

## **The activity REPORT of the Academy of Sciences of Moldova for 2018. Synthesis**

In 2018, the Academy of Sciences of Moldova (ASM) worked according to the new legislative provisions, according to Law no. 190 of September 21, 2017 for completing the Code of Science and Innovation, which includes the transfer from 20th February 2018 of the research institutes subordinated to ASM to the Ministry of Education, Culture and Research (MECR).

The supreme body of the ASM, established in the Code on Science and Innovation, is **the General Assembly**, which took place after the publication on 26 December 2018 of the results of the elections of the members of three science sections of the ASM, guided by the Regulation on election of members in science sections approved on September 12, 2018.

At this moment, the Academy of Sciences has 78 members, including 49 academicians and 29 corresponding members, and 54 honorary members elected by the General Assembly of the members of the ASM. The total number of Honoris Causa Doctors elected by decisions of the Supreme Council for Science and Technological Development of ASM and the Presidium of ASM consists of 23 persons.

In 2018, the General Assembly chose 6 honorary members: **acad. Victor Spinei**, Vice President of the Romanian Academy, **Her Majesty Margareta**, Romanian Crown Custodian, **Prof. Hidenori Mimura**, Director of the Shizuoka University Institute for Electronic Research, **Murat Jurinovici Jurinov**, President of Kazakh Academy of Sciences, **acad. Emil Burzo**, President of the Cluj-Napoca branch of the Romanian Academy, and **acad. Marius Andruh**, Head of the Chemistry Section of the Romanian Academy. In 2018, the honorary title of Honoris Causa Doctor of the Academy of Sciences of Moldova for a substantial contribution in the field of musical art, was awarded to Nicolae Botgros, the artistic director and leader of the National Music Orchestra "Lăutarii".

Throughout the year, the ASM assured the consultation of the draft normative acts in the areas of competence, the members of the sections taking part in elaboration and approval over 60 normative and legislative acts related to the research and innovation (GD "On some aspects of management of Research and Innovation Areas", GD "On the management and functioning of the National Agency for Research and

Development ", GD" On the Activity of Public Law Organizations in the Fields of Research and Innovation ", GD" Methodology for Financing Projects in the Fields of Research and Innovation " etc.). The internal normative acts of the ASM have been elaborated: Statute of the Academy of Sciences of Moldova; Regulations of the Presidium of the Academy of Sciences; Regulations of the Sciences Sections of the ASM.

The ASM also plays an important role in the implementation of the national road map for the integration of the Republic of Moldova into the European Research Area, the Implementation Plan for the years 2019-2021 incorporating 18 actions, including "Elaboration of the performance indicators of the scientific research", "Performance-Based Evaluation of Research Institutions and Researchers", "Enhancing Participation in Transnational Programs", "Using Different Tools to Ensure Access to European Research Infrastructure" etc.

In 2018, the members of ASM have participated in the implementation of more than 100 fundamental and applicative projects, 60 of that are institutional projects, 33 bilateral and international projects, and 8 projects under the Governmental Programs. According to the competencies stipulated in the Code, ASM organized the first public hearing of the reports for the bilateral research projects with Romania, with the participation of the members of the sections, the project managers, representatives of the contracting institutions, the National Agency for Research and Development (NARD), the Ministry of Education, Culture and Research and research project experts.

Together with the research institutes, universities, NGOs and Academies, including from abroad, the ASM contributed to the organization of over 50 national and international scientific events: the events dedicated to the Centenary of the Great Union, the World Congress of Eminescologists (VII- a) "Academic readings dedicated to the National Day of Romanian Language ", International Conference on e-Infrastructure in the Eastern Partnership countries, Days of State University of Medicine and Pharmacy "N. Testemitanu ", European Town 2018, Conference on Mathematical Foundations of Informatics MFOI-2018", „Conference on Mathematics, Informatics and Information Technologies”, „Functional Nanostructures and Sensors for CBRN Defence and Environmental Safety and Security” (FNS-CBRN Defence), "Telecommunications, Electronics and Informatics", "Materials Science and Condensed Matter Physics (MSCMP-2018) ", "Logistics and Supply Chain Management: Realities and Development Perspectives in the Republic of Moldova" and many other.

The academy of Sciences of Moldova is among the national leaders in the mass-media coverage of research results and last year ranked 695 level in the International Rankings of Research Centers, Webometrics.info.

In 2018, the General Assembly of the Members of the ASM was convoked in two sessions - on April 27 and October 24, 2018. The session of the Supreme Council for Science and Technological Development was convened in 5 meetings, where were approved 30 decisions regarding the scientific and economic-financial activity of the research institutions within the science sections of the ASM; the activity reports of the science sections and the Supreme Council for Science and Technological Development report on the managerial activity and the main scientific results obtained in the field of science and innovation in 2017 were heard and approved; were evaluated and classified the scientific journals, proposed for review by the Scientific Review Commission (Acad. Leonid Culiuc).

The Presidium of the Academy of Sciences of Moldova continued its work in order to achieve the objectives of the reform process. During the 26 Presidium meetings, were discussed and approved 42 decisions regarding the activity of the science and auxiliary institutions of the ASM, the management of the properties and goods of the ASM. At the Presidium meetings were determined and approved areas (scientific profiles, specialties) for the election of 15 scientific researchers within the ASM sections. The criteria for evaluation of the scientific reports on the implementation of research projects, which were used simultaneously with the *Instruction on the public hearing of the results of the research and innovation projects* approved by the Joint Decision of the NARD and the ASM, were established. The decision on the announcement of the competition was approved, setting out the scientific fields and nominations for awarding the ASM prizes for the year 2017.

The Supreme Council for Science and Technological Development of the ASM, by decision no. 2 from 01.02.2018 approved the budget of the institution for 2018 in the amount of 58,887.0 thousand lei, of which for the "Science and Innovation" sector amount of 35,223.3 thousand lei, including: general resources - 23 622.0 thousand lei, the volume of expenditures from domestic revenues - 4 636.0 thousand lei, the volume of expenditures from the projects financed from external sources - 6 965.3 thousand lei; for the Education sector - 23,663.7 thousand lei, including: high school education - 8,083.2 thousand lei and higher education - 15,580.5 thousand lei.

According to art. 67 of the republished Code on Science and Innovation of the Republic of Moldova no. 259-XV of July 15, 2004, within the ASM were created

three sections: **Life Sciences Section**, which includes 19 academicians, 12 correspondent members; **Exact and Engineering Sciences Section** with 18 academicians, 7 correspondent members; **Section of Social Sciences, Economics, Humanities and Arts** with 12 academicians and 8 correspondent members. Each section includes 15 Doctors of sciences.

Within the science sections meetings have been heard the reports on the institutional projects results during the period 2015-2018 and the Governmental Programs (Table 1. Number of projects carried out by section).

*Table 1. Number of projects carried out by section*

<b>Number of projects under LSS:</b>		<b>47</b>
<b>Institutional projects:</b>		<b>29</b>
	<b>Fundamental</b>	<b>12</b>
	<b>Applied</b>	<b>17</b>
<b>Projects under governmental programs</b>		<b>2</b>
<b>Bilateral projects</b>		<b>4</b>
<b>Multilateral / international projects</b>		<b>10</b>
	<b>Orizont-2020</b>	<b>3</b>
<b>Technological transfer projects</b>		<b>1</b>
<b>Projects for young researchers:</b>		<b>1</b>
<b>Number of projects under EESS:</b>		<b>43</b>
<b>Institutional projects:</b>		<b>19</b>
	<b>Fundamental</b>	<b>9</b>
	<b>Applied</b>	<b>10</b>
<b>Projects under governmental programs</b>		<b>3</b>
<b>Bilateral projects</b>		<b>8</b>
<b>Multilateral / international projects</b>		<b>10</b>
	<b>Orizont-2020</b>	<b>5</b>
	<b>Other (NATO, Scopes etc.)</b>	<b>5</b>
<b>Technological transfer projects</b>		<b>3</b>
<b>Number of projects under SSSEHA</b>		
<b>Institutional projects:</b>		<b>8</b>
	<b>Fundamental</b>	<b>6</b>
	<b>Applied</b>	<b>2</b>
<b>Projects under governmental programs</b>		<b>2</b>
<b>Bilateral projects</b>		<b>1</b>
<b>Multilateral / international projects</b>		<b>3</b>

The results of the researches were edited in a series of monographs, national and international journals, handbooks, articles, conference materials (Table 2). Editorial activity of the members of the ASM sections for the year 2018.

(Table 2). Editorial activity of the members of the ASM sections for the year 2018.

<b>Life Sciences Section</b>																	
	National articles			Articles in other national journals	Articles in national collections	Articles in impact-oriented journals			Articles with autochthonous authors	Articles in international journals	Articles in international collections	Monographs edited in:		Manuals/dictionaries/didactic works	Collections	Theses of communications at congresses, conferences, symposiums	
	A	B	C			>3	1,0-2,9	0,1-0,9				0,01-0,09	RM			Abroad	National
<b>201</b>		<b>31</b>	<b>5</b>		<b>16</b>		<b>7</b>			<b>25</b>	<b>5</b>	<b>6</b>	<b>1</b>	<b>7</b>	<b>2</b>	<b>11</b>	<b>85</b>

<b>Section of Exact and Engineering Sciences</b>																	
	National articles			Articles in other national journals	Articles in national collections	Articles in impact-oriented journals			Articles with autochthonous authors	Articles in international journals	Articles in international collections	Monographs edited in:		Manuals/dictionaries/didactic works	Collections	Theses of communications at congresses, conferences, symposiums	
	A	B	C			>3	1,0-2,9	0,1-0,9				0,01-0,09	RM			Abroad	National
<b>100</b>		<b>13</b>	<b>7</b>	<b>10</b>	<b>12</b>	-	-			<b>10</b>	<b>10</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>9</b>	<b>1</b>	<b>18</b>

<b>Section of Social Sciences, Economics, Humanities and Arts</b>																
	Articles in national journals				Articles in impact-oriented journals			Articles in international journals	Articles in national/international collections	Summaries of conferences	Monographs and collection in national and international	Chapters in monographs and collections	Manuals (handbook)			
	A	B	C	other	>3	1,0 - 2,9	0,1-0,9									
<b>244</b>	<b>7</b>	<b>10</b>	<b>8</b>	<b>3</b>	<b>14</b>	<b>13</b>	<b>8</b>	<b>12</b>	<b>52</b>	<b>94</b>	<b>4/7</b>	<b>10</b>	<b>2</b>			

**Publications of the members of ASM, 2018**



**Table 3. Patenting activity of LSS and EESS**

Number of applications	Number of issued patents	Number of implemented patents
<b>8</b>	<b>11</b>	<b>6</b>
<b>EESS Session Patenting Activity</b>		
12	13	1

The integration of the Moldovan researchers into the European Research Area is an imperative of the leadership of the country and the scientific community that was taken into account during 2018, the subject of introducing the performance-based research funding system; updating national research plans, taking into account the developments dictated by the negotiations on Framework Program 9 for the years 2021-2027; the Mission Oriented Research and Innovation in the European Union, designed to solve the pressing and immediate problems faced by society and to highlight research-based innovation; the new Open Science Cloud European Portal, which provides open access to data, services and research resources; continuous monitoring and analysis of STI policies (science, technology and innovation), etc.

Bilateral collaboration with academies of science of other countries is based on 47 agreements. This collaboration represents a great opportunity for joint research projects, facilitating access to foreign research infrastructure, creating and

strengthening partnerships with the aim of further participation in the national and international scientific and technological research programs.

In order to accomplish its mission to promote the high-resonance events that took place at the Academy of Sciences of Moldova, as well as to inform effectively the mass media, the Press Service of the ASM (included in the Academic Management and External Relations Division), took the role of operative and objective familiarizing of society with the results achieved by the scientists, but also with the impact events organized by the academic institution, which took place during the year 2018.

Remarkable for 2018 was the launch of European resonance projects, won by our scholars in collaboration with European partners. This is the launch of the Project of the Institute of Electronic Engineering and Nanotechnology won under the Horizon 2020 Program, September 21, 2018; Cross-border project to monitor the Black Sea basin ecosystems, 13 November 2018; European project for the development of nanotechnologies at the intersection with biomedicine, 20 November 2018; The MONITOX Project, the second Black Sea Program project, 29 November 2018. The launch of the projects was transmitted on-line by IDSI and reflected by the TV stations Moldova 1, Pro Tv, Radio Moldova, Moldpres and others.