

TEMPLATE 4: ACTION PLAN

Case number: 2020AM531432

Name Organisation under review: Yerevan State Medical University

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1. ORGANISATIONAL INFORMATION

STAFF & STUDENTS	FTE
<i>Total researchers = staff, fellowship holders, bursary holders, PhD. students either full-time or part-time involved in research</i>	463.5
<i>Of whom are international (i.e. foreign nationality)</i>	0
<i>Of whom are externally funded (i.e. for whom the organisation is host organisation)</i>	0
<i>Of whom are women</i>	266.75
<i>Of whom are stage R3 or R4 = Researchers with a large degree of autonomy, typically holding the status of Principal Investigator or Professor.</i>	74.5
<i>Of whom are stage R2 = in most organisations corresponding with postdoctoral level</i>	314
<i>Of whom are stage R1 = in most organisations corresponding with doctoral level</i>	36.5
<i>Total number of students (if relevant)</i>	6360
<i>Total number of staff (including management, administrative, teaching and research staff)</i>	1325.5
RESEARCH FUNDING (figures for most recent fiscal year)	€ (Exchange rate – 641 AMD as of December, 2020)
<i>Total annual organisational budget</i>	21,494,539
<i>Annual organisational direct government funding (designated for research)</i>	169,335
<i>Annual competitive government-sourced funding (designated for research, obtained in competition with other organisations – including EU funding)</i>	937,364
<i>Annual funding from private, non-government sources, designated for research</i>	0
ORGANISATIONAL PROFILE (a very brief description of your organisation, max. 100 words)	
<p>Yerevan State Medical University after Mkhitar Heratsi (YSMU) is a state non-commercial foundation. Its establishment dates back to the early 1900s. Today YSMU is the only state institution in Armenia to train physicians and biomedical research staff. The University education, research and clinical activities are being organized in 7 faculties, 106 academic departments, 2 in-patient and 6 out-patient clinics, Scientific Research Center with 12 laboratories, and Simulation center. YSMU employs 3000 academic and non-academic staff and approximately 5200 local and 1184 international students study here. It has an exclusive role in the region as an academic institution hosting international students from more than 40 countries.</p>	

2. STRENGTHS AND WEAKNESSES OF THE CURRENT PRACTICE:

Thematic heading of the Charter and Code	STRENGTHS and WEAKNESSES
Ethical and professional aspects	<p><u>STRENGTHS</u></p> <p>YSMU has relevant mechanisms in place for fulfilling the ethical and professional aspects in research. Through the Ethics Committee the implementation of fundamental ethical principles appropriate to the biomedical research as well as to their profession are being successfully coordinated. Researchers respect the recognised ethical principles related to their research and the corresponding procedures are being strongly followed and monitored.</p> <p>The University website is a dynamic source of information for researchers on the institutional strategic goals as well as regulations governing the administrative, teaching, and research environment. It also serves as an interactive platform for researchers to be informed on their obligations to submit reports depicting the results of their research work. The performance of PhD students is annually checked and evaluated by an attestation mechanism, meanwhile the performance of postdoctoral researchers are assessed by and remuneration mechanism is based on 3 key indicators: publications in IF journals (remuneration is calculated by the impact of the journal, role and contribution of the researcher), research projects (initiated by the researchers as a Principal Investigator) and participation in conferences (with key-note presentations).</p> <p><u>WEAKNESSES</u></p> <p>Although thoroughly recognized, researchers' freedom to think/act/choose is limited to the line where financial problems arise in terms of capacity to implement the research in a scope defined. The University fails to adopt relevant mechanisms for allocating certain funds for research from own budget due to its teaching-oriented character and scarcity of funds. This greatly influences the overall impact of research on the international level. Sometimes researchers lack enthusiasm as they are sometimes not relevantly remunerated and have to ensure key conditions for research by their own efforts. In order to be able to ensure original research we lack corresponding software as well. YSMU has no experience or income from industry: commercialization of research outcomes is not implemented. Studies are mainly based on fundamental research and their outcome is not easily commercialized. These impede the process of engaging the public into research and the culture to make results accessible to the public still needs to be developed.</p>

<p>Recruitment and selection</p>	<p><u>STRENGTHS</u></p> <p>The University applies clearly specified entry and admission standards of PhD students. The call for applications for PhD positions is relevantly advertised through the University website as well as through the most widely read newspapers.</p> <p>The admission is carried out both on full-time and part-time basis, both paid and free of charge. Admission committees are formed by the order of the Rector for organizing PhD study admission. At the same time professional examination committees are formed for taking the major exam of PhD study admission. 3-5 specialists with scientific degree or academic title in the given professional field are included in the committee.</p> <p>The whole admission procedure with clearly set deadlines is thoroughly introduced in the website of the University.</p> <p><u>WEAKNESSES</u></p> <p>Research staff recruitment and HR strategies are not fully implemented within the University.</p> <p>There are no permanent research positions at YSMU except those that are available in frames of grant projects. Research-only staff is considerably low as compared to teaching-related staff. The academic staff as a rule combines research and teaching duties due to the fact that orientation has been prone towards education.</p> <p>This implies that specific procedures for the recruitment and selection of researchers are not applied. Correspondingly, research positions are not advertised in the website of the University and it is, in fact, out of the scope of the activities of the Career Center.</p>
<p>Working conditions</p>	<p><u>STRENGTHS</u></p> <p>There is a well-established research culture and mechanisms for conducting research activities. Approximately 100 departments are functioning within the University of which the majority is doing research together with academic activities. There is also Scientific-Research Center with 3 laboratories which provide the departments with necessary equipment and materials for carrying out experiments. Research is mainly funded by the state budget through grant projects and research infrastructure basic funding program. In recent years YSMU has been implementing 2 Horizon2020 projects (COBRAIN, SCAUT) which are greatly impacting the involvement young and senior researchers in state of the art research activities. Simultaneously, the technical capacity of the field of neuroscience is developing day by day through these projects.</p> <p><u>WEAKNESSES</u></p> <p>The funds allocated to research by the University and the Government are not sufficient for developing certain fields of research in terms of</p>

	<p>purchasing equipment and materials and providing sufficient wages. This is possible only in cases of obtaining major funding from EC framework programs or other. Not all research groups are capable of applying for funding from international funders. For this reason some priority research directions do not perform actively and remain invisible in the international landscape of research. Given the reason of being a teaching-oriented institution, YSMU academic staff is mainly engaged in teaching and less time is allocated to research activities.</p>
<p>Training and development</p>	<p><u>STRENGTHS</u> Supervisors and PhD students have legally binding relations with the University. As soon as the research topic and the candidacy of the supervisor is confirmed by the Scientific-Coordination Council a trilateral contract between the University Rector, the supervisor and the researcher is signed which helps to smoothly regulate the relationships as well as to recognize the responsibilities and the rights of each of the party.</p> <p><u>WEAKNESSES</u> Professional development opportunities are not limited to formal continuous professional development courses. Attractive content of education are provided also through non-formal ways of disseminating professional knowledge: conference, congress, etc. The participation of researchers in such events is encouraged, however not regularly supported by the University. Thus, the frequent participation in international events of disseminating professional knowledge is not affordable for all researchers.</p>

3. ACTIONS

The Action Plan and HRS4R strategy must be published on an easily accessible location of the organisation's website.

*URL: https://ysmu.am/hy/page_list/hr_excellence_research/#sthash.dnr4tCnT.dpbs

Proposed ACTIONS	GAP Principle(s)	Timing (at least by year's quarter/semester)	Responsible Unit	Indicator(s) / Target(s)
<i>Free text -100 words max</i>	<i>Retrieved from the GAP Analysis</i>			
Develop a system for giving credits to international cooperation and applications for grants. Calculate these credits in the attestation and qualification process and consider them while estimating their research performance.	1. Research freedom Researchers lack openness in international cooperation, they should more actively seek additional funding for their research.	December, 2022	Research management unit	Refined practical guideline or a specific policy
In frames of ERASMUS + MINERVA project a plagiarism checking tool (Armenian language) will be obtained.	3. Professional responsibility In order to ensure and validate originality of research, a trustable plagiarism checking tool should be obtained or developed having capacity to check information in 3 languages (Armenian, Russian, English).	December, 2023	Research management unit	Plagiarism checking software

<p>Organization of information days for last year residents.</p>	<p>5. Contractual and legal obligations</p> <p>A series of seminars/trainings should be organized for residents to inform on their obligation and right to be informed about regulations governing their careers. They should be taught what to know and where to find information.</p>	<p>Annual</p>	<p>Department of Scientific Personnel Training and Planning</p>	<p>Seminar program</p> <p>Informed potential researchers</p>
<p>In frames of ERASMUS+ MINREVA project we will obtain technical means in order to be able to organize and run an institutional repository of open research outputs.</p>	<p>6. Accountability</p> <p>YSMU hasn't established an institutional repository yet in order to make research results open and available for researchers, authorities and the society.</p>	<p>September, 2023</p>	<p>Research management unit</p> <p>Library</p>	<p>New infrastructure for running the repository</p>
<p>In frames of ERASMUS+ MINREVA project we will obtain memory storages for research groups.</p>	<p>7. Good practice in research</p> <p>The University should ensure the functioning of a proper back-up strategy. Research groups should be given opportunity to safely store their research data in appropriate memory storages. The improvement of working conditions and provision of safe environment should be a daily task for the University.</p>	<p>December, 2022</p>	<p>Research management unit</p> <p>Department of Information Technologies and Communication</p>	<p>Protected research data</p>

<p>Article writing seminars conducted by involving international experts.</p> <p>In frames of HORIZON2020 COBRAIN project we will develop an action plan for improving academia-industry relations.</p> <p>Technology transfer office will be established within the University.</p>	<p>8. Dissemination, exploitation of results</p> <p>YSMU lacks highly cited researchers on ClarivateAnalytics as well as publications among the top 10% most cited journals. This is mostly related to the traditional approach of being published in local (national and Russian) journals the majority of which are not included in relevant databases.</p> <p>YSMU lacks technology transfer function. The linkage between the University and the industry is poor.</p>	<p>May, 2023</p>	<p>Research management unit</p> <p>Department of Foreign Languages</p>	<p>Seminar program, trained researchers able to write quality papers</p> <p>YSMU technology transfer model, regulations for proper functioning of technology transfer office.</p>
<p>In cooperation with the non-government sector meetings with target groups will be organized in order to get used to communicating research results in a plain language.</p> <p>The annual report template for research activities will be updated: we will require writing an abstract for the lay public for each research project.</p>	<p>9. Public engagement</p> <p>Communicating research results is a relatively new tendency and researchers haven't developed the culture of publicizing research results yet. For this they need to develop relevant skills to be able to speak about their research results in a plain language.</p>	<p>Annual</p>	<p>Research management unit</p> <p>Department of Public Affairs</p>	<p>Researchers able to speak about their achievements in a language that can be understood by the public</p> <p>Raised public awareness on current research projects and their results</p>

<p>To update the indicators of qualifications for positions by including research-related KPIs.</p> <p>Developing mechanism for sending the researchers with unimproved research performance to participate in the open competition of the same position they hold.</p> <p>Official address to international partners to act as independent experts in selection committees.</p>	<p>11. Evaluation/appraisal systems</p> <p>In the case of senior research staff the performance is checked only when applying for an open position within the University or a grant project. The analysis of annual report data shows that there are researchers who have low performance or whose KPIs do not improve over years. YSMU lacks relevant procedures to apply control or constraint mechanisms in such cases.</p> <p>The attestation mechanism should be upgraded through involving international experts/researchers. Attestation should be applied for researchers in all levels.</p>	<p>May, 2023</p>	<p>Research management unit</p> <p>Department of Human Resource Management</p>	<p>Updated indicators of qualifications for positions</p>
<p>To develop policies for HR recruitment in research.</p>	<p>12. Recruitment</p> <p>We lack policies for HR recruitment. Appointment of researchers and other staff is not regulated by clear guidelines and policies.</p>	<p>June, 2023</p>	<p>Research management unit</p> <p>Department of Human Resource Management</p>	<p>Official document on recruitment of researchers to complement the whole HR policy of YSMU.</p>
<p>To update the regulation of forming selection committees in a way to be able to involve representatives from the job market.</p>	<p>14. Selection (Code)</p> <p>The selection committee should involve representatives from the job market.</p>	<p>June, 2023</p>	<p>Research management unit</p>	<p>Updated list of committees</p>

Update the researchers' classification description in accordance with European standards and submit to the Scientific-Research Council for confirmation.	20. Seniority (Code) The description of research positions should be updated in terms of making them in line with or closer to the international standards.	September 2022	Research management unit Department of Human Resource Management	Updated list of researcher's classifications and description of research positions
Fact finding and analysis of the subject taught in high ranking universities. Allocation of time and position of the subject in the education programme of researchers.	22. Recognition of the profession YSMU needs to introduce the subject "Academic communication skills" into the Curriculum and upgrade the course intended for researchers. In addition, practical skills should also be developed constantly.	January 2022	Research Division	Updated education programme of researchers
Supported by the HORIZON2020 COBRAIN and World Bank projects YSMU will establish Brain Research Excellence Center to serve as a new research environment for the new generation of researchers.	23. Research environment The University should allocate more resources for improving the research environment in order to stimulate the wider inclusion of the young generation of researchers.	May, 2023	Research management unit	State of the art research environment
Appointment of responsible staff for making use of the EURAXESS portal. Cooperation with the Career Center in terms of giving access to data on research positions.	28. Career development It is necessary to introduce mechanisms and targeted development for human resource management. YSMU doesn't make full use of the EURAXESS portal to ensure research	May, 2022	Research management unit Department of International relations	Active advertisement of research positions

	vacancies are visible to a wider audience.			
In frames of HORIZON2020 COBRAIN project we will develop an action plan for improving academia-industry relations. Technology transfer office will be established within the University.	31. Intellectual Property Rights Contracts with commercial organizations for participating in research and cooperating with research teams are rare.	May, 2023	Research management unit	Functioning Technology transfer Office
In frames of ERASMUS+ MINERVA project we will formulate and adopt institutional policies on Open Science which will cover also the issues of co-authorship.	32. Co-authorship YSMU should adopted official mechanisms or procedures to regulate issues regarding co-authorship.	December, 2021	Research management unit Law department	Strategy on Open Science Action Plan for promoting Open Science principles
Proposing international partners and visiting professors to act as international experts in the Scientific-Coordination Council.	35. Participation in decision-making bodies The Scientific-Coordination Council lacks international experts in its structure to give unbiased recommendations and expert advice to complicated research problems.	December, 2021	Research management unit Department of International Relations	Updated list of Scientific-Coordination Council members
To develop a practical guideline for research supervision. Submission to the Scientific-Coordination Council for confirmation.	37. Supervision and managerial duties YSMU lacks an official document stating the comprehensive set of obligations and rights of supervisors.	December, 2022	Research management unit Law department	New regulator document on research supervision

The establishment of an Open Recruitment Policy is a key element in the HRS4R strategy. Please also indicate how your organisation will use the Open, Transparent and Merit-Based Recruitment Toolkit and how you intend to implement/are implementing the principles of Open, Transparent and Merit-Based Recruitment. Although there may be some overlap with a range of actions listed above, please

provide a short commentary demonstrating this implementation. If the case, please make the link between the OTM-R checklist and the overall action plan.

Over the recent years YSMU has been taking quality improvement measures in education and research as well as recruitment of staff in these fields. This implies that elements of "Open, Transparent and Merit-Based" standards are partially implemented in the development processes. However, it should be noted that there is no OTM-R policy adopted at YSMU. By embarking upon the HRS4R process we recognise the importance of such policy and we intend to develop an official document in order to ensure comprehensive implementation of the open recruitment process.

A dedicated webpage on the YSMU website (https://ysmu.am/hy/page_list/gitakan_kadrer/#sthash.7LfYZsqF.dpbs) contains information on the recruitment of PhD students and independent researchers. All regulations, practical guidelines as well as examination questionnaires are openly available for applicants. Additionally, the webpage of the Career Center advertises basically administrative or clinical vacancies. The Research Management Unit will propose a cooperation agenda with the Career Center and it will enrich its database with PhD and independent researchers' positions as well.

If your organisation already has a recruitment strategy which implements the principles of Open, Transparent and Merit-Based Recruitment, please provide the web link where this strategy can be found on your organisation's website:

YSMU hasn't yet developed a recruitment strategy which implements the principles of Open, Transparent and Merit-Based Recruitment.

4. IMPLEMENTATION

General overview of the expected implementation process:

The implementation of the proposed Action Plan will become a routine task for the Research Management Unit. The whole process will be supervised by the Vice-Rector for Science and the tasks will be distributed among corresponding departments but the activities will be implemented with the inclusion of different stakeholder groups. The Scientific-Coordination Council of YSMU will keep an eye on the quality and relevancy of the actions as compared with the action plan and the implementation of the 40 HRS4R principles. Issues that may need to be addressed by experts, will be forwarded to the Scientific-Coordination Council in order to undergo thorough discussion.

Make sure you also cover all the aspects highlighted in the checklist below, which you will need to describe in detail:

Checklist	*Detailed description and duly justification
How will the implementation committee and/or steering group regularly oversee progress?	The progress of the Action Plan and the implementation of HRS4R will be overseen by the Scientific-Research Council which acts as the only decision-making body in research-related issues. The coordinator of the project will continuously report on the situation during the meetings of the Council organized on a monthly basis / or upon urgency or necessity. It is worth mentioning that the Head of the Council is at the same time the Vice-Rector for Science. Expert Committees adjunct to the Council will give expert advice and will contribute to fulfilling the activities as assigned by the given Action Plan.
How do you intend to involve the research community, your main stakeholders, in the implementation process?	The meetings of Scientific-Research Council are open to the whole staff of the University and students as well. In addition, all stakeholders have representation in the Council who make their voice heard and vote for the best approach they take. This implies that all stakeholders will be directly or indirectly involved in the implementation of the Action Plan and the HRS4R process.
How do you proceed with the alignment of organisational policies with the HRS4R? Make sure the HRS4R is recognized in the organisation's research strategy, as the overarching HR policy.	Being the highest decision making body the Council can make proposals to the University Rector and higher bodies/boards to make relevant amendments and/or changes in institutional strategies and regulatory documents. However, by endorsing the 40 principles of the Charter and Code, we already express our commitment to start the procedure and undergo all the subsequent cycles of the implementation of these principles in our institution.
How will you ensure that the proposed actions are implemented?	The comparison of research performance indicators before and after the HRS4R process initiated at YSMU will show to what extent the proposed actions are implemented.
How will you monitor progress (timeline)?	The monitoring of the progress will be undertaken by the Expert Committees that function within the Scientific-Coordination Council as assigned to them by the functioning regulatory documents.

How will you measure progress (indicators) in view of the next assessment?	The analysis of the annual research reports will give a clear picture of the shifts of indicators which are defined to be increased by the proposed Action Plan.
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Additional remarks/comments about the proposed implementation process:

There are no additional remarks or comments.