***This podcast was recorded shortly before our changed from FCO Services to FCDO Services***

**Equality in Engineering Podcast**

00:07 **Host** – Hello and welcome to the first in our series of podcasts looking at the exciting new developments in the security and tech arena. We are FCO Services, the in-government security experts. Today, we're marking International Women in Engineering day by bringing together some of our extraordinary female engineers. One of the most exciting developments of engineering at the moment is the rise in the number of women in the industry, and we have a mix of veterans and relatively new arrivals with us today. So, with me I've got one of our second-year apprentices, Emma.

00:39 **Emma** - Hello

00:40 **Host:** I've got a senior manager in the organisation, with a background in telecommunications engineering, Tess

00:46 **Tess** - Hello

00:47 **Host:** I've got a structural engineer, Kirsty

00:49 **Kirsty** - Hello

00:51 **Host:** And, one of our senior operating managers, with a background in electrical engineering, Rebecca.

00:56 **Rebecca** - Hi there

00:57 **Host:** So, let's start in the deep end - why do you think so few women go into engineering?

01:03 **Tess** - I think possibly it's around the perception that it's a sort of ladders and spanners type erm… certainly from a telecommunications engineering point of view – that it’s a sort of role that you need to be up a ladder with a bag of spanners fixing things, and, that's really sort of a technical worker type view that is a bit of a British disease, that we have over in this part of the world that’s not quite shared with our colleagues in Europe.

01:33 **Rebecca** - I think I agree with that, to a degree. I think it also starts earlier than that in schools, with not actually having – I think, a lot of the teachers have those misconceptions, which actually, and parents have those misconceptions which filter through to the kids. And so, I think they're not getting the careers advice from people who are in the engineering field to actually explain what engineers 'do' on a day-to-day basis. And I think when you break it down, a lot of girls actually then find it more interesting and hadn't really realised that, that’s what engineers do. I think Tess is right. The other one I get a lot of is; 'Isn't it just fixing cars?' with engineering - so erm, yeah, I think there are some misconceptions.

02:15 **Kirsty** – Yeah… that's probably quite true about the construction part of it as well because I fell into it thinking I would be an architect, but at school they couldn't get me the work experience placement in an architects firm, so I went to a structural engineering company, and then found this whole career that I never knew existed. Unless you knew someone that worked in that industry, you didn't know about it. That it can fit all the roles that I, well the strengths that I had at school.

02:40 **Emma** - The school that I ended up going to was actually a specialised engineering school, so it was the three-tier system, and it was an engineering upper-school which I didn't actually realise until I had picked all of my GCSE options [laughter], and luckily had picked engineering. But the engineering teacher that I had was a woman, and sort of really pushed me through it and was always saying 'you can do just as well as the boys are going to', which was always excellent because it sort of made you think about it more. But, even still, out of a whole year group of 200 students, I don't know how many it was who actually took engineering, but I was one of two girls that took engineering. Only another one took product design, and that was it for the whole of my year group. It is drummed into you from school, like you think, as soon as you think engineering you think builders and a lot of construction workers, which has just always been a predominantly male environment, so it sort of, school sets you up to fail almost with women in engineering cos it doesn't get pushed enough, it's not a topic that's spoken about enough. They don't do enough to try and get it to a thing that everyone can do. It's not just for men and boys. It's not pushed enough towards girls at school.

03:42 **Tess** - I think it's a real shame because women particularly like roles that are problem solving and collaborative, and those things really are in engineering but they're not the role, not the parts of the role that are emphasised at school, it's like I say, the oily rags/spanner type.

03:59 **Emma** – Yeah, the manual side of things.

04:00 **Tess** - Whereas all the problem solving, getting to solutions, working with others to get there - all the things that women... are particularly strong at - are not the things that are drawn out when people think 'engineering'.

04:12 **Rebecca** – Yeah, multi-tasking is something that women often get stereotyped as being really good at multitasking, but actually that’s what makes some fantastic engineers because it's not a one-dimensional subject, it’s such a three-dimensional subject, you need to be able to multitask while you're doing it. Along with the problem solving - when you explain it like that it appeals to a lot more people.

04:29 **Host** - There are similar issues with STEM careers as a whole. I think engineering suffers from the same as STEM across the board, or is engineering different in any way?

04:39 **Rebecca** - Well, Tess and I were at a conference a week or so ago, um, …that was talking about women in STEM careers and actually a lot of the science parts of STEM have actually been very successful in increasing the number of females and they showed some statistics, correct me if I'm wrong Tess, certainly in medicine [mm-hmm], it was very male-dominated probably a decade or so ago, and now actually women outnumber men going into medical type subjects through university [mm-hmm], but we're not seeing the same with engineering. So, err, I'm not quite sure why that is.

05:15 **Tess** – No, they were describing at this conference the, err, um,… the fact that in the sciences, particularly biology and the academia side of things - the coin has flipped and there more women joining,…and that they work in a research environment and that's very much, again another female trait, where women tend to enjoy working. But, the real,…areas where women were incredibly under-represented were the engineering side and the technology side - where you'd think that there would be more women, because women are just as,... there's just as many female IT apprentices as there are men, but they aren't going into technology, and, whether that's to do with the fact that computer games and so on are targeted mainly at young boys? [Mm-hmm]. I'm not sure. But technology was the highest percentage of men to women, followed by engineering, then maths, and science was actually, almost going the other way.

06:13 **Host** – So, how have things changed then? We're starting to move in the right direction now, but how, what were things like 20/30 years ago? If you can remember that far back? [Laughter]

06:28 **Rebecca** – That’s probably also Tess and I [laughter]. But to answer, I mean for me, I think there's more acceptance that women are able to do the job. And, whilst there is still occasionally the odd raised eyebrow that electrical engineering is my background, I certainly don't get wolf-whistled on site anymore which was certainly the case when I first joined, not here but when I first started in engineering. My combat to that was to actually learn to wolf-whistle so I could wolf-whistle back [laughter], which would actually, remarkably stop the wolf-whistling on site when you could prove that you could do it too. Erm, but I think attitudes have changed quite significantly, in terms of its, it’s not as unusual these days, but obviously we're still in the minority. You've probably seen even more changes than I have Tess.

07:09 **Tess** - Yeah,…speaking to Emma who is an apprentice now, been here for two years, and so I was one, I think I was the third ever female apprentice to join this [wow] organisation, some years ago [laughter], some thirty five years ago. And,… when I joined, I was one of ten, and I’m just still disappointed that we're still in the realms of recruiting 1 in 10 of our apprentices, each year tend to be female. I'm really disappointed that that number hasn't increased in that amount of time.

07:47 **Emma** - I think we managed to work out that day as well that I was number 13 or 14 in the whole of the apprenticeship scheme so far. So when you look at the amount of numbers that have actually passed through here, being number 13 is, is still not great.

08:00 **Tess** - Not at all. It's something we need to,… be better at is targeting more women in the first place because all the statistics show that if you get more women to apply for jobs, then once they actually apply, just as many get through the recruitment process as men - if not slightly more. So, it's getting them to apply in the first place that is absolutely key.

08:25 **Emma** - That's one thing we've not a found a problem is when I applied, I think there was about 90 applicants for my year and out of all 90, only 2 of us were women.

08:35 **Rebecca** - Were both of you accepted?

08:35 **Emma** - Only I was, … It was the argument of how can we make things change? But you can't give people jobs if they're not applying. That's the problem. With only 2 of us applying, you can't say we want half of them to be women when there's only 2.

08:52 **Rebecca** - I think other changes, very much has been in terms of attitude. But I think also…the working practices have changed that makes it much easier to be a female engineer and have a family and be able to do both. So, there's much more flexible working, there's much more, as a mother it was much easier now than I think it would have been when I first started, there would've been much less consideration of the fact that you had childcare responsibilities. I know men have the childcare responsibilities too, and people have different caring responsibilities, but I think here, there's been a big change towards flexible working which should encourage more women to look to apply, but I think has perhaps been prohibitive in the past.

09:37 **Tess** - Aside from the fact when, as I say it was a while ago, when I started, they didn't even have women's toilets here in many of the buildings, only the main house and one of the other buildings had female toilets, so it was quite a trek to even just go to the loo. So, things have improved since then, thank heaven. One of the things we've always been on this site, we've been lucky we’ve had a nursery here for over 25 years which has helped support the staff, and will support more women than men by the nature of the fact that women can come straight back to work and carry on feeding and so on, and have their baby on site in a very safe environment. So, that's good, but I think we still need to do more to get women in the door in the first place and applying for these roles. Maybe more advertising, more female friendly.

10:24 **Host** – So, how do you think we can do that? How do we get more people to apply?

10:28 **Emma** – I think…it has to start in the schools. That’s going to be a massive place to start, it’s actually just changing the attitude of people while they're at school to making people actually believe that they can apply for these sorts of jobs. That's going to be a big thing.

10:42 **Rebecca** - It's one of the things I do - I'm a STEM ambassador and go into schools to talk about engineering as a career… and will go as I’ve been dressed for work. And again, that often, even just going in in a suit, people think; 'you can't be an engineer, you're wearing heels'. [laughter] and I’m sort of like, no you can wear heels and be an engineer, erm, it's not, erm mutually exclusive.

11:04 **Kirsty** - Unless you're on a building site?

11:05 **Kirsty** - But then it's easier, the kind of practical sides of it as well.

11:08 **Rebecca** – Yeah, I mean, what attracted you to joining us? Because you've joined us more recently.

11:12 **Kirsty** - It was more for the variation. I had been working for 10 years on very similar projects again and again and seeing the same type of construction pattern down in London, and everyone was doing basements and I just thought it would be a bit of a change, erm, getting to see around the world and see different things. Instead of working for millionaires that wanted big houses, do something that makes maybe a bit of a difference rather than trying to work out how to make people more money [laughter] on the property market. So, it was very much, erm, a bit of a change from out of commercial work. I think within that construction market in London, even being a woman there was quite a surprise. They were quite used to having female architects because there the ratio is slightly different, especially with the younger generation, but what they were finding was still most of the senior architects are male because when women start having families they tend not to come back to work, and it was fairly similar within structural engineering in that you would have quite a few graduates that were female within an office, and then to a certain point they would drift away and not come back - which was sad because it felt like there wasn't the opportunity to have a family and work in the private sector as well because the hours were so long. But that put a lot of people off, I think.

12:35 **Tess** - Well, that's something we could… a selling point for our organisation because with flexible working, with childcare facilities on site, the opportunity to work overseas and take your families overseas has got to be a plus for people coming from that environment.

12:48 **Kirsty** - It's much more female-friendly here.

12:51 **Host** - You think that's a real difference then? I mean, you talk about how things still aren't perfect but there’s a lot of stuff here, are other engineering companies moving towards that? Or, are they still, sort of, very much long hours etc?

13:04 **Kirsty** - I think they're still very much, or, in the structural engineering market that I’ve seen, are very much long hours because, at the moment the fees are so low that lots of people have to work long hours to compensate for that, and so it's very much male-orientated cos they tend to stay until 7pm at night and leave and go home and if you've got childcare responsibilities, you can't do that.

13:27 **Rebecca** – So, I think that is a big selling point for us, but I think that the industry as a whole I think there is still a bit of a perception that that is the culture, and so I think, you know, whilst we can do what we can organisationally as FCO Services, erm, I'm, you know, not sure how fast the rest of the industry is catching up with that.

13:46 **Rebecca** - Have you got people…. you said there weren't very many at your school who were, erm --

13:51 **Emma** - No, there wasn't, there wasn’t any at all. I don't think any of them have actually gone into an engineering profession. I think one of the girls went to do mechanical engineering at university, but I haven't really heard anything back from any of them. But, even all the rest of my friends who’ve gone through school and have been graduates have all come back and no-one’s really got any sort of 'proper' job, let alone taking up a trade…None of my female friends have got some sort of trade.

14:18 **Host** - I remember, my dad teaches physics at sixth form, and he got a load of posters sent to encourage women into engineering or STEM, and it was a big pink cupcake and they were applying all the different sort of types of engineering to looking at how you could build the cupcake. My dad didn't put it up because he was just so offended.

[Laughter]

14:43 **Rebecca** - I love baking, but that's just as a hobby – I’m not sure I see the relevance of that one.

14:51 **Tess** – No, I think that is almost turning it on its head isn’t it. We're not trying to say engineering is pink and fluffy, you can come in and learn how to cook… better. It should be about the fact that engineering is about building bridges, it's about telecommunications across the globe, it's real life things that women are just as interested in as men, and that will make a difference to the future of our country and for our children, so that's what it's about. There's a lot we can do about green energy and so on, so these are the areas that women just as well as men are interested in, so let's focus on that and not try to appeal to the…what men think appeal to women - pink fluffy cupcakes.

15:43 **Rebecca** - When I'm talking to pupils at schools, and I'm trying to sort of gauge their knowledge and understanding of engineering, I try and use analogies about, sort of them getting up in the morning and what they do, what do they rely on. And that actually engineers are here to make your life better, so that if you didn't have engineers who…designed your fridge/freezer – actually, making your breakfast, you’d have warm milk! You'd have to go and milk the cow yourself first. Your toast, before you could get toast, you’d have to light the fire, we now have electrical systems that you can plug all of these things into. Engineers actually, are here to solve problems and make life easier for you. If you didn't have a car…or bus to get you to school, that is going to be quite a long walk and your day would be about 3 hours old before you even got to school. And, you see the look on most 12-13 yr olds faces, absolutely appalled that if they couldn't check their phone and go to the bathroom and put their makeup on, you know, with some decent light, their lives wouldn't be worth living. And, you know, actually solving those problems and coming up with solutions that make your life easier is actually a lot of what engineering is, is all about and is at the heart of it, actually making your life better. And when they see that and think ‘ooh I can make a difference with that’ and I think that does connect with a number of young females. As Tess said with things like the environment, there's a big movement at the moment… with teenagers and the environment and environmental protests and supporting that. There's a huge amounts of things in engineering that are still yet to be discovered, that we can do to actually help our planet. If that's where the passion is and they've got the thought processes to be able to work through that, I think there could be some really, really fantastic innovations in the future.

17:28 **Host** – So, what I'm kind of hearing, is that there should be more of a focus on the problem-solving aspects of engineering rather than, you’re out there up a telegraph pole. By coming at it from a problem-solving angle, it sort of feels different.

17:44 **Tess** - I completely agree with that, I think if you focus on what are women's strengths? Problem solving, innovation, working with others, collaboration - those are all things that are… essential to engineering and that's where we should be focusing when we talk about engineering to say; 'This is the career for you because all of these elements are an essential part of the engineering day.'

18:07 **Kirsty** - Then there's two kind of sides of it because there is the engineering part, which is the problem solving and fixing it, and putting something together that wasn't there before, having a product at the end of it. But then, there is the other side of it which is actually practically doing the work. And, it's separating the two and saying that there’s the engineering that's the whole bit, but actually there's one bit which isn't mucky and messy and sitting on the floor and being in a workshop - there's the design part and then there’s the other part. So, there's two aspects that you can focus on and, depending which area you want to go into, but men might be more prone to go into one and women the other.

18:49 **Host** – So, what part of engineering attracted all of you? Was there one area that pulled you in?

18:57 **Emma** - To be honest I'm quite often found sat on the floor trying to do something, or inside a cabinet or up a ladder, it was the actual doing it bit that really drew me in, that’s the bit I was interested in. Everything else just sort of came along with it.

19:14 **Tess** - For me, I totally get that, I think where, that's the attraction of not sitting in front of a computer screen and reading emails is that you're out doing things that when you finish at the end of it, something works and exists that wasn't there before. So, that’s really good. But for me, I think what attracted me was… that I always found maths fascinating, in that one little question could take you an hour to work out and you end up with an answer, but it's all about how you get there. And I think that's what made engineering interesting for me, is that you start off with something and end up with something, and it's all the stuff you learn on the way.

19:53 **Kirsty** - Mine was taking an architects drawing and then working out how the whole building would stand up, and then being able to put all the little bits together and working alongside them, so that if something didn't work - because they’ve come up with fantastic ideas that aren’t practical - you had to then work as a team to then get it to stand up, and compromise on certain design aspects. And so, it was creating that and putting the drawings together that was really the fun bit for me.

20:22 **Rebecca** - For me, initially, and I have got quite a low boredom threshold, so [laughter] my attention span is not great. So actually, engineering gave me all sorts of things that I could go and explore and look at, and it wasn't the same every day. So for me, there was such a huge variety that - for somebody who gets bored quite quickly ... Originally I thought I’ll be a bank manager because I like maths and I like numbers, but actually the thought of just going through people's bank statements and giving out money, approving loans ... I think I’d have got bored really, really quickly. Whereas with engineering, there was just such a range of things that I could get interested in, and that do interest me. But, as…I've moved into the career and the thing that I now really enjoy and have really enjoyed, is actually finding something, certainly on the electrical engineering side, visiting a property, realising it's not safe, being able to actually then do something to design the solution, oversee the installation of that solution, and actually hand it back in a condition that is far safer and better than when I first saw it. I get a huge amount of satisfaction out of that.

21:31 **Kirsty** – Yeah, the final product is always nice.

21:36 **Rebecca** – Yeah, so you see something that's blatantly unsafe, really not good, may catch fire, may injure people. You can work out what the problem is, what you need to do to solve it, put that problem in place, oversee the…solution, and hand it back, and I find that really good.

21:55 **Emma** - You must get a real sense of pride when you actually finish doing something on a project, or anything, even if it's just putting something up on a wall, as soon as you've finished doing it you have the satisfaction of the fact that you have done it, ['I've done that'] yeah

[Laughter].

22:09 **Kirsty** - There's an actual end product.

[Yeah]

22:12 **Emma** Something you can look at that’s just mine.

22:15 **Host** - So you talk about the variety of engineering, is that, when we say engineering that can mean so many different things now and does that sort of hide different areas of engineering? Is it a good thing that we include everything together? Or, does it mean that we’ll have a very stock idea of someone coming in and building a bridge?

22:32 **Rebecca** - I don’t know, I mean I did a, I didn’t know what sort of engineering I actually wanted to do - but I knew that the skill sets in engineering was something that all my strengths and that I did want to do. So, I did a very, very broad degree in electro-mechanical engineering which actually meant I could've gone down any number of engineering paths and actually ended up doing building services and working with buildings. And actually, here at FCO Services, working with an overseas estate, where you're working with so many different electrical systems, it's the same but different all the time. And I think you may well find that with structural [mm-hmm]- you know, there's so many different types of construction [yeah] that you're looking at the same sort of elements, but each one is slightly differently put together,

**23:15 Kirsty** - depending on where you are in the world.

**23:17** **Rebecca -** depending on where you are in the world.

**23:17** **Kirsty** - It's all similar but changed slightly.

23:20 **Rebecca** – That keeps you thinking and keeps you on your toes - so I don't get bored [laughter]. So, I mean, to answer your original question, do we sometimes do ourselves a disservice because we have so many different areas - I think that's actually a strength of our organisation. Because, I think If you come in with the right engineering mindset and you've got those skills, they're actually quite transferrable in a lot of cases. Certainly, the higher up the organisation you've got, if you know, …FCO Services is very supportive in also giving you that sort of leadership and management training, to actually have that logical skill set that you can actually look at all different types of problems, the engineer will see different solutions to those it actually doesn't matter whether you're in the construction side or whether you're in the telecommunications side - they're transferrable skills. So, I think it does make you quite flexible in terms of the roles that are on offer to you. But actually, we also have some incredible specialists here who absolutely love a specific type of engineering and become actual national authorities on their specific part of engineering… because they can take it to such a detailed level and depth, and they’re supported in doing that as well - so I think both.

24:41 **Emma** - I think the broadness of it’s quite good as well, because over the apprenticeship scheme we go round to all the different types of technical sections so you learn everything from the installation, to the maintenance of the systems and things that we use - so it's good to get everything from people's different points of view because sometimes you might go out and there will be a telecommunications problem and they might just happen to have been one of the engineers 20 years ago who knows everything, so, me coming into it almost completely blind and having never looked at telephony or anything before, to have someone there that's got such knowledge, to sit and run through it and explain it and saying ‘well next time you happen to come across something like this you’ve got much more of an idea of what you're looking for and what to do’. I think that's a real strength, the fact that we get to go around and you do get familiar with people and the systems and things.

25:25 **Host** – So, going back to how we encourage more women into engineering, if you had a magic wand, or you were the minister for education, what changes would you make?

25:37 **Kirsty** - I think it's very hard to force women to do something that they don't want to do, and I think the best…a good way to do it might be to have some role models because it’s seeing that somebody has been there before and somebody has done it and someone has worked their way up in various erm, ranges of engineering. You would then be able to go ‘oh they’ve done that and that exists’. And it’s partly because women aren't told that these careers exists, that they don't go into it because if they knew that they did, they might and it's the problem of they don't know that there’s an apprentice…, oh I can’t even say it [laughter], the scheme to apply to. So unless you know about them and have seen a woman go up through it, you might not necessarily do it.

26:21 **Rebecca** – I mean, I think one of the things that they were discussing at the conference is actually getting women teachers, or teachers generally actually, not just women teachers, male teachers who are doing this as well, but actually just getting teachers out into industry to understand what the different jobs are. Because they've gone into teaching a lot of the time as their first career, they’ve had no other career, and actually don't understand exactly what is involved in the different things. So, I think my magic wand, if I was in charge of education, would actually be to make teachers go and spend some time in industry. Whether it's a week or a couple of days - just having a look at what some of these jobs entail, so that when they're talking to their pupils, they can do it from a position of knowledge, rather than a position of theory. I think that would make a huge difference because they would have the opportunity to see a whole range of different careers rather than having just come through a teaching profession. Which for a lot of them, not all of them, is the only career they've known other than maybe what their own parents did.

27:20 **Tess** – Yeah, I think as well, for children or women/girls coming through schools, it's about showing them that engineering is about so much more, and that's erm, our role to go into the schools and explain that… But also, to get them away maybe from their phones and into problem solving - I think that might be the key to getting them into the organisation and into engineering in general. When they see how good they are at problem solving, and how good they could be with those skills.

27:56 **Emma** - I think promoting apprenticeships in general. Because, my school was very, very, very aimed towards ‘you have to go to university or you’re going to amount to nothing’ [Yeah]. So, I was really, really pushed to go to university and did all my A-Levels and everything, and then just realised that the university course I’d chosen I just really wasn't interested in at all. I didn't want to go, and I ended up getting a different job. It took someone from here…who eventually said to me that I would be really good for this kind of thing, I've known exactly what you've done throughout school and I think this place would be really good for you. It was a complete and utter turnaround for me coming somewhere like here.

28:32 **Rebecca** - But, it's just a chance encounter as much as anything else, [yes exactly] rather than a specific, you know career path that you wanted to do.

28:38 **Emma** – Yes, because all throughout school I'd been quite explicitly told; 'You should go to uni. You're too good for an apprenticeship… It would be absolutely wasted on you; you can't do all of this then go back to college'. When, in reality, it has literally been the best thing for me.

28:52 **Host** - It's mad if you went to an engineering specific school, [yeah] and ...

28:56 **Emma** - …But they just didn't promote apprenticeships at all. If you were going to do engineering, then you were going to go to university and do engineering. So, any type of engineering - that's what I had been pushed forward for was chemical engineering because I was taking chemistry, physics and maths as A-Levels. That's what I got massively pushed towards even though, sort of the whole time I was thinking I don't really want to be doing this, I don't think this is for me. That's what I got pushed towards. Rather than them saying; 'We've got all these amazing apprenticeships' - like they were for, quite ‘a lot of the boys’, and saying ‘we've got construction and electrical and… so many other people have gone into this’. They just…. I didn't really get that help.

29:32 **Rebecca** - That's interesting that they were pushing apprenticeships but not to females. I think that's really interesting.

29:35 **Emma** - If they were, it was going to be apprenticeships in health and beauty, in hairdressing and childcare and social work and that sort of thing. There was no real engineering push, for women.

29:50 **Host** - I think while this has been quite a good discussion, I want to end on a more positive light. So, I have a sister who is 13, sounds very convenient, unless I really do have a sister who is 13 and thinking about being an engineer when she's older. What would you say to girls like her who are kind of interested? Maybe like you with an interest in engineering but didn't really know how to get into it. Or, just science in general - what would you say to them?

30:16 **Emma** - I'd tell them to just go for it. Don't be afraid of the fact that you're going to be there with all boys. I'm still the only girl in my year group - as you both were as well – and just, you're still absolutely going to smash it, there's no reason why you can't do as well as them, or even better. So, go for it.

30:34 **Rebecca** - Yeah, I'd absolutely say go for it. Actually, from what I’ve experienced, most females who end up in engineering [whispered] are usually the best engineers because they've made a conscious decision that they want to go into that subject and you usually find that they're in the top 10% of their year. And, to not rule anything out at this stage, to be curious, to ask questions and to take opportunities when you get the opportunity for, erm, work experience. To try and find something in the engineering field that perhaps you’d not even thought about and to challenge your own teachers. Emma's experience of teachers saying no - actually, well why can't I do this? Challenge your teachers. Don't be afraid to challenge your teachers. I know we don't normally advise talking back to your teachers [laughter], but actually, challenge your teachers and ask them for a reason why you couldn't do it, because [mm-hmm], because actually I think when they think about it, a lot of the prejudices come through from the teaching staff.

31:29 **Kirsty** – Yeah. Think about what things you enjoy doing and how they can translate into engineering because there's a wide, vast variety of types of engineering. And, if you pick one that is similar to something you enjoy, you’ll really love your career and you spend a lot of time there [laughter]. So, it's got to be something that you want to do.

31:49 **Tess** - I would agree with that. If your sister or any other young girl of that sort of age is interested in, or has shown an interest in engineering, then encourage them to seek more advice, and assistance from other engineers out there and see how big that world is, and all the different aspects of engineering that come under that heading of 'engineer'. Not just think about the ones that they might see on the TV or might think of when they first think of what an engineer looks like. Because engineers come from all different backgrounds, both genders, all kinds of social classes and create all sorts of different solutions to problems in industry and across business. So, if it's something they're interested in they will find somebody that will be able to show them the way that really interests them.

32:41 **Rebecca** - I think we're all in agreement - just go for it!

[Laughter]

32:46 **Host** - Well, thanks to all of you for your time, and thank you to everyone listening for tuning in. This was an FCO Services podcast.

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