



Built Environment Committee

Corrected oral evidence: New towns: bricks and mortar

Tuesday 23 June 2026

10.50 am

Watch the meeting

Members present: Baroness Andrews (The Chair); Lord Bailey of Paddington; Lord Bassam of Brighton; Lord Cameron of Dillington; Baroness Janke; Baroness Lawrence of Clarendon; Baroness Miller of Chilthorne Domer; Lord Ravensdale.

In the absence of Lord Gascoigne, Baroness Andrews was called to the Chair.

Evidence Session No. 1

Heard in Public

Questions 1 - 14

Witnesses

Rebecca Larkin, Head of Construction Research, Construction Products Association; Katherine Adams, Technical Director, Alliance for Sustainable Building Products; David Hopkins, Chief Executive, Timber Development UK.

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Examination of witnesses

Rebecca Larkin, Katherine Adams and David Hopkins.

Q1 The Chair: Good morning, welcome to the Built Environment Committee. This is the first evidence session of our inquiry into new towns—the third of our inquiries—entitled Bricks and Mortar. We are very fortunate that we have joining us three experts in the field: Katherine Adams, who is technical director at the Alliance for Sustainable Building Products, David Hopkins, the chief executive of Timber Development UK, and Rebecca Larkin, head of construction research at the Construction Products Association. Welcome to you all. David, feel free to take your jacket off. We are all struggling with the heat.

We are very grateful that you are with us today. We have quite a lot to get through and therefore, as always, we are asking people to keep their questions and answers short. You do not all have to answer every question. If you feel one of you is best placed—some will be, for example, about timber more specifically, or other products—just judge between yourselves who is best placed to answer. Will you introduce yourselves very briefly before we get to the questions? Katherine, you can start.

Katherine Adams: I am technical director for the Alliance for Sustainable Building Products. We have around 160 members across the supply chain. Many are manufacturers of mainstream products—concrete, brick—but a lot of others are in natural fibre insulation and bio-based.

Rebecca Larkin: I am head of construction research at the Construction Products Association. It is an umbrella trade association that represents product manufacturers and material manufacturers in the UK. It is an industry that has a turnover of £68 billion. It employs more than aerospace and automotive manufacturing, so it is a considerable chunk of the economy.

David Hopkins: I am the chief exec of Timber Development UK. We formed a few years ago from the merger of two other trade associations, the Timber Trade Federation and the Timber Research and Development Association, one of which represented the sawmills, importers, distributors and merchants, and the other represented manufacturers of timber frame, architects and engineers. We have tried to make an entire supply chain organisation from end to end.

Q2 The Chair: Between you, you cover all the products involved in building new towns. That is great. Before I ask a question, I should declare that I have no interests to declare.

My first question is an obvious one. We have heard in the evidence we have had across two inquiries that one of the anxieties facing people who are going to be involved in designing and construction and making the new towns is the provision of the key products. Our inquiry is to dig down into how serious this might be for our ability to deliver and deliver on time. Is there a shortage of construction materials? Where is that shortage most acute and why? Can you make a realistic assessment of

risk going forward, so that when we talk about solving the problem, we will know how realistic you think it is to do that? I will start with Rebecca because of your overview of what is going on.

Rebecca Larkin: I think it is important to say that construction product manufacturing has a derived demand. It flows into construction. It needs construction activity and responds quite well to construction activity. Shortages are actually quite unusual; there are specific circumstances when they can occur. If you are coming out of a sustained downturn, the manufacturing industry may have closed capacity. It takes some time for that to come back on and you can have lags between demand from construction and the demand being fulfilled by manufacturers. That is one situation when you can have short-term supply issues.

There are unpredictable factors as well, things like blockages in the Strait of Hormuz, for example. If there is a fire at a factory that produces chemicals, that is entirely unpredictable but can lead to shortages, obviously.

There are some very product-specific issues coming along the line. We have steel tariffs being implemented next week. That is primarily a cost issue, which can also feed into how people procure their materials, but there are issues for certain elements of steel manufacturing in this country. We do not produce low-carbon steel, so we have to import that. That will be subject to the tariff. There is a loophole that means that steel fabrication can be imported tariff-free and that will, therefore, affect domestic steel fabricators as well.

Over the longer term, there is the issue of planning for the extraction of mineral products. I am sure you have heard submissions from the Mineral Products Association on this. Planning for what we do about permitted reserves for mineral products will be a key issue as well because that is a long process. It is a costly process that will need to be dealt with before new towns start to come along the line and will take five to 10 years to plan for and get in place.

The Chair: We are looking at a variety of challenges there, absolutely.

Rebecca Larkin: Yes.

The Chair: Can I turn to Katherine next for your perspective? Do you agree with everything Rebecca said? Is there anything you want to add to that analysis?

Katherine Adams: I think it is very material-dependent and very dependent on where we get our materials from and if they are domestically produced or imported. Then the whole mix of energy comes into that. Our energy tends to cost more here. A lot of bio-based materials may be grown, so there is a bit of contention there with land use and how much of the land should go for food and forestry versus other bio-based crops. I know there is talk of sustainable aviation fuel, so

that is a direct competitor with some of the bio-based materials that we see here.

A key message—and maybe this is something to pick up later—is being very efficient in how we use our materials and making sure that we use them appropriately, use less, therefore we have less risk to supply constraints as well.

The Chair: That is a question to follow up, where you think the inefficiencies are.

David Hopkins: I agree with Rebecca and Katherine on this. There is no real shortage of material per se, certainly not in our supply chain, but there has been a huge downturn in capacity to produce that, because people have mothballed factories and so on in response to the lack of demand over the past few years. That can come back, but in order to do so, people need to see long-term signals of demand and know that there will be a constant demand for their products. But in actual materials, no, we have a very good balance.

The Chair: Are you talking about the timber industry now, David?

David Hopkins: Yes, just specifically about the timber industry. We have seen sawmills reduce capacity and factories that had invested heavily in automation and robotic production lines, which have all been mothballed because there is not the demand there to satisfy that.

The Chair: How long has that been going on?

David Hopkins: It has been an ongoing process. You see it bit by bit in our industry. We have a network of SMEs. There are no really huge companies in our sector; there are lots of very small companies. I would say it has been slowly chipping away for the past four to five years.

The Chair: Have we not had to import more timber in recent years, post Brexit?

David Hopkins: The balance has not really changed in the past 20 or 30 years. If anything, we are producing more now from UK forests. There is a lot of work to do to increase planting in the long term but right now, the balance is fairly good.

Lord Ravensdale: Katherine, I want to pick up on something you mentioned about the cost of energy potentially affecting domestic production of building materials. Obviously, we have comparatively quite high costs of energy. What impacts have you seen across the industry with the high energy prices that we have in the UK compared to international competitors?

Katherine Adams: Rebecca probably has some facts there, but the evidence from when I speak to the supply chain is that there are examples where cement is now being imported instead of being

generated here. That could be from a lower cost option. Steel is a very good example, and that is why the tariffs have come in as well.

The way a lot of construction works is that contractors will use the lowest-cost materials available, and there is a bit of a conflict there, because these lower-cost materials are not always the lower carbon. They also have to be transported. We have quite heavy regulation here for protection of the environment and the workforce, and the environments that these materials are being produced in may not be as strong. Another example is importing bricks from places like India.

The Chair: Why are we importing bricks?

Rebecca Larkin: It can be the type of brick, but at the moment it will tend to be because we have closed some capacity.

The Chair: That is another of the capacity issues that David identified.

Rebecca Larkin: Yes.

The Chair: Is it possible across these products to determine what is being affected by capacity and what is being affected by shortage. If you were to follow up in writing, that would be very helpful, because it would clarify for us where the bottlenecks are and therefore whether there are some clear policy choices or policy impacts. Does anybody else have any questions on this first question? Can I ask you to think, before we come to the end, about where the real, immediate and urgent risks are? Maybe we can come back to that at the end.

Q3 **Baroness Miller of Chilthorne Domer:** Good morning. First, I must declare an interest: I have some shares in a West Country construction firm and merchandising product firm called Bradfords, based in Yeovil, Somerset. My question follows on from the Chair's. What should the Government be doing, in strategic terms, that they are not doing at the moment? I think you mentioned, Rebecca, that they could be doing more in the extractive industries, for example.

Rebecca Larkin: I think the current environment for construction plays a big part in what happens further down the line. As David said, there is a lack of growth in certain sectors of construction at the moment. There has been for the last few years and we are forecasting another decline in construction activity this year.

When you have had three years of contractions or very weak demand, the companies have to make decisions about what they do about their capacity, so a short-term stimulus would certainly be welcome. I know that the Treasury is not particularly open to the idea, but it is something that many across the industry and product manufacturers will call for now, because that really does shore up longer-term growth.

Viability is also an issue for construction projects, so things that construction products are flowing into. We have cost inflation, which will really accelerate in the next six months and will affect that viability even

more. Product manufacturers have higher industrial energy costs. We have the British industrial competitiveness scheme coming in next year. That is a 25% cut to industrial fuel costs. However, in the last three months, industrial fuel costs have risen by 40% or 50%, so that is doing very little at the moment. Could that be brought forward, for example? I think I will end it there.

David Hopkins: I agree with those points: I think that it is a stimulus for construction and the product sector will follow, given that it has enough time to do that. The signals have to be there for those decisions to be taken within the rest of the supply chain, regardless really of what those materials are.

The Chair: What is the nature of this stimulus? Can you tell us what you specifically want the Government to do?

Rebecca Larkin: One thing that we hear is needed across the industry—product manufacturers, contractors, housebuilders—is something for housebuilding. That is a sector that has really struggled over the last six, 12 and 18 months and will start falling away in the second half of the year. So, something on the demand side. It can be time limited. It does not have to cost the Government anything if it is something like another equity loan they can then cash in on as they are paid back, or something by the Bank of England, akin to the Funding for Lending scheme that we had back in the recession. That again does not cost the Government anything, but it can target a lower interest rate to lending specifically for mortgages. You can target it to first-time buyers. You could even target it regionally if required. A short-term, time-limited stimulus for housebuilding is something that we hear is needed across the industry.

Baroness Miller of Chilthorne Domer: It is a financial stimulus that would give some certainty?

Rebecca Larkin: Yes. On the long-term uncertainty, specifically linking this to new towns, early engagement with the supply chain is key. It is the notion that there is a pipeline coming through—and it does have to be a constant pipeline, as David has pointed out. The industry has been so disappointed, over decades, by major projects or major schemes not coming through. It is easy to lose confidence in large government announcements of things like new towns, so I think that early engagement and getting that confidence there is really key.

David Hopkins: I think everyone from all our different organisations is really supportive of the new towns initiative. The Government have also earmarked £39 billion for social and affordable housing and a lot of that could be brought forward. You could start to deploy that for some sort of direct commissioning of housing, in particular, and start spending that money to signal, as Rebecca said, that these large projects will happen and that they are starting.

Baroness Miller of Chilthorne Domer: Is there anything other than financial issues that you can think of?

Katherine Adams: There are some more practical solutions in my mind to create long-term certainty and delivery. We lack a national construction materials strategy, and that is to your point before about where we have capacity issues versus shortage issues, and map what materials we need.

For new towns, we have massive infrastructure and some of them are happening in the same geographies as well. There is a key demand on extraction materials in that respect: what materials are actually needed to fulfil these new towns; how much; when? That gives quite a lot of certainty to the industry, knowing that the pipeline has been thought about quite clearly. It should be a whole product mix, not dominated by one material—it cannot be—but low carbon where possible.

Baroness Miller of Chilthorne Domer: Thank you, that was very helpful.

The Chair: If we had a national plan for construction materials, would we be prioritising aggregates and cement within that?

Katherine Adams: I do not think it is necessarily prioritising different materials. It is understanding the different materials and their usages, where the options are to improve those materials, hopefully from a low-carbon perspective; so low-carbon cement, using steel that is lower carbon, timber obviously. Making sure that we have our own domestic supply is a really important point: how much of this material is domestic, how much is international, how we can build resilience in our supply chains?

The Chair: Would that also help with innovation, because we are looking to the new towns to pioneer new ways of doing things? That would be part of it presumably. Daniel, do you want to come in?

Lord Ravensdale: I was interested in what you just said, Katherine, about supply chains. Is there a coherent view of the supply chain when we look end-to-end for building materials? Do we have that view in the UK, some kind of map that shows what the supply chain is, where the gaps are, where the vulnerabilities are? Does a thing like that exist?

Katherine Adams: Probably not at the national level. I think people understand that to some extent when they are working on projects and contractors, but there is a less understanding of where materials actually come from. I know that the timber industry has been looking at responsible sourcing for quite a while, because a lot of timber is imported. Maybe Rebecca wants to come in with the CPA viewpoint.

Rebecca Larkin: I definitely agree. There is nothing at a national level and it is very much on the project level. When I was thinking about examples to highlight good engagement between major projects and construction supply chains, with the London Olympics there was very early engagement with everyone in the supply chain. The need for certain innovative products was embedded right at the start. Producers and

manufacturers could engage with the clients, the contractors, the designers, and get their products tested, displayed, exhibited, so that there was a real familiarity with innovative products that had not been seen before.

Again, that comes back to early engagement and getting the whole supply chain involved in the planning, the mapping-out of what is required, presenting innovative things, everyone getting used to them and familiar with them. Then you can expand and perhaps more easily get things flowing through the supply chain when it comes to the construction.

The Chair: Have you been engaged with the task force on the new towns. Did they talk to you?

Rebecca Larkin: No.

The Chair: You talked about early engagement. Do you mean site by site with the developers or the development corporation or whoever is in charge?

Rebecca Larkin: Yes, so the overall delivery vehicle.

Q4 **Baroness Lawrence of Clarendon:** My question is around new towns, and I think all three of you have already mentioned new towns. How can new towns delivery vehicles support and work positively with the materials sector? David talked about bringing all these different agencies together, so how can that happen? Also, what early steps can be taken to mitigate the risks?

David Hopkins: I go back to what Rebecca has already said about early engagement. Look at the plan that you are developing for the new town and you know that there will be different views and different needs in each town. Look at those and at the supply chains that can support the delivery and construction and what you have locally.

We have seen a lot of investment, particularly in the timber sector, in timber frame manufacturing and modern methods of construction, particularly in the category 2 where you get a kit of parts to speed up delivery within a lot of different schemes and developments. There has been a lot of investment across the country; similarly in other areas and other materials. I think it would be a good opportunity at an early stage, when you have a master plan, to map out exactly how that will be delivered and what opportunities it brings up for local people. Particularly in our sector, we see a lot of factories setting up in areas where they know there will be housing demand and they can set up relatively quickly. Look at that and at the material flows, to make sure that you are heading off any issues that may arise within supply chains, nationally or internationally.

Baroness Lawrence of Clarendon: When you first were speaking about materials and companies coming together, you were talking about some of the companies mothballing. How quickly do you think they will be able

to start on a project to get things moving? If they have been mothballed, it will take a while for them to start energising to get materials and stuff that they need.

David Hopkins: A lot of those factories have mothballed their automated lines, but they are still operating, just at a very low level, not using all of their new shiny equipment. They are still operating. To get that up and running to capacity would be probably six to nine months. By the time you employ new people and bring them in, bring the machines online, it takes a while. That is why you need long-term signals to understand that the demand will be there, the contracts and orders will be there. Early engagement can give the confidence for them to switch that back up.

Baroness Lawrence of Clarendon: And the skills that would need to be involved in that?

David Hopkins: Yes, particularly with the factory production side, the skills are easier to ramp up than on-site skills. That is one reason that most of the major housebuilders have bought their own timber frame factories, either bought companies or set up their own factories and production lines within their own business. They can control their costs, delivery, quality and output, but also the skills gap is a major crisis across all industries, not just our own but the whole of construction.

Putting people into factories and training them up to use machinery is a quicker process to get a high-quality product at the other end than trying to train people on building sites, notwithstanding the fact you still need people on building sites. There is a time lag, and it will be slightly different in all areas, but there will be a requirement for training and skills provision.

Baroness Lawrence of Clarendon: Rebecca do you have anything to add?

Rebecca Larkin: Yes. It needs to be determined, again at an early stage, who is taking on the risk. Can the new towns delivery vehicle take on some of the risk, particularly with all the viability issues that are facing housebuilders? I think there also needs to be some sort of scenario planning for cost rises and significant cost rises. For example, in 2022, after Russia's invasion of Ukraine, we had a big spike in inflation. Construction product price inflation peaked at 25% year on year. That has the potential to halt contracts, and they need to be completely renegotiated. Who would take on that risk? How that is managed needs to be built into the delivery vehicle and how they manage the contracts with that as well.

Katherine Adams: I think to reduce risk you need quite a diverse material palette so that you are not relying on one or two materials. We have a lot of materials already and there are a lot of existing buildings. Unfortunately, a lot of it is removed from demolition or whatever, so we should be looking at reuse and recycling, the whole circular economy agenda.

Another point I want to pick up on was more standardisation. There is a really good example in Wales—I cannot pronounce it but I can send it to you afterwards, apologies—where 25 social landlords have got together to standardise the design and delivery of high-performance affordable homes. They have done a whole design manual looking at the performance and structure of those. That has given good confidence to the supply chain; they know what they need to manufacture and how it should perform from an operational and energy point of view and also a health and well-being point of view. It is important to have those performance requirements early, good bones in terms of design, and to know how materiality can feed into that.

Q5 **Baroness Lawrence of Clarendon:** With the onset of new towns, do you think the industry is ready to go?

David Hopkins: That is a tough question.

Rebecca Larkin: I think the industry can be ready to go if we have some sort of support now that can prevent further mothballing of manufacturing capacity and if we can have the certainty that new towns will come through. It cannot just be one new town; manufacturers do not want to bring back plants and then have nothing after the first new town. There needs to be a constant flow of the new towns coming through. We can, but we need the confidence.

David Hopkins: To pick up on that and to come back on the skills point as well, and on Katherine's point about standardisation, you need several projects going at the same time and you need standardisation across the different areas, so that not only do the manufacturers and the contractors know that they are building to a certain performance standard and a certain design but the skills programmes that come up in those different areas are working to that programme. They are working to deliver the skills to make sure that they can meet the standards for those projects. It is a crucial point.

When people say standardisation, it does not mean that all the buildings will need to look the same. You can have a lot of standardisation and have very different looking buildings, but the details and performance requirements and so on will be the same.

The Chair: I will follow up on the very important question that Lady Lawrence asked specifically on the skills point. Are you saying that there are not only skill shortages but that the skills that are now being trained for need themselves to be upgraded because of the requirements of new construction and so on?

David Hopkins: Yes, exactly that. If you think of a building project, there are lots of different trades and lots of different roles within it, so there are a lot of different skills needed. The more that can be done with pre-manufacturing reduces the need for the skills on site, but they will still be needed. In a way, all those different trades have gone through a bit of a transformation in what they do and how they do it. I think the

qualifications now need to catch up with what actually happens in practice.

The Chair: We can follow that up in a further series. Rebecca, I have one very specific question for you. We talk about cost pressures in the industry and you talked about the 25% spike after Ukraine. Could you give us a table showing cost price hikes across the products so we can see some of the impacts as they affect specific products and compound the other issues of long-term planning and short-term capacity?

Rebecca Larkin: Yes, I can compile that data for you. It is restricted to what is publicly available, because of the competition rule, but there is certainly data that I can compile.

The Chair: Particularly for steel. Clearly, that is a case that is bound by all sorts of other political considerations, which we need to factor in when we are thinking about future capacities as well.

Q6 Lord Bailey of Paddington: Let me put a question to you all. Is the development of new towns and expanded settlements an appealing opportunity for the building materials and construction product sector? What, if anything, differentiates new towns from similar sized projects? If we have a number of new towns, that means you can ramp up supply, you can start to look at materials, but is there anything about new modern construction techniques, the fact that these should be fairly large or very large developments, that will be particularly attractive because it is a new town?

David Hopkins: One good thing is that, because they are extensions of existing towns, in the main, the infrastructure is already there, or you can build on the infrastructure that exists. The roads, the transport links, utility links, all that sort of stuff can be there to help speed up the development. It lends itself then to other innovative forms of construction. You will have neighbours cheek-by-jowl with where you are building and you will want to minimise deliveries, waste, noise, all that sort of thing. A factory-build approach lends itself to well to that and performs better in those areas.

Coming back to your point, yes, it is very attractive, because it allows all the sectors, whether it is timber or any other material, to invest in its own supply chains and ramp up that production to make sure that they can meet those things, particularly, as we said earlier, on a standardised basis. If we know that there will be similar units across all these towns, the sheer volume creates the opportunity.

Lord Bailey of Paddington: Rebecca, what would the Government have to do to signal that they are serious, that this is a development that can be relied upon, that it is time to invest? What steps would it take to make that really hit home?

Rebecca Larkin: I am not sure. We have been so disappointed by things not coming through and I am not sure what the next steps are, to be honest. It is a completely different sector, but the road investment

strategy has been delayed. Manufacturers were gearing up for future road projects coming through, major road schemes are cancelled, and we have no signalling for how that will pan out over the next five years. I am not sure what the Government can do about that, to be honest. It may be that you just need to start the ball rolling, get the land purchases made, set up a delivery vehicle and get the early stages done so that we can see that they are coming through.

Lord Bailey of Paddington: Katherine, do you agree?

Katherine Adams: Yes, we need to see action and we need to start getting on with it. That is the best signal you can give to the market. The market needs confidence to be able to invest and deliver, and without that confidence, they are not going to do it. Why would they?

Lord Bailey of Paddington: I have a slightly different question to you, Katherine. If you look at the infrastructure of this country, it has been built the same since the Victorians—literally the same techniques and the same materials. Is this an opportunity to use different materials? I look at the roads for instance; our roads are in an absolutely horrific condition. You drive on a motorway and you hear massive amounts of tyre noise when you go over concrete, then they will have patched it with tarmac and it will go quiet and you think, “Why did they not do the whole road in tarmac, what has gone on here?” Is there an opportunity to ask for different materials to build our infrastructure differently?

Katherine Adams: Yes, definitely. As I said before, we should have a diverse material mix and low-carbon materials, bio-based carbon, circular materials should be an important part of that. The new towns act as a brilliant opportunity for test beds of innovation, but not innovation for innovation’s sake. A lot of materials that are out there already perform and meet standards, but the challenges are often not technical, they are often that people just like to do the same thing, they always specify the same materials. Sometimes it can be hard to get insurance on certain materials. That can be an issue with mass timber, for example. A lot of it is behaviour change, but there are lots of opportunities, from low-concrete cement, low-carbon steel, hemp, clay, straw. It is looking at what is in your local area and applying some history to that—some of the local materials and vernacular that have been used.

Lord Bailey of Paddington: Chair, before I go on, I should declare my interests. I am the chairman of Faraday Ventures, which delivers social housing and family housing. I am also the Conservative lead for housing on the Greater London Authority. I should have started with that.

My final question is around what we can do to encourage different building topologies? For instance, timber. Half of America is built with timber; why is that not the case here? I will also ask Katherine about testing, because we had the horrific goings-on at Grenfell and, as a bystander, you would have thought they would have tested that material. How do we use this as an opportunity to test, avoid those kind of things and also use different topologies?

One of my real bugbears in this country is that we talk about building on flood plains, but many of the places we want to build on are flood plains. I have been to countries—Holland, for instance, and parts of Jamaica—where they have houses that float. Why do we not do that? I am imagining that a timber house is quite light, you could make it float, but why do we not have this level of innovation in our goings-on and where are the opportunities to have this happen?

David Hopkins: You can certainly do all those things; technically all those things are possible. Coming to your point about why do we not build more in timber, in Scotland, about 85% of housing is built in timber frame. They do that because there is a culture of “This is what we have always done and this is what we carry on doing”. Construction is very conservative and does not change very quickly. Although there is a lot of innovation there, we carry on with the same methods, the finance behind it starts to look at those same methods and be comfortable with it, and all those sorts of things.

However, we are seeing a big increase in the timber frame. All of the big housebuilders are now using timber frame to a greater or lesser degree, either by owning their own factory or buying in from the supply chain. We are taking a bigger proportion of market share, albeit in a declining market right now. The signs are positive that the industry will embrace things, and it is driven by necessity. The lack of skills and that skills crisis is driving people to look for other ways of delivering buildings.

Some of the regulations about thermal performance—Part L of the building regulations—have led people to realise that you can get a better insulated wall and a thinner section if you use timber and other natural materials. It has been necessity driving it, and then cost.

As for the floating houses and houses on stilts, yes, we can do them. People are just reticent and it is a cost issue. If you start doing more things for your building, you add more cost, and we are a cost-averse country. I have seen the developments you are talking about in the Netherlands that go up and down as the tide comes in and out and the water levels rise and fall, and we can certainly do that here. It is just a question of money and viability a lot of the time.

Katherine Adams: A lot of it is about perceived risk and how you manage that. Any perceived risk adds cost to a project. If you are using a material that you are not sure of—it may have standards but there is uncertainty within it—that will add cost. I think it is important that the new towns demonstrate the different opportunities there are with different types of materials. Some are commonly used, just not at scale. There is a lot of natural fibre insulation, for example—wood fibre, straw, wool, all those sorts of things—but it is not commonly used, so there is uncertainty about how it can be used.

Lord Bailey of Paddington: How much of our materials do we produce at home? Are we a massive importer? Are we importing things that, with a little change, we could produce here?

Rebecca Larkin: We produce around three-quarters of what we use, so we import just one-quarter. There are some things that we do not produce here, cannot produce here, and again, they will fill the gap during times that domestic capacity cannot. It fluctuates a bit, but three-quarters is produced here.

The Chair: That is helpful.

Lord Bailey of Paddington: One last thing is that I think we should speak to the insurance industry, because a lot of perceived risk, a lot of making things happen, can be underwritten. If new towns want to do something new, if we can find parts of the insurance industry to underwrite it, it is much more likely to happen.

The Chair: It is an interesting idea.

Baroness Janke: Reservations from the insurance industry for things like flood management and use of certain materials would be helpful too.

The Chair: Good idea, thank you, Barbara.

Q7 **Baroness Lawrence of Clarendon:** I want to follow up on timber frame. Is there not a risk around timber frame? I visit parts of America where they do construction around timber frame and then put the bricks around it. If you have a hurricane or whatever, the first thing that will go is your house, because it does not have steel as part of the main structure. Is there not a risk if a house is mainly timber frame? Another thing is on the floating house. I know in "Grand Designs" on TV some years ago, there was something about a house built on the river front, and when the river rises, the house rises, so it protects the house. But the main thing is the timber frame and the risk around that.

David Hopkins: No, there is not. It is a very simple answer. There is no greater or lesser risk building with timber frame than building with any other materials. The main housebuild is the inner leaf of a house, what would have been breeze blocks and so on, and that can be constructed as perfectly stable and strong, with all the various dimensional strengths that any other building or house would have. Then it is, as you say, covered with usually just a thin brick slip so that it can be done much quicker on the outside. It looks like bricks and mortar—the name of your inquiry—looks exactly the same as any other house and performs exactly the same as any other house or building. There is no loss of performance strength or performance class with doing that.

It allows you to build quicker, because you have a kit of parts that you can assemble on the same foundation—you still have a concrete slab foundation that you will be building from. It allows you to do that quicker, get it weather-tight quicker, so that people can go in and do the follow-on trades a lot quicker on the site. It speeds up the delivery of the housing and means that your project is not slowed down, but there is no real difference there. I think people have seen "The Wizard of Oz", and that does not happen.

The Chair: Thank you very much. I would like you to write to us about the notion of standardisation, if you will, because that is an interesting but slightly complicated concept for the character of the different new towns and how that relates. What you have been saying, Katherine, about the use of local vernacular materials like hemp and so on clearly achieves a bit of a niche requirement for some houses, but I do not know that you can make it a universal requirement. Anyway, could you do that in addition to the other homework? I am sorry, I keep asking you to do more.

Q8 Lord Ravensdale: Before I go on, I forgot to declare my interest earlier. I am a chief engineer working for AtkinsRéalis. We do a lot in the built environment.

My question is around the environment. In Parliament, we have done a lot of work in recent years on amendments to legislation related to embodied carbons. You will know about the proposed Part Z to the building regulations. I am interested to dig into some of the comments earlier about that and how the development of new towns can mitigate their environmental impacts through building materials, but within that also looking at the impacts on cost. Clearly cost is a concern that has come up several times, but what are the potential economic benefits in developing those supply chains? David, will you start?

David Hopkins: We are strong proponents of Part Z. Part Z is a proposal to regulate embodied carbon in materials and in buildings, and it is quite a detailed proposal to go into the building regulations. We are obviously hugely in favour: timber comes out very well, because it has very low-carbon properties. We certainly support that.

I think to be materially agnostic, though, about the whole thing, rather than just looking at a pro-timber side looking at regulating, the embodied carbon can have cost benefits for the project itself. You will usually be using products that require less energy in their manufacture and the supply chain that supports them. Timber is one, and it uses considerably less energy to produce, because the trees grow on their own and they do not need help with that, just sunlight and water. Then the rest of the processing chain that happens through sawmilling, manufacturing and so on is very low energy compared to a lot of other materials. It comes out well in embodied carbon, but also in energy costs, energy demand and energy security that you have to think about if you want to expand any manufacturing sector in this country.

I think there are ways of regulating the cost, but it is a cost that comes through the supply chain and then a cost that comes through the performance of the building. If you look at how long you are building a building for, what your energy demand will be, you do not just regulate the embodied carbon of the materials, you build it to make sure that the operational carbon and the operational energy within the use of that building, once it is built, is very low and performs well. Then your savings will come through that. I take your point about upfront costs, but I think you have to balance them against the lifetime costs.

Lord Ravensdale: What about the benefits for supply chains? I am just thinking about utilising new materials, developing those supply chains, or the export opportunities, including to Europe, of bringing these regulations in.

David Hopkins: The opportunities you see are the investment in new products, particularly from the timber sector, products that can compete with certain steel sections, concrete slabs, those sorts of things. There are things like laminated veneer lumber, LVL, which is now more and more common as a replacement for steel beams, and cross-laminated timber, as Katherine mentioned earlier, that we see particularly in larger office blocks being built. We have seen a lot of schools and larger mid-rise buildings coming through with those. It is as a result of regulation over carbon, performance and the use of modern methods really. The skills crisis is the mother of invention for a lot of the products coming through. We are seeing innovation in the product manufacturing and innovation in the buildings that come through.

Lord Ravensdale: Rebecca, what are your thoughts on the environmental side?

Rebecca Larkin: I have a colleague who is much more well-versed on the sustainability angle, so I will feed in with a written response.

Katherine Adams: I wholeheartedly agree. Especially in new towns, we need to mandate for whole-life carbon performance assessments. As the future home standard comes in, the operational energy impact, the carbon impact of that is relatively small over time now, because our houses are becoming very energy efficient, with renewable energy sources. But the amount of the carbon attracted to the materials is about 70:30 at that point, so need to look at where our materials are coming from, the carbon within them, in the projects and products that we work with.

If you have a requirement for performance, we see low-carbon products. There is more innovation in the project. There is more looking at what is available locally as well, so we need whole-life carbon benchmarks for that. We also need to ensure that all these products are responsibly sourced, to make sure that the materials come with lots of other impacts—for example, biodiversity loss, land loss, land extraction and all those sorts of things.

Lord Ravensdale: What are your thoughts on the regulation on Part Z?

Katherine Adams: I think it is a good thing. We are falling behind quite a few countries in Europe. We need to measure it. There are many standards and we have a good way of measuring it. We need to know where we are, benchmark-wise. The net zero carbon building standards that were released recently have benchmarks for different types of buildings and tracking it with the carbon budget. That is a really useful tool. It is always the case that if you do not have regulation, some will do

it, a lot will not. Unfortunately, a lot are not, because there is no requirement for them to do it.

Q9 Baroness Miller of Chilthorne Domer: At the beginning of this session, I think it was Katherine who mentioned the issue of reducing the amount of materials, which is one thing. Could you expand a bit on that and also, what about reuse and recycle?

Katherine Adams: Of course, yes. Something that often gets ignored is the material efficiency, how efficient are we in the materials that we use? A lot of that can be structural, because that is where our heavy materials are used. Can we make lighter structures? Can we use materials more cleverly, look at the different floor loadings, for example, in a structural piece?

There is a lot of waste still. We go on to construction sites and some products will have 15%, 20% of waste associated with them, and that is new products just getting skipped. That is an opportunity for new towns, for people to come and share the surplus materials and have better ordering and procurement practices. Unfortunately, a lot of waste is just costed into the whole process.

There is more happening on reuse and recycling. There is more of a demand for reused materials. It is very dependent on the buildings you have and the materials in them. One of the challenges there is making sure that those materials are fit for purpose and can be reused. The steel industry has been really good at that. They have a whole protocol where you can re-CE mark a reclaimed steel beam. It is a 95% saving in carbon and is also cheaper, so it is a win-win situation. We need lots more of those different protocols, so that specifiers and developers have surety of those products.

There is also a role for manufacturing to invest and try to get more recycled content in their products, which they are doing, but it can be quite tricky because of the overall manufacturing environment.

David Hopkins: I want to pick up on one point from what Lord Bailey said earlier about potholes and the quality of roads and things like that. If you drive from the Netherlands into Belgium, you will see a huge difference in quality of roads. The Netherlands has pioneered the use, instead of tarmac and other things, of recycled glass, recycled materials that have an incredible drainage property. It not only makes a very good smooth road surface, it drains away really well. You notice that you can drive very fast in the rain—it is always raining in those countries—because the quality of the surface is very good. They have used all their waste materials to make this road, but you get no spray coming up. The drainage is so good, you do not get all the spray, and you know when you have gone into Belgium because their roads are dreadful. They are just like ours: you get covered in the spray from the car in front and you have to slow down quite considerably.

There is an opportunity in all of our different material sectors to make use of lots of different things. To come to your point about why we are always doing the things that we have always done, it is a good opportunity to reimagine all that and to start thinking about whether we could use materials from other places and put them to different uses across our built environment.

The Chair: Does that deal with potholes as well? In Sussex, which is champion pothole county, that would be really good news. That is good news anyway.

Q10 **Lord Cameron of Dillington:** My interest first: I am a retired member of a farming family in Somerset and we let a few houses and also commercial lets.

My question, thanks to the enthusiasm of this committee, has already been asked, particularly by my right-hand neighbour, which was going to be all about new construction methods and new construction materials. Katherine mentioned hemp, which I was going to promote as a new material that has become very popular in the American construction industry now: hemp insulation, hempcrete, hemp blocks and so on.

David has already been talking about off-site construction and timber-framed buildings. The figures I saw, which are probably about 10 years old, were that in Scotland 91% of buildings were timber framed and in England it was 9%, but that has obviously changed from what you are saying now, and it is quite an interesting concept.

One thing that has not been mentioned is modular housing. Is that all part and parcel of the off-site construction that you were talking about?

David Hopkins: Yes and no. On the modular thing, the trouble is that the factories are very expensive to keep running and without a definite sense of demand, they cannot afford to stand idle. You need a lot of expensive machinery, a lot of people, a lot of kit, and that is expensive to have there if you do not have a definite pipeline of activity.

The modern method of construction that works—and I read one of the previous reports from this committee about modern methods of construction—is category 2. It is the kit of parts, so rather than trying to deliver an entire building you have different suppliers working to the same design but delivering their own kit of parts that can be assembled on site. It still speeds things up, it still has a lot of pre-manufactured value and a lot of the performance built in at the factory level and it comes with factory warranties, but you do not then suffer the same problem of the costs associated with category 1—the modular and volumetric buildings.

I would like to see a world where those buildings existed, and those technologies and that level of innovation were able to be utilised. I think that the demand is too low right now, and the financial situation is just not strong enough.

Lord Cameron of Dillington: If the demand was higher, would the financials come down? Presumably it would cost less if you had mass production.

David Hopkins: Yes, presumably, but it is a tough one to do. We have seen a lot of business models come and go with that, which I think your report looked into previously. Right now, given the trough that we are in, to scale up, you would be better off looking at other methods for the time being.

Rebecca Larkin: I completely echo that. If you are looking at volumetric complete units that you can crane in, or modular systems, it is exactly what David said—you are effectively transferring construction to the manufacturing sector, and it just cannot deal with the peaks and troughs you get in housebuilding, certainly on the private side.

There is scope for that to become much more useful for things like social housing, build-to-rent, student accommodation, which are housing tenures where the developer, the builder, needs to get the units built so that they can rent them out and get the rental revenue from that, rather than just build them and sell them. If you have a multi-tenure composition for new towns, there is obviously the potential for tenures that are revenue rental earning and need the quicker build-out process for volumetric to be useful, but it still needs the constant flow of the pipeline to make it viable.

Katherine Adams: Yes, there are a few examples in the self-build community where you can get home kits that are self-build and are a panelised-type construction. They work quite well for “meanwhile” spaces, if you are just looking at putting buildings there for five, six years until you use the land for other requirements. That could also relate to commercial and industrial opportunities. There are opportunities, but probably not so much in the longer-term housebuilding.

Lord Cameron of Dillington: Thank you very much. I will move on. These new materials require new skills. I want to talk in general about the skills agenda; David described it as a skills crisis. You have said this morning that shortages of materials are not a problem because we have the whole world we can import from. However, we cannot import skills, largely, because we left the EU and people seem to “object” to importing skills. If you were the Government, what would you do about the skills crisis generally for everything in the whole construction business? How can we address this? Who wants to have a go? The \$64,000 question.

David Hopkins: I will start on that because we have been doing a lot of work on skills for our sector across the whole supply chain. I will pick up on some of the points that we have already made, and that Rebecca has made very clearly. I would work out what the plans are for new towns and have some standardised designs that can work across each single one. Once you see the supply chains that will deliver those buildings, that will filter down to the skills that are needed through the whole supply chain, through all the different businesses that will be involved in

delivering that. Then we can start to look at localised construction colleges to deliver that.

We have been doing two big projects in our sector, particularly on timber frame delivery. There is a *Timber in Construction Roadmap*, which is held by Defra, and as part of that we have identified a need to ramp up a skills programme if we are going to increase the amount of timber systems in construction. CITB, as a result, really, of that road map, has come forward with a large grant and we are working with it to develop skills, not just for new entrants into the market but to take existing people within the construction market and show them how they can work their way through to be a construction manager on a site for timber buildings. There are a different set of considerations and a different set of skills. That is an 18-month programme, which should conclude next year, and we can start rolling that out with other construction colleges around the country.

Similarly, the NHBC, as a warranty provider, knows and can see the growth in timber frame and other methods of construction. They have started doing their own training courses and delivering those through different colleges around the country and working with the industry to help develop them.

Once we know that there is demand, the skills programmes can come in, but you have to know that it is there. This programme, particularly the new towns programme, could be a real boost for that, a real accelerator.

Rebecca Larkin: One stark figure that I will highlight in the skills issue is that new entrants, construction trainees and apprenticeships, have a really high drop-out rate. It is a 50% drop-out rate for male students and 70% for female students.

The Chair: Can you say that again?

Rebecca Larkin: A 70% drop-out rate for female construction trainees and 50% for males. We need to look at what the issue is with these training schemes. Is it the things that they are learning? Is it the culture of the industry? Is it that they are not getting enough on-site skills? Is it that they are offered a better opportunity, and they just had construction as their back-up? There are a few things to get new entrants interested in construction, and to look at why do we have such high drop-out rates for construction training schemes.

Lord Cameron of Dillington: That is quite interesting—50% and 70%. Katherine?

Katherine Adams: There is quite a lot happening in the retrofit sector on skills and the National Retrofit Hub, so I think it could be quite interesting to look at what they are doing. With some retrofit, you are probably looking at more traditional skills, if you are using more natural materials—for example, building with hempcrete, using lime plaster. That all links up to heritage, combines the two, almost. They should not

probably be seen in silos because there will always be a need for retrofit and skills for that, as well as the new towns.

Lord Cameron of Dillington: Just to recap, the Government should be putting more money into local training courses and making them more interesting.

David Hopkins: Coming back to Rebecca's point earlier about what can you do to give confidence, once you buy the land and set up a delivery company, that delivery company should be tasked with making sure that there are local training facilities so that the new town is a stimulus for local employment, local skills and long-term employment. I think that those things would have to come within the remit of the delivery company.

Q11 **Baroness Lawrence of Clarendon:** You have more or less answered my question. The question I was going to ask was about your engagement with the colleges that help supply the skills. You said that about 50% of boys and 70% of girls drop out. As a team that needs to have these skills, how much engagement do you have with the colleges to set out what you do not have that you want to have? Is there engagement with the colleges? I know you have answered some of the questions already about where the towns will be, and that will help feed through. I understand that some of the colleges are closing down, so how do you keep that going to make sure the skills are coming through for the buildings?

David Hopkins: The honest answer is that we have some contact but not enough, not a coherent level. The timber industry works in a silo, in a way. We do things for timber skills, timber buildings and so on, and it is very easy to get your members motivated to engage with their local colleges all over the country and so on. Realistically, that is not a joined-up approach across construction as a whole and it definitely could be better, yes.

The Chair: Thank you very much, indeed. Sorry, Katherine, did you want to make a contribution?

Katherine Adams: Yes, it does happen in some areas regionally. For example, in Yorkshire they have quite a good relationship with their colleges. They try to look at construction within that region and feed in what is happening, and the contractors have bought into that. However, I think it varies from region to region, and according to how much they prioritise construction in their region.

Q12 **Lord Bailey of Paddington:** You said earlier that the industry can provide training and so on, but if you speak to many landlords, they feel that, because the Government have failed to provide housing, they are now being lumbered with that cost. At what point does the industry say, "Well, actually we are an industry and we cannot produce employment if you give us too many costs". Is providing training your responsibility or the Government's, or is there a happy medium?

David Hopkins: Good question. I think the answer is that there is probably a happy medium. It is the Government's responsibility to provide the colleges and the facilities within which to do that. The curriculum and the training courses have to be a partnership between the two. You could not develop the training courses, as the Government, outside of looking at what industry is doing and needs. There has to be a partnership there.

On the financing of the training and so on, notwithstanding the figures that Rebecca quoted just now about the drop-out rate, I do not think people object to the idea of paying a levy towards apprenticeships or training, provided it can be utilised in the way they would like. There has been a problem with almost a one-size-fits-all approach to the utilisation of funding, because different points in the supply chain in construction want to use the funding in different ways. They might want very short courses, and they can draw down the money piecemeal.

At the moment, you have to put people in for 12 months, and they might get three or six months into a course and decide that this is not for them, but the company cannot then utilise the remainder of that money. The money has gone for that head of employee, if you see what I mean. There has to be flexibility within the system, but it has to be a partnership. The Government need to provide the facilities, the colleges, but I do not think industry is really objecting hugely to the idea of paying for training. That is fine, provided that it can be nuanced and flexible in the way it is delivered.

The Chair: This is a really big question, and the whole question of an industrial training levy goes back donkey's years, of course, but because of time and the heat in this room, I suggest that you to write to us if you have further comments. It will be very useful for the next stage of our evidence gathering. It would be really helpful indeed. I do not want to cut Lord Bailey out, but I think it would be very useful to have something on paper about that. Lady Janke, I suggest that we try to speed up as we draw to the end of the meeting.

Q13 **Baroness Janke:** My question is about recommendations to government on construction materials. You have already said that you feel that a short-term stimulus generating confidence within the industry would be welcome. Are there other measures—given that these are quite long-term projects, dependent sometimes on short-term interventions—that you would like us to recommend to government for reassuring and giving confidence to the sector? That is the first part of the question anyway.

Rebecca Larkin: I do not think I have anything new to say other than what I have already said today. It is about short-term stimulus for construction activity, energy cost help brought forward for product manufacturers, and early engagement in planning for major construction schemes.

Katherine Adams: I think there is something about government removing barriers to innovation and market entry, more so for innovative

and low-carbon products; and government being an exemplar in how they build and procure these materials is also really important. That is a very important one, looking at the power of procurement from government and providing exemplars and assurances. When we talk to projects, if a material has been used somewhere else successfully, it is a lot easier argument for them to then look at those materials again. Having that testbed is really important.

Baroness Janke: Thank you. Given that some of these new towns or extensions may have quite ambitious infrastructure projects to do energy management or water management, are there any specific recommendations that you feel you would like to make? Again, just giving full notice, being able to talk about large schemes, ambitious schemes beforehand with the sector is important, yes?

Katherine Adams: Yes, and something that has not come up is the whole climate change resilience adaptation piece and how materials fit into that. I think new towns give an opportunity for a systems thinking approach. It is very hard to do that, but with a systems thinking approach where you are looking at climate change, materials, green roofs, blue roofs, SUDS—putting all those different principles together and setting that out really clearly is so important. Also, there is the health and well-being of the people who use the buildings and the materials that flow in: the air quality, making sure there is not mould—we know that is a massive issue—and making them good environments for people to live in. All that needs to be sought with a materiality lens.

Baroness Janke: Are there certain minerals and raw materials that are not necessarily as easily available? Do you feel that there needs to be some looking into potential shortages and delays in the system?

Rebecca Larkin: Yes, permitted reserves of mineral products are limited. Sand and gravel is a particular concern over the near-term horizon, and that just feeds back into early planning, looking at what is needed and how we can get more extraction sites through the planning system. It is a long-winded and costly process, and it needs to be started well before you actually need those minerals coming through in the supply chain.

Baroness Janke: Do you feel that there needs to be more co-ordination of the sector to take account of potential future shortages and delays?

Rebecca Larkin: The construction sector or the manufacturing sector?

Baroness Janke: I meant the construction sector.

Rebecca Larkin: Yes, definitely. We saw after Covid that manufacturing and construction liaised very well. Co-ordination can be improved and we have seen how well it can be done. Certainly, after Covid, we had a big increase in activity and that was quite well managed by the supply chain. Yes, co-ordination will definitely be key as well.

Baroness Janke: The Government need to be aware of these potential

shortages of raw materials and minerals, and to look more closely at co-ordination, especially as many of these will be long-term projects. Thank you.

The Chair: Thank you, Lady Janke. I think Lord Bassam is online. The heat in this room is getting worse rather than better. Do you want to put your question briefly, Lord Bassam?

Q14 **Lord Bassam of Brighton:** Thank you. It is a quick question, but it is quite an important one. Given the ambitious housing targets that the Government set—1.5 million houses in their five-year term—what case studies should the committee and the Government look at to learn from best and worst practice for co-ordinating construction materials for the major development that the housebuilding programme in particular suggests?

Rebecca Larkin: I alluded to it earlier. My best case example is actually not to do with housing; it is the Olympics. The worst case example is, about 10 years ago, the nuclear industry, all together—supply chain, skills—came up with a big strategy of how to deliver a phased programme of five new nuclear power stations. They had mapped out and mobilised what skills and materials they would require and how that would move around to each of those projects. We still have not built the first of those nuclear power stations. Was all that a waste? What will happen to the people who did the training to move on to the next nuclear power station? That is my worst example, and how we procured for the Olympics is the best example.

Katherine Adams: I have a few examples. The Lower Thames Crossing is a good example. It is infrastructure but they engaged with the supply chain very early. Through the council—I think it was Kent—they required a material supply assessment, so there was good knowledge and understanding really early on of what materials were needed, what their pipelines were and so on. That gave the confidence to invest in sites for production there. Hinkley Point is an example, more on logistics, where they have looked at maximising non-road logistics. I think that quite a lot can be learned from large infrastructure projects. There are a few examples, mainly smaller developers, where they have been a bit more innovative in the construction materials they have used. We can send you some examples—Greencore, Macar, those sorts of people.

The Chair: Yes, if you would send us more and maybe tell us whether there are common threads that explain success and failure. It would be even better if we knew that there was a rationale and predictability around some of these things.

David Hopkins: I was going to also mention the Olympics, not only for delivering the Olympic Games but it is an ongoing development. I live not far from there and it is great to see how it is continuing to develop and the ways in which it is doing that. It is doing it well, so I think that would be a very instructive example.

Lord Bassam of Brighton: Chair, I should declare my interest.

Chair: Oh yes

Baroness Janke: Yes, sorry, I should have done as well.

The Chair: Yes, you are all in default. Lord Bassam, you have an interest to declare?

Baroness Janke: No interest to declare.

Lord Bassam of Brighton: Well, I think probably my chairmanship of the Brighton and Hove Seafront Development Board, yes.

The Chair: Thank you very much. I think we have come to the end—

Baroness Lawrence of Clarendon: Chair, I did not do mine either.

The Chair: You are all on the naughty step.

Baroness Lawrence of Clarendon: I suppose my interest is that I am the chair of the Stephen Lawrence Day Foundation. I also have links with RIBA, because it has a Stephen Lawrence award that is second to the Stirling that is awarded every year.

The Chair: Thank you very much. This has been the most fantastically good session. We have learned a huge amount, and the issues have been very well and clearly put before us.

In addition to the other things I asked you, could you please write in on just two things? You used the term standardisation. Clearly, each of these new types will have its own character and personality. It was very nice to hear Katherine talking about reusing material. I am particularly interested in recycling heritage assets when they need to be recycled. I started off by asking whether you thought that there were risks that could be taxonomized—a hierarchy of risk. Could you think, for your written evidence to us, where the greatest risks are and where those risks are most easily mitigated or not, so that we have a risk register for the construction industry?

Everything you have been saying about leadership and a coherent, visible and confident programme as a way of driving the industry, on the manufacturing and construction side, leads to the things we want to see happening in training. If we have to drive training through the supply side rather than as a good in itself, we need to know if that is the thing that will work.

I am very grateful to you. With that, I think we can release you from this hot place. Thank you very much indeed.