



66<sup>TH</sup> EDITION

LONDON INTERNATIONAL  
YOUTH SCIENCE FORUM

# IMPACT REPORT

2024



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# Section One

LIYSF: Science Across Borders



## Who are we?

LIYSF was started in 1959 with the idea of bringing young people from different nations together to learn about each other and our different cultures through a shared passion for science. LIYSF was formed in the aftermath of the world wars, placing equal focus on cultural understanding as well as science learning and discovery.

During 65 years, the London International Youth Science Forum (LIYSF) has connected more than 23,500 students around the world and contributed to their future careers in STEM. Every year LIYSF brings together 500 young science and engineering students aged 16-21 years old from more than 80 participating countries across five continents, for a two-week programme, with the aim of challenging and empowering them to think globally, using science to tackle problems such as sustainable energy, food and water security, global health, climate change, and biodiversity.

- LIYSF is an impartial, accredited not-for-profit social enterprise;
- Deliver respected academic STEM programme, proven track record;
- UNESCO Patronage, Government support, British Council partnership;
- HRH The Princess Royal is the Royal Patron of LIYSF (2020 to date). LIYSF established under Royal Patronage in 1959 (HRH The Duke of Edinburgh);
- World renowned venues in central London with global reach – Imperial College London & RGS.



*“The world in which LIYSF plunged me into, the lectures that transported me leaps into the future, the valuable lessons packed in the excursions and the beautiful views that struck my retinas, gave me courage to dream for my own world and community, to reimagine a brighter future and to fight for the new vision. Indeed LIYSF has breathed a new profound sense of purpose into me.”*

**Memory Bvungo**

Zimbabwe, LIYSF 2024 Participant



## Our Goals

- To offer students high quality education, with a focus on the application of knowledge for economic & social benefit;
- To provide a positive impact on individuals and through them on the world: We enable young people to discuss global issues and scientific advancements in our world today;
- To provide young people with a wealth of knowledge and empower them to pursue STEM careers, which is essential for social development;
- To enable students to acquire skills, confidence and knowledge, offering tools for them to explore and fulfil their individual potential;
- To facilitate and showcase international collaboration;
- To encourage and enable networking: we offer young people the opportunity to meet and collaborate with scientists and other students from across the world;
- To provide an environment for cultural interaction and training effective communication;
- To expose students to positive role models: students hear from leading scientists, including Nobel Prize Winners, from all over the world, who share their passion and knowledge about STEM, as well as their professional experiences, giving students different perspectives and possibilities to follow STEM careers.





## Our Director

It's an honour to introduce this year's Impact Report after celebrating our 65th edition of LIYSF this summer, as well as for me personally, as I started being responsible for running LIYSF from the 50th edition. LIYSF is a modern event that is up to date with the latest technologies and developments, whilst also ensuring we uphold our prestigious and respected standing, as the longest running STEM event of its kind.

We are working hard to help those from under-resourced backgrounds and to empower female scientists, as well as students from diverse ethnic and cultural backgrounds. The strategy for the future is to ensure that global representation is seen at LIYSF and help more students reach further. Just one example is our scholarship scheme, which we are growing.

We are fortunate to have the support and trust of leading scientific figures and organisations across the globe, as well as wonderfully enthusiastic and dedicated students. They all inspire us to be better and I would welcome further thoughts, from any of our stakeholders and friends, on what we can do to achieve greater impact.

LIYSF is already a precedent unto itself and we strive to detect the ripples of our impact through the generations of students that shape us and into the future we aim to define. This is an exciting time to be brave, to be honest, to be better.

A handwritten signature in black ink that reads "Richard Myhill".

**Richard Myhill**

Chief Executive Officer

# Section Two

A Continued Commitment  
Towards Equity and Diversity



LIYSF is an international event that brings 500 students from all around the world together through a shared passion for science. We understand that STEM has the power to change society and improve the lives of people. Therefore, it is a great responsibility for us to bring young people and science together, as they both are agents of change. Our aim is to offer our students an environment where they can interact with people from different regions, contexts, gender, race and ethnicity, as it is essential for thinking about ways of using science to benefit us all. The only way to think about solutions for global problems is to be aware of different realities and the challenges that come with them, after all, how could someone think about solving problems they don't even know exist?

With this in mind, every year we commit to bringing students, staff and speakers from various backgrounds, so they can exchange knowledge and experiences, as well as create a network committed to the application of knowledge for economic and social benefit.



# Our 65th Forum in Numbers

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**84** countries represented

**65** % of attendees from outside EU

**3** countries represented indigenously:  
Australia, Brazil, New Zealand

**51** % female attendees

**15** countries represented by our speakers

**22** countries represented by our staff



*“LIYSF started as a forum to learn about science, and has ended up being a place where I've learnt about the vision for the future of the world, about the different worlds that all of the participants from different countries live in and lastly, about the qualities of a good scientist and change maker, that I can only hope to develop myself.”*

**Elsa Giron**

Spain, LIYSF 2024 Participant



# Towards

## Our Mission

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We have a keen focus on widening participation, getting students to the UK that would not normally have the opportunity to, from across the globe, each inhabited continent represented.

We are committed to providing equal opportunities to all people, regardless of their ethnic origin, race or any other personal characteristic. We recognise that under-represented groups often face access barriers that can limit their participation at LIYSF, so we take a proactive approach to enable those to hear about and be present at our event. We do this by collaborating with other organisations that represent these groups and help us to expand our reach and identify students who would benefit from being at LIYSF, as well as sponsoring these students ourselves or in collaboration with third parties.

### Widening Participation

Out of 416 students in 2024:

**78** students supported by LIYSF to attend with either full or partial scholarships

**40** students supported to attend by national governments, ministries, organisations

**45** students supported to attend as a prize at an international competition

**36** students supported by charities



# Our Partnerships & Their Spotlights

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## **YoSA, United Kingdom**

We have a partnership with Young Scientists for Africa (YoSA), a UK registered charity committed to motivating, developing and sponsoring scientific interest in students in Africa. This year, 9 students from 6 different countries were sponsored to attend LIYSF in person and 21 virtually.

## **Aldeia Segredo do Artesão, Brazil**

This year, LIYSF sponsored Inka Yube Huni Kuin, the spiritual leader of the Aldeia Segredo do Artesão, from Amazon Forest, in Acre of Brazil, and Yago Pires Roesse, director of the NGO of the same village, to attend LIYSF, where they also presented a lecture to LIYSF students showcasing the culture, tradition, and forest science of the Huni Kuin people to reflect on climate change, the future of indigenous people, and humanity.

## **NSTF, South Africa**

The National Science and Technology Forum (NSTF) has been running youth outreach programmes for almost 30 years, convinced that strategic interventions among the youth will make it possible for South Africa (SA) to evolve into a thriving country in all respects. The NSTF Brilliant Programme recognises grade 12 graduates who achieved marks of 90% and above in physical science and mathematics at state schools, thereby promoting these critically important subjects, holding up top performers as role models, and annually demonstrating the potential of SA's youth. In 2024, NSTF sponsored 3 students to attend LIYSF.

## **St Joseph's Māori Girls' College, New Zealand**

LIYSF sponsored this year a Maori student from New Zealand, through our long-standing Māori scholarship programme, originally started in partnership with The Royal Society of New Zealand in 2017.

## **NYSF, Australia**

Aboriginal student from Australia sponsored by LIYSF in partnership with our long-standing Australian partner, the National Youth Science Forum.





# Virtual Programme

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In 2021 LIYSF implemented a virtual version of the programme, with runs as a hybrid event since then. This is another measure to promote engagement and inclusive education, as this gives many students who could not attend the programme in person, an opportunity to engage with high quality education and to exchange and connect with other students from all around the world.



*“Participating in LIYSF Virtual was an eye-opening experience. From the comfort of my own room, I connected with young scientists from diverse corners of the world, transcending physical boundaries. The online platform offered a myriad of engaging events and lectures. I attended sessions on topics ranging from climate change to AI, and I was astounded by the breadth of knowledge shared by the speakers.”*

**Evangeline Maua Salame**

Kenya

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*“Attending the LIYSF, though virtually was one of my best experience. The forum organisers did such a splendid job in ensuring that everyone in attendance got the best from it. The defend my so called 'delusion' that 'Imagination is everything, without it, there is no invention. LIYSF was such a inexplicably resourceful experience to remember. Five stars to LIYSF!”*

**Gregson Mwangata**

Kenya

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*“The experience on LIYSF virtual meetings proved to be undoubtedly knowledge enriching. All owing to the fact that the topics were well comprehensive to bring a better understanding on what I little knew of (...) This experience culminated into not only being a conspicuous life event through educational interactions with non Kenyan citizens but also turned to be inspirational into my future scientific pursuit.”*

**Brian Baraka Kenga**

Kenya

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# Section Three

Our Programme in 2024

# Our Programme

## in 2024

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Programme tailored to offer participants latest science research in technology, artificial intelligence, cyber security, health, food, energy, climate change, pandemics, engineering & robotics – STEM.

The underlying theme this year was **Science Across Borders**.

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## Student ratings of LIYSF 2024

- 9.0** overall quality of the programme
- 9.2** opportunity to learn about different cultures and backgrounds
- 9.4** opportunities to meet new people and create new connections
- 9.4** welcoming and inclusive environment

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## Student takeaways from LIYSF 2024

- *Contributed to their ability to interact with people from different backgrounds*
- *Helped them to understand the opportunities in STEM*
- *Motivated them to follow a career in STEM*
- *Helped them to create international friendships and allowed them to be in contact with diverse groups (gender, race, ethnicity)*

# Our Lectures

## in 2024

**10 Principal Lectures** from Nobel prize Laureates, academic and industry pioneers, including:

- Keynote Opening Address by Sir Greg Winter
- Keynote Closing Lecture by Vilas Dhar
- Professor Kelly Chibale
- Professor Dame Molly Stevens

**4 Specialist Lectures** from leading researchers (students can choose from 32 options, according to their field of interest). These smaller focused sessions are invaluable and allow for a wider range of questions and interaction.

**Specialist Study Day:** The students spent the day with their chosen researcher/scientist, who started the session by speaking about their work/research. Students then put together a short presentation that was given to the rest of the plenary students about the topic, to highlight the research, challenges and knowledge that they gained from their lecture.



# Our National Visits

## in 2024

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### Our visits in 2024 included:

**London** – including various University departments at Imperial College London, University College London (UCL), King's College London and London Metropolitan University, as well as, The Royal Institution, UCL Hospital and the London Wetland Centre.

**Across the UK** – including, McLaren, Airbus, Rolls Royce, Animal & Plant Health Agency, Public Health England, National Space Academy, John Innes Centre, National Oceanography Centre, Rutherford Appleton Laboratory, as well as to various University departments at, the University of Bath, University of Birmingham, University of Bristol, University of Essex, University of Southampton and the University of Sussex.

**University of Oxford and University of Cambridge Departments** – including University hospital departments, as well as to, BMW, British Antarctic Survey, Culham Centre for Fusion Energy, , HR Wallingford and The Wellcome Genome Campus.





# Project Presentations

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Our students have the exciting opportunity to present their work in a non-competitive environment with fellow students from all over the world and our science experts at our Science Bazaar.

Communicating science is a vital part of being a scientist and in the modern world this is becoming increasingly more important. With this in mind, we incentive our students to talk about their work to colleagues and researchers, as well as the general public, as this is a great step in their learning and development in science communication.



# Our Social and Cultural Programme

A vital part of the experience of attending LIYSF is teaching and learning about different cultures and traditions. LIYSF places a great deal of emphasis on this and believes that cultural interaction and making life-long friends is a very special aspect of attending.



# A Deep Dive through the Elements

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**Flag ceremony:** this forms part of the Opening Ceremony of LIYSF.

**Traditions of Home:** Sharing World Customs and Fashion Evening: This evening is about sharing culture, giving the students the opportunity to share their traditions.

**International Cabaret:** A cultural performance evening where students can showcase a performance. (sing, dance, rap, play an instrument and perform a magic trick, for example)

**Student Presentation Evening:** 10 projects chosen from the Project Bazaar, based on diversity of topics, to be presented to everyone by our top science and engineering judges. Students have to practice their communication skills to deliver a presentation about their project in three minutes with no slides.

**Student Debate and Participants' Forum:** Many problems are hugely complex and must be considered in social, economical and political contexts. Being able to express and challenge opinion is a vital part of the scientific career, so we incentive our students to share their opinion and knowledge in these two formal debate opportunities.

**Great Crossword Treasure Hunt:** This is a fun filled treasure hunt evening, where students learn more about and explore our host region of London; South Kensington and Imperial College, as well as make new friends and learn a few things about our student staff team too!

**LIYSF Olympics:** We have three teams – based the students' halls of residence – and thus it's very competitive to see which hall wins. Students have to come together as a Hall to perform the best in our crazy games and cheer the loudest!

**Welcome and Closing Parties:** These are evening events in a large venue, with DJ and dancefloor so that students can show us their moves, interact and join the fun.







*“(...) Over the two weeks in London, I had the privilege of visiting leading companies and universities, learning from experts with remarkable careers and captivating speaking skills. It was a journey of both personal and professional growth (...)”*

**Paulina den Otter**

Luxembourg, LIYSF 2024 Participant

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*“LIYSF was one of the greatest opportunities that I will always appreciate, and it has taken a huge place in my memory and heart. It is significant, presenting a pivotal opportunity to incentivise my personal growth and professional development. As I reflect on my aspirations and journey thus far, it becomes obvious that LIYSF serves as a line for realizing multifaceted objectives integral to my ongoing evolution”*

**Baraa Al Maawalii**

Oman, LIYSF 2024 Participant

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*“The Forum also changed my perception of what it means to be a scientist. Before LIYSF, I had always viewed scientists as solitary figures, isolated in their labs. However, I learned that scientists love talking to each other, sharing insights, and collaborating across disciplines. This community spirit was refreshing and made me realise that “nerds” are indeed cool, united by a shared passion for discovery and innovation.”*

**Ammar Mohammedali**

Tanzania, LIYSF 2024 Participant

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# Section Four

Our Alumni & How LIYSF  
Impacted Their Future

# How LIYSF Impacts Futures

**47%** of our students that attended LIYSF go on to obtain a PhD

**80%** said LIYSF contributed to their perception and knowledge of STEM careers

**76%** said that LIYSF contributed to their motivation to follow a career in their field of interest

**96%** said LIYSF contributed to their ability to understand other cultures and perspectives

**87%** said LIYSF contributed to their networking skills



# LIYSF Alumni

## Go On To Change The World

LIYSF alumni have gone on to be leaders in STEM including leading research organisations and societies worldwide, including leading The Royal Society of Chemistry, The American Institute of Physics, the first Civilian African Astronaut.

Our alumni keep engaging with LIYSF as staff, lecturers (this year we had 10 Alumni specialist lectures ranging from participants from 1978 to 2016), judges and our President.



### **Professor Clare Elwell**

Vice Dean, University College London and LIYSF President

### **Mark Shuttleworth**

CEO Canonical Ltd. and First African Civilian Astronaut

### **Dr Émer Hickey**

Postdoctoral Research Fellow, MRC Centre for Medical Mycology, University of Exeter  
LIYSF Scientific Advisor

### **Professor Richard O’Kennedy**

Former President for Research, Development & Innovation, Qatar Foundation. Richard has previously served as Vice President, Scientific Director of the Biomedical Diagnostics Institute, & Head of the School of Biotechnology of Dublin City University, Ireland. LIYSF Science Patron.

*“LIYSF introduced me to my career path as a chemical engineer. I don’t think I would’ve discovered it had I not been at the forum - had my lightbulb moment where I finally found out that what I wanted to do had a name to it! On top of that, I made friends for life, even lived with one of them while at University. Having been a staff member for 7 years, LIYSF also opened doors to opportunities I wouldn’t have had as a young girl from Malta”.*

**Simran Mohnani, LIYSF Alumni, 2013**

*recognised as one of the UK TechWomen100, UK Asian Women of Achievement, INvolve’s 100 Future Role Models, JCI Malta’s Top 10 under 40, One Young World ambassador and World Economic Forum Global Shaper*

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*“The impact LIYSF had on my life cannot be underestimated. In 2013 I was studying for my A levels and had only recently decided to pursue the sciences. LIYSF confirmed that the sciences were right for me and catapulted me into the career I have today. Outside of the impact on my career, LIYSF was also my first true taste of independence and first real exposure to other cultures. I gained friends who I am still in contact with today and have travelled widely to see them. My horizons were expanded on all fronts. I truly believe having LIYSF on my CV helped in almost of all of my initial subsequent.”*

**Katie Downes, LIYSF Alumni, 2013**

*post-doctoral researcher in the Zanetti lab at the Francis Crick Institute*

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*“LIYSF contributed to 'Civic Engagement' by providing me exposure to global challenges and discussions. It inspired me to become more civically engaged, advocating for science and technology solutions to societal issues. It also helped me to discover 'career opportunities and exposure to multidisciplinary topics.' At that time, I applied for a research internship in the fields to which I was exposed at LIYSF and got a chance to intern at the University of Geneva. This experience further shaped my research career to what I am pursuing today. All the credit for this goes to LIYSF.”*

**Amit Kumar, LIYSF Alumni, 2017**

*accepted at the Ph.D. program at the Department of Cell Physiology and Metabolism within the Faculty of Medicine at the University of Geneva, with their current research funded by the Swiss National Science Foundation (SNF).*

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# Section Five

Impact Deep Dive

Aim	Targets set in 2020	Our Progress
Enable students from under-resourced backgrounds to attend	Increase full scholarships to 25 places by 2025	We offered 15 full scholarships in 2024
	Increase value of partial scholarship from £400 to £500 in 2021	We increased the value of partial scholarship to £700 in 2024
	Increase number of partial scholarships to 75 by 2023	63 partial scholarships awarded in 2024
Increase diversity of global representation at LIYSF	Maintain number of countries and mix	84 countries represented at LIYSF in 2024
	Target of 85 countries by 2025	416 students attending LIYSF in 2024
	Target 500 students by 2025	
Increase African representation at LIYSF towards their proportion of the global population	Enhance relationship with YoSA	9 African students attended through YoSA. This is the highest number of students sponsored by YoSA
	Look to build scholarship offer and provide 5 full scholarships by 2025	20 African students attended LIYSF in person and 21 virtually
	Look to new partnerships in Africa to look to increase participation from this region	Highest number of African countries ever represented at LIYSF both with students and speakers, including two new countries: Mauritius and Liberia
	Target 25 students by 2023	
Empower female scientists	Target 40 students by 2025	
	Introduce tracking process of range of invites sent	Ongoing
	Look to maintain a gender balance in plenary lectures	4 out of 10 plenary speakers were female
	Improve representation in specialist lectures and look to 50% female contributors for specialist sessions	Over 55% specialist lecturers were female in 2024

Aim	Targets set in 2020	Our Progress
Facilitate top level science	<p>To maintain a Nobel Prize winner lecturer annually</p> <p>Continue to build on current caliber of speakers</p>	<p>Keynote Lecture by Nobel Prize Winner Sir Gregory Winter</p> <p>Keynote closing lecture by Vilas Dhar; Lectures by Professor Kelly Chibale and Professor Dame Molly Stevens</p>
To help foster science engagement in communities	<p>Look to include a more uniform requirement for all students to return as ambassadors</p> <p>Impact measurement process in place by 2023</p> <p>Target of 50 presentations by ambassadors in six months following LIYSF by 2025</p>	<p>Impact measurement process placed in 2023 with implementation of the student experience survey, as well as alumni survey, both aiming to get more feedback on participants' experiences.</p>
Facilitate indigenous attendance	<p>Maintain Māori programme and look to expand to 2 students by 2025</p> <p>Have similar indigenous programmes in place by 2028 to support Aborigines, Saami and American Indians.</p>	<p>One Māori student from New Zealand. For the first time ever, one Aboriginal student from Australia were sponsored</p> <p>For the first time, an indigenous person from Brazilian Amazon Forest attended LIYSF. The young leader from Aldeia Segredo do Artesao was sponsored by LIYSF, as well as their interpreter, who is also director from the same village's NGO</p>

Aim	Targets set in 2020	Our Progress
To understand alumni pathways and keep alumni connected and engaged with LIYSF	Maintain feature of alumni specialist study day in the programme	Alumni specialist study day maintained in 2024
	Maintain variety of alumni speakers attending and range of years attended from	In 2024 we had 10 alumni specialist lectures ranging from participants from 1978 to 2016
	Look to have an LIYSF alumni give a plenary lecture every 3 years	LIYSF Alumni, Professor Clare Elwell continues to serve as our President
	Look to build an active alumni LIYSF community	
To have a diverse student staff team	Look to maintain representation from each region, despite stricter visa restrictions	We had staff from 22 countries, from the 5 continents
	Have at least 50% of staff female	More than 50% of female staff in 2024, including chief of staff
Help foster direct and indirect impact for UK institutions	Look to mechanism to capture more of these stories and translate into quantifiable impact measurements	LIYSF alumni survey has been successful in demonstrating the impact of LIYSF on UK universities, considering that many students have referred to LIYSF as the reason why they decided to study in the UK





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