HTurnOn **Electronics**

Manifesto: Shining a light on the UK's Electronics sector



Our campaign – We aim to:

H Turn On **Electronics**

- Ensure more school children are aware of Electronics. To show these children, their parents and teachers that there are exciting and worthwhile careers available as designers and engineers in the Electronics sector.
- With our employers, provide opportunities for young people to develop their interest in Electronics and engineering, through to university study and/or apprenticeship.

We want employers, universities, schools and other stakeholders to join the **#TurnOnToElectronics** campaign so we can work collaboratively to tackle the skills shortage. To start, we are asking our partners and allies to formally pledge their support for the Campaign.



I'm delighted to be involved in the UKESF's #'TurnOnToElectronics campaign, which is shining a welcome spotlight on careers in Electronic Engineering... The UKESF is doing a fantastic job of encouraging more young people to study Electronics and embark on careers in one of the world's most important and dynamic industries."

> **Georgie Barrat** Technology Journalist & Broadcaster

Specifically, we would like our supporters:

- To act as ambassadors for the #TurnOnToElectronics campaign and amplify its key messages by sharing and discussing the campaign on social channels and with the media;
- To help boost the image of the UK's Electronics industry and promote Electronics as a career whereby technology can be used creatively to develop innovative products which help solve problems and make people's lives better;
- To support educators such as Computing and Physics teachers to increase their knowledge and skills so that they can effectively teach the parts of their curriculum focusing on Electronics;
- To provide local schools with resources to enable teachers to promote Electronics;
- To offer work experience and placement opportunities so young people can gain practical experience in the sector.



About us:

The **#TurnOnToElectronics** initiative aims to create a buzz around the UK Electronics industry to encourage more young people to pursue careers in this exciting sector.

Our mission:

The UK has a long heritage of technological innovation and a world-class Electronics industry. According to Engineering UK, the Electronic and Electrical Engineering sector contributes £131 billion to the UK economy and employs more than 1.5 million people.

The Government's new industrial strategy emphasizes the importance of AI, robotics and transportation in boosting productivity and earning power throughout the UK. However, a chronic shortage of Electronics Engineers in the UK will limit our ability to develop these next-generation technologies and creative solutions needed by our society.

Too few students are choosing to study Electrical and Electronic Engineering. Only 3,330 UK students enrolled on degrees in Electronic and Electrical Engineering in 2017; according to UCAS, this is around half the number enrolling on Mechanical Engineering degrees.

With a fragmented landscape across the sector and an ageing workforce, the skills shortage is likely to worsen post-Brexit. This will undermine the Electronics sector as a whole in the UK, adversely affecting our economic prosperity. The reason for this skill shortage is a low level of awareness and understanding about Electronics and how it powers the world around us – it is still associated with soldering, components and repairing items.

But there is hope for Electronics:

- 57% of parents say their children are extremely interested in Technology, according to a survey by the UKESF;
- 43% said that they would encourage their children to pursue a STEM career;
- Given a choice of different types of Engineering, parents equally favour careers in Electronics to those in other engineering disciplines;
- Record numbers of Sixth Formers are studying Maths, Physics and Computing at A-level.

We need to inspire a new generation of bright sparks and it is clear that the barrier to getting young people interested in Electronics doesn't lie in the home. Therefore, we need to focus our attention on teachers and schools, as well as the media, in order to drive awareness of the Electronics sector.



Turn On ••Electronics

The Department of Business, Energy and Industrial Strategy reports that the Electronic Systems Sector is comprised of

companies employing 926,575 people in the UK at the end of 2017 and contributes 6% to GDP

53,265

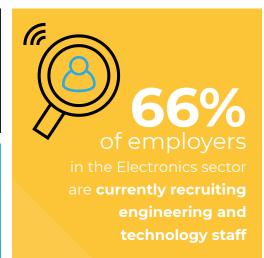


4 of the world's leading 20 semiconductor companies have a design and/or manufacturing site in the UK The UK leads in Europe in terms of investments and access to finance.

Invested Capital (2012–17) in the UK Deep Tech scene currently sits at just over **€1.6 billion** Over 90% of smartphones contain electronics designed in the UK

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£46,567 is the mean full-time salary for Electronic Engineers in the UK



The people behind #TurnOnToElectronics:

The UKESF is an educational charity established in 2010 to promote skills in Electronics for the benefit of the UK and society. Its principal mission is to encourage more young people to study Electronics and to pursue careers in the sector.

It operates collaboratively with major companies, leading universities and other organizations to tackle the skills shortage in the Electronics sector. Through a prestigious Scholarship Scheme, it connects the most capable Electronics students at top UK universities with leading employers.



To sign the manifesto visit www.turnontoelectronics.org