

Supporting apprenticeships in the Ministry of Defence (MoD): Assessing the quality, progression, and potential

Inquiry Report



all party parliamentary group on
apprenticeships

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Contents

Foreword from Chair	3
Executive summary	4
Inquiry findings	6
Recommendations	8
The current apprenticeship system in the MoD	9
How apprenticeship opportunities could be made more available to the UK's more deprived regions	10
Sponsor Case Study: Boeing	18
The future of apprenticeships and long-term ambitions of the MoD	13
Views of Minister for Defence, People and Veterans, Leo Docherty MP	15
Sponsor Case Study: Leonardo	16

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Foreword



Jack Lopresti MP
Co-Chair

It is clear from this inquiry that the Ministry of Defence (MoD) is doing a fantastic job in supporting apprenticeship provision and I was delighted to hear from the MoD, industry leaders and most importantly, apprentices themselves about the excellent quality and development opportunities available.

There is no doubt that the MoD has a prominent role to play in achieving the Government's levelling-up ambitions and supporting the UK's economic recovery as we look to the future.

As an APPG, our inquiry has heard how apprenticeships in the MoD have supported career development and futureproofed the defence workforce. The quality of apprenticeships in the MoD should be mirrored by other Government departments and I hope to see others learning lessons from this hugely impressive organisation.

There is always room for improvement, and I hope that more work is done to support the understanding of apprenticeships in schools, college and education institutions along with the availability of apprenticeships in the MoD and wider defence sector to students. Greater outreach programmes and signposting in collaboration with the defence industry is required to help improve this area. I hope to see Government and industry working closely to develop transferable skills to maintain lifelong learning pathways within the MoD and the wider sector.

Apprenticeships will play a key role in shaping our future economy and I am pleased to see the MoD leading the way in this area. I hope the Government supports the inquiry's recommendations and takes them forward.

Executive summary

The APPG on Apprenticeships provides a forum for MPs and Peers to engage with leading businesses, educators and organisations to discuss how to promote the role of high-quality apprenticeships. This group is co-chaired by Jack Lopresti MP and Emma Hardy MP.

The APPG on Apprenticeships MoD inquiry has been chaired by Jack Lopresti, MP for Filton and Bradley. The inquiry ran between June and November 2021.

It evaluated four key strands:

- The current apprenticeship system in the MoD
- The progression of apprenticeships in the armed forces
- The future of apprenticeships and long term-ambitions of the MoD
- Opportunities and challenges of the MoD apprenticeship system

The APPG would like to thank all contributors to the inquiry and the parliamentary panellists who supported the Chair with the evidence sessions:

Baroness Garden of Frognal
Jane Stevenson MP for Wolverhampton North East



The inquiry featured four evidence sessions and ran a period of consultation. We would like to thank those who gave evidence to the APPG panel discussions including:

Parliament

Leo Docherty MP, Minister for Defence People and Veterans

Ministry of Defence

Lt Col Ingrid Hall OBE (SO1), Head of Skills Strategy

Samantha Whalley, Assistant Head of Apprenticeships, Social Mobility and Outreach, Civilian HR

Lt Col Venetia Field, People Skills Strategy

Lt Cdr Norma Muyambo, People Skills Policy

Defence Equipment and Support

Sir Simon Bollom, Chief Executive of Defence Equipment and Support

Sue Snowball, Entry Talent Centre of Expertise Head, Defence Equipment and Support

Peter McAfee, Finance and Accounting Officer, Defence Equipment and Support

The APPG would like to thank Boeing and Leonardo for sponsoring the APPG secretariat to run this inquiry.

Defence apprentices

Shahini Mahalingam, 2nd Year DE&S Engineering Degree Apprentice

Alex Setchell, 2nd Year DE&S Project Professional Apprentice

Christina Jasper, 3rd Year DE&S Advanced Engineering Apprentice

Industry stakeholders

Richard Hamer, Education and Skills Director, BAE Systems

Bethan Ferguson, second-year pipe fabricator apprentice, BAE Systems

Inquiry findings

Throughout our evidence sessions, the key themes from the inquiry focused on employers, access and outreach, apprenticeship satisfaction and political direction. These were:

The MoD & employers

Collaboration between the MoD and industry is vital in improving the quality and standards of apprenticeships. This currently works well but stronger collaboration is required to encourage skills development.

All three branches of the armed forces are very highly regarded for the quality of their apprenticeships: all featuring in the Government's [Top 100 list of Apprenticeship Employers](https://assets.publishing.service.gov.uk/media/5f903559e90e072c9fdb3dff/top-100-apprenticeship-employers-2020-list.pdf) (<https://assets.publishing.service.gov.uk/media/5f903559e90e072c9fdb3dff/top-100-apprenticeship-employers-2020-list.pdf>).

Retention rates of defence apprentices are very high, with some providers experiencing over 95% retention. This is significantly higher than the national average of approximately 60%.

Access and outreach to MoD and defence apprenticeships

Apprenticeships in the defence sector are not promoted enough nationally but can be hyper-locally – such as around shipyard communities.

Apprenticeships could be promoted earlier in students' careers to better inform their decision making, this requires a stronger emphasis on the Baker Clause in schools ¹.

The application process for placements can be challenging for students and take several attempts to succeed; so making the application system simpler will likely lead to more eligible apprentices.

Work needs to be done to promote defence apprenticeships as part of broader efforts to promote apprenticeships to UK schools.

Apprentice satisfaction

Apprentices in the sector find their programmes rewarding. Many employers have a straightforward, linear progression, with reward schemes that encourage and reward hard work.

Apprentices' experiences can be improved by getting students in the workplace environment earlier and having greater involvement with a tradesperson from the outset of the placement.

Some employers can struggle to effectively integrate their apprentices into existing team structures, with improved communication and management of apprentices needed in some instances to ensure they are aware of their precise responsibilities and have support around their workload and broader mentoring and practical learning objectives.

¹ Introduced as an amendment to the Technical and Further Education Act 2017, the Baker Clause stipulates that schools must allow colleges and training providers access to every student in Years 8 to 13 to inform them about approved technical education qualifications and apprenticeships. More information on the Baker Clause can be found [here](https://amazingapprenticeships.com/app/uploads/2021/09/What-is-the-Baker-Clause.pdf). (<https://amazingapprenticeships.com/app/uploads/2021/09/What-is-the-Baker-Clause.pdf>)

MoD & Defence Equipment & Support

The MoD should be celebrated for its apprenticeship provision and should share best practice amongst other Government Departments to increase public sector uptake.

Apprenticeships are the future of the MoD. The inquiry was encouraged to see how the MoD hires applicants, by considering an applicant's potential and looking beyond qualifications. It is clear to see this creates a strong foundation of talent.

The Integrated Review supports the MoD's apprenticeships objectives and takes a strategic approach to the sector around large national programs such as Tempest and Dreadnought.

Communication between the Ministry of Defence and Defence Equipment and Support (DE&S), could be improved to better support a holistic approach to defence apprentices.

Political/departmental

Politicians providing evidence to the inquiry found constituents increasingly in favour of apprenticeships and view them as significantly rewarding, the structures in place at the MoD ensure there is progression and development for those looking to upskill and re-skill.

Politicians see defence apprenticeships as demonstrative of social mobility, and as a way to support communities experiencing high unemployment.

More broadly, it was thought MPs could do more to promote apprenticeships to their local schools and constituents.



Recommendations

- 1** Creating greater accessibility to apprenticeships is vital to support the MoD and the wider defence sector. We call on the Government to work with schools to promote defence apprenticeships and ensure teachers have the confidence to discuss and encourage future careers in this sector to students.
- 2** The MoD and businesses operating in the defence sector must not be reliant on recruitment being limited to geographical areas with large defence employers. An active, and collaborative outreach programme is required to support this.
- 3** Business and Government must work together to support greater signposting to apprenticeships in the defence sector. Students and those looking to move into the MoD should be more aware of local contacts available to discuss career opportunities in the MoD and wider sector.
- 4** To further support the above recommendation, the Apprenticeship Ambassador Network should be better used to coordinate industry and sector visits in schools, colleges and other educational facilities and sustain a regular programme of engagement to support greater uptake of apprenticeships.
- 5** Government and industry must work together to establish closer partnerships to support apprenticeship learning, this should involve more work placements that will help develop an apprentice and futureproof transferable skills for career development.
- 6** Additional support and feedback should be made available for those who are unable to secure a placement to understand the steps they need to take for future applications. We recognise this is currently in place in some areas but should go further.
- 7** The National Apprenticeship Wage must be reviewed, increasing this in line with the National Minimum Wage will create parity of esteem.
- 8** A stigma of apprenticeships still exists. The Government must continue to promote the success stories of apprenticeships through advertising campaigns that extend beyond National Apprenticeship Week.
- 9** The timing of apprenticeship courses must coincide with university courses to align business and university outreach programmes, so students are aware of all options available to them.

The current apprenticeship system in the MoD

MoD and apprenticeships

The Ministry of Defence (MoD) is the largest employer of apprentices in the UK. It runs separate schemes for the Armed Forces and the Civil Service. The MoD takes primary responsibility for training their apprentices, though they subcontract some of this work to other providers. The MoD's apprenticeship programme is widely recognised for its high-quality programmes, with over 90,000 apprenticeships delivered in subjects as diverse as cyber, engineering and healthcare. The three branches of the armed forces run their own apprenticeships programs, with over 22,000 apprenticeships working at any one time across 100 different programmes as part of their commitment to life development.

Though the number of apprentices does fluctuate depending on recruitment, apprenticeships are primarily weighted towards entry-level and Level 2 and 3 apprenticeships. The MoD recognises that apprenticeships are key to recruitment and effective employment of a diverse range of talent. The MoD also uses apprenticeships for career development and is currently exploring the role professional apprenticeships can play in supporting this.

Armed Forces Programme

The Armed Forces Apprenticeship programme is an integral part of the trade training provided to service personnel. With more than 90 different apprenticeships offered across three single services, mirroring the roles they fulfil, nearly half of all apprenticeships are in Science, Technology, Engineering and Maths (STEM) subjects. The Armed Forces maximises the apprenticeship levy and continues to explore opportunities to grow the apprenticeship programme: an example of this can be seen with the introduction of degree apprenticeships in the Royal Navy's accelerated apprenticeships in 2020.

The Royal Navy apprenticeship completion rate is 88%, with the other two branches of the

armed forces close to this. There is a low non-completion rate in the sector and all three branches' apprenticeships services rank in the top 10 apprenticeship providers in the UK, with the Army ranking first. The MoD made clear it recruits apprentices on potential rather than qualification and that apprenticeships provide a bedrock for future training to build on, with the longevity of the MoD's apprenticeship system making it easier to adapt.

MoD Civil Service Programme

The MoD Civil Service Apprenticeship Programme supports both existing employees and attracts new, diverse talent and skills for the department. There are 65 different apprenticeship schemes across all regions, available to civil servants. All MoD business areas have their own workforce plans and strategies with apprenticeships fully embedded. The MoD has achieved 30,000 apprenticeship starts since March 2021. As of October 2021, the MoD civil service programme currently has 1678 civil servants on an apprenticeship and 1327 completions to date. Defence apprenticeships provide opportunities for current employees to upskill, with the MoD's civilian apprentice intake used to build pipelines for critical roles. Civil service-wide schemes the MoD participate in includes the Civil Service Fast Stream scheme. The MoD's subsidiaries specialise in different types of apprenticeships, such as the Defence Science and Technology Laboratory (DSTL), which focuses on degree-level schemes and the Director of Naval Environment and Safety (DNES), which focuses on a regular intake of apprentices.

Across the MoD civil service programme, there are 12 schemes that individuals can choose from, from Level 2 to Level 7. The MoD has received an excellent response in the Civil Service Excellence of Practice Survey, with the highest rate of distinctions on record and outcomes that have been deemed outstanding. The inquiry also found the MoD's potential for upskilling existing employees is particularly strong, especially when it comes to

organisations such as the DE&S who are exemplars, recruiting regular cohorts of engineering, finance, commercial and project delivery apprentices. Their programmes have received national recognition awards.

MoD apprenticeships and social mobility

The MoD remains committed to the provision of high-quality apprenticeships. They view apprenticeships as a key to ensuring its skill base for the future and apprenticeships' broader role in strengthening the post-pandemic economic recovery. They are focused on improving the accessibility of apprenticeships

across all geographical areas and building STEM provision and emerging cyber, space and digital requirements.

Collaboration with the Social Mobility Commission has also proved vital in supporting the Department's outreach. In addition to this, the APPG inquiry found that the MoD supports initiatives that drive apprenticeship standing and recognition through its work with organisations such as the Amazing Apprenticeships, Apprenticeship Ambassador Network, 5% club and the Social Mobility Commission. Collaboration with organisations such as these is key to creating a diverse workforce from all different backgrounds.

How apprenticeship opportunities could be made more available to the UK's more deprived regions.

The ring-fencing of levy funds was the main reason for the concentration of apprenticeship opportunities in more affluent UK regions. The MoD wants to encourage businesses to better understand where they can utilise apprentices and how to tap into local workforces in poorer regions. The Defence People Plan is looking at a workforce areas overhaul, in line with the recently announced Integrated Review.

Progression of Level 2 apprentices

The inquiry heard that the MoD needs to invest more in professional apprenticeships, and the MoD can only use apprenticeships as options for progression if they map to MoD rules. For apprentices wishing to move from Level 3 to 4 if they do not have the necessary GCSE's, the MoD said the lack of functional skills would not be a barrier, but an apprenticeship was needed to support this future progression within the MoD.

Signposting apprenticeships to schools and the impact of the Integrated Review on defence apprenticeships

The MoD signposts to schools through Amazing Apprenticeships but admitted messaging was often not as joined up as they would like. The MoD is currently working on redesigning its messaging model. The MoD would look to invest in areas where recruitment was lacking and the MoD was conducting significant outreach in schools around Science Technology Engineering and Maths (STEM) and that this is being reflected in recruitment.

It was stated that the Integrated Review portrayed apprenticeships as the favoured qualification across the country.

Boeing and our UK apprenticeships

At Boeing, our UK apprenticeship programme is an essential part of our commitment to improving the skills of young people and providing job opportunities in the sector. Our apprentices gain invaluable and varied experience, bridging the gap between school and employment. Having been awarded the top employer in aerospace at the School Leavers Awards 2020 and placed 20th in the top 150 employers of apprentices in the UK, our programmes help to build the confidence of our apprentices, and contribute to the prosperity of the UK.

Our apprenticeships in numbers

Since 2016, Boeing has supported more than 100 apprentices across the UK and currently has 50 apprentices across four programmes: Aircraft Maintenance Technicians, Machining Technicians, Flight Services-Simulator Technicians and Business Support. They are located at Boeing and customer sites across the UK, including the International Centre for Aerospace Training (ICAT) in Cardiff, Boscombe Down, Brize Norton, Gatwick, Lossiemouth and Sheffield. In 2021, all 15 apprentices graduated and secured full time employment with Boeing, with 17 more set to graduate in 2022.

Our apprenticeship approach

Flexibility is at the heart of our approach to apprenticeships. Our UK apprentices gain experience working on fixed wing, rotorcraft and vertical lift aircraft. They are all dual-traded, which means they can support both avionic and mechanical tasks. The rotational nature of Boeing apprenticeships allows our apprentices to gain experience in multiple settings, including both the UK defence and commercial aviation sectors, creating transferrable skills that can be carried forward into a wide range of roles.

Boeing's UK apprenticeship programme starts in September, in line with the academic year. Aligning our schemes with the academic year offers flexibility to our graduating apprentices, should they choose to go to university before taking permanent employment.

Our apprenticeship schemes are established based on skill gaps that have been identified within the market, for example our simulation technician scheme provides device training to resolve a gap in device technicians for our P-8A and Apache aircraft models. We also provide apprenticeships in areas such as customer services, HR and IT based on levels of interest from applicants.

Our apprenticeships focus on growth of the individual and provide weekly check-ins and pastoral care to ensure all apprentices are supported and get the most out of their time with us. All of our apprentices get opportunities to attend events, to go on site visits, take part in development days and be part of an early careers community. In turn, they gain diverse experience and build a strong network, opening up potential to move around the company.

After graduating, our apprentices go onto many different pathways including continuing at Boeing, going to university or in some cases joining the RAF.

Sharing best practice: Placement rotation with the Ministry of Defence

Although Boeing apprentices currently spend time in areas of the MOD and working at MOD sites, the opportunity to extend Boeing's partnership with the MOD on apprenticeships could provide valuable opportunities to gain further experience in both industry and defence. The lateral nature of Boeing apprenticeships has the possibility, with the help of the MOD, to become increasingly varied and provide greater skills integration between us. The possibility of a placement rotation within the MOD for Boeing apprentices would allow them to utilise their skills acquired within a defence setting, and build their confidence further, working closely with our military customer.

Success stories

Our apprenticeship schemes have been incredibly successful over the years. For example, Millie, an Aircraft Maintenance apprentice, completed her CAA Cat A Licence in Aircraft Maintenance Engineering, combining completion of modules at the ICAT, and practical experience at the ICAT hangar. She has been amazed by the breadth and scope of the programme and expressed her positive attitude towards the combination of both theory and hands on experience.

Tom, another Aircraft Maintenance apprentice, completed his CAA Cat A Licence in Aircraft Maintenance Engineering. Tom was blown away by his experience on Boeing's apprenticeship programme and has praised the high level of support he received from both his manager at Boeing, and his ICAT tutor, as well as the scale and breadth of the programme.

Following their graduation from Boeing's apprenticeship programme, both Millie and Tom secured full time employment with Boeing on the P-8A Poseidon programme at RAF Lossiemouth, with Tom currently being deployed on a temporary assignment in Norway.



The future of apprenticeships and long-term ambitions of the MoD

Defence Equipment and Support (DE&S)

Defence Equipment and Support was highlighted as a leading organisation within the MoD, providing 11,000 apprentices in total to the MoD. Most of this work takes place in their complex in Abbey Wood. 10% of DE&S apprentices recruited are over the age of 60, and 40% over the age of 50, with age ranges from 16 to 60+ from diverse backgrounds. DE&S offer from level 3 to level 7 qualifications, and like many organisations, implemented strategies to recruit during the COVID-19 pandemic to ensure their work progressed as smoothly as possible.

DE&S currently runs 17 apprenticeship schemes, with more being launched in 2022. 90% of apprentices adjust well to the apprenticeships, where they are a desirable commodity, with the incentive being on DE&S to make sure apprentices remain motivated and enjoy their experience. DE&S is part of the Princes' Trust Million Makers Initiative, looking to make it a broader experience than just coming to work, which they think is successful.

The inquiry heard from DE&S that the importance of apprenticeship levy was "critical", because they would not be able to do what they are doing without the levy funds. It was added that centralised control is important, because young people can come into an organisation and easily get lost; therefore having point of contacts and apprenticeship networks on hand support these initiatives. It is considered a priority in DE&S that apprentices feel connected within the organisation.

DE&S stated their uniqueness as an apprenticeships provider as they play a more active role in managing their staff around their apprentices, as well as the apprentices themselves to ensure the best experience for apprentices and their most efficient integration

and effectiveness in their projects. For example, they make sure a Placement Delivery Manager is appropriately trained, and by looking after the apprentice for the life of the apprenticeship. DE&S' Learner Voice Forum provides apprentices with a platform to present issues and ideas to management that is unique among companies. DE&S views good mentors as critical, with graduate apprentices tending to mentor those below them.

Methods to employ apprentices

The inquiry heard that there are several ways of employing apprentices, with the MoD working hard to ensure people are coming through with appropriate skillsets and looking at developing people in the long term. DE&S have the largest spend on the levy of any army branch, with £9.2m spent on the levy. DE&S are also exploring opportunities to develop beyond academic qualifications – programmes that allow people to 'bed into' work and develop skillsets in order to ensure they are providing apprentices with the best experience possible.

Pathways into apprenticeships and promotion to schools and communities

How current apprentices entered their course was explored. One apprentice found her course researching online and had work experience at Leonardo when in secondary school. She said that she went to a private school, where apprenticeships weren't signposted at all. The only focus there were Russell Group universities, and apprentices were seen as taboo. Another apprentice added that he qualified with a BTEC at college and was involved in his local student union, and that apprentices were promoted better at college than they would have been at university or at school. It was reiterated there is a stigma attached to apprenticeships in both public and state education systems.

The inquiry found that some outreach programmes are run at local schools, targeting those likely to be from disadvantaged backgrounds but this is not coordinated with other industries. The inquiry also found that some organisations have established Diversity and Inclusion Councils to create an improved outreach programme that supports recruitment of apprentices from diverse backgrounds. However, it is clear that stigma still remains a strong barrier to apprenticeships and that the UK should follow the German model in reducing this for apprenticeships in schools.

Online schemes were deemed useful for raising awareness for apprenticeships. An example can be seen where DE&S is running a digital campaign between October-March each year, which achieved over 17.5 million hits in 2020. DE&S is also running a pilot project with Destiny Marketing to do more on-the-ground marketing, and they are using digital methods to sift through applicants.

It was explored that Learner Voice Forum started an initiative for apprentices to go back to their former schools and promote apprenticeships, using their own experiences as lived experiences.

Apprentice recruitment and working during COVID-19

Following the beginning of the pandemic, a number of organisations within the MoD switched to online working where possible, with only a limited delay to recruitment. The inquiry heard that young people adapt quickly, and that virtual working had proved to be a fairly smooth transition.

It was admitted that human contact can't be replaced by working solely online, which was important, especially as a priority of MoD apprenticeship schemes was ensuring apprentices develop confidence in their workplaces. It was added DE&S's existing digital infrastructure made the transition to remote working easier and creates a way to train up new recruits more efficiently.

The Integrated Review impact and apprenticeships

The inquiry heard that the Defence Security and Industrial Strategy sets out how the MoD will improve apprenticeship provision going forward, with a focus on social value. It was noted that the strategy has caused industry stakeholders to reconsider their provision for apprentices.

Apprentices' views

Apprentices were asked what advice they would give to those considering starting an apprenticeship.

One said she would advise future applicants to get involved as much as possible, that there are many opportunities available to them and therefore it is best to "grab them". Another said it was best to think ahead – think about where you want to be in 5-10 years' time, such as what progression is possible post-apprenticeship and start thinking about career options that would support this. One apprentice stated it is "critical" to think about the bigger picture, as the "apprenticeship is just a first step". He emphasised that resilience is important, and the bigger picture is key, adding that many young people are not given an opportunity to consider an apprenticeship.

It was added that many defence apprenticeships provide students with multiple options and chances to explore different specialities, opportunities that other apprenticeship schemes do not provide.

Some apprentices stated that some organisations could be slightly chaotic in terms of staffing apprentices into a team last-minute. Another added that a lot of people on her scheme found that their placement advisors didn't know how to integrate them into their team. It was recommended that team leaders need to know how to delegate and train up apprentices properly.

Another apprentice added that in his first six months he did not know what he was doing, with clearer guidance being needed in outlining his precise responsibilities. He added that more technical training would have been useful. It was also mentioned that more overarching support for delivery managers would have

been helpful in assisting apprentices' time management and in promoting different areas for them to learn.

It was suggested that making lines of communication easier between MoD, DE&S and other organisations would improve apprenticeships, along with using networking more and mentioned that Learner Voice Forum is trying to set up an apprentice hub/database to help place apprentices and take pressure off entry talent leaders.

MP constituency engagement and apprenticeship minimum wage

Constituency MPs participating in the inquiry offered to support the MoD on outreach in schools and colleges. When asked what more MPs could do to help prospective students consider apprenticeships in their constituencies and raise awareness, an apprentice stated to the inquiry that scrapping the National Apprenticeship Wage would be helpful, as

“it is simply too low to live on”. It was noted that some organisations pay apprentices more than this which helps attract recruitment and this should be mirrored by all employers. It was further suggested that the Government should also do more to pitch apprenticeships as part of its drive to aid people getting back to work and that those apprenticeships need to be made to look more valuable to prospective students and their parents.

Local MP's networks could be useful and it was noted by the Chair, Jack Lopresti MP, that they should take every opportunity to champion local apprentices.

It was also suggested by DE&S that an expedited process to create apprenticeships would be useful, with for example bespoke apprenticeships for the MoD or the Civil Service. The notion was how to make courses quicker without diminishing the quality, stating that there needs to be a quicker route of doing this.

Views of Minister for Defence, People and Veterans, Leo Docherty MP

The fourth session of the inquiry heard oral evidence from the Minister for Defence People and Veterans Leo Docherty MP. The meeting covered the scale of the MoD's apprenticeship provision, with the Minister noting that the MoD has 22,000 apprentices currently employed, with 90,000 having progressed through the system since 2015.

The Minister was keen to emphasise that MoD apprenticeship provision was not just about scale but about quality of service, with the British Army ranked as the No.1 apprenticeship provider in the UK, followed by the Royal Navy at no.3 and the Royal Air Force at no.10.

Continuing a theme raised at all previous sessions of the inquiry, the Minister and his military aides raised the issue of visibility of apprenticeships to young people. They noted that apprenticeships were still not being

signposted to young people as viable alternatives for career development.

To combat this, the MoD employs outreach teams to tour local schools and communities to promote MoD apprenticeships, and participates in initiatives such as the 5% Club, Apprenticeships Ambassador Network, Amazing Apprentices and the Starters Network. The Minister pledged that they would go further though, raising the possibility of bespoke MoD-organised events in constituencies with support from community figures and hearing from former MoD apprentices.

The Minister asked for greater help from the private sector in promoting apprenticeships, noting the “symbiosis” between the MoD and defence industry. He likewise asked for greater help from parliamentarians in promoting MoD apprenticeships in their constituencies.

Sponsor Case Study:



Leonardo and our UK apprenticeships

Each year for more than 60 years, we have welcomed hundreds of enthusiastic people to Leonardo's highly regarded apprenticeship programmes throughout the UK. We work in close collaboration with the MOD to ensure that we maintain our nation's future skills edge in the fast-moving technologies that define effective operational capabilities in the air, maritime, land, space and cyber domains. Our award winning programmes have national and regional recognition through numerous awards, having consistently been assessed as offering the best training and support for those starting their career on an apprenticeship. Our intensive training programme, bringing academic learning together with a structured programme working alongside Leonardo's industry leading experts brings out the best in our apprentices' drive and increasing self-confidence as they meet the challenges of the UK Defence sector.

Our apprenticeships in numbers

Since 2016, Leonardo has welcomed more than 700 apprentices, and today has 400 apprentices on 7 programmes, from Scotland to South West England, accredited by the UK's leading engineering institutions working towards industry-wide professional qualifications. A further 140 who have recently completed their apprenticeships, are now reading for a degree in universities across the UK. Leonardo UK's plan shows these numbers increasing year by year, making our company one of the most significant contributors to the UK's advanced engineering skills development. Alongside those on our graduate schemes, Leonardo UK has over 700 people in its early careers network, as we explore in more detail in the recent 'Future Horizons' podcast series. We frequently feature our apprentices and their STEM work on our social media, [@Leonardo_UK](https://twitter.com/Leonardo_UK).

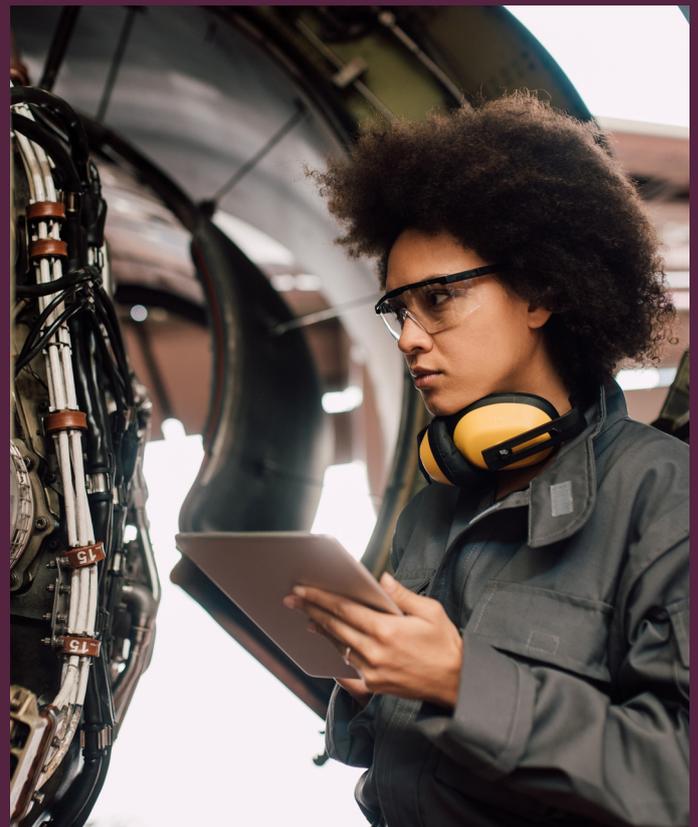
Our apprentices are our future

Our apprentices are particularly committed to inspiring the next generation of engineers,

providing the impetus behind a schools outreach programme with over 22,000 students annually and a vibrant work placement schedule for over 1,000 schoolchildren. A particular feature of these initiatives in Leonardo is the emphasis on working with schools in disadvantaged areas in partnership with a wide range of educational charities, and also on inclusion, with a 250% increase in the number of female applicants for work experience. The enormous commitment our apprentices and graduates have made in our local communities during the Covid-19 pandemic was to the fore in the Leonardo being recognised as a 2020 British Business Hero.

A high proportion of Leonardo UK's senior leaders began their careers in our apprenticeship schemes. Their positions now include managing director, board members, senior vice presidents and a university professor.

Through our STEM collaboration with the Royal Air Force, at Leonardo we envisage increasing convergence between the MOD and UK industry apprentices in the future, ensuring they continuing to learn from placement opportunities throughout their career.



Success stories

Our apprentices take tremendous and justified pride in the recognition they achieve every year. Based at our Yeovil site, in Leonardo Helicopters Division, Devon is MakeUK's apprentice engineer Southern regional 'rising star' of 2021. She studied first with Yeovil College and now with the University of Plymouth. Her positive attitude typifies the her generation of apprentices:

"During my final year at Sixth Form, there were several talks focused on applications to universities, but this was not of interest to me as I wasn't entirely sure what course I would want to complete and it was a lot of money to sign up for something I wasn't convinced by. I also found that the subjects I preferred were more practical, and I felt far more driven by the idea of getting on the employment ladder and starting a career; this led me to follow the apprenticeship route. After discussions with career advisers and my Product Design lecturer, I began to investigate which engineering apprenticeship options were open to me, as this career path seemed most suited to my qualifications.

Having been born and raised in Yeovil, and therefore very used to the sound and sight of helicopters flying overhead, Leonardo was a desirable and exciting company to me, and I looked into its apprenticeships. The Degree Apprenticeship scheme was the perfect choice, allowing me to do so while gaining the work experience and professional development I was eager for.

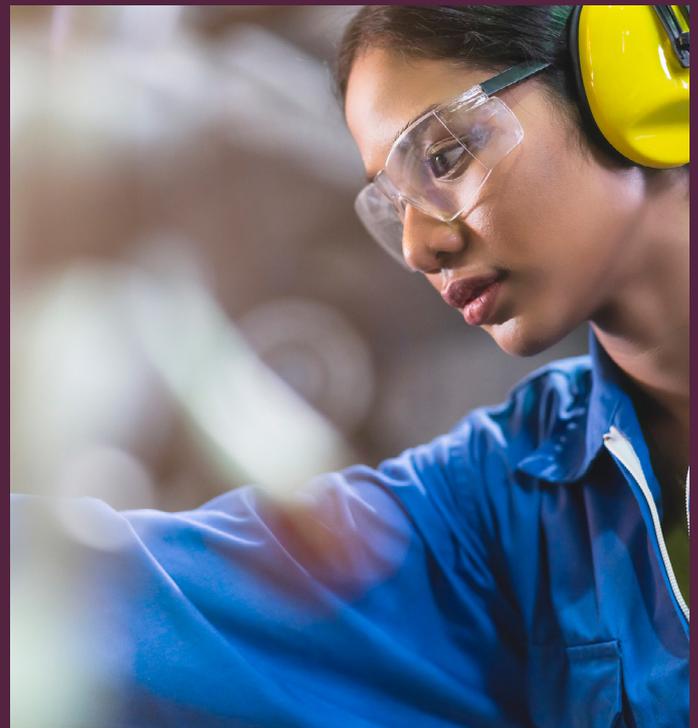
I am in my seventh rotational placement; each of these would typically last from three to six months. However, to help with my studies and NVQ milestones during the last two years, some of these placements were extended in support. Some placements that I have completed include AW159 Structures, Structural Tests Laboratories, Project Engineering, Transmissions Repair, and Overhaul and Rotors Design.

I enjoy the opportunities and activities that we are able to get involved with outside of our education and work commitments.

I feel that these aspects really help to build with other trainees, as well as aid our professional development and confidence.

I also enjoy the ability to move around placements regularly to improve my knowledge and understanding of the business, as well as helping shape the direction of my career. I've been surprised at the range of departments and opportunities available for placements and potential final roles at the Yeovil site.

For the past two years, I was part of the student and apprentice association committee. During my time on the committee, we have supported the Yeovil District Hospital Charity with its Breast Cancer Unit Appeal. During my first year on the committee, I became Vice Chair, before becoming Chair in my second year. Until me, no one had been both Chair and Vice Chair in the 80 years of the association's existence!"



Soloman enjoys a similarly varied apprenticeship in our Electronics Division site in Luton. He is MakeUK's apprentice engineer East Midlands and Eastern regional 'rising star' of 2021. There are many different facets to his apprenticeship experience at Leonardo characterising the strength of the importance of the partnership between MOD and UK industry in skills development. He talks about why his apprenticeship means so much to him:

"One of the key elements that made me embark on the apprenticeship route was the idea of entering the 'real world', applying abstract concepts to design solutions. Doing this as a profession so early on in my life appealed to me. An integral part of apprenticeships, especially with Leonardo, is the 'earn while you learn' aspect – you will receive a competitive salary in addition to getting your qualifications (e.g. a degree) fully paid for. Working alongside field specialists while completing a relevant degree and then being able to apply the very concepts just learnt was also a real pull-factor for me.

Leonardo is a multinational company specialising in aerospace, defence and security – all industries that require cutting-edge technological solutions, something that I wanted to be involved with. It is also one of the top-ten aerospace companies in the world, so I knew they would have the resources to properly invest in their people. They are known for being especially good for people early in their careers – both in relation to pay and development opportunities. Leonardo stood out from the crowd for me and if I had not been accepted onto their degree apprenticeship scheme, I would have accepted a full-time university offer as opposed to working for another company.

My placements work varies greatly depending on whichever department I am in. I have tested and verified RF/microwave circuits, modelled and simulated Radar systems, written software to evaluate fighter jets, and am currently designing a circuit board that will be used to test electronic sub-systems used on aircrafts.

The thing I enjoy most about my job is the satisfaction of contributing to real company projects and having an impact on the business at such a young age. I also really appreciate the opportunities to collaborate with so many different fields, gaining not just an appreciation for other departments but a holistic view of the product lifecycle relevant to me as an aspiring engineer.

The amount of extra-curricular and enrichment opportunities available on an apprenticeship at Leonardo has really positively surprised me. They genuinely invest into helping you become the best professional version of yourself possible while ensuring there are fun and engaging activities available which I found has really helped with my wellbeing, supported by the company. I am a member of the Charity Committee and was the Event Lead (and one of the participants) for our company skydive which raised over £6,000 for the Alzheimer's Society.

I have to say that many of the company enrichment opportunities, such as becoming a STEM Ambassador and getting to speak at schools, have been invaluable to me.

In addition to these activities, I was the Project Leader for Leonardo's participants (Team NextGen) in the 2021 IMechE Apprentice Automation Challenge, where we designed and produced a functional Smart Mirror aimed at enhancing home-workouts. I was also heavily involved in the system and electrical design/development for this project. As the winners of the 2021 IMechE challenge, we were invited to present our product at the Smart Factory Expo in Liverpool.

I aspire to specialise in antenna, firmware, hardware or microwave engineering. I want to constantly to push myself, continually expanding my knowledge and skillset, aiming to be the best I can be at my job. After completing my apprenticeship, I plan to become a Chartered Engineer (CEng) with the IET.

I have found that Leonardo really invests in their people, not just financially but also by having experienced staff dedicating their time to help develop individuals. They have very well-established apprenticeship schemes, which offer the ideal start to your future career. You will be given responsibilities as an apprentice, which will help shape you into a robust and valuable individual that is a genuine asset to the business."

In our Optronics business area, Emma works in Southampton, on the UK's most advanced infrared detection technologies. She started on our manufacturing apprenticeship scheme, moving to a technical apprenticeship. Emma describes her progress as an apprentice with Leonardo, in which she has won national recognition:

"Leonardo was the one company that stood out for me because I wanted to do an apprenticeship where I would learn a lot about different aspects of engineering. With all the various products that Leonardo produce, this was the best opportunity to further my knowledge and start my career in engineering."

My current role at Leonardo is a Process Engineer. I am process champion for seven processes within the components sector. This means that if there are any major issues with the equipment, or if there is a problem with some of the products, then it's my job to understand and fix the issue. We are always trying continuously to improve our processes.

The top thing that I enjoy about my job is the amount that I learn every day; I am currently on a steep learning curve since I took on this role as process champion. Also, I love how much my job varies, which keeps my role very interesting.

The activities that I like to get involved with outside of my role are STEM and charity activities. I have been involved with Rampaging Chariots, which is a Leonardo-run event that sees children from 11-15 years building robots to fight it out in Robot Wars type events. I have also been involved with running various charity events raising money for our apprentices' charity, Combat Stress.

Anybody looking for a career in engineering should definitely consider Leonardo because it is a great company to work for. The company has helped me to progress in my career by moving me from a manufacturing to technical apprenticeship. In addition, there are various opportunities that will keep you intrigued and extend your knowledge in engineering. At the Southampton site, everyone is welcoming, approachable

and very helpful. This makes it a great environment to work in."

Amy, a degree apprentice in our radar and laser business in Edinburgh also studying at Strathclyde university, has devised and implemented a test equipment integration programme which gave us an important approval from a US customer. Our Apprentice of the Year, Amy talks about the breadth of her apprenticeship, including the work raising thousands of pounds for the apprentices' chosen charity, Combat Stress:

"I have been involved with the apprentice governance group, Leonardo ladies football team and the apprentice charity committee. All have given me great opportunities to network within the company and gain interchangeable skills."

An apprenticeship at Leonardo doesn't just offer you a qualification; it provides hands-on experience. The amount of responsibility and trust that is given to an apprentice here is way more than I expected when I started. After I complete my apprenticeship programme, I hope to go on to study towards my Master's degree.

Leonardo has a positive and friendly environment where everyone is willing to help you succeed, whether that is in work or in academic studies. The company offers a great work-life balance."

Leonardo will continue to invest in our apprenticeship programme, demonstrating our commitment to prosperity, growth, our defence capabilities and the resilience of our nation's advanced engineering sector.



About the Apprenticeships APPG

The All Party Parliamentary Group on Apprenticeships is a cross-party group of MPs and Peers which provides a forum for parliamentarians and employers to discuss how to promote the role of high quality apprenticeships.

The officers of the Apprenticeships APPG are:

Chairs:

Jack Lopresti MP
Emma Hardy MP

Vice-Chair:

Jonathan Gullis MP

Officers:

James Daly MP
Richard Holden MP
Kim Johnson MP
Andrew Jones MP
Catherine McKinnell MP
Jim McMahon MP
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Lord Fox
Lord Young of Norwood Green

If you would like any further information about the APPG, please contact the secretariat at ApprenticeshipsAPPG@connectpa.co.uk and follow us on Twitter [@apprenticeappg](https://twitter.com/apprenticeappg)