



**GLOBAL  
YOUNG  
ACADEMY**

**2018**





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ACADEMY**

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## GYA in 2018

For the last 10 years, the overall goal of the GYA has been to nurture a global network of the next generation of science leaders committed and capacitated to affecting positive change in society. In 2018 we report on seven overarching areas that have emerged from the wide range of our members' undertakings.

### *Engaging in capacity-building activities*

Building on the key challenges for young scientists established by the Global State of Young Scientists (GloSYS) research project, the GYA worked with partners at Know Innovation to develop a Science Leadership Programme (SLP) that addresses the specific needs of early-career researchers. In 2018, the GYA co-organised such workshops in Thailand, Panama, Japan and South Africa.

### *Actively engaging with the United Nations Sustainable Development Goals (SDGs)*

GYA members and members from National Young Academies around the globe participated in United Nations (UN) regional Annual Fora on Sustainable Development, hosted by the respective UN Regional Commissions in Chile, Thailand, Lebanon and Senegal.

### *Participating in global and regional science policy fora*

In addition to attending UN SDG workshops in Mexico, Malaysia, Germany, and Kenya, GYA members attended meetings such as the 2018 Next Einstein Forum Global Gathering in Kigali, Rwanda, the Second Open Science Forum for Latin America and the Caribbean in Panama, the Third International Network for Government Science Advice Biennial Conference in Tokyo, and the World Social Science Forum in Fukuoka, Japan.

### *Self-assessment*

The GYA's upcoming 10-year anniversary presents an opportunity to reflect on and celebrate individual and group accomplishments, and to inform future strategic planning. The GYA commissioned an impact assessment in late 2018 that was conducted by independent consultants.

### *Mentoring and outreach activities*

Three GYA working groups – the Young Scientist Ambassador Programme, Science Education for Youth, and Expedition Mundus – travelled far and wide in 2018 to promote science education. For example, the inquiry-based science education game Expedition Mundus was played in Poland, Cambodia, Indonesia, Morocco, the Philippines, Israel, and Brunei.

### *Novel perspectives on emerging science issues of societal relevance*

Many people wonder why they should trust science these days. The GYA's Trust in (Young) Scientists working group aims at contributing an answer. In other areas, the GYA's At-Risk Scholars Initiative supports exceptional at-risk and refugee early-career researchers in continuing or re-establishing their scientific careers through a mentorship and membership programme. GYA members' respective activities have also resulted in published statements on the conservation of biodiversity, healthy ageing (our Annual General Meeting Report), and open science, as well as reports on the role of citizens in refugee integration and open publishing.

### *Improving science education and training environment*

The success of GloSYS ASEAN and GloSYS Africa have motivated a detailed investigation into the challenges faced by researchers in Latin America and the Caribbean (LAC) countries. The GYA is currently working on a funding proposal for a GloSYS LAC study, which will be its third regional GloSYS project.

These articles represent an overview of the GYA's activities. For ongoing and updated information, please visit our website at [www.globalyoungacademy.net](http://www.globalyoungacademy.net), where you can subscribe to our newsletter or Quarterly Bulletin, or follow us on Facebook or Twitter. A variety of publications are also available for download.

*Connie Nshemereirwe, Co-Chair (Uganda)*  
*Tolu Oni, Co-Chair (UK)*

## Stories

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The logo for the Sustainable Development Goals (SDGs) features the words "SUSTAINABLE DEVELOPMENT GOALS" in a bold, blue, sans-serif font. The word "GOALS" is significantly larger than the others. The letter "O" in "GOALS" is replaced by a circular icon composed of 17 colored segments, each representing one of the 17 SDGs. The logo is centered within a circular arrangement of 17 colorful, wedge-shaped segments that radiate outwards, creating a sunburst effect. The colors include shades of blue, green, red, orange, and yellow.

# SUSTAINABLE DEVELOPMENT GOALS

## 1

### The role of young academies in achieving the UN SDGs

#### **GYA members participate in regional workshops on the UN SDGs**

The United Nations Sustainable Development Goals (SDGs), adopted in 2015, are a universal framework specifying the agenda for global development until 2030 in a variety of fields. Achieving them will require considerable institutional and policy investment at all levels of governance, including local, national, regional and global.

The GYA and its members continue to actively engage with the SDGs through the work of its 20 working groups, and by collaborating with a number of national young academies (NYAs) and the InterAcademy Partnership (IAP).

In 2018, the GYA and its members and alumni were part of a concerted effort by young and senior academicians to engage with the UN Regional Commissions and with each other on the implementation of the UN SDGs. GYA members and members from NYAs around the globe participated in UN regional Annual Fora on Sustainable Development, hosted by the respective UN Regional Commissions and attended by their member states and different stakeholder communities in Chile, Thailand, Lebanon and Senegal. This effort has been part of the IAP / Carnegie project on improving scientific input to global policymaking, which will report in early June 2019.

Complementing this work, 17 NYAs and several GYA members have participated in four regional workshops hosted by IAP and its regional networks: in Mexico for academies in the Americas; in Malaysia for Asian academies; in Germany for European academies; and in Kenya for African academies.

Workshop participants were introduced to key regional and national implementation processes and to scientists within the region who are playing leadership roles for the UN. Using dynamic, interactive methodologies, a voluntary action plan for each region was developed, based on wide-ranging ideas generated by workshop participants. These provide examples of how young and senior academies, and their members, can work together regionally, nationally and institutionally to better support the SDGs to 2030.

In 2018, the GYA also introduced a section on its website dedicated to the UN SDGs. This site aims to show how GYA members' activities align with these goals, be it through its working groups, by participating in meetings on the implementation and monitoring of the SDGs, or by providing science-based policy advice.

The GYA and the UN SDGs:  
<https://globalyoungacademy.net/sdgs/>

InterAcademy Partnership SDG Project:  
<http://www.interacademies.org/36061.aspx>





## 2

### GYA's impact on young scientists

#### 10 years of GYA motivates self-analysis

Since its inception, the GYA has grown and developed in many ways. Its 10-year anniversary is an opportunity to reflect on and celebrate individual and group accomplishments, and to inform future strategic planning. With this in mind, the GYA commissioned an impact assessment in late 2018, conducted by independent consultants. The two main goals of this assessment were to complement an internal evaluation report submitted to an independent evaluation committee with personal narratives of impact, and to generate data to inform the development of the GYA's next 5-year strategic plan.

Independent consultants worked with the GYA Executive Committee (EC) to put together a survey with the following aims: to better understand how members, alumni, and other young scientists experience GYA activities; to identify the impact of GYA activities on them (as individuals, as well as from an institutional, national and global perspective); and to explore the contribution of the GYA to this impact.

The survey was made available to all GYA members and alumni, members of national young academies (NYAs), and other young scientists and scholars who may have had contact with the GYA. In total, 103 out of 683 people contacted completed the survey. Resulting from this, a report presents a summary of the results of the assessment.

A variety of themes emerged from the respondents' stories. First and foremost was how important the GYA was in helping build networks and friendships and cultivating mutual support.

Respondents also described profound changes that took place in their understanding of and approach to science, as well as an increased awareness of diversity.

Most frequently mentioned (particularly among GYA members/alumni who had played a role as leaders of a Working Group) in the stories was the GYA's contribution to personal development and growth. Second to this was a feeling of increased confidence and overcoming feelings of discrimination. Support to NYAs was most frequently mentioned in Africa, whereas support for exchanges was most frequently mentioned in Europe.

As an overall outcome, in nearly 90% of the stories, respondents stated that GYA assistance was 'essential' or 'important': a large majority of respondents were able to think of a story in which assistance through the GYA played an important role.

These and other findings will help the next generation of GYA leadership support and further develop aspects of the GYA that have a lasting impact on young scientists and researchers, their research environment, and the world.

GYA Impact Assessment:  
<https://globalyoungacademy.net/impact-assessment/>

GYA Impact Assessment Technical Appendix:  
<https://globalyoungacademy.net/impact-analysis-technical-appendix/>



# 3

## Science beyond borders

### GYA members address global migration from many perspectives

Global migration is an increasingly urgent issue, and addressing it requires widespread and broad cooperation. There is also a specific need to protect and support academic researchers fleeing conflict zones around the world. Several GYA working groups and initiatives collaborated to address various aspects of these topics in 2018.

The GYA's At-Risk Scholars Initiative – developed and led by GYA members, and collaborating with a number of partners – supports exceptional at-risk and refugee early-career researchers in continuing or re-establishing their scientific careers through a mentorship and membership programme. By the end of 2018, the Initiative had matched 24 pairs of mentors and at-risk scholars. Another component of the Initiative – supporting competitive membership applications of excellent early-career at-risk scholars to the GYA – in 2018 resulted in the selection of at-risk scholars who will become GYA members in May 2019.

Individual responsibility in refugee integration was the focus of the GYA's Global Migration and Human Rights working group in 2018. An international workshop on 'Global Individual Responsibility: the role of the citizen in refugee integration' aimed to expand on an understanding of the role of individual citizens in refugee integration and to reach new scholarly insights. A resulting report presents recommendations to individuals and policy makers and aims to support and improve conditions for individual action and initiatives from civil society with respect to refugee integration.

In September 2018, members from the GYA

Science Advice working group co-organised an Evidence and Policy Summer School on 'The role of population and migration for sustainable development in the European neighbourhood' together with the International Institute for Applied Systems Analysis (IIASA), the European Commission's Joint Research Centre (JRC), and the International Network for Government Science Advice (INGSA). One of the At-Risk Initiative Co-Leads led a panel session with the Young Academy of Scotland where at-risk professionals highlighted how their personal and professional lives have been affected by their forced displacement. Workshop participants also contributed policy advice to the 'Global Individual Responsibility' report.

Science Advice working group:  
<https://globallyoungacademy.net/activities/science-advice/>

Global Migration and Human Rights working group:  
<https://globallyoungacademy.net/activities/global-migration-and-human-rights/>

Report: Global Individual Responsibility: The role of the citizen in refugee integration:  
<https://globallyoungacademy.net/global-individual-responsibility/>

Read about the At-Risk Scholars Initiative at:  
<https://globallyoungacademy.net/activities/at-risk-scholars-initiative/>





# 4

## Global State of Young Scientists 2018

### A remarkable year of achievements

In 2015, the GYA initiated the Global State of Young Scientists in Africa (GloSYS Africa) project to provide insights into the factors affecting the career situations of young scientists. These insights will be used to formulate evidence-based policy recommendations that highlight the ways in which young scientists can be better supported in their career endeavours. The project surveyed scientists from 14 African countries, as well as the diaspora, who have earned their highest degree within the last 10 years.

Some of the emerging results of GloSYS Africa were shared in the science policy arena in 2018. In March, the GloSYS team presented the preliminary findings of the report at the 2018 Next Einstein Forum (NEF) Global Gathering in Kigali, Rwanda. The GloSYS team was represented by current GYA members Abdeslam Badre (Germany), Fridah Kanana-Erastus (Kenya) and GYA alumnus Abidemi Akindele (Nigeria), as well as Marie Neumann, the GloSYS Researcher at the time. The GloSYS team also ran a well-attended workshop in which they identified opportunities and obstacles to the career development of young scientists in Africa and its diaspora. In August, 2018, the preliminary findings of the project were published in *The Conversation* (Coussens, et al. 2018).

The GloSYS Africa team ended data collection in September 2018. In December, a qualitative analysis meeting was held at the GYA Office in Halle. The meeting was attended by a representative of the GloSYS Africa team (Abdslam Badre), a regional research partner (Yamina El

Kirat), the research assistants (Otilia Chambara and Yewande Raphael), as well as the research team from the GloSYS Office (Fatima Kareem and Matt Keane). Between 12 and 15 December, the group analysed and interpreted the qualitative data collected from the GloSYS interview data, and drew some policy recommendations from their findings. The GloSYS Africa project is now in its final stage, and will be completed at the end of June 2019.

The success of GloSYS ASEAN and GloSYS Africa have motivated a detailed investigation into the challenges faced by researchers in Latin America and the Caribbean (LAC) countries. The GYA is currently working on a funding proposal for a GloSYS LAC study, which will be its third regional GloSYS project.

Coussens, A., Akindele, A., Badre, A., Kanana, F., and Houry-Kassabri, M. 2018. What's stopping young African scientists from achieving their potential?

*The Conversation*.

<https://theconversation.com/whats-stopping-young-african-scientists-from-achieving-their-potential-97404/>

GloSYS Africa team holds well-attended session at Next Einstein Forum in Kigali: <https://globalyoungacademy.net/glo-sys-africa-team-holds-well-attended-session-at-next-einstein-forum-in-kigali/>



# 5

## Empowering future science leaders

### Science leadership training for early- to mid-career researchers around the world

The world needs future global science leaders who think beyond disciplinary and national boundaries, and are equipped with the skills to lead within and outside of their scientific community. With its Science Leadership Programmes and workshops, the GYA aims to identify, develop and nurture these future science leaders.

Building on the key challenges for young scientists established by the Global State of Young Scientists (GloSYS) research project, the GYA worked with partners at KnowInnovation to develop a Science Leadership Programme (SLP) that addresses the specific needs of early-career researchers. In addition to the SLPs developed in Africa and the ASEAN region, the GYA more recently developed one- and two-day pre-conference science leadership workshops to reach more early-career researchers.

In 2018, the GYA co-organised four such science leadership workshops:

1. In the run-up to the GYA's 2018 Annual General Meeting and International Conference of Young Scientists in Thailand, the GYA held its first two-day science leadership workshop for new members, with 27 participants.

2. Co-organised by the GYA and the InterAcademy Partnership (IAP), a joint science leadership workshop involved young researchers and scientists in Latin America in the context of the Second Open Science Forum for Latin America and the Caribbean (CILAC) in October 2018, in Panama. This meeting fuelled a growing momentum to create regional networks and national young academies.

3. Prior to the 2018 biennial conference of the International Network for Government Science Advice (INGSA) in Tokyo, Japan, the GYA – in partnership with the Young Academy of Japan and INGSA – organised a one-day science leadership training workshop, attended by 40 young scientists and policymakers.

4. At the Next Einstein Forum (NEF) in March 2018 – one of the largest gatherings of scientists in Africa to date – the GYA co-organised the workshop 'Connecting Networks to Co-Design Transformative Science Leadership Programs for Africa', along with the Robert Bosch Foundation and the University of Pretoria, South Africa.

The GYA is actively seeking partners to explore a science leadership programme in Latin America. In addition, efforts are being made to launch a science leadership programme for young scientists and researchers across Asia-Pacific Economic Cooperation countries. Pre-conference science leadership workshops in 2019 are planned in connection with the GYA International Conference of Young Scientists in April and the World Science Forum in November.

For more information on the GYA and science leadership programmes and workshops:

<https://globalyoungacademy.net/activities/strategic-project-science-leadership/>





# 6

## News from the global network of young academies

### GYA continues to support the worldwide National Young Academy movement

Since its foundation, the GYA has acted as a supporter and facilitator of the growing global network of young academies, a facilitator of joint projects and statements, as well as regional and worldwide meetings of young academies. Such academies are formed by early- and mid-career young scientists and scholars, typically selected for the excellence of their science research and their commitment to service for society. Young academies and their members work towards giving a voice to young scientists vis-à-vis society, the media and policymakers.

In 2018, the group of national young academies and similar organisations again grew – there now exist more than 50 such young scientist organisations. Additions in 2018 included the Academy of Young Scientists of Benin, the Cameroon Academy of Young Scientists, the Young Academy of the Lithuanian Academy of Sciences, and the U.S. New Voices in Sciences, Engineering and Medicine. The network continues to grow dynamically, with more than 15 initiatives currently active in countries such as Bangladesh, Colombia, Hungary, Nepal, and Switzerland.

A brief survey of the GYA membership in 2018 revealed that of the current GYA membership, more than one-third are engaged in an existing NYA or an NYA initiative, and a large number of those who have been active within the NYA network continue to contribute their experience in this regard after becoming GYA alumni. For example, the launch of the U.S. New Voices was accompanied by an editorial in *Science*, written by GYA alumna Eva Alisic (Australia) and Hans Hilgenkamp.

The GYA continues to support cooperation among NYAs and in 2018 participated in the European and Asian regional young academies meetings.

An Amsterdam meeting of young academies from Europe, organised by the Dutch Young Academy, was the group's largest gathering so far with more than 35 participants representing 17 young academies and academy initiatives. Presentations by each young academy revealed that a number of academies are engaged in similar fields, e.g., at-risk-scholar initiatives, open science, the current state and career prospects of young scientists, engagement with the media or politics, science outreach activities, and concern over increasing challenges to academic freedom.

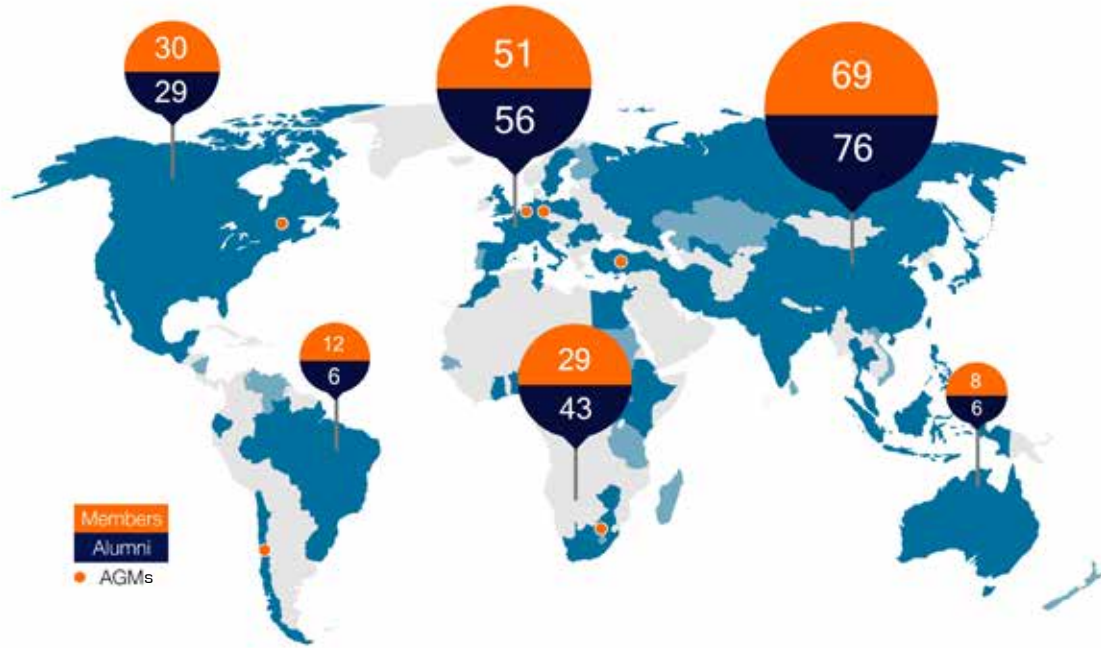
The Israel Young Academy hosted the Asian Young Academies Meeting in Jerusalem, where discussions centred around the role of young scientists in general, and national young academies in particular, in impacting the wider public.

Worldwide Meeting of Young Academies 2019:  
<https://globallyoungacademy.net/events/4th-worldwide-meeting-of-young-academies-2019/>

List of National Young Academies:  
<https://globallyoungacademy.net/national-young-academies/>

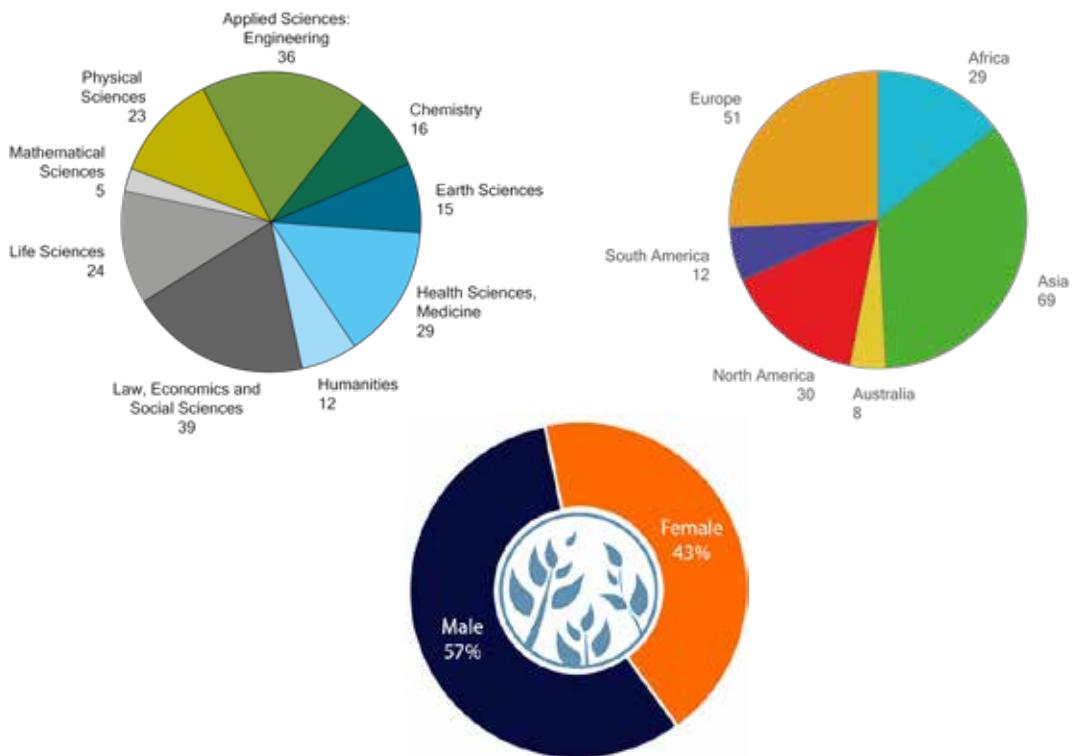
'New Voices, at last', *Science*, September 2018: <https://globallyoungacademy.net/editorial-in-science-launch-of-u-s-new-voices/>

2018 in numbers



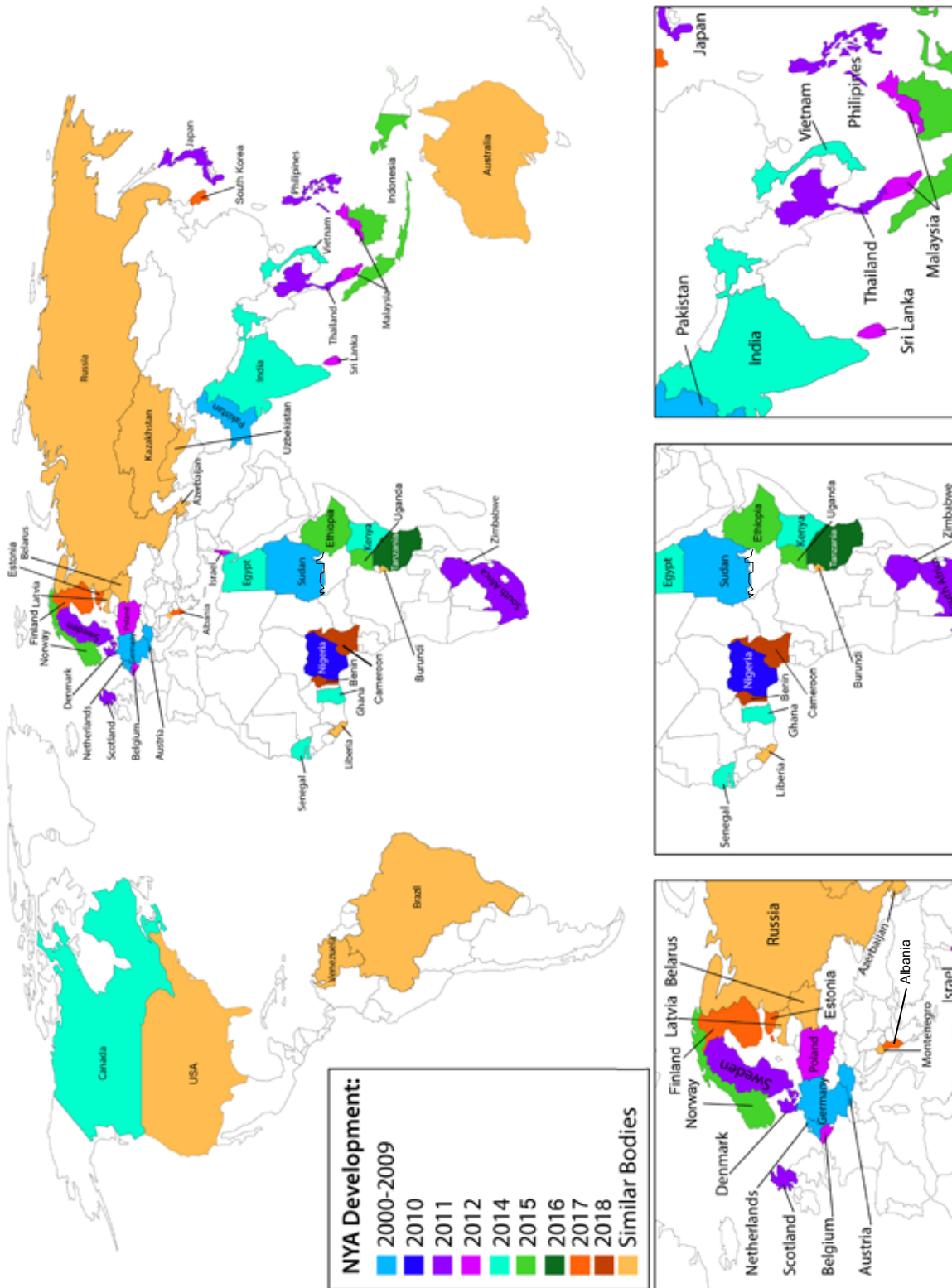
The Global Young Academy is a worldwide network of 200 members. In 2018 the organisation had 216 alumni and was represented in a total of 83 countries.

Graphic: Rob Jenkins, Kevin Bolte / GYA



Our membership comes from six continents and spans a diverse range of disciplines.

# NATIONAL YOUNG ACADEMIES



Over the past years the GYA and its members have been a driving force behind the establishment of NYAs. In 2018 four new NYAs or similar initiatives were launched.





# 8

## Trust in science

### Young scientists seek to gain more of the public's trust

Many people wonder why they should trust science these days. The GYA's Trust in (Young) Scientists working group aims at contributing an answer by opening up the 'black box' of science to a broader audience. The group has been actively involved in a number of projects since its foundation at the beginning of 2018. The issue of trust in scientific knowledge, including the role of experts, is publicly debated around the world. Some see worrying signs of falling trust in science in crucial societal areas. The causes of this development are complex, but in an age of 'hyperspecialisation', trust in scientific knowledge is essential: people simply cannot have expertise in all the areas that are relevant to their lives.

One of the core issues of the problem is that the general public often knows very little about why it should trust scientists, and how much work and care go into establishing scientific claims.

The Trust in (Young) Scientists working group starts from the belief that by better explaining how science actually works, and by showing some of the faces behind the anonymous façade of 'science', trust can be regained. Its projects and activities are designed to help build confidence and trust in science. To this end, the group has produced a series of video clips (3-5 minutes each) that show the 'human faces' of science, and provide reasons for understanding why science is trustworthy. Given that a lot of misinformation appears online, and many discussions are conducted on social media, the internet is an important space for providing more nuanced information and better communication.

During the 2018 Annual General Meeting, a number of GYA members responded to the group's call and answered questions on the topic of trust in science and others regarding their research activities. The group then entered these videos into an ALLEA (European Federation of Academies of Sciences and Humanities) video competition on 'Trust in science'. The group has continued collaborating with ALLEA ever since, for example by interacting with their working group on 'Truth, Trust and Expertise'.

Group members were joined by additional GYA members to participate in the first science media film festival Silbersalz in Halle (Saale), Germany. The event was coordinated by Documentary Campus, supported by the Robert Bosch Foundation, and hosted by the German National Academy of Sciences Leopoldina. The festival served as a platform for scientists and media practitioners to meet and actively engage each other in order to exchange ideas and best practice examples for science communication. Participants learned how to transform scientific progress into compelling stories that can impact and inspire the public.

Trust in (Young) Scientists working group:  
<https://globalyoungacademy.net/activities/trust-in-young-scientists/>

Young Scientists answer questions video:  
<https://globalyoungacademy.net/scientist-questions/>



# 9

## Forever young?

### **GYA annual conference focuses on healthy ageing and sustainable development**

Rapid developments in global health issues and demographic shifts across the globe were at the heart of discussions at the 2018 International Conference of Young Scientists of the GYA in Pattaya, Thailand. Early-career researchers from around the world came together with Thai scientists and other notable speakers to address pressing issues related to new patterns of global economic and population development. Questions raised included the following: How are scientific advances and technological developments implicated in healthy ageing? How are different communities, countries, cultures and organizations responding to changing demographics? How do we build cities and infrastructures that comply with the needs of both the young and old? How can healthy ageing challenges be correlated with broader questions about sustainability, environment protection, poverty and social justice?

In the resulting Conference Statement, 'Creating a world friendly to all ages', (July 2018), the role for young researchers and scientists in addressing challenges and opportunities related to healthy ageing is accentuated. The Statement emphasises the need to re-frame issues surrounding ageing and to recognise and foster links between global and local developments. Following the conference, the GYA and its members continue to be active in the field of health. For example, the GYA working group on Global Health unites prominent young researchers from all over the world in discussions about global health policies (in relation to clinical medicine, public health, environmental health and social studies of health and illness).

GYA conferences are combined with an Annual General Meeting (AGM) – the main forum for GYA members from across the world to communicate, exchange ideas, and enter into collaborative, interdisciplinary projects. Throughout the rest of the year, the connections, plans and projects initiated at the AGMs fuel members' motivation to continue cross-disciplinary, international projects across distances. The 2018 AGM was no different, convening 114 GYA members and alumni who took part in pre-conference training workshops, founded 3 new incubator groups, and actively joined and forged new plans for existing working groups.

Link to Report:

<https://globalyoungacademy.net/agm18-report/>

Link to Conference Statement:

<https://globalyoungacademy.net/gya-statement-on-healthy-ageing/>





# 10

## Strengthening African science academies

### GYA project helps African stakeholders reach out to the public

From 2015, the GYA has been a partner in the 'Strengthening African Science Academies' capacity-enhancement project by the German National Academy of Sciences Leopoldina, the Network of African Science Academies (NASAC), the Academy of Science of South Africa (ASSAf) and the Ghana Academy of Arts and Sciences (GAAS). Supported by the German Federal Ministry of Education and Research (BMBF), the project aimed to foster dialogue between science, policy and society.

Activities within the project were designed to help enable the African Science Academies in communicating relevant scientific findings to African policy-makers and national and regional stakeholders in four crucial fields: health, water management, climate change adaptation, and agricultural biotechnology.

Evidence-based publications on these four topics from a previous Leopoldina-NASAC collaboration in 2011-2015 formed the basis for communication between scientists and policymakers for four communication events. First, the agricultural biotechnology policy booklet was launched in Ethiopia in April 2016. This was followed by the launch of the climate change policy booklet in Mauritius in July 2016, the health booklet in Ghana in October 2016, and the water management booklet in South Africa in November 2016. Based on scientific evidence, these booklets discuss challenges and opportunities and make recommendations for policymakers. All launch meetings included policymakers, scientists and researchers, members of national science academies, and representatives from international organisations.

As a project partner, the GYA contributed to broadening the scope of the project by involving young African researchers and Young Academies in Africa, while at the same time also encouraging and supporting the formation of new national young academies where none exist.

For the project's 2018 conference on 'Sustainable African Cities' in Ghana, in addition to sending four members, the GYA was also able to nominate representatives from the Nigerian Young Academy, and the young academy initiatives in Benin and Zambia to attend the conference and add the voice of young scientists to the discussions.

The project will be closing in early 2019; all publications and reports can be found on the dedicated GYA project website below.

Project website:

<https://globalyoungacademy.net/activities/saa/>

Sustainable African Cities Conference 2018:

<https://globalyoungacademy.net/report-from-the-sustainable-african-cities-conference-july-2018/>

NASAC:

<http://nasaonline.org/>



# 11

## Open Science

### GYA members help lead the way toward Open Science

The GYA's Open Science working group takes the lead when it comes to collaborations between GYA members and various stakeholders in the Open Science movement, and actively promotes policy change towards Open Science. Key activities in 2018 included a workshop in Oxford, UK, participation in several conferences, and three major publications.

The GYA's most recent Open Science publication, 'Publishing models, assessment, and open science' (October 2018), was led by the Scientific Excellence working group. This publication is the outcome of a 2016 workshop that explored the links between scholarly publishing, research evaluation, and Open Science. A key conclusion of the report is that a new global culture of dialogue and debate is necessary, and the research community should be in the driving seat of change. GYA alumnus Martin Dominik (UK), the lead author of the report, points out that 'The global research ecosystem continues to change. Not assuming an active role means that others will determine the direction.'

An active role is just what the GYA adopted when it led and coordinated a joint young academy statement on 'Opportunities and Challenges for Implementing Plan S – The View of Young Academies'. This statement is a reaction to 'Plan S', which was launched in September 2018 by cOAlition S, with support from the European Commission and the European Research Council. 'Plan S' is an initiative aiming to make full open access a reality for all publicly-funded research publications by 2020.

Authored by GYA members Koen Vermeir (France), immediate past Co-Chair Moritz Riede (UK), and alumna Sabina Leonelli (UK) on behalf of the GYA, the Joint Statement is based on input from and discussion with the following young academies: Young Academy of Sweden, Hungarian Young Academy Initiative, Young Academy of Scotland, Young Academy Finland, Dutch Young Academy, Israeli Young Academy and the Belgian Young Academy.

The third publication in 2018, 'Global Access to Research Software: The Forgotten Pillar of Open Science Implementation', was launched during an international workshop on Open Science. The March 2018 workshop, 'New Perspectives on Open Science', was co-organised by the GYA and Maison Française d'Oxford, and explored fair access to research software.

The GYA and other young academies look forward to further engaging in the ongoing discussions around the implementation of Plan S, as well as all other issues that fall under the Open Science banner.

Publishing models document:  
<https://globalyoungacademy.net/publishing-models>

Plan S document:  
<https://globalyoungacademy.net/plan-s>

Global access to research software document:  
<https://globalyoungacademy.net/gars-report>





# 12

## Science education and outreach

### **GYA working groups travel the world and explore unknown planets**

Three GYA working groups – the Young Scientist Ambassador Programme, Science Education for Youth, and Expedition Mundus – travelled far and wide in 2018 to promote science education.

Members of both the Young Scientist Ambassador Programme (YSAP) and the Science Education for Youth working groups organised a science outreach mission (a caravan) in Siem Reap, Cambodia in May 2018. The caravan held four workshops for high school and elementary school children during which they aimed to establish an equitable mobile laboratory to stimulate interest in STEM careers at an early age.

In addition to the caravan, two missions were undertaken, one each in Serbia and India. In December 2018, GYA member Mirabbos Hojamberdiev (Uzbekistan) visited the Indian Institute of Technology in Jodhpur, India, where he conducted a science outreach programme at the Government Senior Secondary School of Barni Khurd, and also delivered a seminar talk at the Indian Institute of Technology in Jodhpur, India.

In October 2018, the University of Belgrade in Serbia served as host to a GYA YSAP mission. A key outcome of this mission is the renewed interest of senior professors to help establish a network or academy for young scientists.

The inquiry-based science education game Expedition Mundus, created by the Dutch Young Academy in 2011, offers a tangible example of the type of project promoted by the GYA to encourage globalising best practices. In this game, high

school students take on the role of researchers exploring an unknown planet called Mundus in which they are encouraged to think like scientists, formulate hypotheses, test them and then report the results.

In 2018, Expedition Mundus was played in Poland, Cambodia, Indonesia, Morocco, the Philippines, Israel, and Brunei.

Expedition Mundus is available in the following languages: Dutch (2011), English (2014), German (2015), Swedish (2017), Hebrew (2018), Arabic (2018), Indonesian (2018; basic game level only).

Young Scientist Ambassador Programme:  
<https://globalyoungacademy.net/activities/young-scientist-ambassador-program/>

Science Education for Youth:  
<https://globalyoungacademy.net/activities/science-education-for-youth/>

Expedition Mundus:  
<https://globalyoungacademy.net/activities/844/>



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## About the Global Young Academy

The Global Young Academy (GYA) was founded in 2010 with the vision to provide a voice for young scientists around the world. The GYA empowers early-career researchers to lead international, interdisciplinary, and intergenerational dialogue by developing and mobilising talent from six continents. Its purpose is to promote reason and inclusiveness in global decision-making. Members are chosen for their demonstrated excellence in scientific achievement and commitment to service. Currently, there are 200 members and 216 alumni from 83 countries.

The GYA is hosted at the German National Academy of Sciences Leopoldina, and received its seed funding from the Volkswagen Foundation. Since 2014, the GYA receives core funding from the German Federal Ministry of Education and Research (BMBF) and is also supported by the InterAcademy Partnership (IAP) and other international donors.

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