Questionnaire

Part II

Information provided by the Government of the Republic of Moldova to the Questionnaire of the European Commission

CHAPTER 25:

SCIENCE AND RESEARCH

May 2022

Under Article 4 of the Treaty on the Functioning of the European Union (TFEU) there is the distribution of competences (shared competence) between the EU and Member States in the field of science and research.

Article 4(3) TFEU provides that: *'In the areas of research, technological development ... the Union shall have competence to carry out activities, in particular to define and implement programmes; however, the exercise of that competence shall not result in Member States being prevented from exercising theirs* (so called "parallel competence"). According to Article 179 (1) TFEU: *'The Union shall have the objective of strengthening its scientific and technological bases by achieving a European research area in which researchers, scientific knowledge and technology circulate freely, and encourage it to become more competitive, including its industry, while promoting all the research activities deemed necessary by virtue of other Chapter of the Treaties'*.

In accordance with the Euratom Treaty (Article 4), the Commission shall be responsible for promoting and facilitating nuclear research in the Member States and for complementing it by carrying out a Community research and training programme.

The *acquis* in Chapter 25 - Science and Research - as laid down in Title XIX of TFEU, as well as the Euratom acquis concerning research, do not require transposition of EU rules into the national legal order at the moment. However, the European Union, Euratom community, and the Member States are coordinating their research and technological development activities in order to ensure that national policies and the Union policy are mutually consistent aiming at the achievement of the European Research Area (ERA) (Art. 181 (1) TFEU).

Based on the Council Conclusions of 1 December 2020 and the Commission communication 'A new ERA for research innovation', work has begun towards building a common research area that is more tangible and impactful for researchers, innovators and citizens throughout Europe. The new ERA Policy Agenda 2022-2024 is the key framework for action at the level of EU, EU Member States and Associated Countries.

Integrated and efficient ERA also depends on the Member States' levels of participation in the Research Framework Programmes (FP). They currently include:

(1) Horizon Europe – the Research and Innovation Programme of the European Union (2021-2027), which is implemented through the specific programmes and the rules for the participation of undertakings, research centres and universities and for the dissemination of research results, and

(2) the Euratom Research and Training Programme (2021-2025) in the field of nuclear safety, radioactive waste management, radiation protection and fusion energy.

As part of the research actions funded by the European Union and Euratom, the Joint Research Centre (JRC) organises direct actions through its seven specialised institutes.

I. NATIONAL RESEARCH POLICY

A. Organisation of research at national level

1. Please describe the institutional framework by listing the relevant ministries, funding agencies, parliamentary committees and regional authorities for research and innovation policy by including their role and competences.

The institutional framework for the organization and functioning of research and innovation fields includes:

The Parliament of the Republic of Moldova has a special role in the improvement of the state policy in the fields of research and innovation, as well as in connecting the research and development process to the needs of the country. Thus, the Parliament, according to Art. 58 of the Code on Science and Innovation no.259/2004[1] has the following tasks:

- adopts normative acts regulating the activities in the fields of research and innovation;
- approves, in the annual budget law, the distinct amounts of funding of the research and innovation fields;
- ratifies the interstate treaties on cooperation in the fields of research and innovation.

The Parliament carries out its activities through Standing Committees. Research and Innovation activity is carried out by the Committee on Culture, Education, Research, Youth, Sports and Mass-Media of the Parliament of the Republic of Moldova. This Committee is responsible for:

- improving state policy in the field of science and innovation and connecting the research and development process to the needs of the country;
- monitoring the implementation of the Code on Science and Innovation;
- ensuring international scientific cooperation etc.

The Government of the Republic of Moldova in accordance with Art.59 of the Code on Science and Innovation has the following tasks:

- approves the National Programme, sectoral strategies and action plans on their implementation;
- adopts regulatory acts in the fields of research and innovation;

[1] Code on Science and Innovation No. 259/2004, available in Romanian at: https://www.legis.md/cautare/getResults?doc_id=110232&lang=ro

- supports the creation and optimisation of infrastructure in the fields of research and innovation;
- concludes intergovernmental cooperation agreements;
- establishes, reorganizes or liquidates public law organizations in the fields of research and innovation;
- carries out other attributions arising from the provisions of the regulatory framework.

The Ministry of Education and Research is the central specialized body of the public administration and in accordance with point 2 of the Regulation on the organization and functioning of the Ministry of Education and Research, approved by Government Decision no.146/2021[2] ensures the implementation of government policy in the fields of research and innovation.

In the same context, according to Art. 60 of the Code on science and innovation no.259/2004, the Ministry of Education and Research has the following tasks:

- elaborates, within a broad consultation exercise with the interested entities, and promotes the National Programme, sectoral strategies and action plans on their implementation;
- proposes to the Government, within the limits of the approved annual budgetary means, the revision of the action plans for the implementation of the National Programme and of the sectoral strategies;
- elaborates, according to its competences, the normative acts for the creation of instruments for stimulating and promoting activities in the fields of research and innovation;
- approves the institutional financing budgets;
- examines the scientific reports elaborated in the fields of research and innovation;
- proposes to the Government the establishment, reorganization or liquidation of public law organizations in the fields of research and innovation;
- elaborates the draft medium-term budgetary framework in the fields of research and innovation, including for institutional funding;
- coordinates, monitors and promotes the research and innovation activities of the subordinated organizations;
- promotes bilateral and multilateral programs in the fields of research and innovation, launched within the framework of cooperation agreements with international organizations and foundations;

[2] Government Decision No.146/2021 on the organization and functioning of the Ministry of Education and Research, available in Romanian at: https://www.legis.md/cautare/getResults?doc_id=127622&lang=ro

- monitors the implementation of policy documents and projects in the fields of research and innovation and submits annually to the Government the report on their implementation, etc.

Additionally, the Ministry of Education and Research has the quality of founder in public law organizations in the fields of research and innovation provided in Annex no. 6 of the Government Decision no.146/2021 on the organization and functioning of the Ministry of Education and Research. Subsequently, the Ministry of Health, the Ministry of Culture, the Ministry of Agriculture and Food Industry, the Ministry of Internal Affairs, the Ministry of Defense and the State Chancellery exercise the responsibilities deriving from the quality of founder in organizations in the fields of research and innovation. The founders of the organizations in the fields of research and innovation have the following attributions:

- approve the structure of legal entities in the fields of research and innovation, developed in accordance with the strategic priorities of the areas of research and innovation,
- elect the management of the organisation governed by public law in the fields of research and innovation on a competitive basis.
- establish the tasks of the head of the organisation in the fields of research and innovation, in accordance with the regulatory framework.
- approve the number of scientific and auxiliary functions of the organisation governed by public law in the fields of research and innovation,
- determine the structure and functions of the scientific-technological information organizations of public law, in agreement with the central specialized bodies.

The **local public administration authorities** also participate in the elaboration and promotion of the state policy in the fields of research and innovation at regional level, as well as finance from the local budget for regional programs and projects in the fields of research and innovation. Thus, according to Art. 62 of the Code on Science and Innovation No.259/2004, the local public administration authorities:

- participate in the elaboration and promotion of state policy in the fields of research and innovation at regional level;
- finance from the local budget regional programmes and projects in the fields of research and innovation;
- create organizations in the fields of research and innovation, funded from the local budget;
- promote the policy of implementing advanced technologies and establishing cooperation relations with/between structures in the fields of research and innovation of organizations, institutions and enterprises in the territory.

The National Agency for Research and Development, in accordance with the Government Decision No.196/2018 on the organization and functioning of the National Agency for Research and Development[3] is a central administrative authority subordinated to the Government, which implements the state policy in accordance with the National Program in the fields of research and innovation and sectoral strategies and manages the approved budget for the financing of projects according to the regulatory framework.

Thus, under the provisions of Art. 61 of the Code on Science and Innovation No.259/2004, the National Agency for Research and Development has the following attributions in the fields of research, innovation and development:

- implements the state policy according to the action plans approved by the Government to implement the National Programme and sectoral strategies;
- manages the approved budget for the financing of projects, according to the regulatory framework;
- manages national funds in the field of development and funds from bilateral and multilateral programs launched within the framework of cooperation agreements with international organizations and foundations, according to the Government's decision;
- delegates representatives within the bilateral and multilateral programmes launched in accordance with the cooperation agreements with international organizations and foundations;
- organizes and carries out contests of projects, including ensuring the independent expertise and evaluation of projects submitted to competitions, in order to distribute the public funds allocated for the financing of projects;
- selects for financing, within the limits of the approved budget and according to the action plan approved by the Government, the projects submitted to the competition, following the evaluation carried out by local and/or foreign researchers, according to the financing methodology of the projects approved by the Government;
- organizes and ensures the contracting of the winning projects;
- monitors the implementation of projects and submits annually to the Government reports on their implementation;
- submits to the central specialized bodies of the state proposals for the improvement of policy documents and draft normative acts;
- creates, maintains and grants the general public access to databases in the fields of research, innovation and development, including national databases of national and international researchers participating in project evaluation,

[3] Government Decision No.196/2018 on the organization and functioning of the National Agency for Research and Development, available in Romanian at: https://www.legis.md/cautare/getResults?doc_id=102154&lang=ro

national databases with all the material components of public infrastructure in the fields of research and innovation and related specialized equipment;

- requests from public institutions, organizations in the fields of research, innovation and development and from economic agents information on activities in the fields of research, innovation and development;
- promotes the interests of the State on the objects of intellectual property resulting from the projects selected for financing;
- organizes the selection by competition of the administrators of the scientific-technological parks and of the innovation incubators;
- monitors the activity of scientific-technological parks and innovation incubators where residents implement innovation and technology transfer projects, as well as the activity of their administrators;
- other duties arising from the provisions of the regulatory framework

The National Agency for Quality Assurance in Education and Research, in accordance with the Government Decision no. 201/2018[4], is an administrative authority under the Ministry of Education and Research, responsible for the evaluation of the organizations in the fields of research and innovation and scientific staff.

In accordance with Art. 75 of the Code on Science and Innovation no.259/2004, the National Agency for Quality Assurance in Education and Research has the following tasks:

- evaluates the capacities of organizations in the fields of research and innovation to activate in order to carry out the assumed mission;
- ensures the implementation of the state policy in the field of evaluation of scientific personnel, forms a unique state system for evaluating it and ensures its efficient functioning;
- participates in the elaboration and implementation of the state policy and strategy in the field of evaluation of the scientific and scientific-didactic staff, forms a unique state system of its evaluation and ensures its efficient functioning;
- participates in the elaboration of normative acts on the recognition and equivalence of scientific and scientific-didactic acts obtained in other states, as well as in the elaboration of other normative acts regulating the given field to be submitted to the Government for approval;
- confirms the scientific and scientific-didactic titles etc.

[4] Government Decision No.201/2018 on the organization and functioning of the National Agency for Quality Assurance in Education and Research, available in Romanian at: https://www.legis.md/cautare/Getresults?doc_id=119171&lang=ro

The Academy of Sciences of Moldova is a public institution of national interest, autonomous and independent of the public authorities, apolitical, which brings together personalities with outstanding achievements in the fields of research and innovation, established for an indefinite period under the law. The Academy of Sciences exercises the role of strategic consultant of the Government in setting priorities in the field of fundamental and applied research.

In accordance with the provisions of Art. 64 of the Code on Science and Innovation no.259/2004, the Academy of Sciences has the following basic attributions:

- performs the role of strategic consultant of the Government in setting priorities in the field of fundamental and applied research;
- consults, upon request, the draft normative acts in the field of research and innovation;
- prepares forecasts on the development of research and innovation areas;
- elaborates the report on the state of science, reflecting the policies developed and the way of their implementation at national level;
- consults the Government on the creation and development of public infrastructure in the fields of research and innovation;
- supports and publicizes the results of research and development, etc.

2. Is there a national strategy for research and innovation? How is the respect of ethical standards being ensured: are there regulations on ethics in conduct of science? Please refer to the priorities, priority sectors, targets, target groups, and instruments to support research and innovation. Has a national R&D intensity target been set?

The National Program for Research and Innovation and the Action Plan for its implementation for the years 2020-2023, approved by the Government Decision No. 381/2019[5] is the main policy document through which the Government sets the priorities and development objectives in the fields of research and innovation for 4 years and ensures the synchronization with the strategic program for the development of the country, with the European Union's sectoral strategies and research framework programmes.

The National Program comprises priorities and strategic directions:

[5] Government Decision No. 381/2019 on the approval of the National Programme in the fields of research and innovation for the years 2020-2023 and the Plan actions on its implementation, https://www.legis.md/cautare/getResults?doc_id=115747&lang=ro

Strategic priorities	Strategic directions
I. Healthcare	Non-communicable diseases – epidemiological monitoring, prevention, diagnosis and treatment
	Epidemiological monitoring – control and response measures, diagnosing and treating communicable diseases
	Pharmaceuticals and nutraceuticals
II. Sustainable Agriculture, Food Security and Safety	Food security and safety
	Varieties and hybrids of high-performance agricultural, technical and forage crops
	Sustainable management of agricultural ecosystems
	New technologies for processing agricultural raw materials. Agri-food biotechnologies
III. Environment and Climate Change	The impact of biological and non-biological factors on the environment and society
	Safe, clean and effective energy
	Waste, plastics and pollutants
	Ecological security
	Conservation of biodiversity
IV. Social challenges	Social, educational and cultural innovations for integration and adaptation
	Migration, diaspora and socio-demographic changes
	Tangible and intangible heritage
	Tapping into human and social capital
V. Economic competitiveness and innovative technologies	Nanotechnologies
	Nanotechnologies
	Innovative materials, technologies and products

Thus, the priority target groups are public and private organizations in the fields of research and innovation, according to the types and structure set out in Art. 95 of the Code No. 259/2004 on Science and Innovation, as well as researchers. Following the provisions of Art. 96 of the Code, in order to carry out the projects, scientific researchers may associate in groups during the implementation of the projects. Also, groups of scientific researchers and consortia in the fields of research and innovation

can be created by individuals and legal entities with any type of ownership and legal form of organization, including from outside the Republic of Moldova. The projects in the fields of research and innovation will be submitted on behalf of the organization in which the head of the group of scientific researchers works.

Research and innovation support instruments are set out in the Code No. 259/2004 on Science and Innovation:

- the normative, institutional, and socio-economic basis for the development and stimulation of the activity in the fields of research and innovation;
- financing the fields of research and innovation and stimulating the creation of a modern infrastructure for these fields;
- promoting a favorable financial, fiscal and customs policy in the fields of research and innovation;
- supporting the activity in the fields of research and innovation through programs and projects in its strategic directions;
- creating conditions for maintaining, developing and capitalizing on the scientific, technical-scientific and technological potential;
- ensuring the training, improvement and retraining of highly qualified staff of organizations in the fields of research and innovation;
- achieving the partnership between science, education, the production sphere and the financial sphere;
- supporting the entrepreneurial activity in the fields of research and innovation;
- development of research and innovation infrastructure;
- protection of intellectual property, other interests of subjects in the fields of research and innovation;
- legal assurance of the transfer of intellectual property, certification of products, services, competitive processes;
- providing information on the topics of activity in the fields of research and innovation according to the legislation in force;
- promoting measures to expand international cooperation in the fields of research and innovation;
- social protection and remuneration of staff in the fields of research and innovation depending on the qualification and skills of the person.

Besides the budgetary resources, there are the European Union programmes to which the Republic of Moldova has acceded, first of all, the EU Framework Program for Research and Innovation HORIZON EUROPE, COST, as well as bilateral cooperation agreements.

Another instrument to support research and innovation is the promotion of science and technology parks, IT parks, incubators and innovation clusters that aim to stimulate innovation and technology transfer activities, to transform the results of scientific research and innovation into products and services, new or improved processes, as provided in the Law No. 226/2018 on science and technology parks and innovation incubators[6].

We can also mention different political tools to support and promote research and innovation. The Parliament and the Government provided a platform for dialogue between institutional and governmental policy makers, civil society and epistemic communities (such as think tanks and academics), in order to develop/modify the research policy and regulatory framework and innovation.

Concerning the regulations on ethics in scientific conduct, we emphasize that there is no separate law that would regulate the implementation of ethical standards in science.

However, Art. 94 of the Code on Science and Innovation stipulates the responsibilities of groups of scientific researchers in the fields of research and innovation. Thus, the groups of scientific researchers who implement projects in the fields of research and innovation funded through the National Agency for Research and Development are responsible for compliance with the rules of ethics in the research activity, including those related to plagiarism, and for the quality of its scientific investigations.

Art. 107 of the same Code provides the obligations of the scientific researcher, among which, compliance with the deontology of the scientific researcher and the statute of the organization; carrying out scientific research the results of which do not cause material, moral or any other damage to individuals, society and nature; avoiding conflicts of interest or unfair competition; considering the confidentiality and intellectual property rights; not distorting the experimental data and the results of the investigations.

Additionally, Art. 107 of the Education Code No.152/2014[7] regulates the public responsibility of the higher education institution, which consists of:

- compliance with the legislation in force, the University Charter and national policies in the field of higher education;
- application of the regulations in force on quality assurance and evaluation in higher education;
- compliance with the policies of equity and academic ethics provided by the University Charter;

[6] Law No. 226/2018 on science and technology parks and innovation incubators, available in Romanian at: https://www.legis.md/cautare/getResults?doc_id=109755&lang=ro
[7]Education Code No.152/2014, available in Romanian at: https://www.legis.md/cautare/getResults?doc_id=130514&lang=ro

- ensuring the efficiency of the use of resources and the quality of the management;
- ensuring the transparency of the decision-making processes and of the activities carried out;
- respecting the academic freedom of the teaching and scientific staff, as well as of the rights and freedoms of the students.

In the same context, according to the Art. 108 of the same normative act, the mission of monitoring the public responsibility of higher education institutions lies with the Ethics and Management Council, which is an independent deliberative structure established at the national level, and operates based on a regulation elaborated by the Ministry of Education and Research. The Council's mission is to verify the assurance of public responsibility and ethics at the level of the higher education system.

At the institutional level, the Universities of the Republic of Moldova have approved Institutional Codes of Ethics and Academic Integrity, for example of Moldova State University[8] , of Technical University of Moldova[9] .

Another institution with responsibilities in the field is the National Agency for Quality Assurance in Education and Research. By the Decision of The Board of Directors of National Agency for Quality Assurance in Education and Research in 2018 the Regulation on the organization and functioning of the Ethics Commission of the National Agency for Quality Assurance in Education and Research in the field of certification was adopted. The Ethics Commission is an advisory body of the National Agency for Quality Assurance in Education and Research, without legal personality, whose mission is to develop rules of good moral and professional conduct in research-innovation activities and to monitor their application in the process of training and attestation of highly qualified scientific and scientific-teaching staff, as well as in the process of evaluating organizations in the fields of research and innovation.

The Code of ethics and professional deontology of the scientific and scientific-didactic staff was approved by the Decision of the Board of Directors of National Agency for Quality Assurance in Education and Research in December 2018. The Code of Ethics aims to provide the principles and rules of moral and professional conduct, the responsibilities and national procedures necessary to ensure compliance of the scientific and scientific-didactic activities in the Republic of Moldova with the ethical norms accepted by the international science community.

Concerning the question, whether a national intensity target for research and development has been set, the Republic of Moldova does not have one. The proportion of GDP on R&I was mentioned above. However, in accordance with point

[8] Institutional Codes of Ethics and Academic Integrity of Moldova State University, available in Romanian at: Codul-de-Etica-si-Integritate-Academica-al-USM.pdfCodul-de-Etica-si-Integritate-Academica-al-USM.pdf
[9] Institutional Codes of Ethics and Academic Integrity of Technical University of Moldova, available in Romanian at: Codul-de-etica-si-deontologie-profesionala_UTM-2019-Copy.pdf

31 of the National Program in Research and Innovation, its effective implementation will lead to the following impact:

- increased effectiveness of research and innovation activities;
- increased public funding for research projects;
- increased private investments in research and innovation activities;
- higher degree of implementation of research results;
- performance-based system of advancing in the research career;
- continuing growth of the share of young people among researchers;
- updated and internationally connected research infrastructure;
- areas of research and innovation included in the Government policies and sector programs as a resource of growth and development;
- visibility and higher confidence of the society and business environment in the local scientific and innovative potential;
- internationally recognised and functional networks of excellence centers with impact on innovative entrepreneurship;
- growing number of international projects involving entities from the Republic of Moldova;
- higher degree of representation of research and innovation areas' progress besides European research and innovation structures.

3. How is the research and innovation system organised? Is there a central register of research institutions and facilities in Moldova?

The national research and innovation system consists of all public and private law organizations in the fields of research and innovation that carry out one of the following activities: fundamental and/or applied research, experimental development, implementation of scientific results and innovations, technology transfer, the training and improvement of the scientific staff.

The national research and innovation system includes:

I. Public research and innovation organizations:

- research institutes organized as public institutions;
- public state higher education institutions;
- public medical-sanitary institutions whose area of activity is research, experimental development, implementation of scientific results and

innovations, technology transfer, the training and improvement of the scientific staff;

- museums organized as public institutions whose area of activity is research;
- other public institutions whose area of activity is research, experimental development, implementation of scientific results and innovations, technology transfer, the training and improvement of the scientific staff.

II. Private law organizations in the fields of research and innovation:

- commercial organizations whose area of activity is research, experimental development, implementation of scientific results and innovations, technology transfer, the training and improvement of the scientific staff;
- private higher education institutions;
- private medical-sanitary institutions whose area of activity is research, experimental development, implementation of scientific results and innovations, technology transfer, the training and improvement of the scientific staff;
- private museums whose object of research are research.

There is no centralized register of research institutions, each ministry acting as a founder coordinate and monitors the activities of the public institutions in which it has the quality of the founder. By corroborating the provisions of Art. 32 para. (1) of Law no. 98/2012 on the specialized central public administration and Art. 307 para. (1) of the Civil Code of the Republic of Moldova no. 1107/2002, the entity entitled to create a public institution under the conditions of the applicable national normative framework is exclusively a public administration authority. Subsequently, it should be mentioned that the Ministry of Education and Research, the Ministry of Health, the Ministry of Culture, the Ministry of Agriculture and Food Industry, the Ministry of Internal Affairs, the Ministry of Defense and the State Chancellery exercise the quality of founder in organizations in the fields of research and innovation, according to table No.1.

Table 1. Public organizations in the fields of research and innovation

Organizations in the fields of research and innovation in which the Ministry of Educatic and Research has the quality of founder	
Public institutions	
1.	The Scientific Library (Institute) "Andrei Lupan"
2.	National Botanical Garden (Institute) „Alexandru Ciubotaru”
3.	The Institute of Legal, Political and Sociological Research
4.	The Institute of Chemistry
5.	The Institute of Ecology and Geography

6.	The Institute of Power Engineering
7.	The Institute of Romanian Philology „Bogdan Petriceicu-Hasdeu”
8.	The Institute of Applied Physics
9.	The Institute of Physiology and Sanocreatology
10.	The Institute of Genetics, Physiology and Plant Protection
11.	The Institute of Geology and Seismology
12.	The Institute of Electronic Engineering and Nanotechnology „D. Ghițu”
13.	The Institute of History
14.	The Institute of Mathematics and Informatics „Vladimir Andrunachievici”
15.	The Institute of Microbiology and Biotechnology
16.	The National Institute for Economic Research
17.	The Institute of Cultural Heritage
18.	The Institute of Zoology
State-owned enterprises	
19.	The Information Society Development Institute
Public Institutions	
20.	The Academy of Music, Theater, Fine Arts
21.	Academy of Economic Studies of Moldova
22.	State Pedagogical University of Chisinau ”Ion Creanga”
23.	"Alecu Russo" State University of Balti
24.	"Bogdan Petriceicu-Hasdeu" State University of Cahul
25.	State University of Physical Education and Sports
26.	Comrat State University
27.	Moldova State University
28.	"Grigorii Tamblac" State University of Taraclia
29.	Tiraspol State University
30.	Technical University of Moldova
Continuing education institutions	
31.	Institute of Educational Sciences

Organizations in the fields of research and innovation in which the Ministry of Healt has the quality of founder	
Administrative authorities	
32.	The National Agency for Public Health
Public institutions	
33.	The Institute of Emergency Medicine
34.	The Institute of Neurology and Neurosurgery ”Diomid Gherman”
35.	The Institute of Phthisiopneumology ”Chiril Draganiuc”
36.	The Institute of Cardiology
37.	The Institute of Mother and Child
38.	The Institute of Oncology
39.	The Republican Clinical Hospital “Timofei Mosneaga”
Organizations in the fields of research and innovation in which the Ministry of Culture has the quality of founder	
Public institutions	
40.	National Museum of History of Moldova
41.	National Museum of Ethnography and Natural History
Organizations in the fields of research and innovation in which the Ministry Agriculture and Food Industry has the quality of founder	
Public institutions	
42.	The Institute of Pedology, Agrochemistry and Soil Protection „Nicolae Dimo”
43.	The Scientific-Practical Institute of Horticulture and Food Technologies
44.	The Scientific - Practical Institute of Biotechnologies in Animal Husbandry and Veterinary Medicine
45.	The Research Institute for Field Crops “Selectia”
46.	The Institute of Phytotechnics „Porumbeni”
Organizations in the fields of research and innovation in which the Ministry of Defen has the quality of founder	
Public institutions	
47.	The Military Academy of the Armed Forces „Alexandru cel Bun”

Organizations in the fields of research and innovation in which the Ministry of Intern Affairs has the quality of founder	
Public institutions	
48.	"Ștefan cel Mare" Police Academy
Organizations in the fields of research and innovation in which the State Chancellery h the quality of founder	
Public institutions	
49.	The Academy of Public Administration

In accordance with Art. 75, lit. s) of the Code on Science and Innovation, the National Agency for Quality Assurance in Education and Research maintains the electronic register of organizations in the fields of research and innovation and of persons with scientific and scientific-didactic titles.

Thus, following the accreditation of organizations in the fields of research and innovation in 2015–2017, the National Agency for Quality Assurance in Education and Research has developed the electronic register of accredited organizations.[10]

Following the amendment of the Code on science and innovation no. 259/2004, by approving Law 190/2017 on the amendment of some normative acts, the accreditation of organizations in the fields of research and innovation was excluded.

Currently, in accordance with Art. 28 of the Code on Science and Innovation no. 259/2004, the organizations in the fields of research and innovation and their scientific and scientific-didactic staff are to be subjected to the process of complex evaluation of the capacities to fulfill the assumed mission, organized by the National Agency for Quality Assurance in Education and Research. The evaluation will be performed by national and/or international evaluators, based on the evaluation methodology approved by the Government. The draft of the Methodology can be consulted at the following link: https://particip.gov.md/ro/document/stages/proiectul-hotararii-guvernului-cu-privire-la-aprobarea-metodologiei-de-evaluare-a-organizatiilor-din-domeniile-cercetarii-si-inovarii/7493.

Following the evaluation, the Register of Research and Innovation Organizations will be created, the organizations being evaluated and classified according to their capacity level.

At present, statistical data on research and innovation organizations are collected by the National Bureau of Statistics, which also maintains an exhaustive list of organizations. Thus, in 2020, the research-development activity took place in 61

[10] Register of the Organizations from the fields of science and innovation accredited by the NCCA In 2015–2017, available in Romanian at: http://www.cnaa.md/files/dispositions/2016/registrele-cnaa/registrul_institutii_acreditate-2015-2017.pdf

units, including 39 research institutes and centers, 15 higher education institutions and 7 - other types of units. Out of a total of units with research and development activity, 48 units (or 78.7%) have the form of state property.[11]

There is no register of facilities granted to organizations in the fields of research and innovation in the Republic of Moldova.

4. Do you use scientific evidence to inform policy making? If 'yes' please describe.

Following the provisions of the Law on normative acts no.100/2017, the elaboration of draft normative acts is preceded depending on the importance and complexity of the respective drafts, by carrying out research studies to substantiate the necessity or lack thereof regarding the initiation of the elaboration of a normative act. Research studies are carried out by the subjects from whom comes the proposal to initiate the elaboration of the normative act and in the case of complex research studies, they can be carried out, based on a service contract, by scientific institutions, universities, commercial companies, public associations or other entities following the legal provisions on public procurement.

In addition, if the draft of the normative act provides for regulations with an impact on the entrepreneurial activity, only the analysis of the regulatory impact is carried out as a research study. Following the Methodology for analyzing the impact in the process of substantiation of the draft normative acts, the information on the substantiation of the problem to be solved by the public policy or the normative act shall be described based on the evidence and data whose sources are indicated.

It is also mentioned that organizations in the fields of research and innovation are consulted as stakeholders in the process of drafting normative acts/policy documents, as well as participate in the process of their approval (Regulatory Impact Analysis (RIA) carried out on the draft Horticulture Law[12])

5. Is there a Smart Specialisation Strategy and what is the state of play in its implementation? Is research promoted as a potential career in high schools & universities? Is the country affected by brain drain of researchers?

[11] Research and Development activity in 2020, available in Romanian at: https://statistica.gov.md/newsview.php?l=ro&idc=168&id=6967

[12] Consultation of the draft law on Horticulture, available in Romanian at: https://particip.gov.md/ro/document/stages/consultarea-proiectului-de-lege-cu-privire-la- horticulture/8825

The Smart Specialisation Strategy of the Republic of Moldova is a policy document, the aim of which is to create in the country a dynamic research-innovation ecosystem, strongly connected to the entrepreneurial environment, with permanent mechanisms of transversal communication in order to quickly and comprehensively reflect the results of scientific research and academic training in the competitiveness of the business environment and in the economic performance of the country, offering solutions to societal challenges.

The draft of the Concept of the Smart Specialisation Strategy of the Republic of Moldova has been developed and placed on the platform https://particip.gov.md/ro and can be accessed at the following link: https://webcache.googleusercontent.com/search?q=cache:sDSC9Jv9uU8J:https://particip.gov.md/ro/download_attachment/15658+&cd=2&hl=ro&ct=clnk&gl=md

The elaboration of the Smart Specialisation Strategy of the Republic of Moldova was preceded by an extensive analytical activity with the involvement of national and foreign experts, and the selection of priority areas of smart specialisation was based on a detailed quantitative analysis of the Republic of Moldova's economic, innovative and scientific potential (Mapping the economic, innovative and scientific potential of the Republic of Moldova and Characterization of the preliminary priority areas for smart specialisation in Moldova), on a qualitative analysis of the results of the interview of about 40 key actors representing the business and research sector, but also on the results of the Entrepreneurial Discovery Process, which included the organization of workshops with representatives of all stakeholders, with a special focus on the involvement of the business sector (10 events organized/477 participants). Thus, the process of selecting the priority areas took place in accordance with the framework defined by the RIS3 Guide, developed by the Joint Research Center of the European Commission.

Smart specialisation strategies are based on data or evidence. They are based on quantitative analysis or mapping of the development potential of the country/region. Thus, in order to identify the priority sectors on which the smart specialisation will focus, that means national policy instruments and measures, the Mapping of the economic, innovative and scientific potential of the Republic of Moldova at the national and regional level was carried out, focusing on five statistical areas of the Republic of Moldova: Municipality of Chisinau, Northern Zone, Central Zone, Southern Zone and ATU Gagauzia.

The mapping of the economic, innovative and scientific potential of the Republic of Moldova developed in 2017 and subsequently, updated in 2021, allowed the identification of priority areas with economic, innovative and scientific potential, based on a methodology focused on identifying comparative advantages of areas of the Republic of Moldova in relation to the national level, using the following indicators: economic potential (disaggregated data at the level of 3 units on employment, turnover and wages); innovative potential (innovative enterprises, patents) and scientific potential (national and international scientific publications).

The mapping of the economic, innovative and scientific potential of the Republic of Moldova has identified at the regional level the areas with economic potential, which being combined with those with innovative potential and confirmed by the scientific potential, have resulted in several more general areas, with potential for smart specialisation at the national, and namely:

- Information and Communication Technologies (ICT) including computer programming, information services, data processing, web portals, telecommunications, which is the most important field of specialisation of the Municipality of Chisinau;
- Agriculture and food processing (with various industries depending on the area), which is the most important field of specialisation of the 4 predominantly rural areas: North, Center, South and ATU Gagauzia, identified as comparable economic areas for smart specialisation;
- Energy, an area with priority for the Central, Southern and ATU Gagauzia zones;
- Textiles, clothing, footwear and leather (TAFL), an area with priority mainly in the Centru and UTA Gagauzia Zones;
- Biomedicine, a field with priority for the Municipality of Chisinau and Central Zone;
- Electrical equipment, which is a priority area for the Municipality of Chisinau and Northern Zone.

These broad groupings of areas, identified by the mapping, coincide with the strategic economic sectors identified by national policy documents. Areas of interest in international publications, namely computer science, medicine, biochemistry, genetics and molecular biology, agricultural and biological sciences, energy and environmental sciences, confirm the relevance of these identified areas with potential for smart specialisation. The mapping also identified some new industries with an emerging economic potential, namely: "Creative industries" (in all zones), "Waste management" (in the North, Center and South), "Biomedicine" in Chisinau and ATU Gagauzia and "Electrical Equipment" (in the areas of Chisinau, North and Center), which can become important industries for the Republic of Moldova.

In order to launch the Entrepreneurial Discovery Process, based on the results of the initial Mapping of the economic, innovative and scientific potential of the Republic of Moldova conducted in 2017, a specific in-depth analysis of areas with potential for smart specialisation was developed, using semantic analysis techniques and additional data sources such as: scientific publications, publicly funded research and development projects, international projects and patent description.

Finally, by converging the results of the two analyses, four priority areas were identified that correspond to the economic, scientific and innovative potential existing in the country, being proposed for selection/confirmation in the Process of entrepreneurial discovery, namely: Agriculture and food processing, Information and Communication Technology, Energy, and Biomedicine and Biopharmaceuticals. It

should be noted that these areas have had a significant presence in the economic, innovative and scientific potential of the Republic of Moldova, identified by the initial and subsequent mapping, and have been confirmed by the updated mapping in 2021.

At the same time, by the Decree of the Minister of Education and Research No. 1646 of 14.12.2021, the Working Group for the elaboration of the draft Smart Specialisation Strategy of the Republic of Moldova for the years 2022-2030 was established. The draft of Smart Specialisation Strategy of the Republic of Moldova was sent to the members of the Working Group for the presentation of proposals and suggestions. The representatives of the Ministry of Education and Research have received the proposals for the draft of Smart Specialisation Strategy of the Republic of Moldova and this project is being finalized. The members of the Working Group elaborated the draft of the Action Plan on the implementation of the Smart Specialisation Strategy of the Republic of Moldova for the years 2022-2025.

Regarding the promotion of research as a potential career in high schools and universities, we mention the organization of events that would stimulate and promote careers in research, namely: Open Days, organized by public organizations in the fields of research and innovation. Several organizations in the fields of research and innovation have hosted internships for students and for pupils in summer schools. Also, in order to strengthen the public perception regarding the role of research and innovation, numerous competitions were organized for pupils and students, scientific conferences and thematic exhibitions, etc.

The society in the Republic of Moldova is strongly affected by the brain drain, which has a direct negative impact on the development of the economy, science and technology. The brain drains and that of the skilled labor force severely affects the public and private sectors of the economy, leaving behind distortions on social inequity and per capita income. With the amplification of the phenomenon of brain drain and skilled labor force, the prospects for innovation are shrinking, this being, in fact, the most important catalyst for the economy and development of a state. The decrease in the number of researchers and innovators leads to the loss of national competitiveness in various fields and the worst to the loss of the "scientific elite", whose talents can bring enormous benefits to the countries in which they work.

6. To what extent are the European Charter for Researchers and a Code of Conduct for the Recruitment of Researchers implemented and applied?

On December 1st, 2011, the scientific community of the Republic of Moldova undertook the commitment to respect the principles of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers, advancing the process of integration of the country into the European Research Area. Thus, a favorable environment was created for the career development of local researchers,

but also for those from abroad. Since 2012, the Republic of Moldova is part of the network of states who adhered to the EU Strategy on Human Resources for Researchers (HRS4R), a forum for the exchange of experience in the implementation of the principles of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers in the EU Member States and associated countries.

So far, the 16 local contact points and 3 EURAXESS service centers in the Republic of Moldova have been nominated. Also, informative materials have been developed and several days of information and consultations have been organized to promote the EURAXESS Network Program, the EURAXESS logo being placed in different institutions of the national research and innovation system. In order to interact with the young researchers, EURAXESS Moldova pages have been created on social networks, where news related to the activities within the EURAXESS program are placed daily. The help-desk was created on the www.euraxess.md page to provide information for visitors and to periodically place news on the site.

As a result of the measures taken, regarding the implementation of the provisions of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers, the SWOT analysis and the integration of the respective provisions in the human resources strategies of the interested institutions started. A questionnaire was distributed which focused on the quantification of indicators to determine the level at which the principles of the Charter and code are applied on the four key dimensions: 1) open recruitment of researchers and portability of grants; 2) social security; 3) attractiveness of employment and working conditions; 4) development of professional skills and opportunities for training researchers.

In December 2014, State University "Dimitrie Cantemir" obtained the logo "Excellence in Research", being the first institution of higher education in the Republic of Moldova to which the European Commission offered this logo (www.edu.asm.md). In July 2015, the State University of Moldova obtained the right to use the logo "Excellence in Research" (www.usm.md), and in September 2015 this right was obtained by the National Institute of Economic Research (www.ince.md), being the first institute in the field of research and innovation to which the European Commission granted this logo. The State University of Medicine and Pharmacy "Nicolae Testemitanu" obtained this logo in April 2016 (www.usmf.md). The Institute for the Development of the Information Society (www.idsi.md) obtained the logo "Excellence in Research" in February 2017, and in August 2017 this logo was granted to the Academy of Economic Studies of Moldova (www.ase.md).

To implement the principles of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers, institutional regulations of research and innovation organizations have been developed.

In July 2021, a practical seminar was organized for the Local Contact Points on the practical implementation of the provisions of the European Charter for Researchers and the Code of Conduct for the recruitment of researchers, by starting the process of

carrying out the internal analysis and integrating these provisions into their human resources strategies.

Currently, 7 organizations in the fields of research and innovation hold the logo "Excellence in research". The Technical University of Moldova and the Free International University of Moldova are in the process of elaborating the necessary documents for obtaining the logo "Excellence in research".

19 organizations in the fields of research and innovation, in which the Ministry of Education and Research exercises the function of the founder, have developed the Human Resources Development Strategy 2019-2023 and the action plan for its implementation. For example: https://usm.md/wp-content/uploads/STRATEGIA-POLITICILOR-DE-PERSONAL.pdf

https://utm.md/acte_normative/interne/Strategia%20Cercetarii%20UTM_2018.pdf

7. To what extent is business-academia cooperation and exchange promoted and to what extent is this cooperation taking place?

The supporting mechanisms of science-business collaboration have evolved, from the objectives of "technology transfer" to the objectives of "knowledge transfer".

The development of tools for the transfer of knowledge and scientific results to potential users takes place in technology transfer projects and innovation projects, organized by the National Agency for Research and Development, following Government Decision no. 382/2019[13] and aim to organize applied collaborative projects between the scientific community and business representatives and are aimed at the use in practical activity and/or marketing of new or substantially improved materials, products or devices, processes, systems and services.

A special place is given to boost research activities to create innovative start-ups and/or spin-offs. List of start-ups by sector, business model or funds raised: https://startupmoldova.digital/lista-startup-urilor/.

Stimulating the activity of science and technology parks and innovation incubators is another priority of the Republic of Moldova. To create favorable conditions for the development of science and technology parks and/or innovation incubators, Government Decision no. 583/2020 was approved for the implementation of Law no. 226/2018 on science and technology parks and incubators innovation.

With reference to academia, the cooperation between the business and the academic environment takes place primarily by including this issue in the Development

[13] Government Decision No. 382/2019 on the approval of the Methodology of financing projects in the fields of research and innovation, available in Romanian at: https://www.legis.md/cautare/getResults?doc_id=115748&lang=ro

Strategy of the institution. For example, the State University of Moldova has included the following activities in the Development Strategy for 2021-2027:

- curriculum co-design (e.g. employers involved in university curricula design);
- inviting guest lectures from business;
- mobility of students (e.g. student internships/placements);
- education programmes developed part academic, part business/industry;
- lifelong learning for people from business (e.g. professional courses developed by the university for participants from business);
- joint R&I (inclusive joint funded research);
- consulting to business (e.g. contract research),
- creation of the coworking space in the university for both academia and business (e.g. SMART CAFFE USM).

B. Financing of research

8. How are public funds allocated: please refer to the method and criteria used for the division of funds, scientific priorities, sector priorities, regional priorities, private vs. public research? Are R&D tax incentives used to support private R&D? Have you updated the design of the national competitive funding in alignment to the rules TFEU Framework Programmes?

In accordance with Art. 88 from the Code on Science and Innovation of the Republic of Moldova No. 259/2004, public funds for science and innovation are approved annually by the State Budget Law for that year and are allocated for:

- scientific research, investigation and technological development;
- institutional funding in the fields of research and innovation;
- the institutional financing of the Academy of Sciences based on the regulation approved by the Government;
- organization of competitions for the selection and financing of projects in the fields of research and innovation;
- organization of conferences, seminars, etc .;
- publishing scientific and scientific-methodological papers, as well as scientific journals;
- supporting and developing scientific collaboration with international organizations;
- the preparation of highly qualified scientific staff through doctoral and postdoctoral research both in country and abroad;

- ensuring the activity of the profile scientific councils.

In 2021, the expenditures made for the research-development activity amounted to 560.5 million lei, representing 0.23% of the gross domestic product, in 2020 they constituted - 469.6 million lei, and in 2019 - 498.0 million lei[14]. For the year 2022, the approved allocations for the fields of Research and Innovation are 560.08 million lei.

The Ministry of Education and Research sets out the policy priorities in the fields of research and innovation and ensures the compliance of the sectoral expenditure strategy with the strategic planning documents and with the expenditure limits forecasted/approved in the budget.

Funding for development priorities and objectives in the fields of research and innovation is achieved in 2 ways:

- institutional funding - granted from the state budget to public law organizations in the fields of research and innovation for maintaining and developing public infrastructure in the fields of research and innovation and related staff costs, based on the Institutional funding Methodology approved by the Government Decision No. 53/2020[15];
- financing of research and innovation projects (competitive) - through a public competition organized by the National Agency for Research and Development, based on the Methodology of financing projects in the fields of research and innovation, approved by the Government Decision No. 382/2019.

The proportion of the distribution of the financial means of 40% for institutional financing and 60% for the financing of research and innovation projects is determined in the National Program in the fields of research and innovation, approved by the Government Decision No. 381/2019[16]. This proportion was determined in accordance with the purpose of the DCI reform in research and innovation fields, achieved by approving Law No. 190/2017, namely the application of the principle of competition in the distribution of funds and channeling resources to researchers who can ensure the highest performance in the field.

The priorities and strategic directions in the field of research and innovation are established in a National Program, for a period of 4 years depending on the development needs of the country, the existing potential, the competitive advantage and the evolutions of external factors that determine the development, through the

[14] Statistical Yearbook of the Republic of Moldova, 2021, available in Romanian at: https://statistica.gov.md/pageview.php?l=ro&id=2193&idc=263

[15] Government Decision No. 53/2020 on the approval of the institutional funding Methodology of the organizations of public law in the fields of research and innovation, available in Romanian at: https://www.legis.md/cautare/getResults?doc_id=120178&lang=ro

[16] Government Decision No. 381/2019 on the approval of the National Programme in the fields of research and innovation for the years 2020-2023 and the Plan actions on its implementation, available in Romanian at: https://www.legis.md/cautare/getResults?doc_id=115747&lang=ro

National Program and sectorial development, following an extensive public consultation exercise.

The percentage of financial resources allocated to strategic scientific priorities is set in the National Program in Research and Innovation, depending on the country's development needs, existing potential, competitive advantage and developments of external factors that determine development. The estimated costs for each strategic priority may differ depending on the results of the competitive actions.

Public resources are allocated to private law institutions/organizations through the mechanism of funding research and innovation projects won by them in competitions organized by the National Agency for Research and Development.

Private law institutions/organizations carrying out research and innovation activities are not institutionally funded, according to the Institutional Funding Methodology, approved by Government Decision No.53/2020.

With regard to the use of fiscal facilities to support private research and development, in accordance with the provisions of the Fiscal Code of the Republic of Moldova No. 1163/1997, fiscal incentives for private research and development activities are:

- the incomes of the legal persons obtained as a result of the capitalization of the external financial sources within the projects and international grants related to the development of education and research are sources of non-taxable incomes according to the Art. 20.
- para 27 of Art.103 establishes the exemption from VAT without the right to deduct the services of organizations in the field of science and innovation accredited by the National Agency for Quality Assurance in Education and Research.
- Art. 104 of the Fiscal Code of the Republic of Moldova are exempt from VAT with the right to deduct the following: the import and/or delivery in the country of goods, services intended for technical assistance projects, carried out on the territory of the Republic of Moldova by international organizations and donor countries within the limits of the treaties to which it is a party and investment assistance projects, financed from the grants awarded to the Government, as well as from the grants awarded to the institutions financed from the budget in accordance with the Government decision no. 246/2010 on the application of fiscal and customs facilities related to the implementation of ongoing technical and investment assistance projects, which fall under the scope of international treaties to which the Republic of Moldova is a party.
- according to Art. 283 from the tax on real estate (land, plots of land) are exempted owners and beneficiaries whose land and plots of land are used by scientific organizations and scientific research institutions with agricultural and forestry profiles for scientific and educational purposes.

The design of the competitive national funding was modified by the approval of Law No. 190/2017, but not in accordance with the rules of the TFEU Framework Programs.

In 2020, the funding of Research and Innovation fields was radically modified by the implementation of the provisions of Law No. 190/2017, of the National Program in the fields of research and innovation for the years 2020-2023, approved by Government Decision No. 381/2019, of the Institutional financing methodology approved by the Government Decision No. 53/2020 and of the Methodology of financing projects in the fields of research and innovation, approved by the Government Decision No. 382/2019.

Thus, the proportion of the distribution of public financial resources for DCI has changed, with 60% of competitive financing. The National Agency for Research and Development manages the approved budget for competitive funding by funding research and innovation projects in competitions for the following types of projects:

- state programs
- technology transfer projects
- innovation projects
- innovative vouchers
- bi- / multilateral projects
- postdoctoral programs
- projects for young researchers
- projects on issues of urgent interest
- projects in the fields of intelligent specialization
- projects for the development of infrastructure in the fields of research and innovation
- other types of projects.

Respectively, the institutional financing accounts for 40% of the total DCI funding. Prior to these changes, institutional funding accounted for 75% (in 2014) of total DCI funding.

9. How is the evaluation of state funded research done: selection of evaluators? What are the criteria for funding? Is the use of public funding being monitored (statistics) and/or controlled?

The evaluation of the research carried out within research and innovation projects is done by:

- evaluation of project proposals submitted in the framework of project competitions in order to obtain public funding;
- evaluation of scientific results obtained in research and innovation projects by the Science Sections of the Academy of Sciences of Moldova, in the procedure of public hearing of the Annual and Final Reports on the execution of projects in the fields of research and innovation;
- the complex assessment of the capacities of organizations in the fields of research and innovation to act in order to fulfill the assumed mission.

The evaluation of project proposals in project competitions in the fields of research and innovation is carried out according to the provisions of points 23-28 of the Methodology for financing projects in the fields of research and innovation. The evaluation of project proposals is carried out by two experts, selected from the Register of Independent Experts or in accordance with point 28 of the Methodology for financing projects in the fields of research and innovation. The experts are selected based on the provisions of the Regulation on the procedure of expertise and independent evaluation, approved by the National Agency for Research and Development by Disposition No. 37/2019[17].

According to this Regulation, the expertise process is carried out by independent experts employed by the National Agency for Research and Development from the following:

- full members and corresponding members of the Academy of Sciences of Moldova;
- scientific-didactic or scientific staff with a scientific degree, including scientific laboratories, specialized departments, scientific centers, scientific councils/senates of institutes and universities, faculty councils;
- the scientific-didactic or scientific staff who are empowered with the right of scientific leader by the National Agency for Quality Assurance in Education and Research;
- scientific researchers from the Republic of Moldova and abroad;
- highly qualified specialists from the corresponding production branch, from the business environment, etc. recommended by central public authorities and other administrative authorities.

The selection of experts for registration in the Register of Independent Experts takes place following a public competition organized by the National Agency for Research and Development, based on the following criteria:

- computer skills at an advanced user level (especially PDF, Word, Excel applications);

[17] Acts of the National Agency for Research and Development on Research/Innovation projects, available in Romanian at: https://www.ancd.gov.md/ro/content/acte-ancd

- experience in the scientific fields of at least 5 years;
- excellent verbal and written communication skills, ability to analyze and synthesize information, ability to learn quickly new ways of working, well organized and responsible;
- observance of the norms in deontology and professional ethics.
- avoiding conflicts of interest.

Public hearing of the annual and final reports on the execution of research and innovation projects is carried out in accordance with the provisions of the Instruction on annual reporting of implementation of research and innovation projects, approved by Order of the National Agency for Research and Development No. 99/2020[18]. Thus, the annual and final reports on the execution of research projects are heard publicly in the Scientific Council/Senate of the beneficiary organization, with the compulsory participation of two experts from the sections of the Academy of Sciences of Moldova who prepare and send to the Agency the advisory opinion as to the case).

Complex evaluation of the capacities of organizations in the fields of research and innovation is organized by the National Agency for Quality Assurance in Education and Research based on the approved evaluation methodology, a normative act that is being developed.

The criteria for institutional funding are established in the Methodology for institutional funding of public law organizations in the fields of research and innovation, approved by Government Decision No.53/2020.

Thus, the financial means intended for institutional financing are allocated annually, by the state budget law and are distributed by the central specialized body of the state which ensures the elaboration of the national policy in the fields of research and innovation (Ministry of Education and Research). Institutional funding is awarded annually to organizations in the fields of research and innovation on the basis of a grant application for:

- realization of research and innovation projects won as a result of national, bilateral and international competitions of projects in the fields of research and innovation;
- fulfilling the functions and attributions provided by the statute of the public law organizations in the fields of research and innovation, as well as the actions from the National Program in the fields of research and innovation for the years 2020-2023, approved by the Government Decision no. 381/2019.
- The founders of public law organizations in the fields of research and innovation approve the amount of funding for each applicant organization from the account and within the approved budget, based on:

[18] Ibidem

- the results obtained from scientific research, as well as their economic and social impact;
- the limited share of institutional funding in the total funds obtained by public law organizations in the fields of research and innovation;
- organizational consolidation initiatives both within public law organizations in the fields of research and innovation, and with other categories of such organizations.

The criteria for financing research projects are established in the Methodology for financing projects in the fields of research and innovation, approved by Government Decision no. 382/2019.

The financial means intended to finance research and innovation projects are approved in the annual budget law and are distributed by the National Agency for Research and Development as a result of the public competitions for research and innovation projects organized.

The expertise criteria of the research project proposals for the purpose of their financing are:

- technical-scientific relevance and excellence;
- the potential socio-economic impact of the project, correlated with the expected results and profitability;
- the program for carrying out the activities within the project, the requested terms and costs;
- the composition of the research team.

The use of public finances is monitored for institutional funding by the founders of public law organizations in the fields of research and innovation as well as by the central specialized body of the state which ensures the development of national policy in the fields of research and innovation (Ministry of Education and Research).

The reporting on the management of financial means for the maintenance and development of public infrastructure in the fields of research and innovation and the financing of staff costs by public law organizations in the fields of research and innovation is carried out according to the methodological rules on accounting and financial reporting in the budget system[19].

The report on the activity of publicly funded research and innovation organizations firstly is coordinated with the founder and then is presented annually until December 31, and the MER prepares a general report on institutional funding afterwards.

The reporting and monitoring of the use of public finances allocated to the implementation of research and innovation projects are carried out in accordance with

[19] Order of the Ministry of Finance No. 216/2015 on the approval of the Account Plan in the budget system and methodological norms regarding the accounting records and financial reporting in the budget system, available in Romanian at: https://www.legis.md/cautare/getResults?doc_id=116724&lang=ro

the provisions established in the Methodology for financing projects in the fields of research and innovation, approved by Government Decision no. 382/2019 and in the Instruction on the annual reporting of the implementation of projects in the fields of research and innovation approved by the Order of the National Agency for Research and Development no. 99/2020[20]. Thus, the Annual Reports are prepared and presented according to the standard form of the Annual and Final Reports on the implementation of research and innovation projects, approved by the National Agency for Research and Development in agreement with the public authority responsible for research and innovation policy development. and with the beneficiaries' founders. The annual and final reports on the execution of research and innovation projects are presented by the National Agency for Research and Development, which assesses the correct use of financial resources.

The use of public funds for research and innovation is also monitored statistically.

One of the main objectives of the statistical research on research and development activity, carried out by the National Bureau of Statistics is to collect data on quantitative indicators on expenditures. Statistical data on research and development activity are obtained through exhaustive annual statistical surveys, supplemented by all types of units that carry out mainly or secondary research activity.

Annually, the National Bureau of Statistics publishes on the official website an informative note on the research-development activity for the previous year in which it reflects the statistics of the expenditures made for the research-development activity[21].

The activities carried out within the budgetary process and the operations related to the management of public finances by the budgetary authorities/institutions of the DCI are subject to:

- public internal financial control in accordance with the Law on public internal financial control[22];
- the financial inspection, carried out by the Financial Inspection subordinated to the Ministry of Finance;
- external public audit[23].

[20] Acts of the National Agency for Research and Development on Research/Innovation projects, available in Romanian at: https://www.ancd.gov.md/ro/content/acte-ancd
[21]Research-Development Activity in 2021, available in Romanian at: https://statistica.gov.md/newsview.php?l=ro&idc=168&id=7367
[22] Law No. 299/2010 on internal public financial control, available in Romanian at: https://www.legis.md/cautare/getResults?doc_id=125252&lang=ro#
[23] Law on public finances and budget-fiscal responsibility No. 181/2014, available in Romanian at: https://www.legis.md/cautare/getResults?doc_id=126152&lang=ro

II. FRAMEWORK PROGRAMMES

A. TFEU Framework Programme

10. Are there any special measures to encourage research cooperation under Horizon Europe such as Information Days, National Contact points, incentives etc.?

At the national level, the National Agency for Research and Development (NARD) is responsible for the implementation of the European Union Framework Programme for Research and Innovation "Horizon Europe". Therefore, in order to encourage research cooperation under Horizon Europe, the Ministry of Education and Research and NARD undertook the following measures:

- The Network of National Contact Points for HE (22 NCPs) was created and it is coordinated.
- Information Days regarding opportunities of Horizon Europe are organized. These events are open to all interested people and frequent consultations are offered to the research and innovation actors, including assistance in identifying open calls, international partners and other technical issues: 256 consultations were offered, 186 activities with NCP involvement were organized in 2021.
- events as International Science Day, Europe Day, International Day of Women and Girls in Science, Science Slam, etc., which were accompanied by presentations and dissemination of information materials on Horizon Europe;
- 3 brochures were published in 2021: Horizon 2020 Success Stories of Moldova; Public Research and Innovation Infrastructure in the Republic of Moldova; Research Infrastructures in the European Research Area, intended for local and international audiences.
- The information on websites www.ancd.gov.md and www.h2020.md and its dissemination through social media was updated.
- The Launch event dedicated to the European Union Framework Programme for Research and Innovation "Horizon Europe" was organized on December 03, 2021.

11. Explain the legislation regarding taxation and import duties concerning EU funds for Research.

According to lit. c1) art. 104 of the Fiscal Code of the Republic of Moldova are exempt from VAT. with the right to deduct: the import and/or delivery in the country of goods, services intended for: technical assistance projects, carried out on the

territory of the Republic of Moldova by international organizations and donor countries within the limits of the treaties to which it is a party and investment assistance projects, financed from grants to the Government, as well as from grants to institutions financed from the budget.

The application of the fiscal and customs facilities related to the implementation of ongoing technical and investment assistance projects, which fall under the scope of the international treaties to which the Republic of Moldova is a party, is regulated by Government Decision no. 246/2010 concerning the application of tax and customs facilities.[24]

B. EURATOM Research and Training Programme

12. Does Moldova have any specific programmes and/or research institutes for nuclear research?

The Republic of Moldova does not have a specific programme and research institutions for nuclear research. However, Republic of Moldova is a member-state of the Joint Institute of Nuclear Research (JINR) in Dubna, Russia, and a restricted number of researchers from the Republic of Moldova are carrying-out research in various fields of science by making use of research installations and infrastructure available at JINR.

13. Do you have nuclear research and training in fission and fusion? If 'yes' how it is organised at national level.

The Republic of Moldova does not have nuclear research and training in fission and fusion. Although the Republic of Moldova has no infrastructure for nuclear research, it is an active member of the Joint Institute for Nuclear Research in Dubna, Russia. Students and scientists from the Republic of Moldova are trained and use the research infrastructure of JINR.

14. Has Moldova already participated in research projects launched under the Euratom Programme?

No, the Republic of Moldova has not participated in research projects launched under the Euratom Programme.

[24] Decision No. 246/2010 regarding the application of the fiscal and customs facilities related to the implementation of the technical and investment assistance projects, which fall under the international treaties to which the Republic of Moldova is a party, available in Romanian at: https://www.legis.md/cautare/getResults?doc_id=130442&lang=ro#

III. POLICY INITIATIVES TO HELP REALISE THE EUROPEAN RESEARCH AREA

A. Reforming national R&I systems

15. Please provide quantitative information for Moldova, if possible for the period 2019-2021, including at least the following aspects:

a) gross domestic expenditure on RTD - ratio to gross domestic product (GDP);

b) gross government expenditure on RTD - ratio to GDP;

c) gross higher education expenditure on RTD - ratio to GDP;

d) gross business enterprise expenditure on RTD - ratio to GDP, ratio to gross government expenditure;

e) gross foreign investment in RTD.

Annually, the National Bureau of Statistics publishes on its official website an informative note on the research-development activity for the previous year, which reflects the statistics of the expenditures for the research-development activity. In 2021, the expenditures for the research-development activity amounted to 560, 5 million lei, in 2020 – 469, 6 million lei, and in 2019 – 498, 0 million lei. For the year 2022 the approved allocations for DCI are of 560, 08 million lei.

Table 2. Gross domestic expenditure on research and technological development - in relation to gross domestic product (GDP)

Year	2019	2020	2021
Gross domestic expenditure on RTD (MDL)	498.043,60	469.596,80	560.518,20
Gross Domestic Product (GDP) (MDL)	210.378.059	205.432.298	241.871.000
Ratio (%)	0,24	0,23	0,23

Table 3. Gross government expenditure on research and technological development - ratio to GDP

Year	2019	2020	2021
Gross government expenditure on RTD (MDL)	362.574,40	307.615,70	336.025,70
Gross Domestic Product (GDP) (MDL)	210.378.059	205.432.298	241.871.000
Ratio (%)	0,17	0,15	0,14

Table 4. Gross higher education expenditure on RTD - ratio to GDP

Year	2019	2020	2021
Gross expenditure on higher education for R&D (MDL)	60.901,40	94.383,50	106.666,20
Gross Domestic Product (GDP) (MDL)	210.378.059	205.432.298	241.871.000
Ratio (%)	0,029	0,046	0,044

Table 5. Gross business enterprise expenditure on RTD - ratio to GDP

Year	2019	2020	2021
Gross business enterprise expenditure on RTD (MDL)	74.567,80	67.597,60	117.826,30
Gross Domestic Product (GDP) (MDL)	210.378.059	205.432.298	241.871.000
Ratio (%)	0,035	0,033	0,049

Table 6. Gross business enterprise expenditure on RTD - ratio to gross government expenditure on RTD

Year	2019	2020	2021
Gross business enterprise expenditure on RTD (MDL)	74.567,80	67.597,60	117.826,30
Gross government expenditure on RTD (MDL)	362.574,40	307.615,70	336.025,70
Ratio (%)	20,6	22	35,1

16. What measures have been taken to increase the quality of public research? Is funding to public research performance based?

Based on Law No. 190/2017 and Funding Methodology of projects in the fields of research and innovation, approved by Government Decision No. 382/2019, the main measure for increasing the quality of public research was the application of the principle of competition in the distribution of public funds and channeling resources to researchers that can ensure the highest performance in the field.

In order to increase the quality of public research was done:

- Mechanisms to monitor and evaluate the implementation of research and innovation projects have been set up. The results of the annual project evaluation determine the decision to extend or suspend the funding of research and innovation projects;
- The Republic of Moldova has joined the European Union Program for Research and Innovation Horizon Europe[25], which significantly expands the opportunities for accessibility to European research projects, including opportunities to develop its own capabilities, by obtaining additional sources of funding, access to new knowledge and high-performance research infrastructure;
- The Smart Specialization Strategy of the Republic of Moldova for the years 2022-2030[26] is being finalized. The document is a new type of policy document in the fields of research and innovation that aims to promote research based on excellence in strategic fields, with relevance and impact on the economy and society;
- Law No. 190/2017 established the mechanism of the complex assessment of the capacities of organizations in the fields of research and innovation and their classification on capacity levels that determine differentiated access to funding according to the Methodology of funding of the projects in the fields of research and innovation approved by the Government. The project of the Evaluation methodology is currently being finalized.
- Implementing the principles of Open Science by ensuring free access to scientific publications and the introduction of digital technologies in all spheres of the research and innovation system. In this context, to be mentioned: the inclusion of the requirement regarding the publication of the results of the research projects, financed from the state budget, in Open Access, as a condition for financing of research and innovation projects[27];
- Development of the National Bibliometric Tool for indexing publications in journals, materials of scientific events and international publications of authors from the Republic of Moldova; organizing the competition of research projects "Offering solutions on promoting the concept of Open Science and the development of digital technologies in the fields of research and innovation". For the short term, are established actions to set up The Electronic service in the field of research and innovation (e-Research)[28] and

[25] Law No. 193/2021 on the ratification of the Agreement between the Republic of Moldova, on the one hand, and the European Union, on the other, on the participation of the Republic of Moldova in the European Union programme Horizon Europe – the Framework Programme for Research and Innovation, available in Romanian at: https://www.legis.md/cautare/getResults?doc_id=128929&lang=ro

[26] The Government's action plan for 2021-2022, approved by Government Decision No.235/2021, available in Romanian at: https://www.legis.md/cautare/getResults?doc_id=128407&lang=ro

[27] Government Decision No. 382/2019 on the approval of the Methodology of financing projects in the fields of research and innovation, available in Romanian at: https://www.legis.md/cautare/getResults?doc_id=115748&lang=ro

[28] The Government's action plan for 2021-2022, approved by Government Decision No.235/2021, available in Romanian at: https://www.legis.md/cautare/getResults?doc_id=128407&lang=ro

the elaboration of the concept of the document for Open Science in the Republic of Moldova[29].

- Funding of the priorities and development objectives in the fields of research and innovation is achieved in 2 ways:

1) Institutional funding - granted from the state budget to public organizations in the fields of research and innovation for maintaining and developing public infrastructure in the fields of research and innovation and related staff costs, based on the institutional funding Methodology, approved by the Government Decision No. 53/2020, funding that is distributed by the founders of public organizations in the fields of research, based on:

- the results of scientific research, as well as their economic and social impact;
- the limited share of institutional funding in the total funds obtained by public organizations in the fields of research and innovation;
- organizational consolidation initiatives both within public organizations in the fields of research and innovation, and with other categories of such organizations.

2)Financing of research and innovation projects (competitive) - through a public competition organized by the National Agency for Research and Development, based on the Methodology of financing of the projects in the fields of research and innovation, approved by the Government Decision No. 382/2019.

The proportion of the distribution of the financial resources of 40% for institutional financing and 60% for the financing of research and innovation projects are determined in the National Program in the fields of research and innovation, approved by the Government decision no. 381/2019. This proportion was set up in accordance with the purpose of the Research and Innovation reform, stipulated in Law No. 190/2017, namely the application of the principle of competition in the distribution of funds and channelling resources to researchers who can ensure the highest performance in the field.

17. What measures have been taken to promote public-private cooperation?

In order to promote public-private cooperation, Law No. 179/2008 on public-private partnership was adopted, based on the premise that public-private partnership (PPP) is a viable way of institutional interaction between the state and the business sector, of introducing private sector management, resources, and know-how into public

[29] The Activity Plan of the Ministry of Education and Research for the year 2022, available in Romanian at: https://mec.gov.md/ro/content/planuri-si-rapoarte-de-activitate

services, through a long-term contractual link between a private operator and a public authority.

Law No 179/2008 was adopted in the context of the significant increase in the stock of PPPs in OECD countries in the early 2000s and defines the main contractual forms of public-private partnerships:

- contract for the provision of services;
- trust management contract;
- lease/rent contract;
- concession contract;
- commercial or civil partnership contract;
- other contractual forms not prohibited by law.

At the same time, Law No. 131/2015 on public procurement and Law No. 121/2018 on concessions of works and services were adopted, the last one transposes partially the Directive 2014/23/EU of the European Parliament and of the Council of 26 February 2014 on the award of concession contracts. Thus, Law No. 131/2015 introduces the concept of "innovation partnerships", whereby contracting authorities effectively create incentives to invest in innovation by committing to acquire a good or service that is not yet available in the market.

Based on the existing legal framework, several partnerships have been initiated and implemented at the central and local government levels. According to Public Property Agency data, 12 public-private partnership projects of national interest and 24 public-private partnership contracts of local interest are underway.

To increase the impact of the research results and innovation on business environment and society as a whole, the National Program in Research and Innovation for the years 2020-2023 was approved by the Government Decision No. 381/2019, which provides among the specific objectives, the development of instruments for the transfer of knowledge and scientific results to potential users by:

- launching and organizing applied collaborative projects between the scientific community and business representatives;
- encouraging research activities to create innovative start-ups and/or spin-offs;
- stimulating the activity of science and technology parks and innovation incubators.

Competitive financing of research and innovation fields is based on project competitions in accordance with the Methodology for financing projects in the fields of research and innovation approved by Government Decision No. 382/2019. In order to stimulate cooperation between the public and private sectors, the Methodology provides, inter alia, for the organization of competitions for the following types of projects:

- technology transfer projects - projects that include activities to implement the results of innovation in order to obtain new products and services, increase performance and improve their efficiency;
- innovation projects - projects that include activities aimed at applying the results of research and/or practical experience, which are aimed at the practical use and/or marketing of materials, products or devices, processes, systems and new or substantially improved services;
- innovation vouchers - projects aimed at the acquisition by economic agents of consulting and expertise services from organizations in the fields of research and innovation, in order to introduce innovations in their economic activity;
- projects in the fields of smart specialization - projects in the fields of research and innovation, with a duration of 2 years, which aim at one of the niches of smart specialization identified at national level and which contribute to the correlation of scientific resources with the needs of the business environment.

Also, in accordance with the provisions of the above mentionned Methodology, some of the criteria for prioritizing project proposals that have accumulated an equal number of points are to facilitate the achievement of cohesion between the public and private sectors and the number of connections between research and innovation.

In the above-mentioned project competitions, public research and innovation organizations participate in partnerships with business representatives. Private companies carrying out innovation research activities on the basis of the incorporation act may participate individually.

In 2020, 12 innovation and technology transfer projects were approved for funding in the amount of 5515.8 million lei from the state budget and 8290.0 million lei from co-financing, and in 2021, 13 innovation and technology transfer projects were approved for financing in the amount of 8028.6 million lei from the state budget and 8794.4 million lei from co-financing.

The poor connection between research and the business environment still remains a challenge. To overcome this, the National Program in Research and Innovation for 2020-2023 provides for the adoption and implementation of smart specialization principles.

The elaboration of the draft Smart Specialization Strategy of the Republic of Moldova for the years 2022-2030 was preceded by the organization of the Entrepreneurial Discovery Process (EDP) with all interested actors, representatives of the quadruple helix (representatives of academia, private, public and civil society). The final selection of priority areas was based on the detailed quantitative analysis of the economic, innovation and research potential of the Republic of Moldova (mapping of the economic, innovation and scientific potential of the Republic of Moldova and the description of preliminary priority areas for smart specialization in Moldova), on the interview of about 40 key players in the business and research sector and on the entrepreneurial discovery process, which included the organization of workshops

with all stakeholders, with a special emphasis on the involvement of the business sector.

18. What measures have been taken to promote a business environment incentivising private R&D investment? Are there measures to facilitate venture capital?

In order to promote a business environment that encourages private investment in research and development, the following measures are implemented:

- fiscal facilities for research and innovation activities, reflected in the answer to question 8;
- access to research contests in the fields of research and innovation, as beneficiaries of public finances, but also through actions of co-financing of projects, under the conditions established by the Methodology for financing projects in the fields of research and innovation. There are five types of competitions for projects funded by public money to stimulate the participation of the private sector in research and innovation activities: technology transfer projects; innovation projects; innovative vouchers; smart specialization projects; projects for the development of research and innovation infrastructure;
- setting "facilitating the achievement of public-private sector cohesion" as the criterion for prioritizing research and innovation project proposals where several competing project proposals under the same research and innovation priority have accumulated an equal number of points.

Law on science and technology parks and innovation incubators no. 226/2018 in art. 17 states the facilities granted for the creation and operation of science and technology parks and innovation incubators, but for which no implementation mechanisms have been developed.

There are no measures in the Republic of Moldova to facilitate venture capital.

19. What is the national support policy framework to increase the research and innovation capacity for SMEs?

In order to strengthen the technological capacity of small and medium-sized enterprises and increase their involvement in international markets, the competent authorities do the following:

- facilitates the development of relations between small and medium-sized enterprises and the research environment, including through the development of special programs and tools;

- facilitates the implementation by small and medium-sized enterprises of new technologies and products, as well as other types of innovations, especially based on information and communication technology;
- support small and medium enterprises by supporting their research and innovation capacity;
- stimulates and facilitates the development of research within small and medium enterprises;
- develops and implements, in collaboration with the Academy of Sciences of Moldova, research programs for the benefit of small and medium enterprises;
- facilitates the development of innovation support infrastructure for small and medium enterprises, including: science and technology and/or industrial parks, information technology parks, business incubators, research laboratories, production platforms, information and consulting centers, etc.;
- facilitates, through clusters, the cooperation of small and medium enterprises with large enterprises;
- develops tools for the promotion and internationalization of small and medium enterprises both within the regional organizations and in the bilateral agreements;
- promotes the development of skills of small and medium enterprises in the field of research and innovation based on simplified access to public research infrastructure, use of research and development services, recruitment of qualified specialists and training of employees.

The support of the research-development activity carried out by the small and medium enterprises is achieved by:

- establishing research for the benefit of small and medium enterprises as a priority objective within the National Research-Development Strategy;
- providing access of small and medium enterprises to the research and financing programs from public money without fulfilling the accreditation conditions, in case of carrying out the innovation activity based on scientific research;
- financing with priority the realization of the projects and programs in the field of research-development destined for small and medium enterprises from the amounts provided for the financing of the fields of research and innovation;
- ensuring the contracting with priority, by the units and institutions from the national research-development system, of the topic requested by the small and medium enterprises;
- priority financing of research and development projects that have as object topics with immediate applicability, requested by small and medium enterprises in the industrial sector;

- organization of conferences with international participation, in which small and medium-sized enterprises carry out innovative activities to participate with scientific papers, in order to establish the objectives that will be included in the annual national programs.[30]

The monitoring, coordination and correlation of the implementation process of the programs for supporting the development of the small and medium enterprises sector is carried out by the Organization for the Development of the Small and Medium Enterprises Sector (ODSMES).

By Government Decision No. 243/2022, the Program to support digital innovations and technological startups was approved. The objective of the Program is to provide grants in the form of grants to SMEs for the development and commercial promotion of innovative products and/or services. The program focuses on three components of thematic funding:

- Digital innovation
- Green technology
- Sustainable production.

The program will support the development and commercial promotion of products and/or services, according to the thematic funding components mentioned above, for the following priority areas, but which does not exclude other areas: information and communication technology, digital media, manufacturing, agriculture, education, health, financial services, creative industries, e-commerce, recycling.

Start-ups will benefit from grants in the form of grants up to 80% of the costs related to the development and promotion of products and/or services, but not more than MDL 500,000. The funding procedure, stages and amounts will be set out in the grant agreement in accordance with the Program Operational Textbook.

The implementation of the Program is entrusted to ODSMES, in coordination with the Ministry of Economy. The financial resources of the Program will consist of the budgetary allocations provided in the State Budget Law for the respective year, as well as of external sources of the development partners.

SMEs can participate in research and innovation project contests funded from the state budget, in partnership with research and innovation organizations. SMEs who carry out research and innovation activities based on their founding act can participate individually.

Moldova's accession to the European Union's Framework Program for Research and Innovation "Horizon Europe", allows Moldovan entities to participate fully in the funding opportunities of Horizon Europe Program. The program aims to stimulate

[30] Law No. 179/2016 on small and medium-sized enterprises, available in Romanian at: https://www.legis.md/cautare/getResults?doc_id=120932&lang=ro

research and innovation activities in SMEs, the creation of innovative businesses and their expansion, in particular start-ups, SMEs and to improve access to risk financing.

Since 2011, the Republic of Moldova has become a partner of the Enterprise Europe Network (EEN), through the consortium between the Chamber of Commerce and Industry of the Republic of Moldova, the National Agency for Research and Development and the Organization for the Development of Small and Medium Enterprises. The main objective of the EEN Consortium of the Republic of Moldova is to provide integrated services to support innovation and promote trade and economic relations within the business community in the country.

20. What are the financial or other incentives for RTD investment by public enterprises and private industry?

The Republic of Moldova is at the stage of consolidating the legal and institutional framework for research and innovation. Financial or other incentives for RTD investment by public enterprises and private industry are so far insignificant in the Republic of Moldova and are associated with:

- IT sector;
- State programs.

Law No 77/2016 on Information Technology Parks regulates the process of creating information technology parks and aims to create the necessary conditions for boosting the development of the information technology, research, and innovation industry based on information technology in various fields. Thus, to stimulate the development of information technology, as well as the research and innovation industry, a single 7% tax on the sales revenue is introduced for residents of information technology parks.

The National Programme for Research and Innovation for 2020-2023 and the Action Plan for its implementation are the main policy document through which the Government sets the priorities and strategic directions of development in the fields of research and innovation. According to the Methodology of finance for research and innovation projects, adopted by Government Decision no.382/2019, priority will be given to financing projects that ensure the facilitation of the achievement of cohesion between the public and private sectors, universities, and research institutes. For the period 2020-2023, only one State Enterprise (SOE), has obtained funding under the program - the project "Competitive technical means for sustainable agricultural technologies".

In this context we can also mention the innovation vouchers, regulated by the Methodology for financing projects in the fields of research and innovation, approved by Government Decision nr. 382/2019, which represent projects aimed at the

acquisition by economic agents of consulting and expertise services from organizations in the fields of research and innovation, in order to apply innovations in their economic activity.

Other incentives are set out in the Action Plan on the implementation of the Smart Specialization Strategy of the Republic of Moldova for the years 2022-2030. The Strategy is in the process of finalization and provides: competition for innovative vouchers in areas of smart specialization; the access of entrepreneurs to the public research infrastructure in the fields of intelligent specialization; creation and accreditation of reference laboratories in the fields of intelligent specialization, in the interest of the business environment.

At the same time, the Organization for Small and Medium Enterprise Sector Development (ODIMM) has implemented the Support Instrument for the Digitization of SMEs, established through the Decree of the Minister of Economy and Infrastructure No 100 of 26 May 2020, while the Government Decision No 139/2022 approved the Programme for the Digital Transformation of Small and Medium Enterprises.

B. Human Capital building and Mobility of researchers

21. Which actions is Moldova taking to ensure that there are sufficient qualified researchers? How are human resources capacity ensured? Is an Action Plan in place to increase the number of scientists in the country? Which actions has Moldova taken to ensure mobility (geographical, inter-sectoral and inter-disciplinary) of researchers? What kinds of visa procedures are there for foreign scientists?

The personnel policy is a strategic component of the state policy in the fields of research and innovation. It provides for the increase of the scientific and intellectual potential of the society, the development of the creative spirit, promoting the scientific culture, the increase of the work prestige in the fields of research and innovation, by stimulating it according to the obtained results, the complexity and the quality of the performed works.

Thus, in accordance with the provisions of Art. 57, letter f) of the Code on Science and Innovation, the state, in the person of public authorities, guarantees the functioning and development of research and innovation fields, by ensuring the training, improvement and retraining of highly qualified staff of research and innovation organizations.

In the same context, in accordance with Art. 92 of the Code on Science and Innovation, the organization in the fields of research and innovation stimulates scientific creativity, organizes training and retraining courses for specialists in the field, evaluates the staff, according to the provisions of the regulatory framework, creates technical-scientific databases, organizes national and international scientific

events; promotes the activity of innovation and stimulates highlighting the scientific and scientific-technological achievements, etc.

Additionally, in accordance with the provisions of Government Decision No. 53/2021 the expenses for continuous professional training, business trips; materials for teaching, scientific and other purposes; expenses etc. are funded by means of the institutional component, based on the Methodology of institutional funding of public law organizations in the fields of research and innovation.

There is no National Action Plan in the Republic of Moldova in order to increase the number of researchers. This component is found in the Human Resources Development Strategies developed by organizations in the fields of research and innovation. For example: https://usm.md/wp-content/uploads/STRATEGIA-POLITICILOR-DE-PERSONAL.pdf, https://utm.md/acte_normative/interne/Strategia%20Cercetarii%20UTM_2018.pdf

At the same time, the Government encourages all forms of mobility, which represent a way of personal and professional development. Thus, at the national level, the National Program in the fields of research and innovation for the years 2020-2023 includes actions referring to the human personnel involved in research.

At the institutional level, the mobility of doctoral students is facilitated by doctoral schools and by signing institutional agreements or partnerships approved by the Doctoral School Council, co-supervised doctoral research, exchanges of doctoral students with prestigious international universities or participation in international consortia, aiming to include doctoral research topics in international scientific projects.

Concerning visa procedures, for these specific cases, foreign scientists are eligible to apply for 2 types of visas, depending on the purpose of the stay in the Republic of Moldova.

- short stay visa for the following purpose: cultural, scientific and humanitarian activities, medical treatment for short period and other activities which don't contradict with national law (C/AD). As mentioned previously, this type of visa allows its holders to stay in the Republic of Moldova for a maximum of 90 days, within any period of 180 days preceding each day of stay.
- long stay visa: employment (D/AM). This type of visa allows its holders to stay in the Republic of Moldova for a maximum of 90 days, within any period of 180 days preceding each day of stay. Also, it gives the applicant the right to submit further for a residence permit (temporary or permanent). For this case, a foreigner is guided to submit its application directly at the Bureau of Migration and Asylum of the Ministry of Internal Affairs of the Republic of Moldova.

22. If there is a problem with regard to brain-drain of RTD personnel from Moldova, what are the possible public policies to address this matter? Is research promoted as a potential career in high schools & universities? How are continuing training schemes organised (e.g. implementing organisations, target groups, existing programmes)? How are young researchers funded, with stipends or with employment contracts?

Young, well-educated, healthy individuals are most likely to migrate, especially in pursuit of higher education and economic improvement. Taking into account the reasons for leaving Moldova for most developed countries as de-motivating working conditions, coupled with low salaries, are set against the likelihood of prosperity for themselves and their families, work in well-equipped labs, and the opportunity for professional development.

In this regard, for diminishing the impact of the above mentioned reasons of brain-drain, the public policies should be oriented to the improvement of the recruiting process of the researchers within the academia and research institutions based on merit. Another public policy possibility to maintain early career researchers can be the provisions for subsidizing their living costs that can help free up their income and give them more financial security.

In order to decrease the brain-drain process the sufficient allocations for scientific equipment for universities' laboratories are crucial and the public policies should stipulate this issue.

There are no public policies with regard to brain drain. However, the Government encourages researchers to continue their career in research and young researchers to choose a career in research.

One of the key skills of the educational system of the Republic of Moldova is "learning to learn". The research activity is promoted in general education in all school subjects, especially through case studies and various research projects. The research project is a method of training and self-training, which involves students conducting research focused on practical objectives, research usually completed with the development of a product - material model, object, device, installation, presentation, film, thematic album. These products are the result of a research, original, and practical work, carried out either individually or in groups. The elaboration of the project (and of the final product) implies a long-term activity (1-2 weeks or longer) and combines scientific investigation with practical activities of the student, representing an effective means of integrating the education with the scientific research and with the practice of everyday life. The projects can refer to the contents studied within a school or transdisciplinary discipline, to several school subjects.

Also, the research in school is promoted through the transdisciplinary contents included in the school curriculum at the primary level and in the gymnasium and high school education through the optional subjects.

Since 2013, the National Agency for Curriculum and Evaluation has been running the "MoldSEF" National Science and Engineering Competition for students, to identify and develop students' creative skills, as well as to increase the interest for mathematics, physics, computer science, natural sciences, technical and engineering sciences, scientific knowledge.

Concerning the university environment, we would like to mention doctoral studies. The government funds 313 doctoral grants annually, based on competition for scientific projects. Ph.D. students often receive individual scholarships or are employed by the organizing institution or by other institutions part of the consortium or partnership, or as university assistants or scientific researchers, for a determined period. Several doctoral schools are formed on a consortium basis, by universities and research institutes, thus giving young researchers the opportunity to work in the best scientific schools. Young researchers doing their doctoral studies are funded with stipends. There is also the possibility for young people to participate in research projects, in which they are employed by contracts.

Another way to support doctoral students are the Government Excellence Scholarship Award and the Nominal Scholarships for doctoral students, according to the Government Decision No. 161/2008. The Government Excellence Scholarship and the Nominal Scholarship for doctoral students are awarded annually, for one calendar year, to young people in the 2nd and the 3rd years of study, enrolled in full-time studies, who have completed the full program at that date, for outstanding academic performances and active participation in the social life of the institution. The scholarship competition for doctoral students is part of the government's program to support young people involved in national and international research projects.

The National program for research and innovation for 2020-2023 contains a number of measures to involve young people into research. For this purpose, there is a mandatory requirement to employ 20% young people in each research project.

According to the Methodology of funding projects in the fields of research and innovation, one of the priority criteria of project proposals is the higher number of young people up to 35 years old in the researchers' team (not less than 20%).

The Methodology also provides projects for young researchers, implemented by groups of young researchers, led by a Ph.D. researcher not older than 40 years old.

23. What is the situation in Moldova with respect to gender equality in research and innovation careers? Does Moldova have a national action plan or strategy to promote gender equality in research and innovation?

The principle of Gender Equality (the European Charter for Researchers) is recognized, accepted and included in the Human Resources Strategy for Researchers, incorporating the European Charter for Researchers and the Code of Conduct for the

Recruitment of Researchers. An STCU project "Innovative approaches in applied calculations and software development for regulating gender equality in the labor market" is underway. Also, 5 activities have been organized, including a round table with over 50 people involved to ensure gender balance in research.

Within the organizations in the fields of research and innovation according to the research activity, scientific titles, professional skills, 24 women were promoted in the leading positions.

At the same time, the number of women researchers decreased, thus, to 100 men researchers from the research-development activity, there were 91 women researchers. The share of women researchers in three fields is higher than that of men - social sciences (58.5%), medical (56.6%) and natural sciences (50.7%). In the field of engineering and technological sciences women are in a minority (206%). In the fields human and agriculture sciences, there were non-essential differences in the weights in favor of men.

In 2021, the "State Program" competition (2020-2023) had:

- *Priority I – Health* – out of a total of 40 projects, 14 project managers are women;
- *Priority II – Sustainable agriculture, food security and food safety* – out of a total of 27 projects, 6 project leaders are women;
- *Priority III – Environment and Climate Change* – out of a total of 26 projects, 8 project leaders are women;
- *Priority IV – Societal Challenges* – out of a total of 45 projects – 25 business leaders project are women;
- *Priority V – Economic competitiveness and innovative technologies* – out of a total of 29 projects, 1 project leader is a woman.

The Republic of Moldova does not have a national plan or strategy for promoting gender equality in research and innovation, but there are actions in this regard in the National Roadmap for the Integration of the Republic of Moldova in the European Research Area for 2019-2021 and the Action Plan on its implementation, approved by Government Decision No. 1081/2018.

The Republic of Moldova has made international and national commitments to promote gender equality and women's empowerment, in particular by ratifying the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) and the various conventions of the World Labor Organization. Since the adoption in 2006 of Law no. 5 on ensuring equal opportunities for men and women, a number of national strategies and action plans have been implemented, which have promoted gender equality. At the same time, we mention the Government Decision no. 259/2017 on the approval of the Strategy for ensuring equality between women and men in the Republic of Moldova for the years 2017-2021 and the Action Plan on its implementation.

24. What measures are taken on the national level to implement the principles of the European Charter for Researchers and Code of Conduct for the Recruitment of Researchers (Charter and Code) promoting open, merit-based and transparent recruitment and attractive working and employment conditions?

The Government of the Republic of Moldova encourages all forms of mobility, as such an experience is conducive to the professional development of researchers. In addition, the Government encourages the employers of researchers in their role as recruiters to provide researchers with open and transparent recruitment procedures. Employers are encouraged to develop and maintain a positive and supportive research environment, where researchers and research groups are valued, encouraged and supported.

The Academy of Sciences of Moldova, as the BHO organization of the Euraxess Program in the Republic of Moldova, regularly organizes seminars, practical workshops for higher education and research institutions for implementing the principles of the European Charter for Researchers and Code of Conduct for the Recruitment of Researchers (Charter and Code) and promoting open, transparent recruitment and attractive working and employment conditions for native and foreign researchers.

25. Does Moldova have a national strategy for researchers' training and mobility, for developing doctoral education? Are there incentives in place to attract and retain talent? To attract back the scientific diaspora?

The Republic of Moldova does not have a national strategy for researchers' training and mobility. The aspects related to mobility are mentioned in detail in the answer to the question 21.

With reference to the developing doctoral education, we can mention that the Regulation regarding the organization of doctoral studies, cycle III, approved by the Government Decision No. 1007/2014[31] stipulates the organization and conducting doctoral studies in the Republic of Moldova, cycle III of higher education in the structure of the European Higher Education Area (EHEA/Bologna) and establishes the unitary character of the training process through and for research of the highly qualified scientific personnel.

In the same context, the Decree of the Minister of Education, Culture and Research No. 250 from 05.03.2020 for the approval of the Action Plan for the development of doctoral education, cycle III, for the years 2020-2023[32] contains a series of actions related to the updating and development of the regulatory framework in order to

[31] Government Decision No. 1007/2014 on the approval the Regulation on the organization of doctoral higher education, cycle III, available in Romanian at: https://www.legis.md/cautare/getResults?doc_id=115655&lang=ro
[32] Decree of the Minister of Education, Culture and Research No. 250 from 05.03.2020 for the approval of the Action Plan for the development of doctoral education, cycle III, for the years 2020-2023, available in Romanian at: https://mecc.gov.md/sites/default/files/img_0002_2.pdf

increase the performance of doctoral education, development of the infrastructure necessary for conducting of doctoral education, improvement of the quality of doctoral education and internationalization of doctoral education, etc.

The Ministry of Education and Research implements PhD programmes which encourage young and talented people to choose a career in science. The PhD studies offer support to young and talented people on PhD studies for their scientific and research work. The PhD programme includes scholarships for over three hundred students of PhD studies and it is realized continuously. In addition to scholarships, the programme provides conditions for their work on projects, i.e. introduction to the process of scientific and research work during scholarship by providing resources for the elaboration of PhD thesis.

Also, in order to attract and retain talented researchers, the joint project research competition for young researchers from the Republic of Moldova was organized in the period 2019-2021, launched jointly with the Francophone University Agency Creation of interdisciplinary research centers and networks. The main purpose of this competition was to develop projects in partnership and provide funding to qualified participants, in order to contribute to the creation of interdisciplinary research centers and networks for young researchers and promote scientific and technological mobility.

At the same time, in the context of encouraging young people to choose the scientific career, the normative framework was modified by approving the Government Decision No. 267/2021[33]. Thus, young people can participate in projects for young researchers – projects in the fields of research and innovation, implemented by groups of young researchers, who have as their leader a researcher up to and including 40 years old, who holds the scientific title of doctor.

In terms of attracting the scientific diaspora, we can mention that the National Program in the fields of research and innovation for the years 2020-2023, which establishes activities for this purpose, namely:

- involving the representatives of the scientific diaspora in the activities from the fields of research and innovation and in the support mechanisms;
- relaunching the programme of grants for short-term mobility for representatives of the scientific diaspora.

In 2021, the Communication Platform between the Ministry of Education and Research and representatives of the Moldovan diaspora from abroad was created. The purpose of creating this communication platform is to strengthen the links between the Ministry, national higher education institutions and research organizations and diaspora representatives in order to promote joint activities, projects in the field of education and research and to involve members of the Moldovan diaspora from

[33] Government Decision No. 267/2021 for the amendment of Annexes no. 1 and no. 2 to Government Decision no. 382/2019 on the approval of the Methodology for financing projects in the fields of research and innovation, available in Romanian at: https://www.legis.md/cautare/getResults?doc_id=128339&lang=ro

abroad in establishing the communication bridges between the academic and research environments of the Republic of Moldova and the destination countries of the Diaspora.

Additionally, we mention that during 2021, the organizations in the fields of research and innovation carried out jointly with diaspora representatives a series of activities among them:

- participation of diaspora representatives in the implementation of scientific projects;
- participation of diaspora representatives in scientific conferences organized by the research and innovation institutions;
- participation of diaspora representatives as members of the editorial boards of scientific journals;
- participation of diaspora as official referees in the Commissions for public defence of PhD theses and in the trainings of doctoral students etc.

C. Organisation of research on specific areas

26. Does Moldova have special research programmes and funding on coal and steel?

The Republic of Moldova has no special research programmes and funds for coal and steel.

27. Does Moldova have special measures to engage on research on Food, Agriculture and Biotechnologies and measures to ensure the proper use of biotechnologies? Any Action Plan?

The Republic of Moldova has research in the field of agriculture, food supply and organic technologies, as well as measures for the use of such technologies.

By the association of the Republic of Moldova to the International Treaty on Plant Genetic Resources for Food and Agriculture (Law no. 94/2015 on the association of the Republic of Moldova to the International Treaty on Plant Genetic Resources for Food and Agriculture, https://www.legis.md/cautare/getResults?doc_id=77425&lang=ro) measures to preserve and exploit the genetic background of crop plants are implemented.

Additionally, we mention that in the National Program in the fields of research and innovation for the years 2020-2023, approved by Government Decision No. 381/2019, one of the strategic priorities is Sustainable Agriculture and Food Security, which also includes agricultural biotechnologies.

Objectives of research in the field of agriculture and agricultural biotechnologies are also set out in:

- The National Integrated Plant Protection Program for the years 2018-2027 (Government Decision No. 123 of 02.02.2018) and the Action Plan on its implementation. (Objective 2. Optimization of the assortment of phytosanitary products allowed for use in the agriculture of the Republic of Moldova).
- The National framework for monitoring the implementation of the 2030 Sustainable Development Agenda. (SDG 2: Eradicating hunger, ensuring food security, improving nutrition and promoting sustainable agriculture.

To achieve these goals, research institutions under the umbrella of the Ministry of Agriculture and Food Industry have special research and dissemination programs for sustainable and resilient agriculture, including organic farming, which allows:

Growing new crops and animals adapted to unfavorable biotic and abiotic conditions to develop technologies for crop and animal production, with a lower consumption of non-renewable energy sources and their derivatives (mineral fertilizers, pesticides, antibiotics, etc.), to attenuate and better adapt to changing weather conditions.

The results are used by farmers in production conditions, both by organic farmers and by farmers in transition from conventional to more sustainable agriculture, including organic farming.

In the same context, there are 26 research projects covering the strategic priority Agriculture and Food Security within the National Program for research and innovation for 2020 -2023. In addition, in 2021 the National Agency for Research and Development funded 5 projects to support technology transfer in Agriculture and Food Security.

28. What are the policies, programmes and budgets in the field of defence RTD?

In the Republic of Moldova, the Ministry of Defence is in charge of planning and organizing scientific research work of importance for defence. The Ministry of Defence is in charge of military research but such activities are not carried out as funds are not planned for such purposes.

29. Does Moldova have, or plans to have, targeted actions or special programmes to foster competitiveness via industrial research on specific topics such as clean sky? Innovative medicines? Energy efficiency? Are there existing examples of public-private partnerships in the field of research in Moldova?

There are two research projects which are implemented in the Republic of Moldova with relation to energy efficiency. One of them is conducted at the Institute of Power Engineering, which is dedicated to development of eco-innovative technical solutions for streamlining energy consumption in buildings and developing smart grid with advanced integration of renewable energy in Moldova. The second one is conducted at the Technical University of Moldova, which is dedicated to studying the wind and solar energy potential in the Republic of Moldova and to elaboration of conversion systems for dispersed consumers.

A project of technology transfer was implemented in collaboration with the public institution Technical University of Moldova and private institution „ALUM SISTEM", dedicated to the development of photovoltaic greenhouses for cheap harvests.

A project of technology transfer was implemented by the Institute of Genetics, Physiology and Plant Protection, related to the integration of the energetic plant Miscanthus in the cycle of thermal energy production in heating systems.

In the field of innovative medicines, a project of technology transfer was implemented in collaboration with the public institution Technical University of Moldova and private institution ELIRI SA, dedicated to the development of smart clothing for premature babies with monitoring of vital parameters.

A project of technology transfer was implemented by the Nicolae Testemițanu State University of Medicine and Pharmacy, related to developing technologies for the cultivation of raw materials based on Pichia pastoris for the expression of the growth of hormones.

A series of other projects are currently under implementation in the field of innovative medicines at different medical institutions in the Republic of Moldova. Particularly, three projects are implemented at the Nicolae Testemițanu State University of Medicine and Pharmacy. One of them is devoted to epidemiological monitoring, prevention, diagnosis and treatment of noncommunicable diseases. The second one deals with reconstructive surgery in congenital malformations in new-borns, infants and adolescents. The third project is related to optimizing the management strategy in diagnosis and treatment in surgical pathology and trauma in pregnant women and postpartum.

30. Does Moldova have any special interest in participating in Articles 185 and 187 TFEU initiatives being implemented at EU level?

Starting with 2019 the Republic of Moldova has been a full member of EURAMET Association, being represented by the National Institute of Metrology that is participating in European Metrology Programme for Innovation and Research (EMPIR).

31. Does Moldova have any special interest in participating in Articles 45-51 of Euratom Treaty initiatives being implemented at EU level?

There are no research institutions in the Republic of Moldova with capacities to participate in the development of the nuclear industry.

D. International S&T cooperation

32. Does Moldova have a strategy for international S&T cooperation (either self-standing or embedded into a general S&T/globalisation strategy)? If yes, describe the main pillars of that strategy (e.g. how are decisions taken on what kind of research to do with whom? What are the thematic and geographic priorities in international S&T cooperation?).

The Republic of Moldova does not have a separate strategy for international S&T cooperation. However, aspects which deal with international cooperation are mentioned in the National Roadmap for the Integration of the Republic of Moldova in the European Research Area for 2019-2021, approved by Government Decision no. 1081/2018[34] and the National Program for Research and Innovation for the 2020-2023 years and the Action Plan for its implementation approved by Government Decision No. 381/2019.

There are several important aspects of ERA that have to be pointed out as key for international STI cooperation, such as: strengthening the excellence and attractiveness of research and innovation; tackling global challenges and supporting external policies.

[34] National Roadmap for the Integration of the Republic of Moldova in the European Research Area for 2019-2021, approved by Government Decision No. 1081/2018, available in Romanian at: https://mecc.gov.md/sites/default/files/national_roadmap_for_the_integration_of_the_republic_of_moldova_into_the_european_research_area_for_2019-2021_and_the_action_plan_for_its_implementation.pdf

33. What are the main means for supporting/implementing international S&T cooperation (e.g. openness of national research programmes for foreign participants, including funding of foreign participants; specific support instruments; bilateral S&T dialogues/agreements etc.)? Please list any international agreements and/or non-legally binding instruments on Science & Technology.

The national research programs of the Republic of Moldova are open for foreign participants.

Following the association to the European Union Framework Program for Research and Innovation „Horizon Europe" the Republic of Moldova offered the opportunity to research teams from abroad to participate in national projects in the fields of research and innovation.

Organizations in the fields of research and innovation that fall under the provisions of art. 15 of the Code on Science and Innovation of the Republic of Moldova no. 259/2004, independently or in clusters / partnerships with other subjects in the fields of research and innovation, including with the representatives of the business environment, of the civil society, of the international organizations and of the development partners of the Republic of Moldova, in accordance with the concluded agreements.

Also, under the Methodology of funding projects in the fields of research and innovation, the the R&I organizations can participate in the project competition independently or in clusters/partnerships with other subjects in the fields of research and innovation, including representatives of the business environment, of the civil society, of the international organizations and of the development partners of the Republic of Moldova, under the concluded agreements.

The main means for supporting/implementing international Science and Technology cooperation are the association to international programmes, international agreements, international initiatives etc.

The Republic of Moldova represented by the National Agency for Research and Development joined the following international programs and instruments:

- the Joint Programming Initiative on Antimicrobial Resistance (JPIAMR) as a Member of the Joint Programming Initiative on Antimicrobial Resistance;
- EASME - The Executive Agency for Small and Medium-sized Enterprises.
- the European Open Science Cloud Association (EOSC).

International Agreements:

- Collaboration Agreement between The Executive Unit for the Financing of Higher Education, Research, Development and Innovation (UEFISCDI) of

Romania and the National Agency for Research and Development of the Republic of Moldova;

- Protocol on co-operation in Science and Technology between The Scientific and Technological Research Council of Turkey and the National Agency for Research and Development of the Republic of Moldova
- Agreement on Scientific and Technical Cooperation between the State Committee for Science and Technology of the Republic of Belarus and the National Agency for Research and Development of the Republic of Moldova
- Protocol on Cooperation among the Academies of Sciences of GUUAM Participating States in the Field of Science and Techniques. Signed in Italy, 04.07.2003
- Cooperation in the frame of European Federation of Academies of Sciences and Humanities ALLEA.
- Participation in the boards and bodies within the European Union Framework Program for Research and Innovation „Horizon Europe"
- Participation in the European Cooperation in Science and Technology (COST) projects.
- Participation in the NATO Science for Peace and Security Programme
- Cooperation in the frame of bilateral, regional and multilateral projects, such as European Union's Cross-Border Cooperation (CBC) under its European Neighbourhood Instrument (ENI), particularly Interreg Black Sea Basin INI CBC, Romania-Republic of Moldova ENI-Cross Border Cooperation, Danube Transnational Programme, projects of the L'Agence Universitaire de la Francophonie, etc.

On the 8th of April, 2022, the Government of the Republic of Moldova and the Government of the Republic of Poland signed the Executive Program in the Fields of Culture, Education and Science, which provides expanding and diversifying cooperation between the two states between 2022 - 2025.

The Memorandum of Understanding between the Ministry of Education and Research of the Republic of Moldova and the Romanian Ministry of Research, Innovation and Digitization in the fields of research, development and innovation was signed on 11.02.2022.

34. What kind of multilateral activities are pursued (including membership in S&T-relevant international institutions)?

The Republic of Moldova, namely the National Agency for Research and Development, organizes the competition of multilateral projects within the Joint Program Initiative (JPI), Antimicrobial Resistance (AMR) "Diagnosis and

Surveillance Networks" jointly with JPI AMR. Multilateral projects are consortium projects involving, on the one hand, a public organization in the fields of research and innovation in the Republic of Moldova, independently or in partnership with other organizations, and, on the other hand, one or more organizations from abroad in order to implement a joint project. Multilateral projects are aimed at integrating the scientific and innovation results of the Republic of Moldova into the European and international research space, as well as the integration in the infrastructure networks in the fields of research and innovation.

The Republic of Moldova is a partner in Horizon Europe and a full member of COST since 2018 (European Cooperation in Science and Technology). The Republic of Moldova participates in the UNESCO actions in 4 fields (education, science, culture and communication and information) within the activities carried out under the aegis of the conventions to which it is a party:

- Convention for the Protection of Cultural Property in the Event of Armed Conflict, The Hague, 1954
- Convention for the Protection of the World Cultural and Natural Heritage, 1972
- Convention for the Safeguarding of the Intangible Cultural Heritage, 2003
- Convention on the Protection and Promotion of the Diversity of Cultural Expression, 2005
- Convention on Measures on Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property, 1970.

The Republic of Moldova has joined as a full member of the Statute of the International Center for Genetic Engineering and Biotechnology - an international organization under the auspices of the UN, world-famous in the field of research and innovation, offering short and long term scholarships for doctoral and postdoctoral students.

35. Does Moldova participate in the activities established under the European Research Area Committee?

The Republic of Moldova participates actively in the activities of the European Research Area Committee. The Republic of Moldova is a non-EU country associated with the EU research and innovation programme which may take part as an observer. The country also participates in the Strategic Forum for International Scientific and Technological Cooperation (SFIC).

At the same time, 19 entities from the Republic of Moldova are declared connected/integrated into international/regional research infrastructures: 7 entities (38.9%) from the list of international ESFRI/ERIC infrastructures.

Also, the Republic of Moldova initiated the process of elaboration of the National Roadmap for the Development of Research Infrastructure as an integral part of the National Programme in the fields of research and innovation for the years 2024-2027.

36. Please detail the regulatory framework enabling the authorities of [name of country] to oversee the exploitation or dissemination of IPR of entities established in your country. If any, please detail redress mechanisms in the event of a breach of this regulatory framework.

There are no special regulations in the Republic of Moldova that would empower authorities of other states to supervise the exploitation or dissemination of IP rights in other jurisdictions or authorities of other countries that are entitled to oversee the exploitation or dissemination of IP rights in our country. In the Republic of Moldova, the IP rights are ensured without discrimination, according to the general norms of the legislation of the Republic of Moldova international and bilateral treaties the Republic of Moldova is a party, and within the limits of the national principle established according to the provisions of art. 3 of the TRIPs. The same national treatment is expected to be offered with reference to the exploitation or dissemination of IPR of Moldovan entities in the jurisdictions of other countries that are party to at least WTO/TRIPs.

Moreover, in case of any problems or infringements related to IPR belonging to entities from the Republic of Moldova in other jurisdictions, there are platforms that could be used for discussion and identification of solutions. These platforms are in particular the Bilateral Joint Commissions on economic aspects where the IP rights could be discussed at the bilateral level.

With regard to European structures, there is the EU-Moldova Association Committee in Trade Configuration (ACTC) and the EU-Moldova Sub-Committee on Geographical Indications, which is expressly responsible for monitoring of the development of the Sub-Section 3 Geographical indications, Section 2 Standards concerning intellectual property rights from the Chapter 9 Intellectual property rights, TitleV (Trade and Trade-related Matters) of the European Union - Republic of Moldova Association Agreement.

Similar bodies are established based on the Strategic Partnership, Trade and Cooperation Agreement between the Republic of Moldova and the United Kingdom of Great Britain and Northern Ireland, namely the Political and Strategic Dialogue in Trade Configuration and the Sub-Committee on Geographical Indications.

37. Do you have a national regulatory framework in place to control foreign direct Investments (FDI) in strategically sensitive sectors, infrastructure, technologies or inputs? If so, can you provide the details of your FDI screening system?

The Republic of Moldova has in force a mechanism for the examination of foreign direct investments, established by Law No.174/2021 on the mechanism for the examination of investments of importance for state security, adopted by the Parliament on 21 November 2021.

The purpose of the law is to protect investments in areas of importance for state security and to increase the transparency of investments of importance for state security. Thus, the areas of importance for state security are established, including infrastructure and technologies:

- activity in the hydrometeorological and geophysical field;
- radioactive waste management;
- operation of energy (including electric energy, natural gas and petroleum products), transport, water and sewerage, aerospace, defense, election infrastructure;
- artificial intelligence, robotics, semiconductors, cybersecurity, aerospace, defense, quantum and nuclear technologies, nanotechnologies and biotechnologies;
- production of protection for cryptographic information;
- production and purchase for the purpose of resale of state secret protection means;
- production of explosive materials for industrial use and distribution activities;
- aviation security activities;
- design, production, maintenance and operation of aircrafts and of components;
- design, production, maintenance and operation of systems and components used in air traffic management and provision of air traffic services;
- design, maintenance and operation of air/heliports, including of safety equipment;
- management of airports, bus-ports, rail traffic, inland waterways, ports and quays for waterway traffic;
- television broadcasts / audio-visual services;
- supply of networks and/or fixed or mobile electronic communication services;
- supply of services in national ports;

- services of geologic study of subsoil's resources and/or exploration of natural resources;
- production, export, re-export, import of weapons, ammunition and military equipment, products, technologies and services that can be used in manufacturing and use of nuclear, chemical, biological and missile weapons;
- administration of state's public registers, information security.

Prior to investing in a relevant sector (areas of importance for state security), any potential investor (local or foreign) is obliged to obtain approval from the Council for Promotion of Investment Projects of National Importance (Council), established by Government Decision No. 585/2016. The Council is headed by the Prime Minister, who is assisted by a Vice-President and a Secretary. The members of the Council are heads of specialized public administration authorities, law enforcement, and control bodies, which participate in the development and promotion of the state's economic policy and ensure its control.

The investor's application must be accompanied, among others, by:

- information on the share capital of the investor and its ultimate beneficial owner(s);
- the value of the investment;
- information on countries of operation and main business partners;
- financial statements for the last three years;
- information on source of funds;
- the date of planned investment;
- criminal record certificates in relation to shareholders/ultimate beneficial owner(s);
- a statement on the intention to invest individually or in concert.

Applications are reviewed within 45 days of receipt, while in the first 30 days the Council can solicit supplementary information from the applicant. Decisions of the Council are adopted by a simple majority of votes of its members. The Council can either admit or reject an application or issue a conditional approval while setting the deadline to fulfill the condition (which should not exceed 90 days after receipt of conditional approval).