MINERVA: the current state of the project implementation and steps ahead…

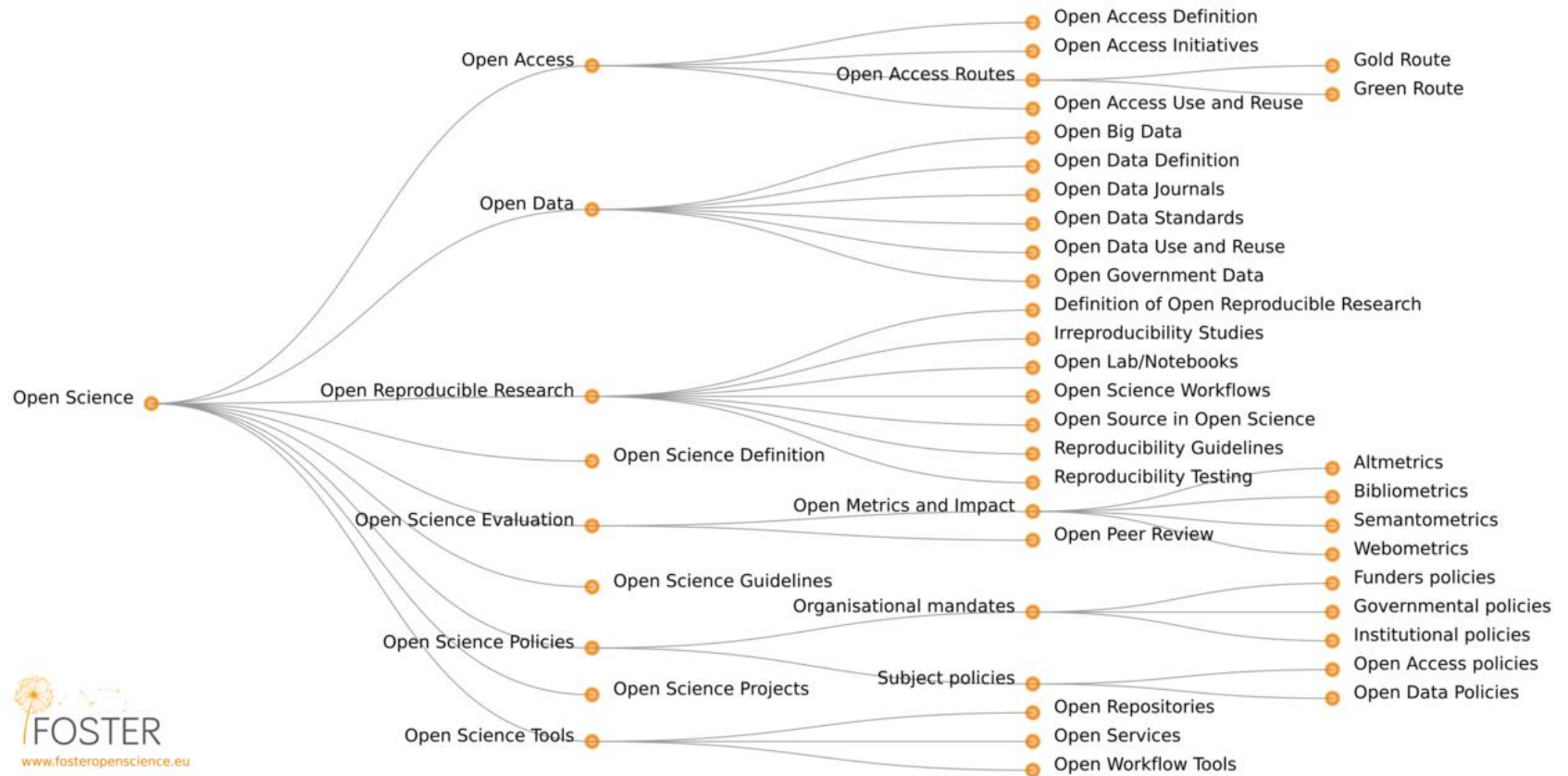## 5th Consortium Meeting of the MINERVA project

MINERVA 2019-2022

Strengthening Research Management and
Open Science Capacities of HEIs in Moldova and Armenia

OS in an ideal world

Open Science Taxonomy

D2.3. Institutional policies of Open Science (OS)

- **Institutional OS Strategy draft was evaluated by peers YSU seeks for become an institution, which**

- offers students educational programs providing comprehensive knowledge, competences and skills based on research, creative work and innovation and consonant to the fundamental principles of European higher education.

- Yerevan State University has a draft of Strategic development for 2021 – 2026 aimed at development of education and research, it also addresses an Open Science policy issues. This strategy will further present measures and actions.

D2.3. Institutional policies of Open Science (OS)

- **I.1. Evolution of Open Access**
         Definition of OA
- **YSU Open Access Initiatives**

Not only YSU library resources, but also articles and monographs of the institutional Intranet system are open to the reader in digital version, so it is available to those who are interested in.

Some restrictions are in place - can be set by the author. YSU protects the authors' intellectual property rights.

- **Open Access Routes**

YSU Banber available at journals.ysu.am is digitalized. All the issues published before 2015 have been digitized, it is planned to complete the digitization process by the end of this year, after which 4 professional issues of Banber will not be published, they will operate only in digital version

D2.3. Institutional policies of Open Science (OS)

- **The Open Access Routes of Yerevan State University have two options:**

Gold open access, which involves publishing articles or books via the Open Access route on a publisher's platform,

Green open access, which involves archiving a version of the manuscript in an Open Access repository of the University.

- **Open Access Use and Reuse.**

The Open Access at our University refers to free, online access to research outputs such as journal articles and books, which our readers may use, and reuse, by citing it properly.

D2.3. Institutional policies of Open Science (OS)

- **I.2. Evolution of Open Data**
- **Open Big Data**

YSU journals, including journals co-authored with other universities, would be registered in the Crossref system.

- **Open Data journals – to be edited**
- **Open Data standards**

Defined as agreements on representation, format, definition, structuring, tagging, transmission, manipulation, use, and management of data. TBD

- **Open Data use and reuse**

Open data use and reuse is not fixed as the corresponding legislation is missing, so each university has its own policy for this.

D2.3. Institutional policies of Open Science (OS)

- **I.3. Evolution of Open Science Evaluation**
- **Open Metrics and Impact (Bibliometrics, Semantometrics, Webometrics)**

Yerevan State University http://www.ysu.am/ World Ranking	Continental Ranking	Country Rank	Impact	Openness	Excellence
2522	899	1	4699	2441	3038

D2.3. Institutional policies of Open Science (OS)

ranking	World Rank	University	Det.	Impact Rank*	Openness Rank*	Excellence Rank*
1	2522	Yerevan State University		4699	2441	3038
2	3921	American University of Armenia		4987	4871	4559
3	4701	Russian Armenian State University / Российско-Армянский Славянский университет		8650	4832	5051
4	5581	Yerevan State Medical University		10999	6492	4498
5	8258	Armenian State University of Economics		4814	6492	6650
6	11191	National Polytechnic University of Armenia		12389	6492	6216
7	13105	Yerevan State Linguistic University		11247	6492	6650
37	28852	Mesrop Mashtots University Yerevan		28834	6492	6650
38	29079	Progress University of Gyumri		29066	6492	6650
39	29538	Mesrop Mashtots University Stepanakert		29523	6492	6650
40	29751	University of Foreign Economic Relations		29737	6492	6650

D2.3. Institutional policies of Open Science (OS)

- **Open Peer Review issues**

By the order of YSU adopted in 2020, YSU journals that are also published in English must be registered in Scopus and Web of Science international systems.

- **Plagiarism monitoring**

Supreme Certifying Comittee of RA has its own software for plagiarism checking, but they check new dissertations with the data available on their database, so it has many restrictions.

Plagiarism checking programs are actively used for YSU bachelor and master's studies

- **I.4. Evolution of Open Science Tools To be revisited**
- **Open repositories**
- **Open workflows**
- **Open services**

D2.3. Institutional policies of Open Science (OS) SWOT

- **STRENGTHS**
- Existence of a rich image of experience of scientific-research activity and scientific-research works,
- 23 affiliated journals with YSU, one of which Armenian Folia Anglistika is on the registration stage on Scopus,
- Existence of partnerships between the private sector-government,created start-ups with private sector,
- Existence of comprehensive research on the issues of most interesting topics to the public and private sector in the fields of both exact and social sciences, public policy, security,
- Implementation of basic, applied-purpose scientific research,
- Targeted training of applicants and post-graduate students with updated educational programs,changed courses that to promote professional growth,
- Existence of institutional and international grants to finance the research projects,
- Joint grant programs with State Committee of Science,
- Development of internal institutional grants that will promote,
- Existence of some open access data on the website of the Uiversity,
- Banber scientific journal that is also registered on OJS system,
- High level in the rankings of some international rating systems,
- High weight of articles presented in Web of Science, Scopus and other databases ,
- Availability of 33 basic scientific laboratories in almost all research areas,

D2.3. Institutional policies of Open Science (OS) SWOT

WEAKNESSES

- Insufficient level of scientific research methodology and insufficient level of some methodoligical capacities among young researchers at the University,
- The low level of student participation in scientific-research projects,
- The low weight of the scientific component in the field of educational activities and some social science areas,
- Low share of implementation of joint international research programs,
- low level of efficiency in the field of commercialization of intellectual property,,
- Low level of research works in english,
- The absence of plagiarism monitoring system,
- The absence of big server for big data access,

D2.3. Institutional policies of Open Science (OS) SWOT

OPPORTUNITIES

- Creating new international opportunities for the management of scientific-research activities of the University,
- Acquisition of a new server for providing open access for big data,
- Integration into international standards in the process of science development of the University,
- Application of innovative and modern technologies for new research activities,
- Involvement of foreign partners in joint education programs and international grants;
- Integration of the university to the international academic community by increasing the availability in some international databases,
- Creating joint plagiarism monitoring system for the university,
- Development of institutional travel grants,
- Increase in interdisciplinary research works,
- Increase in English language research, availability of English PhD thesises,
- Establishment of the Yerevan State University as research university not only on national but also on international level.

D2.3. Institutional policies of Open Science (OS) SWOT

THREATS
- Absence of national legislation on Open Science development,
- Lack of collaboration within universities in Armenia for creating open science joint platform
- Lack of collaboration between university and labour market,
- Unfair use of our research works without proper citation,
- Unstable situation in the country connected with political, economical, social and pandemic situation,
- Regular rise in prices of logistics, information, library and other resources under the influence of inflation,
- Absence of joint plagiarism system for monitoring research activity,
- Lack of original research works,
- Lack of interdisciplinary research,
- Lack of financial means for proper funding of young researchers,
- Lack of international collaboration to integrate into european joint education system.

D2.3. Institutional policies of Open Science (OS)

- **Priority Areas of strategic planning of open science** are as follows:
- Open Access / Area
- Open Data / Area
- Open Science Evaluation / Area
- Open Science Tools

D2.3. Institutional policies of Open Science (OS)

- **STRATEGIC PRIORITY AREA 1: Open Access / Area**
- **Strategic objective 1.1.** To develop Open Access Policy
- **Specific objective 1.1.1.** Monitor Open Access International Policies
- **Specific objective 1.1.2**. Increase the University international scientific-research products
- **Specific objective 1.1.3**. Increase Open Access Articles, Monographs and other scientific-research products of YSU

EXPECTED RESULTS

- **In relation to the objectives subsumed in Priority Area I - Open Access:**
- Promote of Open Access opportunities of YSU scientific-research products
- Increase of the collaboration with international scientific-research journals
- Increase of the number of scientific-research products in international high impact factor journals
- Increase of the university resources available on open access

D2.3. Institutional policies of Open Science (OS)

- **STRATEGIC PRIORITY AREA 2:** Open Data / Area
- **Strategic objective 2.1.** Set up Open Data Standards
- **Specific objective 2.1.1.** Enlarge Open Data Resources
- **Specific objective 2.1.2**. Increase collaboration for including other journals in open data resources
- **Specific objective 2.1.3**. Expand the university's participation in international library networks

EXPECTED RESULTS

- **In relation to the objectives subsumed in Priority Area II - Open Data:**
- Enlargement of open data resources
- Developemtn of open data standards and adaption of international standards for YSU
- Increase of collaboration to include other journals in open data resources
- Expance of the university's participation in international library networks
-

D2.3. Institutional policies of Open Science (OS)

- **STRATEGIC PRIORITY AREA 3:** Open Science Evaluation / Area
- **Strategic objective 3.1.** Increasing the opportunities for open science evaluation
- **Specific objective 3.1.1.** Increase the rank in international scientific area
- **Specific objective 3.1.2.** Set up Open Metrics Standards
- **Specific objective 3.1.3.** Invest joint plagiarism monitoring system

EXPECTED RESULTS

- **In relation to the objectives subsumed in Priority Area III - Open Science Evaluation:**
- All the academic staff members must be registered users in ORCID, Google Scholar, Research Gate, etc.
- Create new software for the university for checking its resources not only within database, but also web resources
- Collaboration with other institutions and SCC (Supreme Certifying Committee) to create general databse of Armenian articles, dissertations in order tha plagiarism software to be able to check these resources as well
- Create antiplagiarism policy at the university
- Increase the opportunities of the use of open science tools

D2.3. Institutional policies of Open Science (OS)

- **STRATEGIC PRIORITY AREA 4. Open Science Tools**
- **Strategic objective 4.1.** Increase the opportunities of use of open science tools
- **Specific objective 4.1.1.** Increase open repositories' data
- **Specific objective 4.1.2.** Develop Open Repository Policy
- **Specific objective 4.1.3.** Increase Open Repository us and reuse

EXPECTED RESULTS

- **In relation to the objectives subsumed in Priority Area IV - Open Science Tools**
- Enlargement of open science innovative tools
- Launch of new server
- Increase of opportunities of Open Repository use and reuse
- Create new innovative tools

FINAL PARTS
- VI. IMPLEMENTATION, MONITORING AND EVALUATION OF THE STRATEGY
- VII. RISKS IN THE STRATEGY IMPLEMENTATION PROCESS

Institutional OA Policy will address at the moment thoroughly addresses Intellectual property rights but will elaborate further at **YSU INSTITUTIONAL OPEN ACCESS POLICY**

It will include

- **1. Aims and Scope of the Policy**
- **2. Rights, Roles and Responsibilities**

Establishing an **Institutional open access repository**

Appointing a Research Data Officer

Developing and providing mechanisms and services for the storage, safekeeping, registration, deposition and distribution of research data and other records

Researchers responsibilities

- **3. Open Access to Publications**

Addressing existence of the machine-readable electronic copy of the published version or a final peer-reviewed manuscript;availability and policy re full-text of publications.

If/when possible, the full text of all publications referred to in 1 to be made available under a standard open license

Evaluation of the research output

YSU INSTITUTIONAL OPEN ACCESS POLICY will include

- **4. Open Access to Theses and Dissertations**
- This policy applies to all graduate and post-graduate students
- **5. Open Access to Research Data**
- **6. Licensing**
- **7. Open Science**
- YSU might encourage the uptake of open science practices such as open access to publications and data, involvement in collaborative community science projects, the use of open educational resources etc.
- **8. Research Assessment and Evaluation**
- **9. Training**
- Developing training courses to facilitate the adoption of open science and equip researchers and librarians and other support staff with the necessary skills and expertise

Institutional Regulation on Repository

- YSU Repository is planned to be set up in 2022, within the structure of YSU library, which will be open electronic, cumulative archive and will be managed by the YSU library in cooperation with other structural units. The **institutional repository** is an online archive for collecting, preserving, and disseminating digital copies of the intellectual output of an institution, particularly a research institution. Institutional Repository will be based on DSpace – an open-source software package.

- The goal of Institutional Repository is defined in the Strategic Development Plan "Develop the information systems and library infrastructure necessary for the implementation of the educational process."

- YSU Repository will be registered in the following systems:

- Directory of Open Access Repositories (OpenDOAR),

- Registry of Open Access Repositories (ROAR),

- Webometric classifiers.

Institutional Regulation on Repository

- In order to create and manage the activity of the Institutional Repository, until 2022 the following documents will be developed:
- YSU Open Science Strategy,
- YSU Open Access Policy,
- Regulation on YSU Repository,
- IP Policy on commercialization

ADVANTAGES OF ARCHIVING DOCUMENTS IN INSTITUTIONAL REPOSITORY

- to expand YSU research accessibility,
- to increase YSU reputation in the international scientific environment,
- to contribute to the increase of communication in scientific circles,
- add citations to publications,
- create a unified system of protection of scientific resources,
- to ensure the safe use of YSU scientific-research resources by a wide range of scholars;
- to promote the competitiveness of researchers
-

Institutional Regulation on Repository

- **YSU REPOSITORY STRUCTURE**
- Repository will have a horizontal structure and will consist of communities, sub-communities, collections and sub-collections.
  - **Division**
- The horizontal structure is represented by Communities, which include sub-communities. Communities and sub-communities are represented in accordance with specializations of the:
- Social Science and Humanities,
- Natural and Exact Sciences.
-
- **3.2 Collections**
- Collections are formed by type of documents:
- scientific articles,
- didactic publications (textbooks, manuals, lectures, YSU courses, methodological guidelines etc.)
- monographs,
- PhD dissertation
- Doctoral dissertation,
- Master theses,
- Graduate papers,
- Scientific reports,
- Patents and inventions,
- Multimedia

- **<u>Collection can be included in one or more divisions.</u>**

Institutional Regulation on Repository

- **7. ARCHIVING**
- **7.1 Basic steps**
- **7.2 Specify location of a document**
- **7.3 Detailed description of metadata**

Signatory of the Berlin Declaration

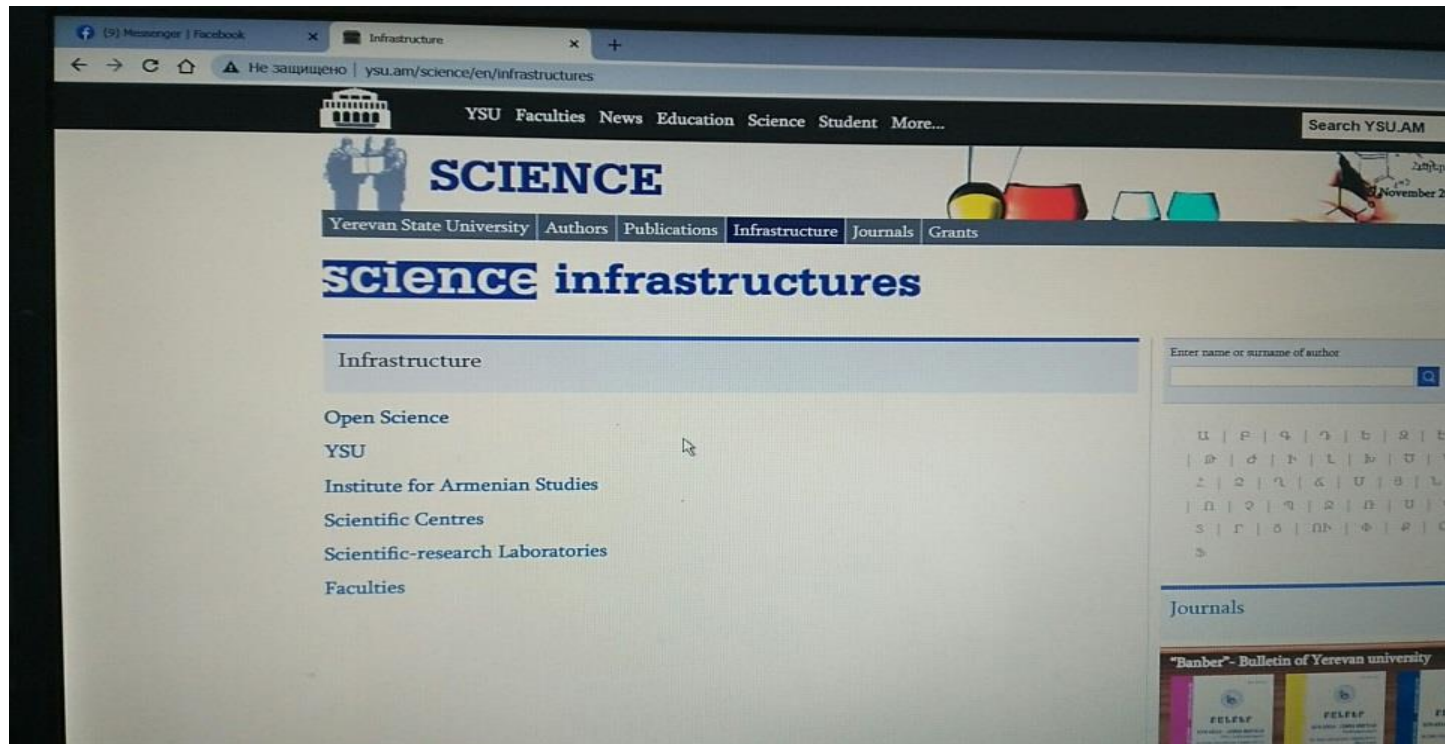- YSU has been added to the list of signatories with the sign date June 29 2021 under No 692
- http://openaccess.mpg.de/319790/Signatories

2. D.3.3. Integrated system of institutional repositories

- **http://www.ysu.am/science/en/infrastructures**

- http://www.ysu.am/science/en/1638189650

- Equipment purchase – Done details in the financial report and below

- DSpace software installment WORK IN PROGRESS https://dev-dspace.ysu.am/home

DSpace at YSU

OS at YSU

YSU Equipment

Prt №	Invoice	Date	Nature, type and specification of the item	Providing company	Can-ty	AMD	EUR
P8_YSU	B-4388720329	31.05.2021	Multifunctional machine (printer, scan, copy)	"LANAR" LLC	1	249 920,00	451,55
P8_YSU	B-7173515288	01.06.2021	UPS	"IT365" LLC	1	2 124 000,00	3 837,61
P8_YSU	B-9348452754	10.06.2021	Server	"LANS" LLC	1	6 700 000,00	12 105,44
P8_YSU	B-5403313787	08.07.2021	SAN Storage	"LANAR" LLC	1	5 277 270,00	9 534,88
P8_YSU	B-7742946015	16.08.2021	Computer All-in-One	"LANAR" LLC	5	2 000 000,00	3 296,85
P8_YSU	B-7742946015	16.08.2021	Notebook	"LANAR" LLC	5	1 400 000,00	2 307,79
P8_YSU			Software Adobe Acrobat Pro		5		
P8_YSU			Armenian antiplagiarism software		1		
			TOTAL			15 377 270,00	31 534,12
			Info EUR			553,47	
						606,64	

3. D4.1. Report on EU practices related to research management/ A4.1.2. Creation and adoption of bylaws relevant for HR enhancement

- Research Development Strategy /2021-2026/ draft to be presented to the Board for validation

- **DOCUMENT IN HAND -** <u>ON ORGANIZING REGULAR QUALIFICATION OF SCIENTIFIC WORKERS OF YEREVAN STATE UNIVERSITY</u>

- **Carry out attestation according to the following positions:**

- **By positions: Chief researcher; Leading researcher; Senior researcher; Researcher; Junior researcher.**

- ORGANIZATION OF QUALIFICATION PREPARATION PROCESS: SUMMARIZING THE RESULTS AND APPEALS

- **METHODOLOGY: SCIENTIFIC ACTIVITY INDEX**

Creation and adoption of bylaws relevant for HR enhancement

- **Four document to be elaborated and some to be presented to the University Scientific council**

1 HRS4R action plan under Euraxess (also see the presentation delivered on 19.11 2021)

Ethical and professional asects

- IP policy, Research Ethics Policy, Open Science Policy (draft versions) .

- Handbooks for researchers (ongoing) .

- Academic writing center for PhD students and young researchers (ongoing) .

- Anti-plagiarism system for Bachelor and Master study (already used at the Center for European Studies and some faculties).

MAIN GAP TO ADDRESS

- Establishment of an unified anti-plagiarism system, which will promote the cooperation of universities and research institutions, will ensure the development of original and open minded research.

Creation and adoption of bylaws relevant for HR enhancement

<u>Recruitment and selection</u>

Strength

- The selection is based on professional exams (PhD students)
- Vacancy advertisements are well organized and promoted
- Candidates are well informed on selection process
- The selection process is organized by qualified staff
- Currently YSU has organized the attestation of 27 scientific laboratories. This process helped to measure scientific and research activity of our research staff and to give them impartial qualification

MAIN GAP TO ADDRESS

- The absence of unified "Supervision" system for PhD students and researchers. ''Supervision'' is electronic system of educational process management at YSU. It already works for bachelor and master study. This system will help to organize research management more professionally.
- Department of Scientific policy already works with YSU Information Technology Center to speed up the process.

Creation and adoption of bylaws relevant for HR enhancement

- Working conditions and social security

MAIN GAP TO ADDRESS

- Most scientists at YSU are more focused on their educational activity than on scientific activity, which reduces their research effectiveness. Now the university is working to promote their scientific activity, creating an improved scientific environment and providing high salary

Creation and adoption of bylaws relevant for HR enhancement

Training and development

- Yerevan State University has developed and already has started to provide internal grants for YSU researchers and administrative staff. This will contribute to the improvement of their working qualities and the acquisition of financial support.

- Also YSU has been developing Travel Grant scholarships for young researchers. These will promote their international activity, provide funding for their research works and provide as well their involvement into European research area

MAIN GAP TO ADDRESS

- Most of our researchers are not registered at Research Gate, Scopus and other outstanding international research systems. This reduces international visibility of our university. Now one of the key tasks of Yerevan State University is to ensure the international activity of our researchers(providing high rewards for international articles, creating Scopus journals and so on).

Creation and adoption of bylaws relevant for HR enhancement

- **OTHER DOCS to be adapted**

2 Regulation on Anti-plagiarism TBD

3 Regulations for the organization and operation of the scientific library **UNDER REVIEW**

4 Regulation on the organization and functioning of the Science (management) department **UNDER REVIEW**

Seminars and Information sessions

- **D4.2. HRS4R adopted / A4.2.1**. Seminars on HRS4R development

Hold on 29.11 on line

- **D4.4. Plagiarism monitoring tools implemented/A4.4**. Implementing plagiarism monitoring tools

STILL under discussion with 2 directions/agreements for operation of the soft and interface/adapted for each HEI practices current pracitces

- **D6.3. TG Information sessions/ A6.3.** Design and run the dissemination to TG raise awareness on research and OSP

YSU MINERVA workshop on Open Science: Strategy and actions

October 20 for staff

October 27 for students (including PhD) + informal information circulation

Seminars and Information sessions

<u>D6.4/A6.4</u> *Institutional Career development event on Research and OS*

YSU MINERVA workshop on Research Management: ***EURAXESS and HRS4R***

- **<u>November 10 for staff</u>**
- **<u>November 17 for students (including PhD)</u>**

- **D6.5. Multiplier events**/ **A6.5** Country Workshop / **A6.5.** Other multiplier events

STRENGTHENING RESEARCH MANAGEMENT AND OPEN SCIENCE CAPACITIES OF HEIS IN MOLDOVA AND ARMENIA (MINERVA) PROJECT
***International Workshop on Open Science hold at* Yerevan State University on** October 7 - 8, 2021 – 2 day event ....

Another slide….

- Yes, just another slide

One more…

- And one more slide…….

And one moreeeeeeeeeeee

- Enough?????????

- Ok then THANKS A Lotttttt for patience……
- Ok atunci MULTUMESC MULTTTTTT pentru rabdare……
- Լավ, ուրեմն ՇՆՈՐՀԱԿԱԼՈՒԹՅՈՒՆ համբերության համար……

Performed activities under MINERVA and more to come...

Funded by the
Erasmus+ Programme
of the European Union

MINERVA 2019-2022
Strengthening Research Management and
Open Science Capacities of HEIs in Moldova and Armenia