



70th Anniversary of the Institute of Atomic Physics
A new chapter in CEA-IFA collaboration
18 May 2026, IFA, Măgurele



Milestones in cooperation





General Cooperation Agreement for Scientific Research



2009-2015

2015-2020

New doors open for the Romanian scientific research



General Cooperation Agreement

between




Commissariat à l'Énergie Atomique **Institutul de Fizică Atomică**



Program:

- 9:00 - 9:15: Welcome
- 9:15 - 10:15: Presentations by ANCS, CEA, IFA
- 10:15 - 11:00: Signing Ceremony of CEA-IFA Agreement and IFA Awards
- 11:00 - 11:30: Press interviews/Coffee break
- 11:30 - 13:30: Presentations by IFN-HH, ICN Pitesti, KCSI Rm. Vilcea, ITIM Cluj-Napoca, Univ. Bucharest, Politehnica Univ. of Bucharest
- 13:30 - 14:30: Lunch
- 14:30 - 17:00: Visit to laboratories

Wednesday, December 2nd, 2009, 9⁰⁰
Institute of Atomic Physics, Conference Room (9th floor)

IFA: celebrating its 60th anniversary and 10 years of Romanian participation in EURATOM-Fusion Programme



Signed on December 2, 2009
 At Măgurele - Bucharest
 In two originals in English version.

For the Institutul de Fizică Atomică: *F. Buzatu*

For the Commissariat à l'Énergie Atomique: *Hervé Bernard*
 Mr. Florin-Dorian Buzatu, Director General



Commissariat à l'énergie atomique et aux énergies alternatives • Institut de Fizică Atomică

The 3rd IFA-CEA JOINT SYMPOSIUM

1st - 2nd April 2015, Măgurele & Bucharest

1st session: Renewal of the CEA-IFA agreement
 April 1, 2015, IFA Council Room, Măgurele

- 09:00-09:30 Opening
- 09:30-10:00 Overview of the first General Agreement for Scientific Research between CEA and IFA
- 10:00-10:30 Signing ceremony of the new CEA-IFA General Agreement
- 10:30-11:00 Press conference and interviews/Coffee break
- 11:00-13:00 Visit to ELI-NP and other laboratories



2nd session: Preservation of cultural heritage through nuclear techniques
 April 1, 2015, French Institute, Bucharest (Elvire Popesco)

- 15:00-15:45 French Arc-Nucléart team Knowhow and Experience
- 15:45-16:30 Romanian Knowhow and Experience
- 16:30-17:00 Presentation of the Arc-Nucléart contest in France
- 17:00-17:30 Discussions on the extension of the contest to Romania
- 17:30-18:00 Press conference

3rd session: Review of the CEA-IFA R&D projects
 April 2, 2015, French Institute, Bucharest (Elvire Popesco)

- 08:30-09:00 Welcome coffee
- 09:00-10:40 Project presentations (first 10)
- 10:40-11:00 Coffee break
- 11:00-12:40 Project presentations (last 10)
- 12:40-13:00 Conclusions
- 13:00-14:00 Lunch (Atrium)

Organizers:   With the support of:    Partner: 



Signed on April 1, 2015
 At Măgurele - Bucharest
 In two originals in English version.

For the Commissariat à l'énergie atomique et aux énergies alternatives: *Hervé Bernard*
 Mr. Hervé Bernard, Administrateur Général Adjoint

For the Institutul de Fizică Atomică: *F. Buzatu*
 Mr. Florin-Dorian Buzatu, Director General

Framework for funding joint projects between CEA Units and Romanian Research Institutions

Fields of Cooperation (2009-2020)

Nuclear Energy

- Nuclear safety
- Development of new generation nuclear power reactors
- Spent fuel and radioactive waste management
- Exchange information relating to nuclear energy
- Education and training

New Technologies for Energy

- Fuel cells
- Solar cells
- Energy storage
- Hydrogen

Fundamental Research on Energy

- Nuclear fusion and fission
- Matter sciences
- Climate sciences

Technologies for Information and Health

- Micro and Nano-technologies
- Software technologies
- Biotechnologies
- Radiobiology and nuclear toxicology
- Radioprotection
- Medical imaging

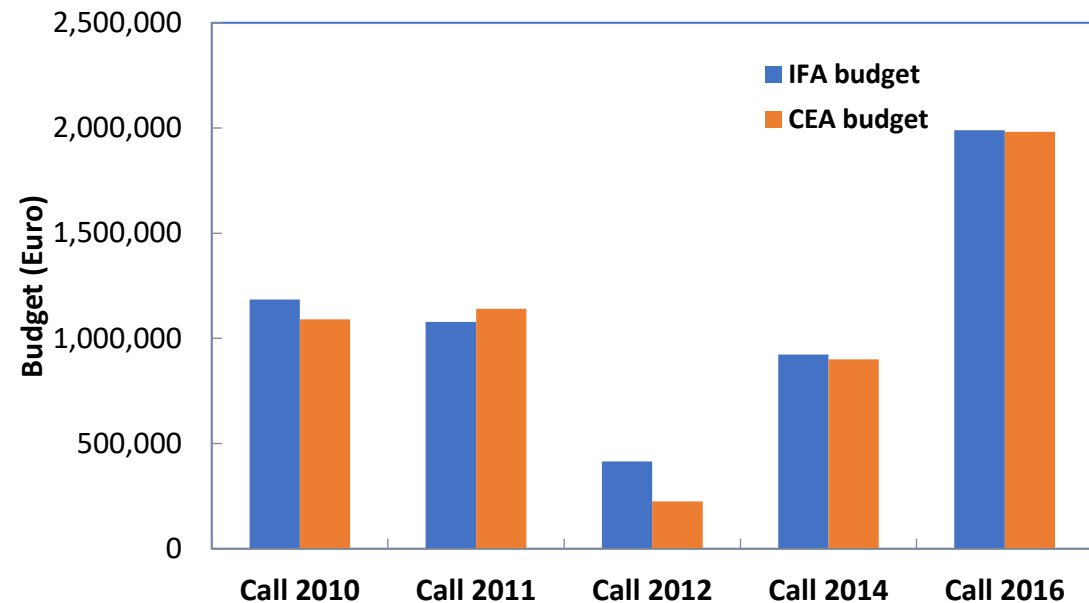
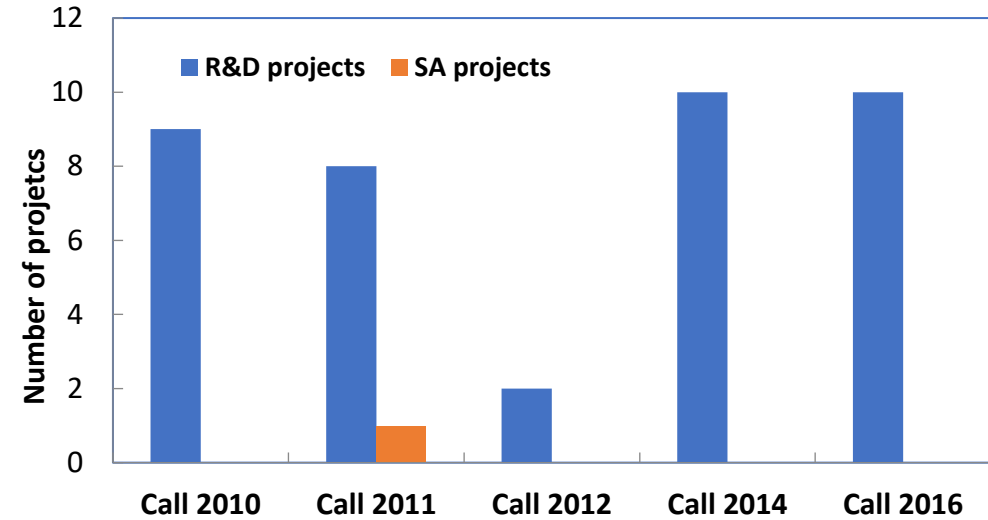
4 Fields, 18 Areas

CEA-RO projects (2010-2019)

5 Calls
40 funded projects

Total Budget
IFA: 5.588 M€
CEA: 5.335 M€

Evaluation of proposals
CEA & RO experts
Selection for funding
Management Committee (MC)
Monitoring
CEA & RO experts, MC



Distribution of projects (2010-2019) over CEA centres and Romanian cities

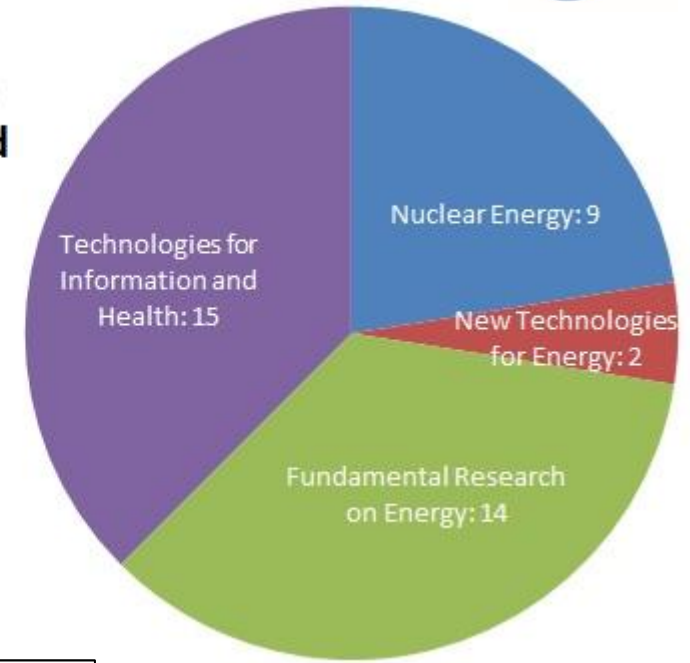


Distribution of Projects (2010-2019) over Fields and Areas

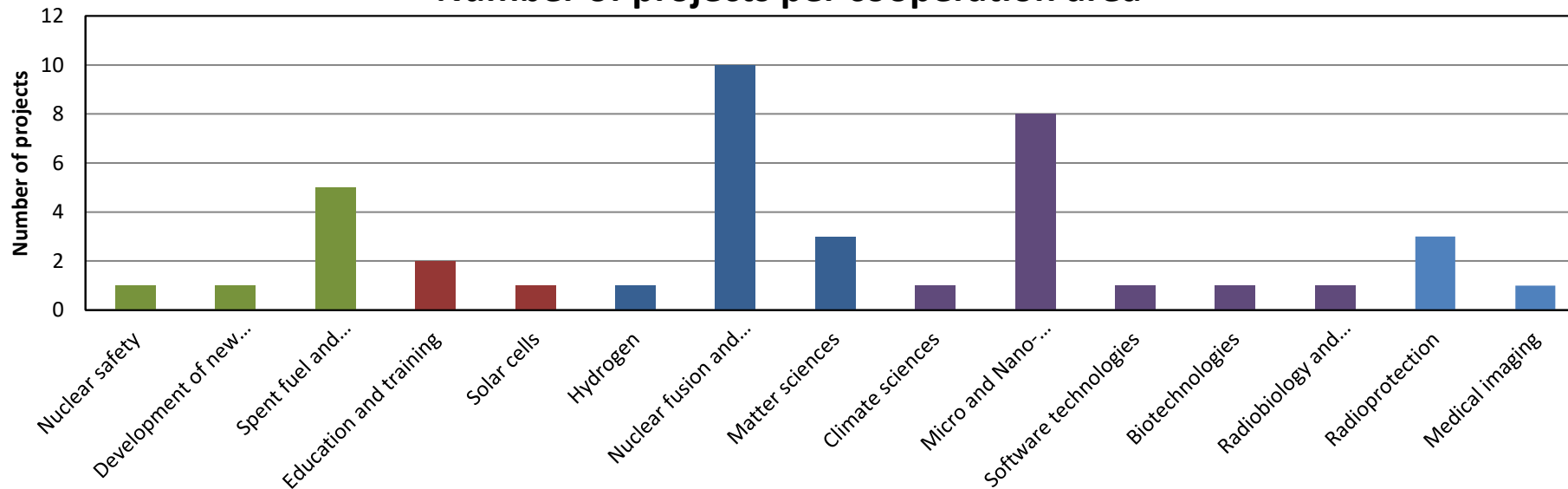
Top 3 areas:

- Nucl. Fusion and Fission (10)
- Micro- and Nano-technologies (8)
- Spent fuel and rad. waste manag. (5)

Number of projects
per cooperation field

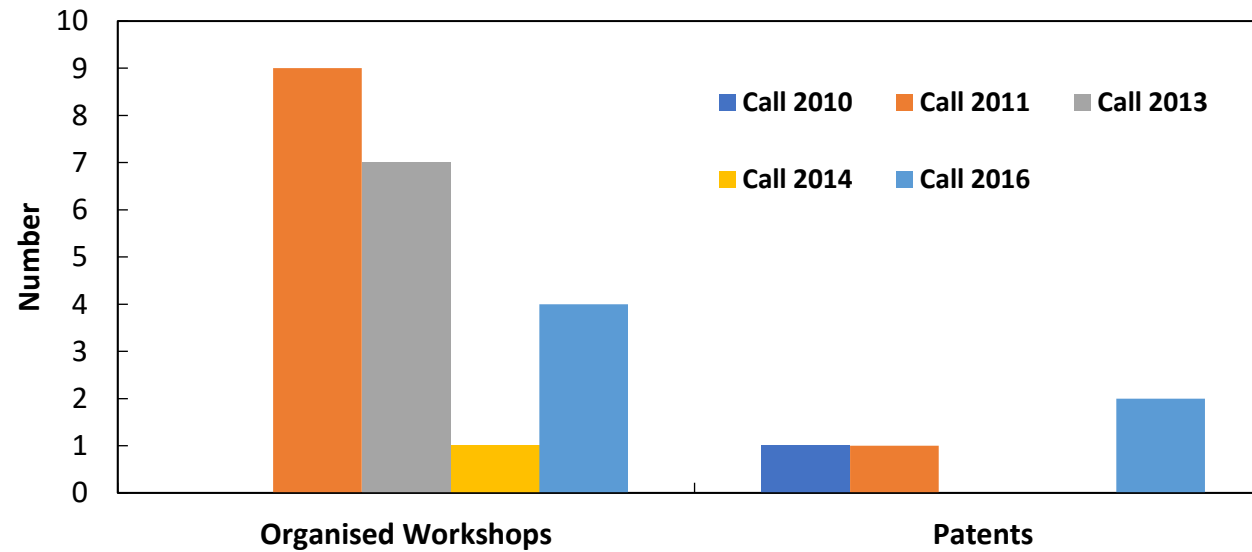
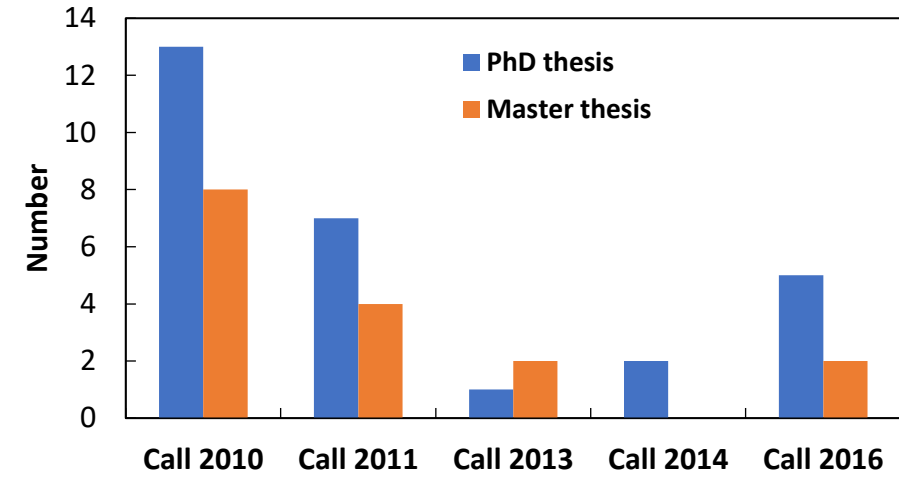
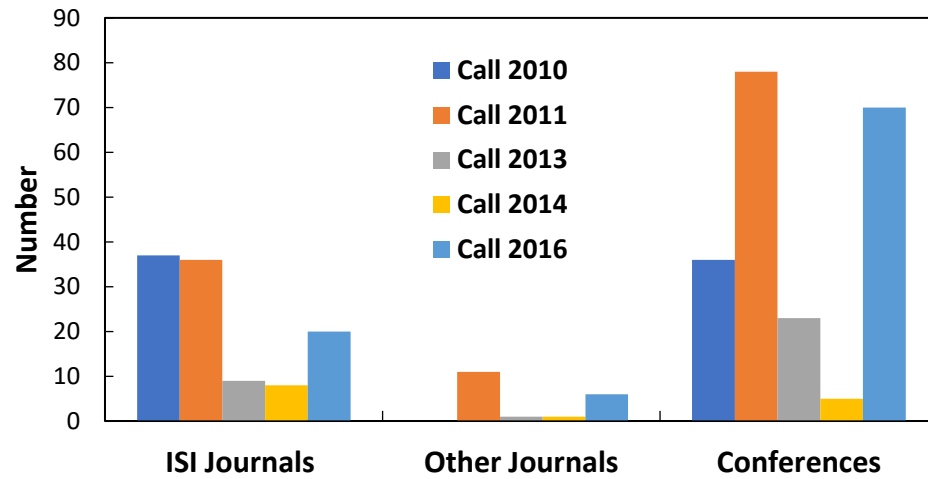


Number of projects per cooperation area



Missing areas:
Exchange info relating
to nuclear energy,
Fuel cells,
Energy storage

Scientific Output (2010-2019)



Field: Nuclear energy

Area: Education and training

Projects: C3-05 (2012), C5-11 (2016)

IFIN-HH/IRASM CEA/DRT

**Consolidation of poros wood at IRASM:
cooperation with NUCLEART specialists
(courtesy of C. Ponta)**

IIIÈME SYMPOSIUM FRANCO-ROUMAIN
SUR LA PRÉSERVATION DU PATRIMOINE CULTUREL PAR DES TECHNIQUES NUCLÉAIRES

► Concours IFA-CEA 2019
“ENSEMBLE SAUVONS LE PATRIMOINE ROUMAIN”

LE 9 AVRIL 2019,
14.00-18.00
INSTITUT FRANÇAIS,
77 Dacia Bd,
Bucarest

Projet IFA-CEA NUTECO C5-11/2016
ARC-Nucléart, CEA-Grenoble, France et IRASM - IFIN-HH, Măgurele, România





Recent developments of the CEA-IFA collaboration

November 2023: Meeting between His Excellency N. Warnery, the Ambassador of France in Romania and Mr. B.G. Ivan, the Minister of Research, Innovation and Digitalization, discussing also on the resumption of the collaboration between CEA and IFA.

April 2024: Meeting at the French Institute about CEA-IFA cooperation (R. Ben Atitallah, A. Sammani – F.D. Buzatu, M. Baibarac)

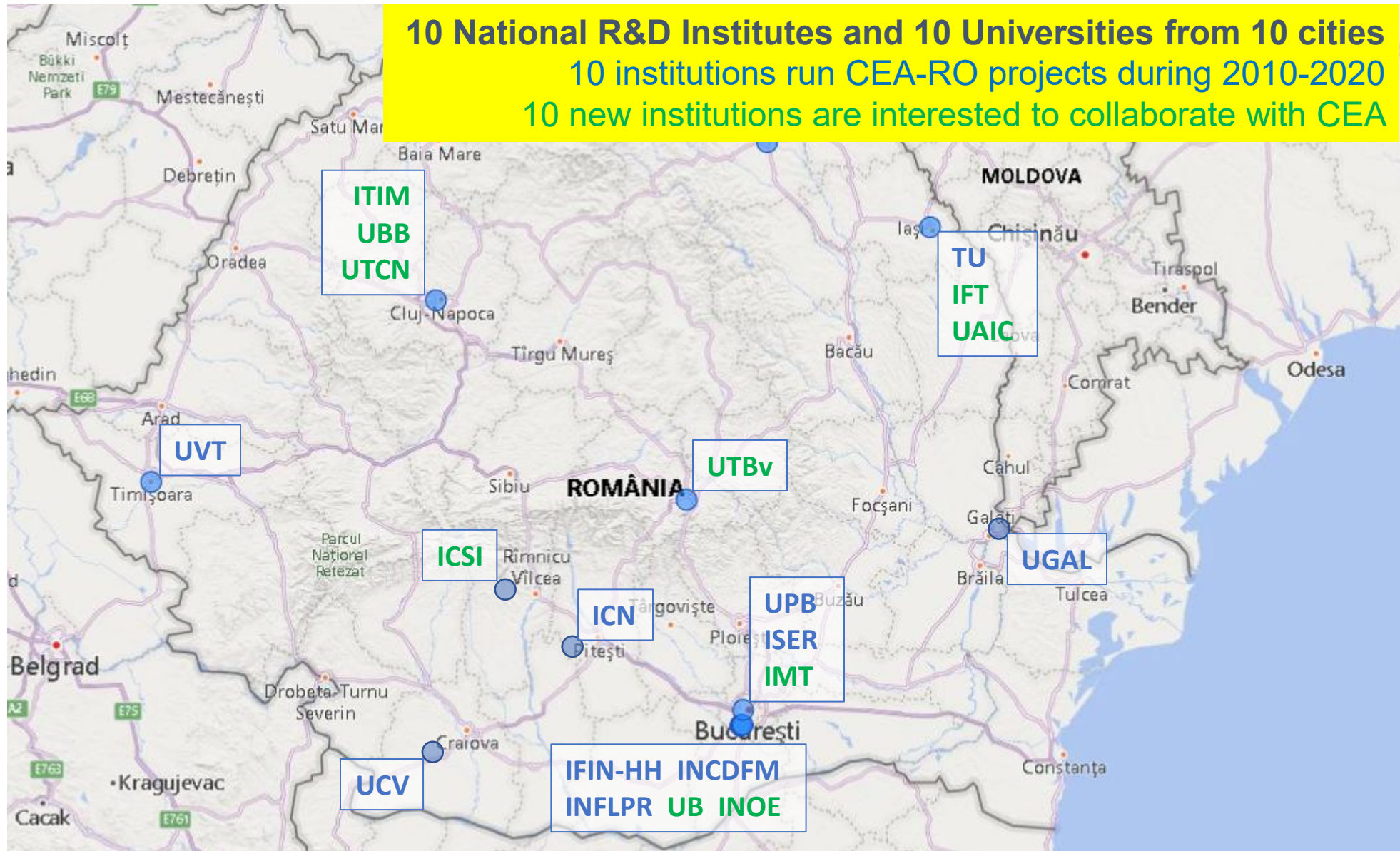
October - December 2024:

- Meetings between Embassy of France (T. Salmon, R. Ben Atitallah, C. Souyris) and IFA (F.D. Buzatu, M. Baibarac) aimed to promote/strengthen the scientific cooperation between CEA units and RO research institutions.
- Surveys IFA & CEA: Romanian research institutions and CEA units were invited to express their interest in scientific fields and thematic areas that may be pursued in joint projects.
- Letter from IFA (F.D. Buzatu) to CEA (J.L. Falconi, Director of International Relations) expressing the interest in concluding a new agreement with CEA, and our willingness to launch new joint calls for project proposals

March 2025: visit of the CEA Delegation (S. Cornet, C. Miron, S. Mailley, A. Barret) to Magurele institutes (IFIN-HH/ELI-NP, IFA, INFLPR, INCDFM)

Results of the survey in Romania

10 National R&D Institutes and 10 Universities from 10 cities
10 institutions run CEA-RO projects during 2010-2020
10 new institutions are interested to collaborate with CEA





Visit of the CEA Delegation to IFA



 **MINISTRY OF EDUCATION AND RESEARCH**
NATIONAL AUTHORITY FOR RESEARCH

 **INSTITUTUL DE FIZICĂ ATOMICĂ**
INSTITUTE OF ATOMIC PHYSICS

"Ar fi o fericire sa se intelega odata temeinic ca unul din factorii cei mai importanti de formare economica a unei tari este cercetarea stiintifica pura, [...] oricit de paradoxal ar parea la prima vedere."

Horia Hulubei
Fondatorul IFA (1956)

  **Towards a New
General Cooperation Agreement
for Scientific Research between CEA and IFA**  

Măgurele-Bucharest
10 March 2025



Meeting of the CEA Delegation, accompanied by French Embassy representatives, with Prof. T. Prisecaru - Vice-President of the National Authority for Research, Mr. V. Vulturescu - Director for International Relations, and representatives of IFA and other research institutes and universities.



Areas of mutual interest under the new CEA-IFA Framework Agreement



Nuclear Energy, including:

- Nuclear safety;
- Development of new generation nuclear power reactors;
- Spent fuel and radioactive waste management;
- Exchange information relating to nuclear energy;
- Education and training;
- Development of new materials and coating architectures for nuclear protection;
- Plasma physics, magnetohydrodynamics, and nuclear fusion;
- Gas and plasma permeation, in hydrogen/deuterium and then in tritium;
- Plasma coating of components.

New Technologies for Energy, including:

- Fuel cells;
- Solar cells;
- Energy storage;
- Hydrogen;
- Green energy by thermoelectricity;
- Energy harvesting.

Fundamental Research on Energy, including:

- Nuclear fusion and fission;
- Matter sciences;
- Climate sciences;
- Nuclear data;
- Magnetic materials and applications;
- Materials science / Multifunctional materials.



Areas of mutual interest under the new CEA-IFA Framework Agreement (cont.)



Technologies for Information, Health and Security, including:

- Micro and Nano-technologies;
- Software technologies;
- Biotechnologies;
- Radiobiology and nuclear toxicology;
- Radioprotection and radiation metrology;
- Medical imaging and radiotherapy and radiotherapy;
- Waste to new products and materials;
- Nano-medicine, innovative diagnostics and therapies;
- Decision support tools for sustainable environmental monitoring of aquatic ecosystems;
- Wellbeing and rehabilitation;
- Nuclear forensics;
- Quantum communications and technology;
- High-power computing and numerical simulations;
- Radiation safety and radioprotection;
- Radioisotope production, radiobiology, and nuclear toxicology.

High-power Lasers, including:

- Instrumentation for experiments with high-power lasers;
- Compact laser-plasma accelerators and related technologies;
- High-intensity laser–matter interactions and ultrafast phenomena;
- Laser science, metrology, and associated technology.

Life and environmental sciences, including:

- Pathogenesis, innovative diagnostics and therapies;
- Bio and medical sensors;
- Devices for environment monitoring and technologies for water cleaning;
- Technologies for the preservation of cultural heritage;
- Medical physics.

Other areas can mutually be agreed upon in writing between the Parties.



Thank You!

