



GLOBAL YOUNG ACADEMY

The First Five Years

5

Foreword

There are few opportunities for early and mid-career scientists around the world to engage in dialogue – with each other and with external stakeholders – and contribute to science and society internationally. Likewise, there are few opportunities for major international organizations to easily engage with young scientists from various disciplines and cultural backgrounds.

The Global Young Academy is rapidly filling these gaps. Our main asset is our membership: it is a unique group of committed young scientists who are willing to take risks and go off the ‘beaten track’. Our members venture into new areas and are interested in learning from each other, a necessity for innovation and an asset for bridging different worlds.

We see the GYA as a catalyst, a facilitator and a promoter of the voice of young scientists around the world. A voice that is inclusive, global, and innovative. We have both experienced how valuable this organization has been to our development and networks, and our personal purpose is to ensure that the GYA will continue its growth and achievements.

It is our pleasure to present this brief report on the GYA’s first five years of existence. We are a young organization in many ways, and there is still a substantial growth potential. We have had our first successes, such as our interactions with the UN Secretary General’s Scientific Advisory Board and our project on the Global State of Young Scientists. There is also a lot for us to learn. For example, our diversity and geographical spread mean that we need to work out together how to collaborate effectively. At the same time, this is one of the GYA’s main strengths; where else would we find the opportunity to build capacity in this area, which will be so important in our increasingly connected world?

Our sincere thanks go out to everyone who has contributed to the GYA: our founding members, our current members, all our supporters, our managing office, and the young people and adults in the general public who have engaged with us. It really is about the people, and it is those people who have believed in the GYA from the very start, who have given it an opportunity to grow, that we are indebted to. We look forward to what is to come.



Eva Alisic (Australia) &



Orakanoke Phanraksa (Thailand)

(GYA Co-Chairs)

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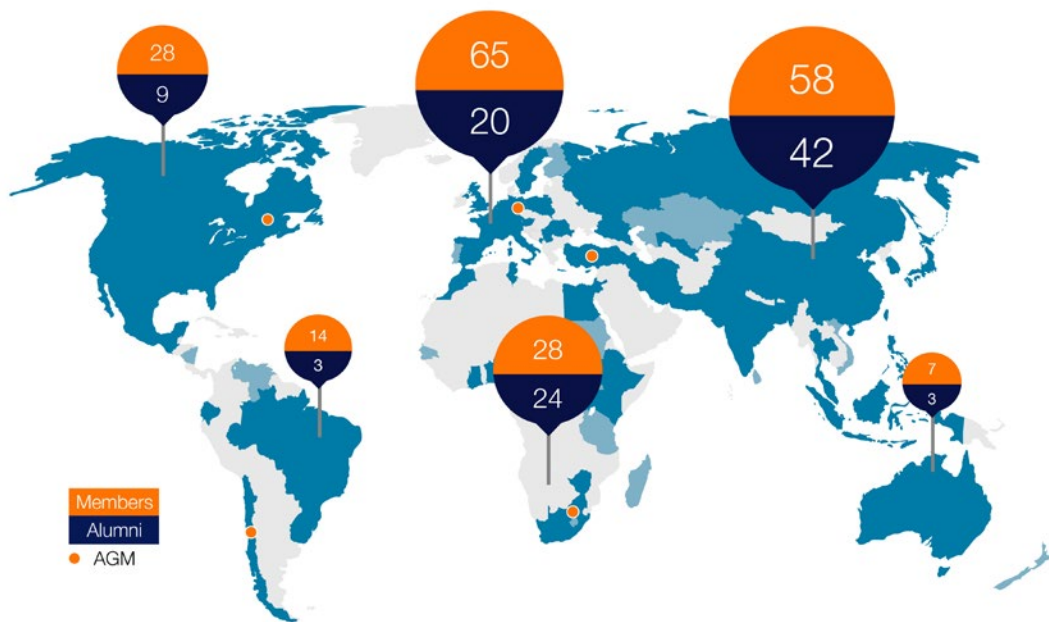
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The First Five Years



The Global Young Academy is a worldwide network of 200 members and 101 alumni from 67 countries.

Graphic: Rob Jenkins / GYA

In just five years since its foundation, the **Global Young Academy (GYA)** has proven its ability to engage with tomorrow's science leaders and play an important role in addressing regional and global challenges. Acting as the voice of young scientists around the world on science and science policy matters, the GYA has become a partner of choice for senior academies, science organizations and networks, and other national and international bodies.

Established in 2010 as an independent academy, the GYA's mission is to empower early-career researchers to lead international, interdisciplinary and intergenerational dialogue by developing, connecting and mobilizing new excellent talent. The GYA provides a forum in which young scientists from across the world can communicate, exchange ideas, and view and enter collaborative ventures. It seeks to make global decision-making evidence-based and inclusive. The GYA aims to make science around the world more effective in discovering new knowledge and communicating this knowledge to society for a better future.

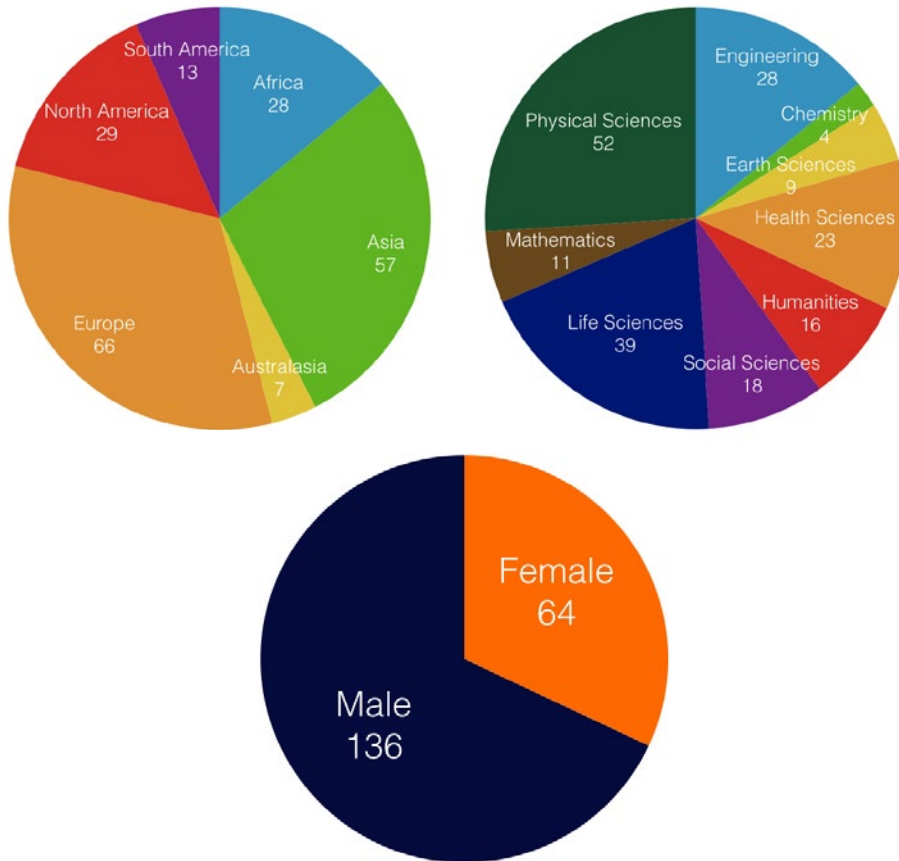
Representing a huge diversity of disciplines, having come of age in a globalized world and having gained experiential awareness of the challenges the world faces, these early-career scientists are a vital asset in confronting these challenges. Thus the GYA not only provides opportunities for young scientists but increases global

scientific capacity to improve the state of the world as well. By connecting talent from a wide range of nations, it also bridges the gap between science in low, middle and high income countries.

The GYA now has a network of 200 members and 101 alumni from 67 countries across the world. Its foundation goes back to the first Young Scientists Forum at the Annual Meetings of New Champions (AMNC) of the World Economic Forum (WEF) in China, held in 2008 and 2009. The IAP – the Global Network of Science Academies, selected a group of young scientists to attend these meetings, and it was there that the young scientists recognized the need for the development of a Global Young Academy to give young researchers throughout the world a voice in the scientific community.

The aims of the group, inspired by the already existing German and Dutch Academies, were expressed in detail in the Tianjin Statement of Global Young Scientists. Just six months after the second AMNC meeting, the GYA was founded by the young scientists at a workshop in Berlin, Germany, with 90 founding members from 43 countries. Each year, a maximum of 50 new members have since been selected to the GYA, with the Academy reaching full capacity at 200 members in 2014. In the same year, a constitutional amendment extended the initial four-year membership to five years; enabling the young scientists to be more effective over a longer term.

The GYA Today



GYA member statistics 2015: by region (top left), by discipline (top right) as well as male-female ratio (bottom)

Graphics: Rob Jenkins / GYA

The GYA now has members from a total of 54 countries, roughly half in developing and half in developed countries. Selection for membership has become increasingly competitive, and the acceptance rate is currently at 18%. Members are chosen on the basis of demonstrated research excellence and commitment to improving the state of science and the science-society interface. The average age of new members is 35 years, having received their PhD three to ten years prior to selection; the five-year term ensures that the researchers really are “young”. When their membership ends, they become alumni and assume supporting and advisory roles.

“ *Now we have a global community of young scientists from all over the world: a network of 200 members and 101 alumni that didn't exist before and was created from scratch; this network allows us to truly be the voice of young scientists.* **”**

Rees Kassen, Canada, Co-Chair in 2012-14.

The activities of the GYA promote diversity, cultural openness and mutual respect in its membership. The Academy is constantly building capacity among its members by developing their soft skills and leadership potential and supporting professional networks. Taking part in Committees, Working Groups (WGs) and Annual General Meetings (AGMs) enhances their skills, and they are expected to

be candidates for future leadership positions in global science.

To date, AGMs have been held in Germany, South Africa, Chile and Canada, with Turkey selected for 2016. The first Annual General Meeting was held in 2011. The AGMs are well attended both by young researchers and by eminent guests, and they receive strong financial backing from the IAP – the Global Network of Science Academies, local bodies within the host countries and the GYA members themselves. The General Assembly, the GYA's highest decision-making body, convenes at AGMs to discuss progress, develop collaborations, address business activities, and elect the GYA leadership. An eleven-member Executive Committee (EC) is elected at each AGM and includes one Co-Chair and at least three representatives each from developing and developed countries.

In 2014, GYA leadership was transferred from the founders to selected members. The Constitution, created in 2010 and revised in 2014 by the General Assembly, offers an effective and transparent framework for the GYA. The Advisory Board consists of internationally recognized scientific leaders keen to promote early-career scientists and support the GYA's development. Rules and Regulations for alumni were adopted by the General Assembly in Halle, Germany, in 2013, and in 2014 a group was tasked with the formation of an Alumni Council.

Finances and Legal Status

Originally a self-relying voluntary organization, the GYA is now an Academy with a budget commensurate with its increasing activity and reach (approx. 650,000 € in 2015). It has benefited from early support from senior academies and their networks: the IAP, the German National Academy of Sciences Leopoldina, the Berlin-Brandenburg Academy of Sciences and Humanities (BBAW) and the German young academy “Die Junge Akademie” (JA), who co-sponsored the GYA foundation meeting in 2010. Backed by the German academies and seed-funding from the Volkswagen Foundation, the GYA was able to recruit its first professional staff in October 2011, a Managing Director who established a small office hosted at the BBAW in cooperation with the Leopoldina. With follow-up core-funding from the German Federal Ministry of Education and Research (BMBF) for 2014-2016, the office was expanded to a core team of four staff and support for project activities and media work. It lends

professional support and advice, credibility, a legal umbrella, stability and continuity to the GYA, and plays a key role in its professionalization and effectiveness, while also acting as the channel through which the GYA receives sustainable funding.

The GYA does not enjoy the status of an independent legal identity at the moment but has existed under the legal umbrella of the BBAW since October 2011. The scientific independence of the GYA is a core principle shared by all three supporting organisations, and it forms the basis of their cooperation. The GYA is also independent in its science policy, activities, PR and governance and in issuing statements and publications. Furthermore, it maintains independent international relations, including observer status at the IAP since 2011, and it will continue to have this status in the new IAP - InterAcademy Partnership. In future, the GYA may seek affiliation with further international organizations.



Annual General Meetings

Photos: top: Christian Prado; middle: Markus Scholz / GYA; bottom: Florian Wiencek / GYA

Projects and Activities



Launch of the GloSYS Report at the Berlin-Brandenburg Academy of Sciences and Humanities. Photo: Janina Amendt / BBAW

The GYA has issued statements, articles, and op-eds on topical issues and has engaged in or initiated projects that explore or address these issues. Further, the GYA has been invited to contribute to statements issued by senior international science organizations, and it has had an impact on the Global Research Council statement “**Shaping the Future**”. In addition, the GYA actively supports National Young Academies. The Working Groups (WGs) developed by the members address three major themes: Science and Society, Research Environment, Science Education and Outreach.

Projects in the “**Research Environment**” theme aim to understand and improve the research environments for scientists around the world. This is exemplified by the **Global State of Young Scientists** (GloSYS) project, which examines the challenges young researchers face in their home countries and regions. The report launched in January 2014 on the results and recommendations of the GloSYS precursor study had an impact at national and global levels. For example, Thailand agreed to fund the follow-up GloSYS ASEAN study. In reaction to GloSYS recommendations, the University of Pretoria launched the **Africa Science Leadership Program** (ASLP)

in partnership with the GYA to address two central issues, mentoring and support structures, and focused training to increase the leadership skills of early-to-mid-career African academics.

In “**Science and Society**”, GYA members spoke at the first two meetings of the UN Secretary-General’s Scientific Advisory Board (SAB), using the opportunity to present the GYA response to the report by the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda. GYA collaboration with the European Commission’s Joint Research Centre (JRC) led to the JRC-GYA “Invisible Worlds” project, which seeks to expose and enumerate various “**invisible worlds**” embedded in everyday life. Other topics addressed in this theme comprise “**Climate Change**”, which includes collaborations with the U.S. National Academy of Sciences, the United Nations Foun-

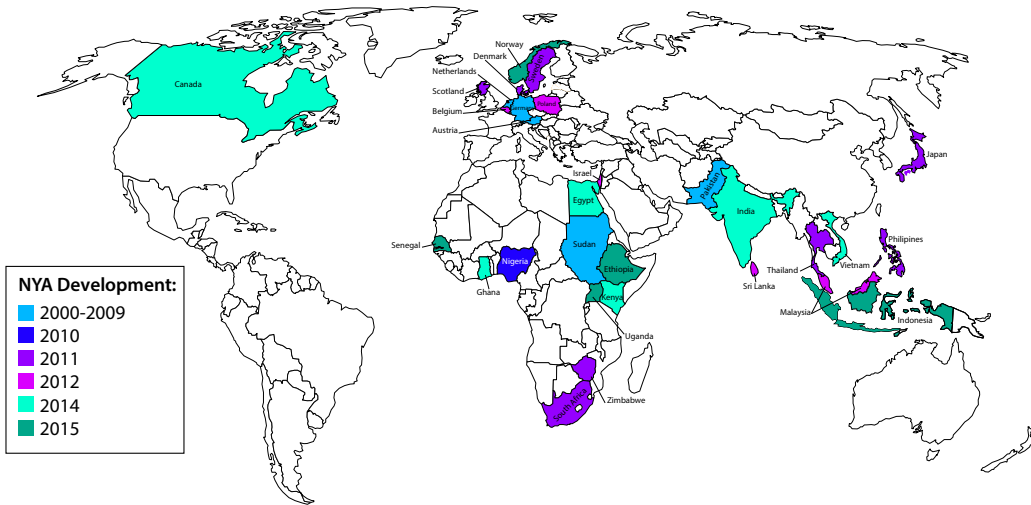
ation, and the International Council for Science (ICSU). A project with the IAP seeks to identify best practice of “**Solid Waste Management and Green Economy**” in different world regions.

The third theme, “**Science Education and Outreach**”, is also central to GYA’s goals, as members of the GYA strongly believe that scientists need to do more to contribute to society than simply advance their individual research agendas. Although GYA members are involved in science education in schools at home and abroad, the projects that fall under this theme are wide-ranging and are not limited to traditional educational pathways. As an example, the GYA is supporting the global dissemination of the science game “**Expedition Mundus**”, developed by the Dutch Young Academy for schoolchildren.

Twenty young African leaders convened at the inaugural ASLP meeting in Pretoria, South Africa. Photo: ASLP



The GYA, Global Scientific Bodies, and Non-Governmental Organizations



Map showing the development of National Young Academies by year. Graphic: Florian Wiencek / GYA

The GYA supports National Young Academies (NYAs) worldwide and fosters cooperation between them. Since its inception, 25 NYAs have been established, many of them with support from the GYA and its members. In order to promote global cooperation between young academies, the GYA co-organized the first worldwide meeting of Young Academies in October 2012 and is preparing the second for November 2015. It boosted collaboration among young academies in Africa

and with the senior African academies with a regional conference in early February 2014, and has offered NYAs numerous opportunities to engage in international activities, projects and meetings.

The GYA has benefited from support from senior academies and their networks since it was founded. In 2014, its network, started with the IAP, TWAS – The World Academy of Sciences for the advancement of science in develo-

ping countries and the WEF, was extended to include organizations such as ICSU (the International Council for Science), UNESCO, the EU Commission's Joint Research Centre (JRC), the Science and Technology in Society (STS) Forum, the World Science Forum (WSF) and regional networks of academies such as the European Academies' Science Advisory Council (EASAC), ALL European Academies (ALLEA) and the Network of African Science Academies (NASAC).

The GYA's participation in the first joint meeting of the leadership from eight distinguished international science organizations (TWAS, IAP, ICSU, UNESCO, IAMP, IAC, OWSD and GYA) in February 2014 was an important trigger for this growth in collaborative activity. The leaders met in the TWAS headquarters in Trieste, Italy, in order to discuss areas of future cooperation

and a related action plan. The meeting was very helpful for the GYA to convince the other organizations of our unique potential and to increase cooperation with us.

The GYA's success at articulating the value of the voice of young scientists at this joint meeting was quickly rewarded by numerous invitations to contribute to activities and statements and invitations to comment on policy recommendations such as the **"UNESCO Recommendation on the Status of Scientific Researchers"**. The GYA was invited by ICSU to prepare presentations for several world conferences and to nominate members for the delegation to the UN Preparatory Committee Meeting for the Third UN World Conference on Disaster Risk Reduction, which took place in Japan in March 2015.

GYA members spoke at the inauguration of the UN Secretary-General's Scientific Advisory Board, Berlin 2014, emphasizing the importance and value of public science. Photo: DUK / photothek





GYA led a session on “Excellent Young Scientists Aiming to Change the World” at the 64th Lindau Nobel Laureate Meeting, 2014.
Photo: Christian Flemming / Lindau Nobel Laureate Meeting

In 2014, upon recommendation from the Leopoldina, the GYA established a relationship with the **UN Secretary-General’s Scientific Advisory Board (SAB)**. The inaugural SAB meeting in Berlin was addressed on 30 January 2014 by a panel of six young scientists who spoke to an audience including UN Secretary-General Ban Ki-Moon and UNESCO Director-General Irina Bokova. The young scientists highlighted three actions that the SAB might consider to help promote public science: ensuring open access to knowledge, data, and infrastructure, building public trust in decision-making by ensuring the transparent use of knowledge, and supporting more direct engagement by the scientists in decision-making, with the media, and with the public at large. The GYA has also been invited to future SAB meetings, which indicates the SAB’s appreciation for the voice of young scientists.

The UNESCO invited the GYA to contribute to the UN Global Sustainable Development Report, to be submitted to the third session of the High-level Political Forum in June 2015. This call for policy briefs, circulated by the GYA to its network, provided a unique opportunity to highlight issues, research findings and solutions and bring them to the attention of policy-makers.

On 10 December 2014, the GYA delivered a letter to UN Secretary-General Ban Ki-moon that stressed the importance of science for achieving sustainability and poverty reduction. This was the first time that the organization pro-actively commented, delivered statements and gave expert advice on topics of global importance through a UN agency, and it heralded a new phase in GYA activities. The recommendations capture the important role that science must play in forward-looking policy discussions.

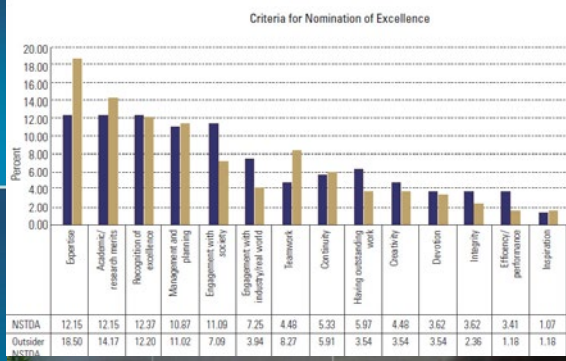


Science Education & Outreach

Photos: GYA; middle right: Dan Gamache / NCR

'The Global State of Young Scientists'
Project Report and Recommendations

Irene Friesenhahn
Catherine Beaudry



INVISIBLE DATA TRAIL (Conceptual)

STRENGTHENING ROLE OF CONFIRMATION BIASES

- Flows of info available
- Profiling in data searches

THE IMPACT OF DATA ON REAL LIFE

Social, political effects
How this is used to create new markets
How this can change our behavior

Look for weak signals
Data "legions" of how society works, "Big Data" Pers. services

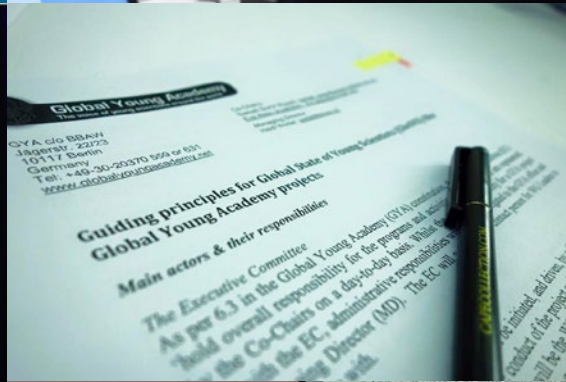
Digital technologies make us leave an unconscious data trail behind. Who controls it, what, ...?

OPPORTUNITIES

- Efficiency increase
- More collaborating
- New business models
- New insights, potential for research
- Tailor-made services
- Good "track records"

CHALLENGES

- Erosion of privacy & democracy (data central, social control)
- Safe guarding the data
- Using the data to discriminate
- Maintaining/Regaining ownership of data
- Persistence of data trails
- Assigning value to data
- Who decides what info you get?



Engagement/Outreach

Scientists and Engagement/Outreach



Research Environment

Science & Society

Information provided in this questionnaire will be kept strictly confidential. To maintain participant anonymity, the survey is identified only by a Photos: GYA; middle left: Fonds de recherche du Québec; bottom right: ICSU CODATA

International Committee on Data for the Environment

Photos: GYA; middle right bottom: WEF Annual Meeting of the New Champions 2015



**GLOBAL
YOUNG
ACADEMY**

2015