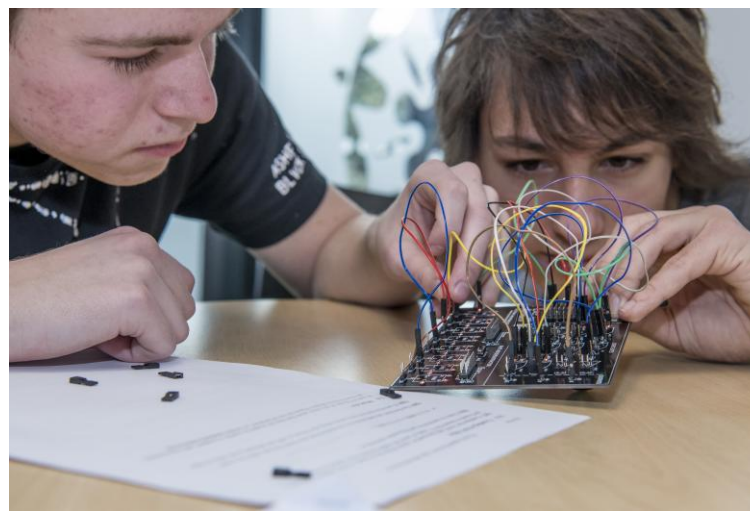


UKESF Strategy 2025-2030

Growing a skills pipeline for the UK Electronics Sector



Introduction

We are the voice for skills in the Electronics industry and the semiconductor sector.

Through engagement with schools, universities and industry, it is our mission to encourage more young people to study Electronics and to pursue careers in the sector.

Electronics Engineers make a critical contribution to virtually all areas of life, from AI and digitalisation to green energy, healthcare, communications, manufacturing and more. The UK has a long heritage of technological innovation and has a world-class Electronics sector. We are adept at creating and growing successful companies that design, make and sell products and services across all technological fields - and these companies will play an important role in solving some of the biggest challenges facing society today.

However, the demand for capable, employable Electronics Engineers and designers is currently outstripping supply. The only way we can sustainably support our industry to grow, is to increase the number of young people pursuing a career in the sector, and equipping them with Electronics skills for the future.

As an independent, UK based charity, we're working to address the skills gap in Electronics by:

- raising awareness,
- promoting interest in young people,
- supporting the development of those who choose Electronics, and
- building relationships to ensure a thriving sector.

Our mission can only be achieved by working collaboratively, and to date, we have worked with more than 100 employers from across the industry, 30 of the UK's leading universities, and over 850 schools.



An Integrated Programme



Primary Education

Working with primary schools, we raise awareness of Electronics and provide engaging, positive experiences of STEM for young people.

We design activities to build recognition, industry awareness and develop the attributes, such as curiosity, critical thinking and teamworking, needed in STEM careers.



Secondary Education

Our established and successful resources are designed to ensure secondary school pupils enjoy, are inspired by, and motivated to pursue, Electronics.

We provide both hands-on classroom resources and supporting enrichment activities.



University

Our work is focused on supporting undergraduate Electronics Engineers to become 'work-ready' through providing opportunities for work experience, skills development, and building a supportive professional network.



Early Career

Our informal Alumni programme enables early career Engineers to benefit from skills development, outreach and networking opportunities.



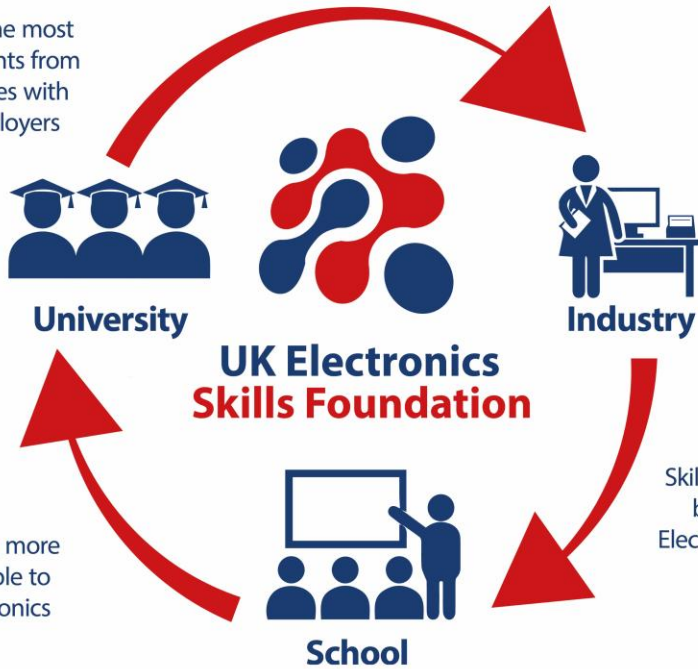
Skills Advocacy

Industry Advocacy
Working closely with our collaborators, we build relationships for knowledge sharing and best practice; and encourage outreach to raise awareness of our sector with key stakeholder groups.

Policy Advocacy
On behalf of our industry, we work with policy makers to champion practical, actionable solutions to increase the skills pipeline.

Our Strategy

Connecting the most capable students from top universities with leading employers



Encouraging more young people to study Electronics

Skills advocacy on behalf of the Electronics Industry



“Moving beyond talk about the skills shortage to take positive action is what the UKESF is all about”

Stewart Edmondson, CEO, UKESF



Encouraging more young people to study Electronics

Goal: Young people have the opportunity to learn about Electronics in an engaging way, through an integrated programme of schools' activities and interactive resources.

Electronics, and more specifically semiconductors, are a critical foundational, horizontal technology, which underpin all emerging and transformational technologies.

Electronics will be vital in solving some of societies biggest challenges in climate change, healthcare, communications, and defence.

However, the demand for capable Electronics Engineers far outstrips supply. Increasing the number of young people choosing Electronics will ensure the UK's world-class research base thrives, and secure a robust and sustainable pipeline of skills into this vital industry.

Within the secondary curriculum, Computer Science, Design and Technology and Physics all touch on Electronics, but young peoples' understanding of the subject and wider context varies greatly. Electronics careers are often underrepresented within the STEM careers discourse.

The UKESF will...



Improve awareness and understanding of Electronics

We will work tirelessly to ensure that all young people have access to high quality Electronics education. This includes consistent and engaging interactions with core Electronics concepts taught within the curriculum. Our interventions will aim to improve understanding of what Electronics is, its far-reaching applications, and the variety of skilled jobs available in the sector.

We will aim to improve representation of Electronics Engineering as part of the wider STEM careers discourse.

We will work collaboratively to achieve these aims, which will include working with teachers in schools, our partner universities and their wider school networks, graduated UKESF Scholars as industry advocates, and our supporters from across the industry.



Ensure young people engage with Electronics in a positive and inspiring way

We recognise that learning about Electronics in a practical and engaging way is crucial to ensuring that young people engage positively with the subject. We will continue to provide resources to schools that are thoroughly tested and receive consistently positive feedback.

We will pursue opportunities to scale up the delivery of our programmes nationwide.

We will also continue to expand upon our existing portfolio of resources to provide new opportunities for young people to engage with Electronics, including activities for primary aged children.

Encouraging more young people to study Electronics



The UKESF will...

» Champion diversity in Electronics Education and Careers

Our activities will aim to improve gender balance and inclusivity within the Electronics sector.

We will improve the representation of different voices from the industry to help make Electronics careers relatable and achievable for everyone - including those from underrepresented groups.

We will provide accessible resources and diverse case studies that help to raise awareness, challenge stereotypes and promote interest.

We aim to provide a caring and inclusive environment for young people pursuing Electronics, and equip aspiring Engineers with the skills and support network they need to thrive in industry.

» Invest in supporting teachers

We will design our school-based interventions to be holistic and sustainable. Through providing support to teachers to confidently teach Electronics in primary and secondary classrooms, we can have both an immediate effect and a long-term impact.

We will support teachers to teach core Electronics concepts from the curriculum in an interesting way, as well as giving them the information and tools to be champions for enrichment and extra-curricular activities.

Particularly at primary, we will also focus on helping teachers to develop pupils STEM related attributes.

Connecting the most capable students from universities with leading employers

Goal: Provide opportunities for undergraduates to develop their industry understanding, relevant work experience, and non-technical skills, to ensure that they are ready to thrive in the workplace.

There is a growing need for industry-ready Electronics Engineering graduates.

Alongside acquiring exceptional technical skills through university study, undergraduates need opportunities to develop their business and social skills ready for the workplace. Through work-experience and professional skills development, graduates can feel confident upon entering industry, and more effectively and efficiently meet the needs of employers.

It is also important that we support undergraduates to choose a career in Electronics and semiconductors, and reduce attrition to other sectors through meaningful work placements and a strong support network.

Opportunities for undergraduate support, particularly bursaries and mentoring, are helpful to break down barriers of entry for underrepresented groups.

The UKESF will...

» Support undergraduates to gain work experience and develop their non-technical skills

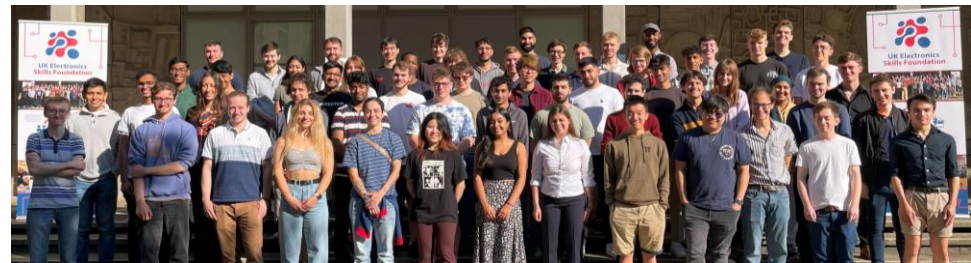
Supporting undergraduate students through the UKESF Scholarship Scheme enables us to equip the Electronics Engineers of tomorrow with the technical and non-technical skills needed to effectively support their transition into the workplace.

It continues to be one of our priorities to grow the Scholarship Scheme and ensure more young people can benefit from this support.

» Foster an undergraduate and graduate community

We will foster a community of undergraduate and graduate Electronics Engineers, through opportunities to connect at the UKESF Professional Development Course, other UKESF development or networking events and wider industry events.

The purpose of this community is to enable undergraduates to develop the specific know-how needed by industry and build their personal/professional network.



Connecting the most capable students from top universities with leading employers



The UKESF will...

» Provide opportunities for Scholars to be advocates for careers in Electronics

We will ensure undergraduate and graduated Scholars are equipped with the resources, knowledge and confidence to participate in effective schools outreach, improving the visibility and representation of careers in Electronics.

» Listen to industry to ensure that their skills needs are being met

We will encourage positive and open communication between our partner universities and industry help to ensure that skills provision in Higher Education reflects the needs of industry.

Skills advocacy on behalf of the Electronics Industry

Goal: Work collaboratively to provide a representative voice for industry that identifies challenges and champions solutions.

Electronics is a strategically important, high growth industry for the UK. To be able to effectively drive forward innovation, we need to secure a robust pipeline of skills.

Industry and academia must work collaboratively with schools to champion the sector, highlight pathways into Electronics and semiconductors and provide meaningful opportunities for young people.

We must ensure that the skills needs of industry are heard, and support key stakeholders to ensure that skills provision is fit for purpose.

We appreciate that there are no quick fixes, initiatives to encourage more young people to pursue Electronics should be evidence informed, long term and sustainable.

The UKESF will...

» **Raise awareness of the skills challenges in the Electronics sector**

We will champion skills with policy makers and decision makers within our industry to improve understanding of the impact of the skills shortage, and help to develop practical solutions.

We will conduct relevant industry research that enriches the discourse around skills needed for the future.

» **Nurture relationships between industry, universities and schools to ensure that skills needs and skills provision are aligned**

We will nurture our relationships with our expansive network, and work collaboratively to increase our reach and maximise our impact.

We will bring together representatives from industry to discuss common challenges relating to industrial skills, and champion effective solutions.

» **Encourage our partners to actively champion Electronics to young people**

We will encourage industry to participate in outreach and provide role models to young people.

We will encourage industry to participate in activities that widen participation in Electronics, particularly addressing the gender imbalance.

We will provide recognition for those companies that are committed to addressing the skills shortage.

The UKESF in unique position with expansive network.



**UK Electronics
Skills Foundation**

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