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Science Diplomacy in the Development of the Architecture of Global Partnership

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ABSTRACT. This article examines the contemporary role of science diplomacy as one of the key instruments for transforming international relations amidst global geopolitical shifts, the rise of transnational challenges, and the increasing complexity of the global governance system. It is argued that science diplomacy goes beyond the auxiliary function of foreign policy and is taking on the characteristics of a systemic, multi-level phenomenon that combines the political, economic, technological and socio-cultural dimensions of international interaction. Based on an analysis of key international initiatives, the paper demonstrates the process of institutionalisation of science diplomacy at the global, regional and interregional levels, as well as the growing role of science in policy-making and international decision-making. Particular attention is paid to the Global Ministerial Dialogue on Science Diplomacy, organised by UNESCO, as a platform for consolidating political support, coordinating science-diplomatic approaches and defining priorities for international cooperation. The results of expert discussions and surveys have been analysed, confirming the dominance of an institutional and managerial approach to the development of science diplomacy.

Science diplomacy is increasingly performing an integrative function within the global governance system, ensuring the coordination of efforts by states, international organisations, the scientific community and non-state actors in addressing global challenges — from climate change and public health to technological security and sustainable development. It is concluded that science diplomacy is a key factor in shaping the partnership architecture of international relations, strengthening peace and security, and ensuring long-term socio-economic development on a global scale. Particular attention is paid to the analysis of science diplomacy as a 'soft power' instrument that expands states' opportunities to advance their own interests through cooperation rather than confrontation. The importance of involving scientists and experts in foreign policy decision-making processes, particularly in the sphere of international negotia-

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tions and the drafting of multilateral agreements, is emphasised. It is demonstrated that the institutionalisation of science diplomacy contributes to enhancing the effectiveness of international dialogue, fostering inclusive partnerships, and strengthening trust among participants in international relations, which is a necessary prerequisite for the sustainable and balanced development of the global community. Science diplomacy takes on particular significance in the context of Ukraine's post-war reconstruction: the involvement of Ukrainian scientists in international research programmes, consortia and grant initiatives contributes to Ukraine's integration into the global scientific community, ensuring the transfer of knowledge, technologies and best practices in the fields of energy, ecology, digitalisation, medicine and security. It is argued that the development of science diplomacy creates the conditions for the consolidation of the international community and enhances the global system's adaptability to contemporary challenges on the basis of mutual responsibility, solidarity, scientific ethics and a long-term strategic vision. A significant part of the study is devoted to the UNESCO Action Plan to support and restore Ukraine's scientific ecosystem, which is considered an example of the application of scientific diplomacy to consolidate international assistance, preserve human capital and integrate national science into the global research landscape. It is concluded that science diplomacy forms the foundation for a new partnership architecture of international relations, based on knowledge, trust and shared responsibility, and plays an important role in ensuring peace, security and sustainable development in the 21st century.
KEYWORDS: international relations, global governance, global interdependence, transnational challenges, science diplomacy, international scientific cooperation, architecture of international partnership, international scientific coalitions, inclusive partnerships.

Introduction

The current stage of development in international relations is characterised by deepening global interdependence, the transformation of the world order and the growing role of non-state actors in shaping the global political and economic landscape. In these circumstances, traditional diplomatic mechanisms are increasingly proving inadequate for effectively responding to complex transnational challenges linked to climate change, global security threats, pandemics, technological risks and socio-economic instability. This necessitates the search for new formats of international cooperation capable of ensuring stability, trust and constructive dialogue between states.

One such format is science diplomacy, which is becoming increasingly relevant in the contemporary international environment. Its significance stems from the universal nature of science, which is based on the principles of evidence, rationality and shared values, as well as its ability to overcome political, ideological and socio-cultural barriers. Science diplomacy is becoming increasingly prominent in the sphere of multilateral cooperation, the formation of international scientific coalitions, transgovernmental networks and global partnerships aimed at solving common problems facing humanity.

The growing role of science diplomacy is also driven by the intensification of integration processes in global governance and the need to establish

a new partnership architecture for international relations, based on trust, mutual responsibility and the coordination of efforts by various actors. In this context, science diplomacy emerges not only as a communication tool but also as a key factor in the positive transformation of international relations, opening up opportunities for strengthening peace, security and sustainable development on a global scale.

The aim of this article is to substantiate the role of science diplomacy as a systemic, multi-level instrument for the transformation of international relations and global governance, as well as to determine its significance for the formation of a partnership architecture for international cooperation, the support of sustainable development and Ukraine's integration into the global scientific community in the context of contemporary geopolitical challenges.

The conceptual nature of science diplomacy in the context of contemporary geopolitical changes

In August 2023, the United Nations General Assembly proclaimed 2024–2033 as the International Decade of Science for Sustainable Development, emphasising the need to transition to a transformative era of science-based cooperation and progress[4]. It is significant that the implementation of this initiative coincides with Ukraine's proclamation on 27 November of the International Day of Engagement in Science for Sustainable Development under the auspices of UNESCO, which further highlights the importance of science as a key factor in ensuring global stability and long-term development.

Contemporary geopolitical changes are characterised by the growing complexity of the international system, the fragmentation of the global space, and a rethinking of traditional models of international interaction. In these conditions, the interdependence of states, international institutions, scientific communities and non-state actors is intensifying, forming a multi-level network of cross-border links. In this context, science diplomacy emerges as a conceptually new phenomenon in international relations, combining the political, economic, technological and socio-cultural dimensions of global development. It emerges at the intersection of science and diplomacy, reflecting a general trend towards the growing role of knowledge and expert capacity in foreign policy decision-making and global governance, as evidenced by the data in Table 1.

Table 1

KEY INITIATIVES IN THE FIELD OF SCIENTIFIC DIPLOMACY, 2025

[4] UN Resolution adopted by the General Assembly on 25 August 2023 https://docs.un.org/en/A/RES/77/326

No	Initiative	Level of implementation	Main content	Scientific and diplomatic significance
1	Geneva Science and Diplomacy Anticipation Summit (GESDA)	Global	Cross-sectoral dialogue on future science and technology risks	Integration of scientific foresight into international policy
2	International Year of Quantum Science and Technology (UN)	Global	International initiatives for the development of quantum research	Strengthening the role of science in global governance
3	UNESCO Symposium on Science Diplomacy	International	Discussing science as a tool for intercultural dialogue	Expanding the human dimension of science diplomacy
4	European Conference on Science Diplomacy	Regional (EU)	Developing common EU approaches to science diplomacy	Institutionalisation of science diplomacy at regional level
5	Asia–Europe Summit on Science Diplomacy	Interregional	Education and training programmes for young professionals	Building human resources capacity in science diplomacy
6	Science for Policy Conference (ISC)	International	Interaction between science and decision-making processes	Strengthening mechanisms for scientific consultation
7	Open Science and Innovation in Ukraine (#OSIU2025)	International	Integration of national science into global networks	Scientific diplomacy as a factor in reconstruction and solidarity
8	Central European Initiative programmes on science diplomacy	Regional	Enhancing the Competencies of Diplomats and Scientists	Development of regional science diplomacy ecosystems
9	UNESCO regional initiatives	International	Coordination of science and policy in the field of sustainable development	Deepening multilateral cooperation
10	Italian Research Day in the World	Global	Promotion of national science through diplomatic channels	Using science as a ‘soft power’ tool

Source: compiled from data from[5], [6], [7].

The data presented indicate the formation of a clear, multi-level organisation of science diplomacy, implemented at global, international, regional

[5] The 2025 Geneva Science and Diplomacy Anticipation Summit https://www.gesda.global/geneva-science-diplomacy-anticipation-summit/

[6] Opening Ceremony of the International Year of Quantum Science and Technology https://www.unesco.org/en/articles/opening-ceremony-international-year-quantum-science-and-technology

[7] Italian Research Day in the World 2025 in Lund https://www.lu.se/evenemang/italian-research-day-world-2025-lund

and interregional levels. On the one hand, global initiatives (GESDA, International Year of Quantum Science and Technology) demonstrate the growing role of science in shaping the global governance agenda; on the other hand, regional and interregional formats (the EU, Asia–Europe, the Central European Initiative) are aimed at institutionalising cooperation and coordinating policies within specific geopolitical spaces. Clearly, science diplomacy is taking on the characteristics of a systemic and multidimensional phenomenon that combines elements of global governance, regional integration, expert interaction and strategic communication, thereby strengthening its role in shaping the partnership architecture of contemporary international relations.

It is worth emphasising the strengthening of the institutional dimension of science diplomacy, as a significant proportion of initiatives are implemented with the participation of international organisations (the UN, UNESCO[8], the International Council for Science[9]), which confirms the trend towards the formalisation of science-diplomatic practices and their integration into existing mechanisms of international cooperation.

At the same time, there is a trend towards a shift in focus from purely academic cooperation to practice-oriented formats, particularly in the areas of science advice, technological risk forecasting, capacity building and the development of innovation ecosystems. This indicates the growing role of science as a tool for supporting policy decisions and reducing uncertainty in the context of global transformations. Furthermore, the use of science diplomacy as a 'soft power' tool can be seen in national initiatives with an international reach (for example, Italian Research Day in the World[10]). Such practices combine the promotion of scientific potential with the shaping of a positive international image for the states.

Despite the fact that the issue of science diplomacy has been the focus of Western researchers for more than fifteen years, there is no single, established definition of this concept within the academic community. A comprehensive analysis of various approaches to interpreting the concept of 'science diplomacy', its instrumental potential and implementation practices in different countries, along with an assessment of prospects and directions for further development, is reflected in the works of many schol-

[8] Open Science and the UNESCO initiative — an opportunity to republish the ISC statement. https://uk.council.science/news/open-science-and-the-unesco-initiative/

[9] International Science Council https://uk.council.science/about-us/

[10] Italian Research Day in the World 2025 in Lund https://www.lu.se/evenemang/italian-research-day-world-2025-lund

ars, including A. Atamanenko[11], P. Berkman et al.[12], P. Ruffini[13], T. Flink[14] and others.

In simple terms, this term is understood in the context of utilising international scientific cooperation between states to jointly address the global challenges of the 21st century and to develop constructive models of international partnership[15]. Certain academic sources equate scientific diplomacy with inter-state scientific cooperation, within which ministries of foreign affairs traditionally play a leading role as key institutional actors[16]. Domestic researchers Stoliarchuk Y., Ilnytskyi D. and Khomanets V. define science diplomacy as a concept of intellectual capital encompassing all types of outcomes of human intellectual activity that can serve to create added value on a national, regional or global scale[17].

It is telling that, over the past decade, Western academic discourse in the field of science diplomacy has focused on conceptualising three key functional components, as defined in 2011 by the American Association for the Advancement of Science (AAAS) in collaboration with the Royal Society. The first component — science in diplomacy — involves the application of scientific expertise and knowledge to the formulation and implementation of states' foreign policies. The second — diplomacy for science — encompasses institutional and diplomatic mechanisms for supporting international scientific and technological cooperation. The third — science for diplomacy — involves the use of international scientific networks, partnerships and alliances as a tool for strengthening foreign policy and foreign economic ties and raising their effectiveness to a new qualitative level[18]. Domestic and foreign researchers cite the following reasons for the development of science diplomacy: 1) the rise of transnational challenges; 2) the fragmentation of transnational policy; 3) a shift in research priorities towards science diplomacy.

Unlike classical diplomatic practices, which are primarily focused on inter-state interaction and hierarchical models of influence, science diplomacy

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[18] Ibid.

operates within the context of the non-linear dynamics of international processes. It encompasses the activities of formal and informal international scientific coalitions, transgovernmental networks, expert platforms (Science & Technology Diplomatic Circle — (S&TDC), Barcelona Science and Technology Diplomacy Hub (SciTech DiploHub[19]) and global public-private partnerships (Geneva Science and Diplomacy Anticipation Summit (GESDA), Global Health Innovative Technology (GHIT) Fund[20], The International Science Reserve (ISR)[21] and others). Such forms of interaction reflect the emergent nature of the contemporary international system, within which knowledge, innovation and scientific expertise are transformed into strategic resources of international influence.

A key characteristic of science diplomacy is its ability to serve as a universal channel of communication in conditions of geopolitical polarisation. Science, based on the principles of objectivity and openness of results, creates the foundation for overcoming political, ideological and socio-cultural barriers between states. In this regard, science diplomacy contributes to building trust, reducing the potential for conflict, and developing partnership models of international cooperation, even during periods of heightened international tensions.

It is evident that, in the context of contemporary geopolitical changes, science diplomacy emerges not only as a practical tool for responding to global challenges, but also as a key conceptual element in the transformation of international relations. Its development contributes to the formation of a new architecture of international cooperation, in which integration and differentiation processes are combined, ensuring a balance between global coordination and the preservation of the diversity of national and civilisational models of development.

Global Ministerial Dialogue on Science Diplomacy

Defining science diplomacy as a tool for positive societal transformation, and as part of the promotion of the International Decade of Science for Sustainable Development 2024–2033, UNESCO organised the Global Ministerial Dialogue on Science Diplomacy (2025 Global Ministerial Dialogue on Science Diplomacy)[22] , which brought together ministers responsible for science and external relations, experts, scientists and diplomats from

[19] SciTech DiploHub, the Barcelona Science and Technology Diplomacy Hub https://www.scitechdiplohub.org/
[20] Global Health Innovative Technology (GHIT) Fund https://globalhealthprogress.org/collaboration/global-health-innovative-technology-ghit-fund/
[21] The International Science Reserve (ISR) https://isr.nyas.org/
[22] Science diplomacy in a rapidly changing world: building peace in the minds of men and women; report on the UNESCO Global Ministerial Dialogue on Science Diplomacy https://unesdoc.unesco.org/ark:/48223/pf0000395892

around the world to examine and evaluate innovative structures and approaches to science diplomacy in today's complex global context.

The main objectives of the event were identified as follows: 1) *strengthening political and institutional support for science diplomacy at the highest level*, viewing it as an effective mechanism for developing international dialogue and strengthening peace; 2) *to facilitate the analysis and dissemination of innovative practices in science diplomacy* through interdisciplinary and cross-sectoral interaction between ministers, scientists, diplomats and the expert community, with the aim of supporting peacebuilding processes and protecting human rights; 3) *developing a coordinated framework* for *cooperation* aimed at achieving common strategic goals through the use of science diplomacy tools; 4) *focusing on existing initiatives and promising areas for the development of science diplomacy*, identifying opportunities for their further expansion and institutionalisation[12].

During a multilateral conference held as part of the 2025 Global Ministerial Dialogue on Science Diplomacy, a survey was conducted among participants to identify priority areas of science diplomacy and areas of focus for international science policy (231 respondents)[12]. The highest level of support from respondents was for the realisation of opportunities to integrate science into foreign policy processes and multilateral initiatives to address global challenges — 67 per cent of those surveyed; 51 per cent of respondents emphasised the role of science diplomacy in promoting peace and intergovernmental cooperation, as well as in ensuring equitable access to scientific and technological achievements and the equitable distribution of the benefits of scientific and technological development (51 per cent). Expanding access to shared scientific infrastructure and resources for international research cooperation was identified as a key priority, supported by 56 per cent of participants. At the same time, areas related to the promotion of specific scientific and technological breakthroughs, particularly in the field of carbon capture and the development of new vaccines (20 per cent), as well as the development of mechanisms for the joint and responsible management of shared natural resources and transboundary ecosystems (32 per cent), received a comparatively lower level of support. Overall, the survey results indicate the dominance of an institutional-governance approach to science diplomacy, within which priority is given to policy coordination, trust-building and the integration of scientific knowledge into international decision-making processes, whilst sectoral technological initiatives are viewed as derivatives of core institutional capacities[23].

[23] Science diplomacy in a rapidly changing world: building peace in the minds of men and women; report on the UNESCO Global Ministerial Dialogue on Science Diplomacy https://unesdoc.unesco.org/ark:/48223/pf0000395892

The 2025 Global Ministerial Dialogue on Science Diplomacy identified priority areas for UNESCO's action in the field of science diplomacy. These include[24]: 1) promoting the development of national approaches to science diplomacy by providing methodological and expert support to Member States in the development of policies and instruments aimed at addressing global challenges, taking into account the specificities of domestic socio-economic and political conditions; 2) implementing mechanisms for inclusive, evidence-based governance to ensure the long-term and equitable management of shared natural resources of a transboundary/global nature; 3) consolidating international cooperation to jointly develop a coordinated regulatory and methodological framework, including principles, standards and tools for forecasting and managing risks associated with the spread of new and breakthrough technologies; 4) institutionalising interaction between the scientific community and diplomatic structures through the development of sustainable platforms and procedures for engaging scientific expertise in foreign policy and multilateral decision-making processes; 5) building human and organisational capacity in the field of science diplomacy, ensuring systematic training of specialists, supporting knowledge-sharing networks and introducing formats for collaborative learning and mutual professional development.

The relevance of these priorities stems directly from the range of *structural and political challenges*[25] identified during the 2025 Global Ministerial Dialogue on Science Diplomacy, which define the current context of science diplomacy. Firstly, persistent inequality in capabilities in the field of science, technology and innovation (STI) limits the ability of many countries to participate fully in scientific and technological development and to reap fair benefits from it. Secondly, fragmented governance of emerging technologies exacerbates existing disparities and reduces the ability of low- and middle-income countries to shape the rules, access technological advancements and reap their benefits. Thirdly, cooperation mechanisms established for the joint management of global public goods — from transboundary river basins to outer space — are coming under increasing pressure due to competing national interests and the lack of effective enforcement mechanisms. Finally, the growing politicisation of science and heightened geopolitical tensions are leading to an erosion of trust between states.

[24] Global Ministerial Dialogue on Science Diplomacy. Science Diplomacy in a Rapidly Changing World: Building Peace in the Minds of Men and Women. https://articles.unesco.org/sites/default/files/medias/fichiers/2025/04/25%20March_Plenary%20Session-Lidia%20Brito_with%20survey.pdf

[25] Science diplomacy in a rapidly changing world: building peace in the minds of men and women; report on the UNESCO Global Ministerial Dialogue on Science Diplomacy https://unesdoc.unesco.org/ark:/48223/pf0000395892

UNESCO Action Plan to Support Ukraine's Science Ecosystem

In July 2025, UNESCO initiated the presentation of an Action Plan for the Recovery of Ukraine's Science Sector (hereinafter the Action Plan)[26], which is aligned with Ukraine's strategic priorities in accordance with *the Strategic Plan of the Ministry of Education and Science of Ukraine until 2027*, and aimed at supporting the functioning and gradual recovery of Ukraine's scientific ecosystem amidst the ongoing military conflict and subsequent post-war transformation. The development of this document was the result of coordinated cooperation with the Ministry of Education and Science of Ukraine, a number of national research institutions, in particular the National Research Foundation of Ukraine, the Delegation of the European Union to Ukraine and other international partners. The presentation and expert discussion of the Action Plan took place during a high-level specialised event attended by over 150 representatives from the academic community, public authorities, international organisations, diplomatic missions and business structures[27]. This diverse group of participants underscored the comprehensive and cross-sectoral nature of the approach to preserving scientific potential and the strategic development of science in Ukraine.

UNESCO's expert assessments point to a profound structural crisis in Ukraine's scientific system, caused by the war: over 30 per cent of scientific infrastructure has been destroyed, more than half of researchers are unable to work as usual, and the brain drain exceeds 20 per cent (over 4,000 scientists have left the country)[28]. In these circumstances, the UNESCO Action Plan is regarded as a key instrument for consolidating international support and establishing the institutional foundations for the recovery and long-term development of Ukraine's scientific ecosystem.

With a view to the practical realisation of the priorities outlined in the Action Plan and to ensure their phased implementation in terms of time and finance, Table 2 systematises the key areas of support and indicative funding levels required for the recovery and long-term development of Ukraine's scientific ecosystem in accordance with UNESCO's approach.

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[26] Building A Robust Science Ecosystem In Ukraine: UNESCO's Action Plan For Sciences https://www.unesco.org/sites/default/files/medias/fichiers/2025/07/UNESCO%20Action%20Plan%20for%20Science%20in%20Ukraine.pdf?fbclid=IwZXh0bgNhZW0CMTAAAR5iGZuh8LQWI_qJMu5t-OdJJz6dP6KRQs42kMpuhcfQv_RNxEYdl-JjSAxKQw_aem_PJ69iDUzU6V5A-FobzHhMg

[27] UNESCO Action Plan to Support Ukraine's Research Ecosystem: A Comprehensive Response to the Challenges of War and Post-War Recovery. National Research Foundation of Ukraine. https://nrfu.org.ua/news/plan-dij-yunesko-z-pidtrymky-naukovoyi-ekosystemy-ukrayiny-kompleksna-vidpovid-na-vyklyky-vijny-ta-povoyennogo-vidnovlennya/

[28] UNESCO has published a report on the damage caused to Ukraine's scientific infrastructure https://www.unesco.org/uk/articles/ukrayina-stvoreno-mizhnarodnu-koalitsiyu-z-pidtrymky-nauky-doslidzhen-ta-innovatsiy

Table 2

PRIORITY AREAS OF SUPPORT AND INDICATIVE FINANCIAL REQUIREMENTS FOR THE RECOVERY AND DEVELOPMENT OF UKRAINE'S SCIENTIFIC ECOSYSTEM (MILLION EUROS)[29]

Pilot measures	Short-term outlook (2025)	Medium-term outlook (2026–2030)	Long-term outlook (after 2030)
Remote access to scientific equipment and research infrastructure	3	7	7
Research grants for Ukraine	5	7	7
Mental Health and Psychosocial Support (MHPSS) Network for Academics and Researchers	1.5	6.5	6.5
A data-driven ecosystem for the transformation and recovery of Ukraine's scientific sector			
1. International Coordination Working Group	1	3	3
2. Ukrainian Science Forum	3	2.5	2.5
3. Ukrainian Research Data Portal	3	5	5
4. Working Group on Legal and Political Issues	1.5	1.5	1.5
Medium- and long-term programmes and activities			
Annual assessment of the impact on Ukraine's research ecosystem	–	5	5
UNESCO Science Hub for Ukraine's Recovery and Resilience	–	7.5	7.5
UNESCO Programme for the Upgrading and Renewal of Qualifications of Ukrainian Researchers	–	5	5
Total	18	50 (per year)	50 (per year)

Source: compiled based on[30].

The data presented indicates a phased financial approach to supporting and restoring Ukraine's research ecosystem, with total funding of EUR18 million in 2025 and subsequent annual funding of EUR50 million in the medium and long term. This trend indicates a transition from limited stabilisation measures to systematic long-term support.

[29] The funding figures are indicative and reflect UNESCO's phased approach to supporting, restoring and ensuring the long-term development of Ukraine's scientific ecosystem (author's note).

[30] Building A Robust Science Ecosystem in Ukraine: UNESCO's Action Plan For Sciences https://www.unesco.org/sites/default/files/medias/fichiers/2025/07/UNESCO%20Action%20Plan%20for%20Science%20in%20Ukraine.pdf?fbclid=IwZXh0bgNhZW0CMTAAAR5iGZuh8LQWI_qJMu5t-OdJJz6dP6KRQs42kMpuhcfQv_RNxEYdl-JjSAxKQw_aem_PJ69iDUzU6V5A-FobzHhMg

In the short term (by 2025), funding is focused on three priorities: EUR3 million has been allocated to ensure remote access to scientific equipment and research infrastructure; EUR5 million to provide research grants to Ukrainian researchers; and EUR1.5 million to establish a mental health and psychosocial support (MHPSS) network. Together, these measures form the basis for preserving the human capital of science in the context of armed conflict.

In the medium term (2026–2030), annual funding will increase to EUR50 million, a significant portion of which will be directed towards developing a data-driven ecosystem. Specifically, EUR 3 million per year is earmarked for the activities of the international coordination working group, EUR2.5 million for the Ukrainian Science Forum, EUR5 million for the operation of the Ukrainian scientific data portal, and EUR1.5 million for the work of the group on legal and policy issues. Separately, EUR5 million has been allocated for an annual impact assessment of the scientific ecosystem, EUR7.5 million for the creation and support of the UNESCO science hub, and EUR5 million for programmes to enhance and update the qualifications of Ukrainian scientists.

In the long term (after 2030), funding remains at a similar level — EUR50 million per year — reflecting the intention to ensure the sustainability of the institutional mechanisms established. Maintaining the same levels of funding for key areas, in particular infrastructure solutions, analytical support and human capacity development, demonstrates a focus on integrating Ukrainian science into the European and global research landscape.

The proposed measures clearly indicate a transition from piecemeal crisis support to a strategically coordinated model for the long-term development of the national scientific ecosystem. The proposed phased financial and institutional approach combines the preservation of human capital, the modernisation of research infrastructure, and the establishment of sustainable mechanisms for the management and coordination of science, which is critically important in the context of military challenges and post-war transformation. At the same time, the active role of UNESCO and a wide range of international and national partners underscore the importance of science diplomacy as a tool for integrating Ukraine into the European and global scientific community, strengthening its institutional capacity, and laying the foundations for an innovation-oriented national recovery.

Conclusions

An examination of the conceptual nature of science diplomacy reveals its gradual transformation from a supplementary form of international scientific cooperation into a systemic and multidimensional phenomenon of in-

ternational relations. In contemporary scientific discourse, science diplomacy is, on the one hand, interpreted as the use of international scientific interaction between states to jointly respond to the global challenges of the 21st century and to shape constructive models of international partnership; on the other hand, as a concept of intellectual capital encompassing the results of human intellectual activity and aimed at creating added value at the national, regional and global levels. In the context of the International Decade of Science for Sustainable Development (2024–2033), science diplomacy is increasingly establishing itself as a key mechanism for integrating scientific knowledge, expert capacity and innovation into processes of global governance and foreign policy decision-making.

Contemporary practices of science diplomacy are characterised by a multi-level organisation — ranging from global and international to regional and interregional formats — and a strengthening of the institutional dimension with the active participation of international organisations. At the same time, there is a shift in focus from purely academic interaction to practice-oriented models, particularly in the areas of scientific consulting, forecasting technological risks, training personnel and shaping innovation ecosystems, as well as the use of science as a 'soft power' tool.

The conceptualisation of science diplomacy through the tripartite model of 'science in diplomacy', 'diplomacy for science' and 'science for diplomacy' reflects its emergent nature and ability to adapt to the non-linear dynamics of international processes. In this context, science diplomacy serves as a universal channel of communication amid geopolitical polarisation, fostering trust, reducing conflict, and developing partnership models for international cooperation.

Initiated by UNESCO in 2025, the Global Ministerial Dialogue on Science Diplomacy demonstrated the institutionalisation of science diplomacy as a strategic instrument of international cooperation in the context of growing global interdependence and geopolitical tensions. Its outcomes confirmed a shift in focus from narrowly sectoral science and technology initiatives towards a systemic institutional and governance approach geared towards integrating scientific knowledge into foreign policy and multilateral decision-making processes. The priority areas of action identified by UNESCO reflect the aspiration to overcome structural imbalances in the field of science, technology and innovation, strengthen inclusive global governance and restore trust between states through science-based dialogue.

UNESCO's Action Plan to support Ukraine's scientific ecosystem marks a shift from piecemeal stabilisation measures to a strategically coordinated model for the long-term recovery and development of science amid wartime and post-war transformations. The document, aligned with Ukraine's national priorities, combines the preservation of human capital, the restoration and modernisation of scientific infrastructure, the development of a

data-driven ecosystem, and the establishment of sustainable institutional mechanisms for science governance.

A phased financial and institutional approach, envisaging an increase in support to EUR50 million per year in the medium and long term, reflects a focus on integrating Ukrainian science into the European and global research landscape. UNESCO's active role and the broad involvement of international partners underscore the importance of science diplomacy as a key instrument for consolidating international support, strengthening Ukraine's institutional capacity, and laying the foundations for an innovation-oriented national recovery.

* This article was translated from its original in Ukrainian.

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