



AFS GLOBAL STEM

CHANGEMAKERS

2024 Impact Report

Presented by AFS Intercultural Programs





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Empowering the Next Generation of STEM Leaders

Through the **AFS Global STEM Changemakers Initiative**, a five-year commitment to empower 5,000 people in STEM, AFS and bp are on a mission to advance global education and foster the skills needed to build a more sustainable future. The initiative is reaching scholars in diverse communities around the world – from Papua to Pune, from Texas to Teesside, and many others in between. This report details key results of 2024 (the Initiative's third year), which yielded the most diverse cohort to date, and brought the Initiative to **57%** completion of its five-year impact goal.

2024 Highlights & Key Results



1,115 Scholarships
awarded across 6 programs



96 Countries
represented



12,604 Applicants
our largest applicant pool yet



20% Indigenous
and refugee scholarship
commitment



PIEoneer Award
for diversity, equity, and
inclusion



2 New Programs
in the UK, Australia,
and New Zealand



+59% Alumni
community growth



838 Certificates
issued by AFS & Penn CSIS

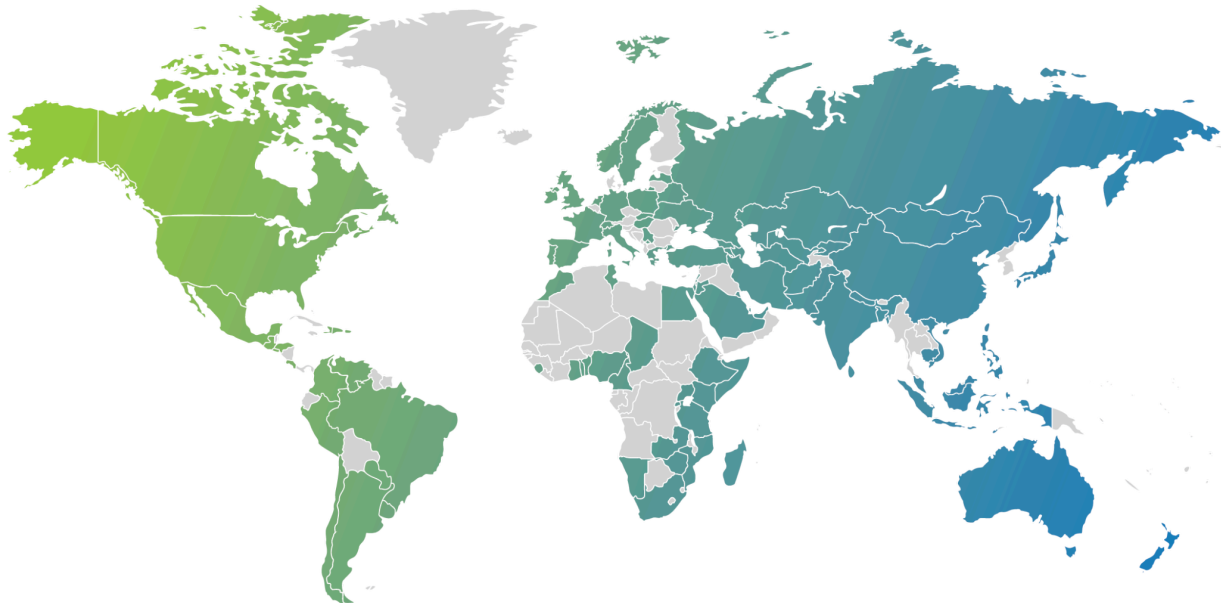


4.7/5 Rating
overall satisfaction

2024 Global Representation

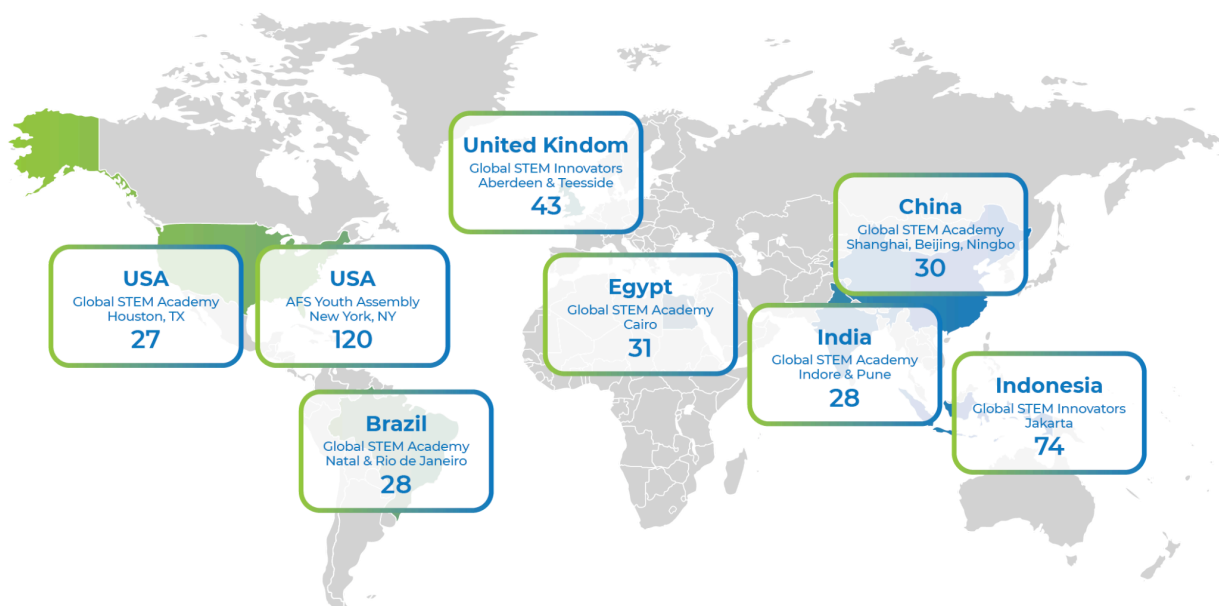
96 Nations Represented

across all programs (virtual and mobility)



8 Program Destinations

hosted 331 scholars traveling from 49 countries





AFS & bp: Breaking Down Barriers to STEM Education

Partnership Case Study

bp has funded scholarships through AFS since 2012, to foster the global skills needed to create a more sustainable future, and to enhance diversity and inclusion in the STEM fields.

In 2022, the partnership evolved significantly, into a groundbreaking \$14.9 million commitment – the **Global STEM Changemakers Initiative** – to empower STEM learning for 5,000 people over five years, including underrepresented groups such as young women, People of Color, Indigenous Peoples, and refugees. Bp chose AFS to receive funding in recognition of AFS' mission-driven impact, educational expertise, and extensive global network of teachers, schools, and volunteers.

Global STEM programs equip diverse people and educators with the critical competencies needed to tackle global challenges, including design thinking, data literacy, collaboration, and social innovation. The Initiative also facilitates a global alumni community, offering continued opportunities for networking, skills development, and engagement with bp.



1,349 scholars from 68 countries have traveled on a Global STEM program since 2022, which have been hosted in 11 countries: Australia, Belgium, Brazil, China, Egypt, Germany, India, Indonesia, the Netherlands, the United Kingdom, and the United States.



1,505 scholars from 118 countries have participated in Global STEM virtual exchange programs, meeting the growing demand for digital skills and inclusive programming. AFS' virtual exchanges extend access to underrepresented groups, including refugees and full-time educators, for whom traditional study abroad is not feasible.



The Global STEM Changemakers Initiative has earned major accolades in international education, including the *PIE* *on* *er of the Year Award* for program innovation, and Diversity Abroad's *EDIIE Award* recognizing strides in diversity, equity, and inclusion.

Global STEM Programs Suite

The Global STEM programs suite has evolved to include **six distinct programs**: three hybrid programs that facilitate both virtual learning and immersive travel experiences, and three fully virtual programs, expanding STEM and intercultural exchange to underserved audiences globally.

AFS GLOBAL STEM ACADEMIES

Modality: 16-week hybrid exchange (12 weeks virtual, 4 weeks travel)
Audience: Teens (15-17.5 years old) from 17 countries
Themes: STEM, social impact, energy, sustainability
Special Focus: Academies have run in nine countries (Belgium, Brazil, China, Egypt, Germany, India, the Netherlands, UK, USA), introducing scholars to sustainable technologies and cultural sites in each market

AFS GLOBAL STEM ACCELERATORS

Modality: 12-week virtual exchange
Audience: Young women (15-17.5 years old) worldwide
Themes: STEM, design thinking, social innovation, prototyping
Special Focus: Outreach conducted with SPARK and Teach for All to include refugee and displaced young women

AFS GLOBAL STEM INNOVATORS

Modality: 6-week domestic exchange (5 weeks virtual, 1 week travel)
Audience: Teens (15-17 years old) in specific geographies
Themes: STEM, intercultural skills, sustainability, energy challenges
Special Focus: Innovators programs have run in Australia, Egypt, Indonesia, and the UK, focused on sustainable technologies, energy, and positive social impact on a national and local scale

AFS GLOBAL STEM EDUCATORS

Modality: 5-week virtual exchange
Audience: Secondary-level STEM educators, globally (age 18+)
Themes: STEM and sustainability in the classroom, global competence
Special Focus: Teachers and schools in underrepresented communities

AFS GLOBAL STEM CHANGEMAKERS AUSTRALIA - NEW ZEALAND

Modality: 12-week virtual exchange
Audience: Teens (15-17.5 years old) in Australia and New Zealand
Themes: Local sustainability challenges, design thinking, social impact
Special Focus: 20% of scholarships are allocated to Indigenous youth



Modality: Multi-day conference and workshops in NYC & Philadelphia
Audience: Young adult leaders (ages 18-35), worldwide
Themes: Climate action, education, human rights, advancing the SDGs
Special Focus: bp sponsors 125+ scholarships annually for Global STEM alumni, educators, and climate entrepreneurs



Global STEM Academies

Convening Future Changemakers in STEM & Sustainability

The Global STEM Academies are full-scholarship exchange programs for teens (ages 15-17.5) that enrich their sustainability knowledge and STEM skills through an interactive, hands-on curriculum, while developing critical global competencies, including problem-solving, analytical skills, intercultural understanding, and social innovation. The program content focuses on the energy transition, sustainability, and positive social impact. Ideal candidates express a keen interest in STEM and sustainability, and share a desire to collaborate with diverse global peers. The Academies provide a unique way for students to gain key global competencies through interactive, intercultural experiences, and develop the skills necessary to thrive in a global economy.

The Global STEM Academies pair an immersive virtual exchange curriculum in social impact and global competence with a unique 4-week travel experience, introducing teens (age 15-17.5) to STEM industry innovations and sustainable technologies in strategic markets. All scholars begin with a 12-week virtual exchange curriculum in STEM and social impact, developed in partnership with the University of Pennsylvania Center for Social Impact Strategy (Penn CSIS), which ran online from 8 March - 9 June. The virtual exchange culminates with student-led social impact projects and presentations that offer potential solutions to real-world challenges, with an emphasis on sustainability and the UN SDGs.

- Applications ran from 13 November, 2023 - 15 January, 2024. AFS received **6,203** applications, reflecting a **3.75%** increase from the previous year.
- AFS awarded **150** winners from **18** countries, including **13** children of bp employees.
 - The winners hailed from Australia, Azerbaijan, Brazil, China, Egypt, Germany, Hungary, Indonesia, India, Japan, Malaysia, Mexico, South Africa, Trinidad & Tobago, the United Kingdom, USA, Spain (via UK), and Switzerland (via UK).
 - The winners' pool represents **62%** women, **36%** men, and **2%** gender nonbinary. *More demographic information can be found in the Demographics section of this report.*

After completing the virtual curriculum, Academy scholars traveled on a four-week immersive experience to one of five Academy destinations: **Brazil, China, Egypt, India, or the USA**. The Academies have run in Brazil, Egypt, and the USA since 2018, in India since 2022, and in China since 2023, each one evolving and adapting upon success from previous years.

Academy programming in person focuses on critical STEM skills and intercultural understanding for global sustainability, as well as local cultural immersion and community service. Scholars investigate how STEM skills and innovations are used to advance opportunities and address societal challenges, particularly around sustainability. The 4-week immersive study abroad experiences took place in:

- **Brazil:** 15 June - 12 July
- **USA:** 2-27 July
- **China:** 6 July - 2 August
- **Egypt:** 18 July - 16 August
- **India:** 30 July - 27 August

Scholars who successfully complete the program receive the Advanced Certificate on Global Competence for Social Impact, awarded by AFS and Penn CSIS, and are invited to join the Global STEM alumni network. An astounding **98%** of Academies scholars earned certification in 2024.

Satisfaction Surveys

The 2024 Academies participants scored the program highly, with an average quantitative assessment of **4.7** out of 5. The table below compares the individual host Academy scores with the overall average program score. Participants rank the overall score of their Academy, and provide specific rankings of the quality and content across various aspects of the curriculum, activities, and experience. *A comparative summary of all program satisfaction surveys can be found in the Satisfaction Evaluation section of this report.*

Academy	Satisfaction Score	STEM Content	Sustainability	Social Impact	Global Competence
ALL	4.7	4.2	4.2	4.4	4.5
Brazil	4.8	4	4.6	4.6	4.6
China	4.8	4.4	3.8	4.1	4.5
Egypt	4.8	4.1	4.8	4.4	4.5
India	4.7	4.2	4.1	4.5	4.5
USA	4.6	4.3	3.9	4.3	4.5



Global STEM Accelerators

Expanding Access to STEM Education for Young Women and Refugees

Systemic barriers hold young women back from accessing quality education globally – especially women of color and refugees – and this gender gap is especially prominent in the STEM fields. The Global STEM Accelerators is designed to tackle these injustices, through an award-winning virtual exchange program that unites diverse young women (ages 15-17.5) from around the world to break down gender barriers in STEM and become changemakers in their communities.

The hands-on curriculum, developed with Penn CSIS, blends STEM learning, social impact, and global competence. Over 12 weeks, scholars develop prototypes for solutions to urgent global challenges, with an emphasis on sustainability. Participants earn the Advanced Certificate on Global Competence for Social Impact, awarded by AFS and Penn CSIS, which provides a unique opportunity for underrepresented young women to receive university-level certification.

AFS conducts global outreach with support from **SPARK**, an international NGO that creates academic and career pathways for young people in fragile nations, and **Teach For All**, a nonprofit network that seeks to expand educational opportunities globally. In addition, AFS developed a new partnership with **Girls Toward Leadership**, a nonprofit that empowers young women in Afghanistan through capacity-building and educational opportunities. As a result of collaborative outreach with these organizations, 20% of Accelerators scholarships were allocated to refugees and displaced young women worldwide, whether from war, violence, or natural disaster.

The program was offered in two cohorts. Applications ran from 1 February - 17 March and 1 May - 1 July, while the cohorts ran from 4 May - 4 August and 24 August - 24 November.

- AFS received **2,665** Accelerators applications from **105** countries in 2024, representing a **21%** increase from 2023. The most-represented applicant countries included Indonesia, Egypt, India, Brazil, Ghana, the UK, and Malaysia.
- AFS awarded **365** diverse scholars from **70** countries, including **35** refugees or internally displaced young women (from countries including Afghanistan, Cameroon, Haiti, and Ukraine) and **seven** Indigenous Persons.

327 Accelerator participants (90%) earned certification from Penn CSIS for successfully completing the program and developing social impact capstone projects.

In a comparative pre- and post-program assessment:

- Scholars demonstrated **noteworthy growth in global competence skills** including perspective-taking (+10%), adaptability (+8%), and engagement with global issues (+6%).
- **95%** said that their participation enhanced their communication skills, connections with global peers, and exposure to diverse cultures.
- **50%** shared that their participation in the program was the first time they had ever been encouraged to express their own ideas.
- Some students even stated that the program was their first or only opportunity to access STEM education – especially the young women joining from Afghanistan. For others, it was their first time meeting female peers from outside of their own communities.

“Connecting with people from diverse backgrounds deepened my understanding of global issues, particularly in sustainability. I enjoyed collaborating on social innovation projects to address climate change. The mentorship sessions were invaluable in helping me refine my ideas, and the program helped me grow both personally and academically. The exposure to sustainability practices inspired me to explore how to implement them in my community.”

– Rana Maged, Accelerators scholar from Qanater, Egypt

To further inclusivity, Global STEM funding provides wifi-enabled tablets and technical support to learners with high financial need, or to those otherwise wouldn't have access to the internet. The program pairs asynchronous, self-paced modules with synchronous, facilitated global dialogue sessions, designed for ease of access. Students' learning is guided by a diverse team of AFS facilitators, working across different time zones to accommodate learners around the world.

The Global STEM Accelerators program provides a unique case study for **creating inclusive and sustainable opportunities for some of the world's most vulnerable populations**. As part of AFS's 2024 International Education Week webinar series, AFS presented a panel titled *Education in Emergencies & Initiatives for Refugees*, highlighting innovative strategies, current practices, and successful models for fostering access and quality education in emergency settings. The panel featured Mursalina Amin from Girls Toward Leadership and Katy Noble from Teach For All, and showcased outcomes and examples of community outreach from the Global STEM Accelerators.



Global STEM Innovators

Introducing Young Leaders to Pathways in STEM

The results of the PISA Global Competence Assessment¹, a global benchmark in secondary education, demonstrate that the majority of **young people believe their behavior impacts the world, but aren't sure how to tackle challenges they see in their communities.**

With this in mind, the **Global STEM Innovators** program aims to provide teens (ages 14-17) with opportunities to collaborate with diverse peers and develop skills necessary to advance a sustainable future. The program is designed as a **domestic exchange**, intended to impact young people in specific geographies with a keen interest in STEM but with limited or no previous exposure. Through a five-week, hands-on virtual exchange curriculum and a weeklong in-person workshop, participants broaden their understanding of STEM and sustainability, while enhancing their intercultural awareness.

Building on previous years' success, AFS continued running the program in Indonesia and the United Kingdom in 2024. AFS received **1,066** total applications across both countries (a 6% increase from 2023) and awarded **125** total Innovators scholars: 75 in Indonesia and 50 in the UK.

UK Innovators

Previously launched in Wales in 2023, the 2024 edition of the UK Innovators program evolved to introduce **50** scholars to sustainable technologies for energy and the climate in **Aberdeen, Scotland** and **England's Teesside Region**.

- Applications ran from 15 March - 2 June. AFS received **208** applications, and granted **50** winners from Aberdeen, Teesside, and South Wales.
- The virtual exchange ran from 8 July - 9 August, and the workshop ran in Aberdeen and Teesside from 11-17 August.
- **47** scholars (94%) successfully completed the program and earned the AFS Global Competence Certificate.

¹ OECD (2020), PISA 2018 Results (Volume VI): Are Students Ready to Thrive in an Interconnected World?, Paris: OECD Publishing.

The workshop included site visits and activities with bp and local community partners, including Aberdeen's Energy Transition Zone, a tour of the Port of Aberdeen, a volunteer service day at VSA's Lin Moor Farm, the Engineering Enterprise Challenge at Aberdeen Science Centre, a visit to Redcar and Cleveland College, and presentations at Teesworks.

"I really enjoyed diving headfirst into this experience and learning about all that's being done to reduce global carbon emissions. This workshop allowed me to discover different career paths in STEM and their integral impact on our world, gain perspective on how to collaborate with different backgrounds and cultures, and make lifelong friendships."

– Eliza Ansari, Innovators scholar from Aberdeen, Scotland

Indonesia Innovators

In its third edition since 2022, the Indonesia Innovators continued to welcome **75** scholars to dive into STEM innovation and create sustainable projects related to the SDGs.

- Applications ran from 15 August - 9 September. AFS received **1,148** applicants from across Indonesia, marking **75%** growth in applications from 2023.
- The program welcomed **75** scholars in total, including **11** students from Papua.
- The virtual exchange ran online from 3 October - 9 November, and the weeklong in-person workshop ran in Jakarta from 12-16 November, with **72** scholars in attendance.
- **70** scholars (93%) successfully completed the program and earned the AFS Global Competence Certificate.

The program continues to earmark a minimum of **10%** of the scholarships for **Papuan youth**, with local support from bp Indonesia. AFS Indonesia and bp Indonesia collaborate towards the shared goal of uplifting Papuan students and the Indigenous peoples of Indonesia.

AFS was honored to welcome a delegation from bp Indonesia to present at the Innovators workshop opening in Jakarta, including:

- Izabella Indrawati, Head of Strategic Planning & Campaign, bp Berau Ltd., Tangguh LNG
- Nancy Marau, Social Program & Local Stakeholder Relation Team Leader, Tangguh LNG
- Erich Pesiwarissa, Indonesia Regional Manager - Trading & Shipping
- Marlon Nauw, bp Geologist
- Philips Arobaya, Papua Project Site Team Lead

"It was a life-changing experience. The hands-on learning and experiments helped us prepare and present our ideas, and making new friends from across Indonesia was the best."

- Nabeel Adriansyah, Innovators scholar from Bengkulu, Indonesia



Global STEM Changemakers: Australia - New Zealand

Inspiring Young People to Create Local Impact

Newly launched in 2024, the Global STEM Changemakers: Australia - New Zealand program welcomes **75** teens from Australia and New Zealand to AFS's award-winning curriculum on social impact and sustainability with Penn CSIS. Over the course of twelve weeks, students engage in hands-on dialogue sessions, and learn how to develop their ideas into usable, testable prototypes to advance the UN Sustainable Development Goals. Scholars develop capstone projects with an emphasis on urgent needs and challenges in sustainable development around Australia, New Zealand, and the Asia-Pacific region.

A minimum of **20%** of the scholarship spots are earmarked for students from the Aboriginal, Māori, Torres Strait Islander, Pasifika, and Indigenous communities. The program is delivered in collaboration between AFS International, AFS New Zealand, and two of AFS's Australia-based affiliates: Value Learning and Friends of AFS Australia (FAFSA).

- Applications ran from 10 April - 14 June, and AFS received **119** eligible applications.
- **75** scholars were awarded from across Australia and New Zealand.
 - This diverse cohort included **16** scholars (21%) that identify as Indigenous peoples from the Aboriginal, Māori, and Pasifika communities, as well as a Palestinian refugee currently residing in New Zealand.
 - The winners also include **2** children of bp employees in New South Wales.
- **65** scholars successfully completed the program and received certification from the University of Pennsylvania CSIS.

"This opportunity was life-changing. It gave me the chance to dive into STEM and social innovation, learning skills I'd never have picked up on my own. It was a huge boost of confidence and inspired me to keep pushing for a more sustainable world. I'm inspired, equipped with new skills, and driven to take action."

– **Ava Haine**, Changemaker scholar from Moura, Australia



Global STEM Educators

Equipping STEM Educators with Tools for Sustainability Education

With global challenges on the rise – from artificial intelligence to climate change – preparing youth to succeed in a digitally interconnected global society has become increasingly important. Educators are central to fostering global citizenship and sustainability education, and studies suggest² that advancing sustainability in the classroom increases students' interest in the environment, positively impacts student well-being, and improves critical thinking skills.

The Global STEM Educators is a virtual exchange program designed for educators to build the skills needed to become globally competent leaders and foster global competence and sustainability in their school communities and beyond. The program is intended for in-service educators who teach STEM subjects at the secondary (high school) level, and strongly encourages teachers from diverse backgrounds, especially those with high financial need, to apply.

Participants examine intercultural issues in education, explore resources for teaching about sustainable development and global citizenship to students, and develop ideas to bridge perspectives on STEM education in local and global contexts. Educators receive teaching resources on sustainability, the UN SDGs, and global citizenship, and boost self-awareness and empathy for diverse cultural backgrounds, perceptions, and behaviors.

- From 1 February - 17 March, AFS received **571** applications from educators in **46** countries, a **4%** increase from 2023.
 - The most-represented applicant countries included India, Indonesia, Nigeria, Pakistan, Ghana, Brazil, Argentina, Azerbaijan, and China. AFS collaborates with **Teach For All** to help reach classrooms in underserved communities worldwide.
- In total, **250** scholars from 41 countries were awarded across two global, virtual cohorts:
 - Cohort 1 ran 6 April - 18 May, and Cohort 2 ran 22 June - 3 August.
- **182** educators (73%) completed the program (nearly double the completion rate of the industry average of just 40% for adult learners).

² OECD (2020), PISA 2018 Results (Volume VI): Are Students Ready to Thrive in an Interconnected World?, Paris: OECD Publishing.



AFS Youth Assembly 2024

“Forge Our Shared Future”

The AFS Youth Assembly is a global platform that cultivates young leaders and changemakers (ages 18-35) through exchange, education, action, and impact. The 29th AFS Youth Assembly convened from 15-18 August in New York City, under the theme “Forge Our Shared Future,” with hundreds of dynamic global citizens from more than 80 countries in attendance.

Thanks to bp’s sponsorship, AFS awarded **150** young adults from **54** countries with scholarships: 50 alumni of Global STEM programs, 50 educators, and 30 Climate Entrepreneurs (all to attend in person), as well as 25 scholarships for a virtual exchange program on global competence. Among the full scholarship winners was **Megan Lim**, a process engineer at bp from the United States, who attended the Climate Entrepreneurship Academy.

Applications for 2024 were open from 7 November - 22 December, 2023. AFS received **2,129** applications from **153** countries, marking a **46%** increase from 2023.

The scholars participate in one of four thematic Academies at the Youth Assembly:

- **Climate Entrepreneurship:** In partnership with New York University (NYU) Center for Global Affairs, participants gain first-hand and theoretical knowledge of founding, financing, and growing a startup in the climate sector, and prototype their ideas.
- **Global Educators:** Hosted by the SUNY Global Center, this Academy engages teachers with interactive skill-building towards global citizenship education. Attendees develop intercultural competencies and methods to foster these in their communities.
- **Changemakers:** In partnership with the University of Pennsylvania’s Center for Social Impact Strategy in Philadelphia, participants learn the fundamentals of creating and testing ideas for social innovation and develop prototypes to solve global challenges.
- **International Affairs:** Hosted in collaboration with United Nations Permanent Missions, delegates bridge understanding across key issues within international affairs and sustainable development, and learn directly from principal actors in the field.



Demographics

Global STEM programs aim to break down barriers for underrepresented communities in the STEM fields, including young women, refugees, Indigenous Persons, People of Color, and students with low-income backgrounds or high financial need.

Below is a summary of self-reported demographics surveyed across 1,115 scholars in Global STEM programs in 2024.

2024 Program Participants	Grand Total	Academies	Accelerator	AUS/NZL	Innovators Indonesia	Innovators UK	Educators	Youth Assembly
# Scholars	1,115	150	365	75	75	50	250	150
• Female	799	93	363	50	48	28	112	105
• Male	309	54		24	27	21	138	45
• Nonbinary	7	3	2	1		1		
Countries Represented	96	17	70	2	1	1	41	54
People of Color	871	136	330	57	70	36	242	n/a ³
Refugee or Displaced Status	31	1	25	1			4	
Indigenous Persons	29	1	7	16	3		2	
Low-Income SES	531	70	215	8	43	12	183	
# bp Employee Children	22	13	2	2	2	3		
# bp Employees	1							1

³ Demographics for Youth Assembly participants are not yet surveyed using the same metrics. A more detailed Youth Assembly demographic assessment will be introduced in 2025.



Global Competence Assessment

Measuring Key Learning Outcomes

AFS programs are designed to develop **global competence** and foster **active global citizenship**. Global competence is defined as a multidimensional capacity to successfully apply **knowledge, skills, attitudes, and values** to global issues and intercultural situations. These include:

- Adaptability
- Critical thinking
- Self-awareness
- Open-mindedness
- Valuing difference
- Effective and appropriate communication
- Empathy
- Global awareness
- Changemaking

AFS defines **active global citizens** as people whose informed, compassionate, and ethical compass drives them to make decisions that contribute to a more just, peaceful, equitable, and sustainable world. Developing active global citizens is at the core of the AFS educational framework⁴ and mission. Active global citizens:

- **Value and belong** to a common and diverse world
- **Inquire critically** about the world around them
- **Understand and relate** to others across differences
- **Take action** toward collective well-being

Research suggests that intercultural learning leads to enhanced critical and comparative thinking abilities, problem-solving and collaboration skills, and more effective communication⁵. This, in turn, can help people to better understand and engage with others, and can lead to interpersonal growth in one's career, community, and home environments.



⁴ AFS Intercultural Programs (2024), Developing Active Global Citizens: A Framework for Active Global Citizenship.

⁵ British Council, Ipsos, Booz Allen Hamilton, et al. (2013), Culture at Work: The value of intercultural skills in the workplace.

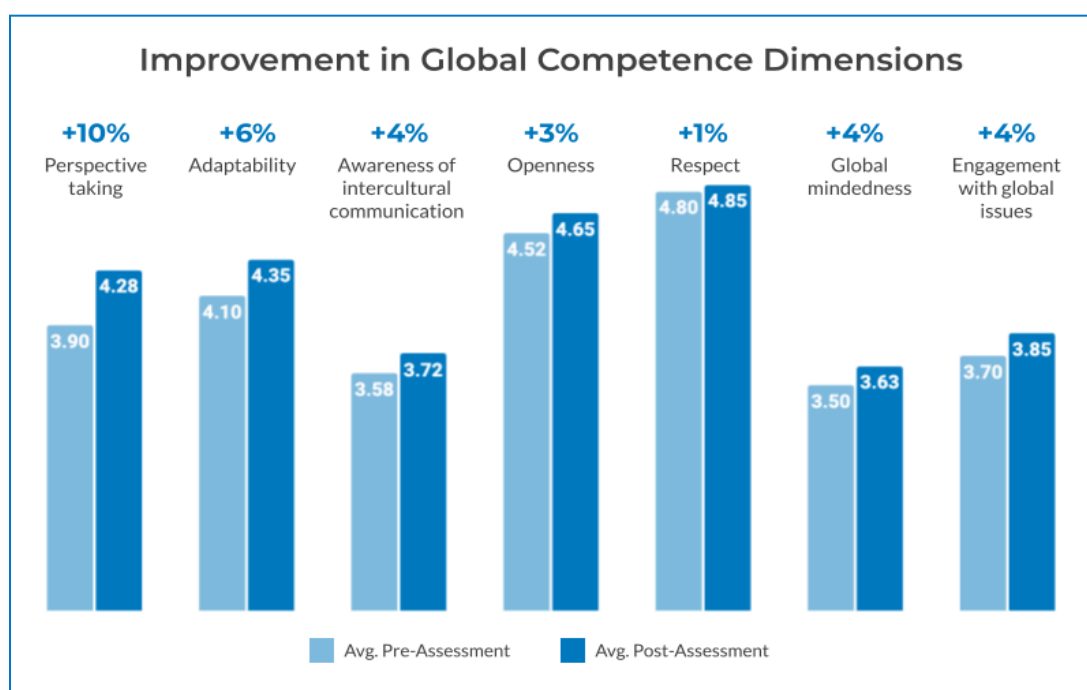
Global Competence Development in Youth Participants

To assess global competence development in youth participants, AFS gauges pre- and post-program self-assessment questionnaires based on the **OECD's Programme for International Student Assessment (PISA)**⁶. The questionnaire comprises 37 statements for respondents to rate themselves on a five-point scale. Each score is combined into an index that refers to the OECD's global competence dimensions⁷ in relation to AFS learning outcomes, outlined below.

AFS Learning Outcomes	OECD Global Competence Index
Critical thinking; Empathy	Perspective-taking
Adaptability	Adaptability
Self-awareness; Effective and appropriate communication	Awareness of intercultural communication
Open-mindedness	Openness toward other cultures
Valuing difference	Respect for other cultures
Global awareness	Global-mindedness
Changemaking	Engagement with global issues

Key Findings – Youth:

- Global STEM participants **demonstrated improvement in all seven global competence dimensions measured**, and especially notable improvement in perspective-taking (10%) and adaptability (6%). A summary of the pre- and post-assessment results is below:



⁶ OECD (2018), Preparing Our Youth for an Inclusive and Sustainable World: The OECD PISA Global Competence Framework.

⁷ OECD (2020), PISA 2018 Results (Volume VI): Are Students Ready to Thrive in an Interconnected World?, Paris: OECD Publishing.

Global Competence Development in Educators

To gauge learning outcomes for the Global STEM Educators program, AFS measures a set of twelve dispositions, knowledge areas, and skills that constitute **globally competent teaching dimensions**. AFS's Globally Competent Teaching Self-Assessment is based on the **Globally Competent Learning Continuum**⁸ (GCLC), and assesses educators' learning development before and after completing an AFS exchange program.

Key Findings – Educators:

- Participants demonstrated **significant improvement in all 12 of the globally-competent teaching dimensions measured**, and especially notable increases in evaluating methods of inquiry (36%), understanding of intercultural communication (30%), and the ability to facilitate active listening, critical thinking, and perspective recognition (28%). A comparison of all pre- and post-program values is summarized in the table below.

Globally Competent Teaching Dimensions	Pre-Program	Post-Program	Percent Change
ALL	3.07	3.66	20%
Valuing multiple perspectives and empathy	3.53	3.82	8%
Advancing equity	3.39	3.83	13%
Understanding of global conditions and current events	3.45	4.11	19%
Understanding of global interconnectedness	3.03	3.73	23%
Understanding of multiple cultures	3.13	3.59	15%
Understanding of intercultural communication	2.97	3.85	30%
Enhancing communication styles and modalities	3.55	3.90	10%
Fostering diversity and global engagement	3.23	3.70	15%
Integrating content-aligned learning	3.13	3.73	19%
Facilitating active listening, critical thinking, and perspective recognition	2.52	3.22	28%
Developing real-world contexts for learning	2.53	3.22	27%
Evaluating methods of inquiry to assess students' development	2.37	3.22	36%

⁸ Tichnor-Wagner, A., Parkhouse, H., Glazier, J., Cain, J. M. (2019). Becoming a Globally Competent Teacher. United States: ASCD.



Satisfaction Evaluation

At the conclusion of each program, scholars are invited to review their experiences, ranging from topics such as the curriculum and facilitated dialogue, to program logistics and preparedness. The table below summarizes the satisfaction scores and Net Promoter Score⁹ of each program.

Program	Overall Satisfaction (1-5)	Net Promoter Score
ALL	4.7	78
Academies	4.8	79
Accelerators	4.8	84
Australia-New Zealand	4.5	65
Innovators	4.8	70
Educators	4.8	87
Youth Assembly	4.7	80

Qualitative Feedback

In the analysis of nearly **1,000** qualitative responses received, the majority of participants highlighted STEM learning, sustainability, and real-world industry insights as standout aspects across all programs. Most participants reported increased confidence in critical thinking and global competencies as a result of participation, and scholars across all programs appreciated the opportunities to engage with global colleagues, mentors, and peers.

“I gained new perspectives and a wealth of innovative problem-solving resources, which have profoundly enriched my approach to engaging in our interconnected world.”

- Harendra Singh, Global STEM Educator, India

⁹ A widely-used market research metric to gauge customer satisfaction and likelihood of recommending an experience or product to others.



Global STEM Alumni Engagement

Fostering Professional Development & Mentorship

The Global STEM Changemakers Initiative offers **two distinct pathways for alumni engagement**: one for youth and one for educators, ensuring continued support and growth tailored to the appropriate context. Once their programs are complete, scholars are invited to join a unique alumni community, where they can network, share and receive peer-to-peer and professional mentorship, and stay tuned to future career-oriented opportunities.

- **AFS Global STEM Alumni Community:** Alumni from the Academies, Accelerators, Innovators, and Australia-New Zealand programs are invited to join the AFS Global STEM Alumni Community – a private network of **1,270** active alumni around the world, with membership growing each year (+59% since 2023). The group, hosted on LinkedIn, provides peer-to-peer and professional mentorship, resources for higher education, and opportunities such as internships and employability sessions tailored to national contexts.
- **Educator Alumni:** Alumni from the Global STEM Educators and the Youth Assembly Global Educators Academy are invited to a dedicated platform specifically for educators, with more than 1,000 active members. This community, hosted on Workplace, fosters resource-sharing, networking, and continued professional growth.

Alumni play a vital role in promoting the Global STEM Initiative's programs, highlighting their personal experiences to inspire and support new participants through social media, peer-to-peer and professional mentorship, virtual information sessions, and outreach efforts.

Alumni Surveys

Each year, AFS surveys Global STEM alumni to follow their progression from high school to higher education and professional pathways. Out of **221** alumni surveyed in 2024, **85%** are currently pursuing higher education degrees in the STEM fields, including artificial intelligence, chemical engineering, computer science, data management, and climate science. **8%** have already completed degree programs and are employed in high-demand career paths including business and finance, engineering, artificial intelligence, data analytics, and climate tech.

Global STEM Alumni Peer Mentor Program

The Global STEM Alumni Peer Mentor program welcomed and trained **108** alumni mentors in 2024, reflecting **140%** growth in the program since 2023. Alumni mentors support current (peer) scholars by participating in program dialogue sessions, and providing tailored insights and advice on the curriculum and capstone projects. Alumni mentors are trained by AFS and overseen by program facilitators, and are matched to the program cohort best-suited to their academic background and professional interests. The program offers alumni a valuable way to stay engaged and develop professional skills such as public speaking and delivering feedback.

"It's amazing to be back, as a mentor, in the program that genuinely transformed my life. I am grateful to give back to this community and see young people enjoy the same experiences."

- **Jana Saber**, Accelerators '23 alumna and Global STEM alumni mentor, Egypt

bp Early Careers Employability Mentorship Program

The bp Early Careers Employability Mentorship program, newly developed in 2024 and set to be piloted in 2025, will pair AFS Global STEM alumni with employees from **bp's Early Careers Graduate and Apprenticeship Programs**. This new initiative will introduce Global STEM alumni to opportunities across bp's sectors, provide career insights through mentorship, and help develop professional skills such as career planning, resume-building, and interview preparation. The program is set to open in 2025 to applicants from 25 countries:

- Australia
- Azerbaijan
- Brazil
- Canada
- China
- Egypt
- Germany
- Ghana
- Hungary
- India
- Indonesia
- Malaysia
- Netherlands
- New Zealand
- Nigeria
- Oman
- Poland
- Singapore
- Spain
- Thailand
- Trinidad & Tobago
- Turkey
- United Arab Emirates
- United Kingdom
- United States

"I'm incredibly thankful for the connections I built, and I want to continue to be involved. What bp is doing is such a powerful thing. We hear a lot that youth are the future, but this empowers us to be part of the present. We're being equipped with the tools needed to become leaders."

- **Maryam Zoweil**, Academies '23 alumna, USA to Brazil



bp Global Engagement

Touchpoints to bp's Business & Operations Worldwide

Global STEM scholars and alumni gain multiple **touchpoints to bp across national and global contexts**, whether on mobility programs or during virtual exchanges. This engagement with bp leaves a lasting impression not only on the scholars themselves, but on their families, schools, friends and peers, host communities abroad, and the many program partners and academic institutions with whom AFS collaborates. Global STEM programs have the potential to create a unique **funnel to bp opportunities worldwide**, while providing a platform for positive impact.

Mobility Programs

Dedicated “**bp Day**” workshops during the **Global STEM Academies** introduce scholars to real-life innovations and careers at bp, and foster engagement with staff across bp's business and operations. The workshops reflect bp's priorities in vital global markets, giving participants exposure to themes such as climate-tech, renewables, automotive technologies, biofuels, and alternative energies. The 2024 Academies' bp Days included:

- **bp America** in Houston, Texas (10 July)
- **bp Brasil** in Rio de Janeiro (10 July)
- **bp China and Lynk & Co. enterprise visit** in Ningbo (18 July)
- **bp Egypt** in Cairo (30 July)
- **bp India** in Pune (26 August)

During the **Global STEM Innovators** workshops, scholars gain exposure to bp operations and innovations in coordination with **bp C&EA teams** in local markets. The 2024 workshops included:

- **Aberdeen and Teesside, United Kingdom** – introducing scholars to **bp Scotland** and local stakeholders including the Energy Transition Zone, Aberdeen Science Centre, Teesworks, Materials Processing Institute, and Redcar and Cleveland College.
- **Jakarta, Indonesia** – introducing scholars to **bp Indonesia** and **Tangguh LNG**.

At the **AFS Youth Assembly**, **Carl Hickson** and **Kathleen Martinez** spoke at the **Climate Entrepreneurship Academy**, hosted at NYU's Center for Global Affairs, reaffirming bp's commitment to helping to generate the future talent the world needs to support the energy transition and the green skills needed for this to happen. Bp-funded scholars were invited to a special networking breakfast to celebrate their accomplishments. Meanwhile, **Kerry Dryburgh** provided valuable insights on the Youth Assembly's Global Leadership Council.

Virtual & Hybrid Exchange Programs

bp actively engages with Global STEM virtual and hybrid exchanges by offering leadership insights and regionally-tailored opportunities for professional development.

- **Kerry Dryburgh** delivered a special video message to all virtual exchange scholars, emphasizing personal growth and bp's commitment to developing the skills needed for a just energy transition.
- **Maxine Cleminson** reinforced bp's dedication to STEM education at the Global STEM Educators debrief, stressing the power of teachers as role models and the importance of equipping students with global citizenship values and STEM awareness.
- **Simone Hinds-Addow**, **Jasmin Gill**, and **Georgia Baker** provided advisory support on Education & Employability at bp, helping to strengthen the awareness and reach of Global STEM opportunities across bp's sectors in strategic markets.

"People are truly at the heart of this transformation, and I'm passionate about making a positive impact through programs like AFS. We believe in you and your power to think critically, to step up to new challenges, and to reach your potential. The world needs curious, thoughtful, and courageous leaders like you, and I couldn't be more excited to see where your paths take you."

- **Kerry Dryburgh**, EVP for People, Culture & Communications, bp

Alumni Community

bp actively supports the AFS Global STEM alumni community by providing mentorship and pathways into **Early Careers programs, apprenticeships, and graduate schemes** in 25+ countries. The initiative reinforces bp's commitment to workplace equity, diversity, and inclusion, and the highly-engaged Global STEM alumni network offers potential funnels for future talent at bp.

Thanks to tremendous support from **Simone Hinds-Addow**, AFS and bp developed the new **bp Early Careers Employability Mentorship Program** to guide alumni pursuing STEM careers across bp's sectors – including Business, Technology, Engineering, Science, and Supply, Trading & Shipping – and to further tap into this growing pool of future talent. *See more detail about the Early Careers Employability Mentorship Program in the Alumni Engagement section of this report.*



Awards & Recognition

Honoring the Global STEM Changers Initiative

In 2024, Global STEM programs and alumni alike were lauded for their positive impact, honored with key educational awards and recognized at high-level forums and events.

- **2024 PIONEER Award for Championing Diversity, Equity, and Inclusion** – AFS received the award for its efforts in broadening access to international education for underrepresented groups. AFS was grateful to join in celebration with bp team members at the PIONEER Awards Gala in London, including Maxine Cleminson, Simone Hinds-Addow, Jasmin Gill, Georgia Baker, Masudur Rahman, and Monica Charters.
- **UNESCO-Hamdani Prize for Teacher Development** – Komlan Abalo Braly, a Global STEM Educators alumnus, won for his initiative to improve literacy and numeracy for 2,400 learners in rural Togo. The prize recognizes innovative solutions to educational challenges.
- **UN Science, Technology, and Innovation Forum** – AFS was invited to host an official side event spotlighting five Global STEM alumni to discuss their social impact projects and the importance of integrating the SDGs into STEM education.
- **UNESCO Prize for Women & Girls' Education** – AFS was nominated for its impact on educational pathways for women and refugees through the Global STEM Initiative.
- **Climate Action Network for International Education (CANIE)** – AFS International became a signatory of the CANIE Accord, reinforcing its commitment to advancing sustainability in education abroad and modeling sustainable actions for peer organizations in the field.
- **The U.S. Ambassador to Trinidad and Tobago, Candace A. Bond**, hosted a special celebration at the U.S. Embassy in Port-of-Spain to gather and recognize Global STEM alumni from Trinidad and Tobago, joined by Giselle Thompson and Gamali Balkaran of bp.

"I was honored to welcome AFS alumni to my home to discuss STEM education, and cultural exchange. Their passion is deeply inspiring. The future is bright with young leaders like these."

- H.E. Candace A. Bond, U.S. Ambassador to Trinidad and Tobago



Acknowledgments and Thanks

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- AFS Brazil
- AFS China
- AFS Egypt
- AFS Hungary
- AFS India
- AFS Indonesia
- AFS Japan
- AFS Malaysia
- AFS Mexico
- AFS New Zealand
- AFS South Africa
- AFS-USA
- AFS Wales / Celtic English Academy
- Friends of AFS in Australia (FAFSA)
- Value Learning (Australia)

Community Partners

AFS extends gratitude to our esteemed partner organizations for enhancing program operations and outreach, especially the **University of Pennsylvania Center for Social Impact Strategy, New York University Center for Global Affairs, SPARK, Girls Toward Leadership, and Teach For All.**

AFS International Team

AFS acknowledges key International team members for their direct service towards the AFS Global STEM Changers Initiative operations and leadership in 2024:

- Daniel Obst, President & Chief Executive Officer
- Efrem Fisher, Chief Programs Officer
- Sean Reilly, Director, Program Development
- Saskia Kaya, Program Manager
- Facundo Méndez, Program Specialist
- Federico Larriera, Branding & Design Specialist
- Ana Carolina Cassiano, Head of Education Development
- Dylan Peterson, Education Development Specialist
- Molly Stern, Manager, Global Competence Certificate



AFS is an international, voluntary, non-governmental, nonprofit organization that provides intercultural learning opportunities to help people develop the knowledge, skills and understanding needed to create a more just and peaceful world.

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AFS earned Platinum Transparency from Candid's GuideStar, a premier destination for nonprofit research and data, and the top rating from Charity Navigator, encouraging donors to give with confidence.

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