

Business and Trade Committee

Oral evidence: Industrial Policy, HC 440

Tuesday 16 April 2024

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Members present: Mark Pawsey (Chair); Douglas Chapman; Jonathan Gullis; Antony Higginbotham; Jane Hunt; Ian Lavery; Anthony Mangnall; Andy McDonald; Julie Marson; and Charlotte Nichols.

Questions 132 – 169

Witnesses

I: Katherine Bennett, Chief Executive, High Value Manufacturing Catapult; Oriel Petry, Senior Vice President, Airbus UK; Dr Richard Torbett, Chief Executive, Association of the British Pharmaceutical Industry.



Examination of witnesses

Witnesses: Katherine Bennett, Oriel Petry and Dr Richard Torbett.

Q132 **Chair:** Good morning, everyone. This is a session of the Business and Trade Select Committee's inquiry into the UK's industrial policy. In particular, we are looking today at opportunities for growth within manufacturing and other emerging technologies. We start off with a panel of experts in the field of manufacturing.

I want to get things started by asking each of you to tell us a little bit about the organisation that you represent, how the competitive landscape for manufacturers, specifically those involved in advanced manufacturing, has changed in recent years and what the opportunities are for the UK. I will turn to Dr Torbett to start.

Dr Torbett: I am very happy to. Good morning; my name is Richard Torbett and I am chief executive of the Association of the British Pharmaceutical Industry. We represent the industry researching, developing and manufacturing medicines in the UK.

The UK has been one of the homes of the industry globally. To give you some brief statistics by way of background, we generate about £17.5 billion of direct GVA for the UK, with an additional £45 billion of wider spillovers that generally come from research and development. I say "research and development" because the interplay between R&D activities and manufacturing is very important. The two really go hand in hand. We are the largest investor in R&D by quite some way, at about £9 billion each year. In terms of exporting, we export around £25 billion and 126,000 jobs. I will stop there with the numbers, but if the Committee would like any more statistics, that is fine.

From a competitive perspective, the recent years have been mixed. I will start with the negative, if I can put it that way. We did slip down significantly the trade balance rankings globally between about 2010 and 2020. In 2010 we were fourth in the world; by 2020 we were 98th in the world. It was quite a fall.

There have been some green shoots since then. We are looking to see how that translates into the numbers. We lost global share in R&D over the same period and we lost some of our clinical trials performance. During the pandemic, manufacturing in the medicine sector was a source of strength in the UK. We played a critical role globally with the production of the Oxford AstraZeneca vaccine. That was a real success story.

I would say recent years have been marked by a real improvement in the policy landscape supporting manufacturers, certainly in this sector. We have certainly warmly welcomed some of the recent announcements around capital grant funding for advanced medicines manufacturing, full expensing of capital and an emphasis on skills in the recent advanced



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manufacturing strategy, which is very positive. Most recently, we have seen some good news with AstraZeneca announcing new investment in Speke and Cambridge, which is a good sign for the future.

We have had some troubles, but we have some good policy in place now. We really need as much stability and predictability as possible. I will pause there.

Q133 **Chair:** Katherine Bennett, you are chief executive of the High Value Manufacturing Catapult. We last met at the Manufacturing Technology Centre in my constituency. You are very familiar with some of the work that is going on there. How do you see things?

Katherine Bennett: Thank you very much for the invitation. The High Value Manufacturing Catapult has an interesting name, but how do I describe it? We are all about helping businesses learn more about improving their productivity and the general competitive situation that many manufacturers in the UK face. We help to de-risk innovation. Companies that are thinking about improving their production lines can come and have a look at some of our amazing centres. We have 27 sites around the UK, with 3,500 employees. Many of them are anchored, very importantly, in key parts of the UK outside London: in the north-east, up in Scotland, up in the Midlands or down in Bristol. We have quite a wide reach, geography-wise.

In terms of how manufacturing is faring, manufacturing is very much impacted by geopolitics. The twists and turns of what is going on globally have had a big impact. As Richard just said, the covid pandemic impacted manufacturers in terms of access to supply chains. I am sure you have heard from other witnesses about the impact of high energy costs. Climate change issues affect companies in the UK as well as other countries.

In terms of how we stack up against our international competitors, we are eighth in the world in terms of global figures, which is a great place to be. I have an ambition, working together with a lot of our partners, to get us higher up that ranking, perhaps up to the top three medal rankings, as we are in an Olympic year. That is a big aspiration.

The Autumn Statement talked a lot about advanced manufacturing, and £4.5 billion was invested. We would love that activity to come a little bit earlier, because the commitment is not immediate. That would be one thing to help support our all-important manufacturing sector.

In terms of the bigger things that are facing us, yes, there is a skills shortage. At the moment, there are 70,000 vacancies in manufacturing that need to be filled. About 500,000 people, not just in our sector but across the UK workforce as a whole, are still suffering from long covid and are not back at work. There is a lot to do in terms of putting our shoulders to the wheel and helping with skills.



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The final thing is supply chain resilience. How can we do more as a sector to help some of the people who are currently in one sector shift to another sector within manufacturing? There is a lot of work being done on that.

My organisation is funded through Innovate UK, which is part of UKRI. We have a five-year funding settlement. I would like us to have a longer settlement. I know this inquiry is looking at industrial policy and industrial strategy generally. One of the most important points—Richard alluded to it—is long-term strategy. We need stability, infrastructure and skills. That is a key point that might be worth talking about a bit later.

Q134 **Chair:** Oriel Petry, you are from a specific sector and a specific manufacturer. What is your assessment of the position manufacturing is in today?

Oriel Petry: My name is Oriel Petry, and I am here representing Airbus in the UK. I am part of the UK executive committee. Airbus straddles a number of sectors: civil aviation, defence—in fact, we are the UK’s largest satellite manufacturer—helicopters and cyber. We employ 12,000 people across the UK across 25 sites.

We face two main challenges, not just in the UK but as a global business. The first is that we have a backlog of over 8,500 aircraft that we need to deliver over the next few years. In terms of what we need to do to ramp up, for wing sets, which are all made here in the UK, we need to go from around 50 a month to 75 a month by 2026. That is the first challenge. The second challenge is that we need to produce a new generation of aircraft that is more sustainable and allows us to reach 2050 net zero.

Those two challenges both require, in our view, a really strong industrial strategy. For us, an industrial strategy is driven by the aim of UK competitiveness. There are three areas in which the UK needs to focus to achieve that competitiveness and for us to scale both of those challenges.

The first is around the scale of the sector. You need the heft and the weight within a sector to carry internationally. The second is around capability. Where is the innovation and the IP coming from? Who are the people driving that innovation and IP? The third, which has already been referred to, is this international context. We are here in a globally competitive position. The UK has a great role to play, particularly across all of our sectors. If you just take civil aviation, that is a long history. The UK is world-class when it comes to our sector, but to stay world-class this partnership between the industries that our business covers and Government is absolutely critical.

Q135 **Chair:** I want to follow up on your initial answers by referring to the recent reports that UK manufacturers are finding things much more competitive. In your case, you have just told us that you have a backlog of orders, so that is hardly a massively competitive sector for you. Of course, there are challenges in your principal competitor.



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In terms of securing investment within your own organisation for manufacturing in the UK rather than elsewhere in the world, how does the UK stack up? How are we seen and how are we able to secure that investment within your organisation?

Oriel Petry: As I said, in our area of excellence, which is wing, the UK is second to none. The expertise that we have in wing, fuel systems and landing gear is excellent.

In terms of the long-term picture that my colleagues here have talked about, we have been fortunate, particularly in civil aerospace, to have had a long-term partnership with the Government through what is called the Aerospace Growth Partnership, which has been going since 2010. Its greatest achievement is something that Katherine and I were in the House here celebrating just last week, which is the creation of the Aerospace Technology Institute 10 years ago.

For Airbus and the broader industry, for Rolls-Royce on engines and for GKN and Spirit, the Aerospace Technology Institute was able to anchor R&D here to place the UK in a really strong position in its areas of expertise and excellence. That is really critical in the way that we think of the UK. If I had an ask for the Government, I would say that in space, for instance, we do not have that same clarity, that same commitment to R&D or that long-term established relationship that we have in civil aerospace.

In defence, we really welcome the statements that the Government and Minister for Defence Procurement made in the House just before Easter around industrial and strategic capability being part of the procurement criteria that are set by the Government. In defence, where the buyer is mainly the Government, the Government have a real lever to drive that capability.

Q136 **Chair:** On competition, we know there are massive incentives in the US through the programme that they have there. The EU has matched that. We are not able to come in at that level. How are we able to attract investment into manufacturing, given those alternatives?

Katherine Bennett: When it kicked off 10 or 12 years ago, one of the most powerful things about the industrial strategy was its ability to get people around the table. Just like Oriel said, the Aerospace Growth Partnership was very powerful. There is also the Automotive Council UK and other initiatives in the construction industry. That is one thing. You can get people to leave their competitive hats at the door, and they will sit down and think about the long-term need.

I have to say that business does follow business. They observe what other companies do in terms of choices of investment. That is one thing.

You are right that the EU Green Deal and the programme in the US is a challenge. At the same time, three of the top 10 universities are in this country—Germany has none, by the way—and there are some great



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assets in science, technology and research. The quality of research in our country is absolutely excellent. We would like to bring those organisations together more.

For me, industrial policy is definitely a marathon, not a sprint. It needs to keep going. You need the long-term stability. You need companies in the automotive, aerospace, construction and pharmaceutical sectors to feel like we are a country to invest in.

Just last week, I was with a potential new investor who is mapping a potential site, I am proud to say, in the UK. I was patting him on the back and saying, "What more can we do to help you?" My organisation works closely with the Office for Investment. I am often asked to come and meet potential new investors and talk about the infrastructure around the support mechanisms for manufacturing.

One of the key parts that perhaps is worth looking at is working on a regional basis. If regional organisations pull together and demonstrate a commitment to bringing a particular company in, that is very powerful, as you know from your constituency, Mark. I recently stood down as chair of the Western Gateway, which is the powerhouse for the west of England. There is huge momentum there, trying to encourage nuclear SMR opportunities and to work on a tidal commission. The regional focus is good.

I will just give you a bit of a show-off statistic from one of my centres, which is quite well known: AMRC in Sheffield. Twenty-odd years ago, Orgreave was a coking works. It was very difficult and challenging situation for the economy. We now have 3,500 people working there and we have £260 million worth of investment. I am sorry to say this next to my former colleague from Airbus, but Boeing has just invested a huge amount, £50 million, which will make it their biggest R&D centre outside the US. Having a regional emphasis on industrial strategy also works.

Chair: This Committee visited AMRC a little while ago and we were very impressed by what we saw.

Q137 **Jonathan Gullis:** We have talked a lot about the advanced manufacturing space, which is very important, and Lucideon, for example, in advanced ceramics, which I am sure has been a supply chain into Airbus or that kind of manufacturing. We have also talked about manufacturing in general terms. For all the great stuff you have just announced, Ms Bennett, my concern is around the energy-intensive sectors in our country, such as construction works that use bricks or ceramics. Selfishly, as a Stoke-on-Trent MP, you can imagine I am going to push the ceramics agenda.

That does not seem to match up cleanly or neatly alongside the net zero commitments that the Government aspire to. Ultimately, electric kilns do exist, but they only work on a certain level of quality. They are not able to fulfil the log of orders. The network grid itself is nowhere near capable



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of handling the power that would need to be generated for one kiln in one factory, let alone the tens and twenties of kilns that exist in some factories today.

On top of that, hydrogen is only just being explored. Ultimately, manufacturers in Stoke-on-Trent are telling me that they would have to move by the sea with no houses in sight because—God forbid—if that thing blew, it would cause devastation to land and communities. These manufacturers are based in the built-up areas in towns and villages across Stoke-on-Trent.

Chair: Can we get to a question?

Jonathan Gullis: I am sorry, Chair. Is it fair to say that the net zero agenda is, in part, going to undermine those energy-intensive industries? Is it going to force this country to make a decision about whether or not we are going to have to offshore energy-intensive industries in order to meet the net zero objectives? Are we going to allow these sectors to become glorified warehouses in the United Kingdom, which will undermine the very manufacturing bases that we want to try to create?

Katherine Bennett: I am happy to answer that one. As I said at the beginning, our energy-intensive industries are absolutely challenged. We have four key areas that my catapult is looking at. Your question is absolutely on the money. Net zero is a challenge, but it is also a massive opportunity. One of the pieces of research that we have done recently with Innovate UK shows that 70% of manufacturers say they are not ready for the net zero challenge. This is where my organisation is putting a lot of its attention. I will be happy to be put in touch with your constituency company.

We are working with them a lot on how to reduce the impact. Hydrogen is one answer. I am really pleased to say that next week, as part of the hydrogen industry initiative, which my organisation runs with other partners, we are publishing a big report. There is \$1 trillion of opportunity in the hydrogen industry. If we get 10% of that, that is billions of pounds of income for us. We are good at hydrogen. I am not sure what you describe is completely aligned to what I have heard, but I would love to pick that up with you later. Hydrogen is a big opportunity.

Another opportunity on clean energy—this is a big focus for us—is offshore renewable wind. Perhaps another opportunity, working with companies in your constituency, is this pivot to what I call the sunrise industries, the newer industries, which we are very well placed to help develop further.

Q138 **Antony Higginbotham:** Katherine, I agree entirely with one of the comments you made earlier, which was that it would be great to see us go from the eighth-largest manufacturer in the world to the third-largest. That is a good ambition for us.

I am sure you and probably other panellists saw the report earlier this



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week from Oxford Economics and the Manufacturing Technologies Association. *The true impact of UK Manufacturing* said there were 7.3 million manufacturing jobs in the UK and about £518 billion worth of economic output. Nearly a quarter of the UK's GDP is reliant on manufacturing. We should not underestimate how important it is for the UK economy, particularly when we talk about levelling up and where manufacturing is strongest in the UK.

The Government have their advanced manufacturing plan and we have taken evidence on that in previous sessions, so I will start by asking for your respective views on that plan. Does it properly address the global challenges that UK manufacturers are facing? In line with what Mr Gullis just said, the energy-intensive industries and how we deal with energy production for those manufacturers do not seem to be covered in it.

Katherine Bennett: We have an expression that we like to use, which is green-shoring. This links in with what I said at the beginning about the supply chain resilience question, the critical issue of the supply chain being accessed by UK suppliers.

We believe there is a huge opportunity for us to do more in this country. There is another activity that my organisation does: it helps these companies, such as those in your constituencies, to measure their carbon emissions. You might not believe it, but it is not very easy for them to measure. Of course, that links in with the scope 3 requirements.

We are an island nation, so let me just turn now to offshore renewable wind. I am very excited about this sector. There are so many opportunities. We buy a lot of energy from offshore renewable wind, and it is now increasing, but there is even more that we can do in this country. We need to get more of those supply chain jobs here. We have wonderful investors from Germany and Denmark, et cetera, who build wind turbines here, but the UK supply chain footprint is not large. We are working together with my fellow catapult, the Offshore Renewable Catapult, and other parts of the sector to get supply chain companies in this country to pivot more to look at that opportunity.

It is a huge opportunity. That might be another thing. I am generally an optimistic person by nature. If we do have these councils and growth partnerships, as Oriol and Richard have talked about, that is one way that we can get the clever brains from people around industry to put their shoulder to the wheel and say, "This is what we need as a nation to develop."

Q139 **Antony Higginbotham:** Richard, what did you make of the advanced manufacturing plan?

Dr Torbett: In short, the manufacturing plan is very good, but it sits within a broader context. If you are really asking companies to give you a holistic picture of what determines the attractiveness of the UK, a lot of the steps that are in that plan are excellent, particularly around capital



grants, the emphasis on skills and full expensing, as I mentioned. That is a really important step in the right direction.

There are some broader factors, though, particularly around the overall attractiveness of the commercial environment in the UK—even for global industries, that is incredibly important—and some basic things like getting the single front door for companies right, if I can put it that way. Do we do that practical job of helping companies connect to the grid or find the right part of Government for those types of investment?

Q140 Chair: What is the answer to that single front door, though? Does it exist?

Dr Torbett: There have been all sorts of attempts to create it over the years. The recent review by Lord Harrington made some very interesting recommendations. What I took from that review was about making sure that single front door really has the clout across Whitehall to make sure the right strings are being pulled at the right time.

If I may just comment on the report that you mentioned—this is a very important observation—it was a really important contribution that should remind us all about the incredible weight and contribution of manufacturing in the UK economy. What I would add to that is that the distinction between manufacturing and services is really blurred. When it comes to high-value economic activity, high-value manufacturing and high-value services are often entirely interlinked. That just furthers your point.

Q141 Antony Higginbotham: Can I just follow up on the report? I will come to you, Oriel. In most explanations of the importance of UK manufacturing, the percentage of GDP that is used is normally just under 10%. This report suggests that it is almost a quarter—I think 23% was what it said. Why is there such a big discrepancy? That will impact public policy; it will impact financing. Why is there such a big discrepancy between those two numbers?

Dr Torbett: I read the report very rapidly yesterday. You will have to forgive me. You should probably get the economists in to explain what they have done. My understanding of it is that it is really about the way in which they have calculated the induced effects on the economy. That was massively underplayed in previous methods. It excluded things like investment in capital, which seems a little bit surprising because that feels very important for manufacturing sectors. They have done a really interesting piece of work.

Antony Higginbotham: Hopefully it can shift the debate.

Dr Torbett: It feels credible on the basis of a quick read.

Q142 Antony Higginbotham: Oriel, if I can come to you on the broader picture of the advanced manufacturing plan, your sector is one close to my own heart. Aerospace is a massive sector for us up in Burnley.



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Oriel Petry: Yes, absolutely. From our point of view, we definitely welcomed the advanced manufacturing plan for the very simple reason that it put advanced manufacturing at the heart of this debate. As Katherine just said, we are now eighth in the world for advanced manufacturing. What we do not talk about is the fact that we have overtaken France.

My point is that, in terms of the way we think about our economy—in a previous life I did a lot of work with FDI investors—so much of what drives international investment into the country is the way in which we present ourselves. The fact that the Chancellor set out an advanced manufacturing plan that spanned a number of sectors is really helpful because some of the skills challenges that we face in civil aerospace will be similar to some of the skills challenges that we face in pharmaceuticals. To take that broader focus is a really good thing.

Chair, I am conscious of time, but the great thing for us about the advanced manufacturing plan—it did great things for automotive, by the way—was that it pulled out a cross-cutting issue around capital allowances. In terms of encouraging investment and proper investment in advanced manufacturing, it put forward a good policy that will make us internationally attractive.

For civil aerospace, the advanced manufacturing plan—this is something we have not seen before—extended the funding for the Aerospace Technology Institute, for R&D. We know that, if we do the R&D in this country, the manufacturing is likely to stick beyond that. The Government extended that funding to 2030, beyond the next cycle of Government finance.

This has come through in some of the other evidence that you have got, but that sends a signal of stability to the sector, both domestically and internationally, that aerospace is something that the UK is excellent at and that the Government and this House recognise it and are going to put it at the forefront. That is something that is reinforcing. It is a positively reinforcing circle that is so important when we are talking about industrial strategy.

Q143 **Antony Higginbotham:** I have one quick follow-up. You are saying that it is not just important from a domestic current manufacturing base, but, when we are looking at pulling foreign direct investment into the manufacturing sector, that long-term horizon is what allows us to keep growing at a faster pace than the likes of France.

Oriel Petry: Yes, absolutely. Substance is key on policy, but so is form.

Q144 **Anthony Mangnall:** First, Katherine, can I ask whether you could send us something on the tidal commission that you mentioned earlier?

Katherine Bennett: Yes, of course.

Q145 **Anthony Mangnall:** That is something that I personally have an interest



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in.

Can I start by asking whether or not you think the UK has an industrial strategy?

Katherine Bennett: My view on that is that an industrial strategy is still happening because the industry is still getting together. There are some sectors that do not have it, though. We have had a couple of examples, such as the space example.

We need to amplify it a little. It is all about stability and long-term planning. In your area, you have opportunities with the freeport and the marine industry. There are so many opportunities to get more manufacturing done here. As I said, there is the green-shoring point.

I have read the Harrington report. We had an idea about maybe getting more of a focus on industrial strategy in No. 10 so we have 100% focus and a more cross-departmental view on it. Sometimes there is a tendency to be siloed and it is just split between different Departments.

Q146 **Anthony Mangnall:** It is my running joke that, when you google "industrial strategy", you go on to the 2017 website, where it says it is archived.

There are some problems with this. You are citing some very good alternatives, such as the AMP and other things like the Harrington review. These are all complementary to the things that you are trying to do. Do we need to revamp? That is what I am really asking. Do we need a new industrial strategy that is cross-party, long-term and able to get the buy-in of industry, politicians and the regional communities of the United Kingdom?

Katherine Bennett: It absolutely needs to be long-term. Businesses really care about this. In the companies where I have worked, the employees and the senior management want to get more investors to come where they are. This is why I mentioned the example of Sheffield, where you have been.

There is an issue happening at the moment. I was honoured to be asked to sit on the transition board for Tata Steel in Port Talbot. We are facing a real situation there. An industrial strategy needs to be formed. I am delighted that the Government have put some money in there, but there are alternatives with green steel. This is all about green energy. How can we work together? It is a very difficult situation there. Let us remind ourselves that Tata Steel is a very important investor in this country. It has also invested in Somerset recently. We need to make them feel welcome. I know there are some issues happening there at the moment, but that is all about green energy as well.

Industrial strategy is needed. It needs to be a long-term plan. We need the stability. There are many common issues as well, as we talked about earlier.



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Q147 **Anthony Mangnall:** Before I move on to your colleagues, can I ask for your view of where the strengths and weaknesses of the United Kingdom are?

Katherine Bennett: I have talked about offshore wind opportunities. I have talked about hydrogen. We have carbon capture and storage and green finance. The City of London is a great asset that we have. We want to get more involvement. There was a story on Radio 4 this morning about that.

The Vaccine Taskforce has been talked about a lot. One of my centres specialises in pharmaceutical manufacturing. There are huge opportunities in RNA development and what is called novel therapeutics, which we learned about as a result of that.

Food and agriculture is the biggest manufacturing sector that we have in this country. Do we shout about that enough? I do not think we do. There is £49 billion of market opportunity there. Richard might want to touch on this, but there are opportunities in medtech as well.

We cannot be good at everything. We have to focus in on where we have speciality. Some of that is aligned with existing infrastructure and some of it is aligned with the existing university specialisms that we have.

Q148 **Anthony Mangnall:** What about the weaknesses?

Katherine Bennett: The weaknesses are the challenges that we have in terms of energy costs. Maybe the supply chain is not fleet of foot enough. In the automotive sector, that has been a real challenge. They are still used to the old ways of behaving, so we need to change that. Again, as you have probably heard from other witnesses, the challenge on skills is another issue. There is momentum and things can be done to resolve that.

Q149 **Anthony Mangnall:** The catapult shows what can be achieved. Richard, if I can just bring you in, in your opening remarks you talked about the export decline between 2010 and 2020. At the risk of asking a stupid question, what caused that?

Dr Torbett: It was a number of factors. There is no doubt that the UK lost out on a number of manufacturing investment opportunities during that period to countries such as Germany, Ireland, Singapore, et cetera. It was a combination of that, normal market dynamics, the commercial environment here getting significantly worse during that period, and overall a lack of basic competitiveness on the core fiscal comparators like the capital grants piece. Those would be the things I would point to.

Q150 **Anthony Mangnall:** I have one last follow-up and then I will hand back to you. We are losing out in terms of competitiveness to other countries. What can we be doing in a better way? Is it our own domestic policy that is holding us back? Is net zero holding us back? Is our high tax a problem? Is our slow growth a problem? Some of these issues are



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systemic problems that need to be addressed. It is delightful to hear that we are beating the French—we are always happy to say that in Parliament—but where are we in terms of being able to close that gap?

Dr Torbett: I am quite sure net zero is a challenge in other sectors, but in this one it is more of an opportunity. The basic principle that we can be the home for really good science to improve the environmental performance of pharmaceutical manufacturing is real and credible. We want to grab those opportunities and export from them.

We need to make sure we have a stable commercial environment. We need to make sure we have a well-functioning, well-resourced and high-performing regulator. We are a very highly regulated industry for good reason, but it is important that we do not have delays as a consequence of that.

There has been some progress on the issue of those basic fiscal parameters like the capital grants piece, but there is always room to make sure that we are, as a minimum, on a level playing field with the countries that companies will be comparing the UK with. We probably have more to do on that.

Q151 **Jane Hunt:** The evidence from all three of you has been very exciting. Thank you very much indeed. Dr Torbett, very quickly, following on from what you have just said, Loughborough lost an AstraZeneca site in 2011 in the exact same way that you were talking about. I was going to ask you what triggered that. We have covered that.

If you had a blank sheet of paper, what would it take for the big guns such as AstraZeneca to come back? Perhaps more importantly, what more could we do with SMEs, spin-offs from universities perhaps, to improve their opportunities for growth?

Katherine Bennett, if you would not mind me asking you about hydrogen, emerging technologies and emerging industries, what more can this country do to really drive that growth as something that happens within this country, please?

Dr Torbett: I will try to give you a quick answer, but it is a really big question.

Chair: I am sorry. We do need to be quite quick.

Dr Torbett: I need to be quick. If you need me to follow up, I am very happy to. First, the AstraZeneca example in Loughborough was prior to some of the changes that have been made recently. At the same time as the Budget, we had an announcement of a significant investment from AstraZeneca in Speke and Cambridge, which is very positive.

We need to do more on shoring up regulation. We need to really deliver the life sciences vision, which we can come on to in another question, if there is time. We need to do more to make sure the UK commercial environment for pharmaceuticals is competitive.



Katherine Bennett: On hydrogen, there will be a report next week. We will send you a copy of it. Again, there is a huge opportunity. We need those companies to pivot and realise that they can do more in that sector as well. There is a lot of regional interest in that as well. I am happy to share more information shortly.

Q152 **Andy McDonald:** We have talked about the £4.5 billion investment in strategic manufacturing sectors from 2025 to 2030. Katherine, you mentioned Tata Steel. We are talking about providing £500 million to Tata Steel to assist with electric arc furnacing. It is similar with Jingye Steel in the north-east. To what extent are we talking about investment or bailouts? How are we going to make sure that money brings about a greater share of the global markets for the UK?

Katherine Bennett: Whether it is a bailout is potentially a question more to ask the Minister. I am involved in the transition board, which is dealing with the £80 million that has been allocated by the Department for Levelling Up to help the employees immediately impacted by that decision.

On the green steel opportunity that the £500 million has gone towards, many of my centres are very involved in that. We need to understand that the days of the blast furnace are over in terms of what is happening at Port Talbot.

Q153 **Andy McDonald:** The days of virgin steelmaking in the UK are over?

Katherine Bennett: I mean on that site particularly, because it is a very old facility. They needed to make changes and rapid improvements.

The transition board, as I was talking about, is more about how we can help the employees affected. It is also an important site. There is a freeport there. Working closely with the Swansea Bay city deal, we are looking at whether more clean energy work can be brought in there as well. That is one thing that the transition board is looking at.

Q154 **Andy McDonald:** How do we compare as a nation in terms of our investment in advanced manufacturing? How does it compare with our competitors?

Katherine Bennett: In terms of China and the US, they are huge superpowers. We have a lot of investment that goes in. My catapult is one part of that. There are other sources of investment too.

In terms of regional funding, there is perhaps much less. The Fraunhofer Institute, which is based in Germany, on which the catapult concept was based, has huge amounts of funding. They have been going since the 1950s.

Other countries put a lot more investment into not only manufacturing but R&D. Korea, Australia and Singapore have much longer-term funding opportunities. As I said earlier, we would suggest looking at a longer



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cycle of that. As Oriel said, the ATI funding was a significant step forward in terms of being long-term.

There are some other stats that I could share with you. We are not that strong on robots in this country. We need more investment in robotics.

Q155 **Andy McDonald:** Did we learn anything from Hitachi? You talked about regional success as people coming together. That was evidence of that happening, and yet that sector is in grave difficulties. What do you learn from that sort of experience in terms of that long-term view?

Katherine Bennett: Are you talking about rail or nuclear?

Andy McDonald: I mean rail.

Katherine Bennett: That is not an area I am that familiar with, I am afraid.

Q156 **Andy McDonald:** It is advanced manufacturing. That has not been sustained in terms of integrated policy.

Katherine Bennett: No. There are a number of factors that companies have to consider when they are deciding whether to continue with an investment or developing more. I cannot comment particularly on the Hitachi situation.

The most important thing for me is, as I said, to get our shoulders behind the wheel and to demonstrate that we want companies to invest. We have the capabilities; we have some opportunities. The net zero one, as we have said already, is a big opportunity.

Q157 **Andy McDonald:** In terms of working together, what discussions were had with Government before the announcement of the £4.5 billion? Were you engaged in those discussions prior to the announcement?

Katherine Bennett: I know there was a lot of consultation with industry. I was quite blown over, to be honest, by the figures that were announced in the Autumn Statement. It was very welcome, as has been mentioned here. The capital expenses issue and the emphasis on skills were very welcome, but there is always more that can be done.

Q158 **Andy McDonald:** Given that level of investment, which is very considerable, what should the taxpayer expect in return in terms of equity or other dividends, if I can describe it in that broader way?

Katherine Bennett: I can assure you that, when it is money allocated to the Aerospace Technology Institute or to support organisations such as the Advanced Propulsion Centre, which is the key thing for automotive, impact and measurement is absolutely the name of the game. My life is spent demonstrating value for money.

There is a lot of measurement. There are a lot of surveys with companies about the benefits. A recent report said that people who have worked



with catapults are very much more likely to invest more because of the work they have done with our organisations. The measurement of the impact of that cost is always an absolute priority question.

Q159 Andy McDonald: Finally, Oriel, you mentioned the Aerospace Technology Institute. It told us that the UK could grow its share of the global aerospace market from 13% to 18% by 2050 with the right support. Can the UK expect that level of growth for the sums that it is going to invest? Can we expect that sort of return?

Oriel Petry: We agree with that as a benchmark. If I may just add to what Katherine said, the UK is very good at public support for R&D. Across advanced manufacturing—this is why Katherine’s organisation is so key—we need to pull that public investment at the start through to commercialisation.

If I go back to the civil aerospace challenge that I set out before, for us that is particularly about the ramp-up, which is driven by more sustainable and fuel-efficient aircraft—that is why we have these big numbers—and the ambition to have a new generation of more sustainable aircraft and a hydrogen-fuelled aircraft by 2035.

That pull-through to commercialisation is something that the UK struggles with. I am not saying that is the case for the UK in particular. It is a difficult challenge across developed nations, but there are things that we have identified. We have a supply chain of about 3,000 overall, with 2,000 on the defence side and 1,000 on civil. We need that supply chain to be agile and resilient. Our supply chain tells us that it is difficult for them. Because our timelines are so long and because the upfront investment is so large, they find it difficult to raise capital.

In terms of pulling through this public spending, we definitely see a challenge. There may be an opportunity, given that London remains the centre of financial prowess, to look again at how the financial sector can work with advanced manufacturing to pull through that investment at the front. As we have said, the capability sits here. If we get that right, the return that the Government have set out could be greater.

Q160 Charlotte Nichols: I want to turn to the key vulnerabilities in the supply chain that UK-based advanced manufacturers rely on. Dr Talbot, turning to the pharmaceutical sector in particular, we have seen a number of shortages of key medicines in recent years, including a current chronic shortage of medication for ADHD. That is causing misery for my constituents, many of whom have been left very vulnerable as a result of this.

When I have raised this with the Secretary of State for Health, her response was that the Government could not wave a magic wand to resolve the supply chain problems. While on a very literal reading of her remarks that is true, is there more they could be doing as UK Government and, if so, what?



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Dr Torbett: You have raised an extremely important point. There is nothing more distressing than the patient impact of medicines not being available. You have identified one of those examples in ADHD, and there are a couple of others that are very acute at the moment.

It is extremely important that the right level of collaboration takes place between everybody involved. That means manufacturers, wholesalers, the National Health Service and of course the Government. We need to do as much as we possibly can to predict demand. We need to do as much as we possibly can through things like international trade agreements, multilateral agreements and bilateral agreements to ensure there is really good movement of goods around the world.

From a longer-term perspective, from a manufacturing angle, if I can connect the two conversations, clearly we want to make sure the UK is as attractive a place as possible to manufacture, but equally we have to be realistic that we cannot manufacture everything. We really need that level of collaboration and demand forecasting and we need to have a global framework in place to minimise any risk of the sort you are talking about.

Q161 **Charlotte Nichols:** Ms Bennett, as chair of the UK Task and Finish Group on Industry Resilience for Critical Minerals, how confident are you that UK manufacturers can rely on a stable and secure supply of critical minerals?

Katherine Bennett: The Task and Finish Group is a fascinating thing to be part of. We had lots of different industry sectors sitting around the table looking at what rare earths they use and where they access those materials. There are a lot of challenges. A lot of the supply comes from China and Russia. For understandable reasons, they are not countries that we are currently able to import much from.

Again, we saw opportunities. There are opportunities in Cornwall on lithium, for example. Many of the electric vehicles and washing machines use permanent magnets. There are issues about accessing those.

We did a bit of a landscape review about where we all are and there were a lot of commonalities between sectors, which was helpful. My report was sent to the Department for Business and Trade. The Minister will be responding to it. Some response has already been made.

Around the table, I found a huge desire for closer collaboration across a number of sectors. This is a helpful point in terms of industrial policy work overall. Yes, you need the individual sectors within manufacturing to work together, but there are a lot of cross-cutting themes as well, and critical minerals is one of those.

Q162 **Charlotte Nichols:** Dr Torbett, I want to turn to some remarks that you made earlier around new drug discovery and how important it is in the British pharmaceutical sector, and some of the points that have been raised about us not necessarily having the most joined-up approach to



industrial strategy across Whitehall. What impact does the Home Office licensing and scheduling regime under the Misuse of Drugs Act have on research and development within the pharmaceutical sector?

Dr Torbett: If I may, given the specificity of that question, would you allow me to write to you with a proper answer for that? I would need to be sighted on the detail.

Charlotte Nichols: Yes, I would be very pleased to do so.

Q163 **Ian Lavery:** I want to look back to the Government's 2017 industrial strategy, which, as Mr Mangnall said, has already been archived. As normal, he took my question.

Anthony Mangnall: I am sorry.

Ian Lavery: That is by the by. Looking back at the 2017 industrial strategy, what lessons can the Government learn from that industrial strategy? What worked well? What perhaps could have worked better? How has the Government's approach to industrial strategy changed since 2021, when they archived the industrial strategy of 2017?

Katherine Bennett: I was in a major international company at the time. It was incredibly important for the UK Government to put their best foot forward in terms of a strategy. Many other countries do the same, and many other investors were calling for it.

The benefit, as I said, was in getting companies around a table. That worked well. The industrial strategy was published. There were various different sector parts of it.

The other important thing is that there are new sectors now emerging that we need to have strategies on. As I said earlier, in many ways the industrial strategy is still alive and kicking. It has done a good thing. It has set up some very good organisations.

The other thing to say is that, given how our economy has developed, there is horizontal work to be done. I have not mentioned digital or AI this morning. Again, many companies in our sector need to use more of those technologies. There are lots of initiatives, working with organisations such as the Alan Turing Institute.

It could do with being revamped again. We need to see a focus on it again. It really helps when I am out trying to sell our country as a place for companies to invest in, talking about the opportunities in my centres and how we can help investors. It needs a new review, potentially, and a bit more focus on it.

Very importantly—I am sorry to keep talking about offshore renewable wind—we need different Government Departments to work together in a more strategic way. For example, the Department for Net Zero does a lot on renewable wind, but it does not mandate that some of the supply



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chain should be from the UK. That is the kind of thing that would work well on a horizontal basis.

Q164 **Ian Lavery:** Just while you are on that point, Ms Bennett, you recommended that the Government should establish an industrial policy unit in No. 10. What was the thinking behind that?

Katherine Bennett: It was exactly that.

Ian Lavery: It was exactly what you are saying.

Katherine Bennett: Yes, it is about getting a bit more laser-focused on working together across manufacturing as a whole, whether that is the Department of Health, which Richard knows more about, or other Government Departments too.

Dr Torbett: I just want to give a quick compliment, specifically from the life science industry. We were one of the first sectors post-2017 to have a sector-specific industrial strategy, which did some really good things, including in manufacturing.

To answer your question, the things that were missed at that time were primarily the importance of the link between the economic activity that the industry does in this country and collaboration with the NHS. Five years after 2017, we have the life sciences vision, which is a refreshed version of that document, which has done two things.

First, it has re-emphasised partnership with the NHS. Whether that is in clinical trials or sometimes on manufacturing, that is incredibly important. Secondly, it takes the so-called mission-oriented approach. It has tried to identify some societal goals, such as dementia, cancer or addiction, around which the innovation in the industry can really help society and grow the economy at the same time.

If you can hook the industrial policy around those societal missions, you can hopefully achieve multiple purposes. We can support the NHS better and we can try to generate the economic activity that can grow manufacturing, research and exports here as well. That is the goal.

Q165 **Ian Lavery:** Is it right that the 2017 industrial strategy has been shelved? If it has been shelved, is that a positive thing? Is it a negative thing?

Dr Torbett: Specifically for the life science industry, it evolved into something called the life sciences vision. I would not read too much into the labelling change, personally. What matters is that the core underlying drive to focus on high-value R&D-based missions is still there. That is still a live document and it is still being implemented, but we would like to see it being implemented quicker.

Q166 **Ian Lavery:** Ms Petry, what is the Government's approach, in your view, to industrial policy at this moment in time?



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Oriel Petry: I hope this came through clearly, but, from our point of view in civil aerospace, these issues of scale, capability and the global context are reflected in the relationship that we have both in the Aerospace Growth Partnership, which is the industry-Government forum, and in the Aerospace Technology Institute, which puts money from industry and Government into IP that is going to be delivered here in the UK and therefore we expect to be commercialised here.

I would add one thing. The challenge we face, which Katherine has referred to, is this pivot. The drive for this backlog is needing to get to net zero. In addition to an industrial strategy that is looking at ensuring that the supply chain is resilient, that it is properly funded, that we have the right skills and that we are projecting that strength internationally, the other piece for us is that we have a regulatory framework that allows us to have enough sustainable aviation fuel to reduce our carbon emissions.

That is a big debate that we are having. Again, hydrogen is going to be critical. The UK is in a great position to leverage that change. In the longer term, when it comes to hydrogen, there are a number of questions that we need to answer from an infrastructure and a regulatory perspective, all of which then adds to that picture around competitiveness.

That illustrates well that this is not just about anchoring the industry here; it is also about creating the right environment for new industries to develop. That may be the next step in us developing this. At the moment, that is slightly split across Whitehall. Making sure that those things are pulled together is really important.

Q167 Douglas Chapman: Thanks for all the information today. You know that we have taken quite a lot of evidence so far. One of the people sitting in your chair previously was Lord Mandelson. He described the UK as being in a dreadful hole in terms of industrial strategy and the potential for further growth. That was based on the lack of coherence, the lack of alignment and consistency in policy, the constant revolving door of Ministers and staff within Departments and the dearth of a long-term vision. That sounds like a recipe for failure, but you have given us some examples of successes today as well, which has been really good.

We are nearly at an election. When an incoming Government, of whatever shade or colour, come in, what should they do to reset the industrial strategy dials?

I would like you to say something, if you can, about two areas that I am really interested in. One is SMEs. While a global strategy is fantastic, some smaller companies, those with 20 employees or something, do not see that global picture. The second area is skills. We have real issues in terms of the skills landscape at the moment.

How do we fix some of these issues? How would an incoming Government fix some of these issues? It will not be my responsibility, but it will be



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interesting to hear what your views are.

Katherine Bennett: For me, it is about putting our shoulders to the wheel. I have said that already, but it is about putting our best foot forward and promoting manufacturing. We are eighth in the world; we want to go higher. We have fantastic universities. We have some fantastic companies, large and small, in manufacturing. The net zero challenge is a challenge, but it is also an opportunity. Any incoming Government would focus on that.

The Scottish Government have a big policy of supporting manufacturing as well. Our centre up in Renfrewshire, National Manufacturing Institute of Scotland, was a joint investment with the Scottish Government and my organisation. NMIS specialises in forging, in these huge large-scale structures needed for companies such as Rolls-Royce, Boeing, et cetera. The nuclear industry is another key opportunity.

For me, a future Government should put our best foot forward. Yes, there have been some Ministers who have changed, but a lot of the officials in that Department have stayed. There are some there who were there when I worked at other companies. There are officials of high quality, and we deal with them. Ministers have always been pretty supportive. When Lord Harrington was Trade Minister, he really flew the flag and he has never stopped. I know he appeared in front of your Committee as well.

In terms of SMEs, since my catapult has been in existence since 2011, we have worked with 30,000 companies, 57% of them SMEs. They come to us because they can learn from other SMEs. We do a lot of convening. As I said earlier, they can come and use our equipment. Those are national assets. We are open access centres. There is a real effort. We are really measured hard—I can assure you—on the work we do with SMEs.

Oriel Petry: I hope this has come through, but there is a great foundation here. I would leave the Committee with this idea. In civil aerospace, there was a moment in 2010 when a vision was developed. That is a model that could be replicated, particularly for the other sectors that we operate in. We would love to see it in space.

In defence, where the Government is the market creator, this idea of really making sure that procurement does not just look at cost but looks at the development of IP in quite a focused way is really important. The challenge that we see here is that the Minister can make a statement—50% social value is the way that the Ministry of Defence terms it—but we have not yet seen that pull through into the actual procurement. That is a key opportunity.

It may seem like a small point that Katherine is making, but, again, in civil we have had the same official since 2015. He was praised last week when we were celebrating the Aerospace Technology Institute. There is something about the longevity of him and him really understanding and having built expertise that we have also benefited from. We could see



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that pull through into the Treasury's advanced manufacturing plan. That stability, which is unusual in Whitehall, is something that any new Government could encourage.

Q168 Douglas Chapman: I have one more short question. Maybe Richard could take this last one. It goes back to a comment that was made by Fhaheen Khan, who is the senior economist at Make UK. He said that we cannot go on with business as usual and that, if we are serious about long-term growth, we will need to address the industrial strategy issue. He suggests that this is a matter of national urgency.

First, is anybody listening to that message? Secondly, do you see it as being urgent? Have we fallen behind our competitors too fast? Will we not be able to recapture the bits of the market that we should be excelling in?

Dr Torbett: It is a very broad question. It is urgent because we want the UK to be a prosperous and successful economy. We have a real productivity crisis. We have had one for a number of years, and it has got worse. We need to have a very smart way of doing the things that are most likely to grow the economy in the most equitable way across the country.

Q169 Douglas Chapman: Is it urgent?

Katherine Bennett: It is urgent sector-wise. We also need to remind ourselves about the benefits of working horizontally on such things as AI and digital, et cetera.

Chair: I thank our witnesses for this session. I just want to pick up a couple of things that were said. We heard that the UK is great at providing support for R&D through our universities, but the challenge is to get that to commercialisation. That is exactly the role of the catapults, as Katherine has told us about. Katherine, you also said that we cannot be good at everything and that there is a good reason for us to focus on where our specialities lie. Oriel, thank you for reminding us that we are the eighth-biggest manufacturer and that we have overtaken France. Thanks very much.