House of Commons

Business, Energy and Industrial Strategy Committee

Oral evidence: Leaving the EU: implications for the aerospace industry, HC 380

Tuesday 21 November 2017

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Watch the meeting

Members present: Rachel Reeves (Chair); Vernon Coaker; Drew Hendry; Peter Kyle; Albert Owen; Antoinette Sandbach.

Questions 1 – 77

Witnesses

I: Simon Henley, President-Elect, Royal Aeronautical Society;
Katherine Bennett, Senior Vice-President, Airbus UK; and
Paul Everitt, Chief Executive, ADS Group.

Written evidence from witnesses:

- Royal Aeronautical Society;
- Airbus UK; and
- ADS Group.

Examination of Witnesses

Witnesses: Simon Henley, Katherine Bennett and Paul Everitt.

Q1 **Chair:** Thank you very much, all three of you, for coming to give evidence to our Select Committee today, on the impact of Brexit on the aerospace sector of our economy. Please introduce yourselves, and then we will start with some questions.

Katherine Bennett: Good morning. I am Katherine Bennett. I am Senior Vice-President at Airbus in the UK.

Paul Everitt: My name is Paul Everitt. I am the Chief Executive of ADS, which is the UK's national trade association for aerospace, defence, space and security.

Simon Henley: I am Simon Henley. I am the President-Elect of the Royal Aeronautical Society, which is the learned body for aeronautics and aerospace.

Chair: Thank you very much, and I appreciate your time this morning.

Q2 **Vernon Coaker:** Good morning, everyone. Thank you for coming. Just as a starter point, I wonder whether each of you could say something about investment decisions. What effect is the uncertainty at the moment having on investment decisions? Also, are there any concrete, specific examples that you could give the Committee on that, rather than just saying, "We are all worried about it"? Is there anything specific you can point to? For example, are sales being affected by Brexit, or indeed are there other factors that are affecting that, over and above Brexit?

Paul Everitt: The first thing to say is that we are fortunate in the aerospace sector that our global market is growing, and therefore our focus outside of Brexit is on ramping up production to meet quite challenging demand out in the wider marketplace. Most companies are looking very carefully at their capability and capacity. Anecdotally, all of the conversations we have had with people are that they are already making decisions that have a life beyond March 2019, so they are already having to take into account some factors. That is unquestionably making them look at where that additional capacity and capability should go. It is quite a challenging marketplace. A lot of countries around the world would like to have a bigger share of our aerospace industry.

You will appreciate that I do not intend to give you all of the evidence, but one specific I can give is that a number of businesses working on space projects, like the Galileo project, have to specifically indicate where they would locate their supply chains post March 2019 in order to bid for work. That is a particularly hard example of where UK businesses, which have done particularly well from those space programmes—and we have the largest space industry in Europe—are having to make decisions or give indications of where they are going to reallocate that work in the event that we leave the European Union in March 2019.

Katherine Bennett: I would say we are potentially fortunate that there have not been any major investment decisions made since the referendum vote. That is potentially fortunate. As Paul said, the space decisions are coming up, and that is an important one for us. For Airbus, several millions and billions have been spent in our Broughton site over the last 10 years. That was, as I said, before the referendum.

I know you have asked for specific examples, but as I said there are not any immediately in the pipeline. The most important thing is that our sites remain productive and competitive. This is the point we have endeavoured to make on the Brexit situation all along—that every single site in Airbus, whether it is in the EU or outside the EU, has to compete for every piece of investment. My role is to represent the UK and to ensure the productivity and competitiveness is in the right place for us to get that investment. I have to say that Brexit puts an extra burden on us.

Simon Henley: As a learned body, we have to be a little careful about not being industry aligned, clearly, because we need to be neutral. The example I have had is the same as Paul's, in that in Galileo in particular we have been very successful to date, but we have had companies now reporting to us that they are being excluded from bidding for contracts on Galileo. Although membership of the European Space Agency is not part of the EU discussions, because it is not an EU body, many of the contracts, including Galileo, are EU funded and it is a requirement that the companies who participate and get funding and bid for contracts are part of an EU country. We are already seeing contracts being turned away from UK industry because of the uncertainty.

Q3 **Vernon Coaker:** Thank you for that. Just to pick up from that, you are saying that specifically at the moment there is uncertainty affecting everyone. However, if we are looking specifically for a concrete example, it is the space industry that has been the first part of the industry reporting back. If I understood you, what you also said, Simon, was that already some of our companies have been excluded from bidding for contracts in space work as a result of that uncertainty. Is that right?

Simon Henley: That is certainly what has been reported, yes.

Katherine Bennett: For me, it is more mindset. As we are still in the EU, for Airbus our space business is an important part of Copernicus and Galileo. Our business in Guildford, Surrey Satellite, which is world renowned, is absolutely a key part of that. They are still part of the tendering process, but there is this mindset that maybe other member states are thinking that maybe UK business would not be able to be part of this going into the future.

Q4 **Vernon Coaker:** Are you all saying that, since the referendum and in particular around European projects and European supply chains, essentially British aerospace firms are finding it more difficult to bid in for that work?

Paul Everitt: Again, we need to look at the context. At the moment we have a long-cycle business, so we have products that have been designed, developed and are in the market, and there are not huge new projects that we are currently developing or bidding for. We are focused on increasing production to meet existing demand. Therefore, we are not faced with huge new investment decisions. We have seen some good and positive decisions for the UK, but they were taken prior to the referendum. At the moment—and excuse the pun—everyone is in a bit of a holding pattern because they are trying to sweat their assets for as long as possible before they commit to new investment, because they would like to have an understanding of what the world is going to look like, as they will be making investments with a 10- to 20-year lifespan.

Q5 **Vernon Coaker:** We will come back to the timescale in a minute, because that is a very interesting point. What is the size of the British space industry? People do not often talk about space, even when they talk about aerospace, if you understand me. What is the current size of the space aspect of it—the satellites and so on? It is a hugely significant part of the sector.

Paul Everitt: It is worth about £14 billion in the UK. We have about 40,000 direct employees, and we have experienced particularly fast growth in the sector because demand for satellites is increasing quite significantly, particularly with the shift from very large singular projects into the constellations that are linked to Galileo.

Q6 **Vernon Coaker:** Interesting. That is a huge area that is already potentially seeing a stress with respect to the future. Katherine, what is the commitment of Airbus to the UK at the present time? We know the multinational nature of Airbus, and all of the various sites it has both in the UK and across the EU. Has it got contingency plans to reduce British participation in its supply chains and the influence of British executives at the top of Airbus? What can you tell us about that?

Katherine Bennett: We had a former CEO who used to say that Airbus is the part of Europe that works. We are a very much integrated company, and the smooth movement of people, goods and services is really important for us, across Europe and around the rest of the world. As I said, on the referendum campaign we said very publicly we were not in favour of it, mainly, as I said earlier, because of the investment decisions and the potential risks for that.

However, no—Airbus is extremely committed to our sites. We have hugely capable organisations, not only the space and satellite business but our helicopter business, which is really developing in the UK, and our huge civil aerospace business. It is not terribly easy to move a huge manufacturing site. I know you have been there, Vernon; it is an amazing facility up in north Wales with 7,000 employees and a knock-on effect on the supply chain.

Therefore, no—the most important thing for me, and I was discussing this with our CEO yesterday, is future investments. We need to ensure that the UK puts a good foot forward and our sites remain competitive. The investment that has already been put in, for example on our single aisle—the smaller aircraft line—is much more innovative. We are now ramping up the number of aircraft wings we are producing there, potentially up to 60 a month in the next few years. There is a big pressure, and a lot of that pressure is on the supply chain, which Paul represents.

Q7 **Vernon Coaker:** Just so we are clear, Airbus has no contingency plans for reducing the supply chain in the UK?

Katherine Bennett: There are no plans at present, because all our supply chain commitments are very firm. It is really important that the UK supply chain remains competitive, has the best leadership, runs the best businesses and has the best skills. However, that is the same across the piece for any suppliers that we use.

Q8 **Antoinette Sandbach:** Do you use just-in-time processes for your manufacturing and, if you do, what would be the impact of customs delays on production and your competitiveness?

Katherine Bennett: The big issue for us on customs is what we call the non-tariff barriers. It is a bit like the movement of parts across the Channel, and we move a huge number every single day. We have this amazing aircraft in Broughton that flies our wings. It is called the Beluga aircraft. It is called that because the front of the aircraft opens up and the wings go in. It is really important that that has a two-hour turnaround. We have several of those movements a day, so we really do not need any customs paperwork or bureaucracy getting in the way.

As we said in our evidence, civil aircraft are not going to be impacted by tariff barriers because of the WTO agreement, but it is the non-tariff barriers: the potential bureaucracy, the customs burdens and ensuring we get the paperwork right. Now, we are a company that is quite large. We have people who can manage these things. We are more worried about the impact on the supply chain.

Chair: We are going to come back to questions on customs with Peter Kyle shortly.

Q9 **Vernon Coaker:** Paul, you were quoted in a recent ADS press release titled "Aircraft production beats Brexit blues to hit Q3 record". You gave a very upbeat assessment. Is that not evidence that in fact industry has not been impacted by Brexit: the future is bright, the future is rosy, and we need to get on with it and capture other markets and so on?

Paul Everitt: Global demand for aircraft is buoyant and growing. That demand, by and large, is in South East Asia and other parts other than Europe and the UK. We are fortunate in that we are able to exploit that, but we in the UK are a supplier of equipment to global aerospace companies, the largest being Airbus. We are dependent on them being able to sell competitively their products in global markets.

Yes: at the moment, from a demand perspective, the world looks good. Inevitably, as demand increases there is a challenge around competitiveness, so all the supply chains in the UK will be having to work very hard to ensure that their costs, far from rising, are reducing, because that is the market we operate in. Our market conditions are good, but we face very significant concerns and distress around what our future trading relationship is going to be with the EU, because a third of our experts from a UK perspective are heading into mainland Europe.

Simon Henley: I have been a supplier to Airbus programmes in three separate entities, and it is an incredibly competitive environment. The supplier is very definitely chosen on the basis of the best person, which includes a very competitive price negotiation. The concern I have is that I have been in a number of companies where, in order to sustain the supply to Airbus at the required rates, you need to use airfreight. If those companies are late, instead of sea-freighting your parts from wherever you have had them built—because it is usually a global supply base, even under the UK companies—you end up airfreighting stuff. All of a sudden your costs go up. You either have to absorb that or, if it becomes a matter of delays or costs coming up, try to pass it on in price terms, and that makes you uncompetitive. This is all about enabling the UK supply base to maintain their competitive efficiency, which they are very good at, and to operate in the lowest cost environment and the fastest environment, because speed is everything.

Q10 **Vernon Coaker:** People will pick up on that and what Paul has said and say, "Obviously there is uncertainty around Europe, but we will be able to come to all sorts of deals with everybody else, and it opens up fresh and new opportunities for us." As a Committee, we need to explore that, because it is an interesting point and a direct quote.

Paul Everitt: It is quite a fine line, I would say. I am also keen to ensure we are presenting the best possible face to key international investors. Significant investment from the US and other parts of Europe—in fact the rest of the world—is vital to sustain our competitiveness.

Q11 **Vernon Coaker:** Essentially, it is not either/or.

Paul Everitt: No. Headlines are important, and if we had not used a catchy headline I am sure the newspapers would have completely ignored it.

Vernon Coaker: You certainly had a headline.

Paul Everitt: I do not regret the choice of words, but the underlying stresses are there and it is about how competitive we are for the long term.

Q12 **Vernon Coaker:** Thank you for that. Just going back to other aspects, both GAMA and Boeing, in their evidence to us, said that certainty was needed by the very latest at the end of March 2018. Is that your view? If that does not happen, contingency plans, decisions and changes will be made and all of those things. What are your views on the timeline we are operating to? When do we need to make a decision? When do things need to be decided by?

Paul Everitt: From an ADS point of view, we have made very clear to Government that we and our members would like to have as much certainty as early as possible. Ideally, this is around an implementation or transition period.

Q13 **Vernon Coaker:** Can you tell me a bit more about that, Paul? By early 2018, what does ADS say the Government—?

Paul Everitt: No, no. There are a number of stages in this process unfortunately, but certainly we are looking for some kind of formal recognition from the UK and the EU that we are going to have an implementation phase, however it is determined. Ideally, we would like that before the end of this year.

Q14 **Vernon Coaker:** You would like that before the end of 2017.

Paul Everitt: We would like that before the end of 2017, and certainly as early in 2018 as is possible, because people do have to make decisions around their businesses and ensure that they have continuity. Again, some of the penalties that Rolls-Royce and/or Airbus might impose on late suppliers mean that they cannot afford to wait until they might know what the outcome is. In the absence of an implementation phase, the only thing that is certain at the moment is the most extreme, which is that we leave without any kind of deal, which is clearly not—

Q15 **Vernon Coaker:** That is a nonsense, is it? Is it desperately bad news if there is no deal?

Paul Everitt: No deal would be the worst possible outcome, from an industry point of view. We believe that would be chaotic and unhelpful for this particular sector and a range of others. For us, that implementation phase is really important but, as the Chancellor has rightly said, it is a depreciating asset. The sooner you have confirmation, there is a level of comfort that companies can draw that says, "We will understand what that final agreement looks like, and therefore we will have more time." We are, as an organisation, looking at what we can sensibly advise companies to do, because again it is not in the UK industry's interest to encourage people to take extreme measures or kick off contingencies that may have a damaging long-term impact on the UK supply chain. We are looking at what sensible measures can be made, but at the moment we are operating in an environment where the Government and the Prime Minister have rightly said they want an implementation, and we are waiting to see whether or not they can arrive at a sensible conclusion with the EU 27.

Katherine Bennett: Absolutely, uncertainty is not great at all. We need some firm decisions as soon as possible. We wish the negotiators well; obviously that is a very political comment.

Q16 **Vernon Coaker:** What does "as soon as possible" mean?

Katherine Bennett: As I said earlier, we are lucky that there have been no investment decisions in the near term, but there may be things coming in the near future, and this uncertainty breeds uncertainty. We try to put our best foot forward for making the UK a good place to invest, and that continues to be the case, because we have great people working for our company, but as soon as possible would be better. The status quo works for us but, as I say, we will manage. We are a business big enough to manage.

Q17 **Vernon Coaker:** Paul mentioned "as soon as possible". What is the end point then? You would like it tomorrow, but when does it have to be by?

Paul Everitt: As I mentioned, aircraft or engine manufacture is a long-cycle business. To a certain extent, you cannot chop and change your supply chain in a relatively short period of time, because there is a whole raft of regulatory activities that can constrain that.

There are other activities, so most notably things that we do in terms of the repair and overhaul of aircraft where we might be supplying replacement parts, which are much more shorter term. Companies involved in those aspects will be looking very carefully at where they are, say, warehousing their spare parts and thinking, "If it looks like we are going to face additional costs to shift things out of the UK, we may be better to establish a mainland European base." If there are concerns about the regulatory regime in the UK, they may decide to relocate some specific activities to an alternative European base. There are things that people will move and can move on a shorter time period, and there are things that are more difficult and on a longer time period.

Simon Henley: I suspect we are going to deal with regulation later on, but there is a timeline there where there is a date. The regulatory regime does not just affect our relationship with our European partners. As all our relationship with the American regulatory regime is through EASA, there is also a significant impact there. There are 170 repair stations in the UK licensed by the FAA to supply American aerospace. All of that licensing is done through the equivalence of EASA.

I have spoken with the FAA, and their view is unless they know by January next year—January 2018—which way we are going to go in terms of the regulatory regime, they will start the work to assume we are not going to be a member of EASA, and therefore they will start the recertification work, because they cannot afford the interruption to their own aerospace. That will put cost on them, so it will significantly sour our relationship with the US, but it will also put cost on our own suppliers, who will have to go through recertification, which is currently done through EASA on behalf of the FAA.

Chair: We will come back to some of those issues, but thank you very much.

Q18 **Albert Owen:** Good morning. How would you assess your level and quality of engagement with the Government over Brexit, and has it changed since the EU referendum?

Katherine Bennett: From an Airbus perspective, we talk regularly to the Government—several times a week. We have had detailed meetings, going through to the nth degree every single part of the key issues we have laid out on Brexit. This is not just with one department; this has been with several government departments, as well as the Welsh Assembly and the Scottish Parliament, to ensure that they understand our issues.

As you know, Airbus has other member states that are really important for us, and we feel that those countries can also play a part in working with the British Government and ensuring Airbus' needs are well understood, which I am encouraging.

Q19 **Albert Owen:** On that point, as you raised it—I was going to in a supplementary—you identified four home countries: Spain, France, Germany and the UK. Are your counterparts lobbying their Governments for a good deal as well?

Katherine Bennett: We have undertaken a lot of analysis. It goes back to Vernon's question about contingency. We have a big working group within Airbus that was set up straight after the referendum, looking at all these details, with representatives from across the departments, across our company, not just UK people. This is global departments. Yes, I speak to my counterparts in Paris, Brussels, Madrid and Berlin regularly. They are peer colleagues of mine, and Brexit is the number one thing often when I see them, unfortunately. I would rather talk about something else, because the sky is not falling on our heads just yet. However, obviously the other member states are working through the European Commission on direct negotiations on Brexit. It is not exactly something we are lobbying hard on; we are just making sure they understand our issues.

Q20 **Albert Owen:** That is great. Simon and Paul?

Simon Henley: From our point of view, we have been very active in contributing to the various inquiries and investigations. We have felt that we have had good engagement with members on both sides of the House. We have held a Brexit conference for our members, which was supported by some of the parliamentarians. We feel our engagement has been good, and we are very definitely in the field of offering advice on behalf of our 24,000 members, as opposed to trying to drive policy or change.

Paul Everitt: I am, obviously, interested in driving policy or change. Post the referendum, our goal was to lay out what a good deal looked like, and from an industry point of view we are very confident that we have been able to communicate that effectively to both Ministers and officials in all of the key departments. For us that would be the Department for Business, the Department for Transport, obviously the Department for Exiting the EU, as well as the Home Office, MoD and one or two others as well. Our sense is that for aerospace and aviation, there is a good level of understanding and appreciation, and indeed I would say sympathy, for the kinds of things we believe are necessary to ensure we have a successful industry.

The area that for us is the biggest concern is less about our own issues and more about how our issues fit with the broader discussions and policy developments, both in the UK and then with our EU colleagues. Like Katherine, we have spent quite a lot of time visiting industrial colleagues and sister organisations around Europe to brief them. To echo Katherine, the general view is that they are currently aligned to the EU 27 timetable, so they have not wanted to have a great deal of discussion around the future trading relationship. They have listened politely to what we have to say, and as I say I feel reasonably confident that they are in the same place, in that they can see it is a sensible set of objectives. We have spoken quite a lot with the regulators, both European and US, and again I think they feel very comfortable about what we are trying to achieve.

The biggest challenge for us is that in a traditional trade agreement you can have chapters, so aerospace and aviation would be a relatively easy chapter to do. However, the negotiation the UK Government and the EU 27 are embarked upon is everything. For us, the challenges are how well does what we want match some of the other things that Government are seeking.

Q21 **Albert Owen:** Just on that, you have said there is a great deal of sympathy from Government, and Katherine said they are listening to your concerns. Do you have any indication that they are committed to some of the things you have raised with them as part of the negotiations. Ministers tell us that they do understand your concerns, so they understand them; are they acting on them, and have you any evidence of that, or are we just having conferences and chats?

Paul Everitt: If you look at some of the partnership papers that have been set out, we can clearly see approaches that we have articulated reflected in there. On the piece around regulation, the partnership paper talked about arbitration-type committee structures, which are ones we have suggested to address our desire to remain within the European Aviation Safety Agency and the challenge of European Court of Justice direct or indirect rule. We can see, similarly in the paper on R and D, a very clear statement that the Government are prepared to pay to play in key European R and D programmes. Again, we were very keen on that.

We can see, if you like, the headlines work in reflecting the issues we have been putting forward, but the reality is that it is how all these things mesh together in formal negotiations.

Q22 **Albert Owen:** Simon, is that your experience?

Simon Henley: Very much so. Very similarly, we can see the work we have put forward being reflected in policy papers and stuff that comes out. However, the big concern is that there is a huge amount of detail that underlies those top positions, and at some stage—and time is running fast—we need to get to that next level of detail that means we are understanding that a number of these decisions have very far-reaching repercussions right the way down the supply chain.

Q23 **Albert Owen:** Katherine, again, asking you the same question: is it your experience that you are influencing some of these negotiations? Secondly, you, Paul and others have mentioned that you deal with different departments. Is there a marked difference between those departments and the response you are getting from them?

Katherine Bennett: A lot of the meetings we have are with several departments at the same time, for example on the regulation side. If it is particularly to do with the Department for Transport, we usually do have someone from the BEIS Department there as well, which is the way that the Government work. The aerospace team in BEIS knows our issues inside out. Some departments do not have such close knowledge, and it is probably our role to ensure that they do.

Q24 **Albert Owen:** That is fine. I just want to move on to what I call transition and the Government call the implementation period. In the Florence speech, the Prime Minister referred to a possible two-year implementation period. Do you see that proposal as satisfactory for the aerospace industry?

Paul Everitt: We were very pleased to see a commitment to an implementation or a transition phase. Similarly, the idea that it was going to be on status quo terms for us was also reassuring. Obviously, the challenge is reaching agreement with our European partners. We are very keen that there is only a one-step transition or implementation—that is to say, from our current conditions to the future ones, and having a clear period for us to implement that.

Two years is a good start. Two years is certainly better than none. Whether that is sufficient will depend on what the final deal looks like. For us, status quo means retaining our membership of the EU during that period, and that is important for our sectors, because much of our regulatory framework is shaped by our membership of the EU. Once we cease to be a member of the EU—

Q25 **Albert Owen:** The Prime Minister is not saying that. She is saying that we are going to leave the EU and leave the customs union.

Paul Everitt: Yes, so that is why I am putting a maker down here, which is—

Albert Owen: Good. You are one step ahead. I was going to ask you that.

Paul Everitt: The reason why we wished to and think the best outcome is to stay an EU member state during the transition is because we have a whole series of bilateral agreements that would have to be negotiated and in place at the moment we cease to be an EU member state. As it is laid out currently, that would be at the end of March 2019.

Q26 **Albert Owen:** Is that shared by the others on the panel regarding remaining in the EU?

Katherine Bennett: Yes. The single market operates well for us at the moment. We do not want to suddenly fall of a cliff edge.

Q27 **Antoinette Sandbach:** The hard date in the EU (Withdrawal) Bill would not be a good thing, from your point of view. You can plan for it.

Paul Everitt: It means there is a whole series of activities that need to be done by the time that happens, which means that we will not have a one-step implementation; it will be two-step, which means whatever arrangements we can make by the end of March 2019, and then whatever comes next. While this is technically quite challenging, it is not difficult work, if you know what I mean.

As an example, when we cease to be an EU member state we are not part of EASA. Unless we know what our relationship is going to be, that is quite problematic. However, at the point we become effectively a third country, we need to have a bilateral agreement with the US, with Canada and a number of other countries in order to continue our business. That means work that should be happening now, if that is a hard date. For us, it opens up two sets of uncertainties: uncertainty as to what might happen or what might be ready by the end of March 2019, and then whatever arrangements we may have in place for the longer term relationship.

Q28 **Albert Owen:** Is two years long enough for you?

Simon Henley: Is two years long enough? There are a number of instances where history would suggest that two years is a very ambitious target in which to make some of the changes. I come back to the regulatory environment. In getting to the European agency we have today, we went from what was the Civil Aviation Authority through an interim phase called joint airworthiness regulations. That took five years, and even then EASA had a fairly rocky start. It was seven or eight years. That was with all the expertise being pooled from existing bodies. There is no indication, and if anything there are negative indications, that all our expertise that is currently UK expertise vested in EASA would want to come back. Professionally, it does not make sense. If you are working in a global body, there is very little attraction professionally to come back to a body that has smaller scope. We would almost have to start again, and those resources are really not there, and I think the CAA would feel very nervous if they were asked to stand up, even in two and half years if you start now. That is a very ambitious target for rebuilding the capability to do those sorts of things.

Q29 **Albert Owen:** To summarise the answers you have given me and Vernon on this, you are talking about wanting to know what is really happening by early next year and a commitment to a transitional period of at least two years. During that period, you want to remain part of the EU single market and customs union. Is that summarising it accurately for you?

Paul Everitt: That is correct, yes.

Albert Owen: Thank you. I will leave it at that.

Q30 **Peter Kyle:** Katherine, you mentioned in one of your earlier answers the WTO agreement on trade for civil aircraft, and that presumably will enable tariff-free trade between the EU and the UK after Brexit. Are there any loopholes to this? Are there any worries about what falling back to this agreement would mean for the relationship with the EU and EU suppliers?

Katherine Bennett: It is a good arrangement that works well. There are some other parts of it that we are not quite sure about, such as whether all the space parts that have to be moved are covered by it, and we are going through that process at the moment. However, as I said earlier, Peter, it is also the non-tariff barriers. It is the customs and the management of that. There is an issue we put in our evidence about inward processing relief needing to be absorbed into UK domestic law, but it is mainly the impact on the supply chain we are concerned about.

Paul Everitt: There are tariffs on mostly raw materials that we might be using and, because they are normally brought in to be re-exported, within the European Union Customs Code there is an inward processing relief mechanism for managing that. We would need to see that translated into a UK customs code in order to facilitate it. The tariffs are less of a challenge for us but, as Katherine has said, it is really those non-tariff barriers. In our evidence, we have done some work based on research from about six studies undertaken by the OECD on costs and benefits of what they call trade facilitation. This is about the burden of administration, paperwork and the evidence you need to show, and the delays that potentially flow from ensuring you can comply with a whole series of new rules.

Q31 **Peter Kyle:** Is this the £1.5 billion figure you came up with?

Paul Everitt: Up to £1.5 billion, yes.

Q32 **Peter Kyle:** Could you give us a bit more detail about where that £1.5 billion figure came from?

Paul Everitt: It is drawn from work done by the OECD back in 2009, which looks at what they call the cost and benefits of trade facilitation. One of the reasons you have trade agreements is to remove or minimise the kind of friction that happens at borders. It is about the information you need to provide, the data you need to provide, the notice you need to provide it in, as well as any delays that might flow from the fact that you would have to plan slightly longer time periods. For many of our businesses who will be supplying Airbus, Rolls-Royce or other major players, on time is really important, because even if you are one component short you do not have an aircraft, so therefore everything needs to be where it needs to be on time.

Peter Kyle: As a passenger, that is quite a relief.

Paul Everitt: If a border transition is an hour currently and is going to be two hours or three hours, you have to work through what that means in terms of how much buffer stock you need to hold yourself, how much you might need to hold at your customer and what kind of warehousing capacity you need, all of which adds cost to doing business.

Q33 **Peter Kyle:** I do not know if you heard, but last week we took testimony from the automotive industry, and Honda said that a 15-minute delay at customs would aggregate to an £850 million cost to their supply chain or their ability to produce. Is this reciprocal? Do you have an estimate as to how much these sorts of delays would burden the EU side?

Paul Everitt: It will be of a similar order. I do not think it will be significantly different. One of the challenges, and the debate normally, is that Europe is an important market for the UK but similarly the UK is an important market for Europe. What that tends to ignore is individual countries' relationships, when they are amassed, are very significant, but on an individual country-by-country basis, they are not. One of the pieces of work we looked at in terms of looking at the cost of these regulatory barriers was a piece of work done in Sweden, which used some of the OECD work. The Swedish analysis was that 1.5% of their exports go to the UK and about 1.5% of UK exports go to Sweden. It is an important issue for them, but it is not necessarily the most pressing they are ever likely to face.

The challenge is that for us it is a third of our output going into mainland Europe, and because there are only limited ways we can get that, that is all our burden. Coming the other way, it will be a more dispersed cost and, therefore, not necessarily aggregating to the highest priority for the EU 27.

Katherine Bennett: For Airbus, every single thing we export goes into the EU—every single thing. We do not export anywhere else, so these non-tariff barriers are a really big burden for us.

You asked about cost and the OECD figures. The other thing that will cost us is IT systems that have to be revamped, and our IT people are looking at that at the moment. As you will understand, these things take a while to change and can be costly. It is yet another burden going on my shoulders when I am putting a good case on the table for the UK, if you see what I mean.

Q34 **Peter Kyle:** I do, and I have huge sympathy for the position you are put in as somebody who is trying to maintain our industry in the face of these challenges. Finally, you mentioned in your written submission that tariffs on raw components are going to have a big impact on you. Could you just talk us through that?

Katherine Bennett: That is more for our supply chain. We are working with Paul's organisation to ensure that our suppliers understand all this. Some of them are quite small companies and do not have that capacity. Just-in-time is important. It is maybe not quite like Honda, but just remember what I said about the Beluga aircraft: every two hours. We need to keep an eye on that. However, on the raw materials side, it is more linked to the inward processing relief issue.

Paul Everitt: The car industry makes a high number of final products. We do not make quite so many; however, the number of components required for each one is much more significant. If you like, the complexity and unfortunately the length of our supply chains mean that we face quite a significant management task, both to keep it coherent and to meet our growing production volumes, and to ensure that the communication with our supply chains around the changes that are likely to be made is not insignificant.

Simon Henley: From experience as a supplier on these programmes, you cannot underestimate, as production is ramping up on these big civil programmes, the battle every day to get the parts out on time, and the penalties for not getting there on time are very severe, and therefore in avoiding being late any of these non-tariff barriers can very quickly drive up costs. It is also important to understand just how all-pervasive this is.

One of the examples that have come to my attention is aerospace chemicals and the licensing regime within the EU. Within aerospace we use very specialist chemicals, because we have very exotic alloys, usually to keep the weight down on the aircraft. Moving those chemicals around to end up with the final product is usually internal within Europe. We have a product called Alocrom 1200, which is a very essential low-volume paint that is very important for keeping the aircraft flying; it is used for touch-ups. The precursor chemicals are made in the UK. The actual product is produced into the final Alocrom in Belgium, and at the moment the licensing regime allows the movement of the chemicals between the two. The day we leave the EU without a new agreement in place that stops, and as Alocrom 1200 is very small volume, it is very hard to justify relicensing costs against the revenue on it. Nonetheless it is an absolutely essential chemical for use in aerospace. The implications are very far reaching.

Peter Kyle: That is incredibly helpful. Thank you.

Q35 **Chair:** I have just one follow-up question for Katherine Bennett based on the evidence from Airbus. In your evidence, you said that the Airbus A380, for example, has about 4 million parts produced by 1,500 companies from 30 countries. Paul Everitt has given an estimate of the cost of customs checks for the sector as a whole. You have said what some of the issues might be in terms of customs, but you have not put any numbers on it. When we had evidence last week from the car manufacturers, they said it was about £35 per declaration. Have you done any estimates on what the cost of customs checks or declarations would be for Airbus?

Katherine Bennett: We have done a lot of internal studies, and I am happy to share some detail with the Committee at a later date. Those parts we talk about are worldwide. Obviously there are not that many in a wing—there are a lot, but not that many. However, yes, as I said, all our exports—the wing—go into the EU. That is the point at which we will need to check on the figures, and I am happy to provide that, Chair.

Chair: It would be very helpful for the Committee to understand the impact of the customs costs to Airbus, as such a big manufacturer and big employer in our country. Thank you very much.

Q36 **Drew Hendry:** Good morning. Following on from that, what do you think of the UK Government's proposals or options for future customs arrangements?

Paul Everitt: I will take the plunge. We thought of the partnership papers, it was probably the weakest, and mainly because it did not take into account the broader regulatory regime, which also meshes with the customs issues we were discussing. There is a transit and a flow issue, so if someone is going to stop and check your paperwork and getting your paperwork right, but then there are the compliance issues associated with which regulatory regime we are operating under. Currently, because we will have an airworthiness certificate for most of our products, that just means it passes through the borders. However, under a future regime—of yet we do not know quite what—there has to be a meshing between the regulatory one and the customs arrangements. That is the part that was not addressed within the Government's approach, mainly because at this point in time they have not really finalised themselves quite what they want to do.

Clearly, and I think this was outlined a little in some of the comments that Michel Barnier made yesterday, for an aerospace industry we want a high regulatory alignment with our European partners, and for that high regulatory alignment to be bound through time. For us it is really straightforward. What we are hearing from other parts of Government is that we want a bit of smorgasbord: "Up here we are happy to be aligned, but down here we want to do something completely different." When something crosses the border, how will the border understand whether it is one of the high regulatory compliance bits or one of the low regulatory compliance bits? Therefore, the risk is additional checks at the border or around the border, and therefore further impediment to the flow of goods.

Katherine Bennett: That adds to cost as well, which is key. Extra costs are not putting the UK in a good place.

Paul Everitt: Our evidence is, basically, currently we have the best set of circumstances we can have. Anything that changes from these implies additional cost. It is just about how much additional cost we are going to have to bear.

Q37 **Drew Hendry:** Would it be fair to say in the options you have seen so far there is no real comfort for you?

Paul Everitt: No, not at the moment.

Q38 **Drew Hendry:** We have heard from aerospace and from you today about how the UK no longer makes complete aircraft, and that the EU industry is highly specialised across the piece. Why can the UK not make a whole aircraft? Is it even possible for the UK to make a whole aircraft these days?

Paul Everitt: It is entirely possible to make a whole aircraft. Whether it is commercially viable to do that is a different matter. If you look at the major projects, a new aircraft is a multi-billion pound investment, so there are huge risks. No one set of companies can manage that. In terms of large aircraft we have Airbus and Boeing. They have a legacy of other aircraft manufacturers that used to exist. One of the reasons there has been this massive consolidation in the aerospace industry is that the costs and risks associated with developing whole new aircraft are such that it is not practicable for businesses singularly to do that.

Simon Henley: We do produce whole aircraft in the UK in the defence world. Eurofighters come out of a line at BAE systems at Warton. However, the final assembly of any of these products is a high value and a very overt statement about aerospace capability, but it is not necessarily the whole value of the supply chain. I think it has been government policy to specialise in wings, in the civil aerospace market, and that has served us extremely well. That is why we now have the wing plant in Northern Ireland—because of the expertise the UK has built up. It has been a good policy, it has made sense, and it has allowed us to grow expertise in a particular area. For every Airbus aircraft, the wing is designed and produced in the UK. That is a huge part, whereas if you disperse that to final assembly, final assembly is in the end putting together the bits that come in on the number of Belugas from all over. It is a particular skill. Whether it is one that we would want to concentrate on, to date we have not done so, and I am not sure it is absolutely necessary.

I ran the Joint Strike Fighter programme for the UK Government for a while, and we looked whether we should be doing final assembly in the UK. In the end we decided that the added cost of doing so, and the danger of divergence from our counterparts, was such that it was not the thing we wanted to invest in. That decision has also stood us well, in terms of UK industry in the defence world having done very much better out of the Joint Strike Fighter in the areas they have focused on, rather than necessarily final assembly of those aircraft.

Katherine Bennett: On the matter of economies of scale, as Paul has commented, different parts of Europe specialise in different parts of the aircraft. We would not be able to create the volume we did if it was just done in one country. They are doing their best in China. We need to keep an eye on what the Chinese industry is doing. Of course, it is a very important customer potentially for a lot of the UK supply chain.

The other thing to look at is what the value is. As Simon said, the real value is in our designers—the wing designers. They are really specialist in the UK on aerodynamics. That is not necessarily a matter of government policy; it is a matter of history. The UK engineers are just really good at it, and not only that: there is also landing gear design and integration, and fuel systems. Everyone talks about the wings, which we are very proud of, but there are other parts of aircraft design and manufacture that we also do.

Paul Everitt: We should not forget propulsion systems and engines. We are quite good at those.

Katherine Bennett: I was just going to mention those. There is also Spirit AeroSystems, a very capable supplier based in Scotland. It is important we keep that capacity and build on that. That is what I see as my job: fighting to ensure that the wing design, what we call the crown jewels of aerospace, remains in this country.

I need to let you know, Committee, that other countries would dearly love to design and build wings, and some of them already do. We actually do build wings in China now, and believe you me they are knocking on the door as a result of the situation we are in in this country.

Q39 **Drew Hendry:** Following on from that, can you speculate on what would happen to the industry if the UK were to depart the EU and EASA without any sort of deal?

Paul Everitt: For us, as I mentioned earlier, the worst outcome is no deal. That is because it would create a chaotic environment. Without a deal we would not know if there was a common transit area. We would not know whether lorry drivers and lorries from the UK could travel on EU roads. We do not know what the border arrangements would be. If you like, for us, working all the way back, we would not even know if we could get our products out of the UK or what costs might be associated with doing that.

Similarly on the regulatory regime—I know Simon will probably talk in more detail—if we do not have a regulatory regime that is recognised globally, we cannot sell our products.

Q40 **Drew Hendry:** What would that mean?

Paul Everitt: That would mean that we would have to find an alternative arrangement. As Simon mentioned earlier, at the moment our fall-back position is that we would be inviting in the European Aviation Safety Agency or the Federal Aviation Administration to certify our facilities and products, and we would obviously be paying for the privilege of doing that.

Short term, there is an extreme fall-back. We would be like a school in special measures. We would have the authorities coming over to help us out, but that is not a long-term solution, because the costs associated with that are many times what our current cost base would be.

Q41 **Drew Hendry:** I suppose what I am trying to get to, before the others answer, is: what is the impact of that? I can understand that you might want to get some clarity or help, but if there were no deal, what is the impact of that? What does it mean for people, for business, for turnover, for production? What are those impacts?

Paul Everitt: It depends exactly where you are in the business, but part of our trouble will be in the very short term we have no choice. We will have to absorb the cost, because we will have to supply our end customer. As we move forward, all that means is it will be much more difficult to persuade people that they should continue to be investing in the UK and stick with the UK. There is always a cost associated with realigning supply chains, so people do not make those decisions willingly or easily, but clearly depending on what the future looks like, people will make those decisions.

Simon Henley: The Royal Aeronautical Society looks at the whole of aerospace, so it is not just engineering and the development and production side; it is also air traffic management, ground crews and the air crews themselves. On no deal and leaving on the basis we are today, with no work done in between, I do not want to raise headlines of "we stop flying tomorrow", but the truth is there are currently no agreements in place outside the EU that would allow aircraft to operate in and out of UK airspace. There is a vast amount of work that would need to be done to either resurrect dormant bilateral agreements or renegotiate agreements to allow transit between the EU and the UK, and then the UK and other nations, because at the moment our aviation rights are done through the EU. It is not insurmountable, but if we are going to do it, we had better start pretty quickly, because there is a great amount of work to do. The nature of regulation is such that you cannot fly on the basis of an assumption that it is in both our interests to fly. You need to have an agreement negotiated and signed, because that is what safety means. You need an agreement detailed and in place, and legally binding.

Q42 **Antoinette Sandbach:** We hear calls from the press and other siren voices that say we should just walk away from the talks in Europe now. I think your evidence is that would be devastating for your sector.

Simon Henley: I am very hesitant to use such words. To walk away today on the basis we have today, with no work done in between, would have a very severe impact. Clearly it is understanding what the direction is, so that we use the time we have left to work well to make sure that we have the agreements in place to be able to move forward on the day.

Q43 **Antoinette Sandbach:** But your evidence is that, because those agreements are not in place, anybody walking away from the talks now would effectively ground UK aircraft.

Paul Everitt: My view is that it would be chaotic, because we would not have the certainty we require, particularly around safety. Safety is born on dull repetition, minor changes, adaption, and ensuring everything is done and done correctly. There will always be risks associated with a situation where we—whether Government or others—were having to put in place very rapidly measures and activities.

Katherine Bennett: EASA is a big issue, but Airbus have a footprint in other member states, so we can make our points known through those member states' membership of EASA. We would certainly like the UK to remain a strong voice. We are the largest aviation sector in Europe, so surely we should have a strong voice.

The other important point is that one of the things I was working on before Brexit happened was ensuring that we had global regulation. We do not want double certification, which is what Simon and Paul were talking about. Going back to the CAA days is not optimal for anyone in this industry. It certainly needs to be global. The UK has a place on ICAO, which is the global aviation agency, which is where the FAA work and we work with the Chinese. That is where we need to be. We are a global industry. We started that way, and we need to continue that way. We do not want to go back to little island mentality, I am afraid to say. Our voice in EASA from an Airbus perspective will still be heard, because of our influence in the other member states, but I think that is a shame for the UK.

Q44 **Peter Kyle:** Paul, we are talking about what would happen technically to the supply chain if we crashed out. It would be very severe, perhaps devastating, and it would be chaotic, but what about in terms of our reputation? Britain does well because we have a fantastic reputation in your sector—a really world-class, leading reputation—and the relationships formed on the back of that reputation are hugely important, I presume, when you go around the world selling us as a destination. What impact would be done, if we did leave suddenly and chaotically, to our reputation and the relationships that we rely upon internationally?

Paul Everitt: It would clearly be a very damaging approach to the way in which we would do business. We speak on a regular basis to countries, Governments, industry and regulators. They are concerned that we are having some of these discussions because, from their point of view, why would you want to change something that is recognised, understood and has been delivering, from our point of view, safety across our industry very well? The Brexit process is not one that is helping our reputation as solid global citizens, and a chaotic departure from the EU would make it even more difficult to encourage businesses to want to invest here and, clearly, customers to see us as a place to purchase their goods and services from.

Q45 **Peter Kyle:** It is an important point, because people who support Brexit, if they were here on the Committee right now, might say that when we move away from the EU it will open up a global market rather than just a European market. Am I right in saying that your perception is that, if we manage this badly and we get this wrong, our reputation as a solid, reliable partner is not going to open up a global world? In fact, there will be suspicion and perhaps hostility towards us. You are all nodding, so perhaps you could say it verbally for the record.

Paul Everitt: Our route to market is very much facilitated by the regulatory regime. Without that regulatory regime we do not have a route into global markets, whether Europe, US or China, because of the mutual recognition arrangement. Not having that arrangement will make it more difficult for us to be able to access those important markets. There is a lot of talk about trade agreements with other countries. For aerospace that is not our priority, because we have an existing plurilateral agreement. It is much more about diplomacy and ensuring that the UK is a top choice for international businesses and countries rather than a complex trade arrangement.

Katherine Bennett: Obviously, Brexit has its pitfalls, but there are other issues in other parts of the world too; look at Catalonia and other issues. I certainly do not want to be doom and gloom, and I know you are not trying to make it that way, Peter, but I completely agree. Overseas trade opportunities are really important, not in terms of agreements but in terms of the extra resources the Government have said they are going to put into our embassies overseas. That is where it makes a real difference, for me: helping sell our British-made wings on super European, global aircraft that can win deals in Malaysia, the Far East, China. That is where we see the Government making a difference.

Obviously, this Committee also has "Industrial Strategy" at the end of its name. Industrial strategy is another positive thing that I try to turn on its head. When people ask me about Brexit when I am in our head office in Toulouse, I say, "Maybe you should also look at the industrial strategy activity," because I am certainly saying to the Government they need to turn the notch up on that a little more as a counterpoint to some of the negative things around Brexit.

Simon Henley: One of the alternatives we hear mooted is, "Okay, we may damage our reputation with Europe but we can build a relationship with the US." The US values us as much as part of Europe as it does as an individual. There is a special relationship in defence, and I negotiated one of the bigger defence deals between the US and the UK. There should be no doubt that one of the reasons the US sees us as a prime partner is they see us as the voice of a friend in Europe, if you like. We are in danger of damaging that.

In the civil world, that special relationship does not exist. We are there as a member of Europe. However, our supply chain is extraordinarily successful at selling into the American civil aerospace market as much as it is with Airbus, and we risk damaging that reputation, because the US cannot quite understand what we are doing at the moment.

Q46 **Chair:** I want to explore a little more about the European Aviation Safety Agency and the Civil Aviation Authority in the UK. Paul Everitt, could you tell me how certification works for components of aircraft and for aircraft?

Paul Everitt: Simon might be better on the detail. Effectively, the UK and other European member states created EASA to provide that broad umbrella regulation for the whole of the sector. The way that has worked is that key resources and expertise are in the centre and deal predominantly with new product and new technology certification. The CAA, if you like, works effectively as a sub-contractor to ensure that the facilities and the processes that go on within the UK are meeting the appropriate standards. You have a high-level regulator with activities that are country-based.

Q47 **Chair:** When we leave the European Union, what will be the gap? Could the CAA not pick up everything that EASA does today?

Paul Everitt: No. The UK was a prime mover in shaping the European Aviation Safety Agency and it was designed to ensure that there was, if you like, a high-level core of expertise that sat within the European body to manage the complex safety issues, particularly around new product certifications. You cannot rebuild that capability in a short period of time. We have estimated a five- to 10-year period in order to even begin that process. I can say that there is no plan within the CAA to do that. They do not see their strategy as trying to recreate the capabilities of the European Aviation Safety Agency. Alongside us, they are hoping that the UK, in the negotiations, will continue to be a fully fledged member of the European Aviation Safety Agency.

If that is not possible, they hope to have some kind of arrangement that would allow them to what is termed "track and follow": we cut and paste European regulation into UK regulations. Then, if you can imagine the slightly inverse, whilst the CAA would nominally be the authority in the UK, it effectively would be sub-contracting all its major work to the European body. That is the second best option. The other one is we have no agreement, and that is where we then are scrambling around to try to find how we ensure that our businesses continue to operate.

Q48 **Chair:** At the moment, our aircraft can fly and our components can move around and be certified by virtue of our membership of EASA, not through the CAA. Is that correct?

Paul Everitt: That is correct.

Q49 **Chair:** The CAA, though, is a competent authority by virtue of our European Union membership. Is that right?

Paul Everitt: Yes.

Q50 **Chair:** Will the work that the CAA does today be able to continue? Will they still be a competent authority to do any of the certification if we leave the European Union?

Paul Everitt: It depends. It is a legal definition. Where we are, it certainly has competence and it has the people—

Chair: But it has that by virtue of our EU membership.

Paul Everitt: Exactly, so at the point at which we cease to be an EU member state, we will have to demonstrate to the EU and to, particularly, the US, Canada and a number of other countries that we have in place a regulatory regime that is of an appropriate standard. Without having some relationship with EASA to be able to point to them and say, "They are going to do these aspects, which can give you confidence," it will be difficult to have those bilateral agreements in place.

Q51 **Chair:** EASA was only established in 2002, was it?

Paul Everitt: Yes, around then.

Q52 **Chair:** Before that, the CAA did everything itself. Why would it not be possible to just go back to what we had before 2002?

Paul Everitt: First, because the world has moved on in the way in which industry works. One of the issues was that industry faced significant costs, because you had to have a variety of certifications between individual member states and places you might want to sell to. The world has moved on. The expertise required to oversee those major certifications does not sit in individual member states; it now sits in Cologne within the European Aviation Safety Agency. You do not have people you can easily bring into place.

Q53 **Chair:** It is a skills and a cost issue then, is it?

Paul Everitt: Yes, absolutely: it is skills and expertise. There are not that many people in Europe with the expertise to certify a new engine, a new aircraft or some of the key components that will be developed for them.

Katherine Bennett: We do not want to go back to the double certification issue that we talked about. That is extra cost for business.

Q54 **Chair:** At the moment, Airbus has certification for design organisation approvals and production organisation approvals. Is that through EASA or is it through the CAA?

Katherine Bennett: It is through both, but it is as part of the sub-contracting arrangement that Paul described. The other important point to make is that a lot of the expertise in EASA is British. A lot of CAA engineers are the ones helping EASA run its business.

We do have other levers we can use on this whole situation, though, because the industry funds 70% of EASA. Big industry players such as my company and Rolls-Royce do have a big influence.

Another option is, as Paul described, the track-and-follow route, where the UK would not be a full member of EASA; we would be a secondary member like Norway and Switzerland. They can manage to do that, but then that comes back to the single market issue and how much influence we would have. This is where I, as a British citizen working in UK aviation, would rather my country had full influence in this body, and it is something that you should ask Ministers about.

Q55 **Chair:** There are two issues. First, there is the issue you have touched upon, Katherine Bennett, of the additional costs of getting authorisation or sign-off by two agencies: EASA and the CAA. Again, has Airbus done any analysis of the cost to your business if that was necessary?

Katherine Bennett: Not a huge amount, because, as I said, we will still have influence on EASA, so we will be able to get our certifications. It is perhaps more of an issue for other parts of the sector.

Paul Everitt: The CAA has no plan to recreate the capabilities of EASA. For companies, that means your only option would be, effectively, to go to EASA and ask them to do the work, so we would have third country status. Currently, there are flat rates for the various different types of certifications. As a third country, effectively, we would pay by the hour for the expertise that the European body would allocate in order to get our particular product, process or facility certified.

Simon Henley: I will just say that we produced a learned society paper on civil aviation regulation back in September, which runs through quite a lot of the story, so we will certainly make that available.

Chair: That will be very helpful.

Simon Henley: We need to start back at the fundamental that aerospace is a global enterprise. It starts with the Chicago convention; it starts with

ICAO, which is a global body that the UK is represented on. We use EASA at the moment as our means of demonstrating compliance with the global standards, and it is not just in development of aircraft; it is not just in certification of products; it is in certification of our airports, our people, and our education standards or training standards to allow people to work on aeroplanes. It is all-pervasive and, right now, we punch very much above our weight in EASA.

It is very widely recognised that UK expertise is hugely influential; therefore, we are able to shape the global regulation regime to suit the UK. We are full members of EASA. We are management board members. If it comes to a vote, which it very rarely does because they tend to do things by consensus, we are a voting member. That is the influence we seek to maintain, because that is really important for our membership—all our people. We are a global body, so I represent the other side of the equation, if you like—those who gain benefit from the UK being such active members of EASA—as well as UK industry, which very much believes that EASA is the right route for them to be able to bring their products to market. It is that ability of the UK to have influence on the global regulatory regime, and it is really hard to see how we would sustain that same level of influence were we to become national.

In one of the conversations I had, there was a phrase that really stuck in my mind. Aviation safety has come on in leaps and bounds in the last 20 years. Aviation is safer than it has ever been by orders of magnitude. That is because of the work of the collaborative environment and common standards between, in particular, the FAA and EASA. The phrase that was used the other day was: "When it comes to safety, sovereignty has no place." We want our people flying, in whichever airline they choose to use, to know that they are operating to a common set of standards that are the same standards that we would apply to our own airlines. The way to do that is by being part of the global community.

Q56 **Chair:** Do you think that we are all safer on aeroplanes because of our membership of EASA?

Simon Henley: Absolutely. Absolutely. It is demonstrably the case that aviation safety has accelerated as a result of the formation of EASA.

Q57 **Chair:** Thank you. Paul Everitt, can I just come back to the point of cost? At the moment, we pay in £4.5 million to be members of EASA. Is that right?

Paul Everitt: The UK Government do, yes. The bulk of the costs of EASA are paid by industry in fees and charges.

Q58 **Chair:** Would it be more or less expensive, notwithstanding the points that Simon makes about safety, to do it ourselves?

Paul Everitt: It would be significantly more expensive. We did some work on what it would take, which was something in the region of 200 to 300 people and around £30 million per annum in order to try to replicate, and that is even if you could find the people over a reasonable time period. For us, it is very clear that going it alone is the most expensive option and, in most cases, not the most efficient.

Q59 **Chair:** Yes—it is not as safe and more expensive.

Paul Everitt: Yes.

Q60 **Chair:** I want to, finally, touch on the issue about whether there is any chance of there being a gap. You have spoken about the chaotic situation of a hard Brexit, but I want to explore a little more what that means. It does seem that there is a risk that we leave the European Union and we do not have the certification. We had this issue last week when we were taking evidence on cars, but this might be an order of magnitude greater than that. If we leave without a deal, what does "chaotic" mean, Paul Everitt?

Paul Everitt: We are still challenging ourselves to understand what the continuity or the fall-back position is in the event that nothing is signed. Our working assumption in those cases is that we have no relationship with European Aviation Safety Agency. If we have no relationship, will we have any bilateral agreements in place with any of our other major partners, like the US, Canada and others? In those circumstances, our regulatory regime is effectively non-functioning, because whilst all the people and all the processes are the same, if there is no mechanism for recognition of it, effectively it has no value or validity. In the circumstances where it has no validity, how can we sell anything? We cannot. Similarly, as Simon has touched upon, there is a broader range of issues around the maintenance of aircraft and the people doing the maintenance of those aircraft. If they are not recognised as being appropriate people to do that work, then even if they have done the work, the aircraft will not be regarded as fit to fly.

It is chaotic because we do not know exactly what arrangements may or may not be put in place in order to try to bridge that gap. We are assuming that nobody really wants a chaotic situation, but, as I have said, if we are not an EU member state, a whole bunch of stuff falls away and we have to have separate international agreements in place. I do not know the extent to which the Department for Transport, as an example, is moving forward in putting those into place. We know that work is going on, but I have no idea how much progress they have genuinely made.

I think you would see it as: there is a very short period where people say, "We do not really know what is happening, so we need to take a safety-first approach," so nothing happens. There is a slightly longer period where we assume that there will be some kind of arrangement that allows the real world to carry on, because, as I was saying, some of the things are not specifically aerospace-related. Stuff like the common transport area and moving goods through customs are not solely impacting us; they will impact all sectors, so we are likely to see some very uncertain days immediately after the end of March. We hope we will find, within a relatively short period, some level, but what that might be, at present, we are not sure.

Q61 **Chair:** If I was flying away on holiday in the Easter holidays of 2019 and my aeroplane had a British component in it, as a representative of the industry in this country, Paul Everitt, would you be able to guarantee that my flight would be able to take off?

Paul Everitt: I am sure the component would be of a high quality and meet all the appropriate standards, but the truth is I cannot tell you and that is a worry. It is an even bigger worry if you talk to the airlines.

Q62 **Chair:** Yes. Basically we are in a situation today that, if we have a hard Brexit without a deal, it cannot be guaranteed that people will be able to fly on 30 March 2019.

Paul Everitt: I could not be certain.

Q63 **Antoinette Sandbach:** I want to move on to R and D. Paul, you spoke about the billions of pounds worth of investment that go into developing new aircraft. Can all of you explain to me how much value there is in UK participation in the R and D projects in the aerospace sector and, particularly, the benefit that comes from Horizon 2020?

Paul Everitt: The UK is a very active part of the Horizon 2020 activity. You will not be surprised to learn we are the largest aerospace sector in Europe, so we do extremely well from the funding that is available from the European Union. From an aerospace point of view, that is worth about £100 million per annum to the UK and UK industry.

However, we would say it is much more than just the financial contribution, welcome though that is. It is about the collaborative working environment that is created. As Katherine has already indicated, a product that we produce at the end of the day will come from a variety of individual companies, and the technologies will be being developed both by academic institutions and businesses. The challenge we face is twofold. One, Government have clearly, and welcomely, committed that as part of the deal they want to get, they want to have the ability to be able to continue to be part of those programmes, which is a good thing. We are fortunate that we get to lead some of those major projects, because, again, of the scale of the businesses and the reputations and the investment that they, themselves, have made, and that allows us to draw in a number of our key universities and research institutes.

At risk is the fragmentation of that or the UK's exclusion from some of those activities and, more importantly, the loss of the opportunity to be shaping them. Clearly, from a technology and a commercial point of view, having the ability to shape those types of programmes over a long period of time is extremely important.

Simon Henley: Horizon 2020, for the next funding period of seven years is about €6 billion on transport alone. The UK has been a net recipient in its participation in those programmes to date. Over the last period, we won 15% of the work, second only to Germany.

The other thing that is really important is that collaborative environment. One of the great attractions of aerospace as a career is you are going into a global business. I, personally, have worked and lived for three years in America; I have run a company in Spain that happened to be German-based and in four European countries. That is one of the great attractions. We are constantly striving in the UK to make engineering an attractive career, and one of the things about aerospace that makes it attractive is that ability to work in a collaborative environment. Working alongside your French, German and Spanish counterparts is a really good way of advancing and enjoying your career, so that is the other part. There is a financial case for widespread participation, and there is very definitely a case in terms of a career and building the engineering structure.

Q64 **Antoinette Sandbach:** Simon, the evidence from the Royal Aeronautical Society was that, once the UK leaves the EU, no university or company will be able to participate in an EU-funded research programme. Without participation in these EU programmes, there is likely to be an exodus of talented non-UK researchers, and UK industry will suffer from not being able to participate in large research programmes.

Simon Henley: It is already the case that it is quite hard to fill the research posts that we want with UK citizens and, in fact, that is an advantage because, yet again, it brings diversity into the people who are working in the UK for the benefit of the UK.

When we say that nobody would be able to participate, that is without some other funding means in place. You can pay to participate, but we will not receive anything like the returns. Basically, it will be pay to play, if you like, and at best you will get back what you put in, whereas right now we are a net beneficiary.

Q65 **Antoinette Sandbach:** Katherine, how much does Airbus spend on R and D in the UK and how much does it receive in grants from Horizon 2020?

Katherine Bennett: We spend around 500 million a year of our own investment in the UK. In terms of the figures we get from Horizon 2020, I can come back to you on that, Antoinette; I do not know the exact figure. The inputs into Horizon 2020 are key. We are the part of Europe that works, as I said earlier. The Clean Sky programme is particularly important, which has little environmental achievements, the eco evaluations. We have this amazing BLADE project—one of our aircraft did a test flight on that the other day—and SESAR. Simon talked about air traffic management; the future of air traffic management has to be sorted out on a European basis, and it is that kind of funding that is really important. We have been saying to the Government that it is really important that we continue to have funding going into Horizon 2020. On the space aspects, which we talked about right at the beginning, Horizon 2020 is key for some of those programmes.

Q66 **Antoinette Sandbach:** You spoke earlier about Norway and Switzerland's membership of EASA. Is that because of their EFTA membership? If the UK were to join EFTA, would it be able to participate still in Horizon 2020?

Paul Everitt: There are non-EU members who are members of EASA and there are also non-EU members who participate in the Horizon 2020 programme and anticipate that they will continue to participate in the next multi-year programme.

Q67 **Antoinette Sandbach:** Are they part of the single market?

Paul Everitt: No, they are not. On the R and D side, Israel is one of the participants. The terms and conditions are different. You pay to play, so your companies can participate in those programmes, but it is the individual Governments that have to pay the funding for it as opposed to it being received from the EU.

Q68 **Antoinette Sandbach:** Can any of you give examples of some of the Horizon 2020 funding that has been spent in the UK and resulted in innovations that have led to investment in UK manufacturing facilities?

Paul Everitt: The big programmes that have been funded, things like Clean Sky, are contributing to propulsion work that Rolls-Royce will be doing, both in terms of the research and development of new products and the current ones that have been receiving funding. Similarly, Airbus and many other companies will be participating and it is what they learn through that process, particularly the smaller businesses, that helps keep them at the forefront of the sector.

Katherine Bennett: There are some projects we have worked on with GKN particularly to do with carbon-fibre composites that have been funded through Horizon 2020. I can send the Committee more information on that.

Q69 **Antoinette Sandbach:** That would be very helpful. If the UK was to become some form of associate member of Horizon 2020, what impact would that have on the UK's influence on Horizon 2020 spend?

Paul Everitt: Definitely part of what a good deal looks like is our ability to continue to participate in those programmes. The difficulty, and I certainly get this from a number of my international or European colleagues, is there is a concern that, without the UK voice in the programmes, the allocation that might be given to transport and particularly aerospace may be diminished, because obviously the UK, France, Germany, Spain and Italy are the big players, and the absence of our voice may see aerospace have a lower priority, which would be a concern. In addition, we would have less ability to shape how the money that was allocated was going to be spent.

Simon Henley: The UK can compete, to an extent, on a best athlete basis in the current programmes. That is why we have been so successful and hitting above our weight. When you go to pay to play, it is a juste retour basis and we will not have the ability to influence where work goes on the basis of our skills; it will follow the funding.

Katherine Bennett: It is worth focusing on the academic sector as well. We have some great universities specialising in aerospace engineering: Cranfield and, in the South West, Bristol University. There are excellent leading technologies and their voice could be diminished somewhat, but it is really important to be part of Horizon 2020.

Q70 **Antoinette Sandbach:** We were talking about it in the aerospace sector; I know that there were earlier examples around Galileo, but presumably the same concerns apply in relation to the space sector.

Paul Everitt: Yes, because again, as Simon said, although the European Space Agency is a non-EU body, a significant proportion of the funding for space programmes is channelled through Horizon 2020 and the like. Therefore, again, there is the potential lack of opportunity and lack of influence over how and where the money is spent.

Q71 **Chair:** Therefore, if the Prime Minister is going to Brussels with an offer of additional funding, Horizon 2020 needs to be in the bag.

Paul Everitt: Yes.

Q72 **Peter Kyle:** Paul, in your submitted written evidence you said that about 4% of the workforce in your sector comes from the EU. That strikes me as quite low compared with some of the other sectors that we have had here. What role are they playing? How crucial will the movement of people and access to labour and skills be?

Paul Everitt: One of the reasons why it may be slightly low is because there is a regular interchange between the UK and our European colleagues. There are major UK businesses that are settled and established in the EU as well as European businesses that are established here, so that free flow of people is really important. From company to company, obviously the proportion will vary.

In terms of accessing appropriate skills, it is a much bigger challenge for the supply chain. Airbus, Rolls-Royce and a range of others find it easy to get the brightest and the best, whether those are apprentices, graduates or postgraduates. As you move down the supply chain it is more challenging and, for them, the ability to be able to pull from a wider pool of skilled people is really important.

Q73 **Peter Kyle:** Can you give us a bit of colour as to what this will mean in concrete terms if that supply of skills and labour ends or becomes difficult?

Paul Everitt: It becomes a cost issue. The people will still be there, but it will intensify the competition, say, between a number of sectors in the UK. We are a growing sector; automotive at the moment is having a bit of a wobble but it will be growing over the long term. We will be pitching for very similar people, both for our manufacturing operations and for our design and development operations, so it will be a cost issue and it will be another factor in how people evaluate the UK.

Q74 **Peter Kyle:** Do we know how many Britons there are working on the continent in this sector?

Katherine Bennett: I know for my company. We have 1,600 globally, and 1,300 of those are working in EU member states. In terms of EU 27 citizens working here, we have 600. There are 800 in total from other countries; the 600 are part of that. One of the key things about Airbus is the enrichment it brings in people being able to work in different countries. I, personally, spent two years working in France. In order to get on in our company, you have to have worked in another country. Our apprentices get to work in Germany or France; they learn different languages. You come back to the UK and you have a variety of people working on projects with you and it is hugely enriching. We have a lot of Chinese and US people and vice versa—a lot of them go backwards and forwards.

This comes back to the other point that I am sure you have talked about with other industry sectors: the ease of movement of people. It really is very effective for us and in the supply chain, to a certain extent, and other companies. Messier-Dowty and other big companies have people from other countries working here. The people issue is one of the most emotive issues, I am sure you would agree, that we have been dealing with in terms of business. Our 15,000 employees are very concerned about this. Whenever I am in one of our sites—they know the job I do—they come up to me and they say, "Is my job safe, Katherine?" That was a French person. I have a very dear Italian friend who works with me in Bristol and she talked to me about it the other day. It is really top of their mind.

Going back to Albert's question about working with the British Government, our embassies in France, Germany and Spain have, very recently, gone and had meetings with our British citizens working in those countries, and that has gone down very well as a bit of reassurance. Some of the announcements on people issues that have happened as part of the negotiations have been well received, but there is still a lot of uncertainty—and some people are still quite cross they did not get a vote in the referendum, by the way. It is a difficult issue.

Peter Kyle: We will try for the next one.

Simon Henley: If you go to Bristol Airport on any day, you will be staggered by the number of people going to and fro between Toulouse or Hamburg—less so to Hamburg, because they do not fly out of Bristol, but people moving to and fro. The figures of full-time people on either side are slightly masking the true size of the movement.

As another bit of colour, I ran a company in Spain that was a joint venture of four European companies and, at the time, it was when Spain was in recession, but the jewel in the crown of the career development of the Spanish engineers was to either go and work in Germany or in the UK. If we are not careful, we will very quickly make the UK a much less attractive place for the most talented engineers in the EU to develop their careers to the benefit of the UK.

Q75 **Albert Owen:** To get the other side of the argument, do you accept that most of the export growth of the UK aerospace industry over the next decade is likely to be outside the EU and the US? You cited China as a growing big player. Do you feel that the UK outside the EU could be more flexible in reaching agreements on this?

Paul Everitt: From our point of view, our ability to sell aircraft to China or South East Asia has nothing to do with a trade agreement. It is all about what we would see as trade diplomacy. It is about how well the UK or Europe is positioned with those nations. This is not the right way of looking at it. For us, those trade agreements are not the focus of our attention. There is nothing we cannot access today that tomorrow will change.

Katherine Bennett: Sales diplomacy, as Paul said, is key for us. Trade deals around the world make no difference for us. As I said, we make parts of an aircraft that then go to mainland Europe to be assembled and then they are exported out of either France or Germany, so the trade deals that the UK can do make no difference to Airbus whatsoever.

As I said earlier, the extra investment, potentially more people in our embassies overseas, is key. We have a recent example. We signed a great deal recently with a satellite company in Turkey, and our Prime Minister and President Macron were both very involved in helping put a good foot forward for this important industry contribution. That was a big deal that was recently signed, so we need more of that, please. In selling to the Far East, to China and to India, where the market for aircraft is huge, we want to ensure that we have UK wings and engines and other supply parts in those aircraft, so there is business out there to be done.

Simon Henley: I have nothing to add.

Q76 **Antoinette Sandbach:** I want to quickly follow up on the people point.

You spoke about the number of British people who are working in Europe. There has been a suggestion in the negotiations from the EU side that British people would not be able to move from, say, France to Germany. In other words, existing rights would only apply in the country in which that person is currently working. Would that affect your business negatively and would you like to see the kind of open offer that has been made to say that existing rights should be effectively cemented and work both ways, if I can put it that way?

Katherine Bennett: We have been looking at this and this has been raised by some of our employees because, yes, again, we have people who come from the UK, go and work in France, go and work in Germany, and then go and work in Spain. They work at every one of our sites, and it is important for them and their families that they can continue to do that. It is not such an issue for us, but we are making representations with the other member states on that.

Although it is not such an issue for us—but we are looking at it—I was in Berlin recently and I met a campaign group of British citizens who live in these different countries. They are quite concerned about professional qualifications, such as for lawyers. If you are a British lawyer going to practise in the bar in Berlin, can you then go and work in Italy? At the moment, it looks like they cannot. I do not know if your Committee is looking at that. We are going to see if it affects any of our engineers. I do not know if the Royal Aeronautical Society have looked at that, Simon. That is another risk, potentially.

Simon Henley: We have not, but on the ability to move around, I worked for Rolls-Royce for six years, which is a global company but UK headquartered. In that time, Rolls-Royce had facilities in Berlin and the subsidiary company that I was working for was in Madrid. They have just bought a company in Spain. The ability for people to move around within and between, not just from the UK to, those places is an essential part of career development and of development for Rolls-Royce to get that talent in, so the answer is yes.

Q77 **Chair:** We are told that being under the jurisdiction of the ECJ is a red line for the Government. Paul Everitt, could you tell us roughly how many rulings the ECJ has made on aerospace issues and how many of them have adversely affected either UK interests or UK companies?

Paul Everitt: Off the top of my head, I cannot think of any. Even in EASA, which would be the primary, there have only been three in the last five years, or something like that, where there was some kind of dispute that had to be resolved. From a day-to-day perspective, the ECJ is not a constant in our lives or a concern that we have. Certainly in the proposals that we have presented to Government there are other non-EU member states who participate in EASA. They have indirect mechanisms—arbitration committees—that respect the fact that obviously there is some European legislation but allow them to operate without direct ECJ oversight.

Chair: That is very helpful. Thank you very much for your time today.