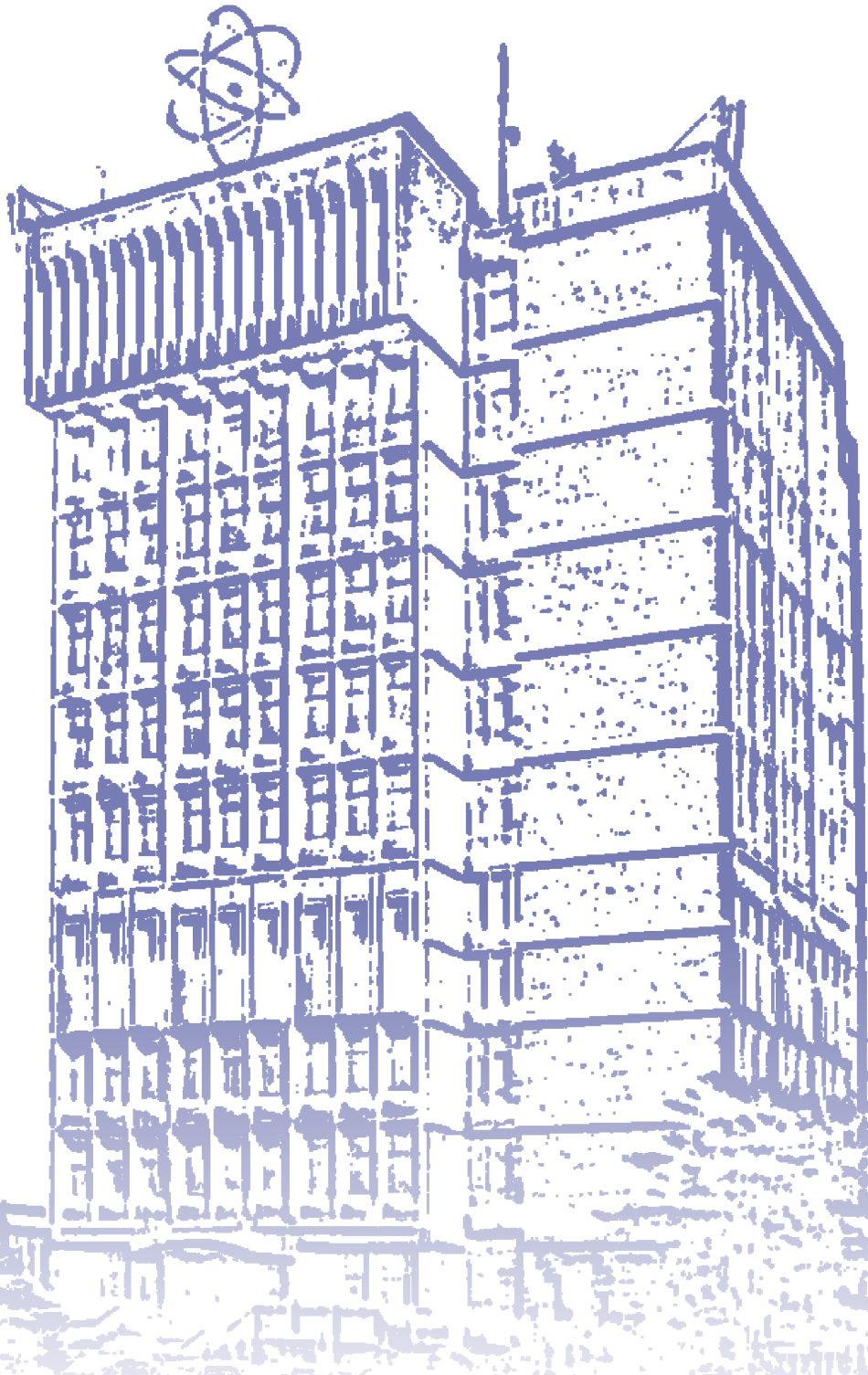


Institute of Atomic Physics

ANNUAL REPORT

2025

CONTENTS

INTRODUCTION

In 2025, the Institute of Atomic Physics (IFA) reinforced its prominent stature within the Romanian physics research community and secured a solid foundation for future growth. Within its main area of activity focused on programme management, IFA launched in 2025 several new calls for projects under the National Research, Development and Innovation Plan 2022-2027 (PNCDI IV), and continued to monitor ongoing projects. These activities concerned the programmes traditionally managed by IFA for technologies in the field of ultra-high-power lasers (ELI-RO), and Romania's participation in international atomic and subatomic research organizations and programmes (CERN-RO, FAIR-RO, EURATOM-RO). Positive steps have been taken to manage the new PNCDI IV sub-programme dedicated to quantum technologies, with the launch of the first call for projects scheduled in 2026. These developments relied on an increased programme budget, reaching its highest value since the institute assumed its role as an executive funding agency for research.

As part of its mission to support the Romanian presence in international collaborations, IFA participated in 2025 in several committees and boards governing the activities at CERN, FAIR and the EURATOM Programme of the European Commission. Based on initiatives launched in 2023 and pursued during the following year, IFA hosted in March 2025 a productive meeting between high-level representatives of CEA (Commissariat à l'énergie atomique et aux energies alternatives, France), the Embassy of France in Romania, and the directors of Romanian research institutions. This meeting set the pillars for a new framework agreement between CEA and IFA, to be signed in 2026, thus enabling a strengthened cooperation between French and Romanian scientists.

IFA also ensured the implementation at ELI-NP of the IRTG (International Research Training Group) project on nuclear photonics that supports the collaboration between POLITEHNICA University of Bucharest and the Technical University of Darmstadt, based on the Memorandum signed in 2022 with the German Research Foundation (DFG).

On 20 May 2025, the traditional event "IFA Day" celebrated once again both the professional performance of remarkable senior researchers and educators, and the educational excellence proven in international physics Olympiads by young students from Romanian high-schools. Last year's edition of the event marked the inauguration of the IFA Excelsior Trophy, recognizing outstanding contributions of personalities or organizations to the advancement of the institute.

IFA's increased visibility and educational impact were further supported with the successful implementation of the project "Ionising Radiations: Experimental Session" (RISE). Financed by the Executive Agency for Financing Higher Education, Research, Development and Innovation (UEFISCDI) following a very competitive selection process, RISE provided high-school pupils with an insightful lesson about ionising radiations, supported by a set of intuitive detectors developed in-house.

IFA's educational and outreach effort was pursued by participating in long-established public events, like the European Researchers' Night, and by taking advantage of the new venue for scientific education, the DUROCERN centre (Discover the Universe with Romania@CERN): in its first full year of activity, DUROCERN recorded close to 900 visitors.

Within the ongoing constraints allowing only for filling unique positions in public institutions, IFA succeeded in 2025 to increase its workforce, following a sustained effort to launch recruitment competitions for its activities. This process also led to a strengthened management team with the support of a new Scientific Director and the nomination of an Economic Director, thus securing a revised configuration of the Steering Committee, the institution's governing body.

The digitalization of programme management activities was reinforced with new developments of the IT system IFA-PROMPT, leading to a more efficient version, ready to be fully deployed in 2026. Special focus was dedicated to maintain and improve the technical infrastructure of the institute, including renovations works on the IFA building, expected to be continued over the following years.

In conclusion, 2025 has been an intense and fruitful year for IFA, securing a robust framework for the institute's future development.

Director-General,

Florin-Dorian BUZATU

PROGRAMME MANAGEMENT

General aspects

The main activity of IFA is the management of programs, in particular subprograms and modules within the National Research-Development and Innovation Plan (PNCDI), which is also the main source of income. During 2025, the funding of projects contracted under PNCDI IV (2022-2027) continued, and new project competitions were launched. The programs managed by IFA in 2025 ensured Romania's participation in the European Commission's EURATOM Program, in CERN, in FAIR (Facility for Antiproton and Ion Research, Darmstadt), and in ELI-NP (Extreme Light Infrastructure - Nuclear Physics, Măgurele). Romania's representation was also ensured in the committees of the international organizations CERN, FAIR, F4E (Fusion for Energy, Barcelona), and in the pan-European consortia EUROfusion (European Consortium for the Development of Fusion Energy) and PIANOFORTE (Partnership for European research in radiation protection and detection of ionizing radiation: towards a safer use and improved protection of the environment and human health), participating in the EURATOM Program.

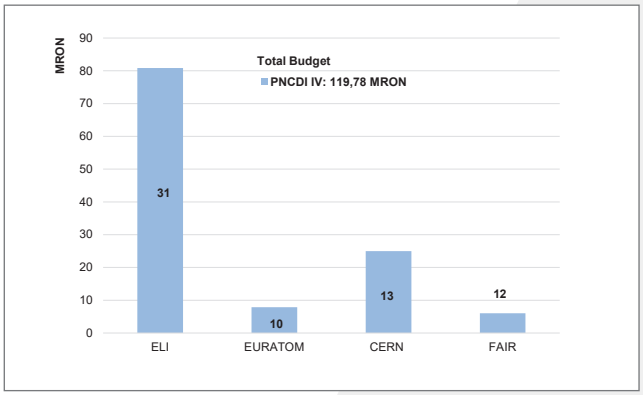
The program components managed by IFA in 2025 are part of Program 5.9 of PNCDI IV, titled Research in strategic interest areas, specifically in subprograms 5.9.1 – Technologies in the field of ultra-high power lasers ELI-RO, 5.9.2 – Participation in international research organizations and programs in the atomic and subatomic field (EURATOM-RO, CERN-RO, FAIR-RO, CEA-RO, F4E-RO), and 5.9.7 – Quantum technologies.

In 2025, 65 PNCDI IV projects were funded, following the ELI-RO, EURATOM-RO, and CERN-RO competitions launched in 2023, 2024, and 2025. In 2025, two project competitions were launched under Subprogram 5.9.1 ELI-RO and one project competition under Subprogram 5.9.2 / Module EURATOM-RO/PIANOFORTE. All PNCDI IV competitions were conducted through the IFA-PROMPT IT system developed by the institute for program management.

Of the 65 funded projects (30 ELI, 13 CERN, 12 FAIR, 10 EURATOM) managed by IFA in 2025, 19 research institutions participated, presented in the following table along with the number of PNCDI IV projects in which each institution participated.

Table 1

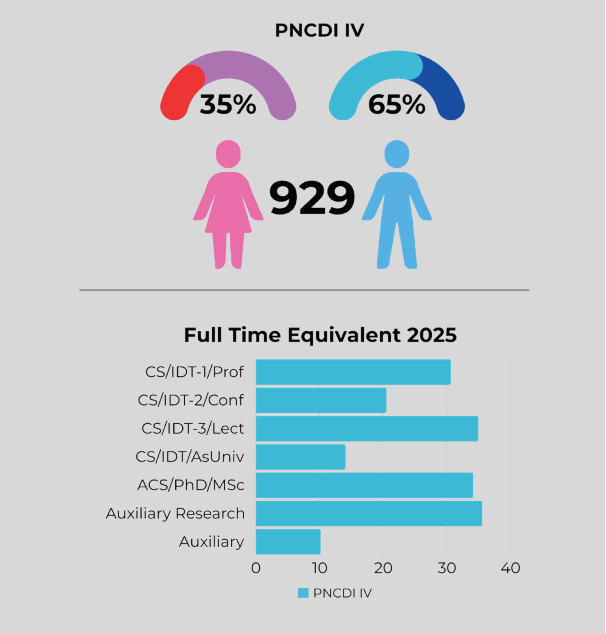
Crt. no.	Participating institution	Number of PNCDI IV projects			
		ELI	EURATOM	CERN	FAIR
1	"Horia Hulubei" National R&D Institute in Physics and Nuclear Engineering (IFIN-HH)	27	1	8	8
2	National R&D Institute for Laser, Plasma & Radiation Physics (INFLPR)	15	8	1	1
3	Institute of Space Science –INFLPR subsidiary (ISS)	1	-	6	1
4	National R&D Institute for Materials Physics (INFM)	-	2	1	-
5	National R&D Institute for Microtechnologies Bucharest (IMT)	3	-	-	-
6	National R&D Institute for Isotopic and Molecular Technologies Cluj-Napoca (ITIM-CJ)	1	-	2	-
7	National R&D Institute for Cryogenic and Isotopic Technologies, Rm. Vâlcea (ICSI)	-	2	-	1
8	"Victor Babeș" National R&D Institute of Pathology and Biomedical Sciences, Bucharest (IVB)	1	-	-	-
9	Technologies for Nuclear Energy – State Owned Company (RATEN – ICN Pitești)	1	-	-	-
10	Institute of Biochemistry of the Romanian Academy (IB-AR)	1	-	-	-
11	University of Bucharest (UB)	2	-	3	1
12	National University of Science and Technology POLITEHNICA Bucharest (UNSTPB)	5	-	1	-
13	"Alexandru Ioan Cuza" University, Iași (UAIC)	-	-	2	-
14	West University of Timișoara (UVT)	-	-	1	-
15	Transilvania University, Brașov (UTB)	-	-	1	-
16	University of Suceava (USV)	-	-	1	-
17	Technical University of Cluj-Napoca (UTCN)	-	1	-	-
18	Clinical Hospital Colentina	1	-	-	-
19	Radiology Therapeutic Center S.R.L. (RTC)	1	-	-	-



The budget allocated in 2025 to PNCDI IV projects, as well as their number on each programme component – ELI-RO, EURATOM-RO, CERN-RO and FAIR-RO – are shown in Figure 1.

Fig. 1 *- The budget allocated in 2025 to PNCDI IV projects and their number per each programme component*

The distribution of personnel participating in the PNCDI IV projects funded by IFA, according to professional degree and gender, is presented in the following infographic, where Full Time Equivalent represents the average of monthly workloads (person x month) in 2025. The graphic summary of the result indicators for PNCDI IV is shown next.



Activities carried out by IFA in 2025 within its programme management duties:

- ☑ Scientific and financial monitoring of PNCDI IV projects;
- ☑ Preparation, launch, and implementation of project competitions under PNCDI IV for the ELI-RO program component: Projects for preparation and performance of experiments at ELI-NP, Projects for development of ELI-NP infrastructure, Projects for collaboration with Germany at ELI-NP, and RDI projects for the production of high-power optics for ELI-NP
- ☑ Preparation, launch, and implementation of project competitions under PNCDI IV for the EURATOM-RO/PIANOFORTE program component: RDI projects for participation in the PIANOFORTE project;
- ☑ Collaboration projects with Germany at ELI-NP, infrastructure development projects, projects;
- ☑ Participation in CERN committees and thematic forums (LHC Resources Review Boards/RRBs, Finance Committee and Council), FAIR (RRBs);
- ☑ Ensuring IFA's representation at the International Particle Physics Outreach Group;
- ☑ Organization of meetings of the International Scientific Advisory Boards (ISAB) for ELI-RO and CERN-RO;

Specific aspects of the programs led by IFA in 2025 are briefly presented below.

ELI-RO

The ELI-RO sub-programme is intended to fund R&D activities in the field of ultra-high-power lasers and very intense and brilliant gamma beams, in correlation with the scientific programme of ELI-NP (Extreme Light Infrastructure - Nuclear Physics, www.eli-np.ro) at IFIN-HH, Măgurele.

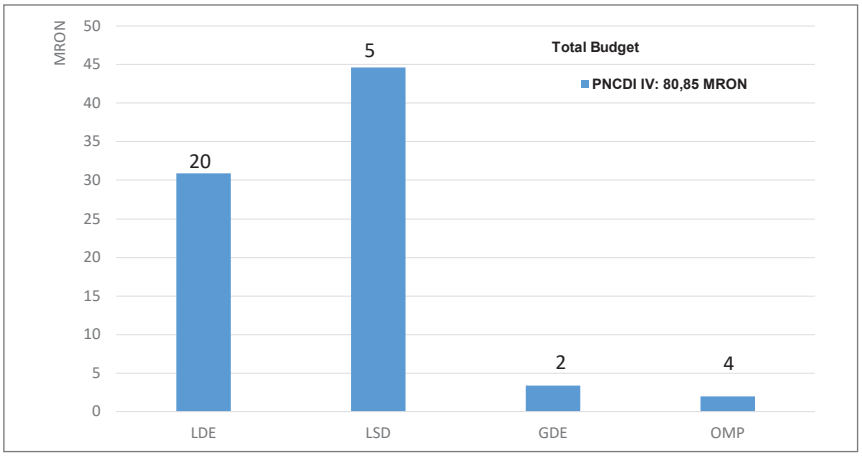
The project activities are carried out within four main topics: High-Power Laser Experiments (LGE); Gamma Beam Experiments (GDE); Gamma System Development (GSD); Laser System Development (LSD); High-Power Optics (HPO). A total of 12 research institutions participated in the 30 ELI-RO projects within PNCDI IV, funded by IFA in 2025. These institutions, along with the number of projects they conducted and their role (coordinator/partner), are presented in the table below.

The budget distribution for ELI-RO projects funded in 2025 and their number according to main topics are presented in Figure 2.

***Fig. 2** - The allocated budget and the number of ELI-RO projects financed in 2025 – distribution according to topics*

Table 2

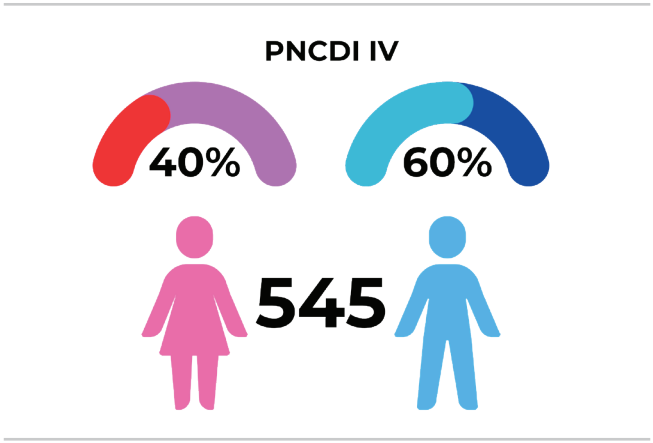
Crt. no.	Participating institute	Number of PNCDI IV projects carried out/ coordinated	Main topic
1	IFIN-HH	27 / 19	LDE, LSD, GDE, OMP
2	INFLPR	15 / 9	LDE, LSD, OMP
3	ISS	1	LDE
4	ITIM-CJ	1	LSD
5	IVB	1	LDE
6	IMT	3	LDE
7	RATEN – ICN Pitești	1	LDE
8	IB-AR	1	LDE
9	UB	2	LDE
10	UNSTPB	6 / 2	LDE, LSD
11	Coletina Hospital	1	LDE
12	RTC SRL	1	LDE

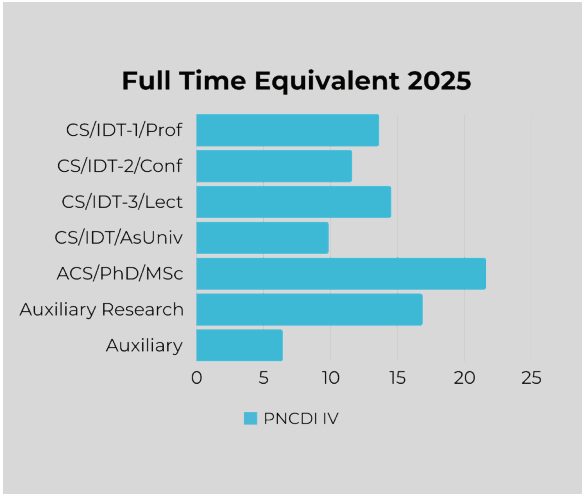


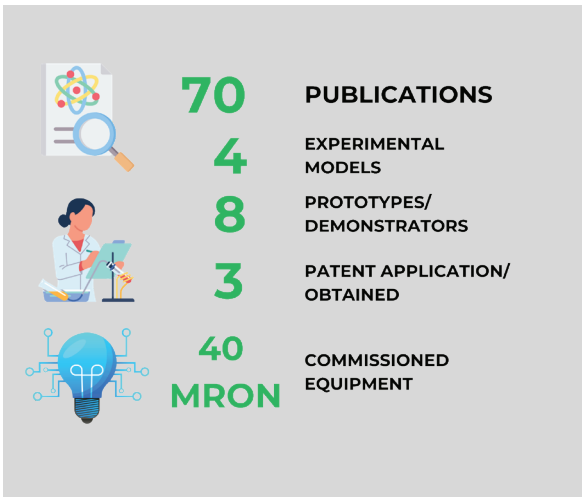
In the second half of 2025, two ELI-RO competitions were launched within PNCDI IV: Projects for preparation and execution of experiments at ELI-NP, Projects for the development of ELI-NP infrastructure, Projects for collaboration with Germany at ELI-NP (August), and R&D Projects for the development of high-power optics for ELI-NP (September), with a total value of 55,000,000 lei for the period 2025-2027. As a result of this competition, 11 new projects were contracted, bringing the total number of projects funded under the ELI-RO Subprogram to 30.

The distribution of the personnel participating in ELI-RO projects, according to professional degree and gender, is represented in the following infographics, where Full Time Equivalent represents the average of monthly workloads (person x month) in 2025.

Further, the consolidated overview of result indicators for ELI-RO projects within PNCDI IV is also presented.

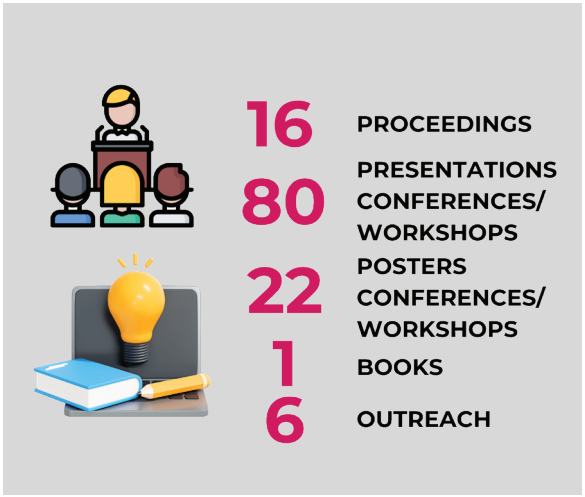






ELI-RO projects are evaluated and monitored both scientifically and in terms of resources by the International Scientific Advisory Board (ISAB), entrusted with the mission of supporting IFA and the National Authority for Research (ANC) in the decision-making process regarding ELI-RO projects and the ELI-NP specific field. ISAB ELI-RO consists of five members, nominated by Order of MCID (for PNCDI IV), experts with high scientific and managerial experience in the field, affiliated to prestigious scientific institutes in the world:

- Prof. Thomas KUEHL – ISAB Chair- GSI, Germany
- Prof. Dr. Hiromitsu KIRIYAMA - Kansai Photon Science Institute, Japan
- Prof. Aurora TUMINO, Università degli Studi di Enna „Kore", Italy
- Prof. Navin ALAHARI- IN2P3-CNRS, France
- Prof. Dimitri BATANI- Université de Bordeaux, France



Activities carried out by IFA in 2025 within ELI-RO Subprogramme:

- ☑ Implementation of two PNCDI IV project competitions;
- ☑ Ensuring the scientific and financial/economic monitoring of PNCDI IV projects;
- ☑ Support and related activities.

EURATOM-RO

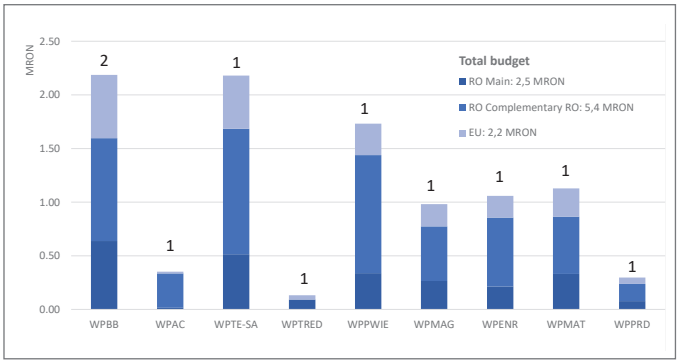
The EURATOM-RO module supports the participation of Romanian institutions in the Research and Training Programme of the European Atomic Energy Community (EURATOM), a complementary programme to the Framework Programme for Research and Innovation of the European Commission (EC) – HORIZON EUROPE. Romania's participation in the field of nuclear fusion is carried out through the EUROfusion project, and in the field of nuclear fission and radioprotection through the PIANOFORTE project. Through EURATOM-RO module, the institutions whose participation is validated following the calls launched within EUROfusion and PIANOFORTE European projects can apply for national funding.

EUROfusion Consortium (www.euro-fusion.org) brings together more than 100 laboratories active within research institutes and universities from 24 member states of the European Union, including Romania, joined by Switzerland, Great Britain and Ukraine. The EUROfusion project is organized/structured in 26 Work Packages (WP) brought together within two directions/departments - Fusion Science and Fusion Technology, further expanded by the educational and training activity- Training and Education.

In 2025, Romania participated in the PNCDI IV program through the competitions launched in 2024, with 10 EURATOM-RO projects proposed by 6 institutions (4 of which were project coordinators), covering 9 EUROfusion work packages.

Table 3 - *Overview of the participation of Romanian institutions at EUROfusion work packages*

Department	Crt. no.	EUROfusion work packages PNCDI IV	Participating institutions PNCDI IV
FUSION SCIENCE	1	WPTE – Tokamak Exploitation / WPSA – Japan Torus JT-60 Superconducting Advanced	INFLPR, ICSI
	2	WPAC – Advanced Computing	INFLPR
	3	WPPWIE – Plasma Wall Interaction and Exhaust	INFLPR
	4	WPENR- Enabling Research	INFLPR, UTCN
FUSION TECHNOLOGY	5	WPMAG – Magnets / WPENS – Early Neutron Source	INFLPR
	6	WPBB – Breeding Blanket	IFIN-HH, ICSI
	7	WPMAT – Materials	INFM, INFLPR
	8	WPPRD – Prospective R&D	INFM, INFLPR
TRAINING AND EDUCATION	9	WPTRED – Training and Education	INFLPR

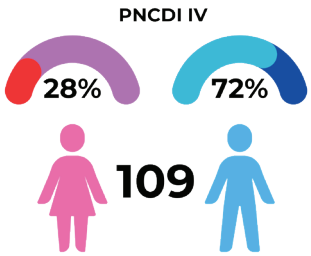


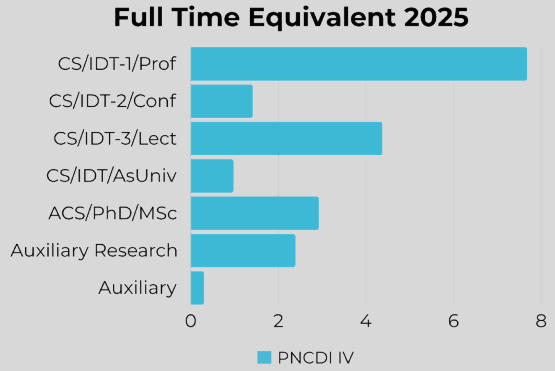
The distribution of the total budget allocated to EURATOM-RO projects within EUROfusion work packages is presented in Figure 3. The national co-funding of these projects includes two components: the main one, corresponds strictly to European co-funded activities; the complementary component – for activities comprised in the EUROfusion work plan intended to be funded only at the national level.

Fig. 3 *- The allocated budget and the number of EURATOM-RO projects in 2025 per EUROfusion work packages*

The distribution of the personnel participating in EURATOM-RO projects, according to professional degree and gender, is represented in the following infographics, where Full Time Equivalent represents the average of monthly workloads (person x month) in 2025.

Further, the consolidated overview of result indicators for EURATOM-RO projects is also detailed.



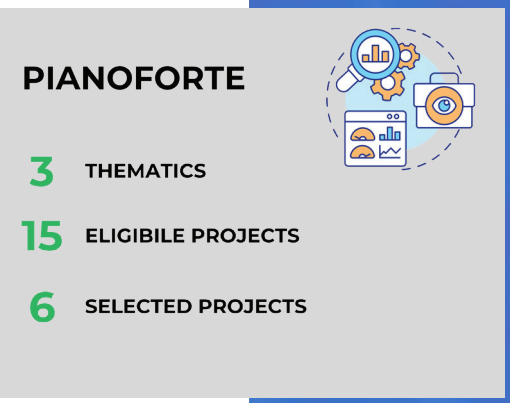


EURATOM-RO/Fusion projects are scientifically monitored by experts designated by the EUROfusion consortium, while IFA ensures the economic monitoring of their national funding and the distribution of European funds to the participating institutes.

Activities carried out by IFA in 2025 within EURATOM-RO/Fusion Module: completion and monitoring of PNCDI III projects; launching two project competitions within PNCDI IV for R&D and Innovation projects; participation in EUROfusion General Assembly Meetings; support and related activities.

The PIANOFORTE consortium (pianoforte-partnership.eu) was established in 2022 with the aim of improving radiation protection for the population and the environment. Starting in January 2025, the PIANOFORTE consortium, coordinated by the French Authority for Nuclear Safety and Radiation (ASNR), comprises more than 100 partners from 23 EU member states, 5 non-EU states, and 6 European research platforms. Within the PIANOFORTE project, funded by the EC through grant no. 101061037, project competitions are organized, and the winning projects require national co-funding. IFA represents Romania in PIANOFORTE as a funding agency. In 2025, a project competition was launched at the European level, with IFA participating in the project evaluation as an observer.

Following the PNCDI IV call for EURATOM-RO – R&D projects for participation in the PIANOFORTE project, launched in November 2025 by IFA, the project «Comprehensive Assessment and Preparedness for Emerging Nuclear Technologies (CATAPULT)» was declared eligible for funding. The beneficiary is IFA, and the affiliated entity is RATEN, a project whose European funding was announced as early as 2024.



Activities carried out by IFA in 2025 within EURATOM-RO/Fusion Module include:

- Monitoring the progress of the projects;
- Participation in the EUROfusion General Assembly Meeting;
- Support and related activities.

The activities carried out by IFA in 2025 within the EURATOM-RO/Fission Module include:

- Preparing and launching the calls launched by PIANOFORTE and the call organized by IFA;
- Verifying the eligibility of the submitted projects;
- Acting as an observer in the process of evaluating European projects declared eligible;
- Participating in PIANOFORTE General Assembly Meetings;
- Support and related activities.

CERN-RO

The CERN-RO module – physics of elementary particles, nuclear physics at high energies, and physics with radioactive beams – supports the participation of Romanian research institutes in the scientific programme of CERN (home.cern). Romania's participation at CERN is governed by Law no. 96/2016 which stipulates that IFA, based on a contract with MCID, provides the funding of the R&D activities of Romanian institutes for CERN programmes and projects from the PNCDI budget.

In 2025, based on the financing provided by ANC through IFA, Romania participated with 13 PNCDI IV projects within 6 CERN research programmes (https://greybook.cern.ch): **LHC** – ALICE, ATLAS, LHCb, WLCG and MoEDAL; **ISOLDE Facility** – ISOLDE experiment; **SPS** – NA62 and NA65; **PS** – nTOF; **Neutrino Platform** – WA105 and the **R&D/DRD** projects. DRD activities (Detector Research & Development: DRD 1, DRD 2, DRD 3, DRD 4, DRD 6, DRD7) are funded by IFA starting from 2024 within a programme under the aegis of ECFA (European Committee for Future Accelerators), hosted by CERN, founded in order to support the future experimental programme at CERN. The list of all 11 participating institutions in CERN experiments (4 of them are project coordinators) following the project competition launched by IFA in 2024 are presented in Table 4.

Table 4

Crt. no.	Participating institution	Number of PNCDI IV projects carried out/ coordinated	CERN experiment / Acronym of support project
1	IFIN-HH	7/7	ALICE, ATLAS, LHCb, WLCG, ISOLDE, nTOF, NA62, R&D (DRD1, DRD3, DRD4, DRD6, DRD7)
2	ISS	4/3	ALICE, WLCG, MoEDAL, NA65, R&D (DRD 3, DRD 6)
3	INFM	1/1	R&D 50 (DRD 3)
4	ITIM	2	ATLAS, WLCG, R&D (DRD6)
5	INFLPR	1	ALICE
6	UPB	2	ATLAS, WLCG, R&D (DRD1, DRD6)
7	UB	2/1	ATLAS, DUNE, R&D (DRD2, DRD 3, DRD6)
8	UAIC	2	LHCb, WLCG
9	UVT	1	ATLAS
10	UTB	1	ATLAS, R&D (DRD1)
11	USV	1	LHCb

The distribution of the budget allocated in 2025 to CERN-RO projects from PNCDI IV for CERN experiments is presented in Figure 4, where the financial contribution to CERN and the number of projects for each experiment are also indicated.

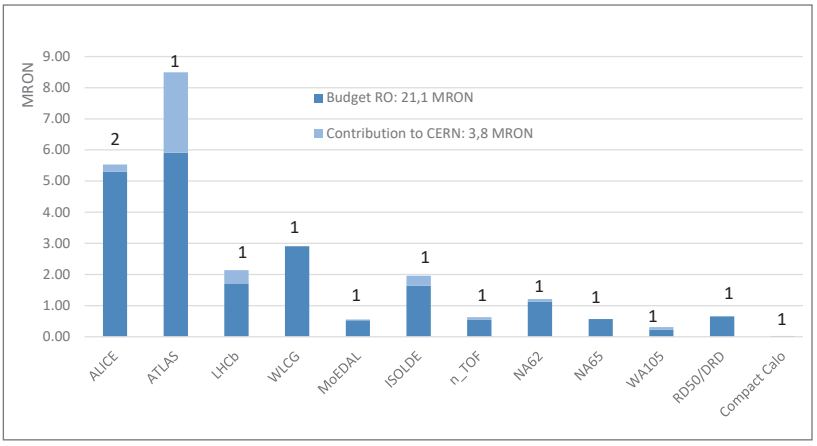
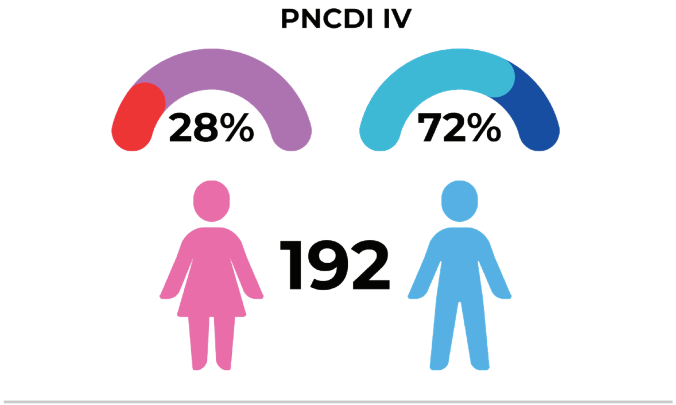
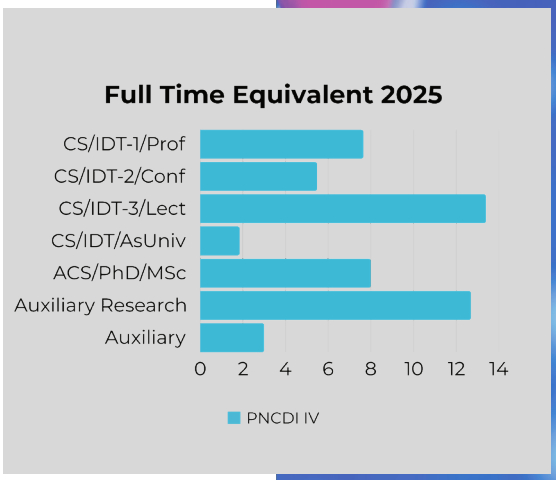
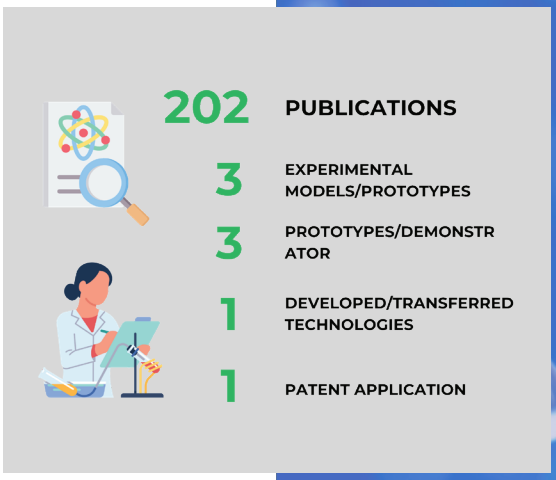


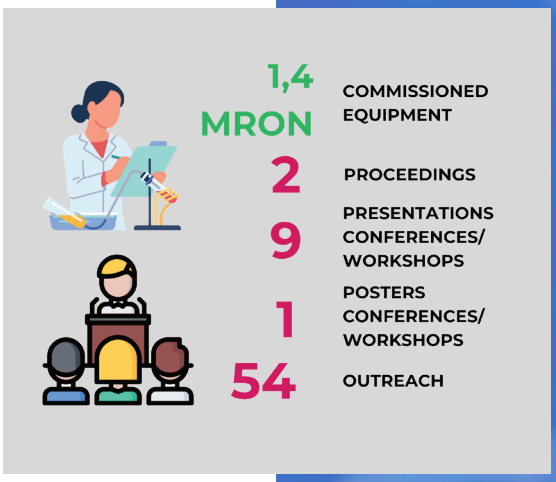
***Fig.4** - The allocated budget and the number of CERN-RO projects in 2025, according to experiments*

The distribution of the personnel participating in CERN-RO projects, according to professional degree and gender, is represented in the following infographics, where Full Time Equivalent represents the average of monthly workloads (person x month) in 2025. Further, the consolidated overview of result indicators for CERN-RO projects within PNCDI IV is also detailed.









CERN-RO projects are evaluated and monitored both scientifically and in terms of resources by the International Scientific Advisory Board (ISAB), entrusted with the mission of supporting IFA and ANC in the decision-making process regarding CERN-RO projects and the field of elementary particle physics. ISAB CERN-RO consists of five members, nominated by Order of MCID (for PNCDI IV), experts with high scientific and managerial experience in the field, affiliated to prestigious scientific institutes in the world:

- Dr. Cristinel DIACONU- Chair ISAB, CPP Marseille, CNRS, France
- Prof. Dr. Thomas LOHSE- Univ. Humbold Berlin, Germany
- Prof. John HARRIS- Yale Univ., USA
- Dr. Clara MATTEUZI- IFN, Milano Univ., Italy
- Prof. Maria Jose Garcia BORGE- Instituto de Estructura de la Materia, IEM- CESIC, Madrid, Spain

Activities carried out by IFA in 2025 within CERN-RO Module:

- ☑ Monitoring of PNCDI IV projects;
- ☑ Organising the public ISAB CERN-RO meeting scheduled between 28 November 2025;
- ☑ Organising the ISAB CERN-RO evaluation meeting between 11 – 12 December 2025;
- ☑ Preparing and managing PNCDI IV projects competition;
- ☑ Participating in CERN thematic committees and forums (LHC Resources Review Boards, Council, Finance Committee) and IPPOG (International Particle Physics Outreach Group);
- ☑ Support and related activities.

FAIR-RO

FAIR-RO module – antiproton and ion physics, nuclear physics at high energies, radioactive beam physics – supports Romania's participation in the construction and operation of FAIR research centre in the field of nuclear physics and radioactive beam physics, which is being built near Darmstadt, Germany (fair-center.eu). Romania is a founding member state of the FAIR Center, based on the Convention regarding the construction and operation of the FAIR Center, signed in Wiesbaden on 4 October 2010 and ratified by Romania through Law no. 307/2013. The commitments undertaken by Romania in the construction and operation of the FAIR Center require field-specific research and development activities, as well as other preparatory actions for future scientific experiments. Romania participates in all 4 FAIR experimental collaborations: APPA (Atomic Physics, Plasma Physics and Applications), CBM (Compressed Baryonic Matter), NUSTAR (Nuclear Structure, Astrophysics and Reactions) and PANDA (antiProton ANihilation at DArmstadt).

Romanian institutions participating in FAIR experimental collaborations and the 12 projects coordinated by IFA are presented in the following table.

Table 5

Crt. no.	Participating institution	Number of PNCDI IV projects	FAIR Collaboration
1	IFIN-HH	8	APPA, CBM, NUSTAR, PANDA
2	INFLPR	1	APPA
3	ISS	1	NUSTAR
4	ICSI	1	CBM
5	UB	1	CBM

The distribution of the budget allocated in 2025 for FAIR-RO projects (PNCDI IV) within FAIR experimental collaborations is presented in Figure 5, where the financial contribution to FAIR and the number of projects related to each collaboration are also indicated.

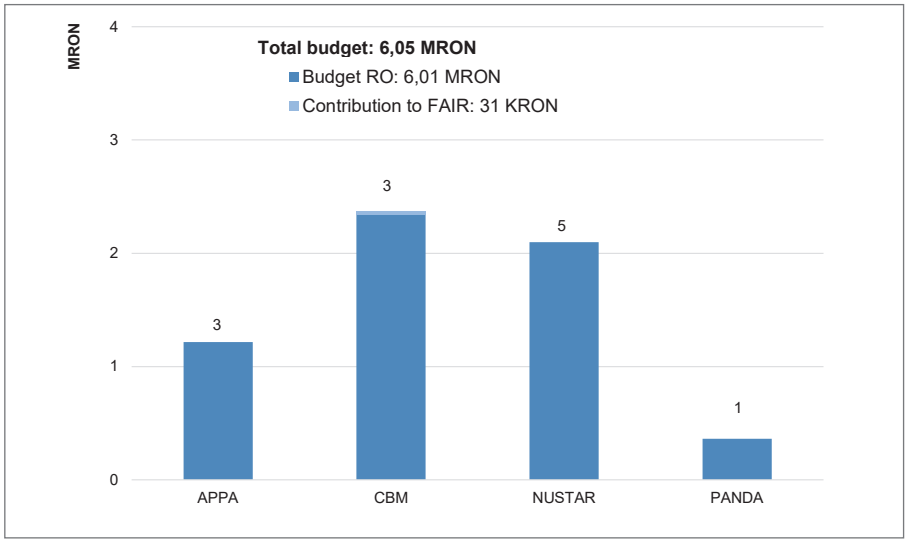
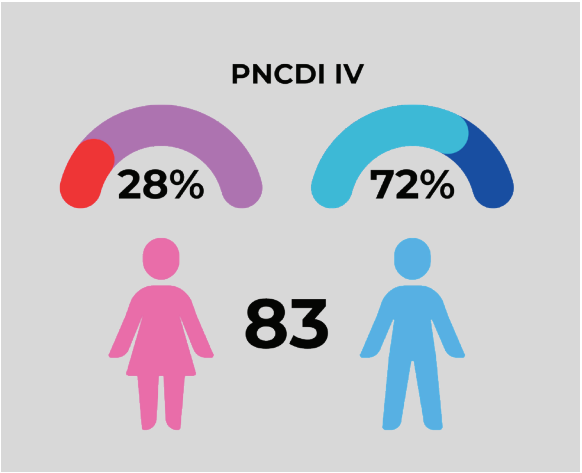


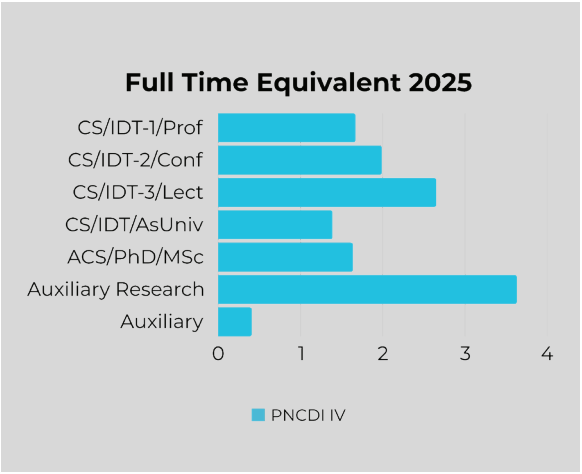
***Fig. 5** - The allocated budget and the number of FAIR-RO projects in 2025, per FAIR experimental collaborations*

The distribution of the personnel participating in FAIR-RO projects, according to professional degree and gender, is represented in the following infographics, where Full Time Equivalent represents the average of monthly workloads (person x month) in 2025. The consolidated overview of result indicators for FAIR-RO projects within PNCDI IV is also presented.

FAIR-RO projects are evaluated and monitored both scientifically and in terms of resources by the International Scientific Advisory Board (ISAB), entrusted with the mission of supporting IFA and ANC in the decision-making process regarding FAIR-RO projects and the field of antiproton and ion research, nuclear physics at high energies and physics with radioactive beams. ISAB FAIR-RO consists of five members, nominated by Order of MCID (for PNCDI IV), experts with high scientific and managerial experience in the field, affiliated to prestigious scientific institutes in the world:

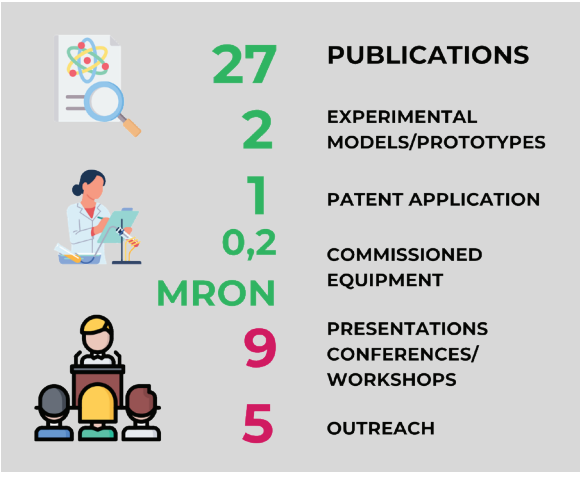
- Dr. Angela BRAEUNING-DEMIAN- Chair ISAB, GSI, Germany
- Prof. Dr. Karlheinz LANGANKE- GSI, Germany
- Prof. Tetyana GALATYUK, Institute of Nuclear Physics, TU Darmstadt, Germany
- Prof. Zsolt Ferenc PODOLYAK, University of Surrey, United Kingdom
- Dr. James RITMAN, GSI, Germany





Activities carried out by IFA in 2025 within FAIR-RO Module:

- ☑ Ensuring the scientific and financial/economic monitoring of PNCDI IV projects;
- ☑ Organizing the ISAB FAIR-RO meeting on 26-27 January 2026;
- ☑ Participating in FAIR Resources Review Boards;
- ☑ Support and related activities.



INTERNATIONAL COOPERATION

In 2025, IFA represented Romania at CERN in the CERN Council, the Finance Committee, and other organisational structures and formal meetings. The Pension Fund Governing Board responsible for the management and investment strategy of the CERN Pension Fund is currently chaired by Dr. Florin-Dorian Buzatu, Director General of IFA, following his election for this position as part of a three-year term starting, starting from 1 January, 2024. Romania was also represented by IFA in the meetings of the European Particle Physics Communication Network, a dedicated group created 20 years ago at the request of the CERN Council with the aim of strengthening the communication of particle physics in the Member States of the organisation.

As funding agency and based on its mandate from the national authority for research, IFA ensured in 2025 Romania's participation in main European and international scientific bodies: the Resources Review Board sessions organised within LHC/CERN and FAIR, and the governing assemblies organised under the EURATOM Fusion, Fission and Radiation Protection programs – the General Assembly of EUROfusion, the Fusion for Energy (F4E) Governing Board, and DONES Steering Committee, and the General Assembly of PIANOFORTE.

On 10 March 2025, following a set of initiatives launched at the end of 2024 aimed at concluding a new collaboration agreement with CEA (Commissariat à l'Énergie Atomique et aux Energies Alternatives, France), a very effective meeting was hosted by IFA between high-level representatives of CEA, of the French Embassy in Romania, and the directors of Romanian research institutes interested in resuming the cooperation between French and Romanian scientists. The principles set forward at this meeting secured the foundation for a new scientific agreement between CEA and IFA, to be signed in 2026.

Based on the Memorandum signed in 2022 with the German Research Foundation (DFG), IFA ensured in 2025 the implementation at ELI-NP of the doctoral program IRTG (International Research Training Group) that supports the collaboration between POLITEHNICA University of Bucharest and the Technical University of Darmstadt.

The 37th meeting of the European Particle Physics Communication Network, organized in Lund, Sweden, on 2-3 June 2025, at ESS (European Spallation Source)

FAIR, Resources Review Board, 15-16 July 2025

COMMUNICATION AND OUTREACH

IFA has reaffirmed its commitment to science communication and outreach by organising and participating in a series of events dedicated to disseminating scientific research results and celebrating important anniversaries. Recognised as a traditional landmark in the institute's calendar, the "IFA Day" event organised on 20 May 2025 was an opportunity to celebrate the institute's 69th anniversary (IFA was officially established on 18 May 1956, following the reorganisation of the Romanian Academy's Institute of Physics), and to review the main milestones in IFA's history, its recent achievements and future prospects. On this occasion, IFA rewarded prestigious personalities in the field of physics and also the educational excellence represented by young students with outstanding results in international physics competitions. Last year's edition of the event marked also the inauguration of the IFA Excelsior Trophy, in recognition of outstanding contributions to the advancement of the institute. The first IFA Excelsior Trophy was awarded to Prof. Dr. Eng. Tudor Prisecaru, as a token of gratitude and high esteem for his involvement and support in IFA's development, and for his commitment to establishing the role of the institute as the ambassador for the Romanian research in the field of physics.

On 28 November and 11-12 December 2025, IFA hosted the ISAB CERN-RO meeting held to evaluate the progress achieved in projects funded by the institute as part of CERN's research programs. The meeting provided the formal framework for organising the open symposium "Achievements and perspectives of Romania's participation in CERN experiments", showcasing the projects funded between 2024-2026 through the CERN-RO Program led by IFA.

In 2025, IFA reconfirmed its commitment to science dissemination and outreach by participating alongside its partners in the ReCoNnect project funded by the European Commission in the events organised under the umbrella of "Researchers' Night", held on 26-27 September in the city centre of Măgurele and in the "Children's World" Park in Bucharest. Last year's edition of the event focused on "Science for Earth: Sustainability through Responsibility" and presented children with the opportunity to discover a series of scientific principles through exciting experiments.

Researchers' Night 2025

The ReCoNnect project team from IFA also toured the country on numerous caravans for popularising science in general and physics in particular in many schools.

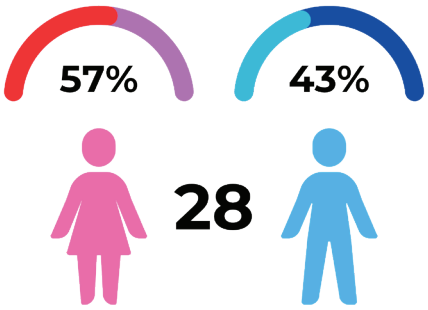
IFA's visibility and educational impact was further increased by the successful implementation of the project "Ionising Radiations: Experimental Session" (RISE). Financed by the Executive Agency for Financing Higher Education, Research, Development and Innovation (UEFISCDI) following a very competitive selection process, with only 15 winning projects out of 99 submitted, RISE provided high-school pupils with an insightful lesson about ionising radiations, supported by a set of intuitive detectors developed in-house.

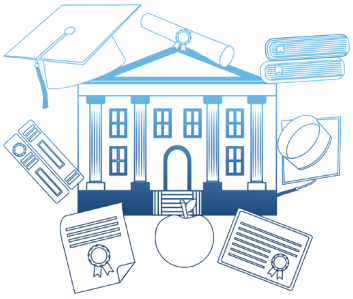
Within the educational events known as "Green Week" and "Alternative School", IFA also organised throughout 2025 several visits and hands-on sessions for pupils and students from various schools in Romania.

As usual, IFA continued its long-standing mission of supporting science education initiatives through school visits and development of educational materials on numerous other occasions.

FINANCIAL AND HUMAN RESOURCES

HUMAN RESOURCES





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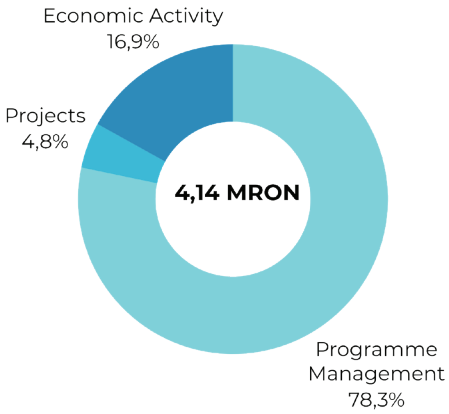
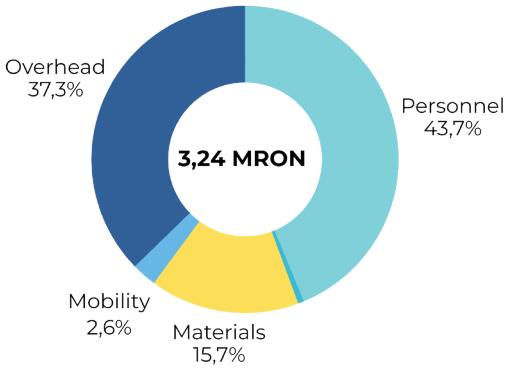
FINANCIAL RESOURCES

REVENUE

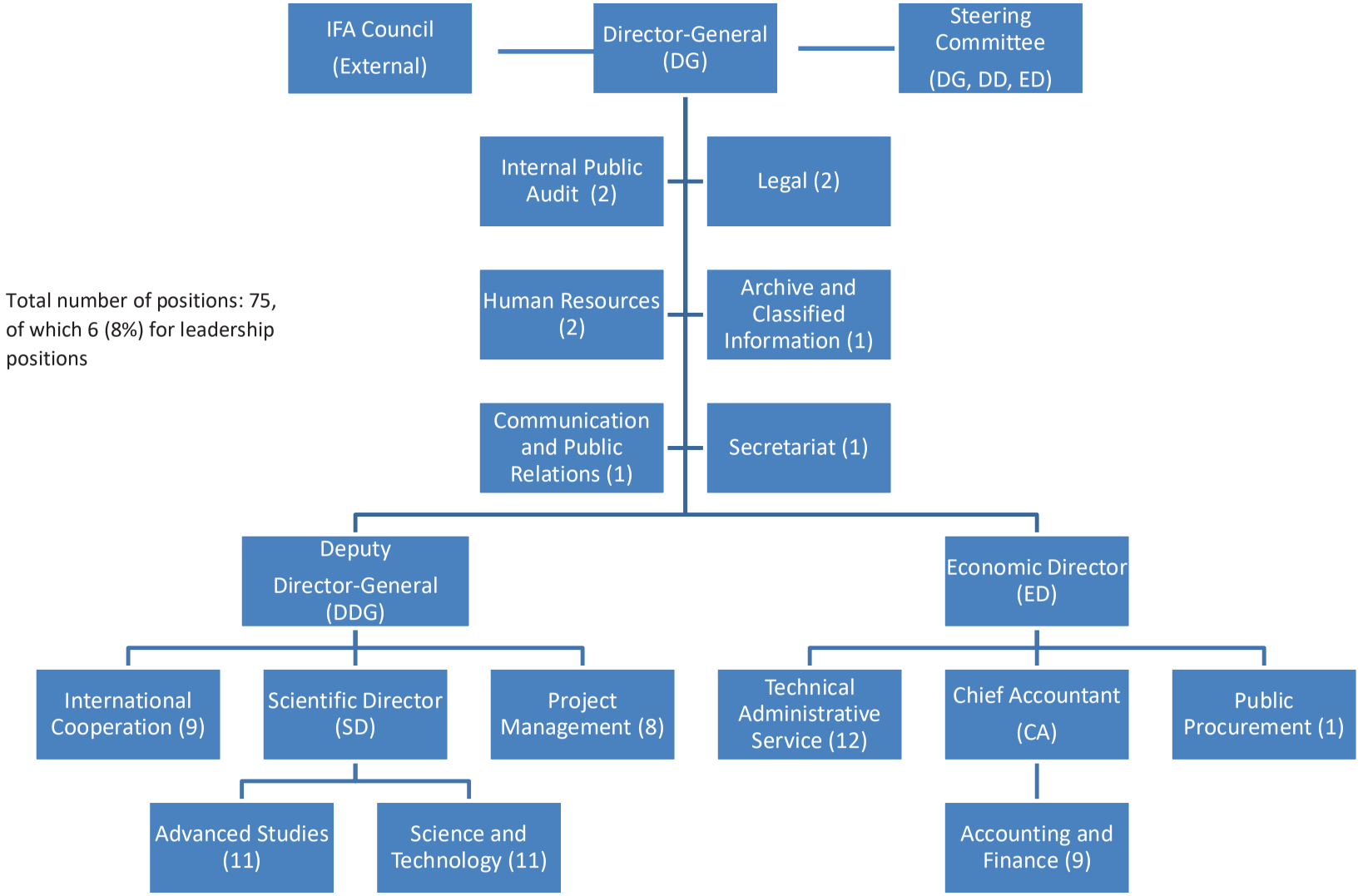


EXPENSES



Annex no. 1 of MCID Order no. 21222/12.07.2024

Organizational Chart of the Institute of Atomic Physics

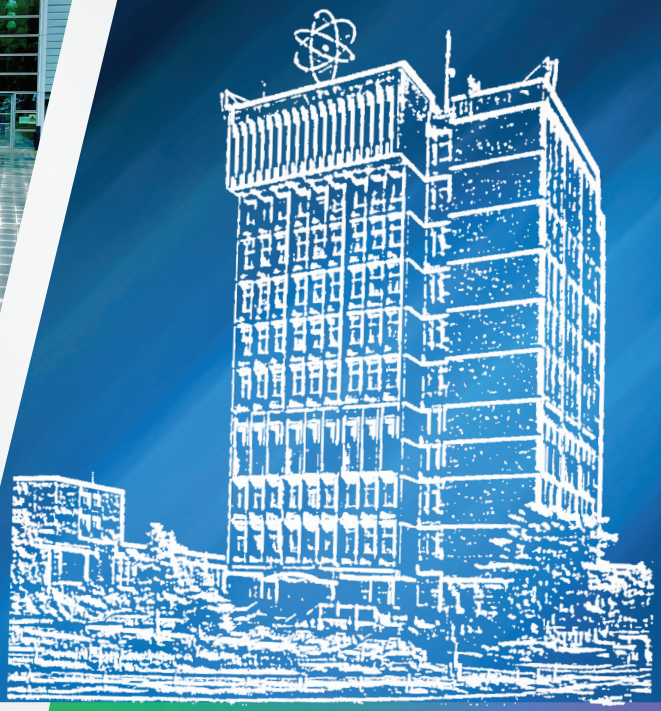


Total number of positions: 75, of which 6 (8%) for leadership positions

70th anniversary of the Institute of Atomic Physics

A new chapter in CEA-IFA collaboration

18 MAY 2026, 09:00-12:30
Măgurele Physics Campus

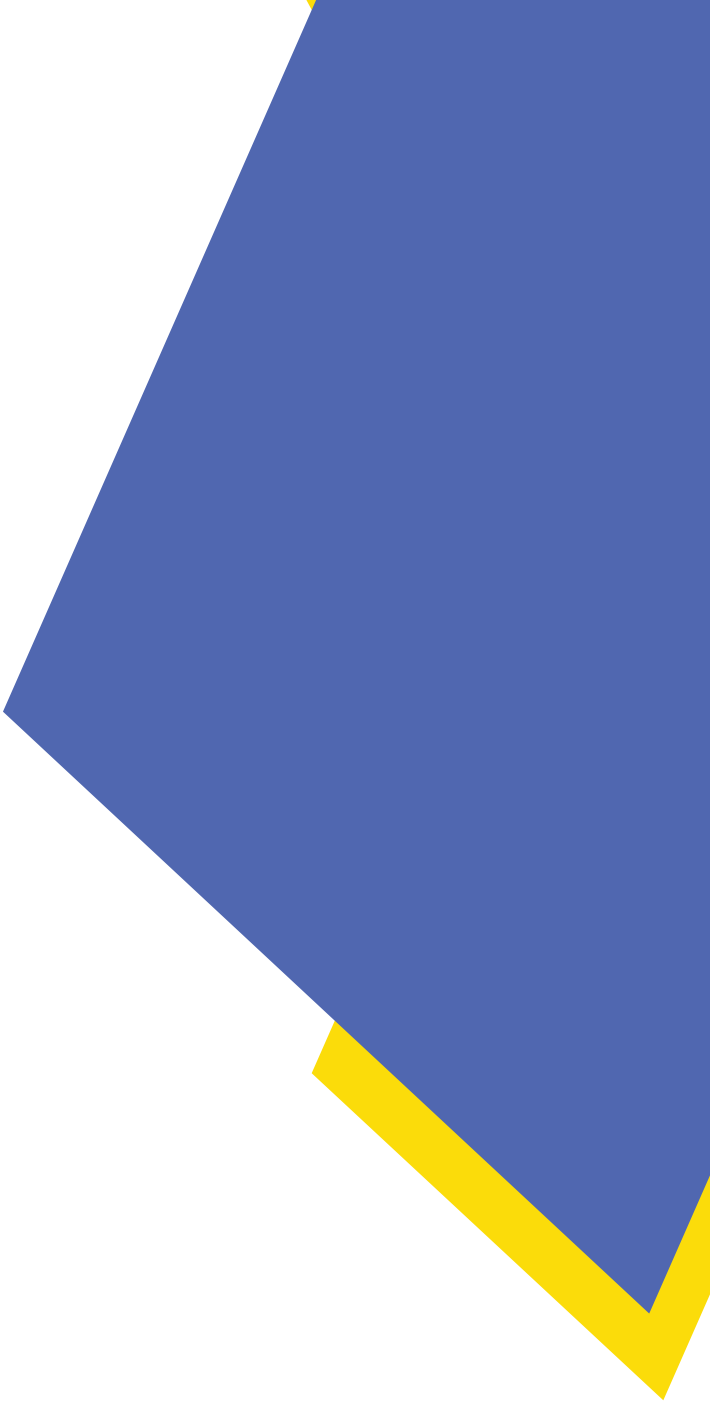


IFA - Institute of Atomic Physics

HIGHLIGHTS

- **Opening:** high representatives' speeches
- **IFA@70** - A success story of the Romanian scientific research
- **CEA -** From research to industry
- Milestones in **CEA-IFA cooperation**
- Signing ceremony of the new **Framework Agreement between CEA and IFA**
- Inauguration of the **painting exhibition** showcasing works by students from the National University of Arts in Bucharest (UNArte);
- Visit to the educational centre **DUROCERN** (Discover the Universe with Romania@CERN)
- Luncheon reception

https://indico.ifa-mg.ro/event/100/



Institute of Atomic Physics

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