



**ANNUAL REPORT**

**2023/24**

ENGINEERS IN BUSINESS FELLOWSHIP



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# REVIEW OF THE YEAR

Greater Engagement, Enablement  
and Expansion



SMFs Alexander Iley, Roger Gonzalez, Lia Turrini and Chigozie Ukachi started their MBA at Harvard Business School in autumn 2023.



David Falzani MBE,  
President

This year we sponsored and hosted more events than ever before, involving a diverse group of SMFs, engineers and engineering students.

## PRESIDENT'S REVIEW OF 2023/24

### INCREASED ACTIVITY IN ALL AREAS

Demand for support from Engineers in Business Fellowship reached an all time high this year. We received over 70 requests for mentoring from engineering students and young engineers. More universities applied for funding for their entrepreneurial competitions than ever before. Due to the exceptional quality of SMF applicants this year, a total of twelve scholarships were awarded. All of this activity required more SMFs to participate and I would like to thank those who stepped forward to help.

Increased demand was no doubt in part due to our marketing and advertising plan to raise the profile of the award scheme and to reach a more diverse range of future candidates. We continued with our LinkedIn advertising for the SMF scholarships, refining our target market to reach the best potential applicants. Our social media strategy has also been revised to concentrate on LinkedIn, which yields the highest penetration of our intended audience.

### A TIME FOR RENEWAL

2023 gave us the opportunity for renewal and reinvention. We looked at how we might modify the application process to encourage a greater diversity of engineers to apply for an SMF scholarship. It was decided that we should extend "offers in principle" to applicants who have applied to SMF before receiving their place at business school. Once they have their place, they would be able to claim their bursary. This would help applicants who are financially less confident and enable us to reach further back into the engineering pipeline. This change was stimulated by the discovery that business schools were

now requiring large deposits very soon after offer letters were received.

We are currently working with the Royal Academy of Engineering to implement this change, hopefully before 2025. Applications will continue to be accepted from those who already have places at a business school, in addition to those applying for an “offer in principle”.

We were also given occasion to look ahead to the future of the scheme. Lord Sainsbury’s Gatsby Trustees have asked us to explore ways in which we could engage more broadly with the commercialisation of scientific projects within the UK. We will be speaking with the scientific community about this and will report back on our findings.

## CHAMPIONING BUSINESS SKILLS TO YOUNG ENGINEERS

For the first time, Engineers in Business Fellowship became an Official Partner of International Women in Engineering Day (#INWED23) which celebrates and honours the work that women engineers are doing to support and uplift communities around the world. As part of its commitment to #INWED23, EIBF ran a competition with the Women’s Engineering Society (WES). Twenty-five-year-old Space Engineer, Samrudhi Inamdar won the WES and Engineers in Business Fellowship Competition. She received a bursary to attend the annual WES Student Conference and was paired with SMF Sinead O’Sullivan as her mentor.



SMF Sinead O’Sullivan



Sponsoring business competitions at universities has been an effective way for us to engage with young engineering students and engineers. The sponsorship is run in association with leading universities and colleges, leveraging existing competitions or elective modules and existing arrangements within higher and further educational institutions, such as those between engineering departments and affiliated business schools. The competitions encourage young engineers to become involved in business innovation and develop a passion for entrepreneurship at an early stage.

Our programme expanded this year in both size and engagement. We added five new universities, which brings our total to 47 partner universities. Participation by engineering students in business competitions increased by 71% over last year, with 4,172 students taking part. More than 336,771

students, graduates and postgraduates received EIBF messages – an uplift of 3% over the previous year. For more information on our university partner competitions and their winners, see pages 14–24.

As well as receiving cash prizes, and possibly being far more valuable, the winning team members from our university partners are also offered ongoing guidance and support from SMF mentors. Accordingly, we held a Champion of Champions Coaching Day on 2nd November 2023 for the ten finalist teams which participated in the Champions Final the following day. To read more about our Champions’ Coaching Day see page 25.



Presenter Rob Bell addresses the audience at the Champion of Champions Grand final in November 2023

The Engineers in Business Champion of Champions Final gives us the chance to design and run our own competition and this was held on 3rd November with 17 universities sending 33 impressive entries. There were two competition categories: ‘Big Ideas’, an opportunity for participants to express their vision and personal potential through a combination of technology and business, and the more traditional category of ‘Startups’. The event was held at the Royal Academy of Engineering in London and over 200 university partners, friends and family attended the competition or watched online. Ten finalist university teams, comprising engineering, graduates and postgraduates, pitched their business innovations in the hope of winning a share of the £16,000 prize fund. Publicity before and after the event reached a cumulative audience of over 34 million. This included students considering engineering as a course of study, those already studying engineering, and also practising engineers, some of whom may be future candidates for Sainsbury Management Fellows’ Scholarships.

Our partnership with the Royal Academy of Engineering allows us to interact with the brightest and best young engineers. In addition to mentoring entrepreneurial engineers in the RAEng’s Enterprise Hub, EIBF participated in two further extremely exciting and innovative initiatives:

**Engineering Leaders' Scholarship (ELS) Scheme** provides support for undergraduates in UK Higher Education Institutions, who display the potential to become leaders and innovators in engineering. SMF Sam Cockerill helped with the interviews for the ELS Programme in April 2023, and in October 2023 SMF Abigail Bamgboye gave a talk to the ELS winners about the Sainsbury Management Fellows and possible pathways leading to an MBA. Mike Astell and Sam Cockerill reviewed the applications for the ELS scheme in January 2024 and interviewed the chosen applicants in March 2024.

**The Schott Scale Up Accelerator** is a twelve-month programme that develops, nurtures and strengthens the leadership capabilities of senior decision-makers in high-growth engineering and tech SMEs to scale their business to the next level. In January 2024 Chris Martin and Sabih Bezhad assisted in reviewing the applications and selecting the candidates for the Schott Scale Up programme.

We wish to thank all of the participant SMFs for their invaluable support.

## ENCOURAGING MEMBER ENGAGEMENT

The Engineers in Business Annual Dinner was attended by 120 guests including Sainsbury Management Fellows, other business leaders, prominent figures within the engineering fraternity, enterprise professionals from universities who are part of the Engineers in Business Competition, and EIBF sponsors. Creating a buzz at the Annual Dinner, Lord Sainsbury summed up his speech by announcing the possible extension of the SMF scholarship scheme: "The success of the SMFs has led me to believe that we may be able to widen the impact of the scholarship scheme by helping those who have scientific degrees to also acquire business skills. An MBA would provide scientists with credible business skills, allowing them to transform their innovations into commercial products."



SMFs Chris Martin, Chairman, Tokamak Energy and Richard Robinson, President – UK and Ireland, AtkinsRéalis were invited to a business reception with the Chancellor of the Exchequer at No 10 Downing Street in December 2023

We also held several online events which attracted SMFs from around the world.

Additionally, we were pleased to be able to provide SMFs to judge and award prizes at the EIBF-sponsored competitions:

**May 2023:** Fang Fang and John Collins participated in the Interview Panels to select new SMFs.

**June 2023:** Hersh Shah presented the Engineers in Business Prize at WE INNOVATE23 Competition Final and Awards ceremony. Giovanni Sobrero also represented EIBF at the event at Imperial College in London.

Kwok-Gam Ng presented the Engineers in Business Prizes at the University of Hertfordshire's Flare Competition.

Twenty nine SMFs attended an online Energy and Sustainability Group Meeting which was chaired by Mark Futyan, NED. Presentations were made by Tom Delay, Chief Executive of the Carbon Trust, Mark Futyan, NED, Adam Locke, Partnership and Innovation Leader, Laing O'Rourke, Chris Miles, NED, Kensa Group and Henning von Spreckelsen and Michael Hill, who gave a presentation on an exciting new sustainable project collaboration called Kourts, which will provide sustainable squash courts made of recycled plastic to communities worldwide.

**July 2023:** Ahmad Khattab represented SMF at The University of Greenwich Celebratory Dinner at the Royal Naval College.

**September 2023:** Michael Hughes MBE, co-CEO of LoopUp launched the Silicon Valley Internship Programme (SVIP), an initiative to inspire entrepreneurialism in the UK in 2013. This year Michael sponsored entrepreneurs from 13 UK startup companies to go to Silicon Valley for one-year internships. The purpose of this experience is to strengthen their entrepreneurial skills which they will bring back to the UK.

**November 2023:** William Burton, George Fowkes, Andrew Hogwood, Nick Laird, and Mario Carandente joined me at the Royal Academy of Engineering for the Champion of



Peter Kummer and Lord Sainsbury at the Annual Dinner in May 2023

Champions Coaching Day for the ten finalists of our Champions' Competition. The following day, Andy Doe was head judge, joined by Andrew de Rozairo at the Champion of Champions Grand Final.

Evi Giamouzi and Mojgan Maramba participated in the Interview Panels to select new SMFs.

**December 2023:** Unfortunately, due to rail strikes on the day, the annual Christmas Curry was cancelled.

**February 2024:** Andrew de Rozairo was a judge at Kingston University's Bright Ideas Competition.

**March 2024:** Hersh Shah participated in the judging at the University of Warwick's Engineers in Business Competition.

The SMF Investor and Finance Group Networking Event was held online and 26 SMFs participated. SMF Michael Hill hosted this fast-paced session with presentations by Phil Westcott, CEO of Filament Syfter, Mike Astell, Chair of SMF Fundraising, Michael Hill, Founder and Chairman, Rackets Cubed, Chris Shelley, CEO of Gi-3 and Ana Avaliani, Director of Enterprise at the RAEng. The Investor Group's purpose is to network in order to facilitate investments in building early stage companies.

The Energy and Sustainable Development Group convened online and was chaired by Tim Lowe and 20 SMFs participated. Informative presentations were given by Davina Patel, Consultant at Mitie, David Parkin, Director of Progressive Energy Ltd, Sagnik Mukherjee, Senior Strategy Manager at bp and Ernie Poku, Executive Director of Africa Water Infrastructure Development (AWID).

Throughout the year, many SMFs volunteered to be mentors to EIBF business competition winners and several others agreed to be case studies. We wish to thank all those SMFs who participated in events, those who volunteered to assist at EIBF business competitions and the many who are now mentoring young engineers and students.

## SECURING THE FUTURE OF THE SCHEME

We are grateful to Sainsbury Management Fellows for donating £71,000 in FY2023/2024. With Gift Aid and subsequent matching, over £168,000 will be added to the Scholarship Fund. All donations from Sainsbury Management Fellows are used directly to fund SMF scholarships (unless the donor has made a specific alternative request, such as supporting the university competition scheme). Monies raised in 2022/2023 funded two MBA scholarships.

Our primary fundraising activity is The SMF Step Challenge, where all SMFs are asked to step up and contribute to SMF scholarships. This past year, we hoped to raise £150,000 during a "Giving Week", 18th–24th March, to fund three of the ten MBA scholarships. At the time of writing, with donations still coming in, we haven't yet reached our target. However, in terms of participation, we have surpassed last year's efforts, with a



cadre of 16 SMFs contacting SMF colleagues. In addition, we have received some firm pledges for large donations next year. One such pledge that we were delighted to receive came from Chris Shelley, Henning von Spreckelsen and Simon Duncan who have combined forces to create Gi-3 Growth Partners. This new company is partnering with business owners and management to drive growth in the industrial, manufacturing and engineering sectors. Gi-3 will be donating 10% of its profits to fund SMF scholarships, We have already received the first donation.

I would like to thank all the SMFs who have so generously contributed thus far. Thanks also go to those SMFs who contacted other members to ask for their support.

Creating a culture of giving is essential to ensure the continuity of the SMF Scheme into the future. All new SMFs are required to make a monthly donation to SMF as soon as they have begun their jobs post MBA, in effect giving back to provide scholarships for others. We hope that all SMFs will be motivated to contribute double the amount of the current scholarship value over the course of their careers, estimated to be forty years. At present, this would be the sum of £100,000. We encourage all SMFs, whatever they may have already given, to aspire to this goal.

We are grateful for the work of our Engineers in Business Fellowship Trustees, without whom our success would not be possible. I immensely value the support, challenges and innovative ideas that our Trustees bring. I would like to say a big thank you to all of them for their commitment.

Finally, I would like to thank our Patron, Lord Sainsbury of Turville, for his continued support of the Sainsbury Management Fellows, the Gatsby Trustees for their counsel and the Royal Academy of Engineering for its partnership.

**David Falzani MBE**  
*President*

# THE BUSINESS OF THE FELLOWSHIP

**Engineers in Business Fellowship (EIBF) is a registered charity that promotes the importance and value of business education for engineers and the performance of the UK and global economies. The Sainsbury Management Fellows is the MBA scholarship scheme of Engineers in Business Fellowship.**

EIBF empowers engineers to become leaders in UK industry, helps them achieve their full potential and attain career goals, and inspires a passion for business innovation amongst undergraduate engineers. It does this through:

- Sainsbury Management Fellows MBA scholarships – up to £500,000 awarded each year
- Fundraising campaign to sustain the scholarship scheme and help more engineers gain an MBA
- Career and entrepreneur mentoring
- Business competitions aimed at engineering students and recent graduates

Engineers in Business Fellowship is guided by the vision formulated by its patron, Lord Sainsbury of Turville, of a high calibre cadre of engineers with an international business education who occupy leadership positions in British industrial companies and who serve as examples to engineering students and young engineers.

## MEMBERSHIP

Members of Engineers in Business Fellowship have each received a Sainsbury Management Fellowship Award, which helps them study for an MBA at a leading international business school. The awards began in 1987 and are administered by the Royal Academy of Engineering and are funded by the Gatsby Charitable Foundation.

## BUSINESS PLAN

The Fellowship's activities are collated in the business plan. This includes a fundraising campaign which began in FY2014.

## TRUSTEES

The Fellowship is governed by the Board of Trustees which meets quarterly. Officers and members receive no financial remuneration from the Fellowship.



*Sainsbury Management Fellows at the EIBF AGM in May 2023*





**President:**  
David Falzani MBE BEng  
MTech MBA CEng FIMechE



**Secretary/Director  
of Communications:**  
Cathleen Breeze BA MBA



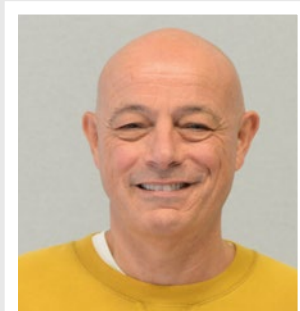
**Treasurer:**  
Mope Ogunsulire  
BSc MSc MBA



Imoni Akpofure BEng MSc  
MBA CEng



Mike Astell BEng MBA CEng  
FIMechE



Simon Bonini MEng MBA  
CEng FICHEM



Hersh Shah MEng MBA CF



Henning von Spreckelsen  
MEng MBA CEng MIET FREng



Nigel Thomas BSc MloD

## DISCLOSURE OF DIRECTORSHIPS

Several members of the Executive Committee and Board of Trustees hold directorships of British and foreign corporations, a list of which is available from the Director of Communications. None of the directorships are with companies which do business with EIBF.

## STEERING COMMITTEE

The Fellowship liaises with the Royal Academy of Engineering via a Steering Committee chaired by SMF Henning von Spreckelsen FREng. Other members include Fellows of the Royal Academy of Engineering: Dr Rajapillai Ahilan, Dr Cathy McClay OBE, Mr Chris Hamlin, Ms Liane Smith, Professor Dick Whittington and Mr Eric Yeatman, RAEng Visiting Professors: Dr Adrienne Houston and Mrs Anusha Shah and RAEng staff members: Dr Rhys Morgan, Ms Lynda Mann and Ms Lauren Pattle. Representing EIBF are SMFs Mike Astell, David Falzani MBE, Chair Henning von

Spreckelsen FREng and Cathy Breeze. Strategy and management of the award scheme and links with other RAEng programmes and the activities of Engineers in Business Fellowship are reviewed on a regular basis.

## SOURCES OF INCOME

Although funded to some extent by subscriptions from its members, the Fellowship has received the vast majority of its funding from The Gatsby Charitable Foundation. Gifts from members which have been received this year as part of the fundraising campaign have been added to the Expendable Endowment Fund established to fund future Sainsbury Management Fellowship Awards.

EIBF received no grants or awards from public bodies during the year.

**Cathleen Breeze**  
*Secretary*

# SMF AWARD WINNERS

## Joseph Agnew CEng MEng Hons, University of Nottingham

Prior to starting his MBA at INSEAD, Joseph's professional experience was in the energy and chemicals industry. He started as a Process Engineer in the Capital Projects group for Wood Plc, supporting greenfield projects for clients across Europe and the Middle East. Later he rotated through roles in the consultancy group to gain experience in project controls and business development. In 2021 Joseph joined Nouryon as a Senior Process Technologist and relocated to Sweden, where for the last two years he has supported the growth, optimisation and decarbonisation of a chemical production facility on Sweden's west coast.



## Abigael Bamgboye MEng Hons, Imperial College London

Abigael is a Management Consultant and social venture adviser, passionate about the intersection of technology, enterprise and ESG. In her career to date, she has worked on Technology Strategy and Transformation, Net Zero and Clean Air initiatives with a number of leading UK-headquartered clients with multibillion pound global operations, alongside advising grass-roots non-profits on Strategy and Programme Delivery. At Wharton, Abigael is keen to gain experience in impact investing and sustainability policy analysis, with a long-term view to support British businesses to combat the climate emergency, whilst achieving socially beneficial and equitable outcomes.



## Roger Gonzalez CEng MRAeS MSc, Imperial College London

Prior to starting his MBA at Harvard Business School, Roger's professional experience was primarily in the Aerospace and Defence sector. He began his career at Rolls-Royce where he worked on a variety of projects from autonomous naval vessels to electric aircraft, ultimately leading engineering digital transformation for Defence Future Programs. In his most recent role as a Product Manager at Boeing, he led the development of software and analytics products for aviation. Roger will be undertaking the MBA program at Harvard Business School, after which he plans to focus on creating more sustainable manufacturing in the UK and beyond.



## Alexander Iley MEng Hons, University of Southampton

Alex has been passionate about the cruise industry ever since stepping on board at the age of four. Most recently, he led business development at VShips Leisure, the leader for outsourced cruise ship management. Working closely with the CEO and a global team, major projects included the startup of a cruise line in China, the response to the unprecedented collapse of Genting HK and the acquisition of Azamara by Private Equity and its subsequent de-coupling from Royal Caribbean Group. He has extensive international experience having been based in the UK, USA, Monaco, Singapore and Cyprus, combined with time at sea on cruise ships for training and technical projects. After his MBA at Harvard Business School, Alex expects to support the drive to sustainable shipping and tourism through the cruise industry.



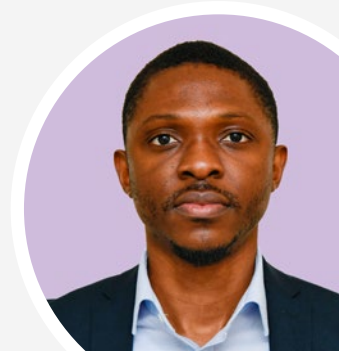
### **David MacDonald** CEng MEng, University of Edinburgh

Prior to starting his MBA at Imperial College Business School, David worked in the UK energy sector for eight years in the upstream Oil and Gas industry. He graduated as a Chemical Engineer and gained experience in Process Engineering and Data Analytics on onshore and offshore operations. David's most recent role was as a Process Engineer leading the maintenance shutdown on the Britannia Platform in the North Sea. For the last 12 years he has also been a British Army Reserve Officer and is currently serving as a Captain in the Royal Signals, focussing on specialist communications.



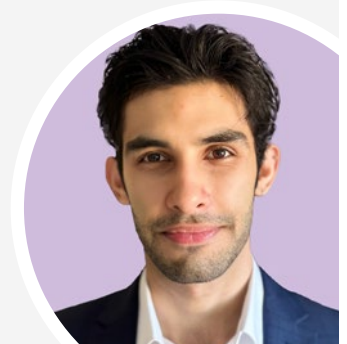
### **Marcel Mbene** CEng MICE, Newcastle University

Marcel's professional expertise has predominantly been in the defence and ports industries, where he was responsible for the development and delivery of major infrastructure projects from concept to point of use. He began as a Civil Engineer before moving on to project management and senior leadership responsibilities over schemes worth up to £20 million. His background includes a wide range of new builds and rehabilitation projects, most recently the reconstruction of a deteriorating quay wall in Southampton. Marcel will be studying for his MBA at HEC Paris in September 2024.



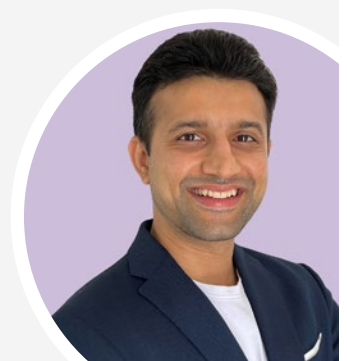
### **Hassan Nasir** BEng Hons, University of Bristol

Prior to starting his MBA at INSEAD, Hassan's career was in electronic engineering, accumulating experience in hardware design within the consumer electronic industry with Dyson Ltd. Throughout his time at Dyson, he worked on a diverse range of projects, steadily advancing to the role of a senior engineer. He then transitioned into the startup world, gaining valuable experience in the development of autonomous mobile robots.



### **Utsav Oza** MSc, Imperial College London, PhD, University of Southampton

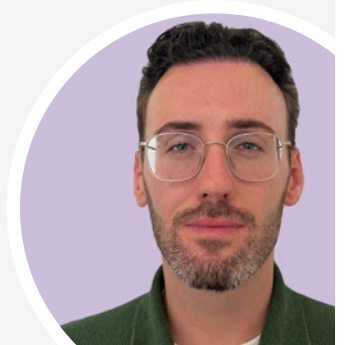
Prior to starting his MBA at INSEAD, Utsav's professional experience was in the corporate venture capital sector with a focus on investing in technologies for decarbonisation of heavy industries. He began as an Aerospace Engineer before progressing to a team manager leading 20 consultants. His early experience was primarily around aerospace research projects where he was responsible for taking ideas from TRL-1 (Technology Readiness Level) to TRL-4/5. During his last position at ArcelorMittal's XCarb Innovation Fund, Utsav played a key role in investing in companies within sectors such as clean energy, nuclear reactors, long-duration energy storage, and carbon capture.



# SMF AWARD WINNERS (CONTINUED)

## James Ramsay MEng Hons, University of Strathclyde

James is a Chemical Engineer and Project Manager with seven years experience working across the FMCG and Luxury Fashion Industries. His roles have spanned manufacturing, end-to-end supply chain management and the Project Management of new products from Research & Development to Go-to-Market. In addition to his interest in the luxury fashion industry, James is also passionate about Diversity, Equity & Inclusion. This comes from his own experience of growing up LGBT+ in one of the most underprivileged areas in the UK. After his MBA at Stanford Graduate School of Business, James is determined to combine his two passions and re-energise the British Fashion industry while creating opportunities for diverse and underrepresented talent who don't see a clear pathway into the industry.



## Lia Turrini BSc Hons, Royal Holloway University, MSc, Imperial College

Prior to undertaking her MBA at Harvard Business School, Lia worked in the Energy Industry for seven years. With a background in Earth Sciences, she started her technical career at Shell, assessing the hydrocarbon resource prospectivity of a variety of sedimentary basins around the world. In the last few years, while leading grassroots employee efforts to accelerate the energy transition in her company, Lia broadened from her scientific foundation to a commercially focused, business development role. As an Energy Transition Geoscientist in the Innovation & Performance team, she led opportunity evaluations aimed at identifying disruptive technologies and new sustainable business models for Shell. After her MBA, Lia aspires to become an impactful business leader driving the transition of low-carbon and renewable energy solutions in the UK.



## Chigozie Maryvonne Ukachi CEng MEng, University of Manchester

Chigozie is a chartered chemical engineer and an operations consultant with over eight years of experience across the aerospace, energy and consulting industries. Since graduating from the University of Manchester, she has worked in several engineering roles as a design engineer, and project and program manager. She most recently worked as a Junior Engagement Manager at McKinsey. In this role, she was able to apply her leadership learnings on a global scale to solve complex operations problems and has developed a passion for consumer electronics. After completing her MBA at Harvard Business School, she hopes to build on her experience in consumer electronics, and continue to develop as a global business leader, with the intention of translating innovative technologies to further enhance human experiences.



## John Zepos BSc, King's College London, MSc, Imperial College London

Before pursuing an MBA at Columbia Business School, John gained valuable experience in the downstream oil & gas sector while working at World Kinect Corporation. His journey began in the UK division, where he played a pivotal role in expanding the organisation's market share among existing fuel customers by setting about the 'organic growth' transformation of that business. Recognising the evolving landscape of the energy industry, John then took on the establishment of the 'Energy Transition' offering. Through this initiative, he spearheaded the creation of a suite of services designed to support customers as they tackled the intricate challenges associated with decarbonisation.



# MEMBERS' HIGHLIGHTS

## BY GRADUATION YEAR

### 2024

**Enrico Tranchina (Imperial)** recently started as Senior Associate, Energy Practice at Boston Consulting Group.

### 2023

**Shrilekha Appicharla (INSEAD)** will be starting as a Consultant at McKinsey in autumn 2024.

**Chris Holmes (Imperial)** is now a strategy advisor for bp for the clean energy low carbon and power groups.

**Peter Kummer (INSEAD)** accepted a position as a consultant for the Polish nuclear programme, based in Warsaw.

**Jonathan Lister (INSEAD)** is now a Senior Consultant at Accenture.

**Sanyam Mahajan (INSEAD)** has been appointed Senior Solutions Business Manager at Similarweb.

**Konstantinos Moustidis (IMD)** was recently appointed as Senior Finance Analyst at Hexagon Manufacturing Intelligence.

**Lynda Nwike (Harvard)** is now a Hedge Fund Analyst at Condire Investors LLC based in Dallas.

**Alessio Piscopo (IESE)** is now a Senior Consultant at Roland Berger in Holland.

### 2021

**Mahmoud Gawish (INSEAD)** founded Alpine Capital which aims to acquire and operate a small to medium enterprise in the UK, with a strong focus and interest in engineering and manufacturing companies.

### 2020

**Sagnik Mukherjee (INSEAD)** rejoined bp as a Senior Strategy Manager and will be leading strategy development projects within Strategy, Sustainability and Ventures.

### 2013

**Penny Cox (INSEAD)** is now Chief Executive Officer of Toys'R'Us in Australia.

**Fang Fang (LBS)** is now Whole Energy Strategy Manager at National Grid ESO.

**Gil Rabbie (LBS)** is now Director for International Healthcare Product Management for Microsoft.

### 2012

**Mahipal Ganeshmal (IMD)** has recently been appointed Finance Director of WW Amazon Delivery.

### 2011

**James (JD) Dunbar (LBS)** has been appointed Area Production Manager – Shah Deniz at bp.

**James Stewart (INSEAD)** is now CEO of Always Carbon based in Sydney.

### 2008

**Paolo Ronchi (IESE)** recently joined DSM Firmenich in Switzerland as Head of Next Generation Sales and Insights within their Animal Nutrition & Health business line.

### 2006

**Graham MacGregor (INSEAD)** recently became Managing Director of Alvarez and Marsal in Australia.

**Davina Patel (LBS)** has recently started working on the sustainability and energy management team for Mitie Plan Zero, a UK facilities management company.

### 2005

**Federico Suria (INSEAD)** recently accepted a new position as EMEA Regional Business Leader Media & Telco at Microsoft.

### 2001

**Ernie Poku (Erasmus)** is now Executive Director at Africa Water Infrastructure Development (AWID).

### 1998

**Ruth Hooton (Erasmus)** is now the Company Technical Expert – Transformers for National Grid.

### 1997

**Philip Watt (INSEAD)** is now Target Operating Model expert at CIL Management Consultants.

### 1989

**William Burton (INSEAD)** was appointed to the Board of the British Tourist Authority, whose responsibilities include VisitBritain and VisitEngland. He is now Chair of their Audit and Risk Committee.

**Chris Martin (IMD)** is now Chairman of the Board of Directors of Myricx Bio.

# ENGINEERS IN BUSINESS COMPETITIONS

For ten years, EIBF has run competitions which challenge engineering students to create a unique product that meets a need in society and demonstrates the use of engineering skills in the creative process. The aim is to encourage engineering students to consider business courses as part of their education.



This past year, the number of active partner universities rose from 39 to 47 and the message of ‘Engineers in Business’ reached a record number of 336,771 students and graduates – 3% higher than in 2022.

Significantly, the number of engineers who participated in university enterprise competitions in 2023 rose by 71% to 4,172. We also received many requests for SMFs to participate in judging university competition finals, as well as requests from prize winners for mentors.

The reach of our media campaign for our 2023 Champion of Champions national competition also exceeded the previous

year, reaching a worldwide audience of more than 34.5 million, a 6% rise over 2022.

Five new university partners were approved to run Engineers in Business Competitions: the **University of Bath**, the **University of Manchester**, **Ulster University**, **Manchester Metropolitan University** and **Teesside University**. We were also pleased to welcome the return of universities who temporarily stepped back, including **De Montfort University** and the **University of Greenwich**.

The following pages describe the diverse and exciting business ideas created by the winning university teams.



## BIRMINGHAM CITY UNIVERSITY Leading Engineering Endeavours



The Leading Engineering Endeavours Project is undertaken by second year engineering students and is aimed at supporting them to think beyond boundaries. A total of 101 students took part this year, working in interdisciplinary teams drawn from mechanical, automotive, electronic and manufacturing disciplines. Teams were set a challenge by The Rivers Trust to design and prototype a low-cost solution for monitoring soil health, before presenting their solutions at the university's Innovation Fest event.

Prizes were awarded to the four teams judged to have presented the best solutions, with the RiverFlow team coming out on top, taking away a £1,200 prize. The team designed a soil health monitoring system using biological, chemical and physical indicators.



The RiverFlow team: Thomas Marshall (second left), Adam Burgoyne (third left), Iftakhar Hussain (second right) and Siem Shanay (far right)

“ Once again, working on a real project with a real client and tangible rewards served to bring out the best in our students. The standard of work overall was very high, and the results produced by the top teams were outstanding. The prize money provided by EIBF is very valuable to us because it helps incentivise students to go the extra distance and produce work beyond their own expectations. ”

Roger Wall, Senior Lecturer, Birmingham City University

## UNIVERSITY OF BRISTOL New Enterprise Competition



The New Enterprise Competition is a business startup initiative that allows students, staff and alumni to pitch for a share of £35,000 (including the Engineers in Business prize), legal support and business acceleration services, to develop a commercial or social enterprise.

The £3,000 Engineers in Business prize was won by Impulsonics – a startup aimed at making growing cells in the lab cheaper, faster and more reliable by automating the processes which are usually still done by hand in all but the biggest laboratories.

“ We are delighted to have benefitted from Engineers in Business' continued support for the University of Bristol's startup programming in 2023. The many and various startups our engineering and computing students submit to the annual New Enterprise Competition we run are a constant reminder of the breadth of impact engineering makes to society and its unique value to daily life. We are delighted that through their support we can champion this. ”

Rob Taffinder, Assistant Director,  
University of Bristol



From left to right: Professor Bruce Drinkwater, Dr Luke Cox and Dr Steve Kitson from the winning Impulsonics team

## TEDI-LONDON Summer School

**TEDI** LONDON  
The Engineering  
& Design Institute

TEDI-London's Summer School is an annual international design challenge competition, featuring engineering students from around the world. Students spend three weeks immersing themselves in a set topic, with this year's theme being centred around the future of Canada Water and focused on how to bring seamless, safe, net zero, connected, cost-effective, accessible and reliable transport solutions to the area.

First place went to Urban Dynamics – a team which designed two distinct areas for both pedestrians and cyclists, using flexible bollards, seating areas and, by analysing real-time and predicted data, lighting that can be moved to allow for multiple layouts.



*The winning Urban Dynamics team Hamish Galloway (back, second right), Flynn Lambrechts (back right), Cody West (front left), Natasha McMillan (front, second left) and Farhan Shafiq (front, third left) with members of the TEDI-London team*

“ *The EIB prize was an excellent initiative and incentive for the 53 students that took part. It was a fantastic finale to three weeks of hard work, industry input, learning and collaboration. TEDI-London was grateful to be able to send so many of them away at the end of their time with us with a considerable financial reward, as well as a real sense of achievement and camaraderie.* ”

Judy Raper, former Dean and CEO, TEDI-London

## UNIVERSITY OF HERTFORDSHIRE Flare

University of  
Hertfordshire **UH**

Flare is a highly competitive annual competition that gives students and graduates the support and training they need to bring their business ideas to life, no matter how far along they are in development. Entrants can test their concepts in a safe and constructive environment, taking home individual cash prizes across various categories, including engineering.

Electronic Engineering student Fidelis Odok picked up the £3,000 Engineering in Business prize for his innovation, Wattflow, which strives to make clean energy more affordable and accessible through AI-powered battery management systems.

“ *Being supported by the Engineers in Business Fellowship enables us to reach out to these enterprising students and offer them the financial support to get their ideas off the ground. By engaging in the Flare competition process students also have an opportunity to cross-collaborate with entrepreneurial students from different parts of the University. The EIBF mentoring support, plus the chance to compete in the Engineers in Business Champion of Champions, is really the icing on the cake!* ”

Kate Serby, Enterprise Adviser,  
University of Hertfordshire



*Fidelis (right) was presented with his prize by Professor Pandelis Kourtessis, the university's Associate Dean for Research and Enterprise*



## UNIVERSITY OF THE HIGHLANDS AND ISLANDS UHI Business Competition



The University of Highlands and Islands Business Competition is an annual event run by CREATE, the Highlands and Islands hub for Enterprise and Innovation based in the Centre for Living Sustainability at UHI Inverness. It promotes entrepreneurship as being vital to the local and national economy and aims to provide a platform for promising entrepreneurs to share their ideas, develop innovations and receive support to help them flourish.

The £3,000 Engineers in Business prize fund was shared between three students – Jack Marley McIntyre for his new design concept for the Rose Street Roundhouse civic venue, Dean Frazer for his low-cost power factor correction system, and Ethan Barnes for his open-source solution to educational gaming.



Winners from this year's University of the Highlands and Islands competition: Ethan Barnes, Dean Frazer and Jack Marley McIntyre

“ The Engineers in Business Prize Fund encourages entries from our engineering and computing students and, in turn, changes people's lives by providing them with the confidence and support to start their own businesses. ”

Professor Vicky Johnson, Director, University of the Highlands and Islands

## UNIVERSITY OF SURREY Enterprise Project



The Enterprise Project is a year-long project carried out by second-year electrical and electronic engineering students. Teams work collaboratively to create innovative concepts with the potential for commercialisation. This provides students with an opportunity to enhance their business awareness, build entrepreneurial skills and develop transferable skills such as team working, project management, presentation, negotiation and leadership.

The main £1,500 prize was won by the Lifeline team which used cutting-edge technology to revolutionise road safety. The wearable technology integrates vehicles with self-driving capabilities to detect driver emergencies and take control where necessary. The university also ran a second competition for its Foundation Degree students, with the Vendi-Go team being awarded a £1,500 prize for their environmentally friendly “bring-your-own-bottle” concept for vending machines.



The winning Lifeline team (left to right): Jana Abou Fagher, Rami Makarem, Muhammad Bin Abdul Khalik, Warisa Arlaipatharakul and Damien Taiwo

“ Engineering students are becoming smarter, more worldly and equipped for their future, with entrepreneurial and intrapreneurial skills fostered through this competition and we are so grateful for the cash prize incentive offered by Engineers in Business. ”

Kat Mack, former Student Enterprise Manager, University of Surrey

## QUEEN'S UNIVERSITY BELFAST Dragons' Den



The university's Dragons' Den competition, organised by the Student Union Enterprise, helps students develop enterprise skills including pitching, marketing, finance and legal, and starting their own businesses. Participants had a chance to win a share of £10,000 in prizes, including £3,000 from Engineers in Business.

This year's winner was final year Mechanical Engineering student Maebh Reynolds for her business, GoPlugable, which aims to tackle the availability and accessibility of charging points for electric vehicles. Maebh has ambitious plans to create the largest electric vehicle charging network in the world – similar to AirBnB for electric charging points.



Winner Maebh Reynolds (centre) is pictured with (left) Kat Maguire, Enterprise Development Officer and (right) Sarah Grant, SU Enterprise Intern

“*The Engineers in Business Prize Fund added significant value to the QUB Dragons' Den competition in 2022/23. It enabled us to award funding to an extremely talented engineer with a unique, potentially world-changing business proposition. Being linked to Engineers in Business also provided added value to the competition as it encouraged more engineers to apply to the competition, ultimately resulting in the competition receiving more high-quality applications.*”

Judith Maguire, Student Union Enterprise Manager, Queen's University Belfast

## NOTTINGHAM TRENT UNIVERSITY The Grand Challenge



The Grand Challenge is a three-week project where students work in cross-disciplinary and cross-year teams to conceptualise, design and produce a product. They develop a business case and a promotional video to demonstrate their prototype at a trade show event to peers, staff and industry contacts.

This year's theme was Engineering Heritage with five sub-themes, with prizes awarded for each. Students were challenged to identify a current or future heritage need before developing a solution. Ideas had to be sustainable, inclusive, ambitious, and future thinking.

The £3,000 Engineers in Business prize fund was divided equally between the winning students. Innovative ideas included bringing historical figures and artefacts back to 'life' using AI, a softly grabbing robot, a new mobile product for architects, and sensors for classic cars.



This year's participants in The Grand Challenge

“*We've noticed a measurable increase in initial engagement and motivation since offering the prize fund. Again, we saw a huge number of students really go above-and-beyond to impress, and there was a tremendous buzz around the engineering department throughout the project.*”

Dr Rebecca Margetts, Principal Lecturer, Nottingham Trent University

## UNIVERSITY OF DUNDEE Venture



Venture is Scotland's largest university funding competition for new business ideas. It is a three-stage competition for all University of Dundee students, staff and recent graduates and offers different prize fund categories.

This year's main engineering prize winner was Industrial Engineering and Management student Lydia Konduah. Lydia won a total of £5,000 of funding (£2,000 from Engineers in Business) for her innovation, Phlow, which are flushable, eco-friendly sanitary pads.



“ The continued support from Engineers in Business Fellowship has been invaluable in increasing participation from our School of Science and Engineering community, making it the category with the largest prize fund that students can apply for. ”

Brian McNicoll, Head of Entrepreneurship, University of Dundee

Lydia Konduah being presented with her prize from Professor Iain Gillespie, Principal and Vice-Chancellor at the University of Dundee

## KINGSTON UNIVERSITY Bright Ideas



The annual Bright Ideas entrepreneurial competition is open to all students across the university to encourage students to develop their problem-solving, presentation and enterprise skills. Workshops, sprints and heats took place online before students were able to pitch in front of a panel of judges in person. More than 700 students took part, including almost 600 from the Engineering, Computing and Environment Faculty.

The engineering category was won by the LevelGuard team who took away a £1,000 Engineers in Business prize for their modular pedestrian safety solution. All of the team are current Civil and Infrastructure Engineering students.



Left to right: The LevelGuard team of Myles Taylor, Turrell Harper, Nathan Little, Ben Bright and James Crouch

“ Thank you to Engineers in Business for supporting our students' journey. The opportunity to develop an idea, pitch and get feedback is invaluable preparation for our students' careers in engineering. ”

Martha Mador, Head of Enterprise Education, Kingston University

## CARDIFF UNIVERSITY Spring Startup Awards



Cardiff University's Spring Startup Awards feature three categories for engineering and computer science students and graduates to enter their innovations; from fledgling ideas to startups ready to take products to market.

The main Engineers in Business prize winner was Electrical and Electronic engineer Povilas Dumcius whose business BLIST Technologies specialises in educational technology with advanced virtual reality gloves and microcontroller solutions. The reprogrammable gloves and microcontrollers allow users to create and feel their own tactile sensations, making them a powerful tool for teaching programming and electronics. Povilas won £1,500 for his innovation.



Winners of this year's Spring Startup Awards at Cardiff University

**“ The Engineers in Business Prize Fund really helps to widen participation across the engineering schools. It encourages students who may not have previously thought they could start a business or come up with a new invention, to have the confidence to put their idea forward and gain valuable feedback and further support to take it from idea to reality. ”**

Georgina Moorcroft, Senior Team Manager, Cardiff University

## UNIVERSITY OF NOTTINGHAM Ingenuity



Ingenuity is a national innovation programme that addresses the UK's major social, health and environmental challenges through the creation of new startups.

Open to all students and graduates, the programme involves a wide network of university partners from across the UK. This year, two Engineers in Business prizes were awarded. Pipeline Organics, a team of researchers who met at the University of Nottingham, won a £1,000 prize for their TankArc innovation which generates electricity through wastewater. While Richard Holmes from York St John University was awarded £1,000 for his international communication system, Global Anthem.



The winners of this year's Ingenuity programmes, co-ordinated by the University of Nottingham

**“ The Engineers in Business prize fund has been incredibly valuable to the Ingenuity 2023 competition. I am delighted with the outcome of the competition and impact of the programme this year and incredibly proud of our 2023 Changemakers and their commitment to developing businesses focused on improving health, tackling climate change and building stronger communities. ”**

Claire Mulholland, Ingenuity Programme Manager, University of Nottingham

## UNIVERSITY OF WARWICK Starting a Business



The Starting a Business module gives second-year engineering students the opportunity to understand and appreciate the challenges involved in setting up their own business. The module takes a hands-on approach in teaching students how to think and act like an entrepreneur, covering areas such as developing and testing a business idea, pitching the concept to industry experts and writing a business report based on feedback and insights.

Two teams shared the £3,000 Engineers in Business prize. The Mystery Threads team provided a fresh take on second-hand clothing with their subscription-based mystery box while the Nightguide team developed an emergency SOS widget for mobile phones to enhance personal safety.

“ While EIBC prize money is a welcome and encouraging financial incentive, the value of the competition is much more in terms of an opportunity for our students to learn how to pitch to a panel of seasoned potential investors (including Sainsbury Management Fellows) and at the same time get detailed feedback on the potential of their business ideas. ”

Ketan Goswami, Assistant Professor,  
University of Warwick



The winning Mystery Threads team (clockwise from back left): Natasha Peacock, Bariah Azhar, Joseph Ali, Will Powell, Saqib Ahmed and Ruiyang Zhang

## ABERYSTWYTH UNIVERSITY InvEnterPrize



InvEnterPrize is open to undergraduates, postgraduates and recent graduates each year, rewarding entrants with the best business ideas. It is predominantly funded by the Alumni Office (DARO) which donates a £10,000 prize fund, now enhanced with funding from Engineers in Business. The competition stimulates participation from students and graduates from the Departments of Computer Science, Maths, and Physics.

The winners of this year's £3,000 Engineers in Business prize was Satellite Media which provides video production, talent management and equipment rental services.



InvEnterPrize engineering winners, from Satellite Media, Raex Philip and Callum Payne

“ The EIB prize has been a great asset to our InvEnterPrize student business ideas competition, enhancing the competition not only with the £3,000 cash prize but by also offering the winner entry to the EIB national competition. ”

Louise Somerfield, Enterprise Officer, Aberystwyth University

## LOUGHBOROUGH UNIVERSITY

### The Solar Decathlon Design Challenge



This annual interdisciplinary competition challenges teams to design highly efficient, innovative and sustainable buildings that are powered by renewable energy. It is organised by the US Department of Energy and involved ten contests that cover various aspects of building design and performance, including engineering.

The Berg team from Loughborough University won a £1,500 Engineers in Business prize for their Smart Climate Proof House, which achieves net zero through low-carbon heating, renewable energy, a different building orientation, natural ventilation and uses low embodied carbon materials.

“ The students were very enthusiastic and learned a lot. They presented their design in front of several judges from industry and international panels. The networking, teamwork and learning were a pleasure to witness. ”

Mahroo Eftekhari, Professor of Building Services Engineering, Loughborough University



Winners (left to right): Kaspar Rechartd, Neda Abbasimaleki, Joshua Vasudevan, Syafiq Saiful, Enea Dimitris Tseno

## UNIVERSITY OF YORK

### The Dragons' Den



The university's Business Innovation & Entrepreneurship course provides a practical introduction to the creation and development of enterprises that generate and sustain value from ideas, inventions and opportunities. The course incorporates the Dragons' Den competition which gives students an opportunity to showcase their ideas to a panel of experts.

The Vidget team won the main Engineers in Business prize of £1,500 for their innovation which uses camera technology attached to glasses and linked-to via Bluetooth to enable visually impaired people to go shopping on their own. The technology scans the barcodes of products as well as automatically reading ingredients and hard-to-read labels via audio loop.

“ The EIBF prize challenged students to stretch to a further degree of professionalism in the development and pitching of their business ideas. The stimulus of the prize money and the further opportunities offered by the scheme galvanised students competitively to perform at a level that seriously impressed all who attended the event, including the dragons and myself. ”

Heather Niven, Business and Innovation Consultant, University of York



Winning Vidget team member Leyi Ye (front left) with the University of York team

## SWANSEA UNIVERSITY Invent for the Planet



Invent for the Planet is 48-hour global collaborative hackathon, in which students from almost 30 universities come together to tackle some of the biggest challenges facing the world. Swansea University is the only UK university to participate. Over 48 hours, students work in teams to research a pressing problem, create a prototype, write a white paper and develop an elevator pitch to present to a panel of judges.

The H2Grow team was awarded the main Engineers in Business prize of £1,000 for their solution to global water and sanitation issues. Their idea is a new filtration system which uses reverse osmosis instead of evaporation or bio-sand filtration. On the back of their initial success, the H2Grow team won the top prize at the grand final in Texas.

**“ In our fourth year of running Invent for the Planet, we are still in awe of the ingenuity that students demonstrate when developing their ideas. The funding provided by Engineers in Business Fellowship allows us to demonstrate the value of Invent for the Planet to future students. ”**

Dr Caroline Coleman-Davies, Deputy Head for Academic Partnerships, Swansea University



The winning H2Grow team (left to right): Alex Henson, Oli Leslie-Golding, Matthew Coomes and Rachel Simms

## KING'S COLLEGE LONDON Engineers in Business Competition



This competition runs in tandem with the Idea Factory competition as the university aims to nurture the biggest and best ideas that have the potential to grow into successful new ventures. Participants are supported through a series of workshops and webinars that help students learn more about a range of entrepreneurial skills including ideation, validation, disruption and pitching.

MedTech student Rumeesa Rais was awarded the £3,000 prize this year for her smart technology innovation, Heard – a wearable translation device to overcome language barriers in healthcare settings.



MedTech student and Heard innovator Rumeesa Rais

**“ We have thoroughly enjoyed running this excellent competition and are grateful for the Engineers in Business Fellowship for providing the support and funding. ”**

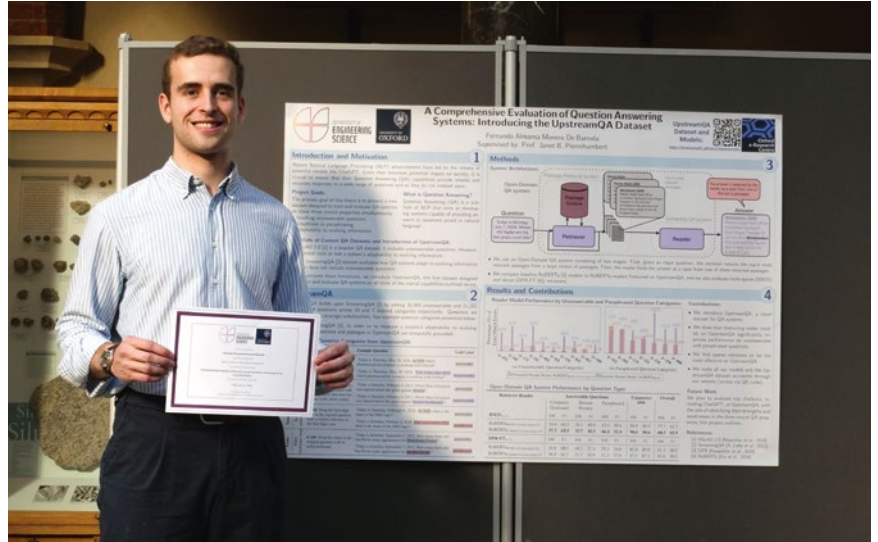
Dawn Bonfield MBE, Royal Society Entrepreneur in Residence, King's College London

## UNIVERSITY OF OXFORD Fourth Year Poster Competition



The university's Business Innovation award aims to reward engineers who develop ingenious ideas that could solve real problems in society in a sustainable manner. Projects are needs-led, have a strong market fit or have a well-defined problem with a clear consumer base for which an innovative solution is developed.

This year's Engineers in Business prize of £500 went to Fernando Almansa, whose Upstream QA project looked at improving the capabilities and reliability of AI answering platforms like ChatGPT. Fernando's idea uses new datasets to train and evaluate question answering services to handle unanswerable questions, robustness, paraphrasing and adaptability of changing information.



Upstream QA innovator Fernando Almansa

“ The EIBF prize provides value beyond the competition. It allows students to become aware of the value of combining business and entrepreneurship with engineering. It is a catalyst to attract students to this interdisciplinary domain. ”

Professor Jeroen Bergmann, Associate Professor, University of Oxford

## UNIVERSITY OF SOUTHAMPTON Concept to Creation



The university runs prize-fund competitions for students wanting to develop a business or social enterprise, with the Engineers in Business providing a component of this funding to students from Engineering and Physical Sciences. Students also have the opportunity to work with a design agency to develop a physical prototype of their innovation.

The first prize of £1,500 was won by Meta Futura Aerospace – a team of aerospace engineering students developing a ground-breaking attitude and orbit control system designed to transform spacecraft control.



The Meta Futura Aerospace team of Fabrizio Pisani, Elena Carulla, Nestoras Papageorgiou and Pedro Rodriguez. Not pictured: Marcin Badowski

“ The partnership between the Engineers in Business Fellowship and the University of Southampton plays a crucial role in enabling us to engage with entrepreneurial students within the Engineering schools and offer them essential financial support to jumpstart their ideas. ”

Tom Simmonds, Head of Student Enterprise & Events, University of Southampton





ENGINEERS IN BUSINESS COMPETITION

# Champion of Champions

## COACHING DAY



*The PCOSENS Team, Soudes Ben Aissa and Saylee Jangam give an impromptu interview on arrival at the Royal Academy of Engineering to participate in the Engineers in Business Champion of Champions Final*

**Thirty-three teams from our partner universities submitted entries to the Engineers in Business Champion of Champions Competition this year. On 2nd November 2023 we warmly welcomed the ten finalist teams of student innovators to a Coaching Day at the Royal Academy of Engineering.**

The day commenced with a welcome by EIBF President David Falzani MBE and then the teams were introduced to their SMF coaches who worked with them throughout the day, listening to their pitches, reviewing them, and giving constructive critiques that enabled the teams to hone both their presentations and verbal pitches. The students spoke very highly of their experiences with their coaches, with many saying that they hope to maintain contact with their coach.

The finalists also rose to the challenge of giving video and social media interviews about their innovations and aspirations as well as posing for photographs with their coaches. These are vital assets that enable EIBF to promote the Engineers in Business competition during the grand final and on an ongoing basis to help us reach more universities with our 'engineers in business' message.



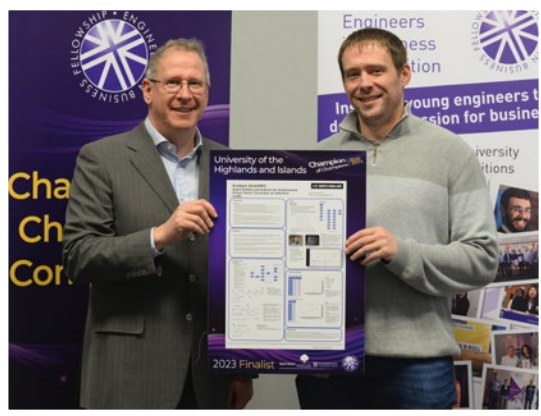
*The RiverFlow Team, Adam Burgoyne and Thomas Marshall are interviewed during Coaching Day*

HERE ARE THE COACHES AND THE TEN FINALISTS:

**COACH – DAVID FALZANI MBE**, a professor of entrepreneurship at the University of Nottingham. David also works with clients in a variety of sectors including energy technology, software and charities, helping with business and financial development, technology projects, marketing and strategic planning. David coached **EcoSync** and **PCOSENS**.



**FINALIST – EcoSync, from the University of the Highlands and Islands**, is a low-cost power factor correction solution for electrical installations aiming to reduce energy consumption, maximise savings and increase safety.



*Coach and EIBF President, David Falzani MBE, with Dean Frazer, founder of EcoSync*

**FINALIST – PCOSENS, from Imperial College London**, is a wearable piece of technology designed to assist Polycystic Ovary Syndrome patients in tracking their hormones in real time to help manage their condition.



*Coach and EIBF President, David Falzani MBE, with PCOSENS scientific advisor Sondes Ben Aissa (centre) and founder Saylee Jangam (right)*

**COACH – ANDREW HOGWOOD**, has more than 20 years' experience in Telecoms, Financial Services, and Fintech sectors. He has worked in startups, private equity backed scale-ups and large corporates, focusing on driving scale through digital transformation. Andrew coached **SurfaceKeys** and **Meta Futura Aerospace**.



**FINALIST – SurfaceKeys, from Durham University**, is a tool to enable virtual reality users to type using any surface using an algorithm to detect hand movements and typing behaviours.



*SurfaceKeys team Zexi He (left) and Qilin Wang (right) with coach SMF Andrew Hogwood*

**FINALIST – Meta Futura Aerospace, from the University of Southampton**, designed MetaFlex – a groundbreaking attitude and orbit control system designed to transform spacecraft control, replacing the usual eight-thrusters with just two.



*The Meta Futura Aerospace team being coached by SMF Andrew Hogwood*

**COACH – GEORGE FOWKES**, is an expert in design, development and rollout of business opportunities in the UK, Europe and Asia. George has corporate and SME experience in energy, waste, clean technology and industrial markets. George coached **RiverFlow**.



**FINALIST – RiverFlow, from Birmingham City University**, is a soil monitoring system allowing farmers to affordably collect constructive data around soil temperature, soil moisture and worm activity, enabling them to increase their crop yields.



SMF George Fowkes during his coaching session with RiverFlow members Thomas Marshall (left) and Adam Burgoyne (right)

**COACH – Mario Carandente**, is a leader in the automotive industry with expertise in product strategy, development and launch of new vehicle programs. He has overseen the creation of premium and luxury automobiles from concept to launch, leading the product development, manufacturing, sourcing and supply chain strategies. Mario coached **Pipeline Organics**.



**FINALIST – Pipeline Organics, from the University of Nottingham**, is an early stage cleantech startup developing higher efficiency biofuel cells to generate renewable electricity from wastewater.



SMF Mario Carandente (left) with Pipeline Organics founder Arielle Torres during their coaching session

**COACH – WILLIAM BURTON**, is an entrepreneurial CEO specialising in turnarounds, buyouts and complex situations, especially in travel & transport and business services. He is a member of the Boards of the Chartered Institute of Marketing and the British Tourist Authority. William coached **Squaser** and **Global Anthem**.



**FINALIST – Squaser, from Lancaster University**, is a line detection system designed to help squash referees determine if the ball is in or out of play through the use of lasers.



SMF William Burton (left) with Squaser inventor Gruffydd Gozali

**FINALIST – Global Anthem, from York St John University**, is an engineered communication system using natural and intuitive hand gestures that can be used to break down language barriers during humanitarian crises.



Global Anthem's Richard Holmes (centre), with coach SMF William Burton

**COACH – Nick Laird**, is a highly experienced CEO, Advisor and NED. Board/Senior team effectiveness is a common theme in Nick’s career, pulling senior teams together to a single vision and strategy. His areas of focus tend to be automotive, cloud software and technology. Nick coached **Stampede Prevention System** and **DotStores**.



**FINALIST – Stampede Prevention System, from Queen’s University Belfast**, uses an AI-powered flow monitoring system, a controller and splitter air bags that can be integrated into the floor of venues to keep events safe from crushes.



SMF Nick Laird (left) during his coaching session with Stampede Prevention System inventor Eray Kayar

**FINALIST – DotStores, from the University of Birmingham**, uses autonomous robotics to create retail stores that operate around-the-clock without human intervention.



DotStores founder Rushikesh Bagul (left) with coach SMF Nick Laird

It was an exciting and fun day for all involved, not only for the students but for the Sainsbury Management Fellows coaches as well.



The Meta Futura Aerospace Team (left -right) Nestoras Papageorgiou, Marcin Badowski, Elena Carulla, Fabrizio Pisani and Pedro Rodriguez



Coach Andrew Hogwood with the SurfaceKeys team, Zexi He and Quilin Wang



Coach Mario Carandente with Arielle Torres from Pipeline Organics



ENGINEERS IN BUSINESS COMPETITION

# Champion of Champions

## GRAND FINAL 2023

On 3rd November 2023, EIBF hosted the Engineers in Business Champion of Champions Final at the Royal Academy of Engineering and live-streamed the event via YouTube. Ten university teams, comprising engineering students and graduates, pitched an impressive array of business innovations to win a Champion of Champions award and a share of the total prize fund of £16,000. Winners also were offered mentoring from Sainsbury Management Fellows and prizes from our sponsors, PurpleCV and Cambridge University Press.

The teams had three minutes to pitch their innovations to judges before answering questions based on their presentations, all compered by TV presenter and engineer Rob Bell.

Finalists competed in two categories: **Big Ideas**, for younger students tackling big problems, and **Startup**, for those who had started or were about to start their businesses.

As well as cash prizes, winners also received prizes from our sponsors: books from Cambridge University Press and the book Double your Price – The Strategy and Tactics of Smart Pricing by EIBF President David Falzani MBE.



Presenter Rob Bell with the winners of the Engineers in Business Champion of Champions Competition 2023

## THE JUDGES

Left to right: Caroline Fleming, Director of Surrey Innovation District, University of Surrey; SMF Andrew de Rozairo, Sustainability Director, EMEA at Microsoft; Megan Powell Vreeswijk, Head of Enterprise and Innovation, Nottingham Trent University; and Head Judge SMF Andy Doe, Investor, Advisor and Non-Executive Director.



# HERE ARE THE 2023 CHAMPIONS!

## FOR THE BIG IDEAS CATEGORY



*Left to right: The Meta Futura Aerospace team of Marcin Badowski, Pedro Rodriguez, Elena Carulla, Nestoras Papegeorgiou and Fabrizio Pisani*

The **Meta Futura Aerospace** team from the University of Southampton won two awards for their MetaFlex innovation to transform spacecraft control. The team of aerospace engineers won the Big Ideas first prize of £3,000 as well as the Audience Prize of £500.



*Gruffydd Gozali with his runner-up award*

The runner-up prize of £1,500 was won by mechanical engineer Gruffydd Gozali from Lancaster University for his **Squaser** invention, which is a laser line detection system to help squash referees determine if the ball is in or out of play.

## FOR THE STARTUP CATEGORY



*Mechanical engineer and Pipeline Organics founder Arielle Torres with the team's two awards*

The **Pipeline Organics** team from the University of Nottingham won a total of £8,000, winning the £3,000 Startup first prize and the £5,000 Enterprise Award, which is awarded to the venture with the best commercial potential. Judges were impressed by the team's innovation which turns wastewater into renewable electricity.



*Richard Holmes with his runner-up award*

The runner-up prize of £1,500 was won by Product Design student Richard Holmes from York St John University for **Global Anthem** – a communication system utilising natural and intuitive hand gestures that can be used across any language or culture.

## PUBLIC VOTE AWARD

Robotics student Rushikesh Bagul from the University of Birmingham won the £500 Public Vote Award for his **DotStores** invention to create retail stores that operate round-the-clock without human intervention.



Rushikesh Bagul with his Public Vote Award

## BEST PRESENTATION

EIBF is grateful to our sponsor **PurpleCV**, which funded an award of £1,000 for the team delivering the best presentation, a new prize for 2023. Judges were very impressed with the delivery given by the **PCOSENS** team representing Imperial College London. The team developed a wearable sensor to monitor female hormones in real-time to help revolutionise care for patients with PolyCystic Ovary Syndrome.



Left to right: PurpleCV's Kimberley Arkley with the PCOSENS team of intern Jiayi Gao, founder Saylee Jangam and scientific advisor Dr Sondes Ben Aissa



Head Judge SMF Andy Doe said:

“It was a really fun and interesting afternoon listening to all the teams. I know they all worked really hard, and we appreciated it as judges. I wish we could have awarded prizes to everybody, but unfortunately, we couldn't. I hope they will carry on with their amazing entrepreneurial businesses and they all become amazing success stories so I can read about them in the future.”

## ENGINEERS IN BUSINESS FELLOWSHIP A COMPANY LIMITED BY GUARANTEE

# TREASURER'S REPORT FOR 2023/24



### SUMMARY

The Charity ended the year with a surplus of income over expenditure of £76,346 (2023: £249,421). Net Assets at the end of the year were £2,541,899 (2023: £2,465,553). The value of the Expendable Endowment Fund stands at £2,154,059 (2023: £2,113,052). The Restricted Funds balance stood at £175,937 at year end (2023: £284,446).

We invested an additional £650,000 in the COIF Charities Investment Fund this year bringing the amount of the Endowment Fund invested to about 60% of the total. The Charity made a gain on its investment this year.

Overall our finances are in a solid position with reserves in place in line with our financial policies. Funding is secured for the next three years to ensure the various programmes can continue as planned.

### INCOME

The Charity's income is mainly from donations and member subscriptions and total income for the year was £1,003,445 (2023: £1,094,075). This was a little less than the previous year as grant income was smaller to offset the large surplus carried forward from 2022/23.

### DONATIONS

The major source of our income continues to be The Gatsby Charitable Foundation, of which Lord Sainsbury of Turville is the patron. The Foundation contributed £870,000 in donations this year.

In the past two years, additional income has come from donations from Fellows made during the Step Challenge Campaign. The first campaign took place in 2022/23 and part of the donations made then are reflected in the income for the current financial year.

### EXPENDITURE

Total expenditure for the year grew by a significant amount from £853,500 last year to £1,059,233 in 2023/24. The increase of £205,733 is almost entirely due to happy developments that saw the Charity award more scholarships this year and increased activity in the Business Competitions. Compared to 2022/23 when only eight scholarships were awarded, this year we awarded 12 scholarships, rather than ten, due to the high quality of candidates in 2023/24.

Administrative costs increased slightly to £356,883 driven largely by an increase in communications costs for the Business Competitions. Also linked to the Business Competitions was an increase in venue hire, travel and accommodation costs.

### OTHER

The accounts for the year just finished will be subject to a statutory audit by a regulated auditor, which will be submitted to Companies House and to the Charity Commission before the relevant deadline.

### NEXT YEAR

We are running the Step Challenge fundraising campaign again this year and continue to see good engagement with SMFs in the response to the campaign, and attendance at events. The contribution from donations during the fundraising campaign is expected to show in the 2024/25 accounts.

**Mope Ogunsulire**  
*Treasurer*

Charity Registration No. 1147203  
Company Registration No. 07807250



# PROFIT AND LOSS

FOR THE YEAR ENDED 31 MARCH 2024

	2024	2023
<b>TURNOVER</b>	<b>£</b>	<b>£</b>
Donations - Expendable Endowment Fund	4,257.51	3,216.82
Donations - Restricted	770,932.34	890,435.90
Donations - Unrestricted	200,000.00	180,000.00
EIBF Memberships & Subscriptions	10,948.31	10,688.39
Event fees	3,325.00	3,570.00
Gift Aid	2,948.13	2,052.57
Interest Income - Expendable Endowment Fund	10,646.18	4,064.21
Interest Income - Restricted	387.34	47.56
Other Revenue	0.61	0.00
<b>Total Turnover</b>	<b>1,003,445.42</b>	<b>1,094,075.45</b>
<b>COST OF SALES</b>	<b>£</b>	<b>£</b>
EIB Competition Prizes	102,350.00	90,500.00
Grants	600,000.00	420,000.00
Total Cost of Sales	<b>702,350.00</b>	<b>510,500.00</b>
<b>Gross Profit</b>	<b>301,095.42</b>	<b>583,575.45</b>
<b>ADMINISTRATIVE COSTS</b>	<b>£</b>	<b>£</b>
Advertising & Marketing	58,720.75	50,847.45
Audit & Accountancy fees	10,268.97	9,340.00
Bank Fees	149.40	2,229.23
Communications	91,591.37	75,237.07
Depreciation Expense	297.82	0.00
Employer's Pensions Costs	0.00	3,357.96
Employers National Insurance	4,425.09	(465.55)
General Expenses	551.37	458.82
Insurance	331.20	321.20
Photography and Video	24,342.80	27,641.12
Postage	919.77	1,235.23
Printing - Other (inc photocopying)	865.09	3,988.20
Professional fees	6,562.28	930.28
Publications	4,901.20	6,703.90
Scholarship and Prize administration	22,514.30	31,003.85
Software and Online Services	3,907.89	3,687.38
Staff costs	74,007.07	70,510.96
Stationery	912.38	1,281.18
Telephone & Internet	882.80	775.43
Travel & Subsistence	12,326.95	9,994.42
Venue hire	35,411.70	29,783.12
Website Development	2,812.53	13,779.32
Website Hosting	179.92	359.84
Total Administrative Costs	<b>356,882.65</b>	<b>343,000.41</b>
<b>Operating Profit</b>	<b>(55,787.23)</b>	<b>240,575.04</b>
<b>OTHER INCOME</b>	<b>£</b>	<b>£</b>
Gain/(Loss) on investments	132,133.23	8,846.00
Total Other Income	<b>132,133.23</b>	<b>8,846.00</b>
<b>Profit on Ordinary Activities Before Taxation</b>	<b>76,346.00</b>	<b>249,421.04</b>
<b>Profit after Taxation</b>	<b>76,346.00</b>	<b>249,421.04</b>

# BALANCE SHEET

FOR THE YEAR ENDED 31 MARCH 2024

	2024	2023
<b>FIXED ASSETS</b>	<b>£</b>	<b>£</b>
<b>Tangible Assets</b>		
COIF Investment	1,460,979.23	668,846.00
Office Equipment	595.64	0.00
<b>Total Tangible Assets</b>	<b>1,461,574.87</b>	<b>668,846.00</b>
<b>Total Fixed Assets</b>	<b>1,461,574.87</b>	<b>668,846.00</b>
<b>CURRENT ASSETS</b>	<b>£</b>	<b>£</b>
<b>Cash at bank and in hand</b>		
Barclays Base Rate	815,754.89	804,576.24
Barclays Current Account	250,200.34	760,341.20
Barclays Restricted Funds	32,559.38	32,172.04
HSBC Current Account	0.00	9,475.00
HSBC Money Market	0.00	222,171.32
Paypal	1,101.50	1,101.50
Petty Cash	590.00	590.00
<b>Total Cash at bank and in hand</b>	<b>1,100,206.11</b>	<b>1,830,427.30</b>
<b>Total Current Assets</b>	<b>1,100,206.11</b>	<b>1,830,427.30</b>
<b>CREDITORS – Amounts falling due within one year</b>		
Accruals	22,000.00	32,640.15
Event Fees Paid in Advance	1,330.00	1,080.00
PAYE and NIC Payable	(3,448.02)	0.00
<b>Total Creditors – Amounts falling due within one year</b>	<b>19,881.98</b>	<b>33,720.15</b>
<b>Net Current Assets (Liabilities)</b>	<b>1,080,324.13</b>	<b>1,796,707.15</b>
<b>Total Assets less Current Liabilities</b>	<b>2,541,899.00</b>	<b>2,465,553.15</b>
<b>Net Assets</b>	<b>2,541,899.00</b>	<b>2,465,553.15</b>
<b>CAPITAL AND RESERVES</b>		
Current Year Earnings	76,346.00	249,421.04
Retained Earnings	2,465,553.00	2,216,132.11
<b>Total Capital and Reserves</b>	<b>2,541,899.00</b>	<b>2,465,553.15</b>

# FUTURE EVENTS

Networking is one of the most valuable assets of becoming part of the SMF Group. We hope that many SMFs will be joining us once again for more exciting events in 2024:

## EIBF ANNUAL DINNER

**Thursday 9 May 2024, 7pm**

One Whitehall Place, Westminster  
London, SW1A 2HD

## ENERGY AND SUSTAINABLE DEVELOPMENT GROUP MEETING

**Monday 24 June 2024, 5pm**

Zoom

## EIB CHAMPION OF CHAMPIONS FINAL

**Friday 8 November 2024, 4pm**

The Royal Academy of Engineering  
Prince Philip House  
3 Carlton House Terrace  
London SW1Y 5DG

## ANNUAL GENERAL MEETING

**Tuesday 12 November 2024, 5pm**

Zoom

## SMF ANNUAL CHRISTMAS CURRY NETWORKING EVENING

**Wednesday 4 December 2024, 7pm**

Millbank Spice Restaurant  
34-38 Vauxhall Bridge Road  
London SW1V 2RY

Email [cathy.breeze@smf.org.uk](mailto:cathy.breeze@smf.org.uk) to book your place in advance for the events above.

Details of the SMF events are published on the SMF website.



Lord Sainsbury addresses Sainsbury Management Fellows and guests at the EIBF Annual Dinner in May 2023



Sainsbury Management Fellows at the EIBF Annual Dinner in May 2023 (left to right) Peter Kummer, Jonathan Lister, Sagnik Mukherjee, Sanyam Mahajan, John Collins and Jonathan Dyson



Bhav Ubhi Hull speaks to guests at the Annual Dinner in May 2023



**The Sainsbury Management Fellows –  
Engineers in Business Fellowship**  
Azets, Ventura Park Road, Tamworth,  
Staffordshire B78 3HL

Telephone: +44 (0)1590 673404  
Email: [cathy.breeze@smf.org.uk](mailto:cathy.breeze@smf.org.uk)

**[www.smf.org.uk](http://www.smf.org.uk)**

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