



September 2025

Position Statement

Confluence of Visionaries: Empowering Science for Global Change

PREAMBLE

In an era marked by pressing societal challenges, such as climate change, biodiversity loss, water scarcity, political and socio-economic conflict, the convergence of bold ideas and visionary thought leaders from academia, industry and policy has never been so critical to catalyse change.

Early-career researchers (ECRs) play a pivotal role in developing collective solutions and ensuring that emerging technologies are ethically integrated when seeking a more resilient, equitable, inclusive, and sustainable world. They offer fresh perspectives, interdisciplinary thinking, and a strong commitment to inclusive progress, shaping a more connected global research ecosystem. Moreover, ECRs actively contribute to policymaking by providing evidence-based knowledge that informs decisions at local, national, and global levels. Their work drives scientific discoveries and plays a key role in educating future generations and promoting the public understanding of science.

In this scenario, the Global Young Academy (GYA) and the Indian National Young Academy of Science (INYAS) convened 200 participants from 60 countries at the Indian Institute of Technology (IIT) Hyderabad for the 2025 International Conference of Young Scientists "Confluence of Visionaries: Empowering Science for Global Change". The conference marked a strategic effort to foster dialogue and build collaborative networks among emerging and established science leaders, innovators, policymakers, and ECRs from across disciplines and sectors. This joint statement underscores the commitment of GYA and INYAS to foster shared scientific knowledge and technological progress. The following recommendations, which emerged from lively panel discussions, are intended for scientists and scholars across all generations, scientific organizations, industry representatives, and policymakers aiming to empower science to foster global change.

INNOVATION AND ENTREPRENEURSHIP

This panel emphasized the importance of promoting an 'innovation mindset' and discussed how to foster collaborations between researchers and innovators on the one side, and communities on the other. *Key recommendations include:*

- Foster and support innovation originating from nontraditional sectors, such as remote communities, and actively engage beneficiaries in the co-creation of advanced technologies.
- Connect students with communities to generate mutually beneficial social impact.
- Integrate innovation in education at early ages and at many stages of undergraduate to graduate education – to empower individuals to look beyond traditional career paths.
- Support impact-driven solutions, for example, technologies that address health challenges with limited resources.

BUILDING AWARENESS ON ENVIRONMENT, SOCIAL AND GOVERNANCE (ESG) FRAMEWORKS IN THE GLOBAL CONTEXT

The discussion in this panel emphasized that meaningful progress in ESG frameworks requires inclusive stakeholder engagement where local communities, especially those with traditional ecological knowledge, are actively involved in decision-making processes. *Key recommendations include:*

- Foster a deeper understanding of environmental and social risks throughout society by including stakeholders in sustainable development processes. Positive example: India's National Clean Energy Strategy.
- Aim for positive impact not only in the short-term, but also for future generations.
- Contribute to evidence-based science advice: Employ research to help identify best practices and assess outcomes, and to support policymakers in making evidencebased decisions that balance economic growth, environmental stewardship, and social equity.

INDUSTRY 5.0: AUGMENTING HUMAN-MACHINE INTERFACE

Industry 5.0 presents significant opportunities to enhance human development, particularly in low-income regions, where Large Language Models (LLMs) can bridge language barriers in education and use of technologies. At the same time, valid concerns exist, such as biases in the data used to train Al models, and ethical considerations surrounding their development and application. *Key recommendations include:*

- Incorporate youth perspectives into Al development and promote the involvement of women and minorities in science.
- Prioritize equitable connectivity and digital literacy across societies to ensure that the benefits of digital transformation reach everyone.

HEALTH AND NUTRITION FOR GLOBAL WELLNESS

This panel conveyed the importance of translating scientific knowledge into inclusive, actionable strategies to address global health challenges, including mental health, water quality, nutrition challenges, and emerging diseases. *Key recommendations include:*

- Embrace innovation towards sustainable and equitable societal and environmental development in all sectors, as these are at the heart of global wellness.
- Bridge the gap between scientists, policymakers and other stakeholders, fostering holistic and integrated collaboration – institutionally and in response to specific challenges, such as global pandemics.
- Promote trust in science through well-informed science communication.
- Embrace the 'One Health' concept worldwide.

CONCLUSION

Underlying all the recommendations in this statement, ECRs from the signing academies strongly advocate to strengthen sustained support for scientific research and international scientific cooperation. The advancement of knowledge, innovation, and the training of future generations of researchers largely depends on stable and strategic funding that both enhances local capacities and integrates them into global collaboration networks. Reinforcing these dynamics not only increases the quality and relevance of research but also ensures that scientific outcomes contribute effectively to addressing humanity's shared challenges, fostering a more inclusive, equitable, and globally oriented science for the public good.

ABOUT THE GYA

The vision of the GYA is science for all; science for the future, and its mission is to give a voice to young scientists and researchers around the world. The GYA, founded in 2010, is an independent science academy of 200 outstanding early- to mid-career researchers from six continents who are selected from across disciplines based on their academic excellence and commitment to engage with society. GYA members serve five-year terms, and the GYA presently counts members from 100 countries. The GYA administrative Office is publicly funded and hosted at the German National Academy of Sciences Leopoldina. The wide array of GYA activities is supported by a range of international public and private funds.

ABOUT INYAS

INYAS is the first and only recognized young scientist academy of India. INYAS was founded by the Indian National Science Academy (INSA) council in December 2014 with a vision to promote science education and networking among young scientists at the national as well as international level. Currently, INYAS has a total of 119 members and close to 100 alumni. Through diverse initiatives, such as National Frontiers of Science meetings, technical symposia, flagship events, science outreach camps, remote area lectures, career awareness workshops, webinars on current topics, white papers, science competitions, and many more, INYAS is actively working to connect the young scientists of the country as well as the world for science promotion. INYAS provides a platform to exchange ideas, initiate discussions on scientific topics, collaborate among the new generation of scientists, and make the voices of the young researchers heard by senior academicians and policymakers of the country.