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TOGETHER FOR BETTER SCIENCE WITH THE MACEDONIAN ASSOCIATION FOR SCIENTIFIC COMMUNICATION

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ABSTRACT

Introduction: *Scientific communication is fundamental to advancing science, increasing visibility, and integrating science into society. In North Macedonia, there is a recognized need for systematic support for scientists and for an institutional framework that promotes quality peer review, transparent knowledge dissemination, and open access.*

Results: *The Association was founded on June 10, 2025, by distinguished scientific professionals. Its mission is to ensure quality, visibility, and open access to Macedonian scientific output while aligning with international standards. The Association organizes training sessions, peer review workshops, seminars, conferences, and mentorship programs.*

Discussion: *Through its activities, MASC plays a pivotal role in overcoming structural barriers in Macedonian science, promoting intersectoral and international cooperation, and empowering early-career researchers. It strengthens scientific culture, supports ethical research practices, and increases visibility of national research outputs.*

Key words: scientific communication, open science, peer review, research visibility, North Macedonia

INTRODUCTION

Scientific communication is fundamental to modern research, serving as the vital bridge between scientific knowledge generation and its effective transfer to society. As scientific advancements continue to shape everyday life, the need for clear, accurate, and engaging communication becomes increasingly important (Bik and Goldstein 2013). When researchers communicate clearly, they help the public recognize science not only as a technical discipline, but as a fundamental component of real-life decision-making, personal well-being, and collective progress. Strong communication fosters innovation and collaboration by enabling the exchange of knowledge across disciplines, sectors, and social groups. It expands the visibility and impact of research, allowing scientific findings to inform policies, guide responsible investments, and inspire educational advancements. Importantly, effective communication also strengthens trust in science. Open and transparent sharing of methods, results, and uncertainties not only demonstrates accountability but also strengthens the credibility of scientific processes, an especially critical practice in fields where research informs health decisions, environmental policies, and technological advancements (Illingworth 2017; Nielsen 2013).

Despite its importance, traditional scientific training often emphasizes technical expertise while providing limited preparation for engaging non-expert audiences. Scientists may focus on advancing their field, whereas the public seeks to understand the relevance of discoveries to everyday life. Bridging this gap requires accessible language, relatable context, and strategies tailored to diverse audiences. Global challenges such as climate change and biodiversity loss make this especially urgent, as society increasingly relies on accurate interpretation of scientific evidence to guide responsible actions (Roosendaal and Geurts 1997). The significance of improving these skills is also reflected in the growing academic attention to science communication education. For instance, recent work (Massarani et al. 2023) has mapped more than a hundred science communication teaching programs worldwide, highlighting both increasing global interest and persistent disparities in access to such training. Together, these insights underscore the need to strengthen and expand science communication efforts to ensure that scientific knowledge is widely understood, trusted and used for the benefit of society.

In North Macedonia, some prominent academics recognized the need to strengthen local scientific communication and to improve the quality and visibility of national scientific

publications. This growing awareness highlights the importance of supporting initiatives that foster effective dissemination and professional development in science communication. In this context, the present manuscript aims to introduce and describe a new initiative that addresses these needs.

RESULTS

The Macedonian Association for Scientific Communication (MASC) (<https://mznk.mk/>) was founded in response to the growing national need for structured support of scientific and professional publishing, as well as for the enhancement of science communication in North Macedonia. Officially established on June 10, 2025, MASC was created by a board of distinguished experts who recognized the importance of strengthening the visibility of national research and aligning it with international scientific standards.

The vision of MASC is a country with robust, modern, and internationally visible scientific communication, fully integrated into global research processes. Its mission is to provide a platform that promotes the quality, accessibility, and openness of Macedonian scientific and professional publications. By adhering to international standards, the association seeks to ensure that Macedonian research is globally accessible, verifiable, and impactful. As a newly established association (see official website: <https://mznk.mk/en/>), MASC is dedicated to advancing the quality and transparency of domestic publishing, ensuring equitable funding opportunities, and fostering science communication education for students, early-career researchers, and professionals. The association also supports the development of scientific terminology and upholds the highest ethical standards in publishing, reinforcing its commitment to a credible and internationally recognized scientific community.

MASC's work is organized around four main focus areas to strengthen scientific communication and publishing in North Macedonia. The first focus area is dedicated to the support of local publishing and establishment of a scientific community, ensuring that journals and other platforms are of high-quality, reliable and visible. Conferences, seminars, and workshops will help researchers share knowledge, starting with the first seminar, which sets the stage for future training in research and editorial skills. The second focus area is the international cooperation and publishing support, creating partnerships with national and international organizations, providing training for editors and publishers, and promoting science communication in order to reach the wider public. The third focus area concerns the development of scientific terminology and ethical standards, the standardization of the Macedonian scientific language, the support of the multilingual communication, and maintenance of ethical publishing practices to ensure trust and credibility. The fourth focus area is education, transparency, and public engagement, offering training programs, promoting high-quality peer review, and keeping researchers and the public informed about MASC activities to raise awareness of science communication and encourage involvement.

Membership in MASC is open to all professionals involved in scientific communication, including researchers, editors, publishers, librarians, IT specialists, translators, and reviewers. There are two types of membership: regular membership for active participants and supporters, and honorary membership for individuals who have made significant contributions, both providing access to networking, training, publishing support, and participation in national and international initiatives.

MASC's organizational structure ensures transparent and effective management, with the executive board overseeing strategic decisions and membership, and specialized committees supporting projects such as editorial oversight, ethics, terminology, and training. Membership also enables collaboration with national and international organizations and

access to professional networks. The composition and main responsibilities of each body are summarized in Table 1.

Table 1. MASC Organizational Structure

Body / Structure	Main Responsibilities	Composition
<i>Executive Board</i>	Strategic decisions, membership management, representation of MASC	Elected members with active leadership roles
<i>Advisory Committees</i>	Expert review, ethics oversight, terminology development	Experts from different fields
<i>Editorial and Training Units</i>	Training programs, conference organization, publication support	Editors, educators, academic professionals
<i>Membership Community</i>	Participation in activities, knowledge exchange, promotion of MASC goals	Regular and honorary members

At the first meeting of the association, MASC formally established its expert bodies and committees to support its activities and strategic projects. These groups, consisting of editors, specialists, and professionals from various areas of scientific communication, provide professional guidance, review publications, and organize training and events to enhance members' skills. They also ensure that all activities adhere to international standards and ethical practices, maintaining high quality and trust in the association's work. Currently, these bodies include *the Ethics Committee for Publishing Scientific Papers, the Committee for Categorization, Ranking, and Conditions for Editing Scientific Journals, the Committee for Developing a Database of Scientific Journals, the Committee for Open Access in Publishing Scientific Journals, and the Organizing Committee for the Annual Conference on Open Access in Southeast Europe (OASEE)*.

DISCUSSION

The establishment of the Macedonian Association for Scientific Communication (MASC) represents a strategic effort to strengthen scientific communication, publishing quality, and professional development in North Macedonia. By providing structured support through specialized committees, professional training, and networking opportunities, MASC addresses critical gaps in the visibility, quality, and ethical standards of national scientific publications. This initiative is particularly relevant in the context of increasing global emphasis on Open Science, transparency, and the dissemination of research to broader audiences.

International studies of scientific associations, such as research conducted in Portugal, highlight the multifaceted roles these organizations play within science and society (Delicado et al. 2014). Such associations facilitate communication among peers, promote research, disseminate scientific knowledge, represent professional interests, and provide policy advice, with the external societal roles increasingly gaining importance. Cross-national studies indicate that popular science publishing is carried out by a minority of academic staff and generally to a much lesser extent than traditional scientific publishing, yet those who engage in it tend to have higher academic productivity and rank (Bentley and Kyvik 2011). Consistent with these findings, MASC combines internal functions—supporting domestic publishing, training, and networking—with external roles, such as fostering public engagement, promoting ethical standards, and bridging science and societal decision-making. While the internationalization of science has moved many internal collaborations to the transnational sphere, the societal and policy-oriented functions of associations like MASC remain deeply rooted in national contexts, requiring tailored strategies adapted to local needs.

In comparison with similar organizations internationally, MASC aligns with recognized best practices while adapting them to the Macedonian context. The creation of expert committees for ethics, journal categorization, terminology development, and open access demonstrates a systematic approach to maintaining high standards in publishing and scientific communication. These measures are expected to enhance the credibility of Macedonian research, promote cross-disciplinary collaboration, and facilitate participation in international scientific initiatives.

Despite these advantages, challenges remain, including securing sustainable funding, engaging a broad membership, and ensuring consistent adherence to ethical and quality standards. Addressing these challenges will require ongoing monitoring, transparent governance, and strategies to expand participation and professional support for both established and early-career researchers.

CONCLUSIONS

Looking forward, MASC has the potential to significantly impact the national scientific community by fostering professional networks, providing education and training, and advocating for high-quality peer review and publication practices. Its activities may also serve as a model for similar initiatives in Southeast Europe, contributing to regional capacity building and the promotion of ethical, open, and impactful science. Ultimately, the association highlights the societal relevance of scientific communication, reinforcing the essential links between research, policy, and public understanding.

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