THE ROLE OF THE WORLD SCIENCE FORUM IN SCIENCE DIPLOMACY

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Abstract

This chapter discusses the World Science Forum (WSF) as a leading platform for science diplomacy, examining how it has evolved since the 1999 World Conference on Science in Budapest to become a global meeting point for science, policy and society. Initially established by the Hungarian Academy of Sciences, with the backing of UNESCO and the International Science Council (ISC), the Forum has evolved into a distinctive arena where various stakeholders, including scientists, policymakers, institutions, and civil society, converge to address shared challenges. Over the past two decades, WSF declarations have reflected a dynamic agenda, shifting from initial concerns about ethics and responsibility to more recent priorities, including open science, equity, social justice, and resilience. This chapter examines how the Forum fosters international cooperation, builds trust across political and regional divides, and shapes global science norms through formal and informal diplomacy. It also highlights how regional hosts, such as Jordan, South Africa and Indonesia, have enriched the Forum's themes and outreach. With WSF 2026 in Jakarta approaching, the chapter considers how the Forum is moving from principle to practice, placing increasing emphasis on capacity building, inclusivity, and collective resilience. In doing so, the WSF continues to demonstrate how science can bring people together in the pursuit of shared global well-being.

Keywords

Science Diplomacy, World Science Forum (WSF), Global Science Policy, Open Science and Equity, International Scientific Cooperation

Introduction

The WSF has emerged as a leading global platform where science and international relations converge. In today's interconnected world, scientific collaboration is a vital instrument of diplomacy. The WSF exemplifies the power of dialogue in bridging divides, fostering mutual understanding and confronting shared global challenges. Since its establishment in 2003, the Forum has convened a diverse range of stakeholders, including scientists, policymakers, diplomats, and international leaders, to reflect on the evolving role of science in society. Science diplomacy facilitates cooperation by linking scientific knowledge with international policymaking, enabling joint efforts to tackle cross-border challenges such as climate change and sustainable development (Ruffini, 2018).

This chapter traces the WSF's trajectory from its establishment by the Hungarian Academy of Sciences, the United Nations Educational, Scientific and Cultural Organization (UNESCO) and The International Council for Science (ICSU) to its current status as a leading forum for science diplomacy. The Academy's leadership highlights the capacity of national scientific institutions to influence international discourse beyond conventional state mechanisms. Over the past two decades, the Forum's biennial gatherings have spanned multiple continents, including Europe, Latin America, the Middle East, Africa and, soon, Asia. Each gathering has contributed regional insights that enrich the global dialogue.

A core feature of the WSF has been its capacity for adaptation. Initially focused on the ethical aspects of science, and the grand challenges of humankind the Forum has gradually expanded its agenda to encompass open science, inclusivity, and social justice and science advice. This expansion reflects deeper shifts in the science–policy landscape, as evidenced by the Forum's series of declarations emphasizing responsible science in the service of humanity, and equitable participation in scientific advancement.

The influence of the WSF is also shaped by its key stakeholders. Nobel laureates and renowned scientists as speakers lend intellectual authority, while partner organizations including UNESCO, ISC, AAAS, IAP, TWAS, EASAC and most recently ensure institutional legitimacy. The partnership between the Hungarian Academy of Sciences (MTA) and the Turkish Academy of Sciences (TÜBA) demonstrates how regional collaboration may also leverage the WSF to promote science diplomacy in different geopolitical contexts. TÜBA considers the establishment of science-based, solution-oriented platforms by international initiatives, particularly Science-20 (TÜBA, 2022) and the WSF, to be highly valuable in addressing regional and global challenges (TÜBA, 2019). Such initiatives are important instruments in the field of science diplomacy, contributing to world peace and providing significant opportunities to promote and appreciate the shared scientific, academic and cultural heritage of civilizations. They function as both a global convener and a catalyst for regional engagement.

Looking ahead, the 2026 Forum in Indonesia will mark the next phase in this evolution, focusing on human capital and the development of inclusive and ethical scientific ecosystems. Indonesia's leadership role as the host of WSF2026 underscores the growing

significance of the Global South in shaping science diplomacy. The Forum also offers a platform for promoting equity, sustainability and resilience through scientific cooperation.

Drawing on official records, institutional analyses and over two decades of the WSF declarations, this chapter establishes the Forum as a pivotal player in the realm of contemporary science diplomacy. The WSF is a unique nexus where science meets policy and diverse stakeholders negotiate the future of science, continually reaffirming principles of ethics, justice and collaboration. As global challenges become more complex and urgent, the role of forums such as the WSF is set to become increasingly important in promoting science as a force for peace and sustainable development.

Origins and Significance of the World Science Forum

National academies and international scientific bodies play a key role in institutionalizing science diplomacy by facilitating cross-border networks and maintaining dialogue even during political tensions (The Royal Society & AAAS, 2010). The WSF emerged in direct response to the momentum generated by the 1999 World Conference on Science in Budapest, which as intergovernmental conference was organized by UNESCO in co-operation with the International Council for Science (now the International Science Council, ISC) (WSF, 1999). This significant event resulted in the Declaration on Science and the Use of Scientific Knowledge, which urged a renewed global commitment to responsibly utilizing scientific knowledge for the benefit of human welfare and environmental sustainability (UNESCO, 1999). As set out in the Declaration, science should serve 'humanity as a whole' and contribute to a sustainable future for all generations.

Building on the success of the 1999 conference, the MTA took decisive steps to follow-up on its recommendations by initiating a recurring forum to maintain and expand discussions on the role of science in society. With the backing of UNESCO, the ISC and the American Association for the Advancement of Science (AAAS), the WSF was established in 2003 as a biennial event, initially based in Budapest, to further the principles set out in 1999 (WSF, 2003). Later on, in 2010 building on the experience of several successful Budapest conferences, the World Science Forum was institutionalized with the adoption of its Statutes approving its mission and the partner organisations behind

The MTA's initiative is significant due to its foresight in establishing a lasting structure for high-level discourse on science, ethics, and global policy. By providing a regular platform for reflection and exchange, the WSF has ensured that the principles set out in the 1999 Declaration will endure and evolve in response to emerging challenges. The Forum embodies the principle that science can act as a bridge between nations, a foundational tenet of science diplomacy, by providing a space in which diverse stakeholders can explore how science addresses human needs.

As the ISC has noted, since its inception, the WSF has played a vital role in bringing together leaders from the scientific and policy communities to reconsider the evolving responsibilities of science in society (ISC, 2023). In doing so, the Forum has pioneered a form of Track II science diplomacy by providing an informal yet impactful space where,

supported by international institutions yet operating outside of formal governmental negotiations, scientists and policymakers could meet on neutral ground to build trust and cooperation.

Budapest's central location in Europe, coupled with the Hungarian Academy of Science's scientific prestige, made it an ideal setting for this mission. The Academy has remained a cornerstone of the Forum, hosted its secretariat and frequently serving as the local organizer for its editions held in Budapest (WSF, 2023). Its role demonstrates that national scientific institutions in medium-sized countries can exert significant influence in global science diplomacy by establishing inclusive, high-impact platforms.

Evolution of Themes in WSF Declarations (2003–2026)

The WSF declarations, from 2003 to 2026, reflect the changing priorities of the international science and policy community. While the initial declarations reaffirmed fundamental values such as ethical conduct, international cooperation, and science in the service of society, subsequent gatherings have responded to a changing global landscape by embedding new themes, including sustainability, peace, inclusivity, and justice, into the core mission of science diplomacy (WSF, 2019; WSF, 2022)

Initially, the declarations emphasized the role of science in improving the quality of life. By 2013, however, the focus had shifted towards aligning with global development frameworks, including the Millennium Development Goals and, later, the Sustainable Development Goals (SDGs). Sustainability, which was once an aspirational goal, became a structural lens through which challenges such as climate change, poverty and inequality were assessed. This shift also marked the increasing participation of the Global South in WSF dialogues, reinforcing the role of science in shaping a fairer global order (WSF, 2013).

While science diplomacy was implicit in earlier years, it emerged explicitly in the 2011 Budapest Declaration (WSF, 2011), maturing into a central concept by 2017. The Jordan Declaration presented science as a means of promoting peace in regions prone to conflict, and by 2022, diplomacy had become closely associated with solidarity, equity, and cooperation in a divided world. Declarations increasingly framed science not only as a source of knowledge, but also as a means of fostering cultural understanding, negotiating peace and building trust.

Ethics has also remained a constant theme. Initially rooted in personal integrity and research accountability, its scope has broadened to encompass public trust, transparency, and misinformation, particularly in the aftermath of the global health crisis caused by the SARS-CoV-2 virus. Both the 2019 Budapest Declaration, the 2022 Cape Town Declaration and most recently the 2024 Budapest Declaration all emphasised the importance of restoring confidence in science through openness and inclusive practices, the latter focusing on the role of trust in the efficiency of the science-policy interface.The call for Open Science signalled a clear shift in the Forum's discourse. Although knowledge sharing was supported in principle from the outset, it was only in the 2020s that declarations embraced concrete policies. The 2022 Cape Town Declaration explicitly endorsed UNESCO's Recommendation on Open Science, calling for open access, data

transparency and shared infrastructure to ensure equitable participation, particularly for researchers in contexts with limited resources (UNESCO, 2021).

Social justice also gained prominence during this period. While earlier declarations referred to fairness and development, the 2022 Cape Town Declaration placed justice at the heart of science-policy engagement. Concepts such as 'human dignity', 'intersectionality', and 'Ubuntu' were introduced, marking a shift from abstract ethical commitments to concrete engagement with systemic inequality (WSF, 2022). Science was reframed as not only a driver of progress, but also a moral actor responsible for confronting marginalization and exclusion.

The 2024 Budapest Declaration builds on this, emphasizing the urgent need for reliable and innovative science–policy interfaces in a world grappling with climate crisis, democratic decline, stalled development goals and rampant misinformation. The declaration urges governments to establish science advisory systems, safeguard academic freedom, and incorporate ethical oversight into emerging technologies, particularly artificial intelligence. The declaration presents education, early-career support and transparent communication as critical to rebuilding public trust and improving levels of science-literacy (WSF, 2024). Significantly, the declaration endorses the International Decade of Sciences for Sustainable Development, affirming the role of science in fostering inclusive global resilience.

Throughout the declarations, shifts in language mirror a broader conceptual evolution. The earlier emphasis on the 'knowledge economy' has given way to terms such as 'climatic disruptions', 'co-creation' and 'resilience', reflecting a deeper engagement with participatory science and democratic accountability. The relationship between science and society has evolved from dissemination to co-production, emphasizing mutual responsibility and inclusion.

The WSF declarations reveal both continuity and transformation. They reflect a global scientific community that is not only grounded in ethical commitments and the evolution and related challenges of the scientific enterprise, but also increasingly responsive to social realities. As the Forum looks ahead to Jakarta in 2026, themes of open collaboration, justice and resilience are expected to become more prominent, reaffirming science as a cornerstone of equity and peace in an increasingly turbulent world.

Table 1

World Science Forums' locations, themes, and hosts (2003–2026) (WSF, n.d.; ISC n.d.; UNESCO, n.d.; Science Europe, n.d.).

Year	Location	Theme	Host(s)
2003	Budapest, Hungary	Knowledge and Society	Hungarian Academy of Sciences (MTA)
2005	Budapest, Hungary	Knowledge, Ethics and Responsibility	MTA
2007	Budapest, Hungary	Investing in Knowledge: Investing in the Future	MTA
2009	Budapest, Hungary	Knowledge and Future	MTA
2011	Budapest, Hungary	Changing Landscape of Science: Challenges and Opportunities	MTA
2013	Rio de Janeiro, Brazil	Science for Global Sustainable Development	Brazilian Academy of Sciences
2015	Budapest, Hungary	The Enabling Power of Science	MTA
2017	Dead Sea, Jordan	Science for Peace	Royal Scientific Society of Jordan (RSS)
2019	Budapest, Hungary	Science, Ethics and Responsibility	MTA
2022	Cape Town, South Africa	Science for Social Justice	Dept. of Science & Innovation, South Africa
2024	Budapest, Hungary	The Science and Policy Interface at a Time of Global Transformations	MTA
2026	Jakarta, Indonesia	Science for Global Resilience and Equity	National Research and Innovation Agency of Indonesia (BRIN) of Research & Technology (with partners)

The evolution of the WSF from a Budapest-based initiative into a global platform highlights its importance in promoting science diplomacy, both practically and symbolically. Expanding to countries such as Brazil, Jordan, South Africa and, soon, Indonesia has increased participation and brought diverse regional perspectives into the global conversation. The rotation of host countries enriches the Forum's content and emphasizes its commitment to inclusivity, signaling that global science diplomacy is a shared responsibility, not the preserve of a few dominant nations. The thematic continuity across the years, anchored in ethics, responsibility, and sustainability, combined with the introduction of new priorities such as open science and social justice (WSF, 2024a), illustrates a forum that is both principled and responsive. It adapts to emerging challenges while reaffirming its foundational values, a dynamic reflected in the progression of its declarations.

Key Participants and Stakeholders in the WSF

Science diplomacy functions through three interconnected dimensions. First, scientific expertise contributes to shaping foreign policy agendas (science in diplomacy). Second, diplomatic tools are employed to enhance international scientific collaboration (diplomacy for science). Third, scientific cooperation is used strategically to foster more constructive international relations (science for diplomacy) (The Royal Society & AAAS, 2010). One of the clearest indicators of the WSF's significance in the field of science diplomacy is the diversity and stature of its participants. Since its inception, the Forum has brought together voices from a variety of disciplines, sectors and regions at the

intersection of science, policy and society. Its conferences are visited by participants from well over 100 countries on each occasion and its Steering Committee puts great emphasis on the diversity of speakers covering not only various domains of science, but also the representation of policy-makers, media and the industry also respecting gender and geographical distribution.

The participation of distinguished scientists, including Nobel Laureates such as Takaaki Kajita (Nobel Prize Organization, 2015), lends the Forum credibility and intellectual weight. Their presence inspires emerging researchers and raises awareness of the Forum's mission to align scientific excellence with societal responsibility. Equally important are the heads of state, ministers and senior diplomats who regularly participate. Figures such as the Hungarian president the president of Brazil, president of South Africa, the King of Jordan, while high-level representatives from UNESCO, including the director-general and assistant director-generals have an enduring institutional presence. These interactions exemplify the WSF's role as a platform for science–policy dialogue and multilateral engagement (WSF, 2017). This was vividly demonstrated during the 2017 Jordan Forum, which brought together leaders from the Middle East, Africa, Europe and the Americas (ISC, 2017).

The institutional landscape of the WSF is equally robust. As a founding partner, UNESCO uses the Forum to promote initiatives such as the International Decade of Sciences for Sustainable Development, which was launched at the time of the 2024 WSF (WSF, 2024a; UNESCO, 2024). The ISC ensures strong scientific representation and policy relevance, with high-profile leaders such as President Sir Peter Gluckman (ISC, 2024), while the American Association for the Advancement of Science (AAAS) have consistently promoted the integration of science into international policy processes, highlighting its value as a strategic tool for global diplomacy and development (AAAS, 2017). Partner institutions including TWAS, IAP, and EASAC contribute expertise from both the Global North and South, reinforcing the Forum's inclusive and globally representative approach to science diplomacy (WSF, 2024a; IAP, 2024). The involvement of the Global Young Academy ensures the presence of the prespective of early-career researhers when shaping the agenda of the Forum and also as speakers. This partnership also represented in the Steering Committee of WSF facilitates cross-regional knowledge exchange and advances collective action. Partner organizations influence WSF declarations and disseminate their outcomes via national academies and UN channels.

National academies and universities are another cornerstone. As a founding institution, the MTA has ensured the continuity and intellectual coherence of the Forum (WSF, 2024a; MTA, 2023). Other hosts, including the Royal Scientific Society of Jordan (WSF, 2017) and the Brazilian Academy of Sciences (WSF, 2013), or the long-standing partnership with the Science Council of Japan in the Steering Committee, further embed the WSF in diverse regional contexts. Bilateral collaboration, such as that between the MTA and the TÜBA, demonstrates how scientific institutions can act as diplomats, extending the Forum's reach beyond formal intergovernmental settings (WSF, 2024b; TÜBA, 2024). Universities also participate at the highest levels with presidents and rectors contributing to discussions on research governance, education, and innovation (WSF, 2024c).

Although the WSF is not a commercial forum, the participation of industry leaders, CEOs and philanthropic organisations highlights its importance in the fields of applied science and innovation (WSF, 2017). Discussions in the private sector have covered topics such as vaccine equity, biotechnology for development and sustainable investment, ensuring that science diplomacy is based on real-world applications and public-private collaboration.

Civil society organisations and youth networks are equally vital. Groups such as the Global Young Academy, through their involvement in developing the programme of the Forum and as regular organiser's of young scientists' workshops in the field of career development or science communication amplify the voices of young people and advocate for issues such as gender equity, indigenous knowledge, and environmental justice (Global Young Academy, 2024; WSF, 2024a). NGOs and media outlets help to communicate the Forum's outcomes to a wider audience, thereby reinforcing the social accountability of science and broadening its impact.

These diverse participants are at the heart of WSF's comprehensive approach to science diplomacy. The Forum provides a neutral and informal environment, which some refer to as a 'diplomatic zone', where scientific knowledge and political realities can interact meaningfully. Informal exchanges, such as a discussion between a minister and a scientist during a break, can lead to tangible results, such as research partnerships, bilateral agreements or contributions to multilateral negotiations. The high profile of the participants also generates significant media attention, amplifying WSF messages and reinforcing the global relevance of science.

By bringing together such a diverse range of individuals under a shared commitment to science for the global good, the WSF demonstrates the unifying power of science. It not only operationalises diplomacy through formal declarations, but also dialogue, engagement and collaboration, thereby affirming science as a trusted platform for addressing common challenges and promoting the mutual understanding among different cultures.

The WSF as a Platform for Global Scientific Cooperation

The WSF has become a key venue for fostering international scientific cooperation and dialogue. Often described as one of *"the leading event of global science policy today"* (WSF, n.d.-a), the Forum brings together scientists, policymakers and representatives of civil society to address common challenges through shared values and collaborative engagement. The WSF's influence in science diplomacy stems from its ability to convene a diverse range of stakeholders, shape international agendas, and facilitate constructive interactions across national and ideological boundaries in a neutral space.

Central to the WSF's influence are its inclusivity and its ability to bring people together. Each edition gathers representatives from well over 100 countries (122 in 2024, WSF), offering a platform where participants from the Global North and South can engage on equal terms (WSF, 2024d). By being held in conjunction with UNESCO's World Science Day for Peace and Development, the Forum demonstrates a steadfast dedication to global cooperation. The outcomes of the Forum often extend beyond the event itself, fostering

cross-regional partnerships, youth-academy networks and new research collaborations (WSF, n.d.-b). These informal exchanges help to break down disciplinary and diplomatic barriers, establishing science diplomacy on a foundation of shared purpose rather than formal protocol.

The Forum also serves as a space for agenda-setting and building normative consensus. Operating outside of intergovernmental structures, yet still attracting high-level participation, it enables open discussion of emerging or politically sensitive topics. Although non-binding, WSF declarations often carry moral and strategic weight. Recurrent themes such as open science, equity and responsible research have strengthened major global frameworks, including UNESCO's Open Science Recommendation and its 2017 Recommendation on Science and Scientific Researchers (UNESCO, 2021). The Forum's early recognition of the need for inclusive, multipolar science has been in line with policy developments by organizations such as the Global Research Council and the ISC.

The WSF also provides a rare venue in which science diplomacy is enacted in real time. Its gatherings have enabled dialogue in contexts of political tension. At WSF 2017 in Jordan, for instance, scientists from Israel, Iran, Palestine and the US engaged in discussions on archaeology and water research (WSF, 2017; ISC, 2017). Similarly, the 2022 WSF in Cape Town brought together global stakeholders amid geopolitical divisions and post-pandemic uncertainty, reinforcing science as a basis for cooperation (Science Europe, 2022). Although, the political conflict did not allow for a lasting continuation on several occasions dedicated sessions werer organised in cooperation with the Israeli-Palestinian Science Organization to promote scientific cooperation in the region. Such events illustrate how the Forum facilitates mutual understanding and enables countries to exercise soft power through scientific exchange.

The Forum goes beyond diplomacy to mobilize scientific communities to address urgent global issues. Whether the issue is climate change, biodiversity, pandemics or artificial intelligence, the WSF articulates shared responsibilities and promotes collaborative solutions. The 2022 Cape Town Declaration, for instance, urged collective action to tackle inequality and ecological degradation (WSF, 2022). Initiatives such as SESAME, a regional synchrotron project in the Middle East, have gained visibility and support through WSF advocacy. Meanwhile, platforms such as the Belmont Forum have used WSF sessions to expand their networks and launch joint research calls.

The WSF reinforces the core values that define science diplomacy: academic freedom, integrity, equity and the idea that science is a global public good. It echoes the legacy of initiatives such as the Pugwash Conferences, affirming that science should transcend political divisions (Gluckman, 2022). By consistently framing science as a shared heritage and instrument for peace, the Forum strengthens the legitimacy of international scientific collaboration in an increasingly fragmented world (World Science Forum, n.d.-f; ISC, 2024).

The WSF occupies a vital space at the intersection of science, policy, and diplomacy. Its flexibility, global reach and normative influence make it a cornerstone of contemporary science diplomacy. Gluckman argues that "science diplomacy -the use of science to

advance diplomatic goals- is critical for addressing challenges to the global commons such as climate change and pandemics" (Gluckman, 2022). At a time when cross-border cooperation is essential, the Forum provides a reliable platform for dialogue, partnerships and collective scientific action.

WSF as an Instrument of Science Diplomacy

The WSF plays a prominent and multifaceted role in science diplomacy, contributing to all three of its core dimensions: science in diplomacy, diplomacy for science and science for diplomacy. Thanks to its distinctive format, the Forum has established itself as a reliable platform for aligning scientific collaboration with global policy, cultivating international partnerships, and promoting shared diplomatic objectives. Initiatives such as SESAME and the IPCC exemplify how science can contribute to diplomacy by fostering international collaboration, promoting peace, and supporting the implementation of the Sustainable Development Goals (UNESCO, 2021). The evolving role of science diplomacy is increasingly recognized as a means to align science and policy in addressing global challenges and fostering science for peace (International Science Council, 2024).

The WSF facilitates *'science in diplomacy'* by integrating scientific knowledge into diplomatic processes. It provides a platform through which science can inform global policy debates, with high-level sessions often featuring diplomats, UN officials, and science advisors. At WSF 2024, for example, Csaba Kőrösi, President of the 77th UN General Assembly, emphasized the importance of incorporating scientific insight into multilateral decision-making processes (UNESCO, 2024). Discussions on artificial intelligence, climate governance and emerging technologies regularly result in recommendations that have an impact beyond the Forum (ISC, 2024). The participation of organizations such as UNESCO, the OECD Global Science Forum and the European Commission guarantees that the Forum's outcomes influence policy at global forums. Declarations are often referenced in diplomatic contexts, for example, Hungary's 2011 'New Era of Global Science' declaration was circulated within UNESCO as a model for formal resolutions, demonstrating the impact of WSF texts on multilateral agendas.

The role of *'diplomacy in science'* is evident in how countries engage with the WSF itself. Hosting the Forum requires diplomatic efforts, which are often secured through sustained negotiations and multilateral coordination. For example, the WSF 2017 in Jordan was made possible through the diplomatic leadership of Princess Sumaya, in collaboration with UNESCO and national governments. Similarly, South Africa (2022) and Indonesia (2026) used diplomatic channels to secure hosting rights, elevating their scientific profiles and deepening international cooperation through the Forum (WSF, 2022). These efforts have tangible benefits: following the 2022 Forum, for example, South African research institutions reported increased interest from global funders and collaborative proposals.

Most notably, the WSF uses scientific engagement to foster international understanding and cooperation, demonstrating *'science for diplomacy'*. It provides a politically neutral space for dialogue around shared challenges such as health, climate and education. The Forum has supported scientific partnerships across political divides. For example, the

2017 session on the SESAME synchrotron project brought together scientists from Israel, Iran, and Palestine (WSF, 2017). Similarly, the 2011 WSF featured disaster risk collaborations between Japan and China (WSF, 2017), while the 2022 WSF enabled quiet diplomatic exchanges on vaccine equity between representatives from the Global North and South (WSF, 2022; WHO, 2022). These encounters exemplify how science can act as a bridge where formal diplomacy may falter.

The 2022 Cape Town Declaration reaffirmed this role, urging science to promote justice, equity and sustainability. It emphasized the ethical responsibility of the scientific community to address systemic inequality and support peaceful, inclusive development. The Forum's consistent advocacy of peaceful applications of science, and its critique of militarized R&D, highlight its dedication to moral leadership in global affairs (WSF, 2022; UNESCO, 2021).

Crucially, the WSF facilitates multi-level science diplomacy. At a global level, it brings together major stakeholders such as UNESCO, the ISC and AAAS to address cross-border issues, ranging from climate action and pandemic preparedness to AI governance. At a regional level, it facilitates partnerships between research councils in Africa and Europe, for example, which have led to frameworks for joint funding and mobility. Locally, it strengthens bilateral cooperation following WSF 2022, for instance, collaborations were established between South African and Latin American institutions on public health. Within this layered framework, institutions such as the TÜBA have played an active role by hosting panels, co-organizing sessions with the MTA and promoting regional science diplomacy agendas under the WSF umbrella.

The WSF is not just a scientific Forum, it is also a diplomatic instrument. It informs international policy with scientific evidence, enhances scientific capacity through diplomatic engagement and leverages science as a platform for dialogue and peacebuilding. Its inclusive, multi-actor model provides a compelling vision of how scientific cooperation can lay the foundations for global solidarity, governance and resilience. In an era of increasingly complex transboundary challenges, the WSF is a powerful example of science diplomacy in action.

Looking Ahead: WSF 2026 and Emerging Priorities

The 2026 WSF, which will take place in Jakarta, Indonesia, aims to promote science diplomacy under the theme of 'Science for Global Resilience and Equity'(WSF, 2024). According to WSF, the Steering Committee’s earlier decisions, the Forum will emphasize the need to strengthen scientific capacity, both human and institutional, particularly in the Global South. Indonesia's emphasis on human capital highlights the importance of empowering emerging scientists, investing in education, and promoting international collaboration. Proposed initiatives, such as the establishment of a 'Global Science Corps', the expansion of fellowships and improvements to STEM education, aim to curb brain drain and ensure that scientific talent is cultivated and retained worldwide.

The 2026 WSF may continue to argue for a more inclusive and ethical research systems with a potential to contribution to the elimination of structural barriers to participation, particularly for women, marginalized groups, and researchers in low-resource settings.

Ideas such as an 'Inclusive Science Index' or international guidelines for equitable partnerships may emerge. Indonesia's unique geopolitical position, bridging developed and developing contexts, gives it a pivotal role in establishing new global norms for collaboration.

The second core focus will be resilience. In light of recent global shocks, ranging from pandemics to climate disruption, the Forum may explore how science can enable societies to anticipate and recover from crises. Topics may include climate-resilient infrastructure, equitable access to vaccines (WHO, 2022) and early warning systems, and the global sharing of technologies and best practices. These discussions will reinforce the concept of 'shared security', which is based on the idea of collective scientific responsibility (Gluckman, 2022).

Indonesia's leadership will also bring regional priorities to the global stage. Themes such as marine science, tropical disease research and indigenous knowledge are likely to shape the agenda. The Forum may also foster new regional initiatives, such as an ASEAN science diplomacy platform or collaborative open-data frameworks for disaster risk management, reflecting the growing importance of Asia-Pacific perspectives.

The expected outcomes shall be summarized in the Jakarta Declaration, with the potential to affirm the principles of equity, resilience, and openness in science. Recommendations on how to govern emerging technologies, such as AI and gene editing, ethically shall build on previous Forum commitments, shifting the focus from ethical intent to actionable frameworks (ISC, 2024).

WSF 2026 might mark a change in direction also in terms of shifting the focus from establishing principles to reforming systems. If successful, WSF 2026 may also provide governments, institutions, and researchers with practical tools, such as funding models, training programmes, and policy guidelines, to advance science diplomacy.

The Jakarta Forum will however certainly carry forward the central message of the WSF that science is a shared endeavour for the benefit of all humanity. By uniting diverse voices from various regions and disciplines in pursuit of shared objectives such as resilience and equity, WSF 2026 shall reaffirm the Forum's pivotal role in shaping a fairer and more collaborative global scientific future.

Conclusion

The WSF has evolved from a national initiative into a globally respected platform for science diplomacy. At the heart of this success lies the institutional and financial stability provided by Hungarian Academy of Sciences and the invaluable partnership of the most influential international organizations of science, whose foresight in launching the Forum demonstrates how national institutions in cooperation with international partners can influence the global agenda. Through its biennial gatherings, the WSF has brought together a diverse range of voices, including scientists, policymakers and members of civil society, fostering dialogue across regions and disciplines.

A key strength of the Forum is its ability to evolve and respond to new challenges while remaining true to its core principles. From its early emphasis on ethics and responsibility, to its more recent focus on open science, equity and resilience, the WSF has consistently

adapted in response to global changes. Notably, its declarations have introduced inclusive concepts such as intersectionality and shared security, thereby reinforcing the role of science in addressing societal challenges.

With the WSF Jakarta 2026 on the horizon, the Forum is entering a phase focused on systems change, with the potential to shift its focus from declarations to actionable recommendations. If this phase is successful, the Forum will provide practical tools to promote science diplomacy worldwide. The WSF is a compelling example of how science can bridge the gap between nations, showcasing the enduring influence of science academies in advancing science for the greater good.

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Prof. Dr. Muzaffer Şeker graduated from Uludağ University Veterinary Faculty in 1986. Subsequently, Prof. Şeker earned his Ph.D. in Human Anatomy at the University of Leicester, Faculty of Medicine in England, in 1995. He achieved the position of associate professor in 2000 and was promoted to full professorship in 2006. Throughout his career, Prof. Şeker worked as an instructor in the United Arab Emirates for two years and also held the position of the Head of the Department of Medical Education and Informatics at the Meram Faculty of Medicine at Selçuk University. He played a crucial role as a member of the Founding Board of Trustees of Istanbul Medipol University from 2008 to 2010. In December 2014, he was appointed as the founding rector of Konya Necmettin Erbakan University. He has also served on the selection committees of Türkiye Institutes of Health Administration (TÜSEB) Aziz Sancar Science, Service, and Incentive Awards; YÖK Doctorate Awards; TÜBA-GEBİP Awards; and TÜBİTAK Science, Service, and Incentive Awards. He began his role as President of Turkish Academy of Sciences in 2019. Prof. Şeker has also represented his country at the Science 20 Summits, World Science Forum, and many other international scientific events.