



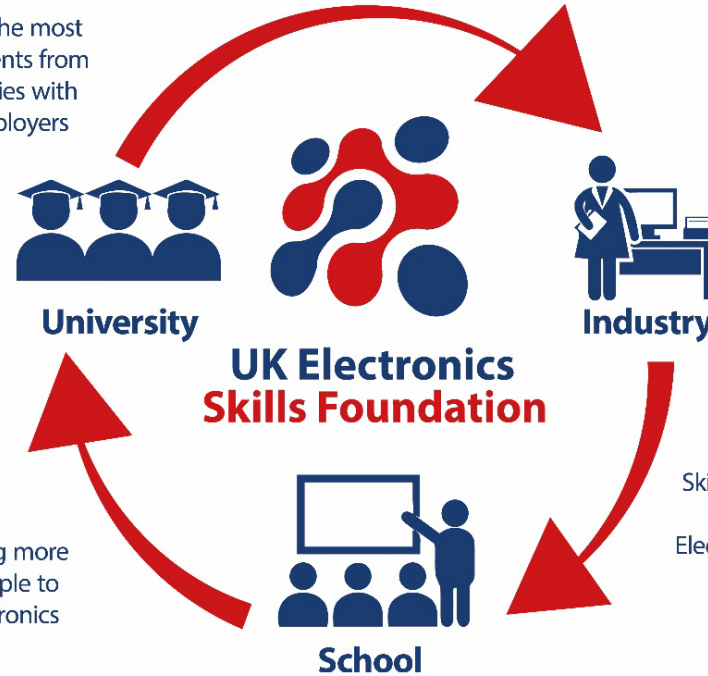
Tackling the Skills Challenge in the UK's Semiconductor Industry “Girls into Electronics”

WLI/GSA Conference, London 13th March 2024

Tackling the Skills Challenge in the UK's Electronics Industry (Challenge = Gaps and Shortage)



Connecting the most capable students from top universities with leading employers



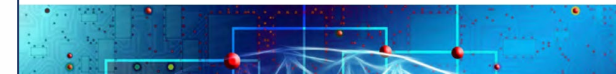
Encouraging more young people to study Electronics

Skills advocacy on behalf of the Electronics Industry



Future engineering skills in the age of artificial intelligence

A report from the UKESF



Founded in 2010, the UKESF is the only STEM organisation in the UK solely focused on Electronics. We are a charity, and our purpose is to promote Electronics and semiconductors to young people and to encourage them to pursue study and careers in the industry.



Policy paper

National semiconductor strategy

Published 19 May 2023

Contents

1. [Foreword from the Secretary of State](#)
 2. [Overview of the UK's vision](#)
 3. [Executive Summary](#)
- Part 1: the current landscape
4. [Semiconductors today](#)

Presented to Parliament by the Secretary of State for Science, Innovation and Technology by Command of His Majesty on 19 May 2023.

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“Our Strategy represents the culmination of what government, industry and academia have already done in this sector. And it sets our vision for its future. A wealth of exciting opportunities lie ahead: to grow the economy, to create highly skilled jobs, and to be at the cutting-edge of technology that underpins every aspect of modern life.”

The Rt Hon Chloe Smith MP
Secretary of State for Department for Science, Innovation and Technology



“Our approach to skills within this Strategy comes broadly in two parts: first, **our investment in schools and teachers**, as well as career advice and **outreach programmes** to inspire the next generation, and to nurture the higher education sector. Second, **we will promote industry-led learning to ensure a robust pipeline of talent that meets their needs.**”

NSS Section 7.4, Skills & Talent

Why “Girls into Electronics”?

Part of our wider strategy to address the gender imbalance.

Raising Awareness & interest. Providing a pathway for female high-school students.

Electronic and electrical engineering

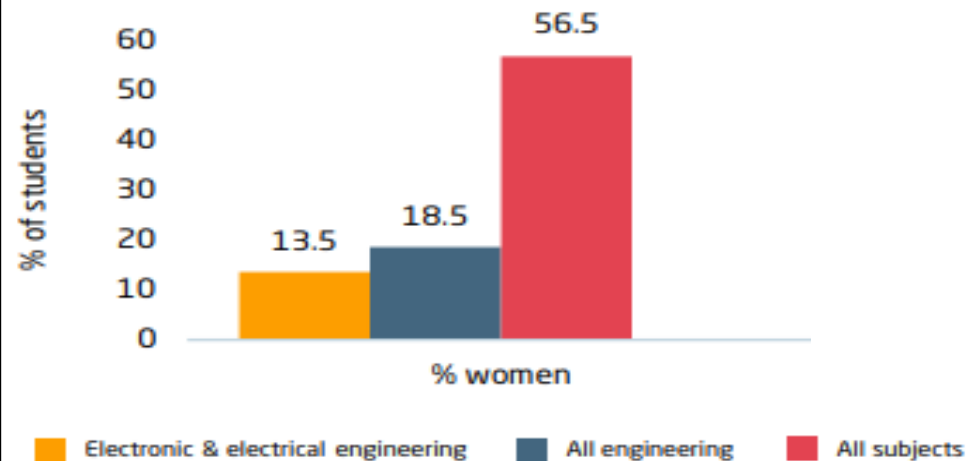
In 2020/21 there were 12,320 students studying electronic and electrical engineering in higher education, comprised of 6,980 undergraduate students (first degree and other undergraduate) along with 5,340 postgraduate students.

Undergraduate first degree entrants

Electronic and electrical engineering courses were the 2nd most popular engineering and technology in 2020/21, representing 15.8% of entrants at this level. Of these:

- 13.5% were women
- 35.2% were from minority ethnic groups

Characteristics of first year undergraduate degree entrants, 2020/21



Girls in Electronics – What?



Single day/non-residential Event

Aim to answer 3 questions:

- What is Electronics?
- What is it like to study Electronics/Engineering at university?
- What is like working as an Engineer in the Electronics sector?

During the day hear from female engineers and interns working at Electronics companies, and from female lecturers, researchers and students at the host university.

Ask questions and find out more about them and their work and studies.

Practical session. An introduction to microcontrollers with the Grove Beginner Kit for Arduino.

Hosting Universities 2023



UK Electronics
Skills Foundation



UNIVERSITY OF
BATH



University of
BRISTOL



Business

Apple supports scheme to encourage more girls into electronics career

The tech giant is supporting the Girls Into Electronics programme alongside the UK Electronics Skills Foundation.

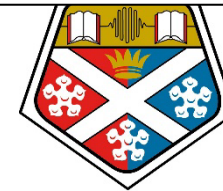
Martyn Landi • Friday 10 February 2023 15:55



The
University
Of
Sheffield.



University of
Southampton



University of
Strathclyde
Glasgow



UK Electronics
Skills Foundation

“ A strong Electronics and ‘deep tech’ industry is essential to the health of the UK economy but we know that the UK has a skills shortage in this critical sector.

That’s why it’s great to see the work that the UKESF is doing encouraging more young people to pursue careers as Electronics Engineers.

In particular, their **Girls into Electronics initiative has the potential to make a real difference and it is something that I strongly support.**

As the only organisation linking schools, universities, students and industry to address Electronics skills, the UKESF is poised to be an important contributor to the long-term success of the industry in the UK.”



Chi Onwurah MP Shadow Minister for Science, Research & Digital



ELEKTRA
29 November 2023
Grosvenor House Hotel London

WINNERS

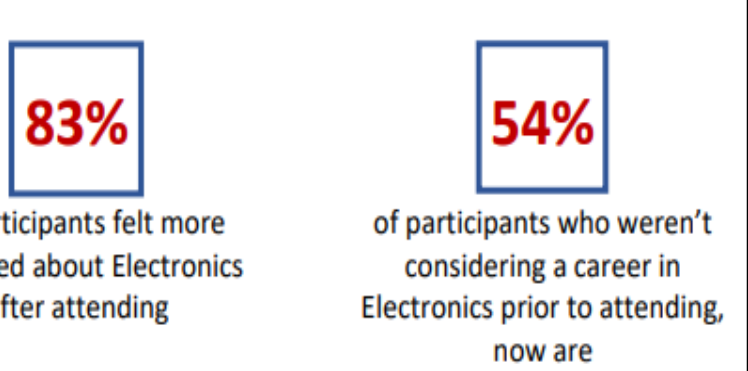
EDUCATIONAL SUPPORT AWARD

SPONSORED BY **Ignys**

UK Electronics Skills Foundation
UKESF Girls into Electronics 2022



- Participant**
- 405 from 116 Schools
 - Teachers = 42
 - POLAR4. 19% schools quintiles 1 & 2
 - 25% would be First in Family
 - BAME = 43%



"The course was so insightful
"It was amazing talking



what-we-do/girls-into-electronics

"I hadn't really thought about before."
"It was amazing talking and everyone was so friendly,
especially because I didn't know anyone there."



UKESF Scholarship Scheme

In 2023, 28% of Scholarship awards were made to female students

UKESF Scholarship Scheme

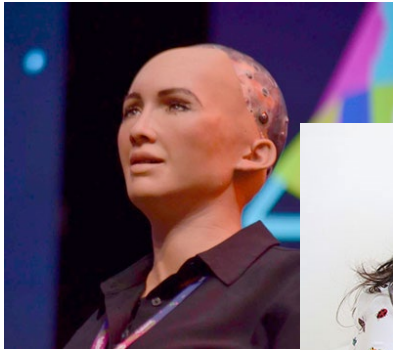


UK Electronics
Skills Foundation

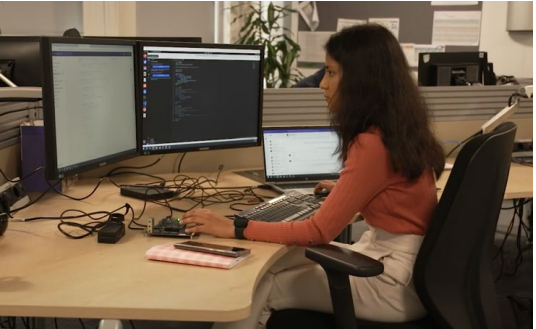
- A key aspect of the UKESF's work is focussed on connecting Higher Education with industry.
- The UKESF has partnerships with 28 leading universities, across the UK.
- More than 800 students have participated in the Scheme.
- It is a 'wrap-around' programme to prepare undergraduates for industry and provides a valuable skills pipeline to UK organisations.
- Considered "best in class" and, in 2022, won a Princess Royal Training Award.

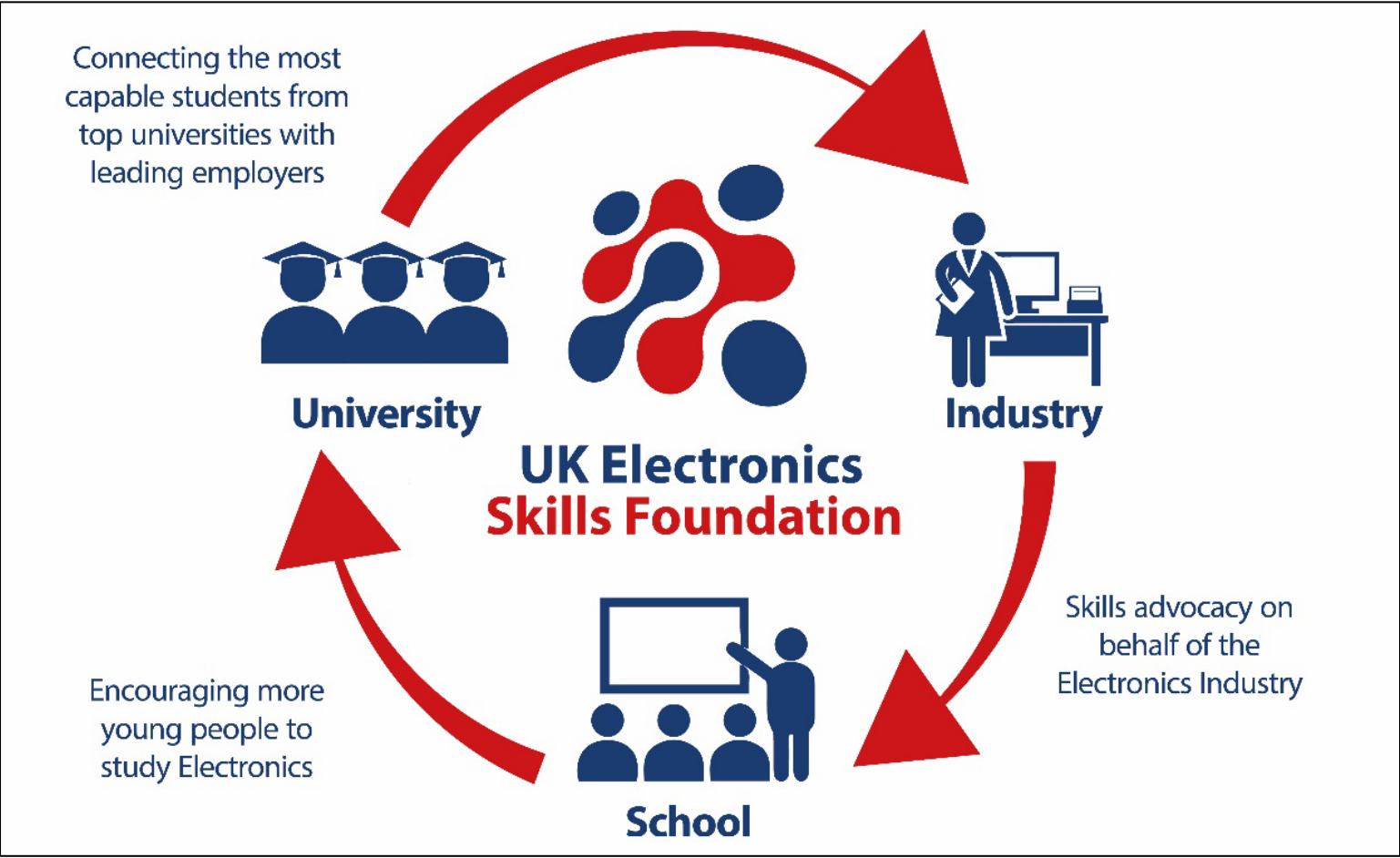


My Journey



UK Electronics Skills Foundation





Thank You
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