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From:	General Secretariat of the Council
To:	Delegations
Subject:	ERAC Report on the role of Research and Innovation in Ukraine's Recovery

ERAC delegations will find in the Annex to this document the "ERAC Report on the role of Research and Innovation in Ukraine's Recovery", as approved by the ERAC by written procedure.

ERAC Report on the Role of Research and Innovation in Ukraine's Recovery

1. Introduction

While Russia continues its military aggression against Ukraine, political discussions on Ukraine's recovery kicked-off in the Lugano conference on 4-5 July 2022, where Ukraine presented the first draft of its National Recovery and Development Plan for the period 2022-2032, which includes a chapter covering Research and Innovation (R&I) actions. Subsequently, on 23 June, Ukraine was granted the EU candidate country status. On 26 January 2023, the Multi-agency Donor Coordination Platform to support Ukraine's repair, recovery and reconstruction process has been launched. The College of Commissioners visited Kyiv on 2 February and the EU-Ukraine Summit took place on 3 February where the EU reconfirmed its commitment to stand with Ukraine for as long as needed and provide continued support - now and when reconstruction begins. The next annual conference on Ukraine's Recovery will take place in London on 21-22 June.

In this context, on 14 February 2023, the European Research Area and Innovation Committee (ERAC) held a dedicated discussion on the role of research and innovation in Ukraine's recovery. Also, given the scale of damages inflicted on the research infrastructures and the challenges of the pre-war post-Soviet style research and innovation ecosystem, ERAC underlined the importance of reflecting these needs in the key political and operational frameworks on Ukraine's reconstruction.

ERAC furthermore underlined the importance of continued support, both at the EU and national levels, for Ukraine's researchers and innovators, as their knowledge and skills will become the backbone of Ukraine's modern, sustainable and technology-driven recovery and will play a key role in bringing Ukraine closer to the EU.

2. The impact of war on Ukraine's R&I Ecosystem

The war in Ukraine is having a grave impact on the Ukrainian R&I ecosystem. By March 2023, 35% of Ukraine research infrastructure has been damaged or destroyed (up from 15% in November 2022)¹. An estimated one quarter of the Ukrainian scientific workforce has left the country, while many others have changed their careers or decided to join defence forces. In addition, public R&I budget has been cut to a minimum and R&I activities in the country are further hampered by persistent power cuts and connectivity issues. These events have undermined decades of scientific progress and significantly drained Ukraine of its intellectual talent, which will pose massive challenges for rebuilding Ukraine's modern and sustainable future.

¹ Ministry of Education and Science of Ukraine, [Monthly overview of the current state of education and science in Ukraine](#), Feb 2023

3. Ongoing Support for Ukraine's R&I Ecosystem

In full solidarity with Ukraine, the Commission, EU Member States and Horizon Europe Associated Countries have been implementing measures in efforts to **preserve and nurture Ukraine's R&I capacity both in and out of the country.**

Ukraine's **association to Horizon Europe and Euratom Research and Training programmes**, which provides access to these programmes on equal terms with entities from the EU Member States, including in terms of access to EU funding, is proving to be a key instrument of support. The government of Ukraine does not have to contribute financially to the programmes and all calls encourage the applicants to create opportunities for the Ukrainian entities and researchers. As a result, despite the ongoing war, Ukraine participates in the programmes on par with the best years under Ukraine's association to the preceding EU R&I programme – Horizon 2020.

Moreover, the Commission has introduced **dedicated support measures**. Following EUR 25 million call for fellowships under the Marie Skłodowska Curie Actions Programme (MSCA4Ukraine), 124 Ukrainian researchers continue their scientific work across the institutions in 21 EU Member States and Associated Countries. After the war, the objective will be to reintegrate these scientists into Ukraine's R&I ecosystem. In addition, EUR 1.5 million has been allocated for remote fellowships in the area of research infrastructure (RI) under the RI-focused Eurizon project. To maintain Ukraine's innovation activities, the Commission allocated EUR 20 million to support up to 200 Ukrainian deep-tech start-ups including through financial support (EUR 60,000) as well as business advisory and matchmaking services (EIC4Ukraine). Furthermore, there is dedicated support to health scientists and ongoing collaboration on nuclear safety and emergency preparedness with the JRC.

In addition, as announced by President Von Der Leyen, the **Horizon Europe Office** to be established in Kyiv in the course of 2023 will become a top reference point for the Ukrainian and European researchers looking for R&I funding and cooperation opportunities.

At **national level**, EU Member States and Associated Countries have been implementing various support initiatives through national programmes and at the level of individual institutions – most of which have been promoted via the joint ['European Research Area for Ukraine'](#) (ERA4Ukraine) initiative hosted on the Commission-led Euraxess platform as a one-stop-shop for information and support services to Ukraine-based researchers and researchers fleeing Ukraine. The Member States expressed an interest in having an exchange on best practices of support with the focus on twinning initiatives and thematic priorities such as agro-biological research, clean energy, nuclear safety and security etc. Member States and Associated Countries are also helping maximise the benefits under Ukraine's association to Horizon Europe by pro-actively exploring joint proposals with the Ukrainian partners.

At **international level**, the Communique of the G7 Science and Technology Ministers (May 2023) acknowledged the role of research and innovation in Ukraine's recovery. The Commission also encouraged G7 members to compare best practices on using research and innovation to enable Ukraine's reconstruction towards modern and sustainable economy. Japan's experience following the 2011 earthquake and tsunami and the nuclear accident at Fukushima could be of particular relevance.

4. Ukraine's integration into the EU R&I ecosystem

As an associated country to Horizon Europe, Ukraine is already an observer in the key governance structures of Horizon Europe (namely through its Programme Committee in its different configurations, the Joint Research Centre's Board of Governors) and of the European Research Area (the ERA Forum). In relation to the new European Innovation Agenda, Ukraine is invited to get involved in the European Innovation Council Forum and the Coalition of the Willing. It also actively participates in the development of the Black Sea Implementation Plan.

At the same time, given Ukraine's EU candidate country status, Ukraine's successful integration into the EU R&I ecosystem will require large-scale policy reforms. While Ukraine has showed an unparalleled innovation capacity during the war time, it needs to improve research careers, consolidate its research institutions, streamline governance structures, introduce performance-based funding – which will all be key for reversing the continued brain drain. In addition, it would be appropriate to revamp Ukraine R&I physical ecosystem in alignment with the priorities and needs of the European Research Area and the New European Innovation Agenda, for example by addressing Research Infrastructure gaps.

Under Horizon Europe, the Policy Support Facility would be able to deliver policy advice but the implementation of the needed reforms will require much more substantial and targeted technical and financial assistance.

5. R&I needs and role in Ukraine's reconstruction and recovery

Under Horizon Europe, in anticipation of Ukraine's reconstruction, the Commission is already deploying support measures that will enhance Ukraine's capacity to deliver sustainable and modern recovery. These include dedicated initiatives in support of green recovery, in particular under the EU Cities Mission², the Urban Transition Mission of Mission Innovation³, the New European Bauhaus Initiative⁴ and the launch of the Nature-Based Solutions Hub in Ukraine under NaturaNetwork project⁵.

Furthermore, collaboration is ongoing in the areas of nuclear safety and security as well as efficiency both with the JRC and under the Euratom programme. This includes EUR 10 million action to reduce the dependency on Russian nuclear fuel supply for VVER reactors currently operating in Ukraine.

Moreover, the JRC is developing a model for smart specialisation strategies for the war-ridden regions and helps Ukraine reinforce its security of gas supplies through training and modelling scenarios. In relation to research infrastructure, the ongoing Eurizon project will map training needs for restoring Ukraine's R&I capacity and promote these needs via a policy dialogue platform. Moreover, cooperation is sought in strategic sectors such as clean energy, clean hydrogen, clean aviation and blue economy.

Ukraine's' R&I needs, however, go far beyond such important but small-scale and fragmented capacity-building efforts. Ukraine's R&I needs imply physical reconstruction, effective policy reforms, institutional capacity-building to implement these reforms and the availability of financial resources to reignite R&I activities in the country and reverse the brain drain.

² EUR 5 million action to help Ukrainian cities develop climate-neutral local recovery plans through peer-to-peer cooperation.

³ Three Ukrainian cities – Konotop, Lviv and Zhytomyr – are part of the first cohort of 48 cities selected by the Urban Transition Mission. It will enable cities to adopt innovative solutions to reach the tipping points in the cost and scale of net zero solutions for urban transitions.

⁴ Ukrainian partners benefit from a series of webinars on rebuilding local communities.

⁵ The Hub promotes nature-friendly and nature-empowered recovery through awareness raising activities.

Therefore:

- R&I ecosystem needs should be included in the assessment exercises that will be used to inform e.g. the work of the Multi-Agency Donor Coordination Platform. ERAC will regularly be informed about the state-of-play and will be asked to provide its views, whenever needed.
 - Political discussions such as the annual conferences on Ukraine's recovery and the Multi-Agency Donor Coordination Platform should acknowledge that human capital, scientific knowledge and data as well as technology will accelerate Ukraine's recovery towards a modern economy underlined by the green and digital transition.
 - R&I priorities and concrete actions, including in specific sectors, should be well-reflected in Ukraine's National Plan for Reconstruction and Development and the work of the Multi-Agency Donor Coordination Platform.
 - A share of the planned multi-billion technical and financial assistance for Ukraine's recovery should be allocated to address the R&I needs and priorities, especially as specific cases of EU Member States (Finland) and EU global partners (South Korea, Japan) show that massive investments in education and research & innovation are a key trigger for rapid and sustained economic growth.
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