2nd Conference on the Ukraine Crisis

ONE YEAR OF WAR IN UKRAINE: EXPLORING THE IMPACT ON THE SCIENCE SECTOR AND SUPPORTING INITIATIVES



EXECUTIVE SUMMARY





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The second conference on the Ukraine crisis, held in March 2023, one year after the start of the full-scale assault on Ukraine and its people, engaged with the insights and recommendations that emerged from the previous conference held in June 2022. It sought to place them in the broader context of how and why the international science system and research community can show solidarity in times of crisis. The speakers told of the appalling and indiscriminate damage inflicted upon Ukraine's civilian infrastructure, its cultural, educational, and research facilities, but also spoke of the resilient response of the Ukrainian scientific and academic community.

The fundamental point to emerge from the conference is that if science¹ is for the global common good and a shared endeavour that transcends borders, then it is incumbent upon the global scientific community to stand in solidarity with our colleagues in times of crisis. This solidarity must be respectful of local agency, and it must be offered in the spirit of partnership and cooperation.

> "The international science community's role in scientific diplomacy for the post-conflict era is critical to restore relationships and to work together to respond to the world's complex issues."

> > Peter Gluckman

Another key message was the need for trusted international fora where conversations such as those held at this conference can occur. Convening bodies must enable local voices to be heard, and they must be given a platform to ensure productive and respectful initiatives. "This alliance between ISC and ALLEA is exceptionally inclusive of those impacted by the war. Collaboration is crucial not only to the delivery of aid but to the mitigation of brain drain, which has, of course, been exacerbated by Russia's invasion." Antonio Loprieno

The value of reviewing the impact that the war and the occupation has had on the research infrastructure and broader community is significant. The review conducted at the March 2023 conference validated the recommendations that emerged from the June 2022 conference. There are, however, crucial changes in emphasis and action that have arisen over the course of the war's escalation. The needs and capacities of the Ukrainian science sector must be reinterpreted as living within an evolving conflict. Protection and support responses in mid-2022, for example, were directed at scholars and scientists seeking refuge in Europe and beyond. Yet, by March 2023, there was little evidence of a mass exodus of researchers and academics; reports indicated that approximately 80% of Ukraine's researchers were still in the country. Therefore, there remains an embattled, but viable research community in Ukraine, which requires ongoing support to survive and reconstruct the local science ecosystem.

"Ukraine's research and development sector has suffered unprecedented losses in both human infrastructure and financial resources since the beginning of the war. Coupling these losses with the risk of public research and development budget cuts, the state's ability to support research sharply decreased in early March 2022 due to the increased defence needs of the country. For 2023, only 60% of the financing required is available for selected projects and the projects of new and suspended schools."

Olga Polotska

Science, scholarship, education, and research are not abstract entities; they are rather activities performed by individuals at all career stages. Continuity is therefore key. Medium-to long-term interruptions to career paths are very hard to reverse, and so it is vital that opportunities are kept open for early- and mid-career researchers who may have less visibility than their more established colleagues.

The dynamism of the young academies, both within and outside of Ukraine, has been a strong voice for mobilizing support. The establishment of the 'Ukrainian Science Diaspora', presented by the Young Scientists Council of the Ministry of Education and Science of Ukraine, serves to strengthen the scientific ties between Ukraine and the rest of the world.

Hopeful signs for the future are the developments in the global science system. The move to open science, the reform of research assessment, and the greater emphasis on equity, diversity, and inclusion will strengthen the science sector's response to crises. Open science has the potential to keep researchers connected and up to date when their institutional facilities are destroyed. Reformed research assessment options, such as narrative CVs, allow researchers to explain why they have not been able to publish at the 'normal' pace. The growing emphasis on equity, diversity, and inclusion is enabling minority groups to claim space.

Building financial trust and accountability, particularly when the administrative structures inherited from the past lack the checks and controls that are now expected in administering research funds, is essential. Transforming aspects of the Ukrainian research system to bring it into line with international best practices is urgent. It has been heartening to see the willingness of international and European funders to advise on this.

The war in Ukraine has brought attention to the global issue of how to ensure the survival of higher education and science systems through a crisis. 'Polycrisis' is the new norm, and it is very likely that we will be confronted with more intersecting crises such as wars and human-induced natural disasters in the immediate future. The fracture and loss of a country's science systems during crises deal a devastating blow to domestic scientific investment, teaching and research, long-term economic growth, and sovereignty. It also undermines relationships within global science networks and research infrastructure. The science sector must be proactive in times of crisis to better prepare, protect, respond, and rebuild. "The international science community should start planning how best to prepare the country's research infrastructure for the end of the war. Long-term partnerships that focus on capacity-building will be crucial, particularly in the areas of management, monitoring, and policy. These collaborations must try to sustain day-to-day research as much as possible now, so that the research community can hit the ground running and be much more effective as soon as the conflict ends."

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In conclusion, the primary message is that in this phase of the crisis, the most urgent need is to support the research system within Ukraine itself to avoid losing an entire generation of researchers. Where we are now must be recognized as an opportunity for reform and transformation. External funding bodies, research-performing organizations, and philanthropic foundations need to respond with flexibility and with innovative solutions that are sensitive to local needs. The high quality of Ukrainian research cannot be lost.

> "For a country in crisis, science, higher education, and technological innovation are critical for the country's future but are low priorities of local and world governments in the war response. The initiative of smaller entities such as research agencies, universities, professional associations, and even individuals, are critical to bridge the gap."

Gherson Sher



^{1.} Drawing from the International Science Council (ISC), the following definition of science is referred to: "The ISC has a broad understanding of the sciences, in all their diversity, covering science as a collective institution with a broad range of practices and values, but also scientists as a community[...]The word science is used to refer to the systematic organization of knowledge that can be rationally explained and reliably applied. It is inclusive of the natural (including physical, mathematical and life) and social (including behavioural and economic) science domains. It is recognized that there is no single word or phrase in English (though there are in other languages) that adequately describes this knowledge community. It is hoped that this shorthand will be accepted in the sense intended." (ISC, 2021)



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