



## Programme 7: Integrating Research for Policy & Practice

### Section 1. Overview

Research Programme Title	Integrating research for policy and practice to deliver resilient forests
Research Programme Short Title	Integrating research for policy and practice
CFS programme number	7
Version	3
Date	20 June 2015
Programme Life (Years)	4
Start date	April 2015
Completion date	March 2019
Cost of programme (£K)	£696 (4 years); £174/yr

#### 1.1 Summary of proposed research

The aim of this programme is to demonstrate how the impact of research into trees, woods and forests can be enhanced through dialogue and collaboration between scientists, policy-makers, land managers and other stakeholders across the public and private sectors.

The specific objectives are to demonstrate how we can improve the level and quality of:

- a) **integration** between scientists across Forest Research (FR) and its research partners, by encouraging collaboration and interdisciplinarity where appropriate,
- b) **knowledge exchange** between the research community and external stakeholders through targeted engagement at appropriate stages in the research process, and
- c) **research impact**, i.e. changes in attitudes and behaviour that help realise the full range of benefits provided by trees, woods and forests into the future.

The programme will address these objectives through four inter-linked activities:

- Investigations to improve practical and theoretical understanding of how to enhance research integration and knowledge exchange, and of the diverse contexts within which scientific evidence can potentially support decision-making.
- Profiling, monitoring and evaluation of the status of research integration and knowledge exchange across FR and its research partners, the Forestry Commission and the wider land-use sector. This will also help us understand the factors influencing research impact.
- A series of workshops, seminars and other media to facilitate dialogue, collaboration and learning among FR scientists, and between researchers and targeted groups of policy-makers, practitioners and knowledge intermediaries across the land-use sectors.
- A small number of case studies to understand and enhance the effectiveness of FR's response to specific research challenges identified in the current Science and Innovation Strategy.

Knowledge and evidence from these activities will be synthesised in Year 4 to identify how best to conduct applied interdisciplinary research in ways that enhance impact. Monitoring and evaluation of specific programme activities will also inform final recommendations.

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## **Section 2. Description of Work**

### **2.1 Background**

This programme responds to Outcome 4 in the FC Science and Innovation Strategy: 'Changes to policy and practice through implementation by informed and engaged stakeholders'. Through this outcome, the Strategy commits to:

- an interdisciplinary approach to ensure that science and research is fit for purpose, credible and robust;
- collaboration and partnership to enhance capability and deliver more effective results, and
- stakeholder engagement in the design of research programmes to improve uptake and application of research.

The Strategy is informed by a growing realisation that many environmental problems are characterised by complexity and uncertainty, and cannot be solved with evidence from a single discipline. Cultural and institutional barriers between researchers, policy-makers and practitioners limit dialogue and understanding. Decision-makers at all levels reinterpret scientific knowledge to suit their particular contexts and needs, and combine it with expert and 'lay' knowledge, opinions and values. This reality contrasts with an idealised image of research as the production of objective evidence with a direct impact on a 'technical-rational' process of decision-making.

Improved research integration and knowledge exchange can encourage learning and collaboration between scientists and stakeholders, and lead to research outputs which better meet the needs of end-users. However, little investigation has been conducted, in a systematic way, to understand and demonstrate how this can best be achieved in practice. This new programme represents a comprehensive and innovative response to this need, both in theory and practice, focusing on the interactions between Forest Research and its partners, customers and stakeholders across the public and private sectors.

### **2.2 Programme-level response to the research challenges**

The aim of the programme is to demonstrate how the impact of research into trees, woods and forests can be enhanced through dialogue and collaboration between scientists, policy-makers, land managers and other stakeholders across the public and private sectors.

The specific objectives are to demonstrate how we can improve the level and quality of:

- a) integration between scientists across Forest Research and its research partners, by encouraging collaboration and interdisciplinarity where appropriate,
- b) knowledge exchange between the research community and external stakeholders through targeted engagement at appropriate stages in the research process, and
- c) research impact, i.e. changes in attitudes and behaviour that help realise the full range of benefits provided by trees, woods and forests into the future.

The underlying assumption is that the first two objectives (better integration and knowledge exchange) lead to the third objective (enhanced research impact). The programme will demonstrate the conditions under which this assumption can be realised.

The programme will address these objectives through four inter-linked activities:

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- Investigations to improve practical and theoretical understanding of how to enhance research integration and knowledge exchange, and of the diverse contexts within which scientific evidence can potentially support decision-making.
  - Profiling, monitoring and evaluation of the status of research integration and knowledge exchange across FR and its research partners, the Forestry Commission and the wider land-use sector. This will also help us understand the factors influencing research impact.
  - A series of workshops, seminars and other media to facilitate dialogue, collaboration and learning among FR scientists, and between researchers and targeted groups of policy-makers, practitioners and knowledge intermediaries across the land-use sectors.
  - A small number of case studies to understand and enhance the effectiveness of FR's response to specific research challenges identified in the current Science and Innovation Strategy.

The programme will be led by social scientists collaborating with natural scientists, economists and statisticians across the agency, in partnership with key external stakeholders in the public and private sectors. It is grounded in the principles of 'action research', often conceptualised as a cycle of a) 'input' (diagnosis, data gathering), b) 'transformation' (collaborative learning), and c) 'output' (changes in behaviour).

The programme will begin by reviewing existing theoretical approaches and practical tools to understand and enhance integration, knowledge exchange and research impact. These will help design a methodology to profile and monitor their status across FR and the wider sector. The results will be discussed and interpreted in workshops and other forums to encourage dialogue and learning about the best ways to enhance impact. Potential case studies will be identified and prioritised through a deliberative process, and shortlisted for planning and implementation.

Case studies will add value to existing areas of research within the other CFS programmes. Potential examples include: a) guidance around species and provenance selection; b) interdisciplinary research supporting the design of woodland creation grant models, and c) social research to inform the design of tree health detection systems.

In principle there are three components to a case study: 1) the science being conducted within one or more of the six other CFS programmes; 2) the context(s) into which the science outputs are intended to have an impact (e.g. policy-making, forest design planning, hill farming, academia, etc), and 3) the processes through which scientists, end-users and 'knowledge intermediaries' communicate and collaborate.

By working together to understand these components, the case study teams will seek to make tangible improvements to the production and utilisation of research, for example by helping to: a) reframe research problems and objectives, b) coordinate related research agendas and clarify messages, c) 'co-produce' research outputs with key stakeholders, and d) reinterpret findings with new audiences.

Knowledge and evidence from the literature reviews, profiling, case studies, and collaborative learning will be synthesised in Year 4 to identify how best to conduct applied interdisciplinary research in ways that enhance impact. Monitoring and evaluation of specific programme activities will also inform final recommendations.

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## 2.3 Business Considerations

### Delivering against country research needs

Country research needs are reflected in the Science and Innovation Strategy. This programme responds directly to Outcome 4 in the SIS: 'Changes to policy and practice through implementation by informed and engaged stakeholders'. In particular it addresses evidence requirement 4.1:

*'Active engagement with stakeholders in specifying the research programmes and their outputs to deliver the strategy outcomes, and understanding the barriers to behaviour change which will ensure that the results of research are adopted and become part of mainstream activity.'*

In response, the programme delivers against three related agendas: a) research integration, b) knowledge exchange, and c) research impact. These agendas map onto the three groupings of research questions that were distilled from analysis of responses to the country consultations conducted to develop the research programmes.

Additional needs raised during consultations were firstly to ensure the programme has a broad reach across FC and the private sector, and secondly to identify the skills required by researchers and customers to ensure research evidence is embedded into outputs from policy and practice (e.g. policy positions, management plans, and operational decisions).

### Impacts and constraints

The programme will have both a direct and an indirect impact on the quality, relevance and uptake of forest-related research:

- Firstly, during the lifetime of the programme, it seeks to enhance the impact of key areas of research conducted across the CFS programmes, in particular through the use of case studies.
- Secondly, it will improve understanding of the factors influencing research impact as the basis for making recommendations to RSMB and the wider environmental sector on how best to conduct applied interdisciplinary research in the future.

In the longer term, its impact is expected to be a consequence of changes in understanding, attitudes, behaviours and practices of individual researchers and key stakeholders, and in the organisational cultures and procedures of environmental agencies such as FR.

The programme will monitor and evaluate its activities throughout the four-year period to demonstrate its direct impact and identify which components were most effective in realising its objectives.

Constraints include: the willingness and ability of researchers and stakeholders, both public and private, to engage with the programme; and the extent to which it is possible to enhance research impact through improved dialogue and collaboration over the lifetime of the programme.

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## **Innovation potential**

The programme will look outside the forestry sector for examples of excellent practice, which will increase its innovation potential.

The application of a systems approach, e.g. to reframe research challenges, is innovative, and will link WA1.1 in this programme with WA1.1 in Programme 1 ('Exploring socio-ecological systems as a context for defining resilience').

Case studies will be selected in Work Package 2 partly to encourage innovation in the sector, for example:

- a) helping to diversify the range of tree species used in forestry by understanding and responding better to specific evidence needs throughout the forestry-wood chain (see case study example 1);
- b) evaluating and disseminating technical and governance solutions to bring neglected woodlands into sustainable production (see case study example 4), and
- c) developing a bespoke advisory service for urban greenspace planning and delivery (see case study example 5).

The approach taken by the programme to address issues around integration, engagement and impact is itself innovative: the organisation is taking a lead within the environmental sector by recognising that these issues represent a research challenge as well as a communications challenge.

By enhancing interdisciplinary working and stakeholder engagement, the programme is likely to foster creativity and innovation in other ways that are hard to predict.

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## 2.4 Work packages to address the research challenges

### Work package titles

WP1	Integration
WP2	Case studies

### WP Title: WP1. Integration

Indicative costs (£k):	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
	70	70	70	70

### Work package details:

The aim of this work package is to implement and coordinate three inter-linked work areas, which will operate in parallel at a strategic level across the agency and wider sector:

#### WA1.1: Frameworks, methods and tools

Investigations to improve practical and theoretical understanding of how to enhance research integration and knowledge exchange, and of the diverse contexts within which scientific evidence can potentially support decision-making.

#### WA1.2: Profiling, monitoring and evaluation

Profiling, monitoring and evaluation of the status of research integration and knowledge exchange across FR and its research partners, the Forestry Commission and the wider land-use sector. This will also help us understand the factors influencing research impact.

#### WA1.3: Collaborative and organisational learning

A series of workshops, seminars and other media to facilitate dialogue, collaboration and learning among FR scientists, and between researchers and targeted groups of policy-makers, practitioners and knowledge intermediaries across the land-use sectors.

These Work Areas inform each other as well as the 'Case study coordination' in WP2. Integration across Work Areas will be the responsibility of the Programme Manager, supported by a Steering Group that will meet regularly to review progress and help plan future activities (see Deliverable 1.0.1).

### Work area 1

#### WA1.1: Frameworks, methods and tools

This WA will ensure the programme is grounded in (and contributes to) state-of-the art knowledge and best practice. It will build upon existing theoretical frameworks, methods for profiling, monitoring and evaluation, and tools to support engagement and collaborative learning. Methods include reviews of relevant literature within and beyond the environmental sector, complemented by meetings and conversations with researchers and practitioners who are successfully tackling this agenda, within and beyond FR/FC, or have done so in the past (see 'Collaboration and networking'). Indicative research questions include the following:

Knowledge utilisation and decision-making:

- How can researchers, end-users, knowledge intermediaries and other stakeholders improve the quality, relevance, uptake and impact of research?

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- Under what conditions are different kinds of knowledge utilised in different ways by different kinds of decision-maker (e.g. policymakers, planners and land managers)?
- Engagement and learning:
- Which frameworks, methods and tools for stakeholder identification, analysis and engagement can help enhance links between research, policy and practice?
  - Which frameworks, methods and tools (e.g. action research; participatory modelling) can support collaborative learning and the co-production of knowledge?
- Behaviour change:
- Which models of behaviour change can inform more effective policy and delivery?
  - How might 'nudge' policies and related approaches (e.g. 'ask' and 'think') help deliver the potential societal benefits of trees, woods and forests?
- Systems approaches:
- Which holistic frameworks (e.g. socio-ecological systems) might help FR integrate its research activity around particular research challenges?

It is anticipated that a systems approach will be developed, for application across the sector, to help researchers and other stakeholders analyse and respond to applied research challenges. This outcome will benefit from close collaboration with WA1.1 in Programme 1 ('Exploring socio-ecological systems as a context for defining forest resilience').

Two deliverables are planned. Firstly, a review of existing theoretical frameworks and methodological approaches (1.1.1). This will inform the profiling (1.2.1), workshops and seminars (1.3.2) and the framework for selecting and analysing case studies (2.1.1). Secondly, the review will be taken forward in Years 2 and 3 by selecting specific approaches from fields including: science and technology studies, policy studies, behavioural economics, social psychology and organisation development. This will provide more detail on innovative perspectives of particular relevance to customers and users, as well as contributing to recommendations made in Year 4 (1.3.8 and 1.3.9).

## **Work area 2**

### **WA1.2: Profiling, monitoring and evaluation**

This work area will profile the current levels and characteristics of research integration and knowledge exchange across FR and its partners, customers and key stakeholders in the public and private sectors.

The profiling will be focused on Years 1 and 4 to allow monitoring of changes over time. In each case, the findings will provide an entry point for collaborative learning in WA1.3. It will provide insights into the factors influencing the uptake (by different types of end-user) of research outputs produced by different science groups (informing the recommendations in 1.3.8). Importantly it will also inform the selection of a long-list of potential case studies (2.1.2).

Key research questions include:

- What is the current level and character of integration and knowledge exchange across the agency and key stakeholder groups?
- How do different factors influence research impact (for different kinds of research challenge and end-user)?
- What are the implications for the ways in which research evidence is produced and utilised?

Methods include social network analysis and stakeholder analysis, supplemented by semi-structured interviews and group discussions, to explore the level and quality of integration and knowledge exchange between FR science groups and external stakeholder groups. Data will be generated through questionnaire surveys, participatory appraisal methods, and the 'Liberty 3'

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database of FR knowledge exchange outputs. The profiling will be reported in a journal article (1.2.6), including insights from dialogue with selected stakeholders to interpret recorded changes over time.

This Work Area includes ongoing monitoring and evaluation of the activities of the programme itself (informed by comparison of profiles in Years 1 and 4, and stakeholder feedback). It will not conduct a formal evaluation of the impact of FR research. However, subject to discussion with the RSMB, it could complement formal evaluations of the Strategy through: a) an informal research survey to enhance understanding of the factors leading to successful impact, b) a review of approaches to monitoring and evaluating research impact, and/or c) identification of suitable targets for inclusion in the FR Corporate Plan (see 1.2.7).

### **Work area 3**

#### **WA1.3: Collaborative and organisational learning**

This Work Area will facilitate a dialogue, both within the agency and with external stakeholders in the public and private sectors, to: a) encourage learning, at individual and organisational level, about the factors influencing the quality of integration and stakeholder engagement, and b) identify changes in behaviour and organisational practice that would enhance them both. The dialogue will help interpret and use the findings of other Work Areas in the programme, and contribute to their planning and delivery, in particular the selection of case studies (1.3.2).

The Work Area will also bring together findings from across the programme to make recommendations for the production and utilisation of applied interdisciplinary research (1.3.8 and 1.3.9). The overall goal is to enable the agency, and its partners and customers, become more responsive and resilient to the changing evidence needs and circumstances of the sector.

Key research questions include:

- What are the best ways to enhance integration and engagement for different kinds of research challenge?
- What skills do researchers, customers and end-users need in order to embed evidence and research into outputs?

In response to country consultations (and subject to discussion with the RSMB) this Work Area will also consider the skills required by FR and its customers and end-users to ensure research evidence is embedded into outputs from policy and practice (e.g. policy positions, management plans, and operational decisions) (see 1.3.5).

The methods are likely to focus on workshops and seminars, although other media will be used according to the objectives of engagement. An important dimension will be to learn from past experiences. People from other agencies who have researched or successfully managed similar initiatives will be identified and invited to share ideas (e.g. Research Unit for Research Utilisation, RCUK, RELU, DEFRA, JHI, ESPA, LWEC, SRUC and/or DFID). The engagement process will be managed by the WA leader, and planned and implemented in collaboration with other WA and WP leaders, the FC communications teams and key staff and stakeholders, to ensure all engagement has clear objectives and outputs, and is targeted at the right individuals.



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## WP Title: WP2. Case Studies

Indicative costs (£k):

2015-16	2016-17	2017-18	2018-19
104	104	104	104

Work package details:

The aim of this work package is to conduct a number of interdisciplinary case studies as a means to understand and enhance research impact. Each case study will focus on a key research challenge (or cluster of challenges) already being addressed within one (or more) of the other six CFS programmes. By working together, case study teams will identify actions that seek to make tangible improvements to the production and utilisation of research.

Improvements might focus on particular stakeholder interactions, or stages in the research process, e.g. helping to:

- a) reframe research problems and objectives,
- b) coordinate related research agendas and clarify messages,
- c) 'co-produce' research outputs with key stakeholders, and
- d) reinterpret findings with new audiences.

### WA2.1: Case study coordination

This Work Area will develop a framework for selecting and analysing case studies, and coordinate their planning and delivery. The final output will report on the outcomes, and discussion of the extent to which the case study approach offers a model for best practice in applied interdisciplinary research (2.1.3).

### WA2.2 – 2.x: Case studies

Between four and eight case studies are likely to be implemented during the programme. Based on past experience and provisional discussions within FR and FC, a number of potential cases have been identified here to illustrate what might be covered: a) guidance around species and provenance selection; b) research supporting the design of woodland creation grant models; c) research to inform the design of tree health detection systems; d) development and delivery of solutions to bring neglected woodlands into productive management; e) research to support urban green infrastructure planning and delivery; f) research to enhance the relevance and uptake of model outputs and decision support systems, and g) development of holistic approaches to understanding resilience. Some of the cases could be historical, or provide a historical perspective on current research challenges.

## Work area 1

### WA2.1: Case study coordination

This Work Area will develop a framework for selecting and analysing case studies, building on the literature reviews in 1.1.1, profiling in 1.2.4 and workshops in 1.3.2. The framework will allow any past, present or future forest-related research challenge to be characterised in terms of key factors (developed in WA1.1) that are known to influence research impact. These factors are likely to include:

- a) types of knowledge (e.g. theoretical, applied, expert, practitioner, 'lay' knowledge), and types of knowledge utilisation and impact (instrumental, conceptual and political);
- b) the level and quality of dialogue and collaboration between science groups, and between researchers and key stakeholders, and

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- c) understandings of end-users' evidence needs, and of what research has to offer and the constraints under which it operates.

The framework will inform a dialogue, facilitated by WA1.3, within and beyond the agency to agree on a long-list of potential case studies, which will then be prioritised and short-listed for implementation (2.1.2). As well as considering how the case studies are located with the conceptual framework (2.1.1), criteria for selection will consider:

- the prospects that further dialogue, collaboration and analysis can make a significant difference to impact during the lifetime of the programme,
- whether or not to focus only on 'live' problems faced by the sector, or include historical cases (or include a historical perspective on 'live' problems) and
- the extent to which the case study cuts across several CFS programmes and science groups.

The prioritisation and short-listing should identify at least two case studies that will start in Year 1. Further dialogue may be necessary in Year 2 to scope and select suitable cases. The final output from this Work Area will be a synthesis report and/or journal article which describes the approach and its outcomes, and the extent to which the case study approach offers a model for best practice in applied interdisciplinary research (2.1.3).

It is anticipated that case studies will be conducted by interdisciplinary teams, typically led by pairs of researchers: a natural scientist (leading the scientific aspects, or economist) in partnership with a social scientist (leading the process and social research aspects). The WA leader will be responsible for coordinating the selection, planning and implementation of case studies, and synthesising the findings, with oversight from the Programme Manager and in collaboration with other WA leaders and key internal and external stakeholders including the private sector.

## **Work area 2**

### **WA2.2 – 2.x: Case studies [between 4–8]**

This Work Area will implement and report on between four and eight case studies. Each will comprise a separate work area.

In principle there are three components to a case study:

- 1) the science being conducted within one or more of the six other CFS programmes;
- 2) the context(s) into which the science outputs are intended to have an impact (e.g. policy-making, forest design planning, hill farming communities, academia, etc), and
- 3) the processes through which scientists, end-users and 'knowledge intermediaries' communicate and collaborate (i.e. the links between '1' and '2').

By working together in interdisciplinary teams to understand and analyse these components, each team will identify actions required to make tangible improvements to the production and utilisation of research. Improvements might focus on particular stakeholder interactions, or stages in the research process, e.g. helping to: a) reframe research problems and objectives, b) coordinate related research agendas and clarify messages, c) 'co-produce' research outputs with key stakeholders, and d) reinterpret findings with new audiences.

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Outputs from '1' will be reported under one or more of the other six CFS programmes. Outputs from '2' and '3' will be reported under this programme in deliverables 2.x.2 and 2.x.3 respectively (NB. not all case studies will necessarily warrant both of these kinds of deliverable).

Possible case studies, indicating the most relevant CFS Programmes [P] have been listed below, on the basis of initial feedback:

**1. The right tree in the right place:** Guidance provided to land managers on species and provenance selection to enhance resilience in the face of climate change [P1, 3, 5, 6].

**2. Woodland creation grants:** Research supporting the development of woodland creation grants to deliver specific ecosystem services (e.g. flood alleviation, habitat networks, and wood production) [P1, 4].

**3. Tree health:** Research to inform responses by forest managers to outbreaks of pests and diseases, or to develop detection systems [P2, 3].

**4. Wood mobilisation:** Development and delivery of solutions to bring under-managed woodlands into productive management (building on the EU SIMWOOD project) [P3, 4].

**5. Urban green infrastructure:** Research to support urban green infrastructure planning and delivery (building on the EU GREENSURGE project) [P3, 4].

**6. Data and models:** Research to enhance the uptake and use of NFI data (building on the EU DIABOLO project), growth models, simulations of ecosystem service impacts, and decision support systems [P1, 3, 4, 6].

**7. Resilience:** Development of a more holistic approach to 'resilience' that extends beyond the forest system to include society and economy, e.g. socio-ecological systems [P1-6].

These examples are indicative, and each would need substantial scoping with stakeholders, alongside several other options, before they are short-listed. Three of them would be supported by EU funding through the SIMWOOD, GREENSURGE and DIABOLO projects; the additional CFS funding would be used to reorient existing research to meet CFS programme objectives.

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### **Section 3. Communication Strategy**

A communication strategy will be developed during the first quarter of Year 1 to identify audiences, key messages and means of communication. It will be updated and discussed through regular steering group meetings to review progress and agree on future plans (D1.0.1). Communication plans for individual key deliverables will also be prepared in collaboration with FR Communications team.

The strategy for the programme will have two components:

1. Communication facilitated during the programme:

- A key objective of the programme is to enhance communication, collaboration and learning, both across FR (and its partners) and between FR and external stakeholders across the public and private sectors.
- Communication will be enhanced through the workshops, seminars and other media used in WA1.3 'Collaborative and Organisational Learning'. Planning and delivery of events and activities will be conducted in partnership with the FR communications team, and carefully targeted with clearly defined outcomes.
- Communication is understood to include collaboration with stakeholders throughout the research process (including co-production of outputs where appropriate), and not just dissemination. Improved collaboration will be facilitated primarily through the case studies in WP2.

2. Communication of programme outputs:

- The programme will deliver its own tangible outputs such as reports, research notes, journal articles, presentations and interactive media with a range of audiences.
- A small conference or seminar is planned for Year 3 to publicise interim findings and learn from best practice in other agencies.
- Each of these outputs will require a brief communications plan to identify key messages, target audiences and the most appropriate media for dissemination.

The profiling in WA1.2 includes a stakeholder analysis and social network analysis, which is intended to inform the communications strategies for all CFS programmes, as well as individual communications plans. The profiling will be planned and conducted in partnership with the FR communications team, and its findings discussed in workshops in WP1.3 to help identify communication channels and knowledge intermediaries relevant to the outputs of the specific CFS programmes.

The programme will explore the possibility of using social media to generate debates and learning around applied forest-related research challenges among public and private sector stakeholders.

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## **Section 4. Collaboration and networking**

Collaboration is one of the key objectives of the programme: a means through which it seeks to enhance the relevance and usefulness (and hence the uptake and impact) of research outputs.

Collaboration will be encouraged in two ways: a) integration between researchers across disciplinary boundaries within FR and its partners, and b) co-production of knowledge and outputs with potential end-users and other external stakeholders, e.g. specific policy-makers, and public and private sector forest planners and managers.

Collaboration through the case studies in WP2 will be encouraged, where appropriate, within the FR research forests. Subject to discussion with the RSMB and others, the research forest in the Queen Elizabeth Forest Park will become a focus of the programme to understand the roles the location should play to enhance both the production and utilisation of forest-related research and its advantages over more dispersed delivery of research projects across the country.

Partnerships will be sought to extend the scope and reach of the programme, with a particular focus on the private sector, e.g. through CONFOR and ICF.

Partnerships between FR/FC and other agencies will be sought to leverage external funding, e.g. to conduct additional case studies and share the strategic aspects of the programme (WP1 and WA2.1). There is significant potential to extend the influence of the programme by linking it to externally funded projects, e.g. existing EU Horizon 2020 projects, and using it as a basis for future EU funding bids.

There will also be collaboration and networking with external researchers, practitioners and institutions, who are pursuing similar agendas, to exchange ideas and experiences, including the Research Unit for Research Utilisation (St Andrews University), FERA, DEFRA, DFID, RCUK, ESPA, RELU, LWEC, SRUC, BESS, etc.

The Programme Manager and WP and WA leaders will actively participate in academic and practitioner networks associated with knowledge exchange, research impact and policy studies, disseminating findings and learning from the experience of others, e.g. the Knowledge Transfer Network, as well as those focusing on substantive research topics.

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## **Section 5. Ethical and other considerations**

### **5.1 Ethical considerations**

Engaging with stakeholders within both the public and private sectors, and conducting research with them (including social research) raises potential ethical considerations. The Programme Manager and WP and WA leaders will follow the FR Social and Economic Research Group (SERG) Ethical Statement, which outlines the issues most relevant to implementation of this programme and how these should be managed. (These are: integrity and quality; enabling participation; informed consent; confidentiality and data protection; avoiding harm; independence and impartiality.)

Under the principle of informed consent, research participants will be informed about the purpose of the research, the nature of their involvement, what will happen to the data, the voluntary nature of their involvement, and that they can withdraw from participation at any time.

Regarding confidentiality and data protection, personal data, opinions and statements expressed by participants during research will be used and stored in accordance with the Data Protection Act. The anonymity of respondents will be maintained unless it has been agreed otherwise, and the identity of those providing particular responses will not be revealed to others taking part in research.

### **5.2 Government survey control procedures**

Subject to discussion with the RSMB, a survey of businesses, local authorities and/or other government and non-governmental agencies could be conducted in Years 2 or 3 of the programme to understand both public and private sector stakeholder attitudes towards forest-related research and its impacts (see Deliverable 1.2.7). If so, ministerial approval would be sought beforehand, if required.