Agenda Item 6 **England Executive Board** **Paper 04/15**

(23rd February 2015)

WILL THE NEW RESEARCH PROGRAMMES DELIVER ENGLISH FORESTRY'S RESEARCH NEEDS?

Purpose

1. To agree our approach to the final stages of developing the research programmes to fulfil the Science and Innovation Strategy for Forestry in Great Britain (SiS).

Recommendations

2. That we:

- A. Support the overall programme architecture on the basis it sets a framework that will help deliver England's critical research needs.
- B. Favour the combined critical quality assurance and forward looking research programme proposal for inventory, forecasting and monitoring rather than a focus on quality assurance of current datasets.
- C. Insist on funding for research into the suitability of new tree species to increase resilience and for the permanent sample plot network,
- D. If necessary, negotiate to achieve point C by redeploying funds from research areas that are relatively lower priority for Westminster research funding, to include some research integration activity, "close to market" research on timber properties, and some externally funded research.
- E. Provide an update for external stakeholders before pre-election purdah.

Background

3. The SiS was published in 2014. During development of the SiS we had co-designed with stakeholders priority research needs for English forestry, which EEB signed off. EEB agreed that we should support the strategy.

4. Since publication of the SiS, England, Scotland and Wales have been working with Corporate and Forestry Support (CFS) Analysts and Forest Research (FR) to develop the research programme. These cover about £7M worth of research per year funded by the Westminster vote, 90% via FR and 10% via "external research" procured by CFS. Our reference is an updated version of "Critical research questions for England" (Annex 1) together with knowledge on the most up to date needs, where appropriate, e.g.: higher priority for research into grey squirrel control. Our key question is "will the programmes deliver the research that English forestry needs?"

5. With your mandate following my escalation on the basis of a then "red"[1] rating against this question, we in the National Expertise team (NEt) have worked with CFS to simplify the framework; increase funding for inventory, forecasting and monitoring; reduce the dominance of research into the theory of ecological resilience; and further improve the quality of input from CFS and FR. CFS and FR have responded constructively and I have previously advised

[1] On a scale of green, amber-green, amber-red, or red.

a greener tinge to delivery confidence. The process is now at final negotiation stage with a well developed draft programme architecture (Annex 2). The programmes were discussed at a GB workshop on 12th Feb 2015.

Will this deliver the research that English forestry needs?

6. My overall delivery confidence is amber-green. Making it greener is the quality of the engagement with CFS and FR over the past few months and because most of English forestry's research needs can be clearly identified in the programmes. Making it redder are:

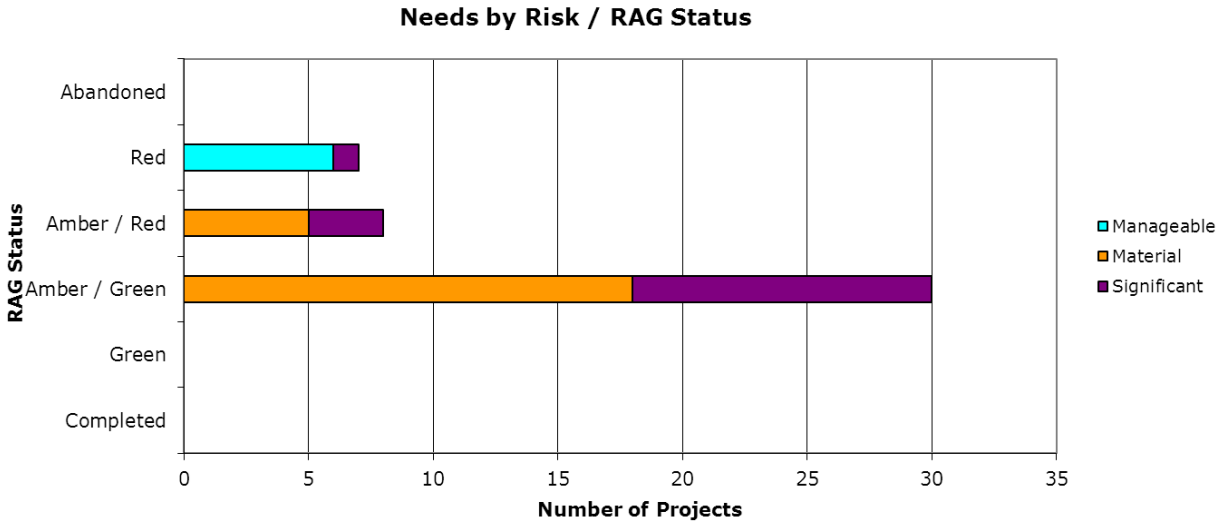
- Risks for institutional stability through further devolution and uncertainty in budgets after 2015/16. These risks are managed via the Woodland Policy Enabling Programme so I do not recommend how to manage them in this paper. Note, though, that a rational programme architecture with strong links between policy advisers and researchers would provide a useful baseline for future reforms if they become necessary.
- Two critical research needs that are not yet covered, see below.

7. FR's new institutional architecture should also be noted (Annex 2). This has programme leads accountable for delivery and science team leads holding the budget and working across the programmes. This architecture is designed to drive inter-disciplinary research and allow flexibility to deploy scientists. It is relatively unfamiliar to most of us although it is quite common in other research institutions. On balance, it appears a good way forward and we will all need to further strengthen new lines of communication and accountability to make it work.

Remaining issues with the proposed research programmes.

8. Annex 3 analyses whether the programmes cover English forestry's research needs, summarised in Fig. 1.

Fig. 1: English forestry research needs versus proposed research programmes for the Science and Innovation Strategy.



"RAG" shows the confidence we have that the research needs will be delivered.

"Risk" shows the risk of harm to FS if the research need were not delivered.

9. This shows that there are two key needs that are not yet covered:

- **Funding for emerging species research:** There is currently no funding allocated to research into the suitability of a wider range of tree species for planting in England to increase resilience to climate change and pests and diseases. This means that we are not confident that the following top priority research needs will be covered:
    - What tree species and silvicultural systems should we be encouraging to produce resilient woodlands and what are their requirements?
    - How can breeding and selection for resistance to pests, disease and climate change improve long-term resilience?
- **Programme architecture and funding for inventory, forecasting and monitoring:** as at 12th Feb 2015, Inventory Forecasting and Operational Support (IFOS) and FR had not yet agreed the programmes to cover this area of work. In particular IFOS favour assuring the quality of previous datasets whereas FR favours using the activity to provide information on changes in the resource. FR presented a revised programme architecture at the 12th Feb meeting which appears to deliver the essential quality assurance while providing for future needs. However, there is not enough funding allocated to this area of research to cover the critical needs. This means that we are not confident that the following top priority research needs will be covered:
    - The development (or maintenance) of permanent sample plots.
    - What is the size and condition of the English woodland resource and how will it change?

10. There are also several questions not covered by the programme that were in our list of English research needs but are relatively lower priority for research, e.g.: because they are covered by means other than SiS research. These are the questions marked "red" and "manageable risk" in Annex 3. They cover questions about woodfuel, skills, and previous incentives.

Options

11. **General approach:** We recommend supporting the overall programme architecture. This is because most of England's critical research needs are covered. In some cases the work needs to be moved to a different place, e.g.: quantifying the benefits of flood risk management should be somewhere other than the Programme 1 'risk assessment' work package. In a few other cases, the work package descriptors need to be more forward looking. These cases appear to be caused partly by the rapid pace at which CFS and FR have had to work but also by the constraints of designing a new programme to be delivered by an established set of science teams; changing too much too quickly risks leaving FR without the required science capability. Rather than negotiating for major changes to the programmes now we judge it better to adopt the current general proposal then work with FR to refine them over the next one or two years, SiS being a 5-year strategy.

12. **Those lower priority English forestry's research needs not included:** We recommend tolerating the risks of not delivering the research questions

referenced in para. 10. We could hold out to have these included but this would probably divert resources from other, higher priority research issues.

13. **Inventory, forecasting and monitoring:** We recommend supporting FR's revised programme architecture for this work. We do not recommend supporting IFOS' initial proposal because it would erode too much the ability to track longer-term trends in the forestry resource and test the impact of interventions. The most critical of IFOS' needs for quality assurance of past data fits in year 1 of the revised programme as urgent priority actions.

14. We recommend that the permanent sample plots are funded. We judge that £100k per year would be sufficient to cover the most critical elements. If this cannot be found within the programme (and it seems unlikely it can be if our other critical needs in this area are to be covered) we recommend that it is allocated from other, lower priority research areas (see below). We do not recommend leaving this funding gap. It would significantly erode the sample plot network essential for long-term monitoring of trends in forestry.

15. **Emerging species work:** We recommend that the funding for emerging species work is found by redeploying from other relatively lower priority areas; £150k appears to be the minimum. We do not recommend tolerating this gap. According to FR the current work on this is funded via external sources but these appear uncertain over the period of the SiS.

16. Lower priority areas for England from which resources could be deployed for the permanent sample plots and emerging species work would be:

- Programme 7 – this is the programme that integrates all the research areas to drive inter-disciplinary research. It is a worthwhile programme but we judge it could operate effectively with a smaller budget.
- "Close to market" research on timber properties that is important but would be best funded by private industry, e.g.: "What are the timber properties of UK grown hardwoods in relation to woodland types and silvicultural regimes?"
- Externally funded research. We judge it is possible to provide the key added value of externally funded research with a smaller budget allocation.

Next steps.

17. The research programmes need to be finalised by end February and will be presented to the Research Strategy Management Board (RSMB) for sign-off at end March. If RSMB were to refuse to sign-off the programme, FR would be in trouble because the programmes are supposed to start from 1st April 2015. We will therefore be negotiating with Scotland, FR, Wales and CFS to try and develop a shared position in advance of RSMB, to be reported back at EEB.

Risk Assessment

18. The key FS Risk in play is "FS07– Failure to provide an adequate policy framework". Currently at 10, Material. The actions in this paper help to treat this risk. Not covering England's critical research needs would almost certainly increase risk levels for FS07.

Equality Analysis (EqA)

19. Our input is covered by the EqA for the FS business plan 2015/16.

Communications

20. **External:** Since publication of the SiS, external stakeholders were engaged in updating research needs and developing the programme architecture during June – August 2014. Concerns with the process have resulted in no external communications since then. We recommend updating external stakeholders on progress before pre-election purdah, 30th March 2015.

21. **Internal:** General update via standard internal channels such as NEt news.

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16th February 2015

Annex 1
Critical Research Questions for England, Required to deliver the Strategic Research Outcomes of The Science And Innovation Strategy 2015-2020
Attached Word document.

Annex 2.
Proposed research programmes as at 15th Feb 2015.
Attached powerpoint.

Annex 3
Forestry Commission England research portfolio.
Attached Excel workbook