MAKE uk
The Manufacturers' Organisation

T LEVELS – MAKE OR BREAK FOR MANUFACTURERS?

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1. HOW DID T LEVELS COME INTO FRUITION?

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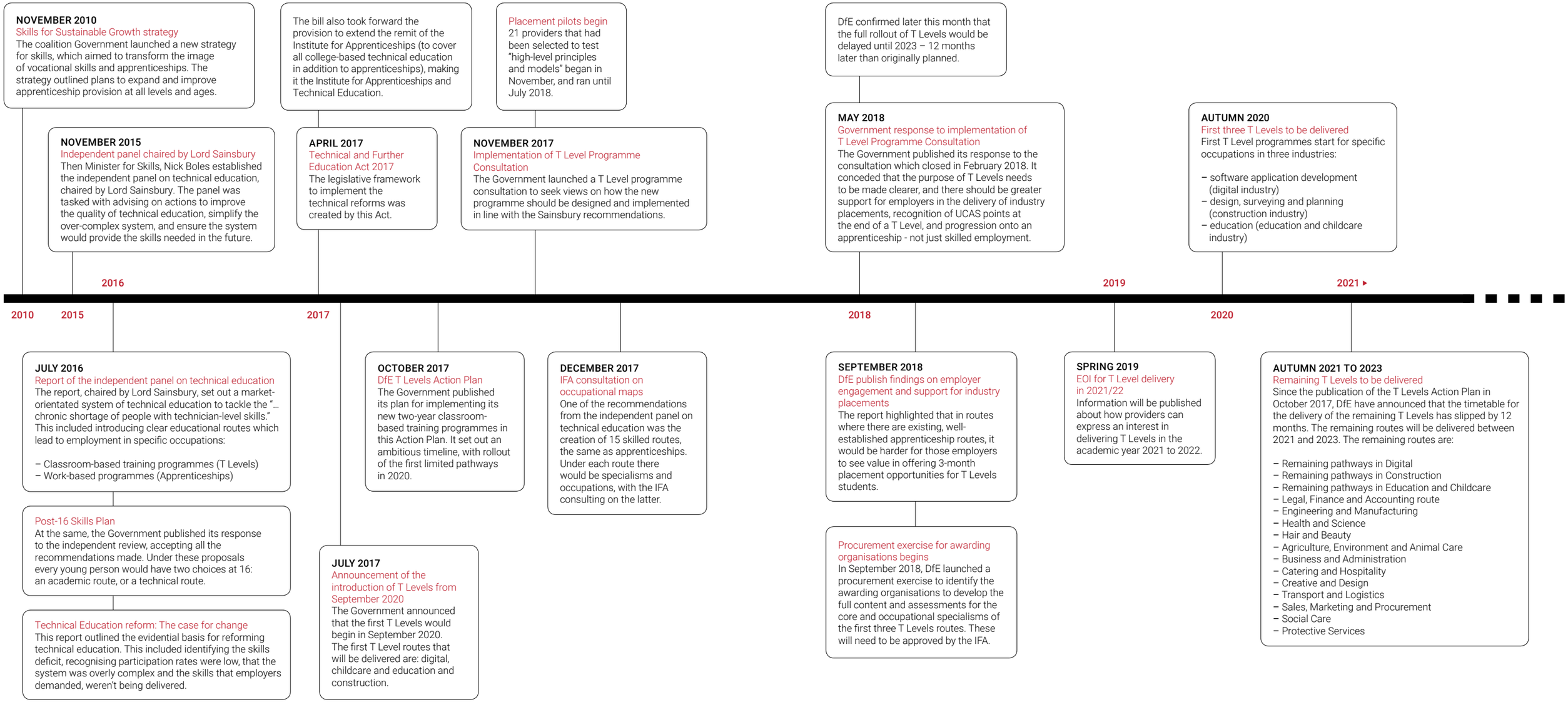


NOVEMBER 2010
Skills for Sustainable Growth strategy
The coalition Government launched a new strategy for skills, which aimed to transform the image of vocational skills and apprenticeships. The strategy outlined plans to expand and improve apprenticeship provision at all levels and ages.

NOVEMBER 2015
Independent panel chaired by Lord Sainsbury
Then Minister for Skills, Nick Boles established the independent panel on technical education, chaired by Lord Sainsbury. The panel was tasked with advising on actions to improve the quality of technical education, simplify the over-complex system, and ensure the system would provide the skills needed in the future.

JULY 2016
Report of the independent panel on technical education
The report, chaired by Lord Sainsbury, set out a market-orientated system of technical education to tackle the "… chronic shortage of people with technician-level skills." This included introducing clear educational routes which lead to employment in specific occupations:

– Classroom-based training programmes (T Levels)
– Work-based programmes (Apprenticeships)

Post-16 Skills Plan
At the same, the Government published its response to the independent review, accepting all the recommendations made. Under these proposals every young person would have two choices at 16: an academic route, or a technical route.

Technical Education reform: The case for change
This report outlined the evidential basis for reforming technical education. This included identifying the skills deficit, recognising participation rates were low, that the system was overly complex and the skills that employers demanded, weren't being delivered.

The bill also took forward the provision to extend the remit of the Institute for Apprenticeships (to cover all college-based technical education in addition to apprenticeships), making it the Institute for Apprenticeships and Technical Education.

APRIL 2017
Technical and Further Education Act 2017
The legislative framework to implement the technical reforms was created by this Act.

JULY 2017
Announcement of the introduction of T Levels from September 2020
The Government announced that the first T Levels would begin in September 2020. The first T Level routes that will be delivered are: digital, childcare and education and construction.

Placement pilots begin
21 providers that had been selected to test "high-level principles and models" began in November, and ran until July 2018.

NOVEMBER 2017
Implementation of T Level Programme Consultation
The Government launched a T Level programme consultation to seek views on how the new programme should be designed and implemented in line with the Sainsbury recommendations.

OCTOBER 2017
DfE T Levels Action Plan
The Government published its plan for implementing its new two-year classroom-based training programmes in this Action Plan. It set out an ambitious timeline, with rollout of the first limited pathways in 2020.

DECEMBER 2017
IFA consultation on occupational maps
One of the recommendations from the independent panel on technical education was the creation of 15 skilled routes, the same as apprenticeships. Under each route there would be specialisms and occupations, with the IFA consulting on the latter.

DfE confirmed later this month that the full rollout of T Levels would be delayed until 2023 – 12 months later than originally planned.

MAY 2018
Government response to implementation of T Level Programme Consultation
The Government published its response to the consultation which closed in February 2018. It conceded that the purpose of T Levels needs to be made clearer, and there should be greater support for employers in the delivery of industry placements, recognition of UCAS points at the end of a T Level, and progression onto an apprenticeship - not just skilled employment.

SEPTEMBER 2018
DfE publish findings on employer engagement and support for industry placements
The report highlighted that in routes where there are existing, well-established apprenticeship routes, it would be harder for those employers to see value in offering 3-month placement opportunities for T Levels students.

Procurement exercise for awarding organisations begins
In September 2018, DfE launched a procurement exercise to identify the awarding organisations to develop the full content and assessments for the core and occupational specialisms of the first three T Levels routes. These will need to be approved by the IFA.

SPRING 2019
EOI for T Level delivery in 2021/22
Information will be published about how providers can express an interest in delivering T Levels in the academic year 2021 to 2022.

AUTUMN 2020
First three T Levels to be delivered
First T Level programmes start for specific occupations in three industries:

– software application development (digital industry)
– design, surveying and planning (construction industry)
– education (education and childcare industry)

AUTUMN 2021 TO 2023
Remaining T Levels to be delivered
Since the publication of the T Levels Action Plan in October 2017, DfE have announced that the timetable for the delivery of the remaining T Levels has slipped by 12 months. The remaining routes will be delivered between 2021 and 2023. The remaining routes are:

– Remaining pathways in Digital
– Remaining pathways in Construction
– Remaining pathways in Education and Childcare
– Legal, Finance and Accounting route
– Engineering and Manufacturing
– Health and Science
– Hair and Beauty
– Agriculture, Environment and Animal Care
– Business and Administration
– Catering and Hospitality
– Creative and Design
– Transport and Logistics
– Sales, Marketing and Procurement
– Social Care
– Protective Services

2. WHAT ARE T LEVELS?

The past decade has seen the technical education landscape undergo some of its most significant changes. From the introduction, and subsequent scrapping, of 14-19 diplomas, study programmes and tech levels, to the rollout of the apprenticeship levy, and most recently, T Levels.

The only constant in the technical education landscape is change itself.

The government set out its plan to build "…a world class technical education system" in its Post-16 Skills Plan published in July 2016, on the back of the Independent Panel on Technical Education (the Sainsbury Review)[1,2]. Within the report was the recommendation to introduce a new framework of 15 technical routes into skilled employment through:

- Classroom-based training programmes (T Levels)
- Work-based programmes (Apprenticeships)

The government took forward these recommendations, and in October 2017 published its T Level Action Plan, which outlined how it intended to implement the programme.

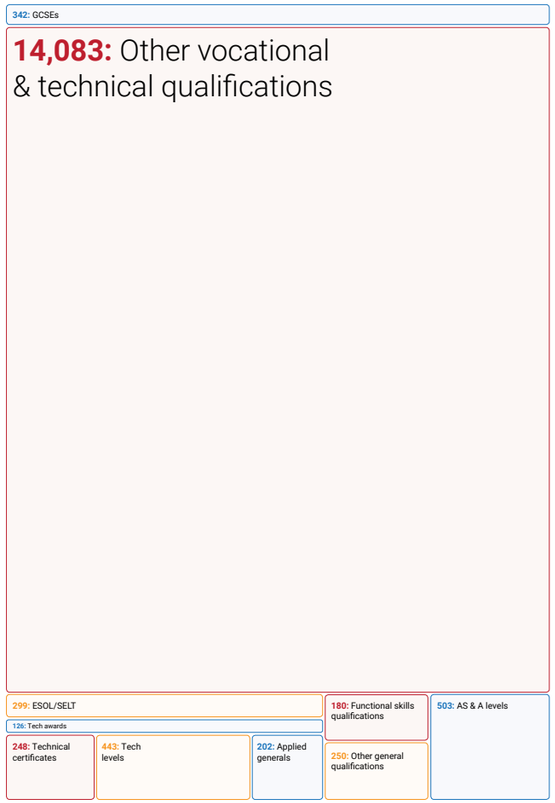
GOVERNMENT DEFINITION OF T LEVELS

T Levels are new courses coming in September 2020, which will follow GCSEs and will be a high-quality alternative to A Levels. They combine classroom theory, practical learning and a three-month industry placement. The two-year technical courses have been designed with employers so that the content will meet the needs of industry and prepare students for work. They will provide the knowledge and experience needed to get into a skilled profession or to move on to higher education or apprenticeships.

Source: DfE, Guidance: Introduction of T Levels, 2019

T Levels will be one-half of the technical education offer alongside apprenticeships. They are intended to support entry into skilled employment, and potentially replace the majority of, if not all, level 3 vocational qualifications. Simplifying the system would go some way to dealing with the plethora of technical education options that young people encounter at 16. In fact, Ofqual estimated that there were 14,083 'Other vocational and technical qualifications', 443 'Tech levels' and 248 'Technical certificates', compared to just 503 'A Levels'.

Image 1: The number of different qualifications available to study

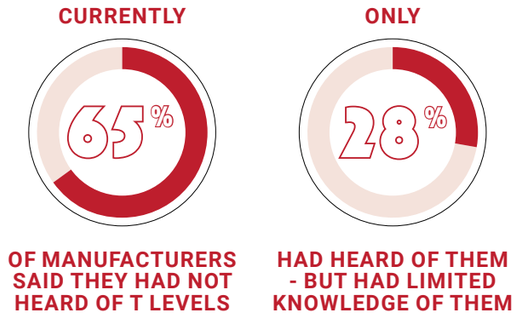


Source: Ofqual

Therefore, introducing T Levels should not add to this overly-complicated system, but genuinely simplify it. Whilst overall we agree level 3 qualifications should come under the umbrella of T Levels in order to simplify the system, care must be taken to ensure qualifications (and their funding), are not withdrawn until T Levels are successfully rolled out.

[1]Department for Education, Post-16 Skills Plan, 2016
[2]Department for Education, Report of the independent panel on technical education, 2016

However, it is not just young people who face a confusing landscape. Manufacturers too have had to navigate these changes, and in many cases, it has proved difficult to keep up with the constant change:

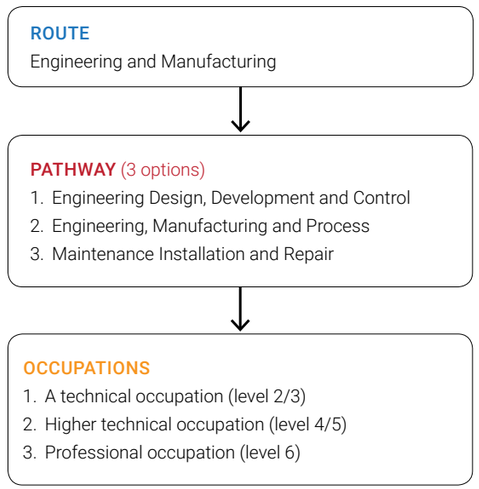


Therefore, whilst calls to simplify the system are good, clear communication about what T Levels are, and the impact on existing level 3 qualifications will be vital.

Simplifying the system will mean that 16 year-olds have the opportunity to choose from two clear pathways:

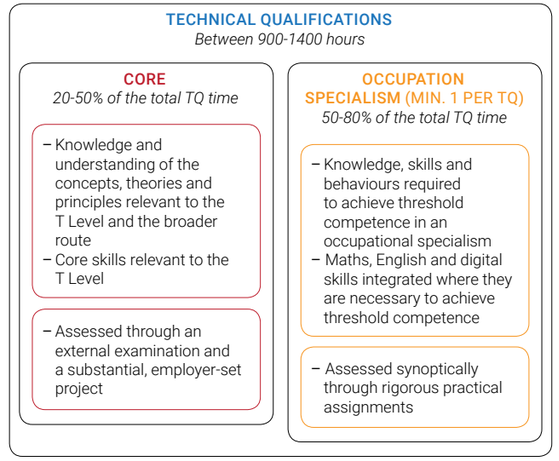
- Academic study programmes (A Levels)
- Technical study programmes (T Levels and Apprenticeships)

T Levels will be two-year classroom-based courses for 16-19 year olds, which will allow a young person to study a particular broad route, e.g. engineering and manufacturing, before specialising within that route and taking a particular pathway. This can be summarised as followed:



T Levels will be made up of five different elements:

1. Technical qualification



Source: Department for Education, T Level action plan, 2018

Manufacturers' views

Some 43% of manufacturers would prefer T Level students to have a breadth of knowledge in general engineering and manufacturing concepts, rather than deep, specialist knowledge (24% of respondents). They felt depth of knowledge could be better acquired through more tailored apprenticeships instead.

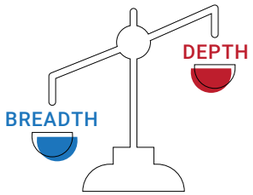
This aligns with feedback from manufacturers who told us they see T Levels as a potential "*try before you buy*" scheme, prior to a learner starting an apprenticeship. In fact, 44% of manufacturers said they would fast-track a T Level student onto an apprenticeship at the same level (level 3), and 43% would do it above level 3.

Table 1: Progression routes for T Level students

Fast track onto an apprenticeship at the same level as the T level (level 3)	44%
Progressing onto an apprenticeship at a higher level (above level 3)	43%
Going onto higher education (e.g. degree at university)	30%
Immediate skilled employment	26%

Source: Make UK, Education and Skills Survey (2019)

This underpins the need for the technical qualification to focus on breadth and not depth at this stage, so that undertaking a T Level gives students a good grounding before specialising within a chosen route. ***This will not only ensure that T Levels are distinctly different to apprenticeships,*** but finally give students a flexible and genuine choice at 16.



This is why, to ensure T Levels are a success, it is vital that Government maps out how they fit into the wider education landscape, making it clear that they are a distinct alternative to A Levels and apprenticeships. Mapping out the different pathways that students can take in both higher education (HE) and further education (FE) (and showing how a student can move between each one), can help to break down the stigma that one route leads to a more successful career than the other. In this policy paper we set out how this would look, showing how vocational and academic pathways should be intertwined as opposed to two separate routes.

Recommendation: The Government should map out clearly the different pathways of technical and academic education post-16, showing how a student can move between each one, and how each is as fruitful as the other.

2. English, Maths and Digital requirement

MATHS AND ENGLISH REQUIREMENTS

- Students are expected to achieve a level 2 in maths and English. This can be achieved through GCSEs (grade 4 and above) or level 2 Functional Skills (pass)
- T Level panels are free to set higher maths and English requirements where necessary

Source: Department for Education, T Levels Action Plan, 2018

Manufacturers' views

Manufacturers are supportive of the requirement that T Level students must meet a minimum maths and English requirement of level 2. This is important to manufacturers because 38% of students leave formal education at 16 with less than a grade 4 in English and 41% in maths.

When recruiting apprentices, three-quarters of manufacturers prioritise attainment in English, maths and the sciences. Generally, they are looking for a good pass mark (grade 4 at GCSE), however as manufacturing and engineering moves towards more high-value goods and services, employers require higher-level skills, with many manufacturers now asking candidates for a grade 6 in maths if they wish to pursue an engineering apprenticeship[3].

Some manufacturers we spoke to also said that the learning of digital skills should be included as part of a T Level, so the Government's decision to include this (as part of the classroom content that students learn) is a welcomed move.

Many manufacturers we spoke to also expressed their desire for students to be able to opt for taking a higher level of maths. Whilst T Levels will be "*…stretching level 3 programmes*", engineering and manufacturing apprentices tend to require a higher level of maths knowledge than those in other apprenticeship subjects.

Given T Levels are to be aligned to apprenticeship standards and positioned as an alternative to A Levels, manufacturers would be keen to ensure that T Level students have the opportunity to study maths at a higher level, even achieving a full A Level, if they choose to.

3. Mandatory industry placement

T LEVEL INDUSTRY PLACEMENT

Between 315-420 hours

- Undertaken with an external employer
- Minimum of 45 days
- Students develop technical skills and apply their knowledge in a workplace environment
- Provider should pay for/contribute to travel and subsistence costs, if not covered by the employer
- Employers not expected to pay students

Source: Department for Education, T Levels Action Plan, 2018

[3]EEF, An Up-Skill Battle, 2016

Manufacturers' views

The delivery of T Level placements is the most contentious issue for manufacturers. This is because offering placements comes at a time when more and more is being asked of manufacturers. The 3-month placement must be a minimum of 45 working days, undertaken in a place of work where a student can demonstrate and use the knowledge they have acquired as part of their technical qualification.

Whilst the delivery of this for manufacturers will be challenging, manufacturers are looking for people with industry experience, therefore we believe the opportunity to offer work experience in the manufacturing industry should be embraced by manufacturers[4].

OF MANUFACTURERS STRUGGLING TO RECRUIT SAID APPLICANTS LACKED INDUSTRY EXPERIENCE.

Understanding the value of industry experience, a third of manufacturers (33%) said they would offer a 3-month placement to a T Level student in their current form, with a further 21% considering offering one if it could be delivered with greater flexibility than currently proposed. Not only will offering a 3-month placement help to build a future talent pipeline for their own business, but crucially it will also go some way to fill the skills gap facing our sector.

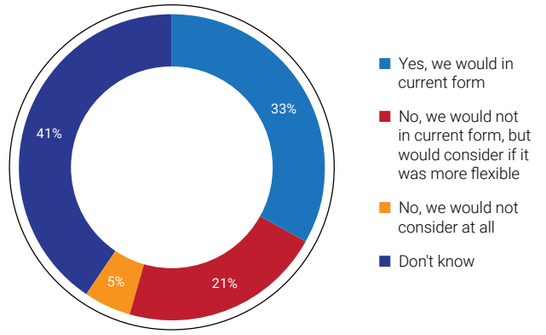
In our survey, and discussions with manufacturers, the three main barriers to the delivery of the 3-month placement offer were:

Not enough people capacity within the business

60% of manufacturers said their business lacked enough people to setup, support and deliver high-quality 3-month placements for T Level students. Manufacturers were concerned that in some cases employees would have to be removed from day-to-day business priorities to manage a T Level placement student. Some employers said the people requirements for managing T level students would be the same level as supervisors/mentors for apprentices (which can be significant).

Chart 1: Manufacturers see the value of offering placements

% companies stating whether they would offer a T level student a placement



Source: Make UK, Education and Skills Survey (2019)

Time constraints in managing cohorts of young people across the year with other business priorities

55% of manufacturers said juggling young students with business needs would be a barrier to taking on a T Level student for 3 months. With the multitude of challenges facing manufacturers, including Brexit, ever-changing technology and techniques, as well as an ageing workforce, finding the resource and time to offer a placement will be difficult.

In addition, many manufacturers are already offer a range of school engagement activities to inspire the next generation[5], such as work experience opportunities (68%), participating in career fairs (33%) and factory visits (30%). The decision to offer 3-month industry placements would be in addition to all these other offers, which would no doubt lead to some programmes being prioritised over others, or not offered at all due to limited capacity.

Recommendation: Training centres and academies, which mimic the world of work, should be allowed to deliver 3-month industry placements to overcome the barriers that manufacturers face.

Recommendation: T level students should be able to undertake their placement with more than one employer. This will support those companies unable to deliver a 3-month placement and give the learner greater exposure to wider industry.

[4]EEF, An Up-Skill Battle, 2016
[5]Make UK, Education and Skills Survey (2019)

Don't understand what is expected of businesses

44% of manufacturers said a lack of information on what a T Level placement would entail for them would be a barrier to offer one. Without clear information on what a 3-month placement looks like in practice, manufacturers will struggle to take the business decision to offer one. Currently the Department for Education has developed a toolkit in partnership with the Association of Colleges to guide colleges through the delivery of placements.

4. Occupational-specific requirements

The fourth element of T Levels are occupation-specific requirements. These will be determined by each T Level route panel, and will be essential for those young people that wish to gain skilled employment in that particular route e.g. license to practice qualification or professional registration. In response to the government's T Level consultation, manufacturers were clear that having the option to gain this occupation-specific requirement would help to position T Levels as rigorous, value-adding qualifications that will ultimately benefit manufacturers.

5. Further employability, enrichment and pastoral provision

The final element for T Levels is any further employability, enrichment and pastoral provision. This is similar to some apprenticeships, and in particular traineeships, where additional employability skills are included. Manufacturers we spoke to were keen for some form of 'work-readiness' module to be included, and it is within this element where this would fit in.

Employers we spoke to wanted the module to cover any preparation needed prior to the work placement, so that learners entering a workplace had a good understanding of what would be expected there. Enrichment activities are again common within apprenticeship programmes: at Make UK's Apprentice Training Centre, learners undertake enrichment activities as part of the apprenticeship, particularly at the start of the training.

Recommendation: All T Levels should include a work-readiness module to ensure that young people are equipped with the soft skills required to progress onto further study and/or employment.

3. IMMEDIATE CHALLENGES OF THE WIDER LANDSCAPE

We now have a good idea of what T levels are and what manufacturers think of the five elements that make up T levels. However, the implementation and success of T Levels will be contingent on several other reforms taking place, as well as continuing challenges. We outline these below.

1. Apprenticeships

In recent years, the biggest change to technical education and training has been the introduction of the apprenticeship levy and wider reform programme. This has fundamentally changed not only the way apprenticeships are funded, but also designed and delivered. The levy went live in April 2017 and meant that a single company or a group of companies with a pay bill of more than £3 million would have to pay 0.5% of their pay bill towards it. Those outside of the scope of the levy are currently required to pay 10% towards the cost of training, subject to a maximum, this will drop to 5% from 1 April 2019.

The levy, alongside the introduction of apprenticeship standards to replace all frameworks, and inflexibilities around how companies can spend levy funds, has been a significant change for employers. For many, the change has had significant impacts, with apprenticeships either postponed or cancelled as a direct result of the levy and wider reforms.[6] National statistics have reflected the views we have heard on the ground, with apprenticeship starts falling each month compared to pre-levy years.

Even manufacturing and engineering apprenticeship starts have taken a hit, albeit not as much as other sectors (see Table 2).

Table 2: Apprenticeship starts in the Engineering and Manufacturing sectors

2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
69,730	66,410	64,830	74,060	78,480	74,010	58,888

Source: DfE, Statistics: further education and skills, 2011 to 2018

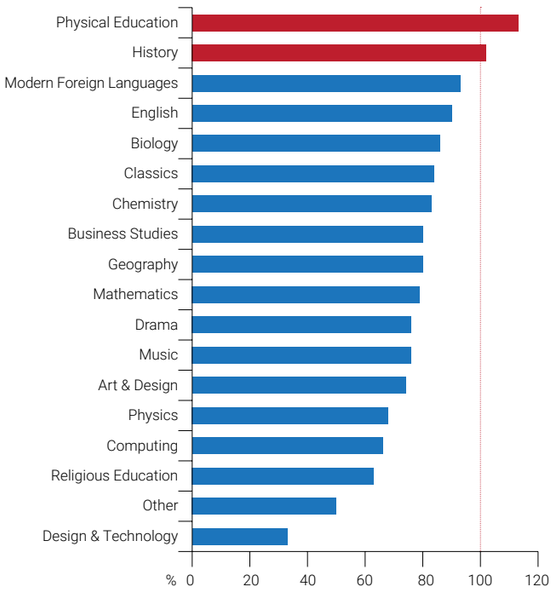
Getting the reforms to the apprenticeship system back on track will be integral to the success of the T Levels programme, because they are one of the three options that 16 year-olds can choose to pursue after completing Key Stage 4.

In addition, they could also possibly be an option for a young person upon completion of a T Level, allowing them to be fast-tracked onto an apprenticeship within their chosen route. However, to achieve this, the content of T Levels should be closely aligned to apprenticeship standards: this will ensure the choice between T levels and apprenticeships does not become an either/or scenario for young people.

2. STEM teachers and subject take-up

The second reform and continuing challenge has been the recruitment of STEM (science, technology, engineering and maths) teachers. The STEM teacher recruitment challenge in both schools and colleges remains a barrier to being able to successfully implement the T Level programme. As chart 2 shows, the Department for Education (DfE) has missed its recruitment target for all STEM subjects

Chart 2: DfE teacher recruitment vs. target, 2017/18



Source: Department for Education, Initial Teaching Training, 2017/18

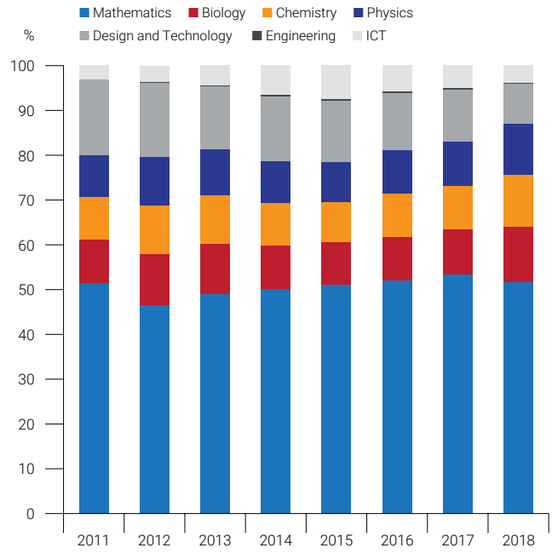
[6] EEF, A Levy Price to Pay: The Apprenticeship Levy One Year On, 2018

last year, yet over-recruited in non-STEM subjects. It is no surprise that teacher recruitment is particularly hard in STEM subjects, and is reflected by the large shortfall in meeting recruitment targets.

This trend is also reflected in the number of students taking STEM subjects. As chart 3 shows, since 2011 the take-up of non-core STEM subjects such as Engineering, ICT and Design & Technology has fallen. The decision to implement EBacc has no doubt had a profoundly negative impact on the take-up of these subjects, however a chronic shortage of teachers in these subjects has also led to schools not offering the subjects as part of their curriculum.

If we are to successfully encourage young people to pursue T Levels in the Engineering and Manufacturing route, we must spark their interest in STEM subjects pre-16. To do this we have to ensure that students are being taught by teachers who are experts in their subjects, who understand the world of work and how subject knowledge is applied in the relevant industries. Filling teacher vacancies in STEM subjects with the surplus of non-STEM teachers is not the way to achieve this.

Chart 3: Number of students taking STEM subject at GCSE



Source: Joint Council Qualifications, Main results tables, 2011 to 2018

3. Careers advice

In December 2017, the Department for Education published its long-awaited Careers Strategy, which detailed how DfE intended to improve careers provision across the country. There were many welcomed announcements such as a set of standards for all schools and colleges to meet, known as the 'Gatsby Benchmarks', as well as dedicated career leaders.

Manufacturers were left disappointed though, that there was not greater focus on the need to achieve parity of esteem between academic and technical educational routes. Impartial careers advice will be key to ensuring that young people are informed about the option of studying T Levels and what they can potentially lead to.

Recommendation: The Government should support the Careers & Enterprise Company to scale up so they can better bridge the gap between manufacturers and schools and colleges. This includes offering STEM-specific career leaders in each of their geographical regions.

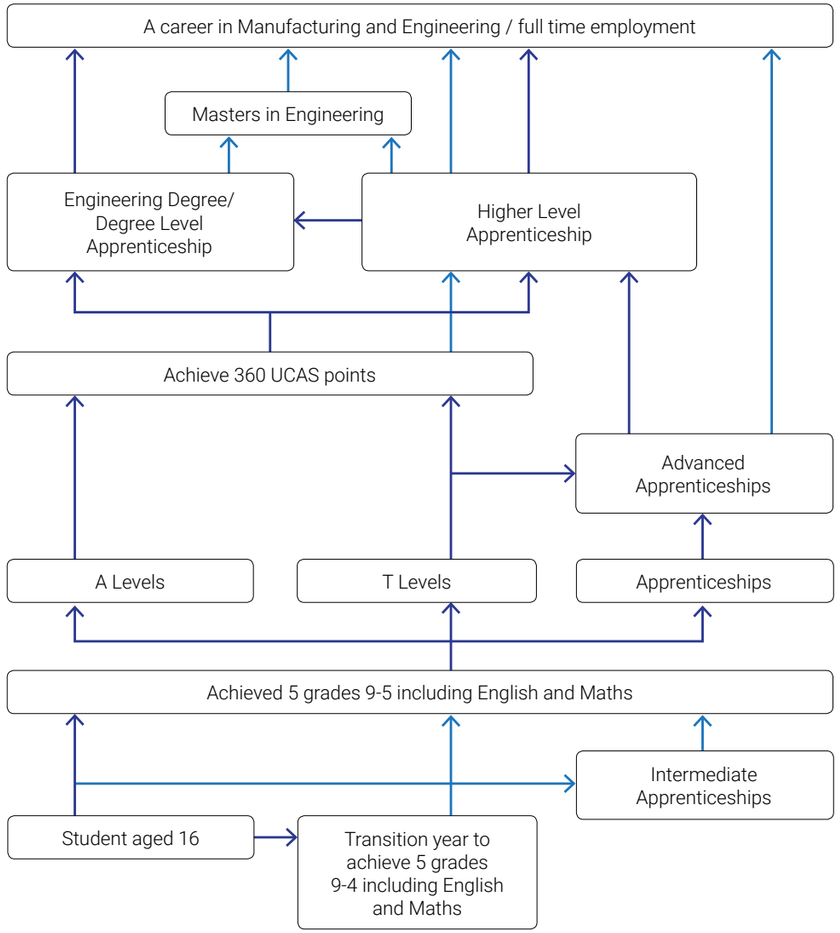
4. CHALLENGES AHEAD

Where do T Levels fit in the wider landscape?

The government's T Level action plan, published in 2017, outlined T levels as "*…new technical study programmes that will sit alongside apprenticeships within a reformed skills training system*". This overall aim aligns with manufacturers' views, that in order for T Levels to be a success, it must be clear where they fit into the wider education landscape.

The Secretary of State's speech on Technical Education in December 2018 stated that government would map out how each pathway leads to a successful career[7]. However, manufacturers believe they should also be mapped out to show how each pathway interacts with one another, and give young people the flexibility to explore other technical education opportunities.

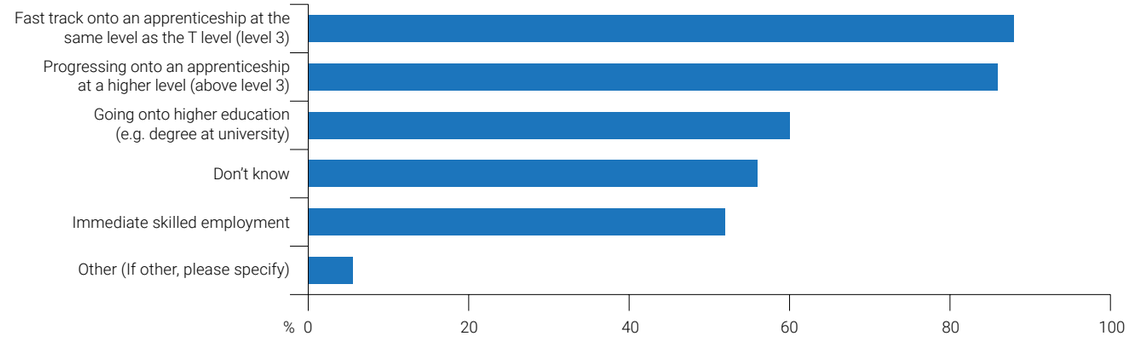
In our submission to DfE's consultation on the implementation of T Level programme, we mapped this out as follows[8]:



[7]Secretary of State speech on Technical Education, 2018: https://www.gov.uk/government/speeches/damian-hinds-technical-education-speech
[8]EEF, EEF response to implementation of T Levels programme, 2018

Chart 4: Manufacturers see T Level students progressing onto apprenticeships as well as higher education

% manufacturers citing what the progression routes for T levels should be

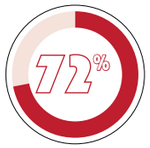


Source: Make UK, Education and Skills Survey (2019)

Our pathways diagram clearly shows how young people could and show be able to move between different types of learning within the education system. This is something that manufacturers support, with many seeing a range of options open to young people upon completion of their T Levels. It does not force young people down either an academic or vocational education pathway but instead allows them the flexibility of moving between routes and allowing learners to gain a combination of technical and academic profiles.

However, the key to achieving this fluidity and flexibility is having all providers on board, in particular higher education institutions that accept T Levels students onto their courses. Currently, very few universities have publicly said they would accept T Level students and T level qualifications, despite them receiving equivalent UCAS points. This only serves to reinforce the imbalance between academic and technical education. In the way manufacturers' work changes to reflect changing business needs, education institutions too should be open and willing to adapt what students learn and how they learn it.

Higher education institutions (HEIs) who do not accept vocational students including T level students, are missing a trick. Make UK research shows that manufacturers are offering more apprenticeship opportunities than graduate opportunities.



OF MANUFACTURERS PLAN TO OFFER APPRENTICESHIP PROGRAMMES

PLAN TO OFFER GRADUATE SCHEMES

Recommendation: All Higher Education Institutions (HEIs) must accept T Level students onto degrees, as they do A Level students, so long as they meet the minimum UCAS point requirements for that particular course.

How will they be graded?

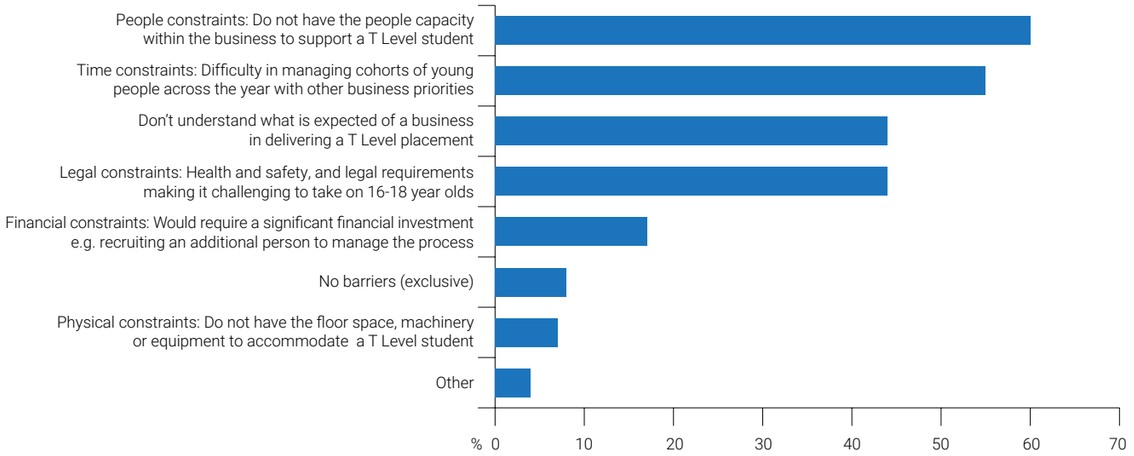
Another challenge with T Levels is the way they will be graded. Currently T Levels would be graded as followed:

- **Grade A*-E** for the core component of the TQ
- **Pass, merit or distinction** for the occupational specialism of the TQ
- **Pass or fail** for the 3-month placement
- **Grade 9-1** for their English and maths skills
- Any other occupation-specific requirements like a license to practice

These grades would be outlined in a **transcript**, but students would also receive an **overall grade** combining all these different grades, into either a **pass, fail, merit or distinction**. It is clear that by grading individual components differently, it will leave manufacturers (and other employers) very confused as to what the student has actually achieved, and what they are capable of. This may lead to manufacturers not taking on T Level students upon

Chart 5: Barriers manufacturers face to delivering 3-month industry placements for T Level students

% companies citing barriers to offering placements for T Level students



Source: Make UK, Education and Skills Survey (2019)

completion of their programme based on their grades, instead relying more on their own internal assessment.

Recommendation: Government must work in consultation with manufacturers, employers and education institutions must be carried out to test and conclude the best grading structure, which reflects students' competence as well as their potential.

Is the 3-month placement deliverable?

Many of the concerns that manufacturers have raised with T Levels remains around the delivery of the 3-month placement. Since the announcement of T Levels, Make UK has been collating the views of manufacturers, and what they see as barriers to delivering placements. The common barriers manufacturers will face are:

i) People constraints

Six in ten (60%) manufacturers said that people constraints would be a barrier to delivering 3-month industry placements for T Level students. Manufacturers told us that they did not have the people capacity within their business to support a T Level student for 3 months. Such a programme would require additional personnel to support, develop and mentor a T Level student.

This holds true particularly for smaller companies, with 52% of those with less than 50 employees citing people capacity constraints as a barrier to delivering 3-month placements compared to larger companies, with over 251 employees (35% of respondents).

Having enough people in a business to offer a 3-month placement is obviously linked to financial constraints, which we touch on below.

ii) Time constraints

The second biggest barrier to delivering 3-month placement industry placements for manufacturers is a lack of time. Over half (55%) of manufacturers said difficulties in managing multiple cohorts of young people across the year would prove challenging, often conflicting with other business priorities. Again, this was a bigger barrier for companies with less than 50 employees (58%) compared to companies with more than 251 employees (41%).

The length of the placement is an additional concern that makes it harder for smaller companies to manage whilst continuing to meet business needs. We know from research on school engagement activities that manufacturers are more likely to offer shorter programmes e.g. two-week work experience, than internships (typically three to six months), and it seems T level placements are more akin to the latter.

Recommendation: Government must ensure manufacturers can be flexible around when they can take on a T Level student for placements, so it does not conflict with changing business cycles.

This of course relies on providers being flexible in their delivery too. If we look to apprenticeship standards to learn lessons, we know that the 20% off-the-job training requirement is a burden. But what is more of a challenge is the lack of flexible delivery by many providers as to how the off-the-job element can be delivered.

iii) Don't understand what is expected of them

Worryingly, our survey found that 44% of manufacturers said they did not understand what was expected of them in delivering a 3-month industry placement. As this paper has demonstrated, there remains a lack of resources and guidance from Government to manufacturers on what they need to do in order to offer a placement.

To date the Department for Education has engaged with the Association of Colleges to develop a toolkit for colleges, and we firmly believe the same should be done with manufacturers, and more widely, all prospective employers. Given a student cannot complete their T Level without completing a placement, awareness and buy-in from manufacturers to offer and deliver placements will be vital.

Recommendation: The Department for Education should work with manufacturers, and a wider selection of employers, to develop an employer toolkit offering guidance and support on how to deliver 3-month T Level industry placements.

iv) Legal constraints

Almost half (44%) of manufacturers said legal constraints would inhibit their ability to offer 3-month industry placements to students - this included the restrictions around having someone under the age of 18 on site or on the shop floor, e.g. in the nuclear industry. In addition, many young people will need to undertake extensive health and safety training prior to joining, which can take up to 6 weeks. Similarly, many manufacturers said students would need to undergo the same security checks and clearance as normal staff, which again can take anywhere up to 12 weeks to complete.

v) Financial constraints

Almost one in five (17%) of manufacturers said that financial constraints were a barrier to offering 3-month placements. Manufacturers said the cost of purchasing additional equipment, for example PPE, was a concern. This would require manufacturers to make a significant financial investment to be able to offer placements. In addition, in some cases these financial constraints can lead to manufacturers being unable to recruit the staff to be able to offer placements. Some companies we spoke to cited costs of "thousands of pounds" to deliver the placements. Yet, currently the funding to support placements is directed towards the provider, and not the employer, with the idea that the provider would direct some funding to support the employer. However, previous experience of this way of working through the apprenticeship grant for employers for example has not been effective, a simpler model would be to directly support the employer as well as the provider.

Recommendation: Government should provide financial support to employers at the same level as providers to support the delivery of placements. This would help to create more placement opportunities across employers of all sizes and sectors.

5. T LEVELS MAKE OR BREAK? CAN THEY WORK?

Manufacturers support the principle behind T Levels. They can be part of the solution to help fill the skills gap our industry faces and address the fact that more than 7 in 10 manufacturers are concerned about finding the skills they need for their business.[9] To ensure they work for manufacturers, T Levels must meet the principles Make UK set out when the programme was first announced[10]:

Make UK's seven principles to ensure T Levels are a success for manufacturers:

Credibility: The implementation of T Levels must be recognised as an equivalent pathway to a career in manufacturing and engineering as A Levels.

Clarity: The pathway to achieving a T Level should be clear, allowing a student the potential to progress onto both higher education (university), or vocational education (apprenticeships).

Capital: The Government must ensure sufficient funding is made available for the delivery of T Levels; in particular, funding for the delivery of work placements should be targeted. Direct support for employers should be included within this.

Comparability: T Levels should command the equivalent UCAS point as A Levels, allowing those students to go onto higher education. T Levels should also fast-track learners onto an advanced or higher-level apprenticeship, when they may have otherwise undertaken a lower-level apprenticeship.

Longevity: The Government must work with all parties to make T Levels a success in the long term. T Levels must not be susceptible to political chop and change.

Be employer-led: The design of T Levels must remain employer-led now and in the future.

Balance, breadth and depth: Learners must acquire a breadth, as well as depth, of study to ensure they have transferable skills to move across sectors, and potentially, industries.

Source: EEF response the implementation of T Level programme, 2017

[9] EEF, An Upskill Battle, 2016
[10] EEF, EEF response the implementation of T Level programme, 2017

These principles will ensure that the programme is clear, well-resourced, rigorous and will not be subject to chop and change.

We have also set out below our recommendations to government on how we can make T levels work for industry:

1. Making 3-month industry placements work for manufacturers

a	Training centres and academies, which mimic the world of work, should be used to deliver 3-month industry placements to overcome the barriers that manufacturers face.	Training centres should be used as places where students can undertake their industry placement. They mimic what a working environment would be, giving the student the exposure and opportunity to use their knowledge in a work environment and also the chance to undertake health and safety training.
b	Government should provide financial support to employers at the same level as providers to support the delivery of placements. This would help to create more placement opportunities across employers of all sizes and sectors.	The current, limited, fund to support the creation of and delivery of mandatory placements lies with the provider, with high expectations of what is required from them. The Government should provide the same financial support directly to employers, some of which are citing financial constraints to the delivery of placements. This should be made directly to employers to support the on-costs of delivering a placement to encourage the creation of more placement opportunities with employers of all sizes and across all sectors.
c	Government must ensure manufacturers can be flexible around when they can take on a T Level student for three months, so it does not conflict with changing business cycles.	Government should ensure that manufacturers can choose when to offer placements, so they can fit around business cycles and priorities, particularly those of SMEs. Colleges and providers should engage with manufacturers at the beginning of a T Level student's study programme to ensure a placement can be arranged.
d	The Department for Education should work with manufacturers, and employers more widely, to develop an employer toolkit offering guidance and support on how to deliver 3-month T Level industry placements.	The Department for Education should engage with employer representative groups such as Make UK, and employers more widely, to develop a toolkit to ensure that manufacturers have the knowledge, guidance and resources to deliver 3-month industry placements.
e	T level students should be able to undertake their placement with more than one employer. This will support those companies unable to deliver a 3-month placement and give the learner greater exposure to wider industry.	Managing cohorts of young people was identified as a key challenge and therefore some manufacturers will struggle to add a 3-month placement to the range of initiatives on offer. By allowing the student to undertake the placement with more than one employer this not only helps those employers unable to offer a 3-month placement but gives the learner greater exposure to wider industry. For example a large OEM (original equipment manufacturer) taking on T level students could encourage learners to undertake part of the placement within their supply chain companies.

2. Having genuine choice and parity of esteem between different educational pathways

a	All Higher Education Institutions (HEIs) must accept T Level students, as they do A Level students.	All Higher Education Institutions (HEIs) must accept T Level students in the same way as they do A Level students, onto degrees so long as they meet the minimum UCAS point requirements for that particular course, so that academic education is not seen as a better route than technical education. Each route should equally prepare young people for the world of work in manufacturing.
b	The Government should map out clearly the different pathways of technical and academic education post-16, showing how a student can move between each one, and how each is as fruitful as the other.	To achieve this, the content of T Level programmes should be aligned as closely as possible to apprenticeship standards and there should be flexibility between different pathways. The choice between T levels and Apprenticeships should not become an either/or scenario for young people.
c	The Government should support the Careers & Enterprise Company to scale up so they can better bridge the gap between manufacturers and schools and colleges.	This includes having STEM-specific career leaders in each of their geographical regions and ensuring that Skills Advisory Panels engage with employers going forward. Successfully doing this, will help to meet the demand for 3-month placements in the engineering and manufacturing route, and in the longer term, encourage more young people into manufacturing.

3. Working with employers to ensure content is employer-led, and grading is fit for purpose

a	T Levels should focus on breadth of knowledge rather than depth.	Whilst T Level content should be closely aligned to apprenticeship standards, it must focus on giving students a breadth of education in key manufacturing and engineering knowledge. A depth of knowledge is better acquired through apprenticeships.
b	Government must work in consultation with manufacturers, employers and education institutions to test and agree on the best grading structure.	Government must work in consultation with manufacturers, employers and education institutions to develop a grading structure which reflects students' competence but also provides clarity on what they are capable of progressing onto, e.g. an apprenticeship, university or employment.
c	T Levels should include a work-readiness module and a digital skills module.	All T Levels should include a work-readiness module to ensure that young people are equipped with the soft skills required to progress onto further study and/or employment. In addition, to reflect the changing world of work, every T Level student should also undertake a digital skills module to boost their digital literacy.

4. Create and implement a communication strategy and campaign to promote T Levels

a	The Department for education should clarify the timeline for all T Level routes and next steps	DfE should set out which T Level routes and pathways will be delivered from 2021. This would allow relevant employers, colleges, providers and teachers to begin to engage and encourage young people about their upcoming options for technical education.
b	The Department for Education should work with manufacturers to raise awareness of T Levels.	As T Levels are rolled out DfE should work with manufacturers, and employers more widely, to raise awareness of this new technical route. This can be, but is not restricted to, webinars, toolkits, and podcasts.

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