



Informative Document

Citizen Science in the Romanian Open Science Strategic Framework

The document was developed within the project [Increasing the capacity of the RDI system to respond to global challenges. Strengthening the anticipatory capacity to develop evidence based policies – SIPOCA592](#) (financed by ESIF¹)

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MINISTERUL CERCETĂRII,
INOVĂRII ȘI DIGITALIZĂRII



Unitatea Executivă pentru
Finanțarea Învățământului Superior,
a Cercetării, Dezvoltării și Inovării

I. Open science strategic objectives addressed within:

- a) [National Strategy on Research, Innovation and Smart Specialization for 2022-2027](#)
- b) [White Paper on the Transition to Open Science \(2023-2030\)](#)
- c) [National Plan for Research, Development and Innovation 2022-2027](#)

II. Other actions of support at national level

I.a) [National Strategy on Research, Innovation and Smart Specialization for 2022-2027](#) (the Governmental Decision no. 933 of 20 July 2022), Objective 1.2. Ensuring the transition to open science and facilitating the road towards excellence in scientific research: one of the actions refer to supporting citizen science. In addition to encouraging citizen participation in defining the strategic research agenda, the national strategy will support projects that encourage citizen involvement in various stages of the research process, such as data collection. Other actions included within the Objective 1.2. refer to ensuring open access to all the publicly funded research publications, introducing DMPs requirements (ensuring FAIR data and open data “as open as possible as closed as necessary”), establishing and implementing a national support mechanism for the transition to open science, promoting and supporting the existing and new infrastructures, digital repositories and services that supports open science to ensure the long-term storage of open access publications and research data and integration into disciplinary databases and EOSC. The development of open science specific skills and competences of researchers and personnel of academic and research institutions, adoption of new research and career evaluation metrics are also mentioned in the strategy.

Two workshops with 60 citizens were organized in May 2022 based on the input provided by the National Research Agenda which is part of the [National Strategy on Research, Innovation and Smart Specialization for 2022-2027](#). The workshops were organized by the [Executive Agency for Higher Education, Research, Development and Innovation Funding \(UEFISCDI\)](#) within the framework of the [Proethics](#) project. The workshops aimed at engaging citizens into the planned strategy development process, in order to validate and enrich the proposed thematic priorities, an attempt to align the authorities' and experts' findings to citizens' needs. In a nutshell, panels of experts and numerous stakeholders have been involved in a process of validation of the thematic priorities and their recommendations and conclusions completed the Strategic Research Agenda, as a list of societal changes and leading questions. The workshops with citizens refined the identified challenges, by adding or reformulating the research questions, based on the citizens own needs and interests.

I.b) The provisions of the Objective 1.2. Ensuring the transition to open science and facilitating the road towards excellence in scientific research (included in the [National Strategy on Research, Innovation and Smart Specialization for 2022-2027](#)) are detailed and specific actions have been proposed in the [White Paper on the Transition to Open Science \(2023-2030\)](#) which was published on December 21, 2022 and which was developed in the above mentioned project ([SIPOCA592](#)), implemented by the Ministry of Research, Innovation and Digitization and the [Executive Agency for Higher Education, Research, Development and Innovation Funding \(UEFISCDI\)](#).

The [White Paper on the Transition to Open Science \(2023-2030\)](#) presents the vision, the targets for achieving the vision, the strategic objectives and actions necessary for the implementation of the open

science vision in Romania by correlating it with international open science policies and recommendations. **One of the strategic objectives is dedicated to citizen science and within this objective several actions were proposed, including the development of a national network dedicated to citizen science at the RDI community level in Romania, based on the model of those existing at the European level and supporting the development of specific CS capabilities/ competencies of researchers and staff from academic and research institutions through capacity building activities (workshops, information sessions, etc.).**

The [White Paper on the Transition to Open Science \(2023-2030\)](#) represents the final form of the Strategic Document regarding Open Science Development Framework in Romania, developed on the basis of the dialogue support document - the [Green Paper on the transition to Open Science 2022-2030](#) which was put in public consultation in the period August 16 – September 30, 2022..

I.c) The [National Plan for Research, Development and Innovation 2022-2027](#) (the Governmental Decision no. 1188 of 29 September 2022) is the main instrument for implementing the [National Strategy on Research, Innovation and Smart Specialization for 2022-2027](#). Within the National Plan, the Science and Society Program was included with the aim to develop the dialogue between science and society by opening up the research and innovation system to citizens, civil society and end-users, as well as by involving students and young people in innovative STEAM actions.

Types of projects proposed to be financed (citizen science – open science):

1. Innovation in citizen science

The purpose is to support exploratory activities for the development of specific innovative methods and methodologies in order to engage/ involve citizens in science.

Awarding successful projects with citizen science components. The participation of citizens/ local communities and small associations, civil society organizations, social enterprises or small enterprises, research and innovation actors will be recognized and rewarded so as to strengthen citizens' trust in science and facilitate the adoption of science, technology and innovation.

2. Best practice exchange for capacity building needed to implement open science

Purpose: To exchange best practices and encourage the development of the institutional culture necessary for open science through professional networking and the introduction in research organizations of new ideas, knowledge, methods and practices related to the implementation of open science.

Funding will involve the awarding of grants through which universities/ research institutes from Romania will benefit from the exchange of experience/ good practices with universities/ research institutes from European countries.

Other types of projects proposed to be financed within the Science and Society Program:

3. Projects for the training of researchers in science communication

Purpose: Training courses in mass-media are aimed at interested researchers who wish to improve their competences in relation to mass-media and public communication in order to develop a simple and concise language that will generate interest and will highlight the true value of the research results and impact on society.

4. Science in schools

Purpose: Supporting innovation in STEAM programs and bringing students and young people closer to scientific experiments, through learning experiences, teamwork projects, visits to laboratories, lectures by researchers in schools and high schools, debates, competitions, events associated with "Science Week in Schools". Supporting student activity in Fab-Lab platforms.

5. Festival of science, creativity and innovation

Purpose: Organizing events to increase the visibility of research among citizens, bringing scientific research closer to citizens, attracting students and young people to science and innovation, understanding and adopting innovative technologies and solutions.

It is envisaged to organize a Science Summer Week festival that finances a series of regional events that take place every year.

6. Science and technology summer schools

Purpose: Organization of summer schools offering applied research programs for students and young people, as well as interdisciplinary professional development programs for teachers.

7. Supporting national and international scientific events

Purpose: Supporting the organization of national and international scientific events, as well as associated events by research and development units.

8. Access to scientific literature

Purpose: Ensuring access to specialized scientific literature from the main flow of knowledge necessary for the proper conduct of scientific research and technological development.

Financing access to specialized scientific literature from the main flow of knowledge can also be achieved through "synergy" financing mechanisms.

9. Subsidizing technical-scientific literature

Financing the publication, preferably with open access, of technical-scientific literature for the presentation, dissemination and promotion of technical-scientific novelties.

10. National Technical Museum

Promotion of scientific and technical culture in society, through the modernization and expansion of the National Technical Museum, an interactive museum addressed to the general public of all ages.

11. "Henri Coandă" projects

Purpose: Increasing the attractiveness of the research, development and innovation domain among pupils and students, the training and development of new talents for scientific research, by supporting the participation and recognition of performance in international technical-scientific competitions intended for pupils and students.

Funding is granted for:

- the participation of a team made up of pupils and/or students from Romania, under the coordination of a mentor, in technical-scientific competitions dedicated to pupils or students;
- Awarding pupils and students with results (I, II, III prize) obtained at technical-scientific competitions intended for pupils or students.

Other relevant programs that are included within the [National Plan for Research, Development and Innovation 2022-2027](#) are:

1. Challenge Program

Purpose: To increase the contribution of research and development activities in addressing societal challenges set out in the Strategic Research Agenda. **One of the objectives of the program is: opening the research and innovation processes to the society, by involving citizens (citizen science) in different stages of the research.**

2. Performing Research Organization Program

The Purpose of the program is improving the institutional performance of research organizations, by supporting and developing the existing research skills at the institutional level, as well as the capacity to transfer applicable results.

One of the objectives is developing the own capacity of public research organizations in order to adopt the practices specific to open science.

One of the types of projects proposed to be financed:

Institutional development projects

Purpose: To support institutional development projects for public universities, national development research institutes in Romania and the institutes of the Romanian Academy, in order to increase the institutional capacity and performance.

One of the specific objectives is the development of the institutional capacity to implement open science practices so as to ensure alignment with the European Union's recommendations and policies on open science.

Grants for the development of skills needed to implement open science.

There are also other Programs which support open science practices (awarding research results - Web of Science articles and Patents; awarding the Romanian journals, for publication in the open science model; open access publication; protection of intellectual property rights, supporting the participation of Romania and Romanian entities in the development of the European Open Science Cloud) included within the [National Plan for Research, Development and Innovation 2022-2027](#).

II. Other actions of support at national level:

The [Romanian Open Science Portal](https://www.open-science.ro/) (<https://www.open-science.ro/>) is developed by [UEFISCDI](#) (part of SIPOCA592 project) and was launched on December 21, 2022. Its aim is to connect and actively engage the Romanian community to the open science dynamics and capacity building opportunities and also to be a resource for Open Science in Romania (scanning the OS dynamic at international and national level; providing a set of tools to facilitate capacity building); **citizen science will have a dedicated section within the national portal.**

The [national Fund for the Institutional Development of the public universities](#) has a dedicated action (starting 2022) to support universities in order to develop their institutional capacity to implement open science practices.



Support for open science policies: [Open Science Knowledge Hub Romania](#) part of [UEFISCDI](#) which acts as a national support desk for Open Science, being the Romanian [OpenAIRE NOAD](#), a member in the [EOSC Association](#) and related Task Forces (TF Upskilling Countries to Engage in EOSC and TF Researcher Engagement and Adoption), a partner in the [NI4OS-Europe](#), [FAIR-IMPACT](#), OPUS: Open Universal Science², GraspOS: Next Generation Research Assessment to Promote Open Science, the Sustainable Careers for Researcher Empowerment – SECURE projects and the [RDA Node Romania](#); for open science policies correlation, UEFISCDI collaborates with [Science Europe](#), [CoNOSC](#) and the [UNESCO Chair for Science and Innovation Policies – SNSPA](#). [Open Science Knowledge Hub Romania](#) is also the national representative within the [PSF Challenge Mutual Learning Exercise on Citizen Science Initiatives - Policy and Practice](#) organized by the European Commission.

² <https://opusproject.eu/>

