



Ondřej Hradil

Masaryk University, Research Office, Rectorate
Coordinator of the RIFF project

Conference on Ukraine's Reconstruction in Research and Higher Education Brno, 17. 9. 2025

<https://www.em.muni.cz/udalosti/18263-ukrajinska-veda-navzdory-valce-mu-hleda-cestu-jak-ji-podporit>



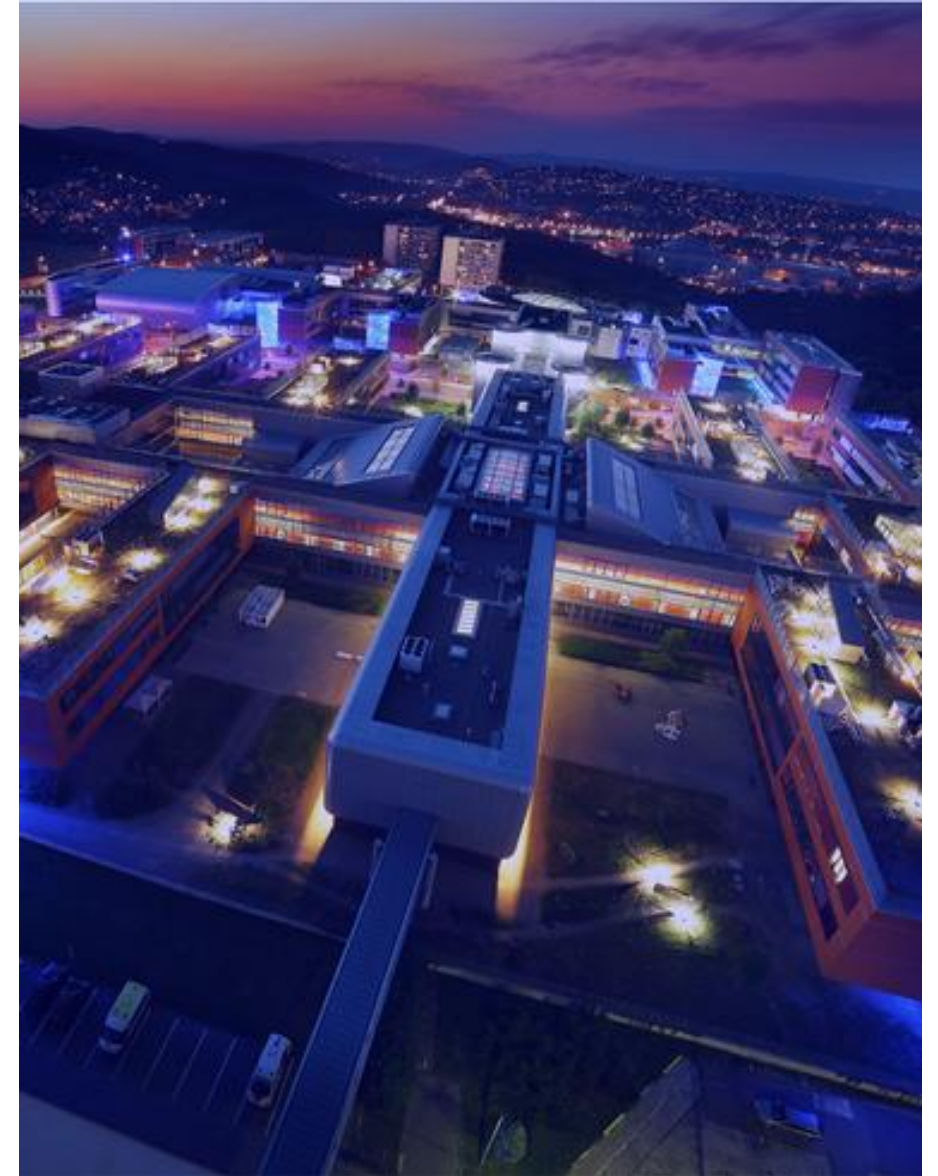
RIFF conference - participants

- **306 registered participants**
 - 107 onsite in Brno
 - 199 online



Introduction

- Research Infrastructures for the Future of Ukraine: Roadmap for Sustained Growth and Recovery (RIFF)
- 1. 9. 2025 – 31. 8. 2028
- Duration: 36 months
- Budget: 2 million EUR



Ukrainian Accession to the EU

- Feb 28, 2022: Ukraine formally applies for EU membership, days after Russia's full-scale invasion.
- June 2022: EU grants Ukraine candidate status
- June 2024: The accession negotiations opened
- The first chapters of the *acquis* could be opened by the end of 2025
 - Includes Chapter 25: Science and Research





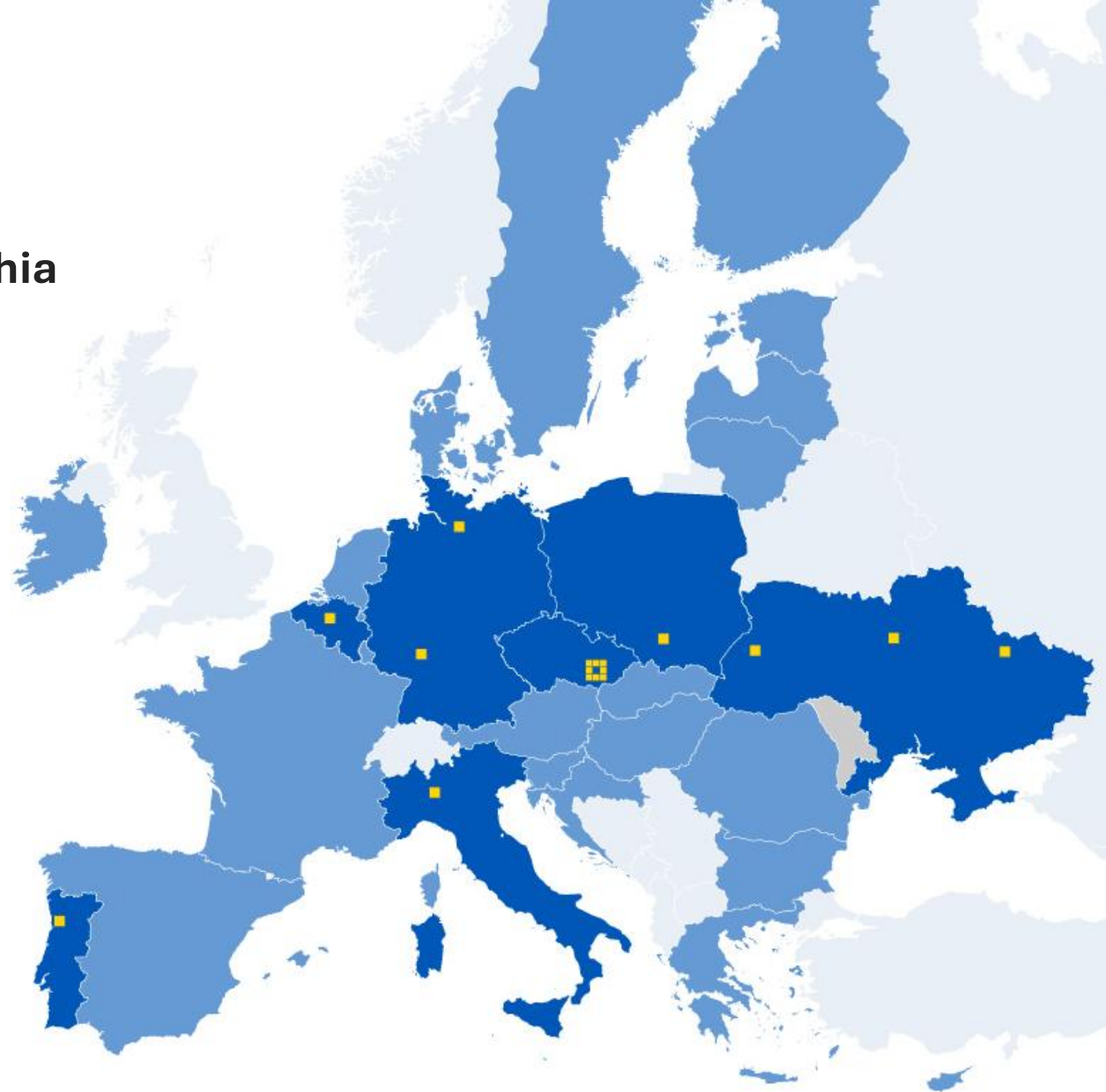
Many meetings



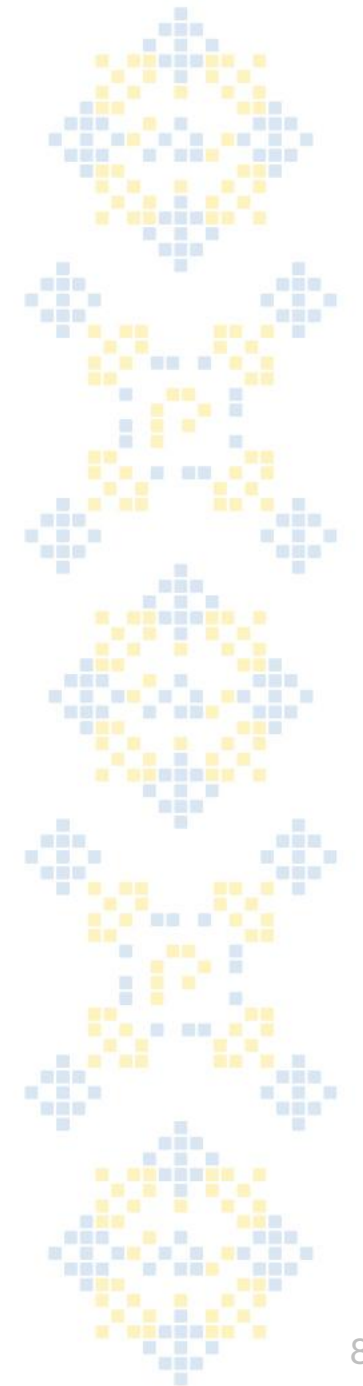
Partners

COORDINATOR: Masaryk University (MUNI), Czechia

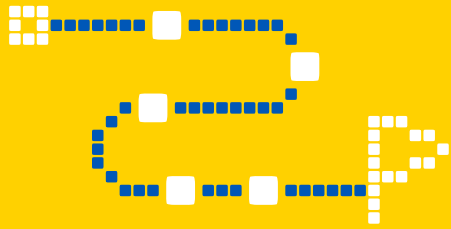
- Deutsches Elektronen-Synchrotron (DESY), Germany
- European Future Innovation System Centre (EFIS), Belgium
- Leibniz Institute for the Social Sciences (GESIS), Germany
- Institute of Molecular Biology and Genetics NASU (IMBG), Ukraine
- Institute of Systems and Computer Engineering (INESC), Portugal
- Kyiv Academic University (KAU), Ukraine
- Kharkiv Institute of Physics and Technology (KIPT), Ukraine
- Lviv Polytechnic National University (LPNU), Ukraine
- National Academy of Sciences Ukraine (NASU), Ukraine
- National University of Kyiv-Mohyla Academy (NaUKMA), Ukraine
- National University of Life and Environmental Sciences of Ukraine (NUBIP), Ukraine
- Jagellonian University (SOLARIS), Poland
- University of Milano-Bicocca (UNIMIB), Italy
- (Associated) National Research Foundation of Ukraine (NRFU), Ukraine



RIFF kick-off meeting, 16th September, Brno



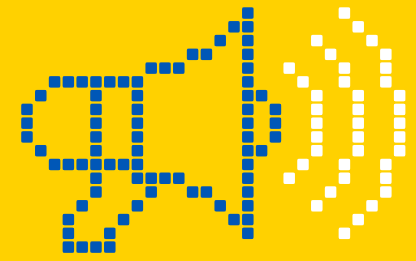
Objectives



1 Developing
a Roadmap



2 Building RI
Community
in Ukraine

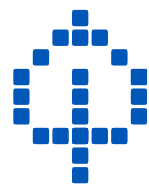


3 Promotion of
the Roadmap

Aligned with the Six ESFRI Domains



Physical
Sciences
& Engineering



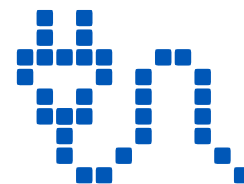
Environment

MUNI

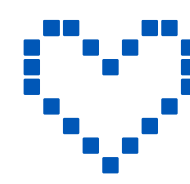


Data
Computing
& Digital

MUNI



Energy



Health
& Food



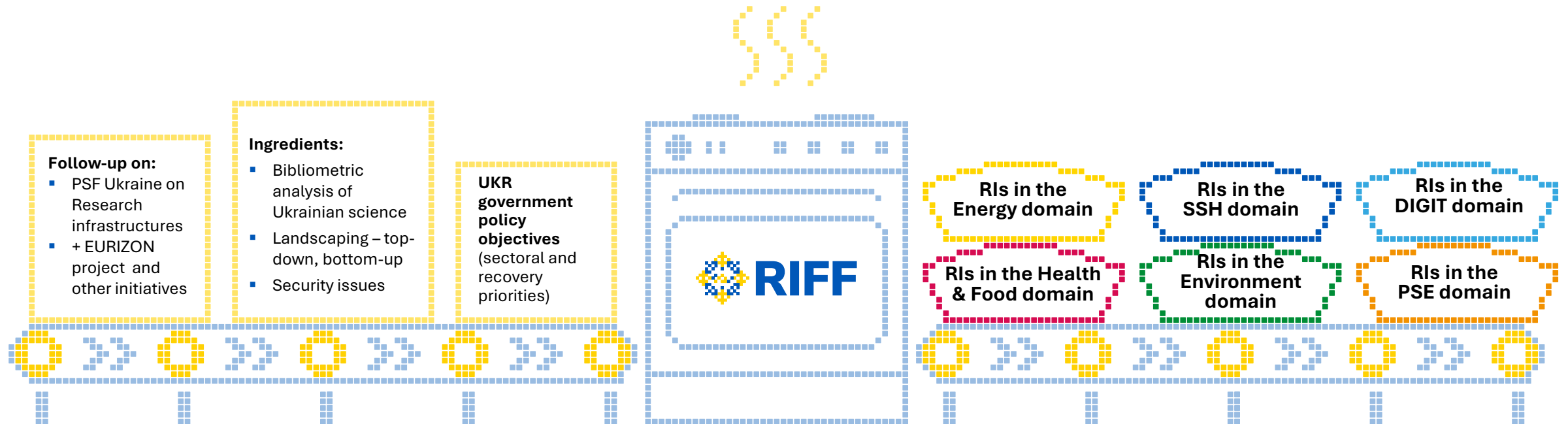
Social
& Cultural



GESIS Leibniz-Institut
für Sozialwissenschaften



What you can expect? Roadmap



Target Groups



Policy Makers

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Institutional Leaders

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RI Managers

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Researchers

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Funders

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Mark Your Calendar



3 Information Days

(Dec 2025, Feb 2026; Kyiv, Kharkiv, and Lviv)

- Networking and building up of personal connections of the Ukrainian research community with the project
- Aim to introduce:
 - 1) the concept of RIs as understood in the EU
 - 2) the outline of the Open Call for RIs
 - 3) the RIFF project as whole to Ukrainian researchers in all career stages.



2 Thematic Summits

(May 2026, Aug 2026; Cracow, Brno)

- Keynote speeches RI leaders, panel discussions that explore common challenges, and workshops aimed at developing actionable strategies for collaboration.

Training programmes



2× Study visits, 1-week programme (2026)

- **Objectives:**
 - a) showcase the potential of RIs to fuel research performance and contribute to socio-economic impacts
 - b) learn about the organization of RI roadmapping systems in Europe.
- Opportunity to network with: RI leaders, (vice-)rectors/deans, and government officials and officers from the hosting institutions and countries



2× Summer schools, 4 – 5 days (2027)

- **Target group:** Researchers and research managers working in RIs in Ukraine
- **Objectives:** developing the practical skills and needs of RI managers, like scientific project management, grant writing, data management, access policy development, reporting, developing a business case for RI and how to finance it, data, etc.
- Networking & community building



3× Co-design workshops (2026 – 2027)

- **Objectives:** Bring together policy-makers (e.g., the Ministry of Education, Science and Research, and the Ministry of Digital Transformation), funders, and the academic community to co-design and validate Ukrainian development priorities and ensure national recovery and EU research goals.

Training programmes



Programme in RI management fundamentals, 6 months (2027)

- Open to a wide audience of participants for individual learning and knowledge development
- It combines flexibility and depth by integrating self-paced and live webinars with hybrid hands-on workshops, offering a unique opportunity for participants to tailor their learning experience.



2× Workshops, 1-day programme (2027, 2028)

- Focused on the sustainability of the RI Roadmap in Ukraine.
- **Objectives:**
 - a) Empower policy-makers in Ukraine to be able to run the future road mappings without (major) external help (sessions on EU RI and ESFRI policy, incl. examples from other countries)
 - b) Train Ukrainian university and research institute leaders on hosting RIs or RI nodes, and provide insights into EU RI funding policies and the European RI landscape.



EMMRI Fellowship programme for Ukrainian RI operators, 4 individuals (2027–2029)

- Building on the foundation laid by the previous EURIZON project, this fellowship programme will allow selected Ukrainian participants to enroll in the UNIMIB's part-time EMMRI programme in Milan.

Training programmes



ERA-Ukraine Fellowships, 20+ individuals (2027–2028)

- Opportunity for Ukrainian RI managers and operators to design their learning experience with ESFRI or other RIs in ERA.

Mark your callendars - dissemination events



International Conference on RIs Reconstruction: Investing in Science and the Sustainable Future of Ukraine (Feb 2027; TBC)

- Panels and sessions focused on the Green and Digital transitions in the area of RIs (renewable energy, resource-efficient practices, and digital solutions that improve efficiency...)
- Discussion on how organisations from different parts of the world can help implement Ukrainian RIs.
- Participants: leading international scientists, European research authorities, government officials from Ukraine, EC, and other countries, representatives from global organisations such as UNESCO, funding agencies.



High-level conference on reconstruction of research infrastructures in Ukraine (Feb 2028; Prague)

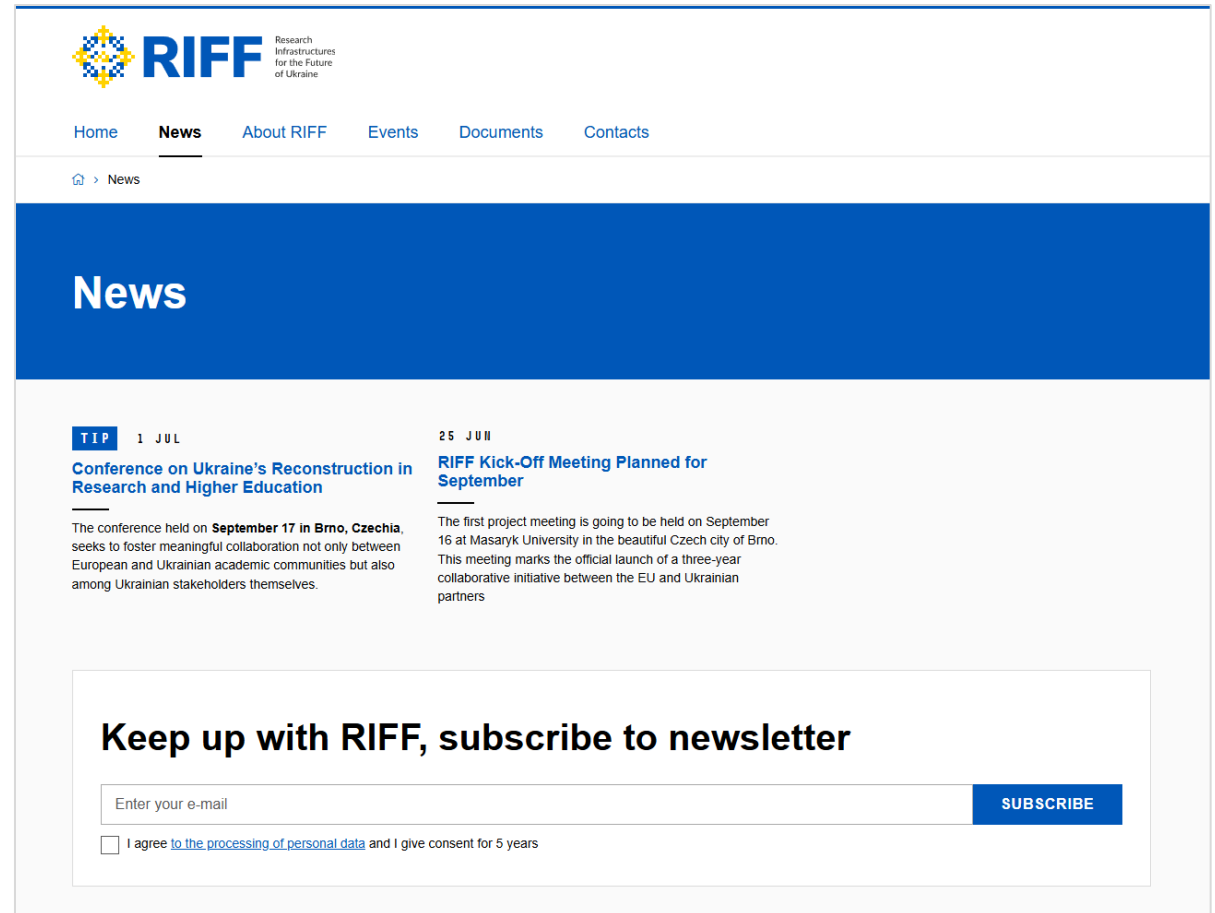
- Will bring together high-level European and Ukrainian political representatives, leveraging diplomatic relations to discuss strategic collaboration on the reconstruction of Ukraine's RIs
- Participants: High-level representatives from the EC and Ukrainian Government, key officials for governments of EU countries, representatives from international financial institutions

National Day of Research Infrastructures in Ukraine (Aug 2028; Kyiv)

- Final RIFF event – presentation of the project achievements.

Keep in touch = RIFF newsletter

- Registrations on RIFF website
 - <https://riff.muni.cz>



Další zajímavé věci z konference



The International Coalition for Supporting Science, Research, and Innovation in Ukraine



The purpose of the Coalition is to:

- 1. Coordinate international efforts to support** the development of science, technology, and innovation in Ukraine.
- 2. Provide access** to financial, infrastructural, and technical resources for Ukrainian research institutions, universities, and innovators.
- 3. Foster collaboration** between Ukrainian and international researchers through joint projects, exchanges, and grant opportunities.
- 4. Support Ukraine's integration** into European research area and the global research and innovation ecosystem.
- 5. Promote** innovation and technological development for Ukraine's economic recovery and sustainable growth.



Rome Declaration of Intent
for Science, Research, and Innovation in Ukraine¹





The International Coalition for Supporting Science, Research, and Innovation in Ukraine

Established through the **Rome Declaration for Science, Research, and Innovation in Ukraine**, the International Coalition for Science, Research, and Innovation in Ukraine is a multi-stakeholder initiative bringing together both public and private actors to rebuild and strengthen Ukraine's science and innovation ecosystem. It was launched in Rome on July 11th 2025, during the Ukraine Recovery Conference (URC).





The International Coalition for Supporting Science, Research, and Innovation in Ukraine

Key Objectives

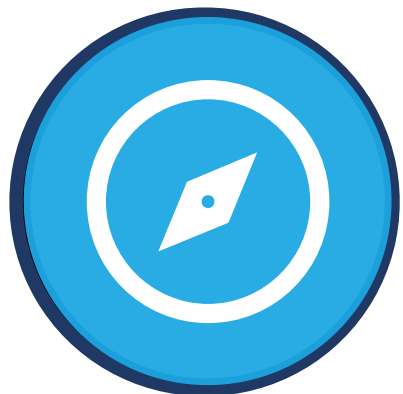
- **Advocate** for the **central role** of **science and innovation** in Ukraine's recovery
- Support the **reconstruction and modernization** of Ukraine's science and **research ecosystem**
- Support **Ukrainian scientists**, especially those in Ukraine, to enable them to continue their work, during and after the war
- Encourage **technology-transfer**
- Support the **integration** of Ukraine into global **networks and the European Research Area**
- Build a **shared understanding** of Ukraine's scientific **needs and priorities**

Main Activities

- **Coordinate efforts** among Coalition members
- **Align international support** with Ukraine's priorities
- **Connect stakeholders** and **catalyze collaborative action**
- Promote **joint international initiatives**
- Improve **access to funding, expertise, and infrastructures** to support Ukraine
- **Mobilize financial and in-kind resources** for projects initiated by partners in the Coalition
- **Monitor** the evolving **needs** of Ukraine's research and innovation sector



The International Coalition for Supporting Science, Research, and Innovation in Ukraine



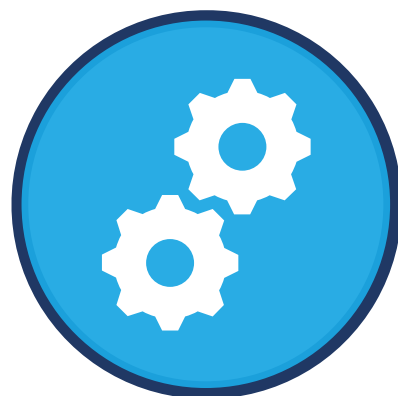
Steering Committee

Annual high-level meeting for **political steering and strategic guidance**



Technical Level

Regular **expert meetings** to coordinate initiatives and advice on technical matters



Secretariat

led by Ukraine, the European Commission, UNESCO, and the URC hosting country (Italy in 2025)

Want to join or learn more?
Contact the Secretariat:

EC-R-I-COALITION-UA-SECRETARIAT@ec.europa.eu



The International Coalition for Supporting Science, Research, and Innovation in Ukraine: **Priority Needs**



Research infrastructure

Creation of **research centers of excellence**

Required funding: Equipment, facility renovations, reagents, materials, and salaries for researchers, PhD students, and center staff.

Indicative focus areas: Directed energy systems; space technologies; communication and navigation systems; autonomous robotic systems; semiconductor technologies; radar technologies.

Project status: A draft Government Resolution on the procedure for establishing the Centers is currently under approval. Public investment projects have also been prepared to attract funding.

Required funding: ~ EUR 24 million

Expected results for 2025–2026:

6 Centers will be established at leading Ukrainian universities, engaging **3,000** PhD students and **150** leading researchers.

Restoring destroyed research infrastructure

Project status: At present, research institutions and higher education institutions are carrying out restoration efforts using their own limited resources. However, they are unable to independently cover the significant costs associated with acquiring research equipment, and external assistance is urgently needed.

Required funding: ~ EUR 1 billion

Expected results: individual projects for restoration are listed in the annexes

Ensuring **energy independence** of research infrastructure facilities

Description: The MoES of Ukraine is implementing a project to support and modernize Shared Research Facilities (SRFs). In 2024–2025, 33 leading SRFs were equipped with solar power stations with a capacity of up to 40 kW. The project included modernization of scientific equipment, enhancement of its functionality, and ensured uninterrupted operation of unique instruments amid energy instability.

Required funding: ~ EUR 3 million

Expected results: 100 solar power stations have been installed at research centers of RIs and HEIs.



Innovations support

Launch of the **Applied Research Agency**

The creation of an Applied Research Agency in Ukraine is vital for building an innovation-driven economy and fully using the nation's scientific potential. The Agency will act as a bridge between science and industry by addressing real sector challenges through research and development.

Project status: Draft resolution by the Cabinet of Ministers of Ukraine has been developed. A concept for the respective structural unit under a subordinate institution of the Ministry of Education and Science has been prepared.

Required funding: ~ EUR 1.2 million

Expected results: Co-financed business–university projects; science–business–government partnerships; integration of new technologies to boost competitiveness at home and abroad.

Launch of a **Network of Technology Transfer Centers**

This project aims to build an effective cooperation mechanism between science, business, and the state for the commercialization of research outcomes. Regional centers will provide services including innovation scouting, potential assessment, patenting, technology promotion, and investor engagement.

Project status: Draft Law No. 4623 (21.01.2021) on stimulating technology transfer. A Cabinet resolution on centers is in preparation.

Required funding: ~ EUR 820,000

Expected results: 5 pilot technology transfer centers established; Increased collaboration between universities, research institutions, and businesses.

Startup Support Programmes

In 2024, the Ministry of Education and Science of Ukraine launched a pilot project to create startup schools, incubators, and accelerators at universities and research institutions to foster an innovation ecosystem, commercialize research, attract early-stage investors, and provide financial and expert support.

Project status: 6 winners selected, each receiving up to UAH 1.5 million to develop their startup schools over 2024–2026.

Required funding: ~ EUR 335,000

Expected results: Expansion of startup schools to 15 institutions; growth of successful startups and early-stage innovation; strengthened entrepreneurial culture; new jobs and investment in local startups; higher global competitiveness of young entrepreneurs; increased investment in innovative technologies and an innovation-driven ecosystem.



The International Coalition for Supporting Science, Research, and Innovation in Ukraine: **Priority Needs**



Human potential

"National System of Researchers of Ukraine"

As part of the reform of research evaluation, Ukraine is implementing the National System of Researchers. The initiative aims to provide additional financial rewards to nearly 2,000 top-performing researchers, using a digital evaluation methodology via the URIS platform. Researchers will be grouped by fields of science, with the best performers receiving corresponding financial support. Priority will be given to STEM disciplines and young researchers.

Project status: A draft government resolution has been developed: "On the Approval of the Concept for Supporting and Developing Human Resources in Scientific and Scientific-Technical Activities: National System of Researchers of Ukraine."

Required funding: ~ EUR 150 million

Expected results: 2,000 top researchers (with a priority focus on young scientists and researchers in STEM fields) will receive individual support of up to €500 per month.

Project-based PhD studies for STEM

Changing the model of training for researchers – introducing an experiment with "Project-based PhD studies", a tool for training young researchers with a significantly increased scholarship, funds for materials, reagents, conferences, primarily for STEM fields. Status of project implementation: included in the operational action plan of the Ministry of Education and Science, an experiment model for STEM specialties is being developed.

Required funding: ~ EUR 15 million

Expected results: Training of 300 PhD students of new quality in STEM specialties



Digital infrastructure

Open Data Repository

The creation of a National Repository of Open Research Data envisions the development and launch of a unified digital platform for the storage, sharing, and reuse of research data generated through research conducted by Ukrainian research institutions.

Project status: The National Plan on Open Science has been approved.

Required funding: ~ EUR 500,000

Expected results: Launch of a National Repository of Open Research Data, interoperable with the European Open Science Cloud (EOSC).

Support of Ukrainian scientific journals

The initiative aims to ensure the sustainable development of Ukrainian scientific journals by improving their quality, indexing in international databases, transitioning to open access, and adhering to international standards of peer review and publication ethics.

Project status: Draft resolutions of the Cabinet of Ministers of Ukraine "Certain Issues Regarding the Provision of Financial Support to Scientific Publications of Ukraine" have been developed.

Required funding: ~ EUR 500,000

Expected results: Increase in the number of Ukrainian journals indexed in Scopus, Web of Science, and other international databases.

Enhanced international visibility and reputation of Ukrainian science.

Creation of financial support mechanisms for journals (including coverage of open access APCs).

Implementation of modern platforms for editorial process management and peer review.

Dissemination of best practices in academic integrity and publication ethics.



Policy support

Financial Support for the Functioning of the **Ukrainian NCP Network** for the EU R&I Programmes

With EC support and MoES assistance, the Horizon Europe Programme Office was established in 2023 at the National Research Foundation of Ukraine as the Coordination Centre for the national NCP network. Following a competitive selection, 22 NCPs in 18 areas were created across 14 HEIs, 4 NAS institutes, and 2 state bodies. Ukraine is also represented by 39 delegates in 14 Horizon Europe committees. This infrastructure raises stakeholder awareness and enables NCP training with the EC, though further learning from other countries' practices and continued financial support are still needed.

Required funding: ~ EUR 500,000

Expected results: Launch of a National Repository of Open Research Data, interoperable with the European Open Science Cloud (EOSC).

Training of Project Managers at Ukrainian Universities and Research Institutions

A project to strengthen the capacity of Ukrainian researchers and project offices to access and manage international and national grants, including EU funds. MoES infrastructure raises awareness of Horizon Europe, and Ukrainian NCPs join EC trainings, but continued funding and learning from other countries' practices remain essential.

Required funding: ~ EUR 200,000

Expected results: Training of at least 200 highly qualified project managers over 2 years, including legal and financial support specialists; 20 university-based project offices established; higher success of Ukrainian grant applications, especially in EU programs; Dissemination of knowledge about opportunities to use EU financial instruments in line with Ukrainian legislation; support for European integration through quality project management.



The International Coalition for Supporting Science, Research, and Innovation in Ukraine: **Priority Needs**

International Scientific Center "Observatory"

**Vasyl Stefanyk Carpathian National University and the University of Warsaw
(Mount Pip Ivan Chornohirskyi (2028 m above sea level), Ukrainian Carpathians)**



The astronomical observatory on Mount Pip Ivan, **built in 1938** by the **University of Warsaw**, was left in ruins after WWII. **Located in the Carpathian National Nature Park**, it is jointly being **restored by Vasyl Stefanyk Precarpathian National University and the University of Warsaw** under a 2018 Memorandum with MoES and the Ministry of Ecology. Owned by MoES and managed by Precarpathian University, the observatory's restoration is part of the **Ukrainian-Polish Relations Roadmap**.

In **2007**, the project gained the patronage of the **Presidents of Poland and Ukraine**, and in **2018** was supported by the **Polish-Ukrainian Partnership Forum**. Restoration has been funded by Polish ministries and the Embassy in Ukraine. In **2019–2022**, the University implemented the **€1.05M** PIMReC project, completing partial restoration and acquiring meteorological and environmental equipment.

The ISC "Observatory" hosts the **Chornohora environmental and meteorological station — the highest in Eastern Europe** — centered on a Vaisala AWS310 with sensors for weather and air quality. Current efforts aim at full WMO integration, advancing Carpathian climate monitoring, and supporting Ukraine's climate strategy. The Observatory also serves as a **unique base** for biodiversity studies, focusing on high-altitude ecosystems, climate change impacts, forest line shifts, alpine meadow overgrowth, animal migration, invasive species, and long-term climate forecasts.

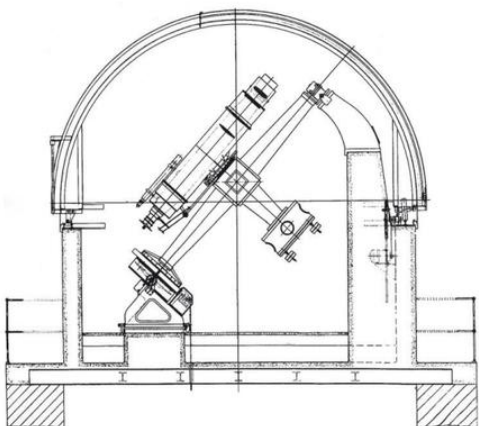
To complete the restoration work at the International Scientific Center "Observatory" on Mount Pip Ivan, funding of **€975,700** is required, including:

- **Construction work: €525,400**
- **Equipment purchase: €217,700**
- **Other expenses: €232,600**

Main restoration elements include: the observatory dome, restoration of walls, and repair of individual rooms.



Since **2017**, a **24/7 State Emergency Service rescue team** has been based at the ISC "Observatory," cutting response times in the Chornohora Ridge by 3–4 hours and protecting the facility. The center is also expected to support future astronomical work, including satellite tracking and meteorite/asteroid observation.





The International Coalition for Supporting Science, Research, and Innovation in Ukraine: **Priority Needs**

Institute of Applied Physics of the National Academy of Sciences of Ukraine



Due to the severity of the damage, a decision was made to relocate staff and equipment to two other buildings of the Institute within Sumy. However, for the Institute to function effectively and allow researchers to continue their work, this infrastructure must undergo urgent renovation and restructuring.

The first step is to develop technical project documentation, subject to approval by state oversight bodies. The cost of preparing this documentation is estimated at **20,000 €**, with an additional **40,000 €** needed for emergency conservation works. The full restoration of the Sumovskiy Estate architectural monument is currently difficult to estimate, but initial expert evaluations exceed **2 million €**.

On **April 13, 2025 (Palm Sunday)**, at approximately **10:23 a.m.**, a missile strike involving **two ballistic rockets hit the central part of the city of Sumy**. As a result, the administrative building and utility structures of the Institute of Applied Physics of the National Academy of Sciences of Ukraine (IAP NASU) were significantly damaged. The main building is a local architectural heritage monument, officially registered as the “Sumovskiy Estate – Main Building” at 58 Petropavlivska Street.

The explosion caused critical destruction of all windows and doors, significant damage to the decorative facade, and multiple breaches in the pitched roof. Internal walls were shifted or cracked, with extensive loss of wall and ceiling plaster. Most furniture and office equipment were destroyed or rendered unusable. Comprehensive inspections were conducted by local authorities, IAP commissions, and experts from the Department of Urban Development and Architecture of the Sumy Regional Administration, which responsible for cultural heritage protection. Based on these inspections, official Acts were drawn up, which concluded that the building is unfit for use and confirmed significant material losses.

Significant damage was also inflicted on the main building and wrought iron fence of the Sumovskiy Estate, which are part of a unified architectural ensemble in the city center. These culturally important structures belong to the Institute and are part of Sumy's historical identity. With the support of city authorities and volunteer organizations, the Institute's staff carried out emergency repairs and safety measures inside and outside the building. However, full restoration will require a substantial volume of repair and conservation work.



The International Coalition for Supporting Science, Research, and Innovation in Ukraine: **Priority Needs**

Sumy State University



The damage across the university is severe. We are now faced with the urgent need to replace 598 windows and 170 interior doors.

Based on the results of technical surveys, in order to bring the buildings to a condition suitable for normal and safe operation, it is necessary to perform building restoration through major repairs with the development of design and estimate documentation. The development of design and estimate documentation is at the pre-project stage. The estimated time for developing design and estimate documentation is 3-5 months.

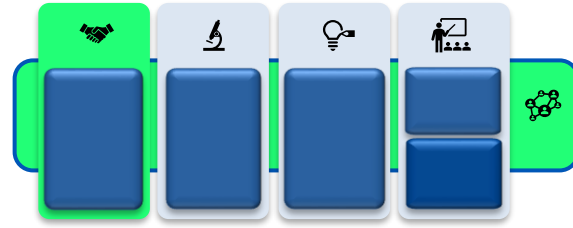
The estimated cost of restoration is **EUR 5.5 million**.



Sumy State University maintains 76 buildings for various purposes. Since the beginning of the Russian Federation's military aggression, **21 buildings have been damaged or partially destroyed**. In most buildings, work has been carried out to eliminate the consequences of damage and restore functional capacity. Currently, as a result of the Russian Federation's armed aggression,

3 SumDU buildings are partially destroyed and require immediate restoration, namely:

- **Building M** - foundations, basement, walls, partitions, roofing, interior and exterior finishing, door and window units, and engineering networks have been damaged and partially destroyed. The area of destroyed and damaged premises is 1,730 m², with a total area of 3,457 m²;
- **Academic Building No. 2** - 550 m² completely destroyed, walls, partitions, roofing, interior and exterior finishing, door and window units, and engineering networks partially destroyed and damaged over an approximate area of 1,850 m²;
- **Congress Center** - walls, partitions, floor slabs, roofing, interior and exterior finishing, and engineering networks partially destroyed, door and window units completely destroyed, with a total damage area of 8,030 m².



Eastern Partnership of the EU – Working Group Meeting on R&I

- Next meeting on 27/28 Nov in Berlin
 - Representatives of EU Commission, Eastern Partnership (EaP) countries, EU member states & associated countries discuss progress, challenges and opportunities for ERA integration
 - 27 Nov.: German research and intermediary organization invited for networking
- ➔ Opportunity to identify and create synergies for ongoing and future cooperation



Conference center in the Federal Press Conference Building