For this to happen, all the different pathways into engineering and technology need to deliver both in terms of upskilling the current generation, as well as skilling and training the next generation of engineers and technicians. The decline in engineering apprenticeship starts since 2016/2017, particularly for the younger age groups, is therefore worrying. Although 16 to 18 year olds still made up 35% of all engineering related apprenticeship starts in 2021/2022 and 16 to 25 year olds made up 70%, engineering-related apprenticeship starts for 16 to 18 year olds have declined 22% since 2016/2017, while starts by both 19 to 24 year olds and those 25+ have fallen 6%. The decline in the number of apprenticeships starts has been driven by a decline in lower-level apprenticeships, particularly intermediate apprenticeships (Level 2).

This inquiry set out to understand the reasons behind this decline and to make recommendations on how to address it. The evidence we have received suggests that many businesses, particularly smaller firms, are struggling to find the capacity and resources to take on young apprentices, and companies are concerned about the quality of training provision and barriers in relation to apprenticeship standards and bureaucracy.

On the other hand, for young people, the impact of the pandemic and years of disruption to their education have taken their toll, making it harder for many of them to navigate their next step into further education and higher education or employment. We have heard that not enough young people are aware of, or value, the apprenticeship options open to them or know where to start. Financial barriers and entry requirements are also impacting on access to apprenticeships for many young people.

Outlined below is a 5-point plan aimed at addressing the barriers and concerns identified by businesses, education providers and young people throughout the report. Following this plan should go a long way to making apprenticeships a successful entry route into engineering and technology jobs for many more young people and help put technical education routes on par with academic pathways. It will also ensure that the UK has the engineering and technology workforce it needs across all the regions of the UK to be economically successful and at the forefront of technological innovation.

The UK needs a substantial increase in the number and diversity of engineers and technicians over the next few years, the coming decade and beyond. These are the skills we need if Britain is to compete globally, grow the economy and reduce our dependency on migrant labour.
Ensure that the secondary school system is fit for the future and there is genuine parity of esteem between technical and academic pathways.

**ACTION 1**

**REBALANCE EDUCATION**

**WHAT NEEDS TO HAPPEN?**

**Curriculum** – We recommend that government directs and supports all schools to offer a broad and more balanced curriculum up to the age of 16 that yields knowledge and skills that are relevant to a variety of careers and to a diversity of learners and enables ongoing access to hands-on subjects such as Design & Technology during key stages 3 and 4.

**BTECs** – We recommend that government continues to fund a range of qualifications at 16, including BTECs, to ensure that more young people can gain qualifications that will open-up pathways into further education, apprenticeships and beyond.

**English Baccalaureate (EBacc)** – We recommend that government replaces the EBacc and Progress 8 accountability measures for schools to better reflect the breadth of qualifications and pathways that should be available to and valued by schools, young people and their parents.

**Careers** – We recommend that government develops a new careers strategy with access to parity of esteem between technical and academic pathways, as well as increasing diversity through these pathways, at its heart, and works with the engineering, manufacturing and technology community to bring the opportunities afforded by these pathways to life.
**WHAT NEEDS TO HAPPEN?**

**Pre-apprenticeship support** - We ask that government expand its pre-apprenticeship offer for young people aged 16 to 18, by building and improving on existing programmes such as the T Level transition programme and traineeships, and by continuing to fund BTECs as an alternative pathway alongside T Levels.

**Benefits** – We recommend that government amend child benefit rules to ensure that child benefit is maintained for apprentices under the age of 20.

**Transport** - We recommend that government work with local and combined authorities to develop a package of support for apprentices up to the age of 25 in entry-level and low paid work that addresses concerns regarding travel costs to and from their employer and training provision.

**Functional skills** - We call on the government to review the approach to functional skills requirements within apprenticeships and consider proposals for increasing access for young people, including the potential for a reshaped route to gaining these functional skills. Such a review should examine the barriers for young people under the current system, draw on the views and experiences of young people, providers and employers and engage the assessment industry in the development of more work related functional skills qualifications.

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**ACTION 2**

**SUPPORT YOUNG PEOPLE**

Provide better support for young people throughout their apprenticeship journey and take decisive action to break down barriers.

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**ACTION 3**

**REFOCUS FUNDING**

Ensure long-term funding for apprenticeships at all levels and greater equity between vocational and academic routes.

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**WHAT NEEDS TO HAPPEN?**

**16 to 19 year olds** - We recommend that, as soon as the fiscal situation allows, government funds apprenticeships for 16 to 19 year olds through an increase in the Education and Skills Funding Agency budget.

**Degree apprenticeships** - We recommend that government looks to funding degree apprenticeships through the standard higher education fees and loans model and urge the Government to reduce the overlapping bureaucratic burdens on degree apprenticeships.

**19 to 25 year olds** – As a result of these changes, the Apprenticeship Levy is then able to focus in particular on 19 to 25 year olds studying Level 2 to Level 5 apprenticeship qualifications.
Enable more SMEs\(^1\) to play an active role in apprenticeships. Work together with employers as well as providers to ensure that engineering and technology apprentice standards are given the strategic importance they merit and meet the skills needs of the sector.

**WHAT NEEDS TO HAPPEN?**

**Apprenticeships standards** - We recommend that the Institute for Apprenticeships and Technical Education (IfATE) works with a broad range of engineering and technology employers, including more SMEs and engineering consultancy firms, as well as Professional Engineering Institutions, to rationalise current apprentice standards in engineering, manufacturing and technology to ensure that standards enable apprentices to gain core transferrable engineering skills and knowledge valued by their employers. Alongside this, we recommend that IfATE work with businesses across the engineering, manufacturing and technology sectors to develop a set of more specialised, flexible modules that complement the rationalised suite of apprentice standards.

**SMEs** - We recommend that local and combined authorities work with Group Training Associations England and the Professional Engineering Institutions to roll-out more Group Training Associations across England to support engineering and manufacturing SMEs with the recruitment of apprentices, training, access to levy funds and wider funding issues, and the successful delivery of apprenticeships.

**Strategic importance** - We recommend that government works with IfATE and the engineering and technology community to ensure that resource-heavy apprenticeships courses with a strategic importance to the economy are assigned sufficient funding to enable education providers to attract good quality teaching staff and to ensure that they are economically viable for providers to run in locations across the country.

**Residential options** - We recommend that government develops and expands existing models of residential apprenticeships.

**WHAT NEEDS TO HAPPEN?**

**Further education teaching and industry knowledge** - We ask that engineering, technology and manufacturing businesses work more closely with training providers in their area, supporting teaching quality through releasing more staff to teach apprenticeships courses in the sector.

**Widening opportunities** - We ask that engineering and technology employers rise to the challenge of skilling the next generation of engineers and technicians and offer more apprenticeship opportunities to young people, including those who do not currently meet minimum maths and English requirements before starting their apprenticeships. We also encourage employers to consider their supply chains and where possible signpost young people who have been unsuccessful in applying to their apprenticeship schemes to other opportunities in their area.

**Diversity and inclusion** - We recommend that businesses include the number and percentage of apprentices in their organisation who are female in their gender pay gap reporting.

\(^1\)Small and midsize enterprises (SMEs) are businesses that maintain revenues, assets, or a number of employees below a certain threshold. SMEs in this report are defined as companies with fewer than 250 employees.