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Board of Trustees

FUNDRAISING – 2023 IMPACT REPORT

(Paper by Christopher Knibb, Director of External Engagement, Engagement and Growth. If you have any questions on this paper before the meeting please contact Elsa Scott on 07713 036839 or by email elsascott@theiet.org)

1. Issue

To update the Board of Trustees on the IET's fundraising activities.

2. Timing

Board of Trustees meeting, 13 May 2024.

3. For Note

The Board of Trustees is invited to note this report.

4. Background

4.1. We present a summary of the IET's fundraising activity through donations in 2023 from corporate, trust and foundation and individual income streams.

4.2. This annual update is presented to assist the Board of Trustees in fulfilling its obligations to ensure sufficient oversight and to ensure compliance with both legal requirements and the Code of Fundraising Practice.

5. Key Points

This paper summarises the IET's income through donations in 2023.

6. Risk

No risk reported.

7. Resources

The 2023 Impact Report will be available in digital format at the meeting and is attached as an Appendix. The report summarises the impact and outcomes of our fundraising activities. This document will be publicly available digitally and in hard copy.

The Institution of Engineering and Technology

Appendix to T(24)43

IET Futures Fund

Impact Report | 2023

IET Futures Fund raises money to support the next generation of engineers to find solutions to our most pressing problems.

Noah Main

Engineering Horizons Bursary recipeint supported by Graham and Kathleen Tubbs. Noah was also a recipient finalist for the Engineering and Technology Apprentice Award at the IET Achievement Awards in 2023 and is the current Apprentice Representative on the IET's Young Professionals Committee.

Noah is taking an Aerospace Engineering Degree Apprenticeship and was awarded an Engineering Horizons Bursary in 2020. Engineering Horizons Bursaries predate the current IET Launch Scholarship.

His bursary is being supported by Graham and Kathleen Tubbs who have been changing the lives of the next generation of engineers for over ten years by generously supporting our programmes.

"Mr and Mrs Tubbs' support has been incredible and really helped me on my apprenticeship since the very start.

The bursary has been able to alleviate the pressure presented by the cost-of-living crisis and enabled me to focus on university. This has led to a great set of academic results across my apprenticeship. I thank both Mr and Mrs Tubbs for making this opportunity possible."

Foreword

2023 was a busy and productive year for the IET Futures Fund. Thanks to the generosity of our supporters, we raised a fantastic £576,921 in donations to inspire and support the next generation of engineers to overcome barriers to achieving their ambitions.

Furthermore, we reached our matched funding target of £500,000 by the end of Professor Bob Cryan's Presidential year, releasing even more funding for our programmes.

Equality, diversity and inclusion continue to be a key priority in industry and for the IET. We know that diversity of thought amongst engineering talent drives innovation. Whilst progress is undoubtedly being made, only 16.5% of engineers are women and just 24% come from lower socioeconomic backgrounds (Engineering UK). In a recent survey by Teach First, more than half of parents (51%) from a lower socio-economic background said they believed their children were unlikely to go on to a career in STEM.

Charitable funding enables us to support the next generation with a focus on social mobility and unlocking opportunities for those who would otherwise not have access to them. With your support, we can inspire even more future engineers from a broad range of backgrounds to become the innovators of tomorrow. Please donate now at donate-futures.theiet.org.

I would like to personally thank all our donors for their generosity. Support from our members, partners and others is making a real and lasting difference to the future of engineering.

Dawn Ohlson MEng CEng FIET
IET Deputy President
Chair, IET Futures Fund Working Group

If, like us, you are passionate about the future of engineering, contact the IET Fundraising team to find out how you can make a difference. Whether you are making a personal donation or an introduction to a company, your support is warmly appreciated.

Give today at **donate-futures.theiet.org** or contact us at **fundraising@theiet.org**

IET Education

Thanks to generous donations, IET Education programmes and resources continue to offer children who would not otherwise be able to access high quality STEM enrichment the chance to take part in activities at no cost.

In 2022-23, our Education programmes, *FIRST*® LEGO® League and IET Faraday® Challenge Days reached over 49,687 children and young people aged 4-16 across the UK and Ireland.

Since the launch of our online education resources hub, we have collaborated with industry partners to provide free lesson handouts, activities and multimedia material that are mapped to the curriculum in areas such as flood defence barriers, gear ratios and power generation and transmission.

Our education resources were downloaded over 121,000 times in 2023.

Our commitment to inspire more children to consider a career in engineering has seen us modify the IET Faraday® Challenge Days delivery model to begin working with a network of local partners to facilitate more events than ever before. We have also explored new ways of supporting young people to take part in *FIRST*® LEGO® League, targeting support to where it is needed most.

Funding from our generous donors helped bring our STEM programmes to thousands of children across the UK and Ireland, particularly to those who would otherwise struggle to access these exciting opportunities.

We've been supporting *FIRST*® LEGO® League for a number of years and there's no doubt that it inspires the next generation to feed their fascination with STEM. *FIRST*® LEGO® League helps to demonstrate that design and engineering is all around us and in turn helps young people probe, challenge and question to create a brighter future.

Ian Moverley, Director, UK Communications and Government Relations at Whirlpool Corporation

IET Faraday® Challenge Days

The 2022-23 IET Faraday® Challenge Day season was delivered in partnership with UKRI's Future Flight Partnership

2022-23 season:

176
events were held

5,786
students from 450 schools and 1 home-educated team

125
schools engaged with, defined as "hard to reach"

(high percentage of free school meals, rural schools and social mobility indicators)

52%
of participants were girls.

Teams were tasked with designing a prototype that could support UKRI's Future Flight Challenge with regards to accessibility and ease of use, safety and impact on the environment.

We were extremely proud to have delivered 176 IET Faraday® Challenge Days in 2022-23, with 450 schools and 5,786 students involved.

Students were scored throughout the day on their planning and research; development and functionality of the product; use of budget; product engineering; the final presentation, and their teamwork and attitude throughout.

Our supporters in 2022-23 included UKRI's Future Flight Challenge, GKN Automotive, Keith Thrower OBE FREng FIET, R C Snelling Charitable Trust, The Reece Foundation and UKRI TAS Hub.

There was a 75% increase in students who after taking part in an IET Faraday® Challenge Day would now consider studying or working in engineering.

"I loved how we got to use our imagination and we had free rein on our design. The Challenge Leader helped so much and was so supportive and helpful when we were completely stuck. I thought I was terrible at STEM but today proved that I thought wrong. I am proud of myself and so pleased to have been given this opportunity."
13-year-old girl

"I found it really fun and it has inspired me to be an engineer when I'm older."
12-year-old boy

"Excellent way to promote STEM and engineering. Kept the students engaged throughout, challenging them to think towards the next level. Bringing out the best in them."
Teacher

IET Faraday® National Final

The National Final was held on 29 June 2023 at the Digital Aviation Research and Technology Centre (DARTeC) at Cranfield University with the top five teams from the season's league table having to design and build a prototype to receive deliveries by drone in a chosen building.

The five national finalists were Sandringham School from Hertfordshire, Fallibroome Academy from Cheshire, Thomas Alleyne Academy from Hertfordshire, The Gilberd School from Essex and The Corbet School from Shropshire.

Teams were judged on their product design and presentation. After a very close competition with impressive presentations this season's winning team was Fallibroome Academy from Cheshire. The winning team designed a prototype receiver box with pressure pad for drone deliveries at hospitals.

It was an inspiring event for everyone involved and we are confident this season's challenge has given students an insight into the life of a real engineer, the variety a career in engineering can offer and just how exciting and creative engineering really is.

> **It was fantastic to welcome these enthusiastic and talented students to Cranfield University. Engineering is a fascinating and exciting career option, and we hope that many of them will be inspired to follow this path. We warmly congratulate them and perhaps we will see some of them studying here at Cranfield in the future!**
>
> Professor Graham Braithwaite, Director of Transport Systems at Cranfield University

"This has been an amazing day, what we have done, the challenge and we got to fly a drone!"

Fallibroome Academy, Cheshire 2022-23 Winners

FIRST® LEGO® League

The 2022-23 season's theme was SUPERPOWERED℠, and our young engineers were asked to find out where energy comes from, how we use it and the impact our energy choices have.

Using an engineering design process, young people identified a specific problem related to improving an energy journey in their community and designed an innovative solution. In a separate process, they designed and created a robot to complete challenges.

Over 400 volunteers supported the SUPERPOWERED℠ season and 43,901 children and young people took part!

59% of teams were able to take part thanks to generous support from companies and trusts and foundations

6,020 4-6 year olds took part in Discover,
12,954 6-9 year olds took part in Explore
15,917 9-16 year olds took part in Challenge

An additional **9,010** children engaged with previous season kits in 'off-season' activity

FIRST® LEGO® League Challenge finalists from across the UK and Ireland came together to battle it out at the GB final in Harrogate and the All-Ireland Final in Dublin, with the winning teams being invited to the International Open in Marrakech, Morocco. The winning GB team was RealTechBot whose innovation project allows producers of solar energy to share excess energy with non-producer neighbours. The All-Ireland winners, the Treehouse Gang designed a 'Teeny Tiny Turbine' that generates power and depends on human beings to work.

As well as those taking part in the Challenge competition, many thousands of children in the Challenge (age 9-16), Explore (age 6-9) and Discover (age 4-6) divisions had the programme delivered to them in the classroom by their teacher or through extra-curricular groups, via our increasingly popular class pack option.

Following this record-breaking season, we are proud to be acknowledged as the number one delivery partner of *FIRST*® LEGO® League globally.

2022-23 Evaluation:

97%

of teachers/team coaches observed a positive impact on the children taking part

Improvement in the following skills was noted:

96% Teamwork
94% Problem solving
92% Coding
86% Confidence
86% Communication
81% Resilience

84%

of teachers/team coaches reported that students were more aware of possible careers in engineering after their involvement in *FIRST*® LEGO® League

98%

would encourage others to take part

Penpol Pumpkins
Case Study

Funding enables pupils like those from Penpol Primary School in Hayle, Cornwall, to take part in *FIRST*® LEGO® League, igniting a passion for STEM as well as helping them grow in confidence. The school first took part in 2021-22, thanks to funding from the Wates Family Enterprise Trust. They came back to take part in the SUPERPOWERED℠ season and made it all the way to the International Finals in Boston, Massachusetts, USA.

In 2022, a team from Penpol Primary School, named the Penpol Pumpkins, took their Innovation Project presentations and robot all the way to the Cornish and GB National Final.

As we left the final, one of the children asked me if he could take part again next year. I thought they'd forget about it over the summer, but on the first day of term they were standing patiently outside the computer lab at lunchtime asking if they could start working on their project. I can't think of a single day since then where they haven't been there, tinkering away on some part of their robot, researching ideas for their innovation project, emailing individuals and companies for support.

Jacob Woolcock, Head of Computing and Digital Learning at Penpol School

Mr Woolcock believes that all the children have a stronger interest in STEM thanks to the competition:

"I think probably two thirds of the team would consider a career in engineering as a result of this competition, while the others want to be inventors, computing teachers and scientists. This competition has allowed them to see that these jobs are possible for them.

FIRST® LEGO® League is life-changing, but these events don't happen for free. Without the donations of individuals and companies it just couldn't happen. By supporting these events you're making this learning and life experience possible for thousands of children in the UK.

"In my ten years of teaching it's the most fun thing I've been involved with, because it's structured in a way that is unstructured – the children lead and you just go along for the ride, providing support when needed. You go into teaching to make a difference, and this competition lets you sit back and think 'this is what it's all about'."

IET Future Talent Awards

Our Launch and Boost Scholarships make up the IET Future Talent Awards. Since 2013, we have a awarded a total of 1,843 IET scholarships and bursaries.

The Launch Scholarship is for students, degree apprentices and apprentices, who have faced financial or personal challenges and have a passion for engineering. They can be applied for during any year of study or apprenticeship.

Boost Scholarships reward academic excellence for students in their final two years of study.

We awarded 97 Launch Scholarships in 2023.

69 were donor funded.

"Being a woman in a heavily male dominated environment leaves me doubting myself lots. The Launch Scholarship has reinforced the notion that I am able to succeed."

Lia Smith, Launch Scholarship supported by Arm.

"The IET Future Talent Award shows me that regardless of where I'm from or what my background is, I am valued for my engineering skillset."

Bhavy Metakar, Launch Scholarship supported by Costain.

Our Graduate Survey shows that 87% of our Awards alumni (2019-2023) are currently employed in the engineering and technology sector.

We support a diverse range of people. Of our 2023 Future Talent Awards recipients:

27%
are from single parent families

10%
have caring responsibilities

16%
are on benefits

4%
came to the UK as a refugee or asylum seeker

30%
identify as female

71%
are from households with income under £25,000

Zahra D'Souza

"Because we need engineers from all walks of life"

Motivating the next generation

Zahra first heard about the IET and its awards via LinkedIn, when she noticed a contact extolling the benefits of an IET scholarship. After some research she decided to apply and as the saying goes, "the rest is history!".

Initially she focused on the financial benefits of the award, funds she plans to use to pay for additional courses as well as undertake industry internships both in the UK and abroad. "Receiving the Launch scholarship is motivating me to push myself even more," she says. "It will allow me to attend a range of courses to further my interest in the practical and academic aspects of engineering and develop skills that are needed for me to excel in both my degree and my career.

"The funds will enable me to undertake internships here and abroad, and access resources that help me to excel in my chosen career."

"The biggest benefit of my IET membership is the chance to meet people that are already working in the biomedical industry," she continues. "That will be really helpful, especially meeting more young women, as we're severely outnumbered by men. I believe it will be really useful for me to meet other people working in this space, hear about their projects and potentially get some kind of work experience or mentorship from them," she enthuses.

Giving back – the impact of your donation

For me, engineers are responsible for transforming the world as they drive innovation, solving complex problems, and advancing technology across several fields. Through their expertise, they contribute to the development of groundbreaking solutions in numerous industries such as healthcare, environmental sustainability and automotive. Whether designing life-saving medical devices, creating sustainable energy solutions, or developing efficient transportation systems, engineers play a pivotal role in shaping a better future. Their work not only addresses current challenges but also anticipates and prepares societies for the demands of tomorrow, fostering progress, connectivity, and our overall well-being.

"Engineers are here to solve problems for people from all different backgrounds, which is why I think award schemes like the IET's are so important," she goes on. "We need engineers from all walks of life: across all genders, socio-economic backgrounds and abilities. Causes like this can help younger engineers who might not have the funds or family ties to get a head start in this industry.

"At the end of the day, donations to the IET Futures Fund not only impact the engineering community, but also the much wider community, as they help to create a diverse, inclusive community of engineers that have the experience and understanding to solve challenges that affect us all."

Neurodiversity in Engineering and Technology

A 2022 survey found that almost one in five people from our IET Volunteer community who responded (19%) identified as definitely or possibly neurodivergent. In November 2023, the IET published a report revealing that there is an urgent need to make engineering and technology more inclusive for neurodivergent people. It provides practical guidance to STEM employers to create a more inclusive working environment.

The report can be downloaded here:

Graduate Survey

Each year, we ask our graduates to report back on where they are now, and how their award helped them. The following information has been provided by graduates, graduate apprentices and apprentices who have been awarded an IET scholarship.

72.6% are employed in Engineering and Technology

6.8% went on to postgraduate study in Engineering and Technology

8.2% were actively seeking employment

(Figures taken from Graduate Survey of Summer 2023)

An average of 87% of students who graduated between 2019 and 2023 continue to be employed or are undertaking further study in the engineering and technology sector.

Mercedes AMG, McLaren Automotive, Renishaw, Emerson, Northern Ireland Electricity Networks, BAE Systems, Dyson, ARUP, UKRI and Vodafone are just some of the companies that our graduates went on to work for in 2023.

Carys Wilcox, Engineering Horizons Bursary supported by the IET, graduated with a BEng (Hons) in Engineering from The Open University:

"I'm a single mum with just my salary. The bursary helped with additional expenses of the degree and took some of the stress away."

Sharmin Akthar, Launch Scholarship supported by National Grid, graduated with a MEng in Electrical and Electronic Engineering from the University of Southampton:

"Beyond the financial aspect, the scholarship provided me with a profound sense of recognition and motivation. It served as a testament to the belief that others had in my abilities and potential, boosting my confidence and commitment to excel in my studies."

BECAUSE YOU HAVE THE POWER TO SUPPORT THE ENGINEERS OF TOMORROW

Abhijit Pandit's story shows how your support can supercharge a young engineer's career. Funding and partnerships open doors to new opportunities, industry contacts and guidance.

Abhijit is less than a year into his role as a propulsion systems engineer at Thales Alenia Space UK, after completing a master's in engineering specialising in aerospace and control engineering at The University of Cambridge.

He cites his IET scholarship as the reason he's in the position he finds himself today, thanks to the exposure and development opportunities it provided him.

"My IET Diamond Jubilee Scholarship was supported by Thales, who went into a joint venture with Leonardo to create the company I now work at. Through the connections I made with Thales via the scholarship, I was able to secure an internship at Thales Alenia Space in my second year of university.

"From there I was able to pursue my master's project alongside some colleagues, and was later offered my current graduate role," Abhijit explains.

How an IET award supports up-and-coming engineers

Abhijit first heard about IET scholarships through a UCAS newsletter and thought it would be a great opportunity to make industry connections and gain more exposure to engineering. He felt this would be hugely beneficial, as, – up to that point, he'd not had much direct industry experience, as is the case for many engineering students.

"The concept of engineering is touched upon at school, but it's not a taught subject, therefore students can often feel quite daunted entering this world. I think having schemes like the IET's makes everything a lot less daunting, as you not only receive financial support, but also personal support; from sponsors, mentors and the organisation itself," he notes.

"Having these relationships with industry professionals allowed me to better navigate this new world, and the internship gave me my first real exposure to the space industry which was hugely important to my engineering education and early career."

Funding unique career opportunities

As part of Abhijit's IET scholarship he was awarded £1,000 a year to support his education.

Many scholars use these funds to buy things like a computer or study aids, or to help cover their living costs rather than take on a part-time job. Abhijit, however, used the bulk of his financial award to fund a visiting student research programme at NASA's Jet Propulsion Laboratory (JPL), something he knows he was very fortunate to be in a position to do.

The programme took place in the third year of his studies and entailed two and a half months working in the JPL's mission design navigation team in Los Angeles, USA.

"The main focus was on the return of samples from the current Mars rover: Perseverance," Abhijit says. "I worked on a study looking at what would happen if you arrived at different points on Mars, and the experience was inspirational, exciting and very rewarding.

"This opportunity would not have been possible without the funds from my IET scholarship," he continues. "Simply put, there's a lot I've already got to experience that I wouldn't have been able to access without the support financially, or through industrial relationships, that have come from my scholarship. I honestly don't think I would be in my current role without it."

"Thales has been supporting the IET's scholarship and bursary schemes since 2017. These have provided us with excellent opportunities to engage directly with future engineering talent from diverse backgrounds, and we are very pleased to have welcomed Abhijit as an employee of the Thales Alenia Space business. We wish him all the very best in his career ahead."

Colin Scouller,
UK Head of Engineering Early Careers, Thales.

Leave a Gift in Your Will to the IET Futures Fund

Leaving a gift in your will to the IET Futures Fund is a powerful way to make a lasting impact on the future of engineering. We know that this is a deeply personal journey, and that it can also be a complex process. We have produced a new Legacy Brochure to provide more information on leaving a legacy and the impact it could have on future generations.

If you would like to know more, please take a look at the brochure, email fundraising@theiet.org or call +44 (0)1438 767253.

Why support the next generation?
BECAUSE YOU NEVER STOP BEING AN ENGINEER
IET Futures Fund
The Institution of Engineering and Technology

Thank you for investing in the next generation

The IET Futures Fund continues to stand as a testament to the IET's commitment to supporting and inspiring the next generation and increasing access to opportunities. From nurturing young engineering talent through our Education programmes to supporting students and apprentices in their studies through IET Launch Scholarships, the Futures Fund is a key part of our purpose to engineer a better world.

We rely on the support of our donors to continue to build a more inclusive profession and open up new and exciting opportunities for the engineers of tomorrow.

Every pound raised goes directly to support the delivery of our education and awards programmes.

In 2023, thanks to our supporters **£576,921** was pledged from individuals, trusts and foundations and companies who have generously invested their time and money to support our programmes.

We would like to thank our generous donors for helping to support the next generation of engineers.

2023 Income pledges (by type of pledge)

- **Trusts and Foundations** (£371,784)
- **Corporate Donations** (£187,180)
- **Individuals** (£17,957)

2023 Income pledges (by funding use)

- ***FIRST*® LEGO® League** (£342,289)
- **Launch Scholarships** (£145,200)
- **IET Faraday® Challenge Days** (£74,075)
- **Futures Fund (includes all schemes above)** (£11,357)
- **Education Resources** (£4,000)

Our Donors

Thank you to all our 2023 supporters.

Commadore Barry Brooks

Edger Lee Foundation

Legacy Global Foundation

Mr and Mrs Tubbs

Mr Chris Earnshaw

Mr Keith Thrower

Pamela & David Rollin Foundation

Professor Bob Cryan

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We are grateful to the many individual members who gave to the Futures Fund.

The Institution of Engineering and Technology

Make a difference today

If you're passionate about the future of engineering, contact the IET Fundraising team to find out how you can help make a difference.

T +44 (0)1438 767253
E fundraising@theiet.org
W theiet.org/futuresfund

donate-futures.theiet.org

Our offices

London, UK
T +44 (0)20 7344 8460
E faradaycentre@ietvenues.co.uk

Stevenage, UK
T +44 (0)1438 313311
E postmaster@theiet.org

Beijing, China*
T +86 10 6566 4687
E china@theiet.org
W theiet.org.cn

Hong Kong SAR
T +852 2521 2140
E infoAP@theiet.org

Bengaluru, India
T +91 80 4089 2222
E india@theiet.in
W theiet.in

New Jersey, USA
T +1 (732) 321 5575
E ietusa@theiet.org
W americas.theiet.org

@TheIET

theiet.org

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