UK SCIENCE PARTNERSHIP FOR ANIMAL AND PLANT HEALTH
MINUTES FROM 16TH DECEMBER 2019 MEETING

Date: Monday 16th December 2019, 12:00 – 15:00
Venue: Room 806, Defra, Nobel House, Smith Square, London

Attendees
Chair: Deborah Keith (independent Deputy Chair)
Mike Francis & Ian Toth (independent members)
Gideon Henderson, Nicola Spence & Christine Middlemiss (Defra)
Sharon Brookes (APHA) – job shadowing Christine Middlemiss
Jef Grainger (UK Research and Innovation)
Rick Mumford (Food Standards Agency)
Alan Tollervey (DfID)
Alistair Carson (DAERA - Northern Ireland)
Martin Williams (Welsh Government) – dialling in
Stewart Snape (Forestry Commission) – dialling in
Marie-Louise Taylor (for agenda item 6) (GO-Science)
Simon Kerley (NERC) attended whole meeting and presented for agenda item 3
Oliver Pybus (Royal Veterinary College/Oxford University) attended whole meeting and presented agenda item 7
Oliver Tearne (APHA) and Ian Brown/Helen Roberts (APHA – Helen dialling in) for agenda item 7
Scott Sellers, Mike Sutton-Croft and Iain Dummett (Defra support)
Kirsty Dougal (dialling in) (BBSRC support)
Secretariat: Chris Jacobs (Defra/UKRI - secretariat)

Apologies:-
Julie Fitzpatrick - Scientific Director, Moredun Research Institute (independent)
Melanie Welham & Calum Murray (UK Research and Innovation)
Guy Poppy (FSA)
Liam Kelly (Scottish Government)
Alex Churchill (GO-Science)
Anna Brown (Forestry Commission)
Miles Carroll (Public Health England)
Alison Wallace (Wellcome Trust – observer)

Summary of actions
ACTION 13-1: Martin Williams to share relevant Welsh Government papers on climate change and tree choices with the rest of the Partnership.
ACTION 13-2: Gideon Henderson and Alistair Carson to liaise on the geospatial and capability aspects of DAERA’s (the Northern Ireland Department of Agriculture, Environment and Rural Affairs) land use modelling system, and how it is being designed to consider the future impact of forestry on climate change, farming and other issues.
ACTION 13-3: Secretariat to circulate ‘pdf’ copies of all the meeting presentations after the meeting.
ACTION 13-4: Secretariat to highlight to Alex Churchill (the GO-Science Partnership member) the discussion about the limitations which come from certain establishments/institutes being unable to apply for certain government programmes, to see if it’s an issue which GO-Science might consider addressing.
ACTION 13-5: The Partnership Chair and secretariat to discuss with Defra’s Chief Plant Health Officer (Nicola Spence) how the Partnership might be involved in International Year of Plant Health events.

ACTION 13-6: DfID’s representative (Alan Tollervey) to put Nicola Spence in touch with a DfID colleague who could help with communications around the global aspects of the International Year of Plant Health – specifically linked to the UK’s place in helping identify and address global issues.

ACTION 13-7: The Chair and secretariat to consider having a future agenda item on the key barriers to being ‘agile and smart’ in the animal and plant health science sectors.

ACTION 13-8: Members to give Oliver Pybus suggestions of people who might be suitable to take forward the ‘Integrating UK Genomic Surveillance” proposal.

ACTION 13-9: Alistair Carson to give Oliver Pybus a contact at the Agri-Food and Biosciences Institute (AFBI) to include in future discussions on integrating UK genomics surveillance.

ACTION 13-10: Oliver Pybus to contact the Food Standards Agency, Defra’s DNA Centre of Excellence, the Earlham and Quadrum Institutes, Public Health England and Genome England to see what links there might be with the proposal for integrating UK genomic surveillance.

ACTION 13-11: The working group on ‘Integrating UK Genomic Surveillance’ should further refine the proposal based on the Partnership’s discussion (and drawing on the advice of stakeholders identified in that discussion) before seeking views on potential funding opportunities.

Welcome and previous minutes/actions (Paper 13:1) – 12:00 to 12:15

Welcome and minutes of the July meeting:

1.1 Members were advised that the Partnership Chair – Julie Fitzpatrick - was unfortunately unable to attend and Chair this meeting, which would instead be chaired by the Partnership Deputy Chair – Deborah Keith. Deborah, as Chair for the meeting, then welcomed members and their representatives - in particular Gideon Henderson (in his first Partnership meeting since becoming Defra’s Chief Scientific Adviser), Sharon Brookes (job shadowing Christine Middlemiss for the day), and Simon Kerley, Iain Dummett, Mike Sutton-Croft and Oliver Pybus (all presenting later agenda items). Members were reminded that September’s Partnership meeting was cancelled due to the other pressing priorities everyone faced at that time. Looking further back, no comments were received on the July minutes, so these were formally accepted.

Paper 13:1 - actions from July meeting:

1.2 The Chair advised that most actions from July had been completed; but noted the following:

1.2.1 Action 12:4 – planning is underway for two workshops in late Spring/early Summer 2020 on evidence needs for bovine Tuberculosis (bTB) and for other endemic animal diseases. Reference to this had also been made in Defra’s written update.


2.1 The Chair thanked those who had provided a written update and reiterated the importance of others contributing to the update paper in future. Stewart Snape (attending in place of Anna Brown) was then invited to present an oral update on behalf of the Forestry Commission. In discussion the following points were made:

2.1.1 In the run up to the General Election there had been significant commitment made to deliver more tree planting – up to 13,000 more hectares per year. The Forestry Commission had already anticipated this with programmes in place to deliver the commitment (similarly in Wales, and with tree planting opportunities also being identified in Scotland). Whilst this new target exceeded previous achievements, it was considered to be achievable.
2.1.2 A key issue to address, for biosecurity and productivity reasons, would be where the new trees would come from, and ensuring they would be planted in the right place.

2.1.3 Martin’s team in the Welsh Government have been involved in climate change discussions with implications for future tree choices, and he committed to share some of those papers with the Partnership. The potential conflict between tree planting for agriculture and for other uses was noted.

**ACTION 13-1:** Martin Williams to share relevant Welsh Government papers on climate change and tree choices with the rest of the Partnership.

2.1.4 DAERA’s (the Northern Ireland Department of Agriculture, Environment and Rural Affairs) land use modelling system is being designed to consider the future impact of forestry on climate change, farming and other issues. Gideon Henderson was particularly interested to learn more about the geospatial aspect and capability, as this is something he is looking to develop in core Defra. He would pursue with Alistair Carson outside the meeting.

**ACTION 13-2:** Gideon Henderson and Alistair Carson to liaise on the geospatial and capability aspects of DAERA’s (the Northern Ireland Department of Agriculture, Environment and Rural Affairs) land use modelling system, and how it is being designed to consider the future impact of forestry on climate change, farming and other issues.

3. **NERC’s Form, Function & Future of UK Treescapes’ Strategic Programme Area - 12:30 to 13:00**

3.1 The Chair invited Simon Kerley (Natural Environment Research Council – NERC) to provide a presentation on NERC’s Form, Function & Future of UK Treescapes’ Strategic Programme Area. In discussion the following points were made:

3.1.1 It would be helpful if Partnership members could have copies of the slides - these would be circulated (along with all the other presentations from the meeting) after the meeting.

**ACTION 13-3:** Secretariat to circulate ‘pdf’ copies of all the meeting presentations after the meeting.

3.1.2 The programme does not specifically look at the impact of tree planting on flooding and the water table, but there was recognition that this would need to be part of the overall question addressed by the programme.

3.1.3 The programme has had significant input from others (including FC and Defra) through a representative working group, and BBSRC flagged their interest (whilst highlighting they would have no spare funding capacity before the Spending Review).

3.1.4 A governance structure will be established which includes a coordination function with stakeholder engagement – this will consider (amongst other things) interaction with others in government.

3.1.5 Planning is still in the early stages, so likely research interests and bidding organisations have yet to be identified; although it was clear that the desired multi-disciplinary approach would need a mix of organisations, as well as policy involvement.

3.1.6 Whilst Forest Research will be one of the key research organisations involved in the programme, it is not eligible as a Public Sector Research Establishment (PSRE) to apply to UK Research and Innovation (UKRI) baseline-supported schemes – the Treescapes initiative falling into this category. This highlighted the broader issue of some particularly relevant and key establishments/institutes being unable to bid into UKRI programmes by default. UKRI considers cases for institutions to gain independent research organisation (IRO) status (e.g. the James...
Hutton Institute which has recently gained such status), which then confers eligibility to bid for funding from UKRI. This requires a number of key funding and strategic criteria to be met (organisations that obtain the majority of their funding from a Government department, as is the case for most PSREs, will be ineligible). It was noted that Forest Research is preparing a business case in an attempt to gain IRO status. An organisation with PSRE status could still be eligible to apply to a UKRI call if the parent Government department made a financial contribution that would cover the project costs associated with PSRE partners, and this has been used in the past to help address eligibility issues. The broader issue was identified as something that the Government Chief Scientific Adviser should perhaps be invited to address.

**ACTION 13-4:** Secretariat to highlight to Alex Churchill (the GO-Science Partnership member) the discussion about the limitations which come from certain establishments/institutes being unable to apply for certain government programmes, to see if it’s an issue which GO-Science might consider addressing.

3.1.7 Organisations likely to bid to the treescapes programme will include universities (with all the associated expertise they bring); but it is important that funding also goes to stakeholders in the tree sector who will understand tree-specific issues.

3.1.8 Innovation can come from anywhere so eligibility limitations should be minimised.

3.1.9 DAERA–NI is launching a big programme on climate change and trees which might be of relevance to the treescapes programme; and would also be keen to collaborate with Partnership members on research funding to help modellers make environmental economy models more precise.

4. **International Year of Plant Health (Papers 13:3 and 13:4) – 13:00 to 13:30**

4.1 The Chair invited Nicola Spence to set out Defra’s plans for the 2020 International Year of Plant Health (IYPH); followed by Jef Grainger to expand on any additional planning being undertaken by UK Research and Innovation; before then turning to Alistair Carson for Northern Ireland and Martin Williams for Wales. Whilst Liam Kelly was unable to attend the meeting, he had provided a one slide update for Scotland’s plans. In discussion the following points were made:

4.1.1 Consideration should be given to how the Partnership might engage with the IYPH, perhaps through a talk and/or poster at a Royal Society or Parliamentary event – this would be an opportunity to draw attention to the work of the Partnership and show how joined up government is in this area.

**ACTION 13-5:** The Partnership Chair and secretariat to discuss with Defra’s Chief Plant Health Officer (Nicola Spence) how the Partnership might be involved in International Year of Plant Health events.

4.1.2 There is an effective cross-government organising committee (including the Devolved Administrations) which has identified the need to focus on education and young people.

4.1.3 Industry representatives from the National Farmers Union and trade associations are on the IYPH steering group and helping with communications.

4.1.4 There is a strong international element beyond the Food and Agriculture Organisation (FAO) linked to the need to focus on global threats and the UK’s place in helping identify and address global issues, using our science and research to help other countries. DfID support this and would like to see it given even more prominence.
**ACTION 13-6**: DfID’s representative (Alan Tollervey) to put Nicola Spence in touch with a DfID colleague who could help with communications around the global aspects of the International Year of Plant Health – specifically linked to the UK’s place in helping identify and address global issues.

4.1.5 The public is perhaps less aware of the importance of biosecurity in plants compared to in animals, so the IYPH represents a real opportunity to emphasise this point.

5. **Towards the creation of a Plant Health Innovation Fund (Paper 13:5) – 13:30 to 14:00**

5.1 The Chair invited Iain Dummett and Mike Sutton-Croft to introduce Paper 13:5 – explaining the background and potential next steps for creating a Plant Health Innovation Fund. In discussion the following points were made:

5.1.1 Innovation funds have been developed elsewhere in Defra so there is clearly potential to do the same for plant science. Whilst there is no funding currently in place, ideas should be worked up which could then be taken forward if and when funding becomes available.

5.1.2 Three areas which should be included in any planned programme include forecasting through modelling, monitoring e.g. remote sensing; and addressing the need for available and detailed maps.

5.1.3 DAERA-NI has experience of using the Small Business Research Initiative (SBRI - one potential source of funds which has been used by other Defra innovation programmes) but the associated challenge has to be very specific, and Defra’s plans are perhaps too broad for SBRI.

5.1.4 Any programme should consider technology readiness levels, and how to get ‘carry-through’ of innovative working practices from working prototype into full use.

5.1.5 Value would come from connecting those with plant health problems to those who might be able to develop potential solutions; using those discussions to help define a programme. UK Research and Innovation (specifically Innovate UK) would have an interest in this.

5.1.6 Regulatory issues and limitations in regulatory awareness will need to be addressed, perhaps through the involvement of the Knowledge Transfer Network.

5.1.7 There is a European context linked to chemicals being withdrawn through the hazard-based risk assessment approach. EU exit might provide an opportunity to re-examine some of those products, recognising the importance of maintaining safety.

5.1.8 Large agri-businesses often struggle with regulatory controls, so they should be included in any planning as they may be able to suggest alternative approaches.

5.1.9 Discussions and planning are at an early stage and will need to be broadened out to include others such as the Devolved Administrations.

6. **Government Chief Scientific Adviser’s Science Capability Review (paper 13:6) – 14:00 to 14:20**

6.1 The Chair welcomed Marie-Louise Taylor (GO-Science) to the meeting and invited her to introduce paper 13:6 on the implementation of the Government Chief Scientific Adviser’s Science Capability Review. In discussion the following points were made:

6.1.1 GO-Science was working to a likely Budget date of February 2020 (N.B. Budget subsequently announced for 11th March 2020), with earliest spending allocations anytime from May 2020. Research and Development funding will be treated as capital (investment), not resource spend (which differs to UKRI’s categorisation of capital as a physical asset). The advantage of classing R&D as capital is that it could help protect the research budget and prevent it from being switched to resource spend; however that does bring the pressure of accurate forecasting and spend, since there is less flexibility to switch any potential underspend at year end.
6.1.2 The Review findings were published the day before purdah (alongside many other announcements), so many people may have missed the announcement. GO-Science will, however, be developing a communications strategy.

6.1.3 Defra is already refreshing its Areas of Research Interest (ARIs) and drawing out cross-cutting issues – to be completed before the Spending Review process; with current Defra expectations being an autumn 2020 Spending Review for budgets in 20/21 onwards.

6.1.4 GO-S will make reference to the Partnership when they share best practice on cross-government science capability.

6.1.5 Whilst government is rightly pushing the importance of a world class academic sector and the key role played by innovation, this shouldn’t be at the expense of regulatory science e.g. the management of risk and uncertainty. GO-Science could perhaps play an important role in identifying and addressing issues which are essential to the delivery of innovation in market, but which tend to “fall between the stools”. Linked to this, it might be worth the Partnership having a session on the key barriers to being agile and smart in the animal and plant health science sectors.

ACTION 13-7: The Chair and secretariat to consider having a future agenda item on the key barriers to being ‘agile and smart’ in the animal and plant health science sectors.


7.1.1 The Chair invited Oliver Pybus (Royal Veterinary College/Oxford University) to introduce Paper 13:7 - Integrating the UK’s genomic surveillance for animal and plant disease; whilst noting that Helen Roberts and Ian Brown (both APHA) were both joining the discussion by teleconference, and Oliver Tearne (APHA) had also joined the meeting for this agenda item. In discussion the following points were made:

7.1.2 There was a great deal of support for the proposal from all members - it represents a strong example of tackling common animal and plant health science issues in one joined-up way.

7.1.3 The question of whether disease is recurrent or persistent is relevant to both the animal and plant health sectors, but is being addressed in different ways in different places across different animals and plants. Both sectors face the same set of problems and technological platform, so it makes sense to be coordinated – addressing how research is translated into policy-relevant action i.e. operational research.

7.1.4 Oliver has secured three months of Research England funding to help shape the proposal, so would welcome suggestions for anyone who might be well positioned to help take this forward.

ACTION 13-8: Members to give Oliver Pybus suggestions of people who might be suitable to take forward the “Integrating UK Genomic Surveillance” proposal.

7.1.5 DAERA-Northern Ireland are very interested in the proposal and the Agri-Food and Biosciences Institute (AFBI) should be included in future discussions.

ACTION 13-9: Alistair Carson to give Oliver Pybus a contact at the Agri-Food and Biosciences Institute (AFBI) to include in future discussions on integrating UK genomics surveillance.

7.1.6 The Food Standards Agency is developing a similar concept around food production, so there should be close collaboration to ensure animal/plant health aspects fit into the wider food scenario.
7.1.7 The idea could help address some of the issues being considered by Defra around rapid response capability for an emerging plant disease. Links should be made with Defra’s Centre of Excellence for DNA.

7.1.8 Data assurance and reliability of data will be an important issue, alongside the challenge of storing and sharing large amounts of data. The Earlham Institute is working in this area and could be an important partner in this respect. Genome England must also have a lot of potentially valuable experience around data storage. Other potential stakeholders include Public Health England and the Quadrum Institute.

**ACTION 13-10:** Oliver Pybus to contact the Food Standards Agency, Defra’s DNA Centre of Excellence, the Earlham and Quadrum Institutes, Public Health England and Genome England to see what links there might be with the proposal for integrating UK genomic surveillance.

7.1.9 More work will need to be done on further finessing the challenges and approach to tackling those challenges, with a view to developing actionable intelligence (information which can be followed up on), which could ideally be used on a global basis.

7.1.10 The key challenge in relation to many cryptic threats to tree health (fungal pathogens e.g. phytophthoras, some wood borers e.g. emerald ash borer) is the fact that by the time symptoms are visible, it is too late to take meaningful management action. The key to being able to respond quickly enough is early detection, so there’s a big opportunity in using genomics to detect tree health threats when they are present at low levels in the environment. Its use would require carefully considered sampling strategies targeted at e.g. sentinel sites or sites adjacent to ports of entry.

7.1.11 Detecting, identifying and risk assessing new threats or emerging threats (those that are present and whose epidemiology is likely to outpace the adaptive potential of hosts (e.g. ash dieback) is a very complex challenge which genomics offers great potential to address, particularly if combined with remote sampling and diagnostic technologies.

7.1.12 The Partnership fully supports the concept. Once it has been further refined by the working group, options for funding should be considered. The Strategic Priorities Fund would appear to be a strong candidate for funding, but other options should also be considered, perhaps drawing on the advice of the Chief Scientific Advisers’ network.

**ACTION 13-11:** The working group on ‘Integrating UK Genomic Surveillance’ should further refine the proposal based on the Partnership’s discussion (and drawing on the advice of stakeholders identified in that discussion) before seeking views on potential funding opportunities.

8. **Any other business and next meeting – 14:55 to 15:00**

8.1 Members were reminded that the next quarterly meeting will be on Thursday 26th March at 11:00 – 14:00 (probably in Defra’s Nobel House office although the venue needs to be confirmed). Members were invited to provide suggestions for any topics which might need Partnership focus/attention.