.3.1.	Development of the Regulation on	2026	-Research Department (echipa	Regulation - developed and submitted for
	Organization and Functioning of the		Bioinformatică), NIHMR	approval to the Scientific Council /Senate
	Institutional Archive as regards research		-Health Sciences Library	
	data		-Information and Communication	
			Technology Department	
	STRATEGIC PRIC	RITY AR	EA 3: EVALUATION OF	OPEN SCIENCE
<u> </u>				
Strategi	c objective 3.1. Improving the impac	t of researc	h results	
	<mark>c objective 3.1. Improving the impac</mark> objective 3.1.1. Increasing transpare			
				Scientific rating criteria at Nicolae Testemitanu
Specific	objective 3.1.1. Increasing transpare	ency and vis	ibility of research results	Scientific <i>rating</i> criteria at <i>Nicolae Testemitanu</i> University – developed and approved by the
Specific	objective 3.1.1. Increasing transpare Development and approval of scientific	ency and vis	ibility of research results	
Specific	objective 3.1.1. Increasing transpare Development and approval of scientificrating criteria at Nicolae Testemitanu	ency and vis	ibility of research results	University – developed and approved by the
Specific 3.1.1.1.	objective 3.1.1. Increasing transpareDevelopment and approval of scientificrating criteria at Nicolae TestemitanuUniversity	ency and vis	ibility of research results Research Department	University – developed and approved by the Scientific Council
Specific 3.1.1.1.	objective 3.1.1. Increasing transpare Development and approval of scientific rating criteria at Nicolae Testemitanu University Ensuring the registration of scientific –	ency and vis	ibility of research results Research Department -Heads of subdivisions	University – developed and approved by the Scientific Council Share of scientific–didactic staff registered in
Specific 3.1.1.1.	objective 3.1.1. Increasing transpare Development and approval of scientific rating criteria at Nicolae Testemitanu University Ensuring the registration of scientific – didactic staff in international databases	ency and vis	ibility of research results Research Department -Heads of subdivisions - Employees responsible for	University – developed and approved by the Scientific Council Share of scientific–didactic staff registered in international databases (Google Scholar, Scopus
Specific 3.1.1.1.	objective 3.1.1. Increasing transpare Development and approval of scientific rating criteria at Nicolae Testemitanu University Ensuring the registration of scientific – didactic staff in international databases	ency and vis	ibility of research results Research Department -Heads of subdivisions - Employees responsible for research in subdivisions	University – developed and approved by the Scientific Council Share of scientific–didactic staff registered in international databases (Google Scholar, Scopus etc.) within:

3.1.1.3.	Scientific rating monitoring according	2022-2026	- Employees responsible for	1.Number of faculties with established scientific
	to approved criteria by faculty,		research at faculties	rating
	subdivision and individually		-Research Department	2.Number of subdivisions with established
				scientific rating
				3.Number of scientific-didactic staff members
				with established scientific rating
3.1.1.4.	Placing international and national	2022-2026	-Health Sciences Library	Number of international and national projects
	projects in the Repository of Nicolae		-Research Department	placed in the institutional Repository
	Testemitanu University		- Project Support Center	
			-Doctoral School in Health	
			Sciences	
Specific	objective 3.1.2. Consolidation of exc	cellence in re	search	
3.1.2.1.	Increased number of articles published	2022-2026	-Research Department	Annual number of articles published in ISI
	in ISI and/or WoS, SCOPUS indexed		-Employees responsible for	and/or WoS, SCOPUS indexed journals
	journals		research at faculties	
			-Employees responsible for	
			research in subdivisions	
3.1.2.2.	Increased number of articles published	2022-2026	-Research Department	Annual number of articles published with open
	with open access in ISI and/or WoS,		-University subdivisions	access in ISI and/or WoS, SCOPUS indexed
	SCOPUS indexed journals			journals
3.1.2.3	Promoting research in international co-	2022-2026	-Research Department	Co-supervised (at least 10%) doctoral theses

	supervision		-Project Support Center	
			-Doctoral School in Health	
			Sciences	
			- University subdivisions	
3.1.2.4.	Attracting international grants for	2022-2026	-Research Department	Research projects in international cooperation -
	research projects		-Project Support Center	at least 10%
			-Doctoral School in Health	
			Sciences	
			- University subdivisions	
3.1.2.5.	Systematical review and ajustment of	2022-2026	- Human Resources Departament	1. Logo Excellence in Human Resources in
	the University policy in the area of		- Legal Department	Research- maintained
	employment, promotion of scientific		- Research Department	2. University policy in the field of researchers'
	staff, free access to information and		- Doctoral School in Health	employment – systematically updated pursuant
	publicly financed research results, while		Sciences	to requirements
	maintaining the obtained logo			
	Excellence in Human Resources in			
	Research			
Specific	objective 3.1.3. Improving the review	w process of	articles published in the Moldo	wan Journal of Health Sciences (MJHS)
3.1.3.1.	Applying mechanisms for open review	2023-2026	Editor-in-Chief of the journal	Open review Policy – developed and approved at
	(inter pares)			the Scientific Council /Senate
3.1.3.2.	Inclusion of international researchers in	2023-2026	Editor-in-Chief of the journal	Share of international reviewers of at least 10%

	the review process			annually
Strategi	c objective 3.2. Improving the monit	toring of plag	giarism in research	
Specific	objective 3.2.1. Expanding the proc	ess of verify	ing similarities in research	
3.2.1.1.	Inclusion of Bachelor's theses in the	2023-2026	-Employees responsible for	Up to 10% of all annual bachelor's theses, by
	process of anti-plagiarism verification,		research at faculties	faculty
	by randome selection		-TAMD	
			-Anti-Plagiarism Center	
			-Research Department	
3.2.2.2.	Inclusion of all master theses in the	2023-2026	-Doctoral School in Health	Share of master theses evaluated annually
	process of anti-plagiarism verification		Sciences	
			-Anti-Plagiarism Center	
			-Research Department	
3.2.2.3.	Inclusion in the process of anti-	2022-2026	- Editor-in- Chief of the journal	Share of published articles evaluated annually
	plagiarism verification of articles		-Anti-Plagiarism Center	
	submitted for publication in the		-Research Department	
	Moldovan Journal of Health Sciences			
Specific	objective 3.2.2. Increasing the resp	onsibilityof ı	researchers for research integri	ty
3.2.2.1.	Ensuring technical capbilities of the	2022-2026	-Anti-Plagiarism Center	1. Anti-Plagiarism Center – technically equipped
	Anti-Plagiarism Center		-Research Department	2. Anti-Plagiarism Center - functional
			-Economics, Budget and Finance	
			Department	

3.2.2.2.	Development and approval of the	2022-2026	-Anti-Plagiarism Center	Anti-Plagiarism Regulation – updated and
	methodology for verifying theses by		-Research Department	approved according to the procedure
	training cycle: for Bachelor's, Master's		-TAMD	
	and doctoral degrees			
3.2.2.3	Holding the leaders and members of the	2022-2026	-Doctoral School in Health	Inclusion in the Anti-Plagiarism Regulation of
	Guiding Committee accountable for the		Sciences	provisions on the leaders' personal responsibility
	quality of guided scientific works as		-Anti-Plagiarism Center	for the conformity of guided works as regards
	regards their academic integrity		-Research Department	their academic integrity
	STRATEGIC			
	c objective 4.1 Development of the I			
				Installed programs - 100% of what is needed
Specific	<mark>c objective 4.1 Development of the In</mark> objective 4.1.1. Implementation of C	CRIS DSpace	e version 7	Installed programs - 100% of what is needed Data migration - 100% of what is needed
Specific 4.1.1.1.	c objective 4.1 Development of the In objective 4.1.1. Implementation of C Installation of necessary programs	CRIS DSpace	e version 7 Health Sciences Library	
Specific 4.1.1.1. 4.1.1.2.	c objective 4.1 Development of the In objective 4.1.1. Implementation of C Installation of necessary programs Data migration	CRIS DSpace 2022 2022	e version 7 Health Sciences Library Health Sciences Library	Data migration - 100% of what is needed
Specific 4.1.1.1. 4.1.1.2. 4.1.1.3.	c objective 4.1 Development of the In objective 4.1.1. Implementation of C Installation of necessary programs Data migration Staff training	CRIS DSpace 2022 2022 2022 2022 2022	e version 7 Health Sciences Library Health Sciences Library Health Sciences Library	Data migration - 100% of what is needed Trained staff 100%
Specific 4.1.1.1. 4.1.1.2. 4.1.1.3. 4.1.1.4.	 c objective 4.1 Development of the In objective 4.1.1. Implementation of C Installation of necessary programs Data migration Staff training Data verification and editing 	CRIS DSpace 2022 2022 2022 2022 2022 2022	e version 7 Health Sciences Library Health Sciences Library Health Sciences Library Health Sciences Library	Data migration - 100% of what is needed Trained staff 100% Edited data - 100% of what is needed
Specific 4.1.1.1. 4.1.1.2. 4.1.1.3. 4.1.1.4. 4.1.1.5.	 c objective 4.1 Development of the In objective 4.1.1. Implementation of C Installation of necessary programs Data migration Staff training Data verification and editing Adding new metadata 	CRIS DSpace 2022 2022 2022 2022 2022 2022 2022 2022 2022	e version 7 Health Sciences Library Health Sciences Library Health Sciences Library Health Sciences Library Health Sciences Library	Data migration - 100% of what is neededTrained staff 100%Edited data - 100% of what is neededMetadata - 100% of what is needed

4.1.1.9.	Organization and provision of feedback	2022-2026	Health Sciences Library	One form
	from institutional Repository users			5 reports
4.1.1.10	Importing metadata from third sources	2022-2026	Health Sciences Library	Imported metadata - 100% of what is needed
4.1.1.11	Installation of necessary programs	2022	Health Sciences Library	Installed programs -100% of what is needed
Specific	objective 4.1.2. Implementation of A	ltmetrics	I	
4.1.2.1.	Design of Altmetrics connection	2022	Health Sciences Library	Approved Plan according to the established
	logistics			procedure
4.1.2.2.	Implementation of Altmetrics program	2022	Health Sciences Library	Implementated Altmetrics Program
4.1.2.3.	Data monitoring	2022-2026	Health Sciences Library	20 statistic reports
Specific	objective 4.1.3. Continuous develop	ment of rese	archers' skills and competencie	es for self-archiving publications
4.1.3.1.	Development of educational materials	2022	Health Sciences Library	5 developed materials
4.1.3.2.	Organization of trainings for researchers	2022-2026	Health Sciences Library	15 organized trainings
4.1.3.3.	Update of Self-Archiving Guide	2022	Health Sciences Library	Updated and approved Guide according to the established procedure