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Witnesses: Chris Jones, Martin Hottass and Sue Husband

USE OF THE TRANSCRIPT

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Members present

Baroness Morgan of Huyton (Chairman)
 Lord Aberdare
 Earl of Courtown
 Lord Giddens
 Lord Haskel
 Lord Holmes of Richmond
 Lord Janvrin
 Lord Lucas
 Lord Macdonald of Tradeston
 Baroness O’Cathain

Examination of Witnesses

Chris Jones, Chief Executive Officer, City & Guilds, **Martin Hottass**, Manager, Skills & Siemens Professional Education, Siemens, and **Sue Husband**, Director, Apprenticeships and Delivery Service, Skills Funding Agency

The Chairman: Thank you very much indeed for joining us this morning. You are very welcome and we are looking forward to receiving your evidence.

There is a bit of housekeeping first. You have a list of interests that were declared orally by Committee members at previous sessions, and they can be found in the transcripts. This is a formal evidence-taking session of the Committee and a full note will be taken. This will be put on the public record in printed form and on the parliamentary website. You will be sent a copy of the transcript and you will be able to revise any minor errors. This session is on the record. It is webcast live and will subsequently be accessible via the parliamentary website. Just before 11 o’clock I will suspend the meeting so that we can observe the two minutes’ silence. After that we will resume the session. You are very welcome to submit written supplementary evidence after the session. Indeed, we may specifically ask you to do so on some issues. I am reminded to ask everybody here to speak up nice and clearly. That is by way of an introduction.

I am going to ask you to introduce yourselves. If you wish to make any opening remarks you are very welcome to do so. If you do not want to, similarly that is fine. As we go through the questions, do not feel that you all have to contribute to every question. Some will obviously be more relevant to one or more of you and we will be very flexible as we go through. Let us kick off.

Chris Jones: I am Christopher Jones. I am chief executive officer of the City & Guilds group. City & Guilds is a leading vocational awarding organisation, but also an organisation that works extensively with companies across some 80 countries, focused very much around workforce and skills development.

Martin Hottass: Good morning. My name is Martin Hottass. I am the general manager of Siemens Professional Education in the UK and Ireland. Part of my remit is entry-level talent at Siemens and I am here in that capacity.

Sue Husband: I am Sue Husband. I am the director of Apprenticeships and Delivery Service at the Skills Funding Agency. We fund training and further education in England. We support over 1,000 colleges, private providers and training organisations, along with employers, with more than £4 billion of public funding each year.

Q232 The Chairman: Thank you very much indeed. I will kick off with a pretty broad question. We have had a lot of evidence from a range of people that in the future all jobs will have a digital component and there will be some much more highly specialist jobs. There is an increased need for high-level technical specialists, which we know is not being met satisfactorily currently. How do you think apprenticeships and careers guidance can best meet the needs of a future workforce? What needs to change in order for us to go up a gear? To what extent do you think there needs to be greater post-16 specialisation?

Chris Jones: Clearly this is an interesting area and when we contextualise it we look at the scale of the problem. The European Commission estimates that by 2020 there will be a shortage of some 900,000 ICT professionals, but alongside that the UK Commission for Employment and Skills also highlighted that by 2020 there will be a shortfall of close to 2 million in terms of the replacement and growth required for professional occupations. Fundamentally, ICT or digital literacy is going to be critical to almost every job that we see.

One of the benefits that apprenticeships clearly have to offer this particular challenge is that it is a very flexible tool, unlike much of education, particularly if we look at GCSE, A-level or degrees. The ability to respond quickly to how technology is advancing within the workplace is limited to a large extent. Apprenticeships, and by their very nature the employer-driven agenda, should provide a far greater opportunity to be responsive to technology change, but also to how that technology is being used in the workplace. I think there is a great opportunity for apprenticeships to play a more important part in addressing the challenge of technical and digital-related skills.

In terms of careers advice and guidance, there might be an even bigger challenge. The more fundamental point for me is that we need to think more about careers education. We need to open up young people's minds to the breadth of jobs and careers that are available to them, but akin to that—I will come on to some research that we have undertaken recently—more emphasis needs to be placed on supporting the parents. Parents still play a fundamentally important role in supporting the decisions that their children make. The challenge for parents, and I see this with my two children, is that as they talk about jobs and careers that are going to depend increasingly on technology of any sort, I certainly am not best placed to be able to advise them.

We need to find a way to give parents more support, more confidence and more ideas as to where and how they direct their children to find information about careers. For me it is how we think about careers education in the broadest sense and that is clearly Government, employers, the education system itself, but increasingly and critically parents, too.

The Chairman: From your experience in City & Guilds, do you think that where people feel they have an understanding, certainly at school, do they understand how much all those jobs—say, in the construction industry—are becoming technically driven or demand a digital component?

Chris Jones: Not at all. If you talk about construction, probably to an average 14 year-old, in their mind they probably have a view that it is a building site, bricklaying or something like

that. They have no concept of CAD/CAM or highly complex engineering programmes, like the Olympics for instance, and the complexity of the construction project. That is well beyond their understanding or appreciation and that is a challenge. How can you get more kids to go to see those sorts of investments or those sorts of environments where careers, in the context of construction or elsewhere, can be much better understood? My daughter is training to be a vet. The use of technology as a veterinary surgeon is changing rapidly. She has limited visibility of that at this moment in time, but she is acutely aware that technology will be a more important part of her skill and trade than it probably is today.

The Chairman: I am going to go to Ms Husband next and then come back to the Siemens case study, which will be helpful.

Sue Husband: Starting with apprenticeships and building on Chris's point that they are employer-led now, I think the key way is to get employers to drive apprenticeships and the standards. It is easier for them to be more flexible and to adapt and individuals are obviously learning in the workplace, so they will always be learning using the latest technology. That is a key point that we will probably come back to. I think employers have a very big role to play in growing their own talent.

I should just touch on the National Careers Service, which sits under the Skills Funding Agency. We are there to provide impartial information and guidance to young people and adults, and that includes—and it is key to point these things out—provision of up-to-date labour market information that young people and parents can readily access through our website. We get that through a variety of sources: through the sectors and, importantly nowadays, through local enterprise partnerships and the Office for National Statistics. We liaise very closely with partner organisations and connect young people to other websites.

On the point about these roles changing so quickly, we realise that there is also a lot of other information, aside from the National Careers Service, on websites like Plotr, notgoingtouni and the Good Careers Guide. We are aware that it is not just the National Careers Service that can give that advice.

We have over 800 job profiles, which are being updated all the time. We work very closely with the sector to make sure that those job profiles are up to date. There is a wide range of IT-related careers, such as IT project manager, IT support technician and IT trainer. The National Careers Service also has a professionally trained workforce, and I think that is key in giving young people the right advice about where to look for more detailed information on the careers that they should be pursuing.

The Chairman: Can I push you a little, not on careers at the moment but back to apprenticeships? Are you confident that enough priority is being given to digital and IT career paths within apprenticeships?

Sue Husband: I would say that it is growing. The key area that is growing through is Trailblazers. That is where we are getting sectors, particularly industries, to come together and help to design the standards for apprenticeships. We have very keen involvement from the IT sector on that. I think that is where we will see the impact: the sector driving that change, with the Government supporting them to do that.

Baroness O'Cathain: You said that employers have to be really involved in this and there is a need to make sure that they realise that every job is going to have a technology thing in it, but who is going to teach the employers? The heads of these big businesses rely on myriad

people. If they do not understand it themselves, do they know that they are going in the right direction? It is a board responsibility to make sure that they do. Is there any suggestion that there should be one IT person at the top of the organisation dealing specifically with turnover of staff—not HR as such but training skills and talent? They do not have these board positions now. A number of people in the top 100 FTSE companies that I know—the chairmen—would not even know how to open a computer. They really would not. They have minions to do it and they will come unstuck.

The Chairman: Mr Hottass, we are not talking about Siemens.

Martin Hottass: My CEO can open his computer. He is probably a lot better than me at that. Maybe I can offer a different perspective, because it is obviously a very broad question. In our experience, we have been engaging in this field for a very long time as a German business. In Germany it is normal that you give something back to the local community that you work in, and that ethos is prevalent in any country in which Siemens operates. Our local business units will have engagement with schools.

I sit in talent acquisitions, so I am the kind of person you are describing. When we embarked on this journey more formally we realised that the ageing population will lead to a huge demographic change, because the supply of young people to the marketplace from 800,000 young people currently who are turning 18 will drop to 690,000 by 2020. Coupled with baby-boomer generations retiring, that gives you a big problem with regard to attracting the right level of talent.

When we started this journey it was purely driven by economics. We were saying, “We need to grow our business. We want to grow our business. Do we have the right skills?”. Surprise, surprise, they were not in the marketplace, so the only way you can do that then is to engage wholesale. We are running our own national training contract through the Skills Funding Agency and we currently have 500 apprentices in engineering.

We also realised, once we got relatively good at that, that the only way to have a sustainable supply chain is to make sure that kids at school learn the right things. We got engaged with STEMnet and STEM ambassadors and so on, and we engage from primary school onwards. At primary school our engagement is typically through parent governors. Most of our employees have children and ultimately it is a question of: forget about the company, just think about your social responsibility as a parent. Most of our parents are proud to work for us and they want to give something back to their local schools.

We have created free resources on the web that are available for anybody to make sure that there is inclusion and that we do not create a cast of people who can and a cast of people who cannot, which is obviously an issue. In early years education, this is about experiential learning. It is about kids seeing that building something can be fun. We get them to build a wind turbine. You put a hairdryer on it, and the house has a buzzer on it, and if it spins the buzzer goes off or something. It does not really matter. What matters is that they learn experientially and they see that engineering is exciting.

In our experience, the drop-off point is at the age of 10 when youngsters leave primary school and go into either middle school or high school, because the style of learning then changes to academically-driven content and the subject matter is taught in an abstract way. At that point we typically lose most girls. Also in the curriculum we have some unintended bias where examples are more geared towards young men, so we should use the example of

a failing hairdryer rather than a car breaking down. It is about accessibility and making sure that people understand that whatever skill you learn you can apply. We support the curriculum in England and in Scotland. Again, this is free of charge and it has the whole syllabus and the lesson plans from primary school to key stage 4. For us, as a business, that is very cost intensive but it is our contribution to combating youth unemployment.

At 16 you have some big decisions to make: either you stay in education or you go into an apprenticeship. The apprenticeship offering in the UK has improved considerably over the last 10 years. We support Trailblazers. In our view, the employer needs to own the content, the skills landscape. What employers are ill equipped to do, though, is to formulate it and maintain it. That is difficult and that cannot become our job because we are not equipped to do that.

The Chairman: Do you mean the structure of it?

Martin Hottass: Yes. If you asked everybody in the industry sector what good looks like, you would probably get the same answer and that should be the standard. How you translate that into a fair and consistent framework and maintain that framework should not be the employer's job. That is my view.

Q233 Lord Giddens: Can I ask Martin a question about the energy sector, because we have hardly discussed it in our group? It is such an important sector and it is obviously being penetrated by digital technology all the way through with smart grids and smart meters and in wind power to control intermittency, which I see you have worked on. Is there material that we should feed into our report that is relevant to the energy sector and preparation of people for working in energy industries? This is going to happen across the board, as far as I can see, to the traditional fossil fuel industries as well.

Martin Hottass: It is there already. We were talking about this outside. Siemens is in the smart grid market. We do not install meters or anything like that, but we measure the energy consumption of our customers. If you go back five years, there was an analogue process and you would get a bill that told you what you had consumed, but by the time you got the bill it was too late; you could not do anything about your consumption, it was just a factual statement. Now we measure energy consumption every minute because of the amount of—

Lord Giddens: There is going to be a huge demand for digital skills in the energy industries.

Martin Hottass: In any industry. The answer for me is exactly as Chris said: we will all need to be computer literate to a much higher level. It will be in any framework. It does not matter whether you are a baker, a bricklayer or a business administration person. It does not matter at all. There will be a huge growth in the number of people who need to be digital makers, the people who create content or new cyberware or whatever, but the use of IT across any industry sector will increase. We call this Industry 4.0, where factories are now completely digitalised, so you can run a whole assembly line using a computer program and you can try it all out before you put it in. Computers are so powerful now that you can simulate whole assembly lines before you invest. We worked with Jaguar Land Rover and BMW Oxford, just to give some examples, to do that. That means that people coming out of school will have to be a lot more IT savvy. Having said all that, my grandchildren are probably more IT savvy than me, and they are only nine, because they grew up in a life where you

have instantaneous access to information. When I was at school it was a book and that was it.

Lord Aberdare: I want to take up the point about maintaining apprentice frameworks. I have heard from a number of different employers, “Okay, we get involved in defining the framework, but how does it get maintained?”. Is that something that the apprenticeships service or the SFA is going to be responsible for? How will that happen?

Sue Husband: We have had that feedback, too, and we do see ourselves as a service. As we have gone through this new approach with Trailblazers, we have had the feedback from employers that they feel it is probably too onerous for them to take full responsibility for updating them. However, there has to be that employer involvement all the way through. It is for them to guide and advise on what the standards look like and how they change and are amended, but as a service we should support them in keeping those standards up to date.

The Chairman: When you say “we should support”, does that mean you are planning to support?

Sue Husband: One of the things that we are doing currently with the Skills Funding Agency—you will know that we have been through a reform programme recently—is looking at the structure and how we best support employer-led apprenticeships going forward. Over the last 24 months we have seen such a big change in the way apprenticeships are led by employers that we realise that we have to adapt as an agency to support that appropriately.

Q234 Lord Haskel: We have heard about what good employers, do but what about the bad employers? What about the employer who says, “Why should I bother having apprentices. I will just poach people as other firms train them.”?

Sue Husband: It is an interesting point. What we are finding from employers is that the more transferable skills they give people the more loyal those individuals are. Whenever I meet apprentices I ask them a few questions about why they chose an apprenticeship, where they got the information from and how they feel about the organisation they work for. Time after time young people tell me that they really appreciate the opportunity they have been given and that they feel extremely loyal to that organisation. I think those organisations that do not see growing their own talent as a future will find out in the long term that that is to their demise as opposed to the benefit of trying to poach from other employers, because those young people will not want to leave.

Q235 Lord Macdonald of Tradeston: You say in your biography that the role of the Skills Funding Agency is to deliver the Government’s skills priorities with a particular focus on English and maths, which is understandable, but should it be English, maths and digital skills? Is it not that important?

Sue Husband: That is a fair point and in our business plan this year, following on from our funding letter, we will include that. One of the things that all our employers are doing, especially through Trailblazers, is embedding ICT into their apprenticeships more and more. It has always been an ask of apprenticeships that ICT is considered. The really successful apprenticeships now have a blended learning approach whereby they expect their learners to use IT where appropriate for learning. But absolutely, I think it will be literacy, numeracy and IT literacy in the future.

The Chairman: Mr Jones, did you want to come in?

Chris Jones: Just on that point, obviously across functional skills we have English, maths and ICT, so there is already recognition that you have to have a core aspect of ICT as part of an apprenticeship framework.

I would like to come back to the number of apprenticeship starts. In the last year in ICT, less than 3% of the total number of apprenticeship starts were ICT apprenticeships. There is clearly a substantive amount of work that we have to do collectively to raise the profile and awareness that there are ICT apprenticeships. They range from not only those that are involved in programming but right the way through to what Google do now, which is social media. The diversity of apprenticeships is clearly one issue. There are many of them, but we do need to raise the profile. A question for us is: what sort of stimulus do we need to provide to ensure that more people recognise that those apprenticeship frameworks exist and that they lead to good, strong careers and, clearly, further educational progression?

The Chairman: Do you think we need to rename it? Do you think ICT sounds like the skills of a previous age?

Chris Jones: That just happens to be the way we capture that in the BIS returns. If we look at the detail, they are given slightly different descriptors in the programmes.

I think a broader point that we need to look at is how you connect the future industrial strategies that we as a country have to have. How do we look at that? How does that ladder back into the curriculum from primary through secondary into college or university? How does it blend into careers education? I am not clear. I have not seen enough evidence that when we develop our industrial strategies and talk to our important areas—energy is a good example—we see the connection and think about how we embed the skills pathways and build the pipeline so that the challenge of skill-shortage vacancies is reduced over time but deliberately so. That, for me, is a big gap.

We hear a lot about industrial strategy, but we do not understand the connection between that and the educational system and careers education and how those play a core part in successful delivery of the strategy.

The Chairman: Thank you very much. Mr Hottass, you will have to keep it short because otherwise we will not get through the questions.

Martin Hottass: Yes, sure. The Skills Funding Agency, in my understanding, obviously cannot be the guardian of how standards are developed or maintained. That is not your role. The Skills Funding Agency's role is to make sure that public funds are used in the most cost-effective way. The demise of the Sector Skills Councils has left a bit of a void in this area, so I think the jury is out there. A number of sectors, like the energy sector, have founded their own assessment service, which is employer-led and owned by employers. That could be a blueprint, but it could also lead to a lot of complexities.

The Chairman: I know we said we would move on, but I am going to let you because this is an area for you.

Chris Jones: I will just make a general statement. One of the challenges around Trailblazers is that, while it is great to see the degree to which we are seeing employer-led frameworks coming through, one of the consequences of a Trailblazer strategy is that across industries you have different Trailblazers adopting different approaches to how you deploy an apprenticeship framework. At one level, assessment and how assessment is managed in one sector could be fundamentally different from that of another. If we are looking at that in

terms of a transferable skill, technology, digital literacy, what does that then mean? We arguably will not have a standard that everyone recognises across industry, and that is a challenge that I do not think we as a sector have quite worked our way through yet.

The Chairman: That is very helpful, because we have the Ministers next week. That is a helpful pointer to us of an issue of concern that we have heard from other people as well.

Q236 Lord Holmes of Richmond: Good morning. We have been told that careers guidance in its current form is not fit for purpose. Do we need to rethink careers advice altogether?

Martin Hottass: Yes, I would say so. That is an unqualified yes. I think we should go to what Chris calls careers education, where you accompany a child during their development to bring them closer to the world of work, and that is a joint effort by the state, parents, and by employers. Ultimately, most kids have no idea what the world of work looks like, me included. I passed my A-levels and I had no idea what I wanted to do. I think that is mirrored now, and the changes in government policy where you can buy a system leads to very patchy provision and depends on what the school purchases. It also depends on what is on offer. This idea that the market regulates itself does not really work, in my view.

I would appreciate it if we had career guidance that started at primary school and was more about experiential learning and education, and as you progress through the different key stages it becomes more focused towards careers. The biggest problem for me has always been in this field; the careers adviser or the teacher is not equipped to tell a child what a job looks like because they have never worked in that industry. This is where industry comes in and plays their part.

Chris Jones: To expect a teacher in a school of 14 year-olds to give good, high-quality careers advice and guidance is probably the job from hell. It is not what I expect them to do, so that is one of the problems. More broadly, one of the issues that I have is that there does not appear to be any clear sense of accountability or consistency in careers advice and guidance today. There is also a huge amount of different choices. This week in Birmingham we have the Skills Show. We will have 100,000 young people coming to Birmingham to experience what is effectively a careers fair. They will have a chance to engage with people like Siemens and others, but there is no provision at that Skills Show for teachers to go and learn about industry or careers. We have the Big Bang. We have Careers Lab, which has been launched by National Grid and Business in the Community. These are all great initiatives, but there does not appear to be any point of connectivity between them to ensure that what we deliver is something that we can collectively measure. That is a challenge.

We need to try to find a way to build some degree of consistency into what is delivered. We all do a careers aptitude test. I will cite my daughter. She is training to be a vet. Her careers aptitude test said that she should be an undertaker or a taxidermist. There is a vague connection, but that did not help her to understand what choices she had to make or what she would need to do. That is one of the issues. What advice do you give a 14 year-old or an 11 year-old who has an interest in something, a job or a career, because of what they might see? How do we stimulate them to want to learn more, to understand more? What education will they need to pursue?

Connected to that is the challenge that when we start to introduce a choice at 14, a further choice at 16 and a further choice at 18, those choices will inevitably limit the career that you potentially will be able to take because you have not studied what you should have studied

at 16 or 18. Before you know it, that is a block and a barrier to the next progression route. I think that a system of having breaks at 14, 16 and 18 works against young people.

Baroness O’Cathain: In just one sentence, we have programmes to teach people how to teach, but is it included in the teaching colleges or in degrees and diplomas in teaching? Is careers advice one of the things? If it is not, surely we ought to think outside the box and ensure that there is some way in which there is going to be a big emphasis on taking people and training them as careers advisers and giving them a diploma or a degree or something, because it is so fundamentally important to every school person in this country.

Chris Jones: I do not disagree with that. I also would like to see a very clear programme, particularly for teachers and tutors who are very close to particular types of disciplines, with an absolute requirement for them to go back into industry for the most possible time that they can afford in the balance of everything else. Not enough spend time back in industry as a mandatory part of their own CPD.

The Chairman: Let us go on to Lord Aberdare, and then I will ask questions as well, but they carry on from this.

Q237 Lord Aberdare: My question is about how schools and industry can be supported to work together to inform career choices. What are the most effective practical mechanisms and things that they can do? Above all, what is the role of government, and therefore this Committee, in things that government can do to facilitate the process? If I can add one more phrase that I am sure we will come back to, SMEs need to be part of that as well.

Martin Hottass: For me as an employer this is a tricky subject, because a lot of the initiatives that Chris alluded to we support, but we probably get 50 to 60 requests a week to support yet another initiative. I think this is probably where the problem lies. In my view, employers play a vital role and we should host teachers or further education lecturers to have a week or maybe five days a year or whatever—it does not really matter—in industry so that they understand what young people or any employee who works in that industry does. That is a role that employers can play.

The other role that employers should play is, as I said, to engage with the local community and say, “This is where your career could be”. That just makes common sense, because ultimately we need people in order to execute our orders and it does not matter whether you are an SME or whether you are a big multinational, so that would be that.

The role of government in all this is to facilitate it. To the best of my knowledge, there is no careers guidance qualification in the syllabus for a teacher. You typically study the subject and then you go to teacher training for a year to do a postgraduate certificate in education, and that is it. As part of that, you get taught the didactics and the pedagogy of teaching but not how to give careers advice. That has always been a separate role and does not exist any more in schools.

The Chairman: It is often a PE teacher who had run out of steam on the playing field, I think, in my experience.

Martin Hottass: I could not possibly comment on that.

Sue Husband: If I may, I will go back to the National Careers Service, because I think it has been in place for the last couple of years. For the people who do use it, it is highly regarded.

The challenge is that there are not enough young people engaging with it, and that is something that we have very high on our radar now to address.

Educating teachers about careers advice is such a difficult, complex subject. Through the Careers Service young people can get access to trained careers advisers, and I suppose a key role for teachers is probably equipping young people, or inspiring them I should say, to know where to go and find out that information. I think the people best placed to educate young people about the careers out there today are employers. One of our roles is to facilitate those relationships between employers and schools and local enterprise partnerships. That is where we would see that we would operate.

One other point about teachers relates to the Education and Training Foundation. One of their roles is about looking at the skills that teachers will need in the future. I think we should look to them to address that issue.

Baroness O’Cathain: On careers advice?

Sue Husband: Yes. Finally, as the Minister is here next week, perhaps we should talk about how BIS is currently working with the Department for Education to look at us possibly opening up to having an all-age careers service, because we think that is one of the challenges. There are too many compartments.

The Chairman: Too bitty, yes. Okay, let us move on to delivery.

Q238 Baroness O’Cathain: What is the quality of further education provision? Does provision meet the needs of business? If not, how can this be changed?

The Chairman: Who would like to kick off on that?

Baroness O’Cathain: It is all part of the same thing.

Martin Hottass: I am happy to as an end user on this. Siemens has a national training grant, which means that we contract with the Skills Funding Agency directly. We are in receipt of an apprenticeship grant for every learner we put on our books. In return for that, we also become “Ofstedable”, if that is a word, and indeed have been inspected.

We only have engineering apprentices and we only contract with eight colleges in the UK, because the majority of colleges are not equipped to deal with what we need. Now, it is easy to go on to college bashing, but this is not the purpose. The purpose is to say that a college finds it very difficult to find a lecturer who is any good. If you have local industry thriving and you have a skill set that is rare, you can earn a lot more working in industry than you could working in a college. Subsequently, as our apprenticeships become more and more demanding, the lecturer also needs to be more and more skilled, and that is going to be a big problem.

In some areas where you have industrial heartlands, college provision by and large, and this is a generalisation, is adequate or good. In places like London, I only have one college that can deliver the electrical training that I need. I bus all my learners from Croydon to north London every day and that college can only attract lecturers to that extent because of its association with us and because we sponsor equipment and make it more attractive for a lecturer to work in it. Ultimately, I think government can help by improving the provision of lecturers’ pay and making it attractive to work in that sector. Most of our lecturers are in their fifties, so in 10 years’ time you will have none left.

Chris Jones: It is a very broad issue and it goes to the heart of the structure of the education system as much as anything else. To pick up Martin's point, if we look across broadly FE, although we can take this across education generally, the infrastructure of the educational institution, the demographics it pulls its student cohort from, the degree to which it has a high level of industry concentration around it or is it rural, the level of funding that it currently receives, and its overall broad sense of financial stability are all issues that are going to impact on the quality of provision. If you take Martin's point, the capital intensity for an FE college, if it wants to deliver engineering, is vast. Yes, employers have a responsibility to support that, but I do not expect an employer to have to cough up all the kit required for a college to deliver the learning. That inevitably is going to create real challenges.

My chairman, when visiting in another role he has, was told that within one particular borough of London there were 15 different schools that a child could choose to go to. Now, that is not different schools, that is different types of school, all for 11 through to 16. We had a UTC, a careers college, an FE college, a state secondary, a grammar school, a free school, an academy school, and a private school.

The Chairman: A faith school.

Chris Jones: A faith school. Now, how do you connect those? How can we be sure that the system is going to deliver something where ultimately the product is someone who has skills, knowledge, curiosity, a desire to learn and a desire to work? That is a problem. I applaud the fact that we are having career colleges now. It was a move by Lord Baker off the back of UTCs. It is engaging industry with colleges in a new and different way to think about education from 14 onwards, but it is another choice. I think that is one of the issues that we have to wrestle with collectively. It makes it hard for Martin to recognise whether someone coming from a careers college is going to be fundamentally better equipped to work in Siemens than someone who has come through an FE college or a university. The challenge for Sue and her agency is how we fund these organisations. What is that going to mean for us?

These are quite systemic and deep structural issues that I think will challenge not just digital skills but our ability to deliver for the skill gaps more broadly across industry. That is something that the Government have to wrestle with and industry has to wrestle with. I certainly do not have a solution to suggest, unfortunately, at this moment.

The Chairman: I have one supplementary question, probably to Mr Hottass. I am keeping an eye on the clock. I was interested in what you were talking about: having to bus people and all the rest of it. Take engineering and thinking about the capital that is needed, should we not have a lot more specialism in our colleges? In a sense, that is what you are talking about with UTCs and careers colleges. Why do we assume, therefore, that post-16 FE colleges should deliver everything from hairdressing to engineering in every place? To what extent do we need quite a radical rethink of our post-16 colleges? I am going to pause. I am going to come back to you for replies in a minute, because it is 10.59 am. Rather than have half a sentence, I will pause and we will stand while the bell rings.

Sitting suspended for two minutes' silence.

The Chairman: Do we have to shake up post-16, Mr Hottass?

Martin Hottass: While I obviously fully understand what you are saying—that we should not expect every college to deliver everything—and I would support that, I think that for a conurbation of the size of London, which is approaching 10 million people, to have only one college that can deliver that is probably inappropriate. Just to give you an example, we also contract in Scotland. The colleges there have basically “carved up” the market, so you have specialisms in specific colleges, which is more funding-efficient for them but also means that it is a lot more expensive for an employer, because there is no free marketplace for the provision of skills. The current Administration’s endeavours to give the ownership of skills to employers and make sure that there is a free marketplace where employers can procure what they need to procure at the best possible price, because it is obviously our money, makes it a difficult proposition.

I cannot give you the answer. What I do know is that we need to incentivise people to go into further education colleges in a different way because, the way I understand the pay scales, you can earn a lot more now as a secondary teacher than you can in further education, which ultimately means that you get the law of diminishing returns. You get people who may not have made it in industry or are not good enough then teaching, and since this is the biggest investment in our future this is probably not the best way forward.

Chris Jones: I am the governor of a college group through Oxfordshire down into the Thames Valley. We have a mixed economy. We are providing everything from 14 right the way through to higher education. As a governor, I am quite concerned. I think we are trying to do too much on too many different fronts and fundamentally, my more cynical side would suggest, we are simply an organisation chasing funding; we are not an organisation that is thinking deeply about what the provision that is the most necessary for industry to be successful is.

If we look at the area in which we operate—science, technology and engineering are key areas—we are beginning to think about how we increasingly refocus our institution into an organisation that can meet the demand that the Thames Valley up through to Oxfordshire requires. That is a problem. Over time, colleges have become very diverse, and that is a challenge because it is not clear what they are there to do. I personally think that the more we can begin to specialise post-16 the better, but it does need careful thought and consideration to ensure that doing that does not prevent a student then moving between the pathways. I think that flexible pathways where you can move between the institution and the type of learning are incredibly important.

Sue Husband: I would just say that it is a very challenging time for colleges at the moment, but on the other side we are seeing some great examples of best practice where colleges are working very well with the local employers and the local enterprise partnership and adapting. I think that is the key thing in these times. They have to adapt and deliver the most appropriate provision.

Q239 Lord Macdonald of Tradeston: In business it is often said that you need a good crisis to drive change through rather reactionary organisations. It looks as though you are heading for a crisis in further education with the further cuts that must be coming after the next election. Will that force economies of scale and a more radical approach to how they are run in future?

Chris Jones: I think so, yes, but the evidence is that the merger of two failing colleges does not create a successful college. The expectation that a good, successful college group should have to take on the burden of a failing college is not necessarily the answer either, I agree. Those are some of the structural challenges that we face, but I would say that across the education system per se there is probably too much poor provision, and we need to look at that and work out how we narrow that down so that we drive quality up.

The recent reports looking across university provision and the number of universities that were formerly colleges that became universities because they were able to show that the degree to which they deliver high-quality higher education leading into employability is remarkably low. That is one of the problems that we have. You have a system that has chased funding, sometimes for the right reason because they have had to survive, but consequently that has meant we have ended up with a very diluted system with no real sense of what good looks like generally.

Martin Hottass: To answer your question about economies of scale, I think you will find that more niche provision will probably be even harder to come by. When the first round of savings were announced and the Skills Funding Agency was forced to contract only directly with training providers that needed a fund of £1 million—I think that was the cut-off rate—that meant automatically that smaller niche providers in small niche industries could not contract any more and that went out of the window. I think that will continue to be the case. You will probably have, as Chris said, a more diluted—

The Chairman: You are suggesting that far from creating radical change and a shake-up, it will produce weaker, more generalist provision?

Martin Hottass: Yes.

Chris Jones: Our college group is multisite, multidiscipline, and if we look at that one would say that we should get economies of scale. Actually, it is even harder for the leadership team to deliver a consistent quality of provision with the scale. In effect, we are seeing diseconomies of scale because moving staff around, leveraging funding and leveraging student attendance is harder. The leadership team are doing a great job but are challenged. They are not used to running the complexity of the business that they now have. For college education in general, these people are running businesses that are increasingly more complex and we need to find a way to support them in that. They are not doing it with any sense of delivering a poor service. They are working incredibly hard to deliver the best possible service to the community and to the learner, but they are under intense pressure of diminishing resources in many respects.

Q240 Lord Haskel: This continues the discussion. You have told us about FE colleges and technical colleges. How is the infrastructure of skills delivery working across the whole of skills delivery? Should it change? You have told us about change in FE. What about other sectors of skills delivery?

Sue Husband: I think we know that skills delivery is constantly changing. You will have heard the announcement last week about Manchester. That is a key thing. It is changing. Local enterprise partnerships are having more and more say. Anything that can be done to champion the importance of skills and apprenticeships to drive economic growth is important and obviously welcomed by the agency.

One of the other things is the way we fund provision. It is growing with the providers, colleges and businesses that are delivering the skills that we want them to. One of the things that came out of FELTAG, the Further Education Learning Technology Action Group, was looking at the way we fund programmes that are delivered more and more online. I guess one of the things that we are doing as an agency is making sure that the funding is encouraging exactly the growth in the areas where we need it.

Chris Jones: I would come back to my comment about how we embed skills across the broader industrial strategy agenda. If we look at some of the major infrastructure programmes going on today, at what point do the infrastructure reviews begin to look at skills as being a critical part of the solution? What do we need to build into the system from day one to ensure that the infrastructure initiatives and the capabilities that we will require are at least in line with how education can best support that longer-term investment and return? That is an absolutely critical aspect of what government in any independent reviews of industrial strategies needs to lead to. Where do skills play their part, and how do we think about skills as a core ingredient and enabler to a successful delivery of that strategy? That is critical.

Lord Haskel: What about targeting skills? We know that we need more people in science and technology and engineering and we have far too many people doing hair and beauty. Is there any way in which it can be targeted so that we can try to get the balance right?

Chris Jones: I think there is an interesting challenge there. Do you stimulate the market, and are those incentives going to be as much for the learner as they are for any other participant in the system? Equally, are we at a point where we are saying, “These are the careers that we are only going to fund and if you want to do something different you will have to fund it yourself?”. Hair and beauty is an interesting one. Yes, we arguably say we have far too many hairdressers coming out of college. A lot of those go into the care sector, because the skills they acquire for hair and beauty and the aspect of customer care are what the care sector requires, because the care sector cannot recruit and fulfil its skill requirements. I think we have to be a little bit careful, and it comes back a bit to the core skills—whether they are technical, professional or transferable—that we want to embed, so that we at least give ourselves slightly more bets on the table, I suppose, that we will succeed in the long term.

You cannot deny that for a 2-million engineering replacement requirement or a demand for ICT, a stimulant—whether that is funding or otherwise—should clearly be one measure that we consider. Whether it is the right measure and should be used in extremis I do not know, so I think we have to be a little bit cautious.

The Chairman: When we talk about diminishing finances and you are clear, not so much from your City & Guilds experience but your experience as a governor, that FE colleges inevitably chase the money—

Chris Jones: As others do.

The Chairman: —is there not a case for saying that we have to direct the money to the skills and training that we need more of?

Martin Hottass: I think we should go back further. This starts at school. We are asking a child to make a decision about their future at the age of 12. Invariably, it is the parent who will make that decision. This obviously mirrors your point about educating parents more. For me, STEM is an enabler for any career and we should have STEM as the backbone of our

curriculum going through. You need maths in order to do ICT as well, so it is not as if they are divorced at all.

The other bit is a reputational issue, which we are starting to overcome, that apprenticeships were seen as a second-class career. Now that we have apprenticeships that go up to degree level, they offer a viable alternative. The replacement needs of businesses are typically not necessarily at graduate level. Of course, we always need graduates. Please do not get me wrong: we always need people with master's degrees and we need people with bachelor degrees, but the bulk of your workforce sits typically one space level below that.

These are the people who would come through a higher apprenticeship or people who leave school or college at 18 and decide that an academic career is not for them. If you can demonstrate that you can have as rewarding a career following that path as you would having a university career, then you are on to a winner. In our business, we have 28 managing directors of 28 business units. Fourteen of those are former apprentices. That is not something that we typically promote, but that is quite powerful because ultimately in industry it does not matter whether you have a degree from Cambridge or not; it depends on whether you can do the job or not.

The Chairman: Do you think that is culturally because you are a German company?

Martin Hottass: Probably, ironically not. I think it is probably because the UK as a society is much better at giving people opportunities. I am German by birth. I do have a degree, I have to say.

The Chairman: No, I am not criticising you personally. It is just that we are always told that the culture is more open to apprenticeships.

Martin Hottass: To apprenticeships, yes, but Germany is very much a rules-based society. The career trajectory of an apprentice in Germany is not as good as it is in the UK.

The Chairman: Right, that is interesting.

Q241 Lord Macdonald of Tradeston: This is obviously a very revolutionary time with all these disruptive technologies hitting people, and it creates a sense of chaos, which in some ways can be creative, but on the other hand people are very bewildered by it. I am sure that applies to politicians as much as school leavers. If we are looking for ways through that, either to make things more efficient or to give people more direction, how much weight should we give to apprenticeships? You now have 500,000 a year coming through, a third of whom are over 25, a third probably school leavers, a third 19 to 24. Given the support that it has attracted in recent times, should it become the main branding for this new thrust to try to incorporate these skills? Even looking at degrees for the over-25s, that is almost your degree as a qualification for getting a good apprenticeship at Siemens or whatever.

Martin Hottass: In my view, we should put apprenticeships on an equal footing, but they are not the panacea. You need a broad society and you need a broad skill set across the board. For me, the embedding of ICT and practical skills in apprenticeships is an obvious thing to do because it is about vocation. It is about being able to do something, but also increasingly in our degree courses we train the mechanical undergraduates of a well known north-eastern university in a town whose accent I speak with enhanced skills because they do not have a clue. They study mechanical engineering but they have only ever been exposed to theory, so

they cannot apply what they have learnt. A Rankine cycle, which is a steam cycle that you would use for a steam turbine, for an average student is not accessible any more.

Lord Macdonald of Tradeston: How could we refine and strengthen the present apprenticeship system with our recommendations to government? I cannot think of a Mr or Mrs Digital in government who is looking after all this. My memory goes back to e-envoys and cyber tsars and so on, but it looks as though this has again, through the chaos, spread across departments, which may or may not be a good thing. I think the instinct is to try to get a greater central importance and focus on this. Can you think of a way in which apprenticeships could be better directed from government and perhaps through a central ministry?

Sue Husband: I would say at the moment that apprenticeships are well directed. We know that we have cross-party support for apprenticeships. The great news is that they have built momentum over the last few years and they are here to stay, I hope. I would say that they already have ICT embedded in them. That will continue to grow. I think that the momentum is there with apprenticeships. They are well placed. I agree with Martin's point that apprenticeships should be seen as a viable option for young people to go to either university or an apprenticeship. Again, when I talk to apprentices, I always ask them whether it is a conscious choice or whether it is something that they slipped into. More and more I am hearing that individuals are making a very conscious choice to do an apprenticeship for several reasons, one of them being not having debt, but another one, interestingly, is that they see it as an opportunity to get into a business early on so that they know that they have a job and that they can grow with that employer.

Lord Macdonald of Tradeston: The Prime Minister says he is looking for 500,000 a year and maybe 2 million by the end of this Parliament. You are looking forward with your money, presumably, Sue. How many apprenticeships do you project for 2020? Will it be a million a year then?

Sue Husband: Most important is the quality, so that is what I would say first. We saw a slight drop-off last year. I think it was around 10,000 less, which is a small number in comparison to the overall delivery. The key thing for all of us is to drive the quality of apprenticeships. I do believe that they will grow, but that will take time. Through Trailblazers it has taken some time to get those settled in. All our Trailblazer pilots are starting with small numbers to make sure that what we are doing is right: right for the individual, right for the business. Yes, I see them continuing to grow, but first and foremost it is about the quality of the apprenticeships that we are delivering.

Q242 Lord Lucas: I would like to pick up on something that Karen Price of e-Skills said to us when she was here talking about how to get people who want to return to work or change careers into the apprenticeship and training system. She was saying that what she wanted was courses that are totally up to date and short so that someone can take them and know at the end of it that they have the talent and that it was worth training for and something that they could show an employer to show equally that it was worth the employer taking them on as a trainee. Now, are there such courses? If there are, where would you put them? Perhaps not in FE, but where would you go to find them?

Martin Hottass: This goes back to the European Union initiative, which has a strange name. It is called MOOCs: massive open online courses. This is in the budget for the next seven

years. I think that is probably an interesting project: try before you buy, in essence. The question with that is obviously how you make sure that the person you at the end take on is the person who sat the test. As with all these things, it is open to massive abuse. In the IT world, because it has moved so quickly, it is probably quite attractive to that industry sector.

The Chairman: In general are there enough short courses for returners? We have had quite a bit of evidence from employers in front of us saying that the present system does not deliver the skill set that they necessarily need and they would like to see more short courses that people could go to at various points in their career. Where in the system does that exist at the moment, or where could it exist?

Chris Jones: The model that was developed through the qualifications and credit framework was designed to support a flexible model. We would say that the reality is that the QCF has never delivered on its promise for a variety of reasons. I do think the fact that the agenda is increasingly about employer-led provision provides real scope for more high-quality short courses to be delivered. The question then becomes whether those short courses are going to be publicly funded or funded through some other form of provision. The 24-plus loans for apprenticeships were obviously not as successful as we would have wanted.

If we are looking at people who are looking to reskill or retrain, whether they are in work but looking to move industry or out of work looking to come back into employment, we do need to think a bit about the short-course provision that the employer is particularly going to be looking for. If it is technology, is it more about attitude and aptitude than being able to demonstrate that you have a strong capability to deliver engineering? That needs some fairly careful thought and consideration.

By and large, I think the notion of short courses is absolutely right. That sense of continuous learning, bite-sized learning or learning what you need when you need it is one that employers readily recognise, but that is not a model that a traditional college would find easy to deliver. A training provider might, but again there are challenges to their economic model as to how they would respond to the demand for that.

Martin Hottass: You virtually gave my answer. That is fantastic.

The Chairman: That is fine.

Martin Hottass: The point, though, is that it depends. That is the answer. If you want an accredited outcome, there is probably not enough provision because most government-funded provision has a minimum amount of guided learning hours in it. If you talk about technical training—giving somebody a specific skill to do a specific job—there is a market out there, but as Chris said that is very restrictive, and it becomes more expensive to deliver that course.

If you look at the railway industry, we are currently building a new national railway college to enable industry to train on a train that you can dismantle and mess up. At the moment, you train people on train maintenance when the train is in the depot. If you cannot get that train back out on time, you have a bunch of commuters stood somewhere and nobody picks them up. Subsequently, we have a skills provision that is not as good as it could be. We invest as an industry in this. We need more investment to allow people to learn more, but this should not be certified, in my view. This is a technical skill.

The Chairman: Lord Courtown, let us go on to qualifications.

Q243 Earl of Courtown: I was quite interested in what you were saying about major infrastructure projects and the digital skills required when entering into this and perhaps the lag time. We should be looking at what is required at an earlier stage in planning these projects. This leads on to looking at these qualification apprenticeship frameworks. We have digital skills galloping ahead and our education is trying to play catch-up all the time. Can we be confident that the qualifications and frameworks that we offer to our apprenticeships enable them to understand the content as well as to keep up with the change?

Just one other point. We mentioned digital skills generally earlier, and we talked about skills for example on a building site. As somebody who has employed people on construction sites, I think that a lot of these people out on the building site have the digital skills anyway, whether it is in loads and levels, a large plant or whatever. We have to make employers and apprentices realise that they have these skills anyway. It is just a question of developing this a bit further.

Sue Husband: Yes, we can be confident that apprenticeships will be fit for purpose. I think that through Trailblazers, having businesses design those standards means that they are fit for purpose because it is the employers who are designing them for employees in their workplace. The other beauty of that is that obviously in a workplace they will keep their technology up to date because they have to. There is a business need to do that. Young people, because they are in that workplace, will be benefiting from that day to day. Yes, I think we can be confident in that.

The Chairman: We have heard quite a lot in previous sessions about the qualification regime not being adequate at the moment.

Chris Jones: I think there is a difference between the qualification regimes. An apprenticeship is by its nature fundamentally different from that of an A-level or a GCSE. Clearly, one of its benefits is that it is increasingly employer-led, but that framework can be adapted and changed to reflect, relatively quickly, the changing needs of industry or a particular type of job role or job skill.

If we look at a GCSE or an A-level, and one might say even a degree, for an A-level or a GCSE the amount of lead time to develop the curriculum, the amount of lead time to put that curriculum into a school and to train the school to deliver to the curriculum and the degree to which that qualification will need to have regulatory approval means that you are then into a two-year delivery programme. Technology changes. Do you stop delivering the programme and adjust it for the new technology, or do you accept that you are going to complete a two-year educational programme and recognise that the technology has already moved on, so that cohort is qualified in the GCSE or A-level but technology has moved on?

That is why, in areas where we have high degrees of innovation, an apprenticeship model, whether intermediate or advanced, is absolutely right. The flexibility to meet the demand is far higher and I think it is a great opportunity for apprenticeships to take that lead.

Q244 The Chairman: You have talked about GCSEs and A-levels and you have talked about apprenticeships. You have not commented on the huge number of vocational qualifications that, for instance, a lot of FE colleges are turning people out with. You are saying that apprenticeships get a tick from your point of view. You have commented on the more academic end of the game, if you like. What about the stuff in the middle?

Chris Jones: There has been a high degree of reform already in the number of vocational qualifications available, but we also need to be clear about what we are looking to those qualifications to do. Many qualifications are vocational in their orientation, but one might say that they are still fundamentally part of an educational journey that may well lead you into higher education. They are not fundamentally focused on delivering an individual ready for the world of work. Then there are vocational qualifications that are not just simply about knowledge but about whether you can demonstrate that through the application of skill.

There are subtleties, and when we talk about NVQs or vocational qualifications we are talking about a very broad spread of qualifications, many of which are simply designed to enhance knowledge and understanding and a number of which are focused on whether you can apply that skill at the level required in order to go into work. There are differences there, and those that are designed to support a pathway into higher education are fantastic if that is what the learner is looking to do.

The Chairman: Do people understand those? Do employers understand the qualifications? Do the young people themselves understand? Everybody broadly knows what they think a GCSE is, but where do people understand the subtlety that you are describing in the other qualifications?

Chris Jones: Research that we have done would suggest that employers do not understand the degree to which there is variability across that qualification framework.

Martin Hottass: Yes, I would agree with that. Not many SMEs will employ somebody like me whose job it is to understand that. You could have an applicant with a diploma in engineering who could be from a UTC, and it could be the old engineering diploma that was 14 to 16 or 16 to 18, but now we have also renamed our national certificates and higher national certificates into diplomas and advanced diplomas, so you could have two completely different kettles of fish with the same name. Most people would just look at it and be completely confused.

Chris Jones: One of the challenges here—and I come back to the qualifications and credit framework—is the right idea. How do you design a framework to enable a learner of any age to be able to enter into learning and to try to map out the sort of learning they want to be able to have? It is a great principle, but one of the downsides of the qualifications and credit framework has been that in the last six years the number of awarding organisations has grown. Now there are probably close to about 145 awarding organisations. When I joined City & Guilds there were around about 101 awarding organisations, everything from large scale, GCSE, high stakes, to organisations like City & Guilds, right the way down to small niche providers. A lot of those have been able to enter a market, utilise the IP created by others and effectively offer a cheaper alternative, not always of the quality that is required.

We have created a marketplace to enable an explosion of qualifications, which has led to a degree of confusion. I think it has led to a degree of variability in quality, and that is another challenge that we have to work with. People will recognise BTEC. They will recognise OCR or AQA and, yes, because we have been around for 137 years they recognise City & Guilds. There are a variety of others and they will say, “I do not know who that is or what it is. It is an NVQ. Oh, okay, it must be all right”. That opens up a lot of variability.

Q245 Lord Janvrin: I want to come back to a theme that has been coming out constantly. It is the flexibility in the apprenticeship area because it is employer-led and this being

particularly useful in the rapidly changing, innovative, industrial world that we live in. How do we make sure that we engage employers in this process? In particular, talking about innovation, how do we engage the SME sector in the world of producing the apprenticeship framework and so on? What can government do in this area?

Sue Husband: Our role is to support SMEs to start with. We work with the Federation of Small Businesses and the British Chambers of Commerce to help facilitate that and help encourage their members to come in. We have seen some great examples of large businesses leading Trailblazers but encouraging SMEs to come in. For some SMEs, if they wanted to take part in a meeting to look at the standards, they might have to shut their business down for that day because there may only be one or two of them. Being very conscious of that, the big businesses have stepped up and offered support to enable SMEs to be involved.

We have an ambassadors network for apprentices, and that has helped because a key number of those are SMEs themselves. There are business people who can talk to other business people about their own experiences. We have found that one of the key triggers for a business to get involved in apprenticeships is to hear from another employer like them about the pros and cons and the challenges, thereby connecting up people who run SMEs with other businesses that have gone through that process. The National Apprenticeship Service offers a service to support businesses with advice and guidance and share case studies with them and so on.

Finally, there is a financial incentive. We have an incentive for small businesses in particular whereby we give them additional funding to take on board apprentices.

Lord Janvrin: Is there evidence that SMEs are getting more engaged?

Sue Husband: Yes, but I would say that there is more work to do. We definitely have more work to do because we know that is where we need to target now. There are so many big businesses on board. We need to crack the SMEs, but it takes time because it is a big decision for a business, especially a very small one, to take on just one apprentice, let alone a few.

Lord Janvrin: Are the financial incentives well known, do you think, or is that still work in progress?

Sue Husband: Again, like all things, you need to keep communicating. When you think that everybody knows what you are communicating, they probably have not even started to hear it. We need to keep communicating that and I think the ambassadors network will help us do that because it is a local thing for small businesses. The ambassadors are probably the key point for us.

Martin Hottass: It is a difficult subject. A lot of our local supply channels are SMEs and in our policy as a business we want our local supply chain to be first local and then as strong as possible. We extend our apprenticeship offering to our supply chain, and we have done this obviously with the blessing of the Skills Funding Agency and through a number of pilot programmes such as the Employer Ownership of Skills programme. That is a game changer, because an SME does not necessarily understand what best in class looks like, but if they do it with a known brand that helps.

I would say that the grant, which is £1,500 that you can access only once for the first time, is probably one of the best kept secrets. That is not the Skills Funding Agency's fault

necessarily. If you run an SME, you deal with everything, because until you get to the critical mass where you can employ somebody to become an expert in something else, you are the FD, you are the CEO, you are the HR person. The last thing on your mind is how to get £1,500 out of the Skills Funding Agency, which is not easy by the way.

Sue Husband: Yes, £1,500 is a lot of money for a small business, but that is not why they do it. I think that comes through time and time again when we talk to our ambassadors. The small businesses that take on apprentices do it for absolutely the right reason: because they believe it is the right thing for their business. I do not think that £1,500 would necessarily convince somebody who was not going to do it anyway for the right reasons.

Q246 Lord Aberdare: You have very much begun to tackle this question, which Lord Janvrin asked as a follow-up, which is: is it working? Let me drill that down a bit more. It seems to me that there are a lot of good things in place and it is working where there are big companies that can partner with small companies. I am not sure that we are getting to the sort of magnitude that we will need in SMEs employing apprentices. I am thinking particularly of certain sectors that are dominated by small firms like creative and media, for example, or hospitality. It seems to me that maybe some specific mechanisms are needed to tackle those, whether it is the ATAs, the GTAs, or those kinds of things. Are you focusing as well on some specific mechanisms so that we get the volume across the SME piece?

Sue Husband: I am very glad you picked up on the creative industries, because that is something that Minister Boles had asked us to look at very recently. I think there is some side work going on with particular industries where we know that they are predominantly run by SMEs. There are particular projects going on to look at specifics and the creative industries are one of those at the moment.

Chris Jones: SMEs make up about 54% of all apprenticeships, so they are doing a pretty good job. The real heavy lifting needs to come from the big companies. Siemens is a great example, but the failure here is arguably larger-sized multinationals engaging and supporting their industries and their sectors. I think that SMEs on their own are probably doing quite a bit of the heavy lifting.

Lord Lucas: I am frankly optimistic about FE colleges. I saw a very nice example in South Shields where the local FE college had teamed up with Ford Aerospace, which is a local SME, and had produced an apprenticeship scheme that was then shared with other local SMEs. That focused on the strengths that the FE college could bring to this in their breadth. Is this something that could be done more generally to support SMEs?

Chris Jones: I think it is happening. There are lots of examples where FE colleges are partnering incredibly well. Preston's College partners brilliantly with BAE. Martin will cite the colleges that partner there. The benefit typically seems to be when you have the blend of a college that is forward thinking and has a very clear employer engagement strategy and a large employer who can support the college in the delivery. It is not easy for another college in a more rural area to probably deliver what it might be that that college can do with Ford.

Lord Lucas: It is Ford Aerospace. It is a little company, an SME.

Martin Hottass: I happen to know this example very well because I am part of the skills group in the north-east. It came through the Engineering Employers' Federation. Where there are mechanisms to get employers together and engage there is a real appetite, and I see that across the country. It helps to have a lead employer, a strong brand name, for a

number of reasons. We typically train at a much higher level than the apprenticeship framework requires, simply because our business is more complex. That means that if you send your apprentice alongside mine, they get a much higher level of education. They also get a different experience because typically all my training is done in a bespoke class. That works in ATAS and GTAs as well, by the way. It is a horses for courses argument.

The ultimate thing is also that you attract better candidates, because the biggest problem for an SME is that they do not have a brand name. When you look at my stats on the National Apprenticeship Service website, we attract 6,000 applications a year for 150 to 160 jobs. That is difficult to get in, but when you then look at, let us say, a tier-2 supplier with 10 employees, they probably only get three or four. I think that is the area where we have some challenges. We are trying to work with the Skills Funding Agency and NAS to allow us to share data of candidates who have not been successful at Siemens, for whatever reason, with our supply chain, but that gives you data protection issues and obviously you are duty bound to not do it.

In a way that is a lost opportunity, because we write to every person who has made it through to interview but unfortunately has not been successful, and we say to them, "Would you give us permission to pass your CV on?". There could be a better brokerage service.

Q247 Lord Giddens: We are very concerned as a Committee about the huge gender divide that exists around digital technology and computer science in particular. Only a tiny proportion of girls take computer science to any sort of level, at A-level or university. What kinds of strategies should we be advocating to try to handle this issue, because it is obviously very deep-rooted? Chris, you mentioned parents right at the beginning. I presume parents will have a significant role in this, but it seems a very deeply embedded issue. Anything you have to offer through the educational system or whatever that would help the Committee with this would be very useful, I think.

Martin Hottass: We struggle with this as a corporation. We know that 54% of the population is female and we do not have anything like that figure in engineering. We try to get round the unconscious bias in case studies. For example, when you look at our apprenticeship literature or graduate literature, you have a lady wearing hi-vis and a hard hat. For a man, that looks like, "Yes, it is safe and this lady is very attractive. Fantastic". According to my partner, what it signals to a lady is, "Oh, I have to wear a hard hat all the time". This is obviously done with the best intentions, and when you are on site you have to wear a hard hat, which I think everybody accepts, but I think a much better way might be to show that even in engineering, if you work at a certain level in the organisation probably 80% of your time is spent doing something completely different.

We should showcase people in their place of work and show the variety of the career. When it comes to role models, as I said, rather than using a car as an example, which is clearly geared towards boys, we should maybe use something that is a lot more accessible for ladies and that makes it more attractive.

Sue Husband: I think Martin needs to come and meet some of the ladies I work with.

Martin Hottass: I have met some.

Sue Husband: I think it is about role models, in all seriousness, and as an agency we do that when we give awards to young people. I met some great ones the other day in the south-east awards, very strong young women who are going into schools. Their businesses are

using them and I think that is happening more and more now. Businesses see that there is half their talent pool that they are not accessing, to put it simply. They are using female role models to take into schools and speak to young girls and boys about the career that they are following. That is the big thing, but there are also things like programmes on TV. I watched the Crossrail documentary recently and there were some female engineers on there. It is interesting and it surprises people, so I think we just have to be conscious about where we use those role models and what opportunities we have as a nation to do more there.

Baroness O’Cathain: An awful lot more women are now going to take engineering courses. Among my chattering-class scene, my own goddaughter is in Girton in her third year of engineering. It is terrific. She is very enthusiastic about it and she is talking about the great opportunities that this course has given her. Particularly being a woman, she will shine, yes.

Sue Husband: Yes.

Lord Lucas: I was just fascinated by what Martin Hottass said about the gender signalling that is going on. I saw a wonderful example of it yesterday with someone giving a presentation about engineering in the food industry. It was only about the boys’ aspects and right at the end he said, “And we get to talk to some real people about how they use our product and feed that back into the engineering”. I am sure they are all the way through our education system, these little signals. How do we start to address that?

Martin Hottass: When we started our journey to create our education portal, which is, as I said, free for anybody, we stumbled across that by accident. This is fascinating. All our literature up to a certain point always reinforces that bias, but it is simply because of the author and their perception of reality. Once you get your head around that, then we have changed things. Our healthcare module, which is for primary schools, basically shows a skeleton. You can play around with it and it makes all kinds of funny noises and things, but it is completely gender neutral and it does not stereotype. I think you will find in most educational publications that there is an unconscious bias.

Chris Jones: I think it is interesting. We have a programme that we run called Apprentice Connect, where City & Guilds’ own apprentices go out into schools to talk about apprenticeships. They do that for 14 to 16 year-olds. In the last two schools they have been to, the teachers said when they have introduced it, “Okay, boys, now pay attention. This is for you”. It comes back again to this broader point: how do we ensure that the people who are most influential are not consistently reinforcing the dominant logic? That dominant logic, though, plays out across society in general. Why are most primary school teachers women? Why are most people who go into the care profession women?

When you sit and talk to those industries, they are looking for and desperately keen to get more gender balance. Role models and celebrating the success of individuals in industries that are seen either as predominantly male or predominantly women are part of what we have to do, but it comes back to careers education. Women/girls have to realise that engineering is not about boiler suits and oil. ICT is not about being geeky and late nights and eating pizza and beer, writing some code.

The Chairman: It is for some people.

Chris Jones: It is for some people, yes, that is true. There is a broad diversity and we need to be able to support them and understand why they can make a real contribution. The good thing is that if you take America, Facebook and Yahoo both have female chief executives or

chief operating officers. The chairman of Capgemini here in the UK is Christine Hodgson. We need more people who can be role models and inspirational.

Q248 Lord Haskel: This is about inclusion, about society. We have been told that the changes to technology will increase inequality, in no small part because of the lack of awareness of what is going on in the digital world. How can digital technology be used to reduce inequality?

Martin Hottass: The advantage of digital technology is obviously that it is relatively inexpensive. When you look at how schools are equipped with ICT equipment these days, even primary schools, if you use it responsibly I think you will give people more opportunities. It only becomes prohibitive if you make it a club and charge a fee. Obviously ours is free for that reason. The European community initiative I alluded to earlier with these massive open access courses is designed to do that. I think that could overcome barriers quite effectively.

Sue Husband: I would agree. I think it is an exciting time. It gives us the opportunity to make learning more accessible, more engaging and probably personalised, particularly for harder-to-reach audiences. We have seen that with online literacy and numeracy learning. For people who struggled in a classroom and could not face going into a library or somewhere like that to learn, doing it in the privacy of their own home has allowed them to learn at their own pace in their own way. I see it as a positive thing that can open up learning to more.

Chris Jones: May I offer a slightly contrary view? I worry that as we see businesses and government moving more towards using technology, there is a danger that those who cannot access it easily are going to be further marginalised. I was down in Cornwall quite recently visiting Ginsters, the pie people—very good it was, too—and they talked quite a lot about the challenges they face with the LEP and Cornwall College in supporting what is fundamentally quite a challenging environment. It is very rural. It is very hard to connect people, and surprisingly the access to technology is nowhere near where it needs to be. They were genuinely concerned that not only young people but people of all ages would find it harder to engage with society and with work because they could not access or be able to go somewhere to access technology. That was a real concern for them in that particular part of the world. Yes, it does provide a huge amount of benefits. Equally, I think it could have a negative impact. It could marginalise people even more than it has done to date.

Lord Haskel: Do you think we should be making a special effort to make people aware of this, or should we be making special efforts to try to overcome this?

Chris Jones: Absolutely. I live in a village in Oxfordshire. Some of our local community used to be able to access computers in a room associated with the church. That is no longer there because they could not fund it any more. The library has shut. The mobile library does not have any technology associated with it. People who used to go to the library to access a computer cannot do that any more and we cannot assume that they will be able to access technology through their iPhone or their iPad, because despite living in the Prime Minister's community we do not have a very good broadband service.

Lord Macdonald of Tradeston: Could the school not replace the library?

Chris Jones: I think that is a very interesting idea. Absolutely it could do.

Q249 The Chairman: I am going to move us on to the final question, which we are asking of all our witnesses who have been in front of us. We would like you to come up with one key suggestion. I know that is always difficult. We are going to make recommendations to government. We want you to focus, if you would, on what your top priority would be for change that we should recommend in order to improve UK competitiveness in the digital world. How would you make that happen and how can we afford it? Easy, really.

Sue Husband: You get what you pay for, in the sense that we would fund whatever the priorities are through local enterprise partnerships, seeing where the skills need is and putting the funding to address where the real need is, and so paying for what the economy needs.

The Chairman: Priorities?

Sue Husband: Yes.

Martin Hottass: I would welcome the opportunity to tailor learning more to how the learner wants to learn. That sounds like a woolly answer, so let me explain. I learnt through books, as I assume all of you did, and the blackboard. A young learner these days learns through the iPhone or through social media. If we can use those channels to disseminate knowledge and engender appetite, that would be inexpensive because it is obviously an open-access platform. It would also give people knowledge they do not have and obviously better knowledge of careers. That would be the bit that I would incentivise.

Chris Jones: I suppose I come at it from a slightly different perspective. There have been 61 Secretaries of State in the last 30 years responsible for skills. I would call for stability and I would call for greater independence of the skills policy from government.

The Chairman: Thank you. That is a very good statistic on which to finish. Thank you very much indeed. That was a very good session. Thank you.