



Northern Ireland
Assembly

Committee for Agriculture and Rural
Development

OFFICIAL REPORT (Hansard)

Northern Ireland Food Animal Information
System: DARD Briefing

2 July 2013

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Members present for all or part of the proceedings:

Mr Joe Byrne (Deputy Chairperson)
Mr Thomas Buchanan
Mrs Jo-Anne Dobson
Mr Kieran McCarthy
Mr Oliver McMullan
Mr Ian Milne
Mr Robin Swann

Witnesses:

Mr Garry Corscadden	Department of Agriculture and Rural Development
Mr Robert Huey	Department of Agriculture and Rural Development
Mr Maurice McCoy	Department of Agriculture and Rural Development
Ms Esther McMaster	Department of Agriculture and Rural Development

The Deputy Chairperson: I welcome the delegation from the Department: Bert, Esther, Maurice and Garry. We are going to hear blue-sky thinking on how the Northern Ireland food animal information system (NIFAIS) is going. Over to you, Bert.

Mr Robert Huey (Department of Agriculture and Rural Development): Good afternoon, Deputy Chair, and thank you for this opportunity to update the Committee on the progress of the NIFAIS programme. I will move through the slide set fairly rapidly so that we can maximise the time for questions. Our aim today is to bring you up to date and inform you about the progress of the programme.

The first slide outlines the aim of the NIFAIS. Those of you who have done this sort of thing will know that you spend a lot of time thinking about your vision, aims and objectives. This programme is very large and very complex. We are going to spend an awful lot of public money, and it is full of risk, so it is important that we have the right governance in place and that we have done the right thinking as far as the programme and project management is concerned.

We have done the lot. We have programme mandates, blueprints and initiation documents — you name it, we have thrown it at this programme because it needs it.

"NIFAIS will be a flexible, innovative IT solution that supports efficient and effective delivery of current and future food animal information services. It will meet DARD and industry needs and be capable of adapting to ensure compliance with legislation, technological developments, NICS structures and standards."

There is an awful lot in that paragraph.

I want to get you to think about the challenge that is ahead of us. The NIFAIS will switch on in December 2018 or January 2019 and will take the agriculture business through until 2034 or 2035. We are planning for 2019 to 2035. If you think about the speed at which technology changes and the legislative changes that affect our agriculture industry, you will understand the challenge that we are up against.

Normally, when you bring in an IT system — a pay system, perhaps — it stays fairly static. We are trying to hit a moving target all the time. Our needs and objectives and the needs of the agriculture community change all the time.

I will now turn to our agenda and explain what we are going to do. In order to understand the NIFAIS, you need to understand a little bit about the animal and public health information system (APHIS). I know that some of you are active farmers and know all about APHIS, but some do not. Maurice will run through the APHIS system in three slides or so, which is an impossible thing to do, but we want to give those who do not work with APHIS a chance to see the breadth of what it does.

After that, we will talk about why we are changing at all and why we are doing this thing. We will then talk about the progress so far and take you through what we have still to do.

Mr Maurice McCoy (Department of Agriculture and Rural Development): The APHIS is the system that we are using at the moment. It was approved as an EU operational database in late 1999, which was just about a year after it was introduced.

I will say a little bit about its history. We had a system before the APHIS: the animal health system, which ran for over 10 years. When the APHIS went live in late 1998, we transferred most of the data from that database onto the APHIS. Over the 15 years since the APHIS went live, the system has been in constant development, and now we have a very large, complex system that a lot of stakeholders interact with. It services not only the Department's needs but those of the wider agriculture industry.

It is an all-species database, so it holds information on cattle, sheep, pigs, poultry, goats, horse establishments and various other pieces of data. It includes keeper registration and movement information on cattle, sheep and pigs. It deals with animal registration, particularly to do with the births and deaths of cattle.

Disease control programmes, including those for TB, brucellosis and TSE or BSE, are very important for the Department. Without the APHIS, we would not be able to operate those programmes. We input post mortem information from meat plants, which is fed back to producers, meat plants and veterinary surgeons. We have information on animal welfare; the APHIS holds all the residue information. The farm quality assurance scheme operates through the APHIS, and we also have cross-compliance inspection information.

All that information underpins all the work programmes, particularly the disease control programmes. It underpins traceability and provides the assurances that not only the Department but the wider agriculture industry needs to be able to trade and to develop trade opportunities with all external customers. It is a live, interactive and real-time database. We have a lot of stakeholders who need to access it 24/7, and we spend a lot of time and energy ensuring that the system is up and running and available for our stakeholders. Not only do we have 900 DARD users but you can see that we have a large number of stakeholders. We have over 3,000 stakeholders, including veterinary surgeons, meat plants, market operators and exporters. They access the system continually throughout the day and night. They input information and extract information for their own use.

Another important element is the almost 8,000 farmers who access APHIS through APHIS Online, and who register births and deaths, record movements and access their herd information. In fact, we are now at a stage where over a half of all cattle births are registered by farmers or keepers on APHIS Online.

We are not going to go into any detail on the last slide, but we just wanted to show you how complex APHIS has become. We have a central database. The right-hand side of the slide shows DARD and all the uses that it makes of the database. At the bottom, we have detailed all the systems that APHIS integrates with and needs to integrate with to do its business. At the top left-hand side are all the stakeholders who access the system, be they partners, suppliers or producers. They put information

in and need information out to do their business. We really have got to a position where DARD and the agriculture industry are very heavily dependent, if not totally dependent, on APHIS to be able to do their business.

Mr Huey: OK. Thanks, Maurice. We will now move on and answer the question: why change?

As Maurice said, since the mid-1980s, Northern Ireland has been at the forefront of IT for animal movement and disease control. We moved from a paper system way back then, and we have a huge repository of data from 1987 all the way through to today. It is not just that, though; we also have all the TB data and epidemiological information that is very useful for understanding diseases.

Now we are going to move forward, and I will detail the key reasons for change. The APHIS system was put in place in 1998 on a 10-year contract, so the contract finished in 2008. Since 2008, we have been working on short-term contracts with an incumbent supplier. That carries a risk of challenge from other suppliers who would like to get into the market. In fact, by continuing with that supplier, we are putting ourselves at risk of other suppliers saying that they have not been able to get into the market. So, there is a legal reason why we need to go forward. Initially, we had a short-term contract that took us through to June 2011, and we have been working on short-term contracts since then. We need to be seen to be taking this procurement to the market. Legally, we do not really have any option. That is the first driver, but it is not the only one.

There is also a need for technological change. Think about the computer that you had 15 years and where it is now. You probably do not know, because you have probably had three since then. We have had one APHIS. Technology has moved on significantly since then. The animal health system was a good old Doctor Who-type computer, with nice big boxes, a big fan and spools going around. It was really impressive. When APHIS arrived, we were all a bit disappointed because the server for it looked like, and was the same size as, a coffee table. In the past 15 years, technology has moved on significantly. There is a need for a technological upgrade, and the language and the platform need to be changed.

The other thing about APHIS is that not a year has gone past that we have not spent at least half a million pounds updating it. Legislation changes — we had the date-based export scheme and the export certified herd scheme, and whole databases were built and closed down again. As legislation changes, APHIS changes to keep up with it, and we have done that continuously year on year for the past 15 years. I liken it to a big house with lots of clap-tos. It is not the way that you would build it now if you were going to build a new house.

With that development over the years, there comes inefficiency as well. When you are adding things on, you do not program them in the logical way in which you would do so if you were starting from scratch. So, there is a need to update the system to make it more efficient. As years go past, APHIS is becoming less efficient. Luckily, customers do not notice, but it takes more to keep it going and it requires more maintenance. Basically, it is just like a car that is running out of steam. As your car gets older, it needs more updates and more maintenance. That is where APHIS is getting itself to.

There is also the need to integrate APHIS with other NICS information and communications technology (ICT) systems, which includes Government Gateway. The Committee will know that when you are going online to do your VAT or your tax, you go through Government Gateway. We do not have that protection with APHIS, so there is a need to integrate what we are doing with APHIS and bring it up to date with where government computing has got to and to full government security rules and that sort of thing.

Something else worth mentioning is our approach to NIFAIS going forward, which is that it will just hold information about food animals. Currently, APHIS holds information about farmers as well. We also hold information about farmers in another system, the customer information services (CIS). Going forward, we will have one database that will hold information about food animals, one that will hold information about people, and one that will hold the maps, the "where". At the moment, APHIS tries to hold on to map references as the "where". It tries to keep its database of farmers up to date, which can cause all sorts of difficulties, as a farmer may think that he has told one part of the Department about a change of address or ownership, but maybe has not told the other bit, and maybe we will have not managed to tell ourselves internally. Everybody knows that if you keep two databases, they will never agree.

So, we need to change this and move to a system that has one place for the "where" — a geographical information system (GIS), which will be where you will get your maps for the single farm

payment and we get our maps for controlling disease — a CIS for people, so that there will be one farm business number connected to one farmer. By way of interest, that will have to link to another thing going on, which is called INSPIRE, which is being done by Land and Property Services (LPS). That is a European "where" question. Finally, there will be NIFAIS, which will have the food animal information: where the animals are, their registration, their identification, their movement and their disease information.

NIFAIS is going to move us to the next step. It will move us further forward, support the agrifood industry through to 2035 and keep us ahead of the pack.

Looking at the programme objectives — and I am not going to run through them — will give you an idea. It is very easy to say that what NIFAIS will do is functionality, as APHIS does at the moment. That is the very basics of what it has to do: it has to do what APHIS does at the moment. That is what customers would expect. However, it also has to be ready to go forward, and in a format that is flexible and mobile enough to keep us going for the next 20 years. Here you see the capabilities, but we will move on to the next slide. We will keep moving.

There is a bit there about the technological platform. It complies with the current ICT strategy; we mentioned that before. It must also enable the current and prospective needs, and I have put "information sharing with other systems". As I said, it shares information with farm businesses, customers, fields and lands owned.

The Deputy Chairperson: Would you be happy to take some questions at this stage?

Mr Huey: We have one more slide, and then we will take questions, if that is OK. There is only one more point about objectives.

One of the difficulties that we have had with the current system is that DARD does not own the intellectual property rights. That is to be expected, because the position is that the people who own those rights should be those who are best placed to develop them. DARD is not in the business of selling IT systems. So, the rights stayed with the incoming supplier AMT-SYBEX. However, that has given us a difficulty when moving forward with procurement, and we can talk about that a little bit more. This would be a natural place to stop, as the next bit is about progress.

Mr Swann: Thank you for your presentation. You used the phrase "flexible, innovative and capable of being adaptive". Those are not words you are used to using here, Robert. You are usually a bit more blunt, succinct and to the point. Tell me in your own words why we need to change this.

Mr Huey: Why we need to change it?

Mr Swann: Simply.

Mr Huey: Simply. First, we are out of contract, and we could get challenges that would expose the Department to having to pay compensation. Secondly, our current system is simply running out of steam. It is 15 years old. You think about your technology 15 years ago when you would have been working with a 286 or something like that, and you would have just moved out of Amstrads. That is the technology that we had then. Processors have moved on, and the way in which programming is done has moved on. The third driver is this business of being compatible with other NICS systems and even other DARD systems.

Mr Swann: There is always a fear when any Department tries to put things online and move to IT systems. They start to bring in contracts that get complicated, and then after two years of trialling them, they always fail. Our agrifood industry is, or is going to be, one of our main drivers. If this does not work, it could set us back dramatically. What assurances will you build into systems or suppliers to ensure that the industry will not be let down by an IT failure?

Mr Huey: Some of that will be answered later on. This is a high-risk enterprise. It has got words that scare the life out of anybody. It has procurement, and IT procurement, in particular, does not have a good history in government. We also have a very complex and complicated user requirement. There is nothing like this in the world. You cannot go anywhere and see who else has done it, and we are at a different stage from everybody else because we have started with our initial system, which people always do as they convert paper into IT — that was the animal health system. We then converted the

animal health system into APHIS, and we are now at the next stage. There are very few people who are at that stage. The other unique thing about APHIS is its interactivity in that most people have a system that moves cattle, then a system that does TB, and so on: systems that talk to each other. Our system is all in the one box, which gives us great strengths and means that we can do stuff with it. GB has a system that registers the identity of animals, and it has another completely different system that registers their movements. We are already ahead of the track. With this, we are trying to not put any hold on the agrifood industry but to allow us to go forward. Back in the days — pre-1996 — when we used to export a lot of meat, APHIS allowed us to sell meat on traceability. Other countries were just waking up to traceability: we were already there. We need to keep ahead of the pack with regard to offering something else. That is part of what NIFAIS is about: current functionality plus the flexibility to offer the next thing, and that is what we are trying to do. Am I selling it? *[Laughter.]*

Mr Swann: It still worries me. I remember in the early 2000s going over with a crowd of Danish farmers, and I took them to Dundonald House to show them APHIS. That goes back to the Albert Heijn's times when we were exporting big amounts of beef over there.

Mr Huey: That is what I am talking about.

Mr Swann: I am just concerned that, if we get this wrong, we will no longer be ahead of the pack but behind them. That is my big concern. However, if you are confident, Robert —

Mr Huey: I will tell you about the risks at the end.

Mr Buchanan: Keeping ahead of the pack — as Robin said — is key to all of this. The whole fear and concern is that a new system that is supposed to be more efficient could be put in place, but it could collapse, and that would set us back. We need some type of guarantee, if that is possible, that that will not happen and that there will be some type of backup system that will not allow that to happen.

Mr Huey: APHIS will still be there. The legal complexities of trying to switch on a legacy system once you start on the other one is something that we will have to investigate, but that box will not be going anywhere.

I will talk on through the progress that we have made to date, and it will maybe allow us to tease out some of the other questions that are coming.

The next slide shows what we have been doing to date. The 2009 decision was made to replace APHIS. An outline business case was done and that went to DFP supply, and we got the OK from DFP to go forward with it in June 2011. In July 2011, we opened the programme with very ambitious plans and moved forward to develop a spec. We also brought in expertise, having discovered that business financial expertise of the type that we needed was not available within DARD or the Civil Service. With ministerial permission, we procured both financial advice and business and commercial advice, and we did that through a tender process. We are partnered with Deloitte and Arthur Cox, and, so far, I am very pleased with the service that they are giving us and their engagement with the programme. We also are engaging with CPD greatly, and it is useful to be able to double-check the information that you are getting in more than one place. DSO is also available to us if we wish to ask for its advice. I am a great believer in triangulating the advice you get from anywhere and asking more than one person. That is what we are doing there.

The specification is very complicated. We moved our way through with subject matter experts to develop the statement of user requirement. To make sure that we are going in the right direction, Gateway has come in to give us some assurance. It visited us in January 2012 and had a look at how we were progressing. It made a large number of very good suggestions about how we could improve the programme. It came back again in January 2013 and had another look at what we were doing, and each time it comes, we make very substantive changes to the programme to improve it.

The exit strategy is a very important document because that takes us through with the incumbent supplier, AMT-SYBEX, until we switch on the new system. AMT-SYBEX continues to maintain and develop the system and will continue with some development right up until NIFAIS is switched on. As I say, the requirements of the agrifood industry continue day in, day out, and we will continue to develop right up until the last moment. Of course, we will try to minimise that. AMT-SYBEX also has to put the data — the information in the back of the computer — into a condition that is usable by a new supplier. A couple of things will come to mind there. AMT-SYBEX will also wish to compete for the new system, and that produces risks. For example, if AMT-SYBEX does not win the contract and

is, therefore, not very pleased, it may not put its best people towards maintaining and developing the old system. That is what the contract is about. Maurice has been leading on that work with it to ensure that it is contractually bound to us, before we go to the market, to supply us with a good service. There is also a risk if AMT-SYBEX is successful in that we will want its best people developing our new system and will also want its best people to keep the old system going. We also have to carry that risk in an exit strategy. None of these things are easy, and, basically, we will not go to the market until the exit strategy is signed. That is where we are at.

The original business case was done in 2009. We thought it prudent to go back and re-look at the assumptions that were made, because the market has changed. We also thought it wise to look at the financial figures, and we have done that. That re-look at the outline business case has just been completed and will go back to DFP at some time in mid-July. It is currently with DARD finance branch.

In the past two or three weeks, we have been engaging with the market to see if there is interest out there in supplying this, and we are very pleased to say that there is. We did market sounding early on, and 14 companies showed an interest. In the past three weeks, 13 of those 14 came in to talk about it, and we are very pleased with the amount of interest. We are also very pleased with their comments on the work that we have done so far, and we have taken some reassurance from that, particularly given that they are content with our work on the statement of user requirement. That was a big concern.

The next slide gives you the money that has been made available so far, both resource and capital. We have been spending almost all the resource money available on the programme team — it is a very extensive programme team — and the consultants. We have not spent the capital money, because we have not got to the stage of the programme that we thought we would when we made the budget in the first place. We anticipated that we would now be at the stage of developing the system. However, for various reasons that I am content to explain, we have not got there yet. Of the £3.6 million that was made available, we kept £1.1 million and handed £2.5 million back in June monitoring for a reallocation within the Department. We will probably not spend that £2.6 million in 2014-15. We will look closer to the date at what money we actually need.

That is pushing the requirement for this money further back, into other spending review periods. One of the complexities of this programme is that the finance will span three comprehensive spending review periods: this one, the one year, and the next one. That means that I am breaking the first rule of any project, which is that you do not set off until you have the money in your pocket. I cannot have the money in my pocket, because the money has not yet been voted through the CSR periods. It is another example of travelling in hope. One of the reasons why I need to keep you informed of what is going on is that the money for the programme to proceed will have to be made available in the following periods. That is a little worry.

Are there any questions on any of that before we get to the plan and how we are going forward?

The Deputy Chairperson: In relation to the experience of APHIS, has a chronology been done of both its attributes and difficulties? That would mean that, when you come to the new system, you will know the desirable requirements in respect of functionality and the interlocking relationship that there will have to be between the GIS, the CIS and the new NIFAIS.

Mr Huey: We are lucky in that we have a lot of experience of all the things that can go wrong, including flooding of your servers and things — you will remember this time last year. You will also remember that Maurice and his team got the system up and going again within 24 hours. We know about running a system. As far as the complexities of the IT are concerned, do either of you have anything to say about lessons learned and to be applied later on?

The Deputy Chairperson: I am trying to find out whether there were bottlenecks or difficulties with the APHIS system that you are looking to be tackled so that, this time, you will have better user requirements at the outset?

Mr Huey: As NIFAIS is so complex, in the procurement system ahead of dialogue, we do not attempt to describe every single move that we expect the new system to make. We are describing, at various different levels of detail, the outputs that we need to achieve. We do not tell the companies coming in how to do this; we tell them what we want the system to do. At a very simple level, we want the system to be able to allocate identification tags to animals and to trace the movement of animals. It is up to the company how it does that, how it develops our systems, and how it interlinks different parts

of animal movement, animal health statuses and testing. We leave the programming to the programmers, and they tell us how best to do it. It will be Esther and her team who, from an ISB point of view, will try to compare different companies' solutions during dialogue to get not just the best value for money but the best system, the most robust system and the system that will deliver what all the different customers on the ground expect from us.

The Deputy Chairperson: OK. I detect a degree of fear about the exit strategy.

Mr Huey: Concern.

The Deputy Chairperson: OK. I also detect an almost symbiotic relationship between the company that set up APHIS and the company that will be in charge of managing or providing APHIS.

Mr Huey: That is a key point, Joe. I am quite happy to say that we do not want this new system to be the son of APHIS or APHIS II. We want this to be a dramatic change. We cannot move forward without AMT-SYBEX, because AMT-SYBEX understands the current databases and the complexity of the — how many tables?

Mr McCoy: There are 400 or 500 tables on APHIS at the moment.

Mr Huey: AMT-SYBEX knows what those 400 or 500 tables do and how they interrelate. Only AMT-SYBEX really understands that architecture properly. Before we can move forward with anybody, we need AMT-SYBEX to put all that in an understandable format that other companies can use. We cannot move forward until it does that.

Maurice has been working on the exit strategy agreement. It has not been signed yet, but it is very close to being signed. AMT-SYBEX obviously wants to compete for this, and, obviously, it is in its interests that we are content with the work that it does for us. That is the ongoing process. There are two minor issues that are still to be sorted out before the exit strategy can be signed. I do not want to go into the detail of what those are, but they are not major issues. However, until that exit strategy is signed, we are going nowhere.

The Deputy Chairperson: As there are no further questions, I want to thank you for the presentation. We all recognise the difficulties in moving from one complex computer system to another. As you said, in the past, government has had difficulty in bringing in new IT systems; MoD is the best example of that. However, hopefully, on this occasion, DARD can specify the requirements of the system and get the outcome that it wants.

Mr Huey: Joe, I have information here on the plan going forward if you want it. However, if you feel that you have had enough today, I am content.

The Deputy Chairperson: I am prepared to make a working assumption that this is going to work out. *[Laughter.]* Thank you very much.