

# Making the grade

*Despite challenging times for industry  
The Engineer's 2021 salary reveals a  
moderate increase in salaries across  
all sectors and disciplines*

## THE ENGINEER REPORTS

Every year, The Engineer surveys professionals from across industry to ask how much they are earning, where in the UK they are based, what sector they're working in and a host of other questions related to job satisfaction, employee benefits and attitudes to the big issues facing industry.

Given the tumultuous events of the past 12 months, and the impact of the COVID-19 pandemic on so many areas of the UK's industrial economy, we awaited this year's results with more questions than usual. How, we wondered, have engineering salaries been affected? Which sectors and regions have fared best in terms of salaries and job security? And how are engineers feeling about the big issues of the day? All of these issues, and many more, are analysed over the following pages.

By comparing our results for this year with those of our previous salary survey (which was published in June 2019) we are able to offer a telling snapshot of how life has changed over the past 20 months.

This year's survey attracted responses from 845 engineers working across 11 different sectors.

The demographic of the response group is broadly in line with last year's survey, with 95 per cent of our respondents working on a full time basis and 91 per cent in permanent roles. 45 per cent of those taking part describe themselves as senior engineers, whilst 66 per cent have worked in engineering for 20 years or more. 67.4 per cent of this year's sample group are aged 45 or over.

In terms of disciplines, the largest segment of the response group, just over a quarter of those surveyed, work in engineering design. This is closely followed by research & development (18.5 per cent) and then production and manufacturing (17.6 per cent).

The survey attracted respondent from across UK industry. Whilst our largest response group (179) works in the manufacturing sector, we also had a high level of response from other key sectors with, for instance, respondents from

average salary for UK engineers

£56,807

## AVERAGE SALARY BY SECTOR

OIL & GAS	£75,366
ENERGY/RENEWABLES/NUCLEAR	£65,932
TELECOMMS/UTILITIES/ELECTRONICS	£58,412
AUTOMOTIVE	£57,639
RAIL/CIVIL & STRUCTURAL	£56,965
ACADEMIA	£56,692
FOOD & DRINK/CONSUMER GOODS	£56,167
CHEMICALS & PHARMA/MEDICAL	£55,985
MANUFACTURING	£54,049
AEROSPACE	£53,129
DEFENCE & SECURITY/MARINE	£52,330
NONE OF THESE	£51,938
MATERIALS	£36,950



aerospace and automotive respectively accounting for 8 and 10 percent of the overall sample.

The mean average salary across this year's response group is £56,807. This represents a modest increase on our 2019 average of £51,253 but is nevertheless a positive sign given the wider economic picture.

Indeed, whilst many workers across the economy have taken pay cuts over the course of the past 12 months, engineering appears to be faring relatively well, with just under half of our respondents (42.6 per cent) receiving a pay increase in past 12 months.

As in previous years engineers working in the energy sectors continue to command the highest salaries, with respondents from the oil and gas sector topping the earning list this year (£75,366).

In terms of the regional breakdown, the Midlands and East Anglia accounted for the largest chunk of our response group once again, with 23.9 per cent of engineers based in those regions. This was closely followed by London and the South East, where 21 per cent of engineers say they are based.

Unsurprisingly, in common with workers in most other areas of the economy, engineers are increasingly concerned about how the events in the wider world are affecting their careers and aspirations.

## AVERAGE SALARY BY SENIORITY

JUNIOR / GRAD

£33,725

SENIOR / MANAGER

£56,506

DIRECTOR

£84,091

**36.7%** considering a change of job

engineers seeing an increase in workload over the past 12 months

**40%**

Concerns over the impact of Brexit on industry continue to grow (rising to 73 per cent from 70 per cent in 2019) whilst 41.7 percent of respondents tell us they are concerned about its potential impact on their own job security.

Unsurprisingly, many respondents have also been significantly impacted by the pandemic. 84 per cent are concerned about its general impact on industry and more than half are directly concerned about what it means for their own job security. Just under a quarter of engineers (21.5 percent) told us they were furloughed at some point between April and October 2020, and 40 per cent report an increase in workload. What's more, despite the general increases in pay identified by the survey, 18 percent of respondents have experience some kind of pandemic induced salary reduction.

Interestingly. The growing uncertainty appears to have done little to dent engineers' appetite for a new challenge, with 36.7 per cent of respondents considering a change of job and nearly three quarters of our sample group open to the idea of transferring to a different sector.

This year's study also reinforces concerns over industry's lack of diversity. Female engineers account for just 6.3 per cent of our overall sample, whilst around 10 per cent of our respondents are from BAME (Black, Asian, Minority Ethnic) communities. Worryingly, as we report, despite enjoying broadly similar levels of seniority, both of these groups continue to earn lower average salaries than their white, male peers.

Over the following pages, we have analysed in more detail what the results of our survey tell us about the state of the UK engineering profession in 2020 / 2021.

## 1. SENIORITY

As in previous years the vast majority of respondents (86.1 per cent) describe themselves as senior engineers or above, reflecting the seniority of The Engineer readership.

Senior engineers are the largest group of respondents at 45.1 per cent, followed by managers at 28.7 per cent. Junior engineers and graduates account for 13.7 per cent of the response group with CEOs and Directors on 12.5 per cent.

Respondents across all levels of seniority have seen a moderate year on year salary increase, with those at director level seeing the most modest 1.90 per cent rise from £82,480 to £84k. Junior engineers & graduates have enjoyed an average increase of just under £3,000, whilst Senior engineers and managers have benefitted from the largest increase, seeing their salaries rise by 10.5 per cent from an average of £51,136 in 2019 to £56,506.

Average salaries for junior engineers are fairly consistent across the different sectors, although as with previous years, the oil & gas sector tops the table with an average salary of £37,089. Salaries for junior engineers in academia appear to have shown the most marked year on year increase, rising from just £22,450 in our previous survey to £32,391. However this spike, which represents a 44 per cent pay increase, is partially explained by the relatively low size of this particular sample group.

At senior engineer level, increases have been spread relatively evenly across the different sectors, with the largest average pay increases seen in oil and gas (33 per cent).

Interestingly, senior engineers working in two of the engineering sectors to be most negatively impacted by the pandemic (automotive and aerospace) have also seen increases (12.6 per cent and 9 percent respectively). Senior engineers in the energy / renewables & nuclear sectors also appear to have plenty to celebrate with their salaries rising by, on average, 11.5 per cent.

The oil & gas sector also tops the table at director level, where average salaries are £108,198, a large figure, but one which is perhaps skewed by a relatively small sample size.

Elsewhere, engineering directors in the food, drink and consumer goods sectors continue to enjoy high levels of remuneration, coming in second place, although average salaries for directors in this sector (£93,143) do appear to have declined slightly when compared to last year's results (£98,287).

Alongside oil and gas, the most pronounced year on year increases at this level are found in the rail / civil and structural sectors and automotive, where average salaries have increased by 32 per cent and 16 per cent respectively.

In terms of the gender diversity at different seniority levels, this year's results point to a slightly reduced female representation towards the higher end of the career ladder, with women accounting for 4.7 per cent of our director level sample group (down from 6.8 per cent in 2019) and just 5.2 per cent at senior engineer level. Gratifyingly however – and perhaps indicating that the gender gap is beginning to close – female engineers accounted for 12.9 per cent of respondents at junior engineer / graduate level.

average salary for  
a junior engineer

£33,725

average salary for director or above

£84,091

## AVERAGE SALARY BY SECTOR-SENIORITY

### JUNIOR ENGINEER

£37,089	OIL & GAS
£37,081	CHEMICALS & PHARMA/MEDICAL
£36,466	AUTOMOTIVE
£35,481	AEROSPACE
£34,455	RAIL/CIVIL & STRUCTURAL
£33,985	DEFENCE & SECURITY/MARINE
£33,591	ENERGY/RENEWABLES/NUCLEAR
£32,391	ACADEMIA
£31,875	FOOD & DRINK/CONSUMER GOODS
£31,650	MANUFACTURING
£30,092	TELECOMMS/UTILITIES/ELECTRONICS
£27,325	MATERIALS

### SENIOR ENGINEER / MANAGER

£75,158	OIL & GAS
£67,442	RAIL/CIVIL & STRUCTURAL
£63,935	ENERGY/RENEWABLES/NUCLEAR
£59,245	TELECOMMS/UTILITIES/ELECTRONICS
£57,433	ACADEMIA
£57,168	CHEMICALS & PHARMA/MEDICAL
£56,547	AUTOMOTIVE
£56,042	AEROSPACE
£53,281	DEFENCE & SECURITY/MARINE
£52,398	FOOD & DRINK/CONSUMER GOODS
£50,517	MANUFACTURING
£38,500	MATERIALS

### DIRECTOR OR ABOVE

£108,198	OIL & GAS
£93,143	FOOD & DRINK/CONSUMER GOODS
£91,487	ENERGY/RENEWABLES/NUCLEAR
£90,901	MANUFACTURING
£89,000	ACADEMIA
£87,600	DEFENCE & SECURITY/MARINE
£85,000	AEROSPACE
£79,034	AUTOMOTIVE
£78,333	RAIL/CIVIL & STRUCTURAL
£77,401	TELECOMMS/UTILITIES/ELECTRONICS
£72,770	NONE OF THESE
£64,141	CHEMICALS & PHARMA/MEDICAL
£50,000	MATERIALS

## 2. REGIONS

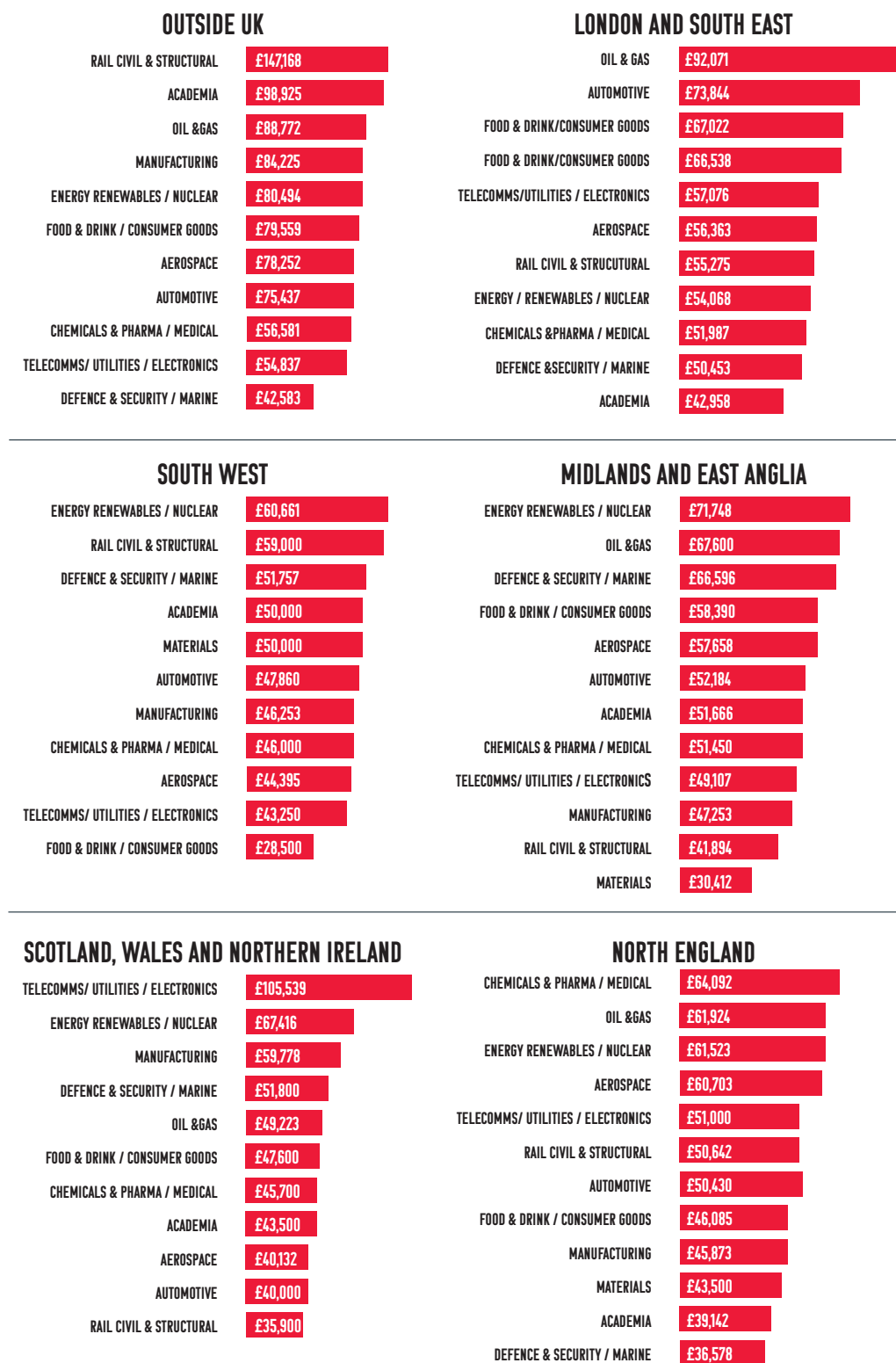
As ever, this year's survey drew responses from right across the UK and beyond, helping to paint a picture of the evolving pay landscape for engineers in different regions. Britain's traditional manufacturing heartland in the Midlands remains a key driver of employment, with it and East Anglia accounting for almost a quarter (24 per cent) of respondents.

However, the average salary in this region has dropped by around 8.5 per cent, from £58,214 in 2019 to £53,250 in 2020. Despite this, almost half (46.5 per cent) are happy with their pay, the highest proportion across any of the regions.

This decline in salaries in the Midlands and East Anglia can perhaps be partially explained by a concurrent increase in pay in London and the South East, home to the next biggest cohort of respondents (21 per cent). Here, salaries jumped from £54,053 in 2019 to £60,001 in 2020 - an 11 per cent rise. Engineers in this region were also likely to receive a bonus, with 86 per cent reporting having done so. Given these figures, it's no surprise that pay satisfaction was relatively high, at 44 per cent.

Scotland, Wales and Northern Ireland experienced an even bigger increase in pay than London and the South East. An average salary of £46,141 in 2019 saw the devolved countries propping up the regional table. This year's results paint a much rosier picture, with an average salary of £57,308 meaning a year-on-year leap of 24 per cent. The increase also means that engineers in Scotland, Wales and Northern Ireland are now paid just above the overall UK average of £56,806. Almost half (44 per cent) of respondents there reported an increase in pay over the past 12 months, with over 80 per cent receiving a bonus. Around 43 per cent of engineers in the region are happy with their pay

As with 2019, the highest paid engineers are those working overseas, with an average salary of £73,023. Engineers working outside the UK are spread relatively evenly across the whole gamut of sectors, with oil & gas and automotive the two leading employers, followed closely



by manufacturing, electronics and chemicals & pharma.

Nearly 35 per cent in the overseas cohort report receiving a pay increase over the past 12 months, with a very high proportion (88 per cent) being awarded a bonus. Given the high levels of remuneration, it's somewhat surprising that just 35 per cent - the exact same figure that saw a pay rise -

are happy with their salaries, the lowest percentage of any region.

Salaries in the North of England rose from £45,934 to £52,024, a gain of 13 per cent. Meanwhile, the South West was the only other region aside from the Midlands to see a decline in pay, with average salaries dropping four per cent, from £50,427 to £48,500.



### 3 ACADEMIA

According to a report from London Economics, COVID-19 has imposed significant revenue losses on Higher Education by curtailing accommodation, conferences, and events activity.

Despite this gloomy outlook, only 36 per cent of respondents from Academia are worried about the impact of the pandemic. In fact, 48 per cent are not concerned at all, but that may have something to do with the age of this particular demographic. Our survey found that 56 per cent of engineers in Academia are aged between 55-59 (20 per cent) and 60-69 (36 per cent) and that the majority of all respondents (28 per cent) have been in engineering for 30-39 years. Many will have weathered a crisis before, which may account for the prevailing attitudes in Academia towards COVID-19. For 56 per cent of respondents, the pandemic led to an increased workload which, on average, earns an engineer in Academia £56,692 a year compared to £43,900 in 2019.

Those entering Academia as junior engineers can expect an average salary of £32,391, which betteres those in Materials by £5,066, and can expect this to rise to £57,432 by the time they join the senior and managerial ranks of colleges and universities. Those that remain in Academia to director level or above can earn an average salary of £89,000, which is fifth in our table for salaries at this level of seniority.

The situation is markedly different in the regions where a London-based engineer in Academia averages £42,958 a year compared to colleagues in the Midlands or East Anglia (£51,666), the South West (£50,000) or even outside the UK (£98,925).

Academia's reputation as a bastion of equality is not borne out in the results of our survey, with 88 per cent of respondents identifying as white (compared to eight per cent Asian and four per cent who would rather not say) and 92 per cent of respondents saying they are male. The situation could be about to change, however, with 36 per cent and 40 per cent identifying ethnic diversity and gender diversity respectively as areas in need of improvement.

### AVERAGE SALARY BY SENIORITY

JUNIOR ENGINEER / GRAD	£32,391
SENIOR ENGINEER / MANAGER	£57,432
DIRECTOR OR ABOVE	£89,000

### AVERAGE SALARY BY REGION

OUTSIDE UK	£98,925
MIDLANDS OR EAST ANGLIA (ENGLAND)	£51,666
SOUTH WEST (ENGLAND)	£50,000
SCOTLAND, WALES OR NORTHERN IRELAND	£43,500
LONDON OR SOUTH EAST (ENGLAND)	£42,958
NORTH (ENGLAND)	£39,142

**£56,692** average salary

## 4 AEROSPACE

COVID-19 meant that 2020 was a year like no other for the aerospace industry, with large swathes of the global commercial fleet grounded due to the pandemic and its associated travel restrictions. A sector that was already facing much uncertainty due to Brexit is now in the midst of an existential crisis, fighting for its survival as it tries to ride out the COVID storm.

Though aerospace is undoubtedly in a tough position, it continues to employ large numbers of engineers in the UK, with big names like Rolls-Royce, BAE Systems, Airbus and Boeing working hand-in-hand with supply chain SMEs to make the UK's aerospace sector one of the world's biggest. Our survey does indicate some contraction however, with aerospace engineers making up just 8 per cent of respondents in 2020, compared with almost 11 per cent the previous year.

The news is better in terms of salary performance, with average pay increasing from £50,284 in 2019 to £53,129 in 2020. However, the modest rise of less than 6 per cent means aerospace actually falls in the overall sector table, dropping from 6<sup>th</sup> to 10<sup>th</sup>, behind sectors such as automotive (£57,639) and academia (£56,692) that it was previously ahead of.

But it's not all doom and gloom for those contemplating a career in aerospace. Salaries for junior engineers have increased from £33,453 to £35,481, and while the 6 per cent rise won't set pulses racing, it maintains aerospace as one of the best paid sectors for juniors, behind only automotive (£36,466), chemicals & pharma/medical (£37,081) and oil & gas (£37,089).

Senior engineers and managers fare slightly worse when compared to their counterparts in different sectors. In 2019 the average salary of £51,388 placed them 4<sup>th</sup> overall. An increase of 9 per cent to £56,042 is not to be sniffed at, but it does see aerospace drop to 8<sup>th</sup> in the rankings for this cohort. Director level salaries have remained steady at around £85,000 which maintains them in 7<sup>th</sup> place in the overall table.

Given the challenges the sector is currently facing, it's perhaps not surprising that nearly one in five (19 per cent) of respondents in the sector said they were unlikely to be working in the engineering industry in five years' time.

## AVERAGE SALARY BY SENIORITY

JUNIOR ENGINEER / GRAD	£35,481
SENIOR ENGINEER / MANAGER	£56,042
DIRECTOR OR ABOVE	£85,000

## AVERAGE SALARY BY REGION

OUTSIDE UK	£78,252
NORTH (ENGLAND)	£60,703
MIDLANDS OR EAST ANGLIA (ENGLAND)	£57,658
LONDON OR SOUTH EAST (ENGLAND)	£56,363
SOUTH WEST (ENGLAND)	£44,395
SCOTLAND, WALES OR NORTHERN IRELAND	£40,132

**£53,129** average salary

**5 AUTOMOTIVE**

Brexit has cast a long shadow over the automotive industry for several years at this stage, with trade barriers threatening to pull the rug out from under one of UK engineering's biggest success stories. Despite a deal being reached towards the end of 2020, the uncertainty has clearly begun to take a toll, as car production fell to its lowest level since 1984.

While UK automotive no doubt has challenges ahead, the picture is not all doom and gloom. It is still one of the country's biggest engineering employers, with 10 per cent of our survey participants coming from the sector, the highest of any sector bar manufacturing which accounted for more than one in five (21 per cent) respondents.

Even better news is how average salaries have performed over the past 12 months, rising from £49,736 in 2019 to an impressive £57,639 in 2020. This 14 per cent jump takes automotive salaries to 4<sup>th</sup> position in the sector table, ahead of aerospace and defence but behind the traditional high earners in the energy sectors as well as telecoms/utilities/electronics.

Junior engineers in automotive report an average salary of £36,466 – up from £31,540 in 2019 – putting it ahead of aerospace (£35,481) but just behind chemicals/pharma/medical (£37,081) and oil & gas (£37,089). However, the age profile in the sector is trending high, with just 9 per cent of automotive respondents 35 or under, the joint lowest of any sector. The growth in compensation for young engineers in this sector could perhaps be a symptom of a skills deficit, or indicative that other sectors are becoming more attractive for the engineers of tomorrow.

Average salaries for senior engineers/managers came in at £56,547 – again just ahead of aerospace, but behind several sectors including telecomms/utilities/electronics (£59,245), rail/civil & structural (£67,442) and academia (£57,433). It's still a solid jump from the 2019 average of £50,188, with salaries for this middle segment rising 13 per cent year-on-year.

At the top end of the profession, director or above, the average salary is £79,034. While this is still about £5k below the average across all sectors, it's trending upwards year-on-year and marks a chunky 16 per cent increase on the 2019 figure of £68,230.

**AVERAGE SALARY BY SENIORITY**

JUNIOR ENGINEER / GRAD	£36,465
SENIOR ENGINEER / MANAGER	£56,547
DIRECTOR OR ABOVE	£79,034

**AVERAGE SALARY BY REGION**

OUTSIDE UK	£75,437
LONDON OR SOUTH EAST (ENGLAND)	£73,844
MIDLANDS OR EAST ANGLIA (ENGLAND)	£52,184
NORTH (ENGLAND)	£50,430
SOUTH WEST (ENGLAND)	£47,860
SCOTLAND, WALES OR NORTHERN IRELAND	£40,000

**£57,639** average salary

## 6 CHEMICALS, PHARMA AND MEDICAL

The COVID-19 pandemic has certainly put a sharp focus on the chemicals, pharma and medical sector over the past 12 months, with society relying on it to deliver on multiple fronts like never before.

Despite this, our survey actually recorded a slight year-on-year fall in salaries across the sector, dropping from £56,206 in 2019 to £55,985 in 2020. This places it eighth overall in the sector table, above manufacturing, aerospace and defence, but below food & drink, academia and automotive.

The good news is that junior engineers have seen more than a 20 per cent increase in pay, from £30,067 to £37,081. This means juniors in chemical, pharma and medical go from being some of the worst paid in 2019, to some of the best paid overall in 2020, second only to those in oil & gas on an average of £37,089. It's at the top end where the real damage has occurred, directors' salaries falling from £81,590 to £64,141, though the sample size in this segment is relatively small and the figures must be treated with some caution. The squeezed middle of senior engineers and managers experienced a small drop year-on-year from £57,852 to £57,168.

Bonuses are less prevalent than many sectors, with 77 per cent receiving them. Nonetheless, pay satisfaction is around par at 41 per cent. More than nine in ten (93 per cent) say they are likely to remain in the industry for at least the next five years, while at the same time 63 per cent would at least consider a career in another engineering sector. Renewables is the most attractive alternative, with more than half (51 per cent) reporting that they would consider a sideways move into the growing green energy segment.

The best paid respondents in chemical, pharma and medical are located in the North of England, where an average salary of £64,092 makes them the best paid engineers across all sectors in that region. In terms of diversity, just 3 per cent of respondents were female - one of the lowest proportions of any sector - while around 10 per cent of engineers are non-white, which is in and around the wider industry average.

## AVERAGE SALARY BY SENIORITY

JUNIOR ENGINEER / GRAD	£37,081
SENIOR ENGINEER / MANAGER	£57,168
DIRECTOR OR ABOVE	£64,141

## AVERAGE SALARY BY REGION

NORTH (ENGLAND)	£64,092
OUTSIDE UK	£56,581
LONDON OR SOUTH EAST (ENGLAND)	£51,987
MIDLANDS OR EAST ANGLIA (ENGLAND)	£51,450
SOUTH WEST (ENGLAND)	£46,000
SCOTLAND, WALES OR NORTHERN IRELAND	£45,700

**£55,985** average salary



## 7. DEFENCE, SECURITY & MARINE

The UK remains the second largest defence exporter in the world, laying claim to £10.9bn worth of orders in 2019. It is also a significant employer, with 260,000 people directly employed or supported by a sector that is active across the UK.

The nation's security sector – providing solutions to challenges posed by cyber security and developing products and services that address all other aspects of national security – directly employs 114,000 people and turned over £14.5bn in 2019.

The situation is similarly buoyant in the UK's marine industry which employs nearly 95,000 in 5,000 companies across the nation.

Compared to 2019, however, the number of engineers from defence, security and marine has dropped 1.2 per cent to 7.5 per cent of Salary Survey respondents, and now make up the fourth largest group behind engineers in manufacturing, automotive, and aerospace.

Compared to previous Salary Surveys, the defence, security and marine sectors appear to have attracted more females to their ranks with a total of 9.4 per cent of respondents compared to 2.9 per cent in 2019. Furthermore, 48.8 per cent of all female respondents said they would consider a move into defence, security and marine. From a total of 845 respondents, only 3.6 per cent described themselves as non-white compared to 5.1 per cent from the year before.

The average salary in defence, security and marine is £52,330 compared to £50,200 in 2019. Senior engineers and managers have seen their pay increase to £53,281 from £50,851 in 2019 whilst the average salary for junior engineers in this category has moved upwards from £30,704 in 2019 to £33,985.

A downward trend can be witnessed at director level, however, where salaries have fallen to £87,600 compared to £93,600 in 2019. It must be noted, however, that this has been extrapolated from very small sample size. Across all levels of seniority, 36.5 per cent have seen no year-on-year change in their salary.

For the 57.10 per cent who did receive a pay rise, 41.7 per cent report a rise of 1.1 to two per cent, and 2.1 to 3 per cent for 27.8 per cent of respondents.

Reasonably content within defence, security and marine, 68.3 per cent of respondents tell us they are not considering a change of job. For those that are, aerospace (56.3 per cent), energy (45.8 per cent) and nuclear (41.7 per cent) are identified as sectors to move to.

## AVERAGE SALARY BY SENIORITY

JUNIOR ENGINEER / GRAD	£33,985
SENIOR ENGINEER / MANAGER	£53,281
DIRECTOR OR ABOVE	£87,600

## AVERAGE SALARY BY REGION

MIDLANDS OR EAST ANGLIA (ENGLAND)	£66,596
SCOTLAND, WALES OR NORTHERN IRELAND	£51,800
SOUTH WEST (ENGLAND)	£51,757
LONDON OR SOUTH EAST (ENGLAND)	£50,453
OUTSIDE UK	£42,583
NORTH (ENGLAND)	£36,578

**£53,330** average salary

## 8. ENERGY, RENEWABLES AND NUCLEAR

Pay in the low-carbon energy sectors of nuclear and renewables continues to trend upward, with average salaries jumping from £58,695 in 2019 to £65,932 in 2020.

This 12 per cent leap is symptomatic of growth in the sector, though the proportion of engineers working in energy, renewables and nuclear has remained steady year-on-year at around 8.5 per cent. Mostly in more senior roles, these engineers are also spread relatively evenly across the UK's regions, with London and the South East the most heavily populated at 22 per cent, followed closely by the Midlands and East Anglia with 21 per cent.

More than half of respondents (53 per cent) reported a salary increase over the past 12 months, with just 12 per cent on the end of a pay cut. Of those whose salaries did go up, more than a quarter (26 per cent) saw an increase of at least 5 per cent, with one in eight awarded a jump of more than 10 per cent. Almost nine out ten (89 per cent) workers in the sector also received a bonus, the vast majority of which (78 per cent) was in the 0-10 per cent bracket.

The strong remuneration corresponds with a high level of pay satisfaction, 66 per cent believing they are appropriately rewarded, the highest of any sector. More than three-quarters (78 per cent) also say they are either likely or very likely to remain working in engineering for at least the next five years, though 63 per cent would consider a move to a different sector.

While 74 per cent expressed some concern over the impact of Brexit on UK industry, the exact same figure had no concern at all that it would impact their own job security. Similarly, a very high proportion (89 per cent) were worried about COVID-19's effect on industry in general, though that worry didn't transfer across to their own roles, with 60 per cent not concerned about the pandemic's impact on their job security, and just 3 per cent very concerned.

Somewhat worryingly, gender balance in the sector declined year-on-year, from 8.3 per cent female representation in 2019 to just 5.5 per cent in 2020. Though too much shouldn't be read into these figures, one would hope to a more positive diversity trend in an area of engineering that is set to accommodate significant growth in the future.

### AVERAGE SALARY BY SENIORITY

JUNIOR	£33,590
SENIOR	£63,934
DIRECTOR	£91,487

### AVERAGE SALARY BY REGION

OUTSIDE UK	£80,494
MIDLANDS OR EAST ANGLIA (ENGLAND)	£71,748
SCOTLAND, WALES OR NORTHERN IRELAND	£67,416
NORTH (ENGLAND)	£61,523
SOUTH WEST (ENGLAND)	£60,661
LONDON OR SOUTH EAST (ENGLAND)	£54,068

**£65,932** average salary

## 9. FOOD, DRINK AND CONSUMER GOODS

Food and drink manufacturing contributed £28bn to the UK economy in 2020, growing by 2.3 per cent compared to 2019. Furthermore, according to the Food and Drink Federation, the industry had a turnover of £105bn and accounted for a fifth of the nation's manufacturing output.

The sector may be the UK's biggest manufacturer, but our survey findings would suggest that it pays relatively average salaries until its engineers reach director level and above. The average salary for the sector ranks tenth in our survey at £56,167, which is up from £52,900 in 2019. The average compares favourably to aerospace (£53,129) and defence and marine (£52,330) but sits one place below academia (£56,629).

Junior engineers in food & drink/consumer can expect a slow start to his or her remuneration with an average salary of £31,875 (£30,691 in 2019) compared to peers in energy/renewables/nuclear (£33,591) and rail/civil & structural (£34,455). The situation does not really appear to improve at the senior and managerial level where respondents command an average salary of £52,398 (£48,567 in 2019). This is higher than manufacturing (£50,517) and materials (£38,500) but lagging behind aerospace (£56,042) and automotive (£56,547).

The situation is markedly different at director level where the average salary of £93,143 is down from £98,287 in 2019 but still puts the sectors second in the league table of high earners.

Spread throughout the UK, an engineer in food & drink/consumer can, on average, expect to earn £67,022 in London and South East England and a healthy £58,390 in the Midlands or East Anglia. The situation dips in the north of England (£46,085) and this is mirrored in the rest of the UK, where salaries average £46,600.

According to our results, engineers in this category that take their skills overseas can expect an average salary of £79,559, although the appetite to move abroad is split between 46.5 per cent who would consider it and 53.5 per cent who would not. Europe is the top destination for those that would consider an overseas move (80 per cent), followed by North America (65 per cent) and Asia Pacific (35 per cent).

Nearly three quarters of respondents in this sector tell us that they expect to remain in the profession and aren't seeking a new situation (72.1 per cent). Perhaps unsurprisingly, 61.1 per cent chose manufacturing as the sector they would move to if they left food & drink/consumer, followed by automotive (47.2 per cent).

## AVERAGE SALARY BY SENIORITY

JUNIOR	£31,875
SENIOR	£52,398
DIRECTOR	£93,142

## AVERAGE SALARY BY REGION

OUTSIDE UK	£79,559
LONDON OR SOUTH EAST (ENGLAND)	£67,022
MIDLANDS OR EAST ANGLIA (ENGLAND)	£58,390
SCOTLAND, WALES OR NORTHERN IRELAND	£47,600
NORTH (ENGLAND)	£46,085
SOUTH WEST (ENGLAND)	£28,500

**£56,167** average salary

## 10. MATERIALS

In 2018 delegates to the Materials Research Exchange heard how the UK's materials sector has a £100bn annual turnover and accounts for 450,000 jobs that help generate exports of £50bn.

Materials are at the heart of numerous advances, particularly those being made to fight climate change, such as light-weighting vehicles to reduce energy consumption and making up the components of batteries that power electric vehicles.

Despite underpinning a good deal of technological progress, salaries in the sector appear rather modest compared others in engineering. For example, junior engineers are bottom in our league table for early career engineers with an average salary of £27,325, which is down from £30,176 in 2019. The next lowest for junior engineers can be found in telecoms/utilities/electronics where the average works out at £30,092.

Senior engineers/managers fare little better where the average salary is a lowly £38,500 compared once again to the second lowest of £50,517, which can be found in manufacturing.

Owing to the relatively small sample size for this sector, analysis was limited to these headline statistics.

### AVERAGE SALARY BY SENIORITY

JUNIOR	£27,325
SENIOR	£38,500
DIRECTOR	£50,000

### AVERAGE SALARY BY REGION

SOUTH WEST (ENGLAND)	£50,000
NORTH (ENGLAND)	£43,500
MIDLANDS OR EAST ANGLIA (ENGLAND)	£30,412

## 11. MANUFACTURING

Engineers from the manufacturing sector accounted from 21.2 per cent of our overall response sample, making it the most well represented sector in this year's report.

Respondents from this sector are largely permanently employed in full time roles and earn an annual average salary of £54,049, placing the sector just above aerospace in the overall salary rankings.

In terms of seniority, more than 87 per cent of respondents from this sector are at senior engineer level or above, and more than half have worked in engineering for more than 20 years. Just under a quarter of respondents from the sector are under the age of 40.

34.1 per cent of our manufacturing sample saw their pay increase in the last 12 months, and just over half received a bonus.

Job satisfaction levels across this sector appear to be reasonably high, with 59.8 per cent of respondents telling us that they are happy in their current roles and just under half of the sample agreeing that they feel valued by their employer.

Unsurprisingly, almost 80 percent of this response group expected to remain working in engineering for at least the next 5 years, whilst 73 per cent would consider transferring to a different sector within industry. The aerospace and automotive sectors are the most attractive destination for these people.

In terms of diversity, just 4.5 per cent of respondents from this sector are women, whilst 7.3 per cent are from BAME communities.

### AVERAGE SALARY BY SENIORITY

JUNIOR	£31,650
SENIOR	£50,516
DIRECTOR	£90,900

### AVERAGE SALARY BY REGION

OUTSIDE UK	£84,225
LONDON OR SOUTH EAST (ENGLAND)	£66,538
SCOTLAND, WALES OR NORTHERN IRELAND	£59,778
MIDLANDS OR EAST ANGLIA (ENGLAND)	£47,253
SOUTH WEST (ENGLAND)	£46,253
NORTH (ENGLAND)	£45,873

## 12. OIL AND GAS

This year's survey saw a steep increase in pay in the oil & gas sector, with average salaries jumping to £75,366 in 2020 from £57,167 in 2019, a rise of 32 per cent.

It's a striking figure, but the 2020 respondents were more heavily weighted towards the senior end of the career ladder, with 67 per cent having at least 20 years' experience in engineering and 37 per cent reporting being in their current job for a minimum of 10 years. The high average salary must be viewed through this prism rather than interpreted as an overall reflection of skyrocketing pay packets across the whole sector. This is reinforced by the fact that just 26 per cent of engineers in oil & gas report receiving a raise in the past year, with 24 per cent enduring a salary cut and 50 per cent having no change.

Nonetheless, oil & gas clearly remains a lucrative career choice for many and should continue to do so for some years to come, in spite of the push to cleaner energy alternatives. Remuneration in the sector generally comes with a bonus, 88 per cent of this year's respondents having received one in the past 12 months. Given the lofty levels of pay, it is somewhat surprising that just 29 per cent feel they are appropriately rewarded for their work, but once again this is likely a reflection on the seniority of those who took part in the survey.

Counter to the sector's reputation for being dominated by men, 13 per cent of engineers in this year's survey were female – a long way from gender balance, but still more than double the proportion of female respondents (6 per cent) across all engineering sectors. Given the challenges that oil & gas is facing as the world looks to move away from fossil fuel dependence - coupled with the often-demanding nature of work in the industry - it's interesting to note that 82 per cent of respondents said they would be open to the possibility of moving to an alternative engineering sector. This is one of the highest figures across all the engineer sectors in the survey and, when viewed in combination with the seniority of the cohort, could be a bellwether for oil & gas for the years ahead.

## AVERAGE SALARY BY SENIORITY

JUNIOR	£37,088
SENIOR	£75,158
DIRECTOR	£108,197

## AVERAGE SALARY BY REGION

LONDON OR SOUTH EAST (ENGLAND)	£92,071
OUTSIDE UK	£88,772
MIDLANDS OR EAST ANGLIA (ENGLAND)	£67,600
NORTH (ENGLAND)	£61,924
SCOTLAND, WALES OR NORTHERN IRELAND	£49,223

**£75,366** average salary



### 13. RAIL, CIVIL & STRUCTURAL

HS2 was given the go-ahead in early 2020 and by September 22,000 new jobs were being promised in the project's construction phase alone.

The ambitious high-speed rail project is grabbing the headlines but behind the scenes Crossrail, the Derby resignalling project, and the Great North Rail Project are three 'mega projects' that will help improve connectivity across parts of the UK.

There is a clear and obvious link with some of these projects to the structural and civil engineering sectors, which are busily bringing Hinkley Point C to life in Somerset and will embark on expansion at Heathrow in due course.

The wide range of nationally significant projects could have something to do with the uptick in average salary in the rail, civil and structural sectors, which was £46,400 in 2019 and has shot up to £56,965 in the space of a year.

This salary boost puts rail, civil and structural engineers fourth in our list of highest average salaries compared to second lowest in 2019.

The situation is looking good for junior engineers who in 2019 brought home an average salary of £31,761 but can now look forward to £34,455 in the early stages of their careers. A seismic salary shift can be seen among of senior engineers whose average salary in 2019 was £49,159 and now sits at £67,442, which is the second highest salary for senior engineers in our survey behind in oil & gas (£75,158). The situation is markedly different for those at director level or above who have seen their 2019 average (£86,345) fall to £78,333. This drop in salary may have been offset for 78.3 per cent of respondents who have received a bonus in the past 12 months. Of this number, 55.6 per cent received 0-5 per cent of their base salary, and a third received 6-10 per cent.

Over half (58.7 per cent) plan to remain in the engineering profession but those looking for a new role cite better salary (55 per cent), a new challenge (55 per cent) and better opportunities (35 per cent) as the motives for moving on.

### AVERAGE SALARY BY SENIORITY

JUNIOR	£34,454
SENIOR	£67,441
DIRECTOR	£78,333

### AVERAGE SALARY BY REGION

OUTSIDE UK	£147,168
SOUTH WEST (ENGLAND)	£59,000
LONDON OR SOUTH EAST (ENGLAND)	£55,275
NORTH (ENGLAND)	£50,642
MIDLANDS OR EAST ANGLIA (ENGLAND)	£41,894
SCOTLAND, WALES OR NORTHERN IRELAND	£35,900

**£56,965** average salary

## 14. TELECOMMS, UTILITIES AND ELECTRONICS

Telecoms, utilities and electronics have never been more important for UK engineering, with the sector underpinning vital technologies such as 5G, IoT and Industry 4.0. In some respects, it is an engineering segment that flies under the radar somewhat, garnering less headlines perhaps than say aerospace and automotive. But how does pay across the sector stack up?

Respondents from telecoms, utilities and electronics in the 2020 Salary Survey accounted for around 8 per cent of the total, the exact same figure as 2019. However, this year's cohort reported average salaries significantly higher than last year, rising from £51,825 to £58,412. This 13 per cent jump takes the sector from the fifth best paid in 2019 to the third best in 2020, behind only oil & gas (£75,366) and energy/renewables/nuclear (£65,932).

Junior engineers and grads in the sector have accounted for a sizable chunk of this increase, with average salaries for them growing from £26,839 to £30,092 year-on-year. Despite this 12 per cent rise, juniors in telecoms, utilities and electronics remain relatively poorly compensated compared with their peers in other sectors, second from bottom in the table, above only materials on £27,325.

The good news is that by the time engineers in this sector reach senior/manager level they are likely to have caught up, with the average salary of £59,245 almost double that of junior level. It marks a whopping 18 per cent year-on-year rise (from £50,168 in 2019) for this middle tier of engineers, helping to power that rise up the overall rise up the sector table.

At the top end of the scales, engineers at director level or above appear on the surface to have suffered a significant haircut, average salaries dropping from £92,966 in 2019 to £77,401 in 2020. However, this 14 per cent dip can almost certainly be chalked up to the relatively small sample size at this level of seniority rather than any collapse in boardroom compensation.

Interestingly, 61 per cent of respondents in telecoms, utilities and electronics reported being over 50 years of age, the second highest of any sector, behind only energy, renewables and nuclear (64 per cent). A similar number, 59 per cent, have been educated to at least degree level, the highest of any sector bar academia (60 per cent).

## AVERAGE SALARY BY SENIORITY

JUNIOR	£30,092
SENIOR	£59,245
DIRECTOR	£77,401

## AVERAGE SALARY BY REGION

SCOTLAND, WALES OR NORTHERN IRELAND	£105,539
LONDON OR SOUTH EAST (ENGLAND)	£57,076
OUTSIDE UK	£54,837
NORTH (ENGLAND)	£51,000
MIDLANDS OR EAST ANGLIA (ENGLAND)	£49,107
SOUTH WEST (ENGLAND)	£43,250

**£58,412** average salary

## 15. AGE

Alongside gender imbalance and an overall lack of diversity, the rising age of the engineering sector is an ever-present concern, with industry struggling to attract the requisite numbers of young graduates and the average age of engineers steadily increasing.

Just as in the last three salary surveys, engineers in their 50s make up the biggest cohort, with 35 per cent of this year's respondents in the 50-59 age range. This is an increase on 2019's figure of 33 per cent, which itself is an increase on 2018.

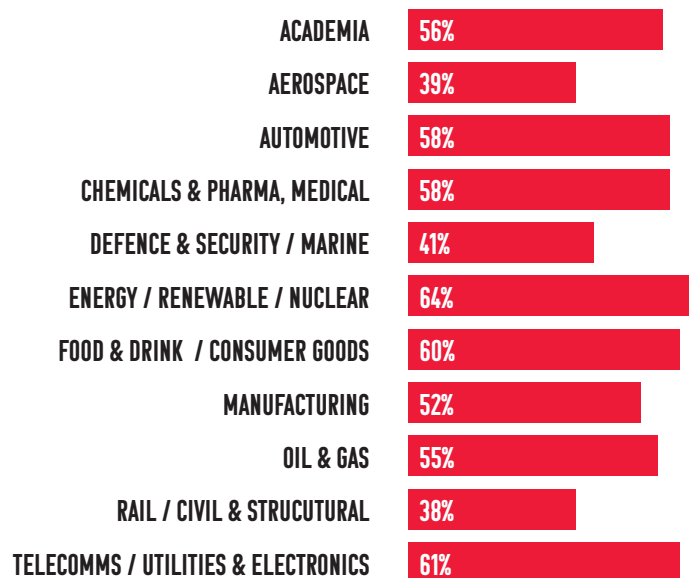
The 60+ segment saw an even bigger jump in representation, growing from 15 per cent in 2019 to one in five (20 per cent) in 2020. Interestingly, a quarter of the over 60s work in manufacturing, with London and the South East (27 per cent) and the Midlands and East Anglia (20 per cent) the biggest centres of employment.

Overall, engineers over 50 made up well over half (55 per cent) of all respondents. Nearly half (48 per cent) have been working in engineering for at least 30 years, a worrying picture for a profession that needs an expanded pipeline of youth to take up the torch for those nearing retirement.

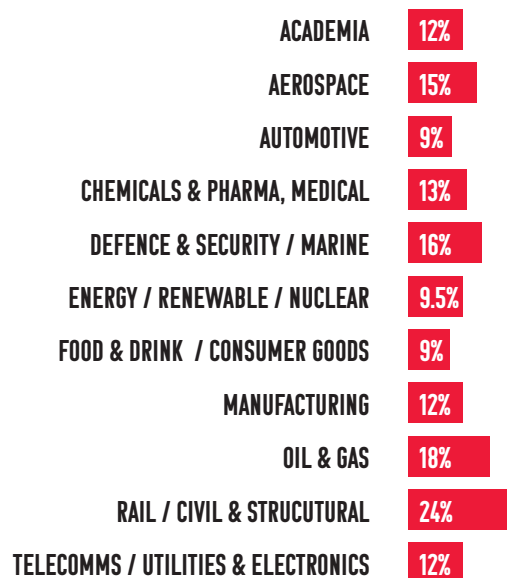
Energy/renewables/nuclear has the highest proportion of engineers over 50 in its workforce with 64 per cent, followed by telecoms/utilities & electronics (61 per cent) and food & drink/consumer goods (60 per cent). Rail/civil & structural has the lowest proportion of engineers over 50 (38 per cent) with similar figures for aerospace (39 per cent).

Just a quarter (25 per cent) of those who participated in the Salary Survey are under 40, with 9 per cent under 30 and 16 per cent in the 30-39 bracket. With rail/civil & structural having the lowest representation of over 50s, it's no surprise that it has the highest representation of under 35s, 24 per cent of people in this sector fitting in this age range.

## PERCENTAGE OF ENGINEERS OVER 50 BY SECTOR



## PERCENTAGE OF ENGINEERS UNDER 35 BY SECTOR



## 16. JOB SATISFACTION

As the engineering industry comes face to face with some serious challenges, it's encouraging to see average salaries increase by around 10 per cent year-on-year to a healthy £56,273 in 2020. In light of that jump, it is something of a surprise to see satisfaction with pay at just 43 per cent, with around a quarter (26 per cent) unhappy, and the remainder expressing no opinion either way.

Those who reported most satisfaction with their pay packets were in the energy/renewables/nuclear sector (£65,932), 66 per cent of respondents saying they were appropriately remunerated. Despite averages salaries in oil & gas being even higher (£75,366), just 29 per cent of those working in that field are happy with their pay, a reflection perhaps on both the tough conditions within the sector and the consequent high salary expectations of those who choose it as a career.

Given it had the lowest average salary of any sector this year (£36,940), it's no shock to find that pay satisfaction in materials is low, again just 29 per cent feeling content with their pay. However, lowest of all sectors was academia on 28 per cent. This appears at odds with a significant year-on-year increase in average salaries - from £43,870 in 2019 to an impressive £56,692 in 2020 - and the reported large rise may be a statistical anomaly.

Regardless, other figures do inform us that although

pay is undoubtedly a hugely important factor, it does not automatically equate to job satisfaction. Strikingly, given it has the lowest levels of pay satisfaction (28 per cent), academia also has one of the highest proportions of engineers who are happy in their jobs (64 per cent). The only sectors reporting higher levels of job satisfaction are food & drink/consumer goods (67 per cent) and energy/renewables/nuclear (68 per cent). At the other end of the scales, aerospace is the sector with the lowest job satisfaction, with just 52 per cent happy in their current job. Defence & security/marine was the next lowest (54 per cent) followed by oil & gas and telecoms/utilities & electronics (both 55 per cent).

The overall job satisfaction figure across all sectors was 59 per cent, with 53 per cent feeling comfortable with their workload and 49 per cent saying they felt valued in their role. The sector with the lowest figures for those feeling valued was rail/civil & structural on just 30 per cent, symptomatic perhaps of its relatively low age profile and a resulting lack of recognition from seniors.

Though many of the figures above highlight some of the shortfalls in particular sectors on job satisfaction and pay, it is safe to say that - on the whole - engineers are largely happy with their lot, with more than four in five (81 per cent) saying it is likely they will remain in the industry for at least the next five years.

SECTORS	AVG SALARY	% CONTENT WITH SALARY	%HAPPY IN CURRENT JOB	%CONSIDERING CHANGE OF JOB	%LIKELY TO STAY IN INDUSTRY FOR 5 YEARS	%FEEL VALUED IN ROLE
ACADEMIA	56,692	28	64	46	76	50
AEROSPACE	52,129	46	52	38	77	45
AUTOMOTIVE	57,639	49	57	47	82	49
CHEMICALS & PHARMA, MEDICAL	55,985	41	56	48	93	55
DEFENCE & SECURITY / MARINE	52,330	49	54	34	89	41
ENERGY / RENEWABLE / NUCLEAR	65,932	66	68	33	78	60
FOOD & DRINK / CONSUMER GOODS	56,167	51	67	32	88	58
MATERIALS	36,940	29	57	60	99	43
MANUFACTURING	54,059	35	60	37	79	45
OIL & GAS	75,366	29	55	29	84	45
RAIL / CIVIL & STRUCTURAL	56,965	48	60	44	78	30
TELECOMS / UTILITIES & ELECTRONICS	58,412	33	55	43	79	47

## 17 CHANGE OF JOB / LEAVING INDUSTRY

As the previous section alluded to, engineers are generally happy in their jobs, with 59 per cent saying they were very likely to remain in the engineering industry for the next five years, and an additional 22 per cent saying they were likely to remain.

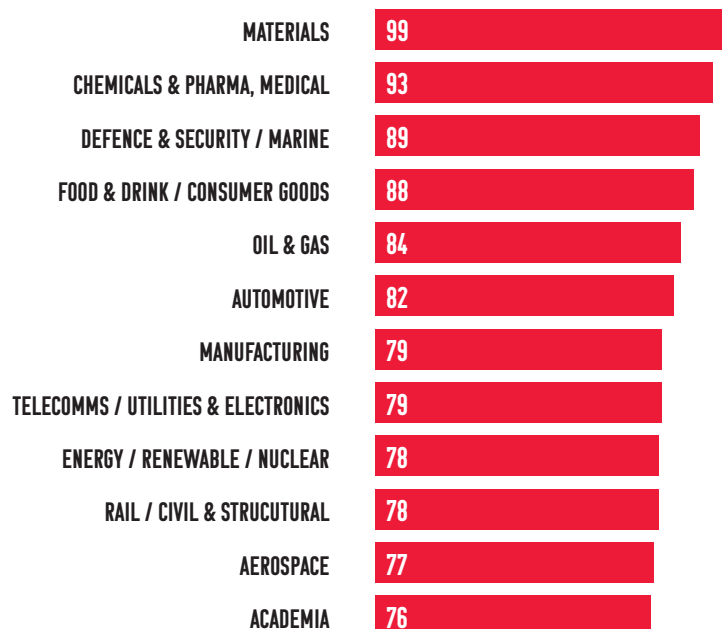
The combined figure of 81 per cent exactly matches the results from previous Salary Surveys, demonstrating the continued pull of engineering in spite of the many perceived challenges facing UK industry. Conversely, just one in ten (11 per cent) respondents said they were unlikely to remain in engineering over the course of the next five years, a figure which again closely correlates to the numbers from Surveys past.

But while most are content to remain within the engineering sphere, nearly three-quarters (72 per cent) would consider a sideways move into another sector, with renewables (54 per cent) and energy (43 per cent) the most desirable destinations. Sectors that ranked lowest for a change of discipline included civil & structural (12 per cent), food & drink (13 per cent), chemicals & pharma (14 per cent) and telecoms & utilities (14 per cent).

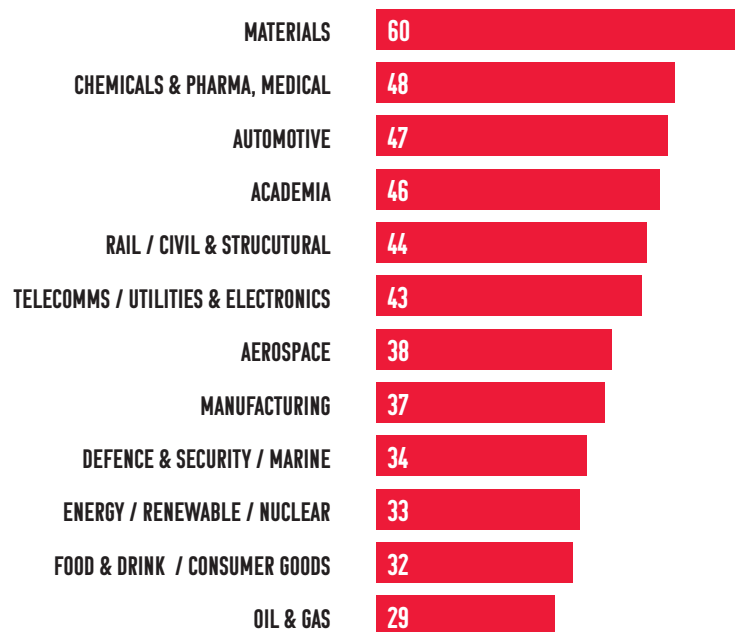
Unsurprisingly, the enticement of better pay is the most popular motivation for contemplating a switch of engineering sector, with 62 per cent citing it as a factor. However, as other parts of the Salary Survey have highlighted, pay is by no means the only thing influencing workplace satisfaction. Almost the same number (59 per cent) say that the possibility of a new challenge is important, with half of respondents (49 per cent) pointing to limited opportunities in their existing roles.

When it comes to considering a position overseas, engineers are split directly down the middle. Of the 50 per cent who would venture abroad for the right role, 78 per cent would consider a position in Europe, followed next by 65 per cent who would be happy to work in North America.

## % LIKELY TO REMAIN IN INDUSTRY (NEXT 5 YEARS)

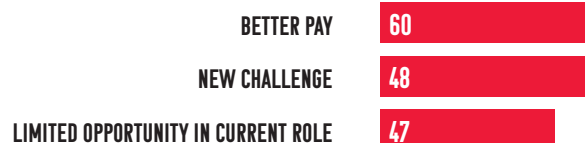


## % CONSIDERING A CHANGE OF JOB



**81%** likely to remain in industry

## TOP THREE MOTIVATIONS FOR CONSIDERING A CHANGE OF JOB





**18 BENEFITS & BONUSES**

Overall, 48.5 per cent of respondents to this year's survey are on bonus schemes, marking a decrease from last year's figure of 53.5 per cent. Perhaps more significantly, 81 per cent of those involved in bonus schemes have actually seen them pay out within the past 12 months.

As in previous years, engineers working in academia are the least likely to receive a bonus, with just 24 per cent of respondents from this group telling us that they are included in such a scheme.

The most generous sector in this regard was - for the second year in a row - aerospace, where 53.7 percent of respondents are involved in a company bonus scheme. Interestingly, despite the well-publicised problems facing the sector during the pandemic, 73 per cent of this sample group told us they have received a bonus in the past 12 months. Similarly, engineers in the hard-hit automotive sector also continued to enjoy the benefit of a bonus, with 43 per cent of all respondents from this sector seeing it payout within the last 12 months.

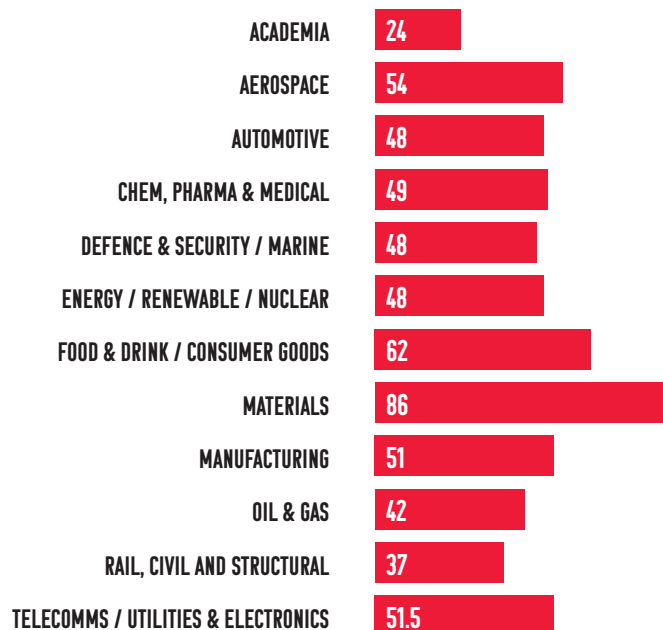
Turning to other key benefits, 39.8 per cent of all respondents enjoy private medical insurance, whilst 75.1 per cent are part of a contributory pension scheme.

Respondents from the chemicals & pharmaceutical industry enjoyed the highest levels of medical insurance ( 54.9 per cent) closely followed by those working in the oil and gas sector (52.6 per cent).

Meanwhile, the defence & security sector appears to be the best place to go for a contributory pension scheme, with 90 per cent of respondents from that sector enjoying this particular benefit.

Finally, in what is perhaps a reflection of the wider change in work patterns that have been seen over the past 12 months, 45.7 per cent of our entire response group told us that they are able to access flexible working arrangements, an increase from 40.6 per cent in our 2019 survey. Engineers working in the manufacturing sector (28.1 per cent) and the food, drink & consumer goods sectors (28.6 per cent) were least likely to enjoy this benefit.

# 48.5%

 on bonus schemes
**PERCENTAGE RECEIVING A BONUS BY SECTOR**

# 45.7%

 have access to flexible working

## 19 ROUTES INTO INDUSTRY

Despite efforts to encourage more young people into apprenticeships, there is little sign of change reflected in this year's survey findings. Indeed, the routes engineers use to enter the profession have remained fairly consistent since The Engineer launched its annual salary survey in 2015.

Once again, just over half of our overall sample group (53.3 per cent) have a degree whilst 32.5 per cent entered the profession via an apprenticeship, a slight drop when compared with 2019 (36.9 per cent).

Many respondents have also pursued further academic qualifications, with 25.7 per cent having received a masters degree, and 7.3 per cent possessing a doctorate.

The highest level of apprentice trained engineers are to be found in the food, drink and consumer goods sectors, with 53.3 per cent of respondents from these areas choosing this route. The survey results also point to relatively high levels of apprenticeship trained engineers in the aerospace sector (36.2 per cent) and in manufacturing (40.8 per cent).

Unsurprisingly, the highest proportion of university educated engineers is found in the academic sector, where 60 per cent of respondents have a bachelor / honours degree and 40 per cent have a masters level qualification.

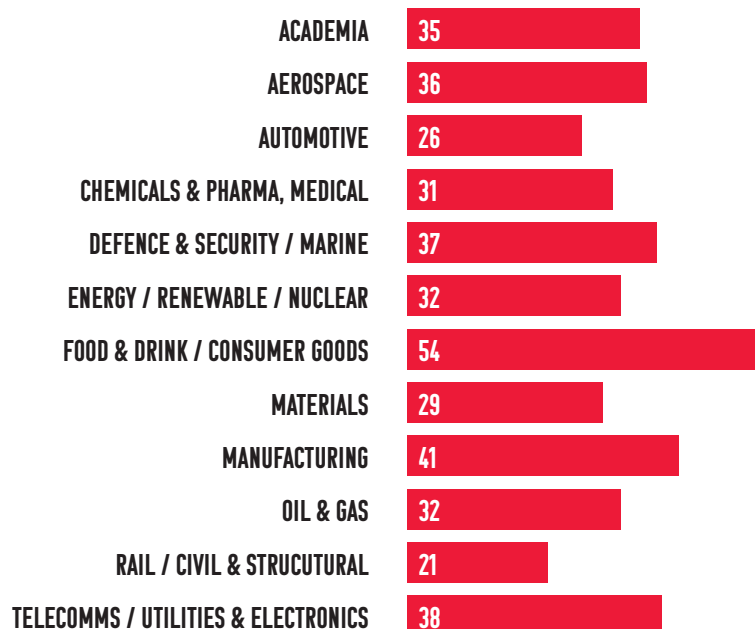
Across the age groups the highest proportion of apprenticed engineers are found in the higher age brackets. For instance, 49 per cent of respondents in the 60+ age bracket entered the profession via an apprenticeship.

Whilst this number drops as we move down through the different age ranges (reaching its lowest level in the 30 – 39 group, where just 18.5 per cent took an apprenticeship) the survey results do offer some hope that efforts to boost apprenticeships are beginning to have an impact, with 26.7 per cent of respondents from the under 30 age category telling us that this is how they qualified.

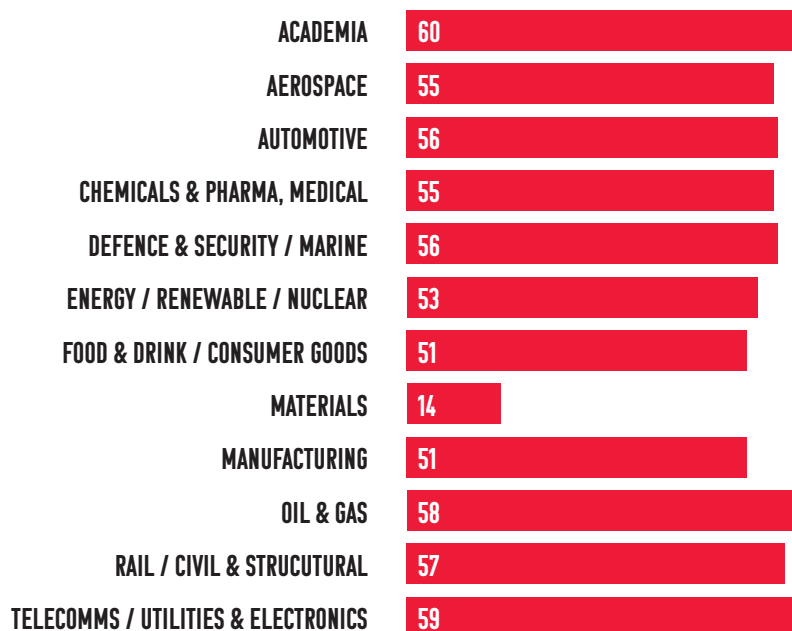
The highest proportion of degree educated engineers was found in the 30 – 39 age bracket, where 63 per cent of respondents have a bachelor / honours degree, and 45.9 per cent have a masters.

According to our survey, engineers from BAME backgrounds are less likely to have qualified via an apprenticeship (with just 13.3 per cent qualifying this way compare to 37.3 white respondents (37.3 per cent). Levels of degree qualification seem to vary little across different ethnic groups.

## % QUALIFIED BY APPRENTICESHIPS



## % QUALIFIED BY DEGREES



## 20 PROFESSIONAL REGISTRATION

Once again, more than half of all engineers responding to our survey have not chosen to pursue professional registration. Indeed, levels of professionally registered engineers have declined slightly since our 2019 survey from 45.1 per cent to 43.2 per cent, possibly suggesting that efforts to boost registrations have had little impact in the last couple of years.

Amongst those who are professionally registered the largest group are chartered engineers, who accounted for 21.3 per cent of our overall sample.

Despite the decline in numbers, there is some good news for the engineering bodies, with the research suggesting that the gaps between different seniority levels are closing. Indeed, whilst our 2019 survey showed that just 32.2 per cent of junior engineers had pursued registration, this figure has risen to 41 per cent in our latest survey.

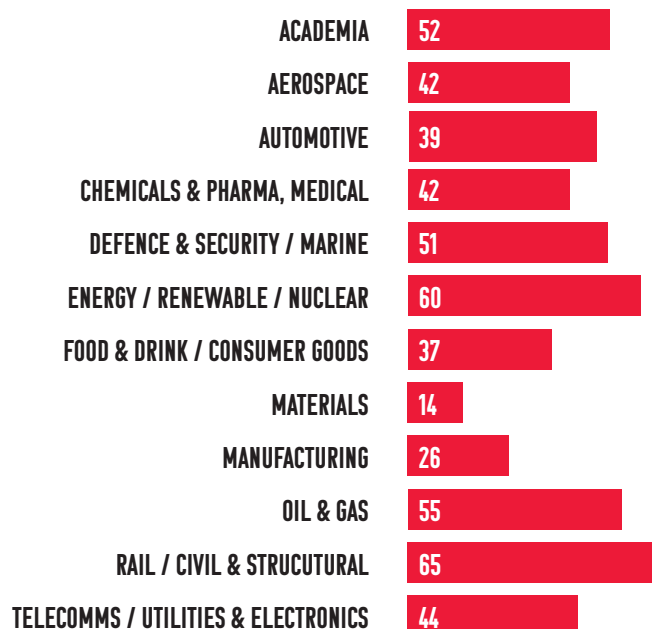
This is perhaps because those in the lower seniority bracket appear to be the most likely to believe that professional registration leads to improved earning potential (23 per cent of junior engineers).

Nevertheless, respondents were - in general - unconvinced by the salary boosting potential of registration with just 19.6 per cent of our overall sample group believing this to be the case. Indeed, 37 per cent actively disagreed with the notion that it improved their prospects.

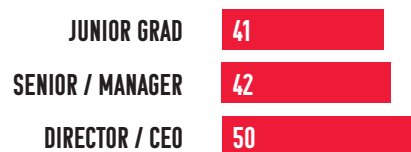
Interestingly, under-represented groups appear more likely to believe in the value of professional registration. Indeed, 49.4 per cent of BAME respondents are professionally registered (compared to 42.5 per cent of white respondents). As in previous years, registration levels are also slightly higher amongst female respondents, with 50.9 per cent of women and 42.6 per cent of men pursuing registration.

This year's survey also uncovered significant variations from sector to sector with engineers working in the rail, civil and structural sectors demonstrating the highest levels of registration (65 per cent). This sector was followed by energy / renewables and nuclear, where 60 per cent of respondents are registered, and oil and gas (55 per cent). The lowest levels of registration are found amongst respondents working in the materials sector (14 per cent).

## % PROFESSIONALLY REGISTERED



## % PROFESSIONALLY REGISTERED - BY SENIORITY



## % AGREE PROFESSIONAL REGISTRATION LEADS TO HIGHER SALARY - BY SENIORITY



## 21 GENDER & DIVERSITY

Despite some good news on pay difference, the overall response continues to reflect industry's gender imbalance, with female engineers accounting for just 6.3 per cent of the overall response group. This marks a decline from 7.4 percent in 2019 and it should be noted is considerably less than the commonly accepted figure of around 12 per cent.

The individual sector with the highest percentage of response from female engineers is rail, civil and structural, where 19 per cent of our respondents are women. This is followed by oil and gas, where female engineers accounted for 13 percent of the sample. Women were most poorly represented in the chemicals, pharmaceutical and medical sectors where they accounted for just 2.8 per cent of the overall sample.

In better news, the average salary for female engineers responding to this year's salary is £53,294, up from £42,913 in 2019. This compares to an average salary among male engineers of £57,122, and represents a significant tightening in the gender salary gap from an average of £9000 in 2019 to just over £5,000 in 2021.

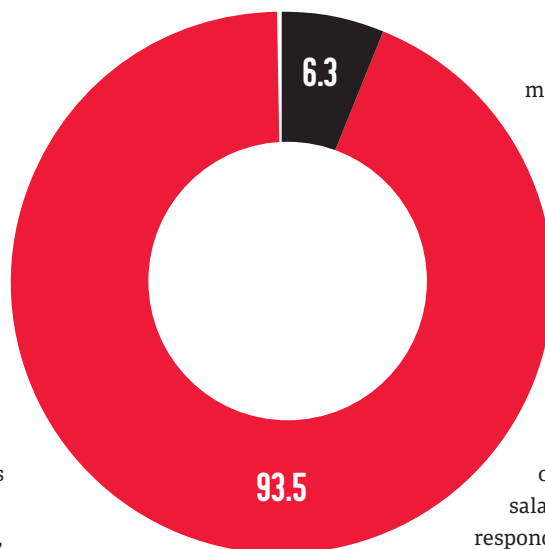
This size of this gap was mirrored across most levels of seniority, with female engineers at junior / grad level and senior engineer / manager level earning on average around £3,000 less per year than their male colleagues. At director level or above, average female salaries were considerably higher, but this is a reflection of the very small sample size rather.

In terms of benefits, a far greater proportion of male respondents told us that they had received a bonus in the last 12 months (82.1 per cent compared to 63.6 per cent for women), but despite this levels of job satisfaction show little variation across the genders with both male and female respondent are generally happy in their jobs (58.5 per cent for men, 56.6 per cent for women). Meanwhile, female respondents appear generally more positive about their employers' efforts to encourage a work life balance (50.09 per cent women, compared to 39.9 per cent of male respondents).

The survey findings tell a similar story in terms of industry's ethnic diversity challenge with BAME (black, asian and minority ethnic) engineers accounting for 10 per cent of our sample and 87.7 per cent of respondents describing themselves as white. This compares to 87.9 per cent in 2019. Amongst BAME respondents, 0.8 per cent describe themselves as black, and two percent as coming from mixed / multi ethnic groups. Engineers of Asian descent account for 5.9 per cent of the overall sample.

Perhaps most alarmingly, according to our survey findings, BAME respondents earn on average £6,000 less than their white colleagues.

With both white and BAME response groups having a similar spread of seniority, this cannot be explained away by, for instance, a higher proportion of non-white respondents at the junior engineer level. Neither can it be explained by



WOMEN	6.3
MEN	93.5
OTHER	0.2

minority ethnic group respondents working for sectors at the lower end of the salary scale.

Indeed, the highest proportions of non-white respondents came from the automotive sector (19.3 per cent) and Manufacturing (16.9 per cent) which both rank reasonably well in terms of their average annual salaries.

In this light, it's unsurprising that BAME respondents are – on average – less content with their salary levels than those describing themselves as white. Indeed, just 30.1 percent of BAME respondents are content with their salaries, compared with 44.3 percent of white respondents.

In another concerning disparity, 22.9 per cent of BAME respondents told us they had taken a compulsory salary reduction as a result of COVID, whilst just 10.4 percent of their white industry peers had been forced to do the same.

### ETHNICITY %



### % NON WHITE BY SECTOR

