



**OFFICIAL REPORT**  
AITHISG OIFIGEIL

# Environment, Climate Change and Land Reform Committee

**Tuesday 28 November 2017**

**Session 5**



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Pàrlamaid na h-Alba

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**Tuesday 28 November 2017**

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**ENVIRONMENT, CLIMATE CHANGE AND LAND REFORM COMMITTEE**  
**30<sup>th</sup> Meeting 2017, Session 5**

**CONVENER**

\*Graeme Dey (Angus South) (SNP)

**DEPUTY CONVENER**

\*John Scott (Ayr) (Con)

**COMMITTEE MEMBERS**

- \*Claudia Beamish (South Scotland) (Lab)
- \*Donald Cameron (Highlands and Islands) (Con)
- \*Finlay Carson (Galloway and West Dumfries) (Con)
- \*Kate Forbes (Skye, Lochaber and Badenoch) (SNP)
- \*Richard Lyle (Uddingston and Bellshill) (SNP)
- \*Angus MacDonald (Falkirk East) (SNP)
- \*Mark Ruskell (Mid Scotland and Fife) (Green)
- \*Stewart Stevenson (Banffshire and Buchan Coast) (SNP)
- \*David Stewart (Highlands and Islands) (Lab)

\*attended

**THE FOLLOWING ALSO PARTICIPATED:**

- Graham Black (Marine Scotland)
- Gavin MacGregor (Scotland's Rural College)
- Michael McLeod (Marine Scotland)
- Jamie Newbold (Scotland's Rural College)
- Mike Palmer (Marine Scotland)
- Wayne Powell (Scotland's Rural College)
- Mike Wijnberg (Scotland's Rural College)

**CLERK TO THE COMMITTEE**

Lynn Tullis

**LOCATION**

The Robert Burns Room (CR1)



## Scottish Parliament

### Environment, Climate Change and Land Reform Committee

*Tuesday 28 November 2017*

*[The Convener opened the meeting at 09:30]*

### Decision on Taking Business in Private

**The Convener (Graeme Dey):** Good morning and welcome to the 30th meeting in 2017 of the Environment, Climate Change and Land Reform Committee. Before we move to the first item on the agenda, I remind everyone who is present to switch off mobile phones and other electronic devices, as they may affect the broadcasting system.

The first item is a decision on whether to take item 4, which is future consideration of evidence on the draft budget, in private. Are we agreed?

**Members** *indicated agreement.*

## Draft Budget Scrutiny 2018-19

09:30

**The Convener:** The second item of business is evidence from two panels in relation to the committee's scrutiny of the Scottish Government's draft budget 2018-19. First, we will hear from Marine Scotland. I welcome Graham Black, Mike Palmer and Michael McLeod. Members have a series of questions to put to you, gentlemen, as you can imagine. John Scott will kick off.

**John Scott (Ayr) (Con):** Good morning, gentlemen, and thank you for coming to talk to us today. Why has Marine Scotland moved to a simplified operating model compared to the 2013 to 2016 strategic framework? What consultation was undertaken to inform that move?

**Graham Black (Marine Scotland):** I cannot recall exactly what consultation took place. Marine Scotland is a core part of the Scottish Government, not an agency, so we normally expect to fall into line with the normal operating practice of Scottish Government departments.

We intend to be as open and transparent as we can be about what our plans are, and we will discuss those with all interested parties and stakeholders in due course. However, we will not necessarily follow that particular pattern again in the future. I do not think that that will take away from the openness of our planning going forward.

**John Scott:** That takes me nicely to a question about the language that you use. I am interested to know what

"focussed multichannel stakeholder engagement"

means, as well as

"real partnership with delivery partners".

Also, what is different from what you were doing before in that regard?

**Graham Black:** You are right—that language sounds a little civil servicey. My apologies.

**John Scott:** What does it mean?

**Graham Black:** It means that we are going to engage with a wide range of stakeholders both within Government and beyond it. We have a number of forums. We have a marine strategic forum and we have set up a separate stakeholder engagement group on Brexit, because of the particular issues around that. The language is just about how widespread our engagement with stakeholders is going to be. We are not closing off any avenues; we are trying to engage with everyone who is involved in not only the Scottish environment but the United Kingdom and European Union environments.

You are right in saying that the language is slightly unspecific. It is more about our general direction of travel, which is to be as open and engaging with stakeholders as we can be.

**John Scott:** Thank you. Will a work programme or a more detailed set of practical objectives be published? When will your next annual review be published?

**Graham Black:** Our plan for next year is already under way. We expect to be able to publish it some time in the new year—probably in March or April. As you can imagine, there is quite a lot of planning going on around next year in view of the added complexities that Brexit is bringing. We are doing quite a lot of strategic thinking about the longer-term future of Marine Scotland and how we are going to address the issues that we will face.

**John Scott:** Do you want to tell us a little about any specific concerns that you have?

**Graham Black:** Sure. Do you mean in the context of Brexit or more generally?

**John Scott:** The two will interact, so tell us whatever it suits you to tell us.

**Graham Black:** We all recognise that there are and will continue to be budgetary pressures in all areas of Government. We have been looking at, and intend to look more closely at, what our charging policy is. What does Marine Scotland charge for, what does it charge and to what use do we put that money? We will be looking at options. We will talk to ministers about what options there might be to charge for some of our activity, what those charges might be and how we would use the money—whether for science, for research or for other activities such as compliance activities. That is one of the central areas that we are looking at.

As might have been mentioned previously to the committee, we are looking at our overall performance measures. Our national performance measure is couched very much in terms of fishing policy, but perhaps we need to have a wider range of such measures around not only fishing but the environment and healthy seas. We are trying to re-establish what our core aims are, in a broader sense, so that we can be measured against those.

Those are two areas that I wanted to touch on. No doubt, I will come back to some of the others.

**John Scott:** I am sure that other members will pursue those with you. Thank you in the meantime.

**The Convener:** Let us look at the funding that you receive at the moment and not what you might generate in the future. We are told that, after statutory duties and legally committed funds are allocated, Marine Scotland allocates its budget

“on a priority basis which is determined through a series of planning events”.

In percentage terms, how much of your budget is left once you have gone through that initial process? Who attends those planning events, and what are the current priorities?

**Graham Black:** The planning events that we have instituted this year have been primarily internal, as far as discussion is concerned, but all the people at those meetings have brought to them their knowledge of what stakeholders are looking for. We bring all the parts of Marine Scotland together, we ask each area to identify where its priorities and its pressure points are and then we, as Marine Scotland, have a discussion about where those priorities lie in relation to other things that are on the table, what has to be at the top of the priorities list and, therefore, what has to be either delayed or deprioritised as we move forward.

I will give you an example. Last week, we had a discussion with senior leaders across Marine Scotland. In 2018-19, Brexit-related issues will be very much at the top of our priority list because of their eminence and significance across the whole marine area. We will therefore need to make sure that we can have the greatest possible influence on what happens around those issues and know what they mean for our core business.

**The Convener:** What percentage of your budget is left after that initial process?

**Graham Black:** As the committee might imagine, our budget process is rather like most others in that the bids add up to more than the money that we will actually have. The process is primarily about trying to match what we know the funding will be to what our priorities are, so that we make conscious and rational decisions about what we can and cannot do instead of trying to do everything and seeing which plate falls off when we spin it.

**The Convener:** Is that a roundabout way of saying that, once you have assessed your priorities, there is nothing left?

**Graham Black:** There is nothing left.

**The Convener:** Okay.

**Graham Black:** There are always lots of things that we would like to do in the marine environment and plenty of things that we would like to spend money on.

**The Convener:** Are you satisfied that that internal conversation is the best way in which to figure out a way forward on the budget? Do you not think that reaching out to external stakeholders in a more obvious way might generate some fresh thinking that would be useful to the organisation?

**Graham Black:** I think that we do that. Each of the areas of Marine Scotland talks regularly to a wide range of stakeholders—as do I—about what their priorities are and about what they feel is top of the agenda at the moment. It is a question of balancing all those things across Marine Scotland. It would be nice to be able to give every stakeholder what they want, but we know that, in the real world, we will have to balance those priorities and decide what we can and cannot achieve. With next year being a bit of an unusual year, we have to make sure that we are able to deliver the very top-level priority.

**The Convener:** Let us pursue the issue of prioritisation. In written evidence to the committee, your organisation says:

“Marine Scotland is currently reviewing a number of key areas of activity to determine whether best value is being derived from the way resources are currently being allocated.”

That suggests to me that, perhaps by necessity, some areas of activity will be reduced. If that is the case, how will you determine which areas will be reduced and how prioritisation will be achieved?

**Graham Black:** Some parts of the process might be about reduction while others might be about doing things in different ways. For example, our compliance activity is heavily reliant on our ships and aircraft and our network of professional staff who are spread around the coast of Scotland. The question is whether we could do things differently—for instance, use technology differently—to ensure compliance in a slightly different way.

We will look at whether we want to do our compliance work in exactly the same way in five, 10 or 15 years. Different methods, such as the cameras on fishing boats that we are experimenting with, may be the way ahead. We have reached no conclusions, but that sort of technology is now available.

**The Convener:** It is encouraging to hear that you are looking for more effective ways of working. However, more immediately, is the budget that you anticipate for the coming year adequate for what you have to do?

**Graham Black:** Like any director, I would always like to have more money to spend on more things, but we recognise that there are national priorities and that we have to live within a budget that applies to all Scottish Government activities.

We have enough money to do what we need to do. We had a good planning meeting at which we decided where our priorities lie. Other work may be slower than we would like it to be, and we may have to move things at the margins because of how we will use our resources. Nevertheless, we

do not feel that Marine Scotland will be unable to deliver on any of its fundamental intentions.

**Finlay Carson (Galloway and West Dumfries) (Con):** Is Marine Scotland able to budget for spend to save, such as spending on technology? For example, global positioning systems have come down greatly in price. Are you able to consider installing those devices on boats to reduce the workload of a marine protection vessel, on which between £2.5 million and £3 million is spent?

**Graham Black:** We can try to make such an investment, but, with regard to that example, we already have a sophisticated satellite monitoring system that enables us to track vessels anywhere in the world. We also use our aircraft for monitoring, which helps us to direct ships to the most effective places to contribute to compliance—we have a very good system in our waters.

Tracking vessels is one thing, but somebody has to be there to take action if it is needed. The vessels are expensive, but if we did not have three major protection vessels and the smaller, rigid-hulled inflatable boats, how would we take action if our tracking showed that a vessel needed it? If all the vessels coming into Scottish ports were Scottish, we could deal with them at that stage. However, some are not Scottish, so we have to be able to physically intervene and have boots on the ground—those words are not quite appropriate in the context.

**Finlay Carson:** Do you feel that you could invest in technology if it would save money in the future?

**Graham Black:** We would consider doing that. If new technology can provide a payback for investment, ministers have always responded positively, as they want exactly that sort of thing.

**Angus MacDonald (Falkirk East) (SNP):** The committee's most recent figures show that the number of permanent staff in Marine Scotland has dropped from 765 when Marine Scotland was formed to 628. Do you expect that figure to remain static or to change over the next five years? Would any change impact on Marine Scotland's activities?

**Graham Black:** At this precise moment, the staffing level is about 635. The staffing level was reduced because of a period of budgetary pressures, but, at the moment, it is flat. It is difficult to look five years ahead, because our budget does not cover the entire period and fundamental reviews of such issues as compliance and size have not yet reached fruition. That work is in progress, and it is frustrating not to be able to give you a clear answer. We will have to do big thinking around those issues and discuss the implications

of some parts of the review with stakeholders, but I hope that the issues will become clearer as the review goes on. We are not saying that we will have to cut our staff by X, Y or Z.

09:45

**Angus MacDonald:** Indeed, but I appreciate your answer.

Prior to the summer recess, the committee was following closely the dispute between the crews of fishery protection vessels and Marine Scotland. I am pleased to see that the dispute has been resolved, but will you update the committee on whether you expect further challenges?

**Graham Black:** I am happy to update you on that. To recap, a few years ago we were having great difficulty in recruiting and retaining people on the boats. There was a lot of competition and activity, with a lot of people moving from Marine Scotland to other jobs. We temporarily introduced a retention allowance—initially of £5,000—because it was seen as necessary to maintain our ability to operate the boats. As you can imagine, unless the vessels have all the relevant trained crew, they cannot be taken to sea—it is all or nothing.

The allowance was due to come to an end, but it was recognised that moving from that amount to nothing would be quite a big cliff edge for a lot of the staff. Therefore, a retention allowance of £2,000 was temporarily brought in.

You mentioned disputes. We got to the stage at which we were having had hard conversations with the trade unions and the staff about what the future position would be. It is fair to say that the unions thought that the £5,000 retention allowance should have been maintained at that level. We had to balance the impact of doing that against the impact on the Marine Scotland budget, because spending money on that allowance would have meant that we could not have spent it on something else.

We have had lots of discussions with the trade unions and their representatives, and we have eventually come to a reasonable compromise whereby the allowance has been maintained at just over £3,000. It will be in place for three years or so, assuming that outside conditions do not change—sometimes the market changes—but we will also be looking for a longer-term answer to the crew payment issue.

The situation demonstrates the limitations of short-term retention allowances. People get used to having that bit of money every month. Most people live more or less at their income levels—their expenditure and income levels are similar—and it is quite difficult when someone suddenly

comes along and says that the money will no longer be there. That demonstrates that, sometimes, short-term answers can create longer-term problems.

We are in a good place now and have a good relationship with the trade unions. We want to do more not only in relation to pay but in relation to training and having the proper career opportunities for people on the ships. We recognise that not everyone is getting everything that they want—I accept that—but we are in a much better place.

**The Convener:** What is that saving of £2,000 in the allowance per person worth to Marine Scotland's overall budget?

**Graham Black:** The allowance costs about £300,000. I would have to check to give you the exact figure.

**Donald Cameron (Highlands and Islands) (Con):** I associate myself with Angus MacDonald's comments. I represent the Highlands and Islands, so I know that the situation was an acute issue in the summer. Do you see recruitment and retention being an on-going problem over the next five years? Given that Marine Scotland will be doing more—I am sure that we will come on to talk about the network of marine protected areas—will you need to employ more staff in the next five years?

**Graham Black:** I do not know at the moment. I would like to say yes or no, but I cannot; some challenges that we face might force us in that direction, but other aspects, such as new technology, might be pulling in the opposite direction. I am sorry, but I have forgotten the first question.

**Donald Cameron:** It was about recruitment and retention and whether that is an on-going issue.

**Graham Black:** We introduced the recruitment and retention award for staff at a time when we were losing many people. That position has changed. We still have a fair churn of staff across the boats, but not to the same extent and it is not getting in the way of operational delivery. We are able to recruit.

Retention is still more of an issue at the higher officer grades, because there are quite a lot of opportunities and options for senior staff on the boats who have been trained in the way that we train people. At the moment, that is not causing us major concern, but we are keeping an eye on it.

**Donald Cameron:** Finally, you mentioned Brexit. Are there many non-UK EU nationals in the Marine Scotland workforce?

**Graham Black:** Yes, there are—both on the ships and working on the science. About 12 per cent of our science staff are EU nationals and they make a huge contribution. We get some excellent



people into the organisation from the EU. They were very uncomfortable when Brexit first came up and some of the uncertainty about their position lingers on. One of our aims is to ensure that we still have access to the very best people. In science there is no option but to have really good people doing the job.

**The Convener:** As we have strayed into EU matters, I will bring in David Stewart.

**David Stewart (Highlands and Islands) (Lab):** I want to continue on the Brexit theme, which Donald Cameron raised, not least because the committee has just returned from Brussels, so we are current with all things European. Your submission talks about the important role of data exchange and collaboration with other EU countries. What assessment have you made about future collaboration, once the UK exits the EU?

**Graham Black:** It is difficult to know what access we will have to other data and the extent to which we will get co-operation from other European countries after Brexit. Mike Palmer can perhaps give us an update.

**Mike Palmer (Marine Scotland):** We are assessing the various different scenarios in which we might find ourselves. It is a very uncertain time. However, there is one area of data exchange in Marine Scotland's interests that lies outside the EU framework. Data such as fish stock assessments goes through the International Council for the Exploration of the Sea apparatus, which is external to the EU. We would expect to continue to play into that and for Brexit to have relatively little effect on those arrangements. Many of the fora into which we contribute marine environment data are also external to the EU. Again, we would expect such apparatus to continue to work.

We are assessing how we can maintain data sharing and ensure that there is as frictionless a transition as possible through Brexit in all matters that relate to EU data sharing. For example, for compliance around fisheries enforcement, it is vital that we can maintain the kind of data sharing that we currently have between the UK and the other EU member states. That is one of our objectives in the work that we are doing around Brexit. We have not yet had technical discussions on how that might happen, but it is something that we have assessed as important.

**David Stewart:** Does Marine Scotland access horizon 2020?

**Mike Palmer:** Yes.

**David Stewart:** That is another aspect to it. I am aware that some countries outwith the EU access horizon 2020. We met some of the European Free Trade Association countries just

yesterday to talk about that. It is probably too early for you to have made this assessment, but what would be the effect on your operation of not having access to the horizon 2020 programme, which is clearly vital for academic research?

**Mike Palmer:** We have certainly had a look at all the EU-source funding streams, including horizon 2020. The European maritime and fisheries fund is also a very important EU-source funding stream.

The impact of our not having access to programmes would be material—and in some cases quite significant—for us. Ensuring that we have continuity of funding and as frictionless a transition as possible as we go through EU exit is definitely among our priorities and objectives. In the EU exit process, there is no clarity yet about what the future funding arrangements will be.

**David Stewart:** Donald Cameron touched on recruitment in general. I know how vital it is to Marine Scotland to get top-level international scientists. Mobility of labour is a key issue in the current negotiations. How damaging would it be if you lost the ability to recruit top-level EU scientists?

**Graham Black:** It would be very damaging. Of course, we also get a lot of promising early-career scientists, who develop their work in marine science in Scotland. In the long run, I suppose that we would have to consider how to get more home-grown talent. When it comes to science, we are looking for the best people, wherever they are from, so lack of access would be an issue.

As Mike Palmer said, we are still concerned about the funding issue, because a significant amount of European funding supports our data collection work and what we do generally across Marine Scotland. The area is one of our major concerns and we would like more clarity on it as soon as possible.

**The Convener:** Before I bring in Richard Lyle to explore EMFF funding, Claudia Beamish has a supplementary question.

**Claudia Beamish (South Scotland) (Lab):** Mike Palmer mentioned other fora with which Marine Scotland and the Scottish Government are involved, in parallel with the EU. For the record, will you say what those fora are and talk briefly about how they help us to work together on the range of issues that relate to our marine environment and the way forward for development?

**Mike Palmer:** I mentioned ICES, which is the international forum for co-ordinating data collection and analysis and sampling—basically, for fish stocks. That work is vital to the management of sustainable fisheries across the north-east

Atlantic. Our scientists play an active role in the ICES working groups.

There is also the OSPAR commission, which is a marine environment forum in which we are actively engaged. Michael McLeod might want to say more about OSPAR; I guess that it is the main international marine environment forum that we play into.

**Michael McLeod (Marine Scotland):** Yes. I can give a good example. In 2017 there was an intermediate assessment of the status of the north-east Atlantic. That process involved all the OSPAR contracting parties pooling their monitoring data and their expertise. Scientists worked together to come up with indicators to measure the state of the environment, and then pooled that work and produced an assessment that simply would not have been possible without collaboration and pooling of knowledge, expertise and data in one forum.

**Graham Black:** In science, international co-operation is fundamental. Fish know no boundaries, so we need international co-operation. Traditionally, I think that Scotland has punched above its weight in its contribution. We intend that that should continue to be the case, but access to good-quality scientists is key.

10:00

**Richard Lyle (Uddingston and Bellshill) (SNP):** Good morning, gentlemen. Mr Black has partly touched on the question that I was going to ask. We all know that the UK voted to leave the EU but Scotland voted to stay, and we are now seeing the cost of that decision. In particular, the EMFF provides Scotland with €107.7 million. As well as the contribution that that EU funding makes to the maritime sector and coastal communities in Scotland, it accounts for £30 million of Marine Scotland's expenditure on science, data and compliance. Since we will lose that important EU funding, have you had any assurances that the £30 million of Marine Scotland's expenditure that comes from the EMFF will be replaced by domestic funding?

**Graham Black:** Mike Palmer might want to add to what I say on this, but the answer is no—we have had no assurances beyond those on where we are at the moment. There is a commitment to meet the costs of anything that we are committed to under the EMFF, even after Brexit, but that is only in the short term. We have been pressing for an assurance about the longer term, because we need to plan for the longer term and stakeholders rely on that. You are absolutely right that the EMFF has a widespread impact in Marine Scotland, where I have concern, and more widely in coastal communities and industries that are

concerned with marine matters across Scotland. It is a big issue for us and as yet we have no certainty around a long-term replacement of the funding from anywhere.

**Richard Lyle:** As yet, there is no certainty around the Brexit negotiations, and things change every day.

**Graham Black:** Absolutely.

**Richard Lyle:** You said earlier that you are thinking about charging. That always interests me. Who are you going to charge and how much?

**Graham Black:** That is a good question, and it is exactly what we are considering. I have not put any constraints on what we are looking at, so we are looking at everything that we do across Marine Scotland, from our activities relating to the fishing industry and aquaculture to marine licensing—all of our activities that people are used to dealing with. We are not saying that we will introduce charging; we want to put the options in front of ministers and discuss them with stakeholders.

From my viewpoint, it is not simply a question of charging; it is about the offer. In other words, if we were to charge, we need to consider what would be different, better, quicker or more effective. It cannot just be about saying that we want money off people; it has to be part of an understanding that, if industry is being charged more for something, it can expect to get something in return. That is not an unreasonable position, but we have to do a bit of thinking on that.

I am sorry that, again, I cannot give a clear answer. No area has been ruled out, but we need to have good discussions with ministers on the pros and cons of the options. I want to be as open as possible with stakeholders so that we have views from all sectors of the community and industry.

We might automatically think that people are completely against charging but, in the discussions that I have had with a number of stakeholders, although no one looks at it as a positive in some senses, they see some positives if they understand that we can better support what they are doing and they can perhaps have some sort of say in how that operates. Other countries often do that. We are trying to learn from other countries as well as trying to come up with things.

**Richard Lyle:** Without that funding, what activities would you have to, or possibly have to, stop?

**Graham Black:** Gosh. We would first have to look at all our activities to see what we would deprioritise. In our area, it is difficult to stop doing things. We cannot stop compliance, but we might decide to do it differently or to risk assess differently. We cannot stop doing science, but we

might decide that we have to prioritise one particular area and accept that some of the scientific development has to come from elsewhere, either in the Scottish scientific community or somewhere else. We cannot stop doing policy work, because ministers still need that.

Unfortunately, there are no cut-and-dried answers, but it would certainly put us under considerable pressure to do what we think we need to do. From our viewpoint, the marine environment is really important for Scotland. It has a big impact on the Scottish economy and on a number of fragile communities around Scotland. Therefore, we see the issue as important, and ministers recognise that. Ms Cunningham has been clear about the importance that she gives to the environment, and Mr Ewing has been clear about the importance that he gives to the economy. People understand where the marine environment lies in the future of Scotland.

**The Convener:** It might be useful to the committee if you were to write to us detailing exactly how much you get by way of EU-related funding and what that is spent on.

**Graham Black:** Sure.

**The Convener:** If you could do that in the next couple of weeks, that would give us a good handle on what is at stake in this regard.

**Mark Ruskell (Mid Scotland and Fife) (Green):** I would like to return to the EMFF. I know that we have made quite good progress in Scotland over the decades on conservation measures such as selective gear. How significant has the EMFF been in funding that work?

**Graham Black:** It has been very significant. You are right that we have done a lot of good work on being more selective in our fishing, which has had a huge impact on our fishing activities and fish stocks. We are in a good position generally at the moment. Some fish stocks go up and some go down, but overall the position is much better than it has been in the past. That is partly down to the fact that we have been able to improve techniques and gear. The EMFF has been central to our ability to roll those out across the industry and to innovate and try out new things, and, therefore, the fund is important.

**Mark Ruskell:** If the EMFF goes, how will that innovation be driven? Will that mean working with EFTA states or working within the UK context?

**Graham Black:** We would do that in any event. If EMFF money was not available, it would just slow down development and perhaps stop us being at the cutting edge, which is where we are at the moment. We are normally seen as advanced in our techniques and abilities. Given a choice, we

would rather be at the forefront of technological development. Working with others is part of what we do. We will try to steal anything from anyone else if we think that it will work.

**Mark Ruskell:** Is that lead recognised in a UK context?

**Graham Black:** It is, but fishing and marine issues are proportionately more significant in Scotland than they are in the UK context. It is easier for us to get attention and recognition of the impact of those issues, which at the UK level are perhaps considered to be more marginal. It is a difference of priorities perhaps; it is a high priority for us.

**The Convener:** I would like to move on to marine protected areas and protected marine features.

**Mark Ruskell:** I have a couple of questions, so perhaps I can start with the MPA network. It has been three years since Scottish Natural Heritage recommended expanding the network, improving its ecological coherence and adding another four MPAs. Where does that stand? What is the timescale for completion? What are the implications for budgets?

**Michael McLeod:** SNH recommended adding four MPAs, as you pointed out. Currently, we are principally focused on MPA management measures. I am sure that many committee members will remember that at the start of last year, during the previous parliamentary session, we were taking forward such measures, which caused a lot of public interest. We are currently working through measures for offshore sites, which we are trying to deliver through the common fisheries policy, and we also have to take forward further measures for inshore sites. I am sure that we will have discussions about that next year. We consider delivering the management measures for the existing sites to be of greater environmental importance than delivering further MPAs at this time. We have been caught up in the resources issues and we have had to make hard choices about what we do first. We have chosen the management measures for existing sites.

The current thinking on the timescales for the four additional sites is that we will take them forward in 2019. We do not see us having the resource to do it in the next financial year, so it will be the 2019-20 financial year before—

**Mark Ruskell:** What would be the resource requirements to roll out the management measures for the existing network and expand the network at the same time?

**Michael McLeod:** I would need more staff on my team and I would imagine that the SNH coastal and marine team would need additional staff. It is

simply down to having people to deal with the bureaucracy that goes with those processes.

**Mark Ruskell:** How many more staff would you need?

**Michael McLeod:** I do not know. I would need at least one, possibly two.

**Graham Black:** The recommendation has to be seen in the context that we have quite a large MPA network already. About 20 per cent of our seas are covered. We have moved forward very fast on that and we need to make sure that we are successfully operating in that environment, as well as trying to move forward in other areas that have been identified.

In the best of all possible worlds we would make progress on everything as quickly as possible, but, as we said, at the moment there has to be some measure of prioritisation. However, we are very keen to continue to identify areas where MPAs are appropriate and to move forward on them as quickly as we can.

**Mark Ruskell:** However, you would require another two members of staff to do that.

**Graham Black:** Can we write to you separately on that, after we have fully thought through the implications?

**Mark Ruskell:** That would be great.

In your written submission you talked about how there is a “diminishing resource” for monitoring. That is the context for your approach to it. Can you talk about what integrated MPA monitoring actually involves and what the appropriate role is for fishers, environmental non-governmental organisations, stakeholders and communities within that? There could be a tension there, could there not?

**Graham Black:** The diminishing resources were part of the plan. It was always envisaged that we will require fewer resources for monitoring as we go on, because it will become business as usual. We have a lot of vessels, and monitoring goes on anyway. We rely a good deal on partnership with other people who are involved in the marine environment, to ensure that we understand what is happening and can see whether anything is going wrong. Does Michael McLeod want to add anything to that?

**Michael McLeod:** We designed the MPA monitoring strategy on the basis that we were probably not going to see a budget increase—that was our pessimistic view of things. Also, the costs of ship time and so on were going to go up, so the number of days of monitoring resource was probably going to stagnate or possibly go down—it was certainly unlikely to increase. We designed

the strategy around that bleak view of the coming years.

The programme that is successfully funded by the EMFF will run for the next two to three years and its aim is to involve fishermen in those processes. In terms of the wider stakeholder community, we have very specifically put a type of monitoring in the strategy—termed “type 0” monitoring—which is in effect the type of monitoring that divers such as those from the seasearch project do. They go down to look at and enjoy beautiful locations in our coastal area, but if they see that something has changed, or, indeed, that it is the same as the last time they were there, that is important information, because it helps us to plan where to put our more detailed monitoring effort into the marine environment.

**Mark Ruskell:** When the Loch Carron Urgent Marine Conservation Order 2017 came to this committee, there was a comment that Marine Scotland had got lucky because some amateur divers had been out and seen the destruction of the flame shell reefs. Is luck part of the strategy? In an ideal world you want to monitor such features and MPAs. What kind of resource would you put in place? Would it be the kind of structures that you have already, with partnerships and collaborations between fishers and amateur divers, or would you want something a bit more substantial?

**Graham Black:** We can always use more resources to ensure compliance. The Loch Carron incident was very unfortunate, but I do not know whether it was about luck. We have a lot of people out there and it is always going to be partly to do with what Marine Scotland can do and partly to do with what others who are working and living in the coastal communities actually see and know about. We are not seeing many incidents such as that, but it is something that we have to keep under review.

If it appears to us that a lot of problems are emerging, we might want to revisit what our direct compliance activity and our direct monitoring activity should be. At the moment, it is fair to say that most of those involved in the marine environment see what we are trying to do with MPAs and agree with it.

There may be local issues around what happens on a particular site, but overall there has been a very positive response and we are not seeing lots of examples. We need to use the best risk analysis that we have in order to use our resources to the best effect. Some of that risk analysis comes from the observations that people around the coast will give us. That is a good thing, because the MPAs are about us all owning responsibility for them—it is not just about Marine Scotland.

10:15

**Angus MacDonald:** I am glad to hear that you recognise the local issues. Can you expand on how, alongside environmental monitoring, you will be monitoring the social and economic impacts of MPAs on local communities?

**Michael McLeod:** A report was published at the start of this year that was undertaken by my colleagues, who are both social researchers and economists. That was quite early on—it was less than a year after the implementation of the first management measures—but the report's conclusion was that there had certainly not been any negative effects at that point. I understand that my colleagues have agreed to do another report in 2018 to see how things are progressing. That report may start to show the benefits of the management measures.

**Angus MacDonald:** Will you share that report with us when it is published?

**Michael McLeod:** Absolutely.

**Claudia Beamish:** I have a question about stakeholder engagement. There is the quote that was highlighted earlier in our discussions about the “focussed multichannel stakeholder engagement”, which Graham Black has acknowledged is perhaps civil servant speak.

Very importantly, Michael McLeod has already highlighted the “public interest”—which is a neutral phrase—in the initial MPAs. Graham Black also highlighted that there might still be some local issues in relation to MPAs. The committee visited an MPA in the summer recess.

I am interested to know in a bit more detail what your stakeholder engagement arrangements are and how they are conducted, because there have been complaints. I do not know whether they were valid complaints, but some sectors felt that they were not included appropriately in the MPA developments. I am not making a value judgment about that; I am simply saying what came to us. How is stakeholder engagement organised, how is it advertised, and what sort of feedback is given?

**Michael McLeod:** We have not been as active in coastal waters over the past year; our focus has been on offshore waters, which is principally about engaging with the offshore fishing industry. NGOs have been involved, as well as other EU member states. Next year, we will be doing some more work in coastal waters. We have not exactly detailed our stakeholder engagement plan for that.

In the previous period, between the start of 2013 and early 2015 my team and I attended more than 100 events around the coast. If anything, we were guilty of overengaging and overconsulting—there were 100 coastal events plus bilaterals with some sectoral interests. If anything, I feel that we

probably overdid it, in some respects. We are reflecting on that as we try to work out how best to engage this time around, as we go through 2018.

**Graham Black:** As you know, I have been in my role for about six months, and one thing that I have particularly noticed is the degree to which it is quite difficult to have an answer that applies right across Scotland, because there are local issues that make things very different in different areas. It is not possible to come up with a single Scottish answer that will be appropriate to all the communities around the coast, so whatever we have must recognise the fact that there will need to be local stakeholder involvement. Unfortunately, some of these things mean that some local stakeholders will not get what they want; we sometimes have to make decisions that some people will feel are not to their advantage. As long as we are being open about that, we have to accept that that will be the case.

It is absolutely important that we continue to have localised discussions with people so that we understand exactly what the implications are for them. I have been amazed and fascinated by the degree of difference around Scotland in what communities do and the challenges that each area faces. I have certainly moved away from the idea that we can come up with an answer that will apply across the board.

**Claudia Beamish:** I asked the question about feedback to ascertain whether, if there is conflict, people understand why what they have asked for is not just going to be given to them. That is helpful.

**Graham Black:** I agree. It is one thing to say what a decision is but we should always be able to say why we have arrived at the decision. It might not satisfy everyone, but at least they will know why.

**Claudia Beamish:** Earlier this year, I asked the cabinet secretary about priority marine features. From her response, I understood that the public consultation is likely to happen at the end of 2017, which is where we are now. In view of the fact that those features are extremely important in highlighting the enhancement of the marine environment as well as its protection, can you give us any further information on developments?

**Michael McLeod:** Reviewing and improving the protection given to the priority marine features outwith the MPA network sounds relatively simple, but it is quite a challenging task. We are in the process of commissioning external help to do a sustainability appraisal to underpin that work. That will take care of the strategic environmental assessment requirement, and we will do a socioeconomic assessment and bring the two together into a holistic appraisal which, we hope,

will make stakeholder understanding and engagement easier. I hope that that will be something learned from our previous processes that will bring some clarity and help. One of the previous challenges was weighing up the environmental benefits against what might be socioeconomic costs. That is always going to be a challenge, because they are not like for like. However, we hope that doing it this way will make that easier.

On timescales, we are trying to commission that work right now. We envisage having a scoping report ready for consultation in April. The reason for consulting on the scoping report is to make sure that we are considering and taking the right approaches and that we are using the right data to underpin the assessments.

**Claudia Beamish:** Will the consultation on the scoping report be public?

**Michael McLeod:** Yes. We will make it publicly available. Normally a scoping report for a strategic environmental assessment is a closed process, but we will make it an open process.

**Claudia Beamish:** If it is to include the socioeconomic assessment, it is important to get all views.

**Michael McLeod:** Yes. The assessment will not have been done at that stage, however. We will be setting out the methodologies that are to be used.

We will do the assessment over the summer and stakeholders will have the opportunity to see it, comment on it and be involved with it. That will lead us into a second consultation sometime in the autumn, when we will focus in on exactly the measures that we are proposing and what the assessment has said about them. I hope that that will be a clear and transparent process in which people can be involved so that they can see why we have reached the decision that we reach.

**Claudia Beamish:** Thank you. That is helpful.

**Kate Forbes (Skye, Lochaber and Badenoch) (SNP):** You have touched on monitoring, but how do you promote a culture of compliance through policing the MPAs? I am thinking particularly of issues that have been raised with me by fishermen from along the west coast about MPA boundaries and how clearly they can identify where an MPA is so that they can stay out of it. That can be challenging.

**Graham Black:** We recognise that that is an issue. It is another area in which, we hope, technology will enable us to make effective refinements and enable fishermen to know exactly where MPAs begin and end.

As part of the wider review of what Marine Scotland is doing overall—aside from, for

example, charging and our targeting system—we are considering compliance. Most people in the marine sector want to comply, so the question is what we are doing to help them to comply.

One side of compliance is about identifying the people who are rogues or who do things wrong and ensuring that we catch them and deal with them. The other side is that we have to make it as easy as possible for people who want to comply to do so. It is exactly the sort of area in which we need to be more active. It is not just about risk assessment and going after the bad guys; it is also about helping the people who are trying to obey the rules that they know exist. We will continue to do anything we can to get the technology that will make that easier. That will also make it easier for us more accurately to refine what areas we have to protect. That, in turn, will have advantages for the fishermen because it will ensure that we do not close off areas unnecessarily.

**Kate Forbes:** On that note, the main aim of an MPA is to protect species. Many fishermen accept that and want to protect the seas for future generations. How much consultation of fishermen is done? Perhaps “consultation” is the wrong word. How much discussion is there with fishermen to help to ensure that the boundaries are geographically sensible? Some fishermen get frustrated by MPA boundaries being unnecessarily large or small and not fitting in with obvious geographical landmarks, which would make it easier for them to comply. How much discussion is there in advance with the people who use the seas the most?

**Graham Black:** We have done a really good job of introducing MPAs, but that does not mean that we have got everything absolutely right, or that we cannot improve the process for the future. Therefore, we need exactly that sort of discussion. There might be compelling scientific reasons why we have to draw a boundary in a particular way, but if there are not, we need to be flexible.

Do you have any detail to add to that, Michael?

**Michael McLeod:** What matters to fishermen are the fisheries management measures. Let us put the MPA boundaries aside. On management measures, we have tried to engage with fishermen to try to understand how they use an area where they fish. However, we then have to set what they consider to be their optimal fishing grounds, or fishing grounds that they might use only occasionally, against what we are trying to achieve in protecting the area's ecology.

At some point, we have literally to draw a line somewhere. Sometimes, that works well for everyone because there is a natural division between fishing activity and the habitat or species that we are trying to protect. At other times,

however, there can be conflict because the activity takes place too close to what we are trying to protect: we need a margin in order to be certain that that protection will work.

However, we try our best to get the balance right. For most of the MPAs so far, we have done a fairly good job of striking the balance between the industry's needs and those of the environment.

**Kate Forbes:** So, in a word, are you content with compliance at the moment?

**Graham Black:** We are generally content, but that does not mean that there will not be room for us to look again at what we have done in individual circumstances. There are areas about which, I am sure, you have heard exactly that. However, we have a large MPA network and the MPAs overall seem to have been well marshalled. It is a complex matter, so there are bound to be areas in which we can make improvements, and we are always happy to consider that.

10:30

**Stewart Stevenson (Banffshire and Buchan Coast) (SNP):** I apologise for my late arrival. I shall read with great care the evidence that I was not present to hear.

Mr Black has just said that Marine Scotland seeks to improve the process. Does Brexit create opportunities for us to refine processes and definitions so that they more closely align with Scotland's particular needs? I am looking for a general answer and not for detail, at this stage.

**Graham Black:** The general position is that the Scottish Government has been clear that, post-Brexit, we will look to enhance our environmental protection rather than to see any diminution of it. We also have international obligations with which we need to fit in. Our direction of travel is to ensure that we are even better.

**Stewart Stevenson:** To be clear, and in case I was misunderstood, I was not suggesting a move in either direction.

**Claudia Beamish:** I would like to focus our minds on blue carbon for a short while. As the panel will know, earlier this year SNH published a report assessing blue carbon resources, which was a welcome step forward. The report suggested that there should be more research. However, for those of us who worked in the previous session of Parliament to ensure that blue carbon was mentioned in the previous climate change plan—including me, the then minister Paul Wheelhouse and a significant number of other people—it was disappointing to find that it is not in the current draft climate change plan. However, you will know that Cabinet Secretary Cunningham has put on the record, in answer to a question

from me, that there will be a focus on the issue in the final plan, which is most welcome.

How much money is set aside for research on blue carbon? If you cannot tell us today, you could write to us about that. What are the plans to build on the SNH report and the wider international reports on the issue, so that we can get to a similar point to that which we have reached with peatlands? With peatlands, we have had significant developments that have included action and saving the situation; we are not simply at the research stage.

**Graham Black:** I agree that we have to move quickly on blue carbon. I often speak to my colleagues in the Scottish Government about what we can do on climate change generally. Claudia Beamish is right that we must do research on blue carbon, and that we must also move forward as quickly as possible to action.

Michael McLeod knows more about the detail of the research.

**Michael McLeod:** We have been developing a new research programme, which is a commitment in the programme for government, and we are at the final stages of agreeing grants with a number of universities. In total, we will have one postdoctoral researcher and five PhD researchers getting up and running in the next few months. They will look at a range of topics.

Blue carbon is often associated with habitats such as kelp and maerl beds, but mud, for example, can be an absolutely massive carbon store. A publication last year by the University of St Andrews estimated that Loch Sunart on the west coast contains about 27 million tonnes of mud, and that pound for pound, or per square kilometre, it can store five times as much carbon as peatland. That is a fairly massive store. In the context of climate change, it is definitely important to ensure that we can keep such stores and, perhaps, enhance them.

The research programme is trying better to quantify sediment storage across the marine environment. One part of the programme will look specifically at maerl beds and another will look at what happens to kelp. Kelp grows a bit like trees do on land; the research will look at how it is assimilated into the sea bed when it dies. The research will also look at how human activity affects habitats' ability to store carbon.

The value of that research package is £300,000, give or take some. It is very much a starting point, but we have to start somewhere. We have an initial body of evidence; now, we must take the next step and decide whether we need to take a broader look at other research areas or carry on in depth on the themes that we are already studying.

I think that we have a good package of research to start with.

**Claudia Beamish:** What you have outlined is helpful and encouraging. Can we be hopeful that there will progress towards action, such as there was with peatlands. I do not mean in the present final plan, of course, but for the next climate change plan, whether it comes at the end of this session of Parliament or at the beginning of the next.

**Michael McLeod:** I hope that there will be progress, but we do not know where the research will take us. The ambition is certainly to become far more confident about the value of the marine environment in terms of climate change, carbon sequestration and so on—

**Claudia Beamish:** And possibly about what protections there might need to be.

**Michael McLeod:** Yes.

**Graham Black:** I will just add that there is no doubt at all about how important the matter is. We talked earlier about prioritisation: action on carbon is a high priority, but we need the building blocks before we can turn research into practical action. However, I would like us to do that quickly.

**The Convener:** I am sure that we will return to that subject in the future. I would like clarification. What should, or should not, be done to mud to encourage retention or capture of carbon, or is that too complex a question, at this stage?

**Michael McLeod:** We do not know. I imagine that sea lochs such as Loch Sunart are so muddy because of leaves coming off trees round them. That is actually an exchange from carbon sequestration on land; the carbon is instead stored in the sea. We know that it happens, but we do not know exactly how it happens or whether we are affecting it. That is what we want to find out.

**John Scott:** That is all part of the geological process. Deposits of mud are the beginnings of silts, greywacke and sedimentary rock. How far along that process do you look at carbon storage? I appreciate that it is absolutely fascinating, but where will you stop if you are starting to look at sedimentary deposits of mud? Will you start looking at deposits of calciferous rocks and such things as well, which are obviously great storage areas?

**Michael McLeod:** I cannot answer that question today. As a policy practitioner, the answer that I really want is about how much sequestration is going on and what effect we are having on potential sequestration. In practical terms, the answer that we want is about the here and now, rather than about what happened a million years ago or before, but that is a very narrow policy and practical view of the world; my scientific

colleagues would tell me that they need to know about the past as well.

**Finlay Carson:** I welcome the fact that you carry out a high level of consultation. Mr Black suggested that it would be very difficult to have a Scotland-wide rule, so local decisions are important. In that vein, I want to ask about the national marine plan, which seeks to engage with local stakeholders. Is funding for implementation being maintained at 2016-17 levels?

**Graham Black:** As far as I am aware, the funding is being maintained at that level. I am oddly proud of the national marine plan, considering that I had nothing to do with its introduction. It is a fantastic piece of work. It is currently being reviewed; thereafter, we will consult on what people think is missing and what we can improve on. That will go ahead over the next few months, I think. We are waiting to see what the next iteration of the national marine plan will look like.

The resources will be there to do that, but how quickly we can do it will depend not on how much it costs, but on how much time the individuals who are involved need to do it. Such things require a huge amount of consultation, which Michael McLeod talked about earlier, and that takes time. There is no point in rushing it, if we want to get it right. Over the next few months, you will see the consultation on what people think are the good points and the bad points in the marine plan.

**Finlay Carson:** Can you give us any indication of timescale for implementation?

**Michael McLeod:** We currently have two partnerships—Shetland isles marine planning partnership and Clyde marine planning partnership. The cabinet secretary has already said that Orkney will be the next planning partnership; there are on-going discussions between Marine Scotland, Orkney Islands Council and other potential partnership members.

Other areas are starting to show an interest, but Marine Scotland is not the only part of the public sector that is challenged resource-wise. Local authorities are becoming keener to be involved, but their resources are stretched, as ours are, and developing a regional plan is quite an involved process. A plan depends on willing partners and resources to undertake the planning processes.

**Finlay Carson:** The European marine strategy framework directive includes an aim to achieve “good environmental status” by 2020. Putting aside your engagement with councils and others, are the staffing levels in Marine Scotland sufficient to achieve that aim?

**Michael McLeod:** We are taking forward the “good environmental status” aim, under the marine



strategy framework directive at UK level. In 2012, we set out the vision for what constitutes “good environmental status”. We have put in place monitoring and assessment to measure that, and a programme of measures that are a mixture of existing measures that we have built on and new ones that have come on stream. We are due to consult on the UK assessment in spring next year with regard to where we are in achieving good environmental status, with a view to that being submitted to the European Commission in October 2018.

**Finlay Carson:** Are you comfortable that you have the resources and staffing levels to do that?

**Michael McLeod:** It is a UK-wide effort, so there is a pool of resources. I mentioned the OSPAR process, which is international. A lot of the OSPAR intermediate assessment was about EU member countries working together to develop assessment methods that they could apply nationally. A sizable chunk of the work was done through that process, and the rest has been done in a UK version of that. The four Administrations have worked together to pool resources and effort to come up with the required assessments to measure environmental status.

**Graham Black:** I entirely understand Finlay Carson’s point, but there is no indication at the moment that we are running into trouble. We can give you the commitment that, if that changes or if there is anything that it seems might put that at risk, we will let you know and we can have a further discussion at that time.

**Claudia Beamish:** Witnesses have already hinted at the challenges in relation to local authorities and resources. There is so much knowledge within Marine Scotland; I wonder whether you have the resources to do capacity building with local authorities and to give them support and advice. You might well be doing a lot of that already, but it would be helpful if you would briefly outline what you are doing now and what you hope to do, as we roll out to the other nine areas.

**Graham Black:** We are certainly providing a lot of support. Claudia Beamish is right: that work is quite intensive in terms of the amount of time and energy that goes in, which depends on the number of stakeholders and what their starting points are. Some authorities are already well advanced and have a lot of knowledge that we just build on at the margins. That is one of the advantages to us of phased roll-out, and of being able to learn from the couple of early partnerships how they work and what is required.

10:45

I would like to see things move a bit quicker, but there is also a bit of me that says that we should learn from the first couple before we start to do things more widely. There is a lot of training involved and some very interesting training environments. I do not know whether members have seen any of the big training plans and games that we go through to get people up to speed.

It is a very complex area: one of the great advantages is that, as stakeholders get involved in it all, they realise fully the complexity of the picture. They may well be coming at it with good knowledge in their areas of expertise, but the picture suddenly widens and becomes much more complex when we introduce everything from pipelines and shipping lanes to environmental impacts. I think that helps the later discussions. We are probably on track; we might be moving more slowly than we would ideally like to move, but there are some advantages to taking things at a sensible pace.

**The Convener:** To conclude this session, I will touch on offshore renewables. We have just emerged from a protracted legal challenge to the consenting of four offshore wind farms in the Forth and Tay. Whatever the rights and wrongs of the action that was taken by an NGO, concerns were raised about aspects of the consenting process. Which, if any, of those concerns did you take on board and what changes, if any, have you made to the consenting process, having learned the lessons of that challenge?

**Graham Black:** I was obviously very pleased with the outcome of the judicial review, which I think was the right one. Our consenting processes are actually very good. They involve a lot of stakeholders and give plenty of time for people to have input.

We need to ensure that we have enough scientific support in Marine Scotland science to deal with some of the issues. Scientists will sometimes disagree, and all that I can do is ensure that we have enough support in Marine Scotland science to deal with ornithological issues as well as any other issues that come up. My main concern is that we have enough resources in science and in the consenting process team, which we are looking to expand, so that it is able to respond.

We see the next year as being quite intensive. There will be a lot of activity going on and we need to gear up for it. Mr Wheelhouse and Ms Cunningham are keen that we are ready to deal with that, so, even in this time of stretched resource, we are going to increase the resources in that area. We do not have any plans to change the consenting process fundamentally. We may

well want to do that in the long run, but it is a question of resources at the moment.

**The Convener:** Given the large sums of money that are involved in offshore renewables, have you been looking at your charging regime in that area?

**Graham Black:** Yes, that is right. That would seem to make sense. The feedback that I have received from the industry is that we are talking about huge amounts of money and time is a vital component of the economic validity of the plans. If there are things that we can do to help things to go smoothly and quickly, that is fine; however, at the same time, there is a limit to that. We have a lot of stakeholders—RSPB Scotland and others—who will be interested, and they must have time to look at what is planned and make their responses, so there is a limit to how quickly we can move. The process must be as quick as we can make it, ensuring that there are no bureaucratic internal delays and that we deal with things quickly, but everyone must have a chance to have their say and put their point across.

**The Convener:** Okay. Mark Ruskell wants to come in briefly on that point.

**Mark Ruskell:** In the collaborative approach that you take with other sectors, is there enough data sharing between, for example, the offshore wind industry, Marine Scotland—as the consenting body—and NGOs?

**Graham Black:** We have a good relationship with the NGOs. I know that we had the judicial review, but, if we take a step back, we see that most of the NGOs have been firmly behind what we have been doing, because they recognise the longer-term benefits. I understand why RSPB Scotland had particular issues, which we felt that we had dealt with, but we have a really good relationship with the industry and the NGOs. Getting them all round the table is easier in this area than it is in some other areas that we deal with, and there is quite a lot of collaboration.

I have not heard of any requests to change the current position on data sharing. We need data as quickly and as early as possible, and we need to be able to share it so that people can understand what the impacts are. If Mr Ruskell has heard of concerns, we would be very interested to hear about them. I had a meeting in Aberdeen with representatives from across the industry and no concerns came out at that meeting, nor have they come out in any of my discussions with the NGOs in bilaterals.

**The Convener:** Okay. Gentlemen, thank you for your time this morning—it has been useful. You have undertaken to get back to the committee with a variety of information, and we would appreciate that happening as quickly as is humanly possible.

**Graham Black:** Can I add one tiny point? There have not been any questions on marine litter although it is in the programme for government and is an area in which we are keen to move forward quickly. We have got to the stage at which everyone knows that marine litter is bad, so it is a matter of getting down to the practicalities of how we might deal with it. Some of those are simply marine issues and some of them are wider issues. That is one of our priorities, but it did not come up in the conversation today. I thought that I should let the committee know that the matter is high on our agenda.

**The Convener:** Okay. Feel free to write to us in the future to update us as that work moves forward.

I suspend the meeting briefly for a changeover of witnesses.

10:51

*Meeting suspended.*

10:58

*On resuming—*

**The Convener:** Welcome back. We continue our scrutiny of the Scottish Government's draft budget for 2018-19 with evidence from Scotland's Rural College. I welcome Wayne Powell, the principal and chief executive, Gavin MacGregor, Jamie Newbold and Mike Wijnberg. I will kick off by looking at the Scottish Government's research budget, which has fallen over recent years. How has SRUC's funding for education, research and advisory and consultancy work changed in recent years, and how does that reflect the workload that sits alongside it?

**Wayne Powell (Scotland's Rural College):** One of the unique selling points of Scotland's Rural College is the fact that we have an integrated model: we incorporate our research, education and consultancy business within one operation. In some ways, that gives a degree of resilience to our funding; however, it also puts a lot of pressure on delivery.

In the research budget for the past year, we received a £200,000 reduction, which impacted particularly on our rural policy centre and our work with long-term biological programmes such as the Langhill dairy herd. The reduction in the budget impacts on our research, but, when we consider any future funding profile, it is important that we look at it strategically and holistically across the spectrum of our research activities.

Mike Wijnberg may want to come in on consulting, and Jamie Newbold may want to add something on the education budget.

11:00

**Mike Wijnberg (Scotland's Rural College):** Our veterinary services provide the disease surveillance programme for Scotland. Three or four years ago, our budget for that work took quite a big hit, with a cut of about 10 per cent in real terms. That led us to reconsider our activities and how we structure them, which resulted in the consultation in 2015, which members might be aware of, in which we reviewed our services and how we provided them. We have since come to quite different conclusions about how we should provide those services.

**The Convener:** I am sure that we will return to that issue in due course.

What difficulties are created by the way in which you are funded by the Scottish Government? I am thinking about things such as single-year budgets. Does that leave you, as an organisation, on a sustainable financial footing?

**Wayne Powell:** Our total funding from the Scottish Government is £41.4 million a year against a total income of approximately £76 million a year, and we receive £7.4 million a year from the research budget, which represents 42 per cent of our total research budget. Those are the overall proportions of the funding that we receive from the Scottish Government.

**The Convener:** Does that leave you on a sustainable financial footing?

**Wayne Powell:** Currently, we are financially sustainable. This year, we will generate a modest surplus of about £900,000, which is about 1.3 per cent of our total income. The key question concerns our future and long-term sustainability. Doing nothing is not an option, which is why we have put in place a fairly ambitious and robust strategy to ensure that we will be sustainable and will meet Scotland's future needs during a period of major change. I emphasise the significance and the impact of the change. We are not complacent. We have put in place a robust strategy, and we are working to deliver it along with our infrastructure plans and the business planning that supports it.

**The Convener:** On the subject of change, David Stewart has questions on the impact of Brexit.

**David Stewart:** Currently, your EU networks are absolutely crucial for knowledge exchange. What assessment have you made of whether those networks will continue post-Brexit?

**Wayne Powell:** Brexit will have a significant impact at a number of levels that are interrelated and interconnected. The first consequence of Brexit will be for our ability to attract and retain talent. The second will be for our ability to access

research funding and the networks that you refer to. The third consequence will be, of course, for students. Those three areas are of paramount importance, and they are impacting on—and will impact on—our capacity to deliver excellence and our reputation. They are really big issues.

On the broader picture, Brexit has major implications for agriculture and for livestock, in particular, which is one of our core unique selling points. There is major concern around those areas.

We are taking a number of steps to mitigate those challenges, one of which is to double our efforts on collaboration and partnership and on maintaining strong relationships globally and in Europe.

Jamie Newbold was recently at a Universities Scotland event. He might want to expand on the feedback from that.

**Jamie Newbold (Scotland's Rural College):** The total funding through horizon 2020 is about £350,000 per year. If we lose that, it will be a significant loss. However, there are other opportunities that we are driving forward through the global challenges research fund. There are opportunities to create networks outside Europe using the experience that we have gained of European networks, and we will actively drive that work forward.

We are also working with partners to ensure that the knowledge transfer into Europe continues. Along with some of the agri-tech sectors that we work with, we are looking to engage with some of the major European networks on a new mechanism that will allow us to continue to access and to influence that area even after Brexit.

**David Stewart:** What percentage of your staff are non-UK EU citizens?

**Wayne Powell:** I think that we have 192 staff from mainland Europe. Gavin MacGregor may want to expand on that and set out what the proportions are.

**Gavin MacGregor (Scotland's Rural College):** We have 151 EU non-UK staff members and 41 who come from further afield. They are predominantly research-based staff, and a heavy weighting of the staff are international because of the work that they do.

**David Stewart:** We are all struggling to find out the detail of Brexit. As you will have heard in the earlier evidence session, we have just returned from Brussels, where we had discussions with representatives from other countries. Do you have, in effect, a risk committee that looks at the possible effects of Brexit? If so, does its work fit into what your future strategy will be?

**Wayne Powell:** Most certainly. For each session, we have a paper that goes to the board, which outlines the various Brexit scenarios. We have an internal working group that looks at Brexit, and our colleagues have contributed to recent Agriculture and Horticulture Development Board horizon scanning on the impact of Brexit on Scotland and its farming, in particular. We take Brexit very seriously. We monitor the risk with our board, and we are working diligently to influence many of the issues with Universities Scotland and through our various external roles.

**David Stewart:** In general, have you picked up any anxiety from the non-UK EU citizens whom you employ?

**Wayne Powell:** Before I took up this role, I lived in Montpellier, in France, where there was a degree of shock about Brexit. A related issue is culture and the research relationships that have developed over our generation and more. A fracturing of those relationships will cause a chilling, which is potentially problematic.

**Mark Ruskell:** I will pick up briefly on the previous point. What collaborations with other European partners have you lost as a result of Brexit? I remember going to your stall at the Royal Highland Show last year. It was the day after the referendum, and at that point there was already concern that projects might not be possible. I would be interested to know what those projects are.

**Wayne Powell:** We can submit details on that to you. I point out that we are relatively new in our roles. I have been in post for 16 months, and Jamie Newbold has been in post for only three months. Jamie might be able to give examples. If not, we will get back to the committee.

**Jamie Newbold:** Initially, we got resistance from colleagues, particularly when we were going to co-ordinate activities. Announcements about continuation of funding for projects that have started have been very useful, and that resistance has dropped off.

The challenge now, as the next framework is being built, is how we will engage in discussions, given the uncertainty about our engagement in the framework. We have been engaging with the Universities Scotland group on Brexit, and last week we met Lord Duncan. We are trying to get clarity on whether we will be able to engage in the next framework. Our biggest challenge probably relates to that side of things.

**Mark Ruskell:** I will move on to the practical benefits that your research projects deliver in communities across Scotland, and what the benefits are for the economy and the environment. Will you flesh out with more detail what the

practical benefits of your research programme have been?

**Jamie Newbold:** I will give examples. We have been working in antimicrobial resistance because anthelmintic resistance is a major problem. Some of the joint work that we have been doing up in Kirkton with the Moredun Research Institute on developing more refined methods of anthelmintic worm treatment for sheep has had enormous economic benefits, because less labour and fuel costs are going into dealing with the problem. There have also been significant environmental benefits from lowering the resistance of worms.

My colleagues are working on tuberculosis, which is, as the committee knows, a major upcoming challenge to the dairy sector. They have been able to identify regions of the genome that provide resistance to TB and they have this year introduced for the first time in the dairy industry breeding values for TB-resistant cattle.

Those are just two examples among many. If it would be useful, I can send in documentation.

**Mark Ruskell:** That would be useful.

**Wayne Powell:** We have fairly comprehensive information on the impact of our contribution on the economy of Scotland and the rest of the UK. As Jamie Newbold has just outlined, the emphasis on livestock is very impressive. The Langhill dairy herd, which is based in Dumfries and Galloway, contributes something like £408 million to the economy, and we have other examples in which our work contributes not only economically but socially. We have economic metrics of performance and, through our research excellence framework in 2014, we have 10 case studies that have been peer reviewed and which demonstrated the social impact of our work in Scotland and beyond.

**Mark Ruskell:** I will pick up on two particular funds and areas of collaboration. Your written submission mentions the knowledge transfer and innovation fund, but I note that only one project has come through that. Are there issues in terms of a changing budget for KTIF and how that relates to the voluntary model? We have a voluntary model and collaboration and knowledge transfer are important in working with farmers.

Related to that, you are involved in the innovation support service, which I gather is a collaboration with the Soil Association about flood management and catchment-scale work. However, there is money only for research and development and not for capital funding. What are your thoughts on those funding streams?

**Wayne Powell:** Mike Wijnberg will answer on the specific point. I think that the innovation

support service is being led by the Soil Association and we are subcontractors.

**Mike Wijnberg:** Both examples that Mark Ruskell mentioned are very new. The live lambs project has only just kicked off, so it is early days for that. It is a good example of a collaborative project that will have benefits up and down—from the farmer right up through the processing sector and so on. It is a real supply-chain project. We have that on one hand, and on the other, there is the innovation support service, which has also only just kicked off. The lead on that is the Soil Association, with our support. That is about taking the innovation that has come through our research programmes—and others, because we work in collaboration with a range of other parties, including from the environment, food and agriculture research institutes—to the coalface. However, it is too early to give any concrete examples, because the service kicked off only in September.

**Mark Ruskell:** Is the budget adequate for such collaborative working?

**Mike Wijnberg:** We have grabbed the opportunities that have been there. You are asking about two specific examples from among a range of collaborative projects that we have on the go. Our approach is probably to look across the spectrum of opportunities and not just specifically at those ones. We have submitted other applications to the KTIF that have not been approved. The one that Mark Ruskell mentioned is the one that has been approved.

**Stewart Stevenson:** I heard you say that the value of the Langhill herd is £408 million. Is that the value over the 40 or so years of the herd, or is that its value every year currently? I suspect that the former is the answer.

**Wayne Powell:** The answer is the former. That is the herd's value over the period since it was initiated, which is 40 or so years. However, as we look forward, from the long-term data that is embedded in that study—particularly with respect to the opportunities from big data and disruptive technologies—we anticipate that the value will be even greater. You are correct, however, that the £408 million is cumulative rather than annual.

**Stewart Stevenson:** Nonetheless, it is something. If you did not have the herd today, you could not buy it, because you cannot go back 45 years. The future value of the Langhill herd is almost impossible to quantify, because you will, I presume, be able to test future medicines and so on against the genomes, and the evolution of the genomes, that come from the Langhill herd. It is therefore probably one of your greatest assets. Am I overegging the pudding or am I getting it right?

**Wayne Powell:** No, you are not overegging the pudding at all. That was very helpful. Let me use a couple of terms to help to flesh this out. Some people would call the herd part of our national capability, but I think that it is more like a crown jewel because it is such an important resource. As we move forward, the capacity to interrogate the information will be a distinctive element of our future research strategy and it will be especially important when we have to balance the productivity agenda with resilience and environmental sustainability.

11:15

**Richard Lyle:** Before I ask my substantive questions, I have a question about your financial statement and report of 31 March 2016. Am I correct in saying that you had a loss on disposal of fixed assets and a loss in regard to pension schemes in 2015, but a gain in 2016?

**Wayne Powell:** Would you like to pick that up, Gavin?

**Gavin MacGregor:** I will pick up on the pensions question. Mr Lyle is right that there has been a significant adverse swing in the past year. I think that it will be updated when we get valuations updated. Last year, there was a pensions deficit charge against accounts of just under £12 million, so you are correct that there was a significant—

**Richard Lyle:** £12 million?

**Gavin MacGregor:** It was £11.8 million.

**Richard Lyle:** Okay. So where are we now with the pensions? The amount by which the pensions pot has been diluted is a concern.

**Gavin MacGregor:** The organisation has a number of risks. We have seven pension funds; we have agreed to have a strategic review of the whole pensions risk. At the end of this year, a number of the pension schemes will give their updated triennial valuation and, on the back of that, we will look at our whole pensions profile and risk. However, that is a legacy issue that dates back to the merger; we have a complex pensions position. What you see in the accounts are the significant financial swings that arise from that.

**Richard Lyle:** So some companies have changed how their pension finishes up. How is yours? I trust that the convener will allow me to ask that question, because I think that it is quite interesting, given that there was a £12 million loss.

**Gavin MacGregor:** It is, rather, a valuation swing that is represented in the accounts, but £11.8 million last year was a significant swing.

**Richard Lyle:** Okay. I will leave that one for another day, I suppose.

The Scottish Government funds research under a number of headings: centres for expertise, innovation funds, the innovation support service, underpinning capacity, SEFARI and contract research funding. Over all those themes, there must also be on-going review of the direction of the research and the balance of funding. In your view, is the current combination of types of research funding the most efficient way to meet the Scottish Government's objectives?

**Wayne Powell:** I will make a start on that, then turn to my colleagues. It is important to appreciate and understand that what we currently have is a distribution of funding that was designed a couple of years ago. We will face a profound set of challenges in the future. It will be important to understand future needs, because of the long-term nature of the research and what we do.

In terms of the balance of funding, we need to focus on a few areas. First, we need to understand the future needs of the Scottish Government in the light of Brexit and other drivers. Secondly, each institution needs to focus on the areas of strength and excellence that can make significant contributions at pace. Thirdly, we need to reconsider our levels and types of collaboration, and to have much more intensive and sophisticated collaboration so that we can move forward.

The answer to Mr Lyle's question is therefore that we need to review the balance of funding and investment in the light of the new strategic drivers. In our case, it is going to be particularly important that we consider the future roles of hill farming and ruminant agriculture. The strategic direction of the research programme in the future will be crucial.

**Richard Lyle:** Thanks for that. How do you view the balance between policy-relevant funding and strategic research funding that is provided by the Scottish Government?

**Wayne Powell:** The policy relevance of the programme is absolutely critical, as is co-design. The Scottish Government will require the best scientific evidence in order to implement policy, so the relationship between evidence and policy is critical. Some policy imperatives are likely to change, so they are where we need to focus our attention.

**Richard Lyle:** Gavin MacGregor skipped over and did not answer my question on the loss on disposal of fixed assets. Why was that, and what was the loss?

**Gavin MacGregor:** I am sorry. I do not have details on that, but we can supply them.

**Stewart Stevenson:** I just want a wee bit of clarification on pensions, probably from Mr MacGregor. Is the £12 million a reduction in the

cash value of the investments in the fund or is it a change in the actuarial estimate of future liabilities?

**Gavin MacGregor:** My understanding is that it relates to the liabilities, so it is, in line with financial reporting standards, an accounting adjustment.

**Stewart Stevenson:** Therefore, the effects will be felt at some point in the future, given the long-term nature of pension funds, albeit that they need to be considered now. Current payouts to pensioners and those that are immediately in prospect are not affected in any way.

**Gavin MacGregor:** Yes—that is correct.

**Donald Cameron:** I am sorry to press a point that Richard Lyle made. On the loss and disposal of fixed assets, we see a change from 2015, from a loss of £250,000-odd to one of £3 million in the course of a year. With respect, that is a huge chunk out of your surplus. I am surprised that no one here can speak to that loss.

**Richard Lyle:** You sold a farm at under its value.

**Gavin MacGregor:** I do not know the specific details of the breakdown of the accounts. Over the period since the merger point in 2012, there has been about £10.5 million in property sales, but there has also been flux, and just under £8 million has been invested. I will need to get the specific details on your question about the accounts and the change in financial value.

**The Convener:** The committee will want to see those details in writing.

**Wayne Powell:** We will ensure that they get to you promptly.

**The Convener:** Thank you, Mr Powell.

We will move on. Claudia Beamish has a question.

**Claudia Beamish:** I want to turn our minds to the SRUC and the national performance framework. Mr Powell, you have already highlighted the importance of policy being evidence based. As you will all know, the Scotland performs framework measures and reports on progress of government in Scotland. Scotland can be judged against a wide range of indicators that are set out in the national performance framework. There are national outcomes and national indicators. As you may well know—I highlight it for the record—those are being reviewed at present. I am involved with that review.

How can the research that the SRUC carries out help to deliver against the Scottish Government's national outcomes and national indicators in the national performance framework, and what

involvement have you, or others in the organisation, had?

**Wayne Powell:** My first point is that the strategic research programme is framed and designed to deliver against the Scottish Government's economic strategy and the national performance framework. We have excellent evidence of return on that investment. If we look at our current involvement in the SRP, we deliver against six of the national outcomes. That includes, for example, our work on bovine viral disease, which contributes to Scotland's economic potential, which is national indicator 2. We also contribute to national indicator 6—healthy lives—where human health may be affected by animal diseases, including E coli and campylobacter. We contribute to at least six of the national outcomes, as described in the performance framework.

**Claudia Beamish:** Thank you. That is helpful.

I draw your attention to a comment by Food Standards Scotland, which

“considers the research programme to make a valuable contribution to the delivery of ... National Outcomes, and Scotland's reputation for research and innovation”.

However, the FSS also says that

“there is a need to properly align the work to strategic policy relating to food protection and public health ... It is also the view of FSS that the SRP should place greater focus on applied research which is able to demonstrate clear policy application and is sufficiently flexible to adapt to changing priorities.”

We have already had a discussion about that; you highlighted some points. Do you have any comments on that?

**Wayne Powell:** The need for greater agility and flexibility in what we are able to do to support changing policy frameworks is really important. The connectivity between agriculture, the consumer and food safety is also an important area that will grow in significance. We contribute to the national performance framework, but we also need to be agile in addressing future priorities as they emerge: Claudia Beamish has just illustrated one of them.

**Claudia Beamish:** Can you identify any other ways in which you might be able to increase your contribution to the Scottish Government's national objectives in the framework?

**Wayne Powell:** There are major opportunities for us to contribute to economic growth, through greater commercial income and through the development of spin-out companies, which we are working on with the Royal Bank's Entrepreneurial-Spark programme. We certainly want to encourage our students and staff to generate spin-outs. There are also opportunities for generating

intellectual property. Those are areas where we can make a contribution.

Another area in our forward strategy is to do with wanting to grow and review our regional presence as an anchor institution to support local economies.

**Claudia Beamish:** I very much hope that you are referring to sustainable economic growth, rather than economic growth. I just want to highlight that point. I would be arguing for sustainable development, but that is just a personal view. It appears that nobody knows what it means anyway.

**Finlay Carson:** What discussions has the SRUC had with the Scottish Government on the future agricultural support system that will have to be put in place, within the UK framework, after Brexit?

**Mike Wijnberg:** None of the discussions that we have had thus far has been formal. We have had informal discussions with a variety of Government officials about their ideas on how things may develop. It is fair to say that every time that Brexit and the changing landscape come up, everybody talks about the lack of clarity and so on. To some extent, in those discussions, we take that as a given, and we then all have views about what the challenges and the reality will be.

Even on that basis, we find quite a lot of common ground in terms of the really practical things that will need to be tackled. However, as far as detailed and formal discussions go, we have had none.

**Wayne Powell:** Where we have had considerable input is through our rural policy centre, which provides the secretariat for the cross-party group that focuses on the rural economy. That is an area where we have had extensive conversations and discussions. A number of position papers are being drafted, covering horizon scanning and options. Certainly, we have been having conversations through our agricultural economists and policy group in that area, in which we have an important role to play.

**Angus MacDonald:** On future research challenges, the SRUC says in its written submission that we face what it calls a

“‘perfect storm’ of demographics, food security, climate change, non-renewable resource exhaustion, mal-nutrition, reduced biodiversity etc.”

In essence, the challenges

“are large, long term, complex ... and yet central to continued social and economic progress”.

Does the way in which the Scottish Government funds research need to change in order to deal

with the research challenges that lie ahead? If so, how?

11:30

**Wayne Powell:** To date, Scottish Government funding has been important because it has allowed two or three things that are relevant to your question to happen. First, it has supported interdisciplinary research. The complex challenges that we face at the moment will not be addressed by a simple reductionist approach, so the funding that the Scottish Government has provided to support interdisciplinary research is very important. Secondly, Government funding has supported interinstitutional work, which is also an important element. The third area that is supported is the capacity to develop teams of individuals who work together to tackle long-term challenges, which are often called “wicked problems”. Finally, Scottish Government support for long-term, mission-driven research along with biological resources and long-term data sets—which will be critical in the future—is important and significant. In addition, the interface between life sciences and social sciences will be very important. All the elements that are funded through the Scottish Government are extremely important.

In future, we will have to intensify the extent and way in which we collaborate. We are focusing on that area. We recently announced a strategic alliance with the Moredun Research Institute that is designed to address the complex questions to which you referred by co-locating, sharing facilities, maximising the use of resources and taking a more joined-up approach in order to tackle those issues. The other area that will be critical is innovation. Given its connections, SRUC is very well placed to overcome what is often referred to as the “valley of death” between research and its translation.

Those are areas of strength, but there are other areas where we need to intensify the nature of our collaboration and create headspace for innovation.

**Angus MacDonald:** In your submission, you say that there will be a requirement for longer-term research, as you just mentioned. In what areas is such longer-term research needed? You mentioned the significant challenges faced by hillfarming. Is that one such area? Can you give us examples of others?

**Wayne Powell:** My first plea is that we need to ensure that we are strategic and look across the whole programme. That is what we are doing in SRUC. From our perspective, one area to focus on in the future will be the integration of pastoral and ruminant agriculture, potentially with agroforestry. That will be critical in addressing some of the challenges that we face in a post-

Brexit world. More than 50 per cent of Scotland’s agriculture is dependent on livestock, and much of our livestock is managed on land that is environmentally fragile. A focus on that will be critical. We would like to shift some of our emphasis to that issue in order to address it.

**Jamie Newbold:** An additional area for long-term thought is climate change. Climate change is with us and will bring real challenges in respect of biosecurity. As Wayne Powell mentioned, that is part of the driver for our collaboration with the Moredun, in which we are bringing together our expertise on biosecurity for animals and plants. The whole pasture-based system and biosecurity are two areas that we want to focus on.

How do we bring in the disruptive technologies? We will have to boost the productivity of that grassland dramatically. There have been real developments in smart agriculture, such as virtual fencing and so on, alongside developments in genetics that can achieve that boost. The time is right to take on those challenges, both scientifically and because that is where the needs are.

**John Scott:** Good morning, gentlemen, and welcome to the committee. I should declare an interest, as I am an honorary fellow of the Moredun. I welcome the collaborative venture between SRUC and the Moredun, and I am sure that, by working together, the whole will be greater than the sum of the parts. What are the likely benefits of that collaboration, what work will it enable or enhance, and how will it be funded?

**Wayne Powell:** The collaboration between SRUC and the Moredun is specifically designed to bring about a step change in our approach to supporting livestock and livestock farming in Scotland, during a period of pressure on many areas, including in relation to disease.

One area of immediate action is our plan to relocate our central laboratory from its current location to the Moredun site. We will share facilities, infrastructure and equipment and therefore create synergies and interactions between researchers and scientists. I will leave it to Mike Wijnberg to elaborate more on the finances around that, but it is an immediate step that we intend to action in 2018.

Secondly, we plan to look at the establishment of interdisciplinary research centres, which would cover areas including those that Jamie Newbold referred to around biosecurity. We will look at an approach to biosecurity that brings together the expertise—including expertise on the new digital technology that is available—to create 21st century surveillance methodology.

Finally, there are strong opportunities for us to look at the way we engage with knowledge



exchange and transfer by bringing together the expertise that we have across both organisations in a synergistic manner.

Those are the high-level indicators. I will leave Mike Wijnberg to comment on the funding, but at our board meeting in December we will put forward a proposal that will involve capital investment to support that initiative.

**Mike Wijnberg:** In relation to our veterinary operations, I referred earlier to the consultation in 2015 and the significant review of everything that we had been doing.

Our central laboratory operation at the Bush estate has actually been a constraint on how we do business, in that the facilities are old—they are dated to the extent that we have had to close part of them and lease, at additional cost, premises from the University of Edinburgh. We see the fact that we now have a facility to move into that will provide sufficient space as effectively being a growth opportunity for that part of the business. We will concentrate equipment, expertise and so on in that facility.

There is a small capital requirement. A lot of the facilities are actually right up to the mark right now, so they will need to be adapted for what we put in them. There is a small capital cost associated with that of about £1 million. The rest of the cost will be funded from operations as we go forward. We see significant growth opportunities in that work.

We will also work with the Moredun to share some operations so that we do not have to duplicate them. If there are particular functions that we can share, we will look to do exactly that.

**John Scott:** Thank you. I know from speaking to Professor Julie Fitzpatrick that she is optimistic about healthier animals being a way of reducing carbon emissions, which we as a committee are very interested in. Can you expand on that a little?

**Jamie Newbold:** There are real options. There are figures that indicate that, if we can get the worst 25 per cent of farmers to farm as well as the average, we will reduce carbon emissions by about a quarter. Therefore getting animal health under control is important.

There is also real progress in breeding for low-carbon animals. Real insights are coming through from research programmes that suggest that being low carbon is actually a breedable trait. Simultaneously, as we move towards a more pasture-based system, we can also work on the grass genome through grass breeding. There are real opportunities to significantly reduce emissions from ruminant agriculture, such that the carbon sequestration that we know happens in the soil can balance those emissions.

**Claudia Beamish:** I have a brief follow-up to the question from my colleague John Scott. What research is under way or do you hope to do in the future on soil in relation to carbon?

**Jamie Newbold:** We have a carbon management centre at SRUC, on which my colleague Bob Rees works, along with others. We have an active programme of soil carbon measurement. We are also trying both to understand how different production and cropping systems can increase carbon balance and to take a holistic view of emissions. There are clearly emissions from livestock, but there are opportunities for significant sequestration in the soil, so that remains, and will remain, a very active area for us.

**Claudia Beamish:** That is very reassuring, as we know that agriculture and land use are among the heaviest emitters.

**Wayne Powell:** I would like to add to that. To take a development approach, the whole area of intercropping is very important. Scotland needs to take a fresh look at moving away from monoculture and at the role of legumes in agriculture. Those are areas in which we are active and on which we would like to focus more in the future as regards carbon sequestration and mitigating greenhouse gas emissions.

**Stewart Stevenson:** I have a quick question. Are you also doing research on bacteria in the gut, which plays a key role in the conversion of food to nutrition for the animal, but, more fundamentally here, produces methane for the atmosphere?

**Wayne Powell:** Rumen metagenomics is Jamie Newbold's area of expertise, so I will turn to him.

**Jamie Newbold:** I will try not to bore the committee on it.

**Stewart Stevenson:** You cannot.

**Jamie Newbold:** There are two major approaches. One is based on animal genetics. We now understand that the host controls the bacteria in the gut, which is how methane emissions occur. There is real progress on available additives that will reduce emissions from cattle by 50 per cent. There are real possibilities to make major emission reductions. As has been mentioned, the challenge now is to bring those into a holistic system so that we can balance things. The reduction studies have been done. What we now need are systems-level studies and to look at the economic barriers to the uptake of such measures by farmers. That comes back to what Wayne Powell said about the need for transdisciplinary research to make sure that the technical solutions become practical.

**Finlay Carson:** That is all good to hear.

Many people have voiced concerns that, when it comes to the draft climate change plan, two sectors in particular do not go far enough: transport and agriculture. What is your view on why the Government has not been more ambitious about reducing emissions from agriculture? Have you not fed into that process in order to look at the possibilities? Many people think that agriculture should be more ambitious on emissions reductions.

**Jamie Newbold:** Having come to the debate recently, I would say that the major challenges have been to get farmers to accept and integrate technologies; another challenge for researchers is to understand what is practical on farms. On transdisciplinary research, our work with farmers and consultants gives us a real opportunity to make a difference. As I have said, there are technical solutions, but the challenge is to understand what is practical and then pull the policy levers to make sure that things happen. That lack of connection between the technical solution and the farmer base has been the issue. One of the reasons why I am here is that I believe that the SRUC has the mechanisms to make that connection. A real difference can—and should—be made.

**Wayne Powell:** The other part of the challenge may well relate to quantification in many of those areas, which is difficult. Access to new data approaches, and transparency around that, will also be a major shift as we go forward.

**Mark Ruskell:** I want to expand on that point, by asking where the gap is in the delivery of practical initiatives that farmers can take up. There is always fantastic research going on. Earlier, the panel mentioned agroforestry and the linking of ruminant agriculture with forestry systems. The reality is that there has been only one application to the agroforestry grants scheme in the past year.

**Jamie Newbold:** Again, it is the holistic approach—being able to quantify it over the whole system, as Wayne Powell said, and to reward the farmer for it. The carbon reductions have to make some money for somebody or be paid for. Mostly, it is about being able to take a holistic view and look at the whole system.

11:45

**Mark Ruskell:** What does that mean for a farmer?

**Jamie Newbold:** It means that they need to manage their system to reduce carbon emissions, and policy needs to be able to reward them for that.

**Wayne Powell:** Another factor that is going to become very important is skills for the next

generation of farmers, and education on some of these key issues. That will be a major factor in changing the agenda.

**Mark Ruskell:** Is that your role or that of other organisations? Should you be receiving Scotland rural development programme funding to do that?

**Wayne Powell:** We have a significant role because we develop and deliver the national land-based strategy. It is an important element of what we do and I think that we will need to grow in importance, given the expectations around addressing climate change and increasing productivity, and some of the challenges that are facing us in relation to Brexit and new policies. We have an important role in that area.

**Mike Wijnberg:** I will make a quick but practical point. Farmers are the same as the rest of us, so their question will be what is in it for them. We have a carbon measurement tool—agricalc—that has now been incorporated into the work that we have just started on the beef efficiency scheme. It will provide a measure of carbon emissions on a particular beef unit, which can be put against improvements that we set up in conjunction with farmers over the next three years. That will bring together carbon measurement and a very practical demonstration for the farmer of the financial benefits that come out of making the farm operate more efficiently. It is a challenge for us at a consulting level to make that demonstrable to farmers so that they can see the value for their business—to bring it home to them personally.

**John Scott:** You have talked about future generations and the need to understand the problems. My colleague Claudia Beamish and I have been having a brief conversation about how we need to start, or improve, that knowledge transfer now, for the current generation of farmers such as me. Will the Moredun institute's programme of road shows, and perhaps other approaches that you might wish to outline, give you an opportunity to deliver more effective knowledge transfer than there has been in the past?

**Wayne Powell:** Our alliance with the Moredun institute will certainly open up a number of opportunities and you have touched on one of them; there are already plans to initiate the approaches that you just described. There is a tremendous opportunity to engage with farmers on many of these issues by using the network of farmers across both organisations. That direct conduit into the farming community, here and now, is a major focus and plus of the alliance with the Moredun institute.

**Donald Cameron:** I refer to my entry in the register of interests concerning crofting and farming. I will come on to the new strategy in a

moment, but I want to ask about an answer that you gave relating to Brexit and the absence of formal talks with the Scottish Government about the future of rural support. Given that it has been a year and a half since the Brexit vote, does that surprise you?

**Mike Wijnberg:** Perhaps, having considered my answer, I can flesh it out more fully. As Wayne Powell said, there have been discussions at a formal level with our rural policy centre. To a large extent, that will have been to provide Scottish Government officials with an evidence base for decision making.

The other relevant thing is the work of the four champions who have been appointed by the Cabinet Secretary for Rural Economy and Connectivity, on which they reported back last week at an event that I attended. Their thinking overlaps with where we are and with what we see as our input into taking Scotland forward with the challenges that are faced in connection with Brexit—there is a good overlap in thinking about the direction of travel, what the challenges will be and what we can do about them.

**Wayne Powell:** I emphasise that there has been engagement through our rural policy centre at a number of different levels with officials in the Scottish Government and ministers. It is also important to recognise that SRUC has a major role to play because of its independence. We have made a contribution to that area and we would welcome the opportunity to continue to make that contribution.

**Donald Cameron:** I want to move on to your new strategy, by which you seek to create a simplified structure, with a college of agriculture and rural economy. I am a great fan of simplification. Could you expand on the benefits of the proposed new structure? How far down the road have you travelled on its cost and impact on staff? When will you publish your final vision?

**Wayne Powell:** I will make a start on that and then I will turn to Jamie Newbold and Gavin MacGregor to expand.

The rationale for the creation of this entity—let us not get wound up in what we call it—is the fact that we firmly believe that the integration of research and education is critical. Exposing our students to the most up-to-date research and inspiring them is critical.

The second important element is that we should connect our higher education and further education programmes in ways that will support widening access and the learner journey. Those two areas are of critical importance.

Thirdly, by creating this entity, we will create greater visibility and make SRUC more attractive

to future students. It would be more akin to what we see around the world. The SRUC model has, in many ways, been replicated around the world. There is a strong foundation on which to build and we are looking at integrating our education and research provision. Jamie Newbold can expand on that.

**Jamie Newbold:** The combination of research and learning into one beast seems like a no-brainer to me. It benefits the learning experience, but it also benefits the research and helps to overcome some of the problems that we were discussing earlier about getting research into practice through close interaction. As we have worked through this, it has become obvious that we need to build stronger links to our veterinary services and consultancy; that is part of the beast.

Our principle is to have a regional presence with faculties in the north, centre and south of the country. The adverts for the deans of those faculties closed in the past few days. We are in the process of interviewing in the run-up to Christmas with a view to producing strong regional deans who will then help us to drive forward through January the implementation of the new strategy and the integration of our teaching and research activity.

**Donald Cameron:** How many students do you have nationally?

**Jamie Newbold:** About 7,000 or so. We have 3,000 in higher education and slightly more in further education, some of whom are on part-time courses and so on.

**Donald Cameron:** I visited the SAC office in Oban earlier in the year. It is an excellent office and its staff are dedicated. It struck me that that office performs a role that goes slightly beyond an agricultural consultant, particularly in a rural area. In many respects, it is a lifeline. The staff travel out to the islands to many of the farmers and crofters out there. How will the new vision and strategy change that? Will it make it easier or harder?

**Mike Wijnberg:** I am very pleased to hear your comments about that office, and I agree entirely with them. There is a good dynamic there.

Institutionally speaking—and having been in post for two and a half years now, I am the longest standing of all my colleagues on the leadership team—I might comment that a lot of staff, not just in consulting but across the organisation, have been wondering about our strategic vision, where we are going as an institution and so on. I would point out, though, that many of them provide a good, dedicated service in their area of business, but one thing that there is a hunger for and which I think we are starting to deal with is having more clarity about where we are going institutionally, how we fit together, what the longer-term vision is

and what role people can play in a longer-term and broader agenda. To that extent, the changes that are going through now and which we expect to become much more visible in the first and second quarters of next year will have an empowering effect on most staff.

**Wayne Powell:** We want to maximise the utilisation of all SRUC's resources. Indeed, as far as our consulting staff are concerned, we see opportunities for student engagement as well as engagement with research. Mike Wijnberg might confirm this, but I believe that, this year, a graduate scheme has been implemented to start the development of the next generation, and we do not see our consultants being considered in isolation.

In addition, SRUC has approximately 24 vets, and I want them to participate in meeting SRUC's overall goals and core mission is a much more integrated way. We want to break down some of the barriers that have existed in the past.

**The Convener:** Where does Elmwood College sit in all of this?

**Wayne Powell:** It is a vital plank in our future development, and it has a number of key strengths that we want to retain and grow. The areas of golf and tourism are critical, and the area of hospitality, too, is significant to us, so we see the college as an important aspect of our future development. It is also a key community institution that engages with people in Cupar and across Fife, and we are actively engaged in developing with the Scottish Further and Higher Education Funding Council an infrastructure plan that will include Elmwood campus and its future development.

**The Convener:** That is a marked change from where we were a few years ago.

**Wayne Powell:** That is correct.

**David Stewart:** I have a couple of questions about the Inverness campus—and at this point I should declare an interest as a Highlands and Islands member.

Some years ago—and before 75 per cent of you were in post—there was quite serious staff unrest about the changes. First of all, then, can you tell us how the staff feel about the changes? Secondly, can you give us your thoughts on the Inverness campus model, which looks exciting? How do you see it growing, innovating and sharing best practice with, say, the University of the Highlands and Islands.

**Wayne Powell:** We have bold and ambitious plans for Inverness, and we are engaging with the UHI and Highlands and Islands Enterprise on developing that campus. There are major opportunities to develop and expand our competence in the area of epidemiology, where

we have some excellent researchers, and we also see opportunities to partner with UHI on digital matters, both in agriculture and more broadly. We will also be able to look at ways in which we can engage more broadly with Scotland's two vet schools and offer some training for rural vets. In addition, there are plans to start relocating some of our vet facilities, but Mike Wijnberg might wish to pick that up and Jamie Newbold might expand on what I have just said.

**Mike Wijnberg:** From the dark days of 2015, when there were a lot of difficulties and people—both internal and external stakeholders—were struggling to understand what the impact locally would be, things have changed significantly and have perhaps gained momentum over the past six months. That is because people can see the proposed changes within a strategic framework and can see that we are trying to find not small-scale, local solutions but something that fits into a broader picture. There has been fairly intense staff engagement over the past three months or so, when they have had a say in the design of new facilities. I think that, as a result, morale will be significantly better.

12:00

**Stewart Stevenson:** My relatively informal understanding is that the UK Government is developing two, three or perhaps four alternative sets of secondary legislation to cover what might happen post-Brexit and the different outcomes that it foresees as the result of the negotiations on Brexit. I also understand that, thus far, it has not made those documents available to the Scottish Government, which is making it difficult for the Scottish Government to plan for a post-Brexit scenario. Have you seen, or do you have any informal knowledge of, the options that the UK Government is pursuing, which it is playing very close to its chest?

**Wayne Powell:** I am not aware of that so, unfortunately, I cannot comment on that in any detail. As a member of the Department for Environment, Food and Rural Affairs Science Advisory Council, I have been involved in scrutinising the 25-year environment plan, but beyond that, I have had no direct contact with the areas of legislation that you have referred to. Perhaps my colleagues have.

**Mike Wijnberg:** I do not think that we have any particular insights into the legislation that the UK Government might propose, but we have certainly had contact with officials in London and have a good idea of some of their thoughts as they take things forward. We think that there is value in making sure that the differences that are relevant to Scotland from a topographical and farming point of view are well understood in London.

**John Scott:** I have a brief question that, again, is about the opportunities that are offering themselves. Adversity is always the greatest driver of change, so, given the likely change to agri-support systems post-Brexit, do you see an opportunity for SRUC to go back to being, as it was once regarded, one of the leaders in rural Scotland? I do—and I suppose that I should declare an interest in that respect—but can you expand on that just a little? After all, active farming and innovation are necessarily going to be the order of the day.

**Wayne Powell:** SRUC is not only pivotal in delivering on some of the areas that we have discussed but critical to the setting of future agendas and horizon scanning. I therefore think that it is already playing an important role. Perhaps we have not been selling that as well as we could have, and we might have to get a bit better at selling much of what we do. For example, SRUC has played a major role in developing and shaping the Agriculture and Horticulture Development Board's horizon reports on what might happen post-Brexit.

In that respect, I would also highlight the industrial strategy, an element of which relates to the future transformation of food. SRUC is playing an important role in shaping some of that agenda.

A third example is our involvement with agri-tech centres. We are founding partners in three such centres: the centre for livestock improvement; the centre for agrimetrics and big data; and the agricultural engineering precision innovation centre—or what is known as agri-EPI—which focuses on precision farming. With those three centres, we are playing a significant role in the innovation agenda. Finally, going beyond Scotland, I would highlight the work that we are doing in a Bill and Melinda Gates Foundation programme on livestock improvement, on which we, the University of Edinburgh and the International Livestock Research Institute in Nairobi are founding partners.

I think that those are examples of where we are setting the agenda. There is certainly more to be done, but giving our staff the confidence and ambition to take that kind of work forward is an important area that we have been working on over the past 14 or 15 months.

**John Scott:** Right. Colleagues will be pleased to hear that I will now revert to the question that I was meant to ask.

Can you tell us about the operation of the veterinary investigation units, their staff numbers, their future and the new strategy that was introduced in 2015? Where is all of that going, and is their future secure?

**Mike Wijnberg:** Earlier, I alluded to the fact that we had a consultation in 2015. We got a lot of pushback from that and we went off to rethink what was proposed. We concluded that, most importantly, we needed to be in a position in which local stakeholders had a destination to which they could take their dead cow, to use my example. At a local level, that would provide a service in a practical sense, but it would also ensure that we retain local expertise. The staff at any one of our eight centres understand the bigger picture in terms of surveillance and they understand what is going on at the regional level from a disease point of view almost on a week-to-week basis. That is an important asset.

In all our thinking, we are trying to maintain that infrastructure. However, at the same time, we are faced with the budget challenges that I referred to earlier. We have to think how we mould what we do into a smarter way of working. We need to bring new technologies to the fore, use the benefits of logistics and so on and incorporate all that into our way of doing things. We want to concentrate expertise into our central lab and invest in equipment, and find a better way of doing things together with our new partner in Edinburgh. Essentially, that will mean that we will reduce the duplication of services and concentrate on investment in smarter equipment that can bring a better quality of service and greater efficiency in terms of cost and turnaround times. That is the direction of travel that we are moving in.

**The Convener:** In these difficult financial times, not only Government but every organisation has to make sure that it is spending money in the most appropriate and justifiable way. In 2015, the Rural Affairs, Climate Change and Environment Committee took an interest in the remunerations that were received by the senior executive team and directors. I recognise that you were not involved at that stage, Mr Powell, but have there been any changes in that regard? To be clear, I am not looking for any remuneration details or packages; I am just wondering whether, collectively, SRUC has sought to address that issue.

**Wayne Powell:** We have taken seriously the views of the Rural Affairs, Climate Change and Environment Committee. What you see before you is a new leadership team that represents in part the full executive team.

In relation to the earlier question, I should say that we are in the process of appointing a new finance director. We hoped to complete that process last week, but we have not been able to finalise it, so that is perhaps an omission in our composition today. We have scrutinised salaries and made appointments and we now have in place a leadership team that is capable of

delivering on the strategy, albeit that we still have to appoint the new finance director.

Gavin MacGregor can say a bit more about the details of remuneration.

**Gavin MacGregor:** As Wayne Powell says, there is non-executive oversight of executive pay, with everything ultimately being decided through our appointments and remuneration committee, which uses sectoral benchmarking as part of its process. There is an appropriate governance mechanism in that regard.

There has been significant leadership change over the past year. In 2016, the executive management team was made up of seven people, but it is now made up of six. We are conscious of the issues.

**The Convener:** Has the reduction in the number of people on the team been matched by a reduction in the overall spend in that area?

**Wayne Powell:** Yes, there has been a significant reduction in the overall spend on the executive leadership team.

**The Convener:** Can you provide us with details on that in due course?

**Gavin MacGregor:** In like-for-like terms, the spend on the executive team is £170,000 less this year than it was last year.

**The Convener:** Thank you; that is useful.

**Kate Forbes:** On a similar theme, a report on the gender pay gap between 2013 and 2015 identified a difference between the women's average hourly rate and the men's average hourly rate of approximately £4. Has anything been done to address the gender pay gap?

**Gavin MacGregor:** We have published our gender analysis and I think that we have a relatively low gap. In terms of development, we have a wide involvement of staff across the organisation in our equality and diversity group. We are conscious of the 50:50 by 2020 ambition, and that is guiding some of our work with the board. We are investing in areas such as executive leadership development, because we believe that we have some really good women leaders internally. Professor Powell sits on the women in agriculture board, too.

We are alive to the issue. I cannot remember the specific pay gap that we have, but we are consciously monitoring that, and we believe that internal development is one of the ways in which we can shift it.

**The Convener:** What about the gender balance? How would you characterise the performance or progress of SRUC over the past two or three years in that regard?

**Wayne Powell:** We have five women members on our board, who represent approximately 40 per cent of the total, so we are heading towards the goal of gender balance.

In SRUC, the gender balance depends on the level of the organisation. We are clear that we need to move forward with our Athena SWAN submission—the Athena SWAN charter is a major charter for universities and institutes—and we are in the process of recruiting a person to support our next submission. We are working diligently on driving forward a culture that is compatible with gender balance and with many of the issues that the committee has touched on. We take every opportunity to create committees and groups that are appropriately balanced, and we will continue to do so and to work diligently to try to achieve the goals that have been set out by the First Minister.

**Richard Lyle:** I have a question about the staff costs in your accounts: what percentage pay rise are you considering giving your staff in the next financial round?

**Wayne Powell:** We can certainly do that. I will turn to Gavin MacGregor for confirmation, but I think that the figure that we are currently considering is 1.7 per cent.

**Gavin MacGregor:** We had a joint meeting of the trade unions only last week, so we are waiting to confirm that in the next week or two, but that figure is the basis of the discussions that we had.

**Richard Lyle:** What is inflation running at just now?

**Gavin MacGregor:** I do not know.

**Richard Lyle:** Thank you.

**Claudia Beamish:** I will continue the same line of questioning. It is encouraging to hear that 40 per cent of your board members are women. Beyond support for development of women who are already in your organisation, do you have any comment about the lack of women at senior levels?

**Gavin MacGregor:** Particularly with recent executive appointments, we have made extensive efforts not just to recruit passively but to go out and research. We have worked with headhunters on a research basis, so we have tried to widen the applicant pool for recent appointments. In some circumstances, and because of the nature of the roles, that approach has not been particularly successful, but we have made an effort to encourage women candidates for recent posts.

**Claudia Beamish:** If that approach has not been successful, do you have future strategies as to how you might progress such issues?

**Gavin MacGregor:** We will have to review how we recruit. For the post of finance director, it was a

key remit of our brief. However, we will have to reflect on that and review how we do it.

**Mike Wijnberg:** I will add to that very briefly. In the consulting division, 70 per cent of staff are women. If we look at the age profile of the younger cohort, we can see a significant number of women. All sorts of things will happen over time as they move towards the senior levels in the organisation but, by virtue of numbers alone, that is a significant change.

**Stewart Stevenson:** What is the gender balance among the students?

**Jamie Newbold:** The gender balance varies enormously among the courses. For example, in veterinary nursing the student group is largely female, while in pure agriculture it is more male. It balances out at about 50:50 over the piece, but it is not equal in each course.

**Stewart Stevenson:** Historically, it has proved difficult to get women into science, technology, engineering and mathematics subjects. That is something with which you will be familiar and will have had to grapple. Of course, the people who graduate from your education system will be a natural pool for those who will become part of your staff.

**Jamie Newbold:** There are things that we can do. One of the things that we are looking at is how we design our courses to give progression. We see very good engagement at the FE level. One of the reasons for integrating teaching and research is to provide more aspirational HE that future leaders can come through. That is not why we have designed it, but one of the benefits will be exactly what you have said.

**Stewart Stevenson:** Thank you.

**Wayne Powell:** I will give an example. Last week, I was teaching a masters programme with about 30 students, of whom 25 or 26 were female. To address the issues that we have been referring to, though, we also have to look at our provision in schools. We are proactive in that area in developing the rural skills agenda in schools. It is important to have a long-term strategic view of how we will address the issues that the committee has, quite rightly, raised.

**The Convener:** Gentlemen, thank you very much for your time this morning. Your evidence has been extremely useful.

There are a couple of things that you are going to write back to us about—most notably the loss on disposal of fixed assets. We would appreciate having that within the next couple of weeks.

**Wayne Powell:** We will get that to you promptly. Thank you very much to committee members for their time.

**The Convener:** We look forward to engaging with you again.

## Subordinate Legislation

### Water Environment (Miscellaneous) (Scotland) Regulations 2017 (SSI 2017/389)

12:16

**The Convener:** Item 3 is consideration of a negative instrument. Do members have any comments to make?

**Claudia Beamish:** My comment is simply to highlight how important the negative instrument is in improving the clarity of the present regulations. I want it to be recorded that I welcome it on that basis.

**The Convener:** Is the committee agreed that it does not wish to make any recommendation on the instrument?

**Members** *indicated agreement.*

**The Convener:** At its next meeting, on 5 December 2017, the committee will take evidence from the Cabinet Secretary for the Environment, Climate Change and Land Reform and the Minister for Transport and the Islands, as part of its inquiry into air quality in Scotland.

As agreed earlier, we will now move into private session. I ask that the public gallery be cleared, as the public part of the meeting is closed.

12:17

*Meeting continued in private until 12:37.*



This is the final edition of the *Official Report* of this meeting. It is part of the Scottish Parliament *Official Report* archive and has been sent for legal deposit.

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