



Department
for Environment
Food & Rural Affairs

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INVITATION TO TENDER (ITT)

Sustainable Intensification Research Platform:

Project 1: Integrated farm management for improved economic, environmental and social performance (LM0201)

Project 2: Opportunities and risks for farming and the environment at landscape scales (LM0302)

Project 3: A scoping study on the influence of external drivers and actors on the sustainability and productivity of English and Welsh farming (LM0303)

TENDER REFERENCES: LM0201, LM0302, LM0303

September 2013

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SECTION 1

TENDER PARTICULARS

SECTION 1: TENDER PARTICULARS

GLOSSARY

Unless the context otherwise requires, the following words and expressions used within this Invitation to Tender (except Section 5: Authority's Conditions of Contract) shall have the following meanings (to be interpreted in the singular or plural as the context requires):

TERM	MEANING
“Authority”	means the Department for Environment, Food and Rural Affairs.
“e-Tendering System”	means the online portal used for conducting this ITT.
“Conditions of Tender”	means the terms and conditions set out in this ITT relating to the submission of a Tender.
“Contract”	means the agreement (as set out in Appendix C of the ITT) to be entered into by the Authority and the Contractor following any award under the procurement exercise.
“Contractor”	means the successful Tenderer(s) who will be a party to the Contract responsible for supplying the goods and/or services
“Due Diligence Information”	means the background and supporting documents and information provided by the Authority for the purpose of better informing the Tenderers' responses to this ITT.
“EIR”	means the Environmental Information Regulations 2004 (as amended) together with any guidance and/or codes of practice issued by the Information Commissioner or relevant Government department in relation to such regulations.
“FOIA”	means the Freedom of Information Act 2000 (as amended) and any subordinate legislation made under such Act from time to time together with any guidance and/or codes of practice issued by the Information Commissioner or relevant Government department in relation to such legislation.
“Invitation to Tender” or “ITT”	means this invitation to tender document and all related documents published by the Authority and made available to Tenderers and includes the Due Diligence Information.
“Tender Response(s)”, or “ITT Response”	means a Tenderer's formal offer in response to this ITT.
“Tenderers”	means the organisations being invited to respond to this ITT.

1. GENERAL

- 1.1 This document describes three closely linked research projects, which together will establish a Sustainable Intensification Research Platform.
- 1.2 Tenderers should note that although all three projects are described in this ITT document, they are being commissioned separately. **Tenders for each project must be submitted via the appropriate section of the on-line e-tender portal.**
- 1.3 The Authority is seeking suppliers for the following three projects:
 - 1.3.1 Project 1: Integrated farm management for improved economic, environmental and social performance
 - 1.3.2 Project 2: Opportunities and risks for farming and the environment at landscape scales
 - 1.3.3 Project 3: A scoping study on the influence of external drivers and actors on the sustainability and productivity of English and Welsh farming
- 1.4 Tenderers are required to complete the Online Technical Questionnaire (Technical Questionnaire tab at the left hand side of the screen) in accordance with Section 1 (Tender Particulars), Section 2 (Instructions for Submission), Section 3 (Specification of Requirements) and Section 4 (Online Technical & Commercial Questionnaire Evaluation Criteria) – these documents are located in the “Attachments” tab at the left hand side of the screen.
- 1.5 The information contained in the ITT is designed to ensure that completed Tender Responses are given equal and fair consideration. It is important that Tenderers provide all the information asked for in the format and order specified.
- 1.6 Tenderers should read the ITT carefully before submitting a Tender Response. Failure to comply with the instructions for completion and submission of a Tender Response will result in elimination from the procurement exercise. Tenderers are advised to acquaint themselves fully with the extent and nature of the goods and/or services in Section 4 (Specification of Requirements) and contractual obligations. These instructions constitute the Conditions of Tender. Participation in this procurement exercise automatically signals that the Tenderer accepts the Conditions of Tender.

2. PROPOSED TIMETABLE

Issue Tender	27/9/13
Deadline for Tender Responses	By 16:00 on the 19/11/13
Evaluation of Tenders	6/12/13
Tender Consensus Meeting	13/12/13
Contract award notification	14/12/13
Contract start date	15/1/14
Project completion date	31/3/17

The proposed timetable is only a guideline. The Authority reserves the right to make any changes it deems necessary to the proposed timetable.

3. CONDITIONS APPLYING TO THIS ITT

- 3.1. Unless stated otherwise in this ITT or in writing from the Authority, all communications from Tenderers (including Tenderers sub-contractors, consortium members, consultants and advisers) during the period of this procurement exercise must be undertaken using the messaging portal on the e-Tendering System.

Enquiries and Communication relating to this ITT

- 3.2. Any request for clarification about the requirement or procurement exercise should be submitted at the earliest opportunity via the secure messaging portal in the Authority's e-Tendering System and in any event no later than the deadline for clarification questions. No further questions will be accepted after the clarification question deadline. Please see paragraph 2 for the timetable.
- 3.3. If the Authority considers any request for clarification to be of significance to other Tenderers, the Authority will circulate on a regular basis the clarification together with the Authority's response (but not the source of the clarification) to all Tenderers that have expressed an interest in this ITT.
- 3.4. Where a Tenderer believes that a request for clarification is commercially sensitive e.g. where disclosure of such clarification and the response would or would be likely to prejudice its commercial interests, the Tenderer should clearly indicate that the clarification is commercially sensitive. However, if the Authority at its sole discretion does not consider that the clarification is (a) commercially confidential in nature or (b) that all Tenderers would potentially benefit from seeing together with the Authority's response, the Authority will:
- a) invite the Tenderer submitting the clarification either to declassify the clarification and allow the clarification along with the Authority's response to be circulated to all Tenderers; or
 - b) request the Tenderer, if the Tenderer still considers the query to be commercially sensitive, to withdraw the query.
- 3.5. The Authority reserves the right not to respond to a request for clarification or to circulate such a request where it considers that the answer to that clarification would or would be likely to prejudice the Authority's commercial interests. In such circumstances, the Authority will inform the relevant Tenderer.
- 3.6. The Authority will not consider any request for clarification made or submitted by any other means except via the secure messaging portal in the Authority's e-Tendering System. Unless otherwise stated, enquiries by email, fax, telephone or verbal enquiries will NOT be accepted nor responded too.
- 3.7. The Authority will endeavour to respond to all clarifications as quickly as possible but cannot guarantee a minimum response time.

Alterations to the ITT

- 3.8. The format and/or wording of the ITT must not be changed by Tenderers.
- 3.9. Tenderers may modify their Tender Response prior to the deadline for receipt of Tender Responses via the Authority's e-Tendering System. No Tender Response may be modified after the deadline for receipt of Tender Responses.
- 3.10. Tenderers may withdraw their Tender Response at any time prior to the deadline for receipt of Tender Responses or any other time prior to accepting the offer of a contract by submitting a notice via the Authority's e-Tendering System.

Receipt of Tender Response

- 3.11. Tender Responses must be uploaded on the Authority's e-tendering system up to the time and date set out in the proposed timetable in paragraph 2 above. Tender Responses received before that deadline will remain unopened until that deadline or such time thereafter when all Tender Responses will be opened. The Authority will not consider Tender Responses received after the deadline.

Acceptance of Tender Responses

- 3.12. By issuing this ITT, communicating with a Tenderer or a Tenderer's representative or agents or any other communication in respect of this procurement exercise, the Authority shall not be bound to accept any Tender Response. The Authority reserves the right not to award a Contract for some or all of the goods and/or services for which Tender Responses are invited.

Conditions of Tendering

- 3.13. In submitting a Tender Response, a Tenderer undertakes that in the event of their Tender Response being accepted by the Authority and the Authority confirming in writing such acceptance to the Tenderer, the Tenderer will, upon being called to do so by the Authority execute the Contract in the form set out in this ITT or in such amended form as may subsequently be agreed.

Costs of Tendering

- 3.14. Tenderers shall bear all their own costs and expenses incurred in the preparation and submission of their Tender Response and the Authority will in no case be responsible or liable for those costs, regardless of the outcome in relation to individual Tender Responses.
- 3.15. The Authority reserves the right to cancel the procurement exercise at any point. The Authority will accept no liability for any losses caused by any cancellation of this procurement exercise nor any decision not to award a Contract as a result of the procurement exercise.

Mandatory Requirements

- 3.16. The ITT includes mandatory requirements. The classification of a requirement as mandatory gives an indication of the significance attached to that requirement relative to any other requirement. It is important that Tenderers read these carefully and demonstrate compliance with these requirements. **Failure to comply with any**

applicable mandatory requirements will result in exclusion from the procurement exercise.

Documentation

- 3.17. Tenderers are expected to examine all instructions, questions, forms, terms and specification in the ITT and check they are complete in all respects.
- 3.18. Tenderers should notify the Authority promptly of any perceived ambiguity, inconsistency, or omission in this ITT, any of its associated documents and/or any other documentation issued to them during the procurement exercise.
- 3.19. Tender Responses must contain sufficient information to enable the Authority to evaluate accurately any proposed solution. Tenderers are requested to answer all the questions raised and provide all information in the order requested.
- 3.20. Tenderers are responsible for ensuring that they have submitted a complete and accurate Tender Response and that prices quoted are arithmetically correct for the units stated.
- 3.21. Tenderers' must analyse and review information provided. Consequently, Tenderers are solely responsible for obtaining the information which they consider necessary in order to make decisions regarding the content of their Tender Response and to undertake any investigations they consider necessary in order to verify any information provided to them during the procurement exercise.

Qualifications

- 3.22. The Authority reserves the right to discuss, for the purpose of clarification, any aspect of a Tender Response with the relevant Tenderer prior to the award of the Contract.
- 3.23. At any time prior to the deadline for receipt of Tender Responses, the Authority may amend the ITT. Any such amendment will be notified in writing to all prospective Tenderers. In order to give prospective Tenderers reasonable time in which to take the amendment into account in preparing their Tender Responses, the Authority may, at its discretion, extend the deadline for receipt of Tender Responses.

No agreement

- 3.24. Tenderers are further advised that nothing herein or in any other communication made between the Authority and any other party, or any part thereof, shall be taken as constituting a contract, agreement or representation between the Authority and any other party (save for a formal award of contract made in writing) nor shall they be taken as constituting a contract, agreement or representation that a contract shall be offered in accordance herewith or not at all.

Confidentiality

- 3.25. The contents of this ITT and of any other documentation sent to any Tenderer in respect of this procurement exercise are provided on the basis that they remain the property of the Authority and/or any relevant body. Tenderers shall treat the contents of the ITT and any related documents (together called the 'Information') as confidential (save in so far as they are already in the public domain) and shall take all necessary

precautions to ensure that all information is treated as such and not disclosed (save as described above) or used other than for the purpose of this procurement exercise by the Tenderer.

3.26. Potential Providers may disclose any Information to its advisers or sub-contractors provided that either:

- a) This is done for the sole purpose of enabling a ITT Response to be submitted and the person receiving the Information undertakes in writing to keep the Information confidential on the same terms as if that person were the Potential Provider; or
- b) The Potential Provider obtains the prior written consent of the Authority in relation to such disclosure, or
- c) The disclosure is made for the sole purpose of obtaining legal advice from external lawyers in relation to the procurement exercise; or
- d) The Potential Provider is legally required to make such disclosure.

3.27. If any Tenderer is unable or unwilling to comply with the requirement set out in paragraph 3.25 above, the Tenderer is required to log onto the Authority's e-Tendering System and reject the ITT and all associated documents immediately and not to retain any electronic or paper copies.

3.28. No Tenderer will undertake any publicity activities with any part of the media in relation to this ITT without the prior written agreement of the Authority, including agreement on the format and content of any publicity.

Freedom of Information

3.29. In accordance with the obligations and duties placed upon public authorities by the FOIA, the Authority may, acting in accordance with the Secretary of State's Code of Practice under the FOIA or the EIR, be required to disclose information submitted to the Authority by the Tenderer.

3.30. In respect of any information submitted by a Tenderer that it considers to be commercially sensitive the Tenderer should indicate the following at Appendix C of this ITT:

- a) clearly identify such information as commercially sensitive;
- b) explain the potential implications of disclosure of such information; and
- c) provide an estimate of the period of time during which the Tenderer believes that such information will remain commercially sensitive.

3.31. Where a Tenderer identifies information as commercially sensitive, the Authority will endeavour to maintain confidentiality of that information. Tenderers should note, however, that even where information is identified as commercially sensitive, the Authority may be required to disclose such information in accordance with the FOIA or the EIR. In particular, the Authority is required to form an independent judgment concerning whether the information is exempt from disclosure under the FOIA or the EIR and whether the public interest favours disclosure or not. Accordingly, the

Authority cannot guarantee that any information marked “confidential” or “commercially sensitive” will not be disclosed.

3.32. The Authority will not be held liable for any loss or prejudice caused by the disclosure of information that:

- a) has not been clearly marked commercially sensitive; or
- b) does not fall into a category of information that is exempt from disclosure under the FOIA or EIR; and;
- c) in cases where there is no absolute statutory duty to withhold information, then notwithstanding the previous paragraphs, in circumstances where it is in the public interest to disclose any such information.

3.33. Where a Tenderer receives a request for information relating to this procurement exercise under the FOIA or the EIR during the procurement exercise, this should be immediately passed on to the Authority and the Tenderer should not attempt to answer the request without first consulting with the Authority.

Access to Information

3.34 The information submitted by tenderers will be stored electronically and used to process their bid for a research contract with the Authority. It may be sent to any Department within the Authority, or to individual researchers or organisations outside the Authority for the purposes of assessing or reviewing your tender. Individuals or organisation outside the Authority are bound by confidentiality agreements. The Authority may also disclose the information to any outside organisation acting as an Agent authorised by the Authority to process research tenders on its behalf.

3.35 Successful proposals may be sent to any part of the Authority, or to individual researchers or organisations outside the Authority for the purposes of reviewing the project (again, bound by confidentiality agreements) and the information (excluding any CVs) may be placed on the Authority's website to inform the public about the Authority's research.

Disclaimers

3.36 Whilst the information in this ITT and any Due Diligence Information and supporting documents, have been prepared in good faith, this ITT does not purport to be comprehensive, nor has it been independently verified.

3.37 Neither the Authority nor its respective advisors, directors, officers, members, partners, employees, other staff or agents:

- a) makes any representation or warranty (express or implied) as to the accuracy, reasonableness or completeness of the ITT; or
- b) accepts any responsibility for the information contained in the ITT or for the fairness, accuracy or completeness of that information nor shall any of them be liable for any loss or damage (other than in respect of fraudulent misrepresentation) arising as a result of reliance on such information or any subsequent communication.

3.38 Any person considering making a decision to enter into contractual relationships with the Authority following receipt of the ITT should make their own investigations and own

independent assessment of the Authority, and its requirements for the goods and/or services and should seek their own professional financial and legal advice. For the avoidance of doubt, the request for clarification or further information in relation to the ITT or any other associated documents is only authorised to be provided following a query made in accordance with paragraphs 3.3 and 3.5.

Canvassing

- 3.39 Any Tenderer who directly or indirectly canvasses any officer, member, employee, or agent of the Authority or its members or any other relevant body or any of its officers or members concerning the Contract or who directly or indirectly obtains or attempts to obtain information from any such officer, member, employee or agent concerning any other Tenderer, Tender Response or proposed Tender Response will be disqualified from this procurement exercise.

Additional Information

- 3.40 The Tenderer shall ensure that each and every sub-contractor and adviser abides by the terms of these instructions and the Conditions of Tender.
- 3.41 The Authority reserves the right to amend, add to or withdraw all or any part of this ITT at any time during the procurement exercise.
- 3.42 The Tenderer shall not make contact with any other employee, agent or consultant of the Authority who is in any way connected with this procurement exercise during the period of this procurement exercise, unless instructed otherwise by the Authority.
- 3.43 All material issued in connection with this ITT shall remain the property of the Authority and/or as applicable any other relevant body and shall be used only for the purpose of this procurement exercise. All background and supporting documentation and Due Diligence Information provided by the Authority for the purpose of better informing Tenderers' responses to this ITT shall be securely destroyed by the Tenderer (at the Authority's option) at the conclusion of the procurement exercise.
- 3.44 The ITT is issued on the basis that nothing contained in it shall constitute an inducement or incentive nor shall have in any other way persuaded a Tenderer to submit a Tender Response or enter into any other contractual agreement.
- 3.45 The Authority will disqualify a Tenderer where the Tenderer fails to comply fully with the requirements of this ITT or is guilty of a serious misrepresentation in supplying any information required in this document.
- 3.46 The Authority reserves the right to:
- a) reject a Tender Response where there is a change of identify, control, financial standing or other factor impacting on the evaluation process affecting the Tenderer; and/or
 - b) require a Tenderer to clarify its Tender Response in writing and/or provide additional information; and failure to respond adequately will result in the Tender Response being rejected; and/or

- c) Revisit information contained in Tender Responses at any time to take account of subsequent changes to Tenderers' circumstances. At any point during the procurement exercise, the Authority may require Tenderers to certify there has been no material change to information submitted in Tender Response. If Tenderers are unable to certify that there has not been a material change, the Authority reserves the right to eliminate the Tenderer from the procurement exercise.
- 3.47 Tenderers are deemed to fully understand the processes that the Authority is required to follow under relevant European and UK legislation, particularly in relation to the Regulations. Compliance with all relevant legislation is required during the procurement exercise and the term of any resultant Contract.

Submission of Tenders

- 3.48 Tender Responses must comprise all of the following documents completed in full:
- a) Form of Tender (Appendix A of this ITT);
 - b) Non-Collusive Tendering Certificate (Appendix B of this ITT);
 - c) Online Technical Questionnaire; and
 - d) Online Commercial Questionnaire.
- 3.49 The Form of Tender and Non-Collusive Tendering Certificate should be submitted via the Tendering System no later than the deadline for receipt of Tender Response.
- 3.50 The Online Technical & Commercial Questionnaire should be submitted via the e-Tendering System no later than the deadline for receipt of Tender Response. Please see paragraph 2 for the timetable.
- 3.51 Tenderers must answer the questions in the Online Technical Questionnaire without reference to general marketing or promotional information/material. Publicity brochures will not be accepted as answers to questions. Tenderers should not make reference to answers used in previous questions but should repeat the information if necessary.
- 3.52 Tenderers must be explicit and comprehensive in their Tender Response as this will be the single source of information on which Tender Responses will be scored and ranked. Tenderers are advised neither to make any assumptions about any past or current supplier relationships with the Authority nor to assume that such prior business relationships will be taken into account in the evaluation process.
- 3.53 Where a length of response is stipulated, only the information within the set limit will be evaluated. Additional information will not be evaluated and therefore should not be supplied. The Authority will only take account of information which is specifically asked for in the ITT.
- 3.54 Failure to provide the information required or particulars for the relevant question(s) or supply documentation referred to in the Tender Response within the deadline for submission of Tender Response will result in elimination from the procurement exercise.
- 3.55 The Tender Response and any documents accompanying it must be in the English language and must be submitted in numerical order to match the Online Technical Questionnaire.

- 3.56 Tender Responses will be checked for completeness and compliance with the Conditions of Tender and only compliant Tender Responses will be evaluated. Non-compliant Tender Responses will be eliminated from the procurement exercise.

Pricing

- 3.57 Prices and any financial data provided must be submitted in £ Sterling, exclusive of VAT. Where official documents include financial data in a foreign currency, a sterling equivalent must be provided.
- 3.58 Tenderers must complete the Online Commercial Questionnaire via the Authority's e-Tendering System.
- 3.59 The Contract is to be awarded as a fixed price which will be paid according to the deliverables as stated in the Specification of Requirements (Section 3).
- 3.60 The Online Commercial Questionnaire is the minimum level of pricing information required for the Tender Response. The Authority reserves the right to request detailed breakdown of any Tender Response.

Contract Award Criteria

- 3.61 The Contract Award will be based on the Most Economically Advantageous Tender (MEAT).
- 3.62 Although value for money is a crucial factor in determining the outcome of the tender process, evaluating the most economically advantageous bid will take into consideration the evaluation criteria provided for each question.
- 3.63 To ensure the relative importance of the categories of services is correctly reflected in the overall scores, a weighting system has been applied to each part. The tender will be evaluated technically and commercially. The technical element equates to 75% of the overall marks, with commercial making up the remaining 25%.
- | | |
|-----------------------|------|
| Technical Evaluation | 75 % |
| Commercial Evaluation | 25 % |
- 3.64 Section B Grounds for Disqualification of the online Supplier Questionnaire contains mandatory information requirements. Suppliers who fail to comply with any mandatory requirement will be eliminated from the procurement.
- 3.65 Each question will receive a score of 0, 1, 2, 3, 4 or 5 (0 being the lowest and 5 being the highest).

Notification of Award

- 3.66 The Authority will notify successful and unsuccessful Tenderers by e-mail.

Debriefing

- 3.67 Following a decision to award the Contract, the Authority will provide reasons for its decision in an award notification letter to Tenderers.

Contract Period

3.68 The contract duration will be for 38 months.

Procurement transparency

3.69 Tenderers should note that the Government has set out the need for greater transparency in public sector procurement.

3.70 Tenderers and those organisations submitting a Tender Response should be aware that if they are awarded a Contract, the tender documents and any resulting Contract between the Tenderer and the Authority will be published on the <https://online.businesslink.gov.uk/bdotg/action/BGAuthenticate?site=1000> website. In some circumstances, limited redactions will be made to some contracts before they are published in order to comply with existing law and for the protection of national security.

Tender Evaluation

3.71 The Authority will use the evaluation criteria below to determine which Tender Response is the most economically advantageous and will award the Contract to that Tenderer. Tender Responses will be evaluated on both technical merit and price.

3.72 **The evaluation criteria for all stages below are set out in full in Section 4 (Online Technical & Commercial Questionnaire Evaluation Criteria) of this ITT.**

3.73 The evaluation process will comprise the successive stages as follows:

Stage of evaluation process	Section Reference	Evaluation Criteria	Question Weighting (%)
Stage 1	Form of Tender and Non-Collusive Tendering Certificate	Both certificates must be completed, signed and dated for a 'pass'. They can then be uploaded to the e-tendering portal. A 'fail' will result in elimination from this procurement exercise	Pass/Fail
Stage 2	Section A - Organisation (Online Technical Questionnaire)	All information requested must be provided. Failure to provide all information will result in a 'fail' and elimination from the procurement exercise.	Pass/Fail.
Stage 4	Section B - Conflicts of Interest (Online Technical Questionnaire)	The identification of an actual/potential conflict of interest will be assessed whether it will result in elimination from this procurement process.	Pass/Fail

Stage 5	Section C - Technical & Professional Ability – Project Specific Requirements) (Online Technical Questionnaire)	This section will be evaluated in accordance with criteria at Section 4. C01 – Brief Project Description C2 – Approach & Methodology C3 – Project Team C4 – Project Management C5 – Added Value from Existing Projects & Resources C6 – Knowledge Exchange & Data	Score comprises 75% of the final score
Stage 6	Online Commercial Questionnaire	Prices will be evaluated in accordance with criteria at Section 4.	Score comprises 25% of the final score

3.74 Proposals will be independently peer reviewed.

3.75 The evaluation panel will comprise members of the Authority's Project Team and the Procurement and Commercial Function (PCF).

3.76 The evaluation panel will agree either a pass/fail or a score of 0, 1, 2, 3, 4 or 5 (where 5 is the highest score) for questions for which these scores are available.

3.77 The Tender evaluation panel will undertake independent evaluation of Tender Responses. Thereafter, a moderation meeting will be held at which time the evaluation panel will reach a consensus score for questions for which scores are available. Detailed scoring criteria relating to each score is provided with each question in Section 4 (Online Technical & Commercial Questionnaire Evaluation Criteria) of this ITT.

Intellectual Property (IP) Rights

3.78 The default position is for the Authority to own the IP developed as part of the contract. This policy reflects the cross-government model position recommended by the Cabinet Office Efficiency and Reform Group. The Authority's IP ownership is to ensure that the Authority has no restriction on how it uses the results of the project or how it procures related evidence in the future. Once the project is complete and there is better understanding of the IP, there may be a decision to assign the ownership of the IP to the supplier or to provide a licence for them to use it, but you should not assume that will be the case.

SECTION 2

INSTRUCTIONS FOR SUBMISSION

SECTION 2: INSTRUCTIONS FOR SUBMISSION VIA THE E-TENDERING SYSTEM

Step 1: Download the files and set up additional users

- 1.1 Before Tenderers consider responding to this ITT, please ensure that all the relevant files relating to this ITT are downloaded and read. All files are important and contain information which may have a considerable bearing on the success of the Tender Response.
- 1.2 Any information from the Authority relating to this ITT will be sent by email to the main contact who expressed an interest in the ITT on behalf of the Tenderer. If information is to be sent to additional users, please access the User Rights area on the left hand side of the main screen to enable additional users to receive messages.
- 1.3 To allow additional people to have access to the ITT, please refer to the user management link on the main page to add additional users.

To download files

- 1.4 Click on the bold **ITT** title. This will open up an overview of the ITT detailing the deadline for receipt of Tender Response and description of the ITT.
- 1.5 Click on the “Attachments” tab on the left hand side of the screen. The number in brackets (...) refers to the number of documents relating to the ITT.
- 1.6 To download an attachment, click on the bold and underlined filename. There is an option to “Open, Save or Cancel”. For documents which have to be completed and returned to the Authority, please select “Save” and choose a suitable location to store the file.
- 1.7 This action can be repeated above for each document to download and save. To download and save more than one document it may be easier to use the mass download instructions as seen below.
- 1.8 If there are more than 10 documents to download, flick through the pages on the screen by clicking onto the next page icon (>>).

Mass download

- 1.9 Click on the mass download option in the attachments tab on the left hand side of the screen.
- 1.10 Click on the files selected to download and press confirm. Choose a suitable location to save the files on your PC, USB, floppy disk or DVD.
- 1.11 To carry out the mass download, the Java Virtual Machine (JVM) software must be installed on the Tenderers PC. This can be installed by obtaining a free download from the Internet.
- 1.12 To submit a Tender Response, please use the e-Tendering System to upload Tender Response files.

- 1.13 Tenderers must confirm via the secure messaging feature within the Authority's e-Tendering System that they have downloaded, read and understood all attachments that form part of the ITT. This is available under the "Qualifications" tab on the left hand side of the screen.

Draft response on the screen

- 1.14 Tenderers can also respond to the ITT by simply answering questions directly on the screen. Tenderers must not forget to save their answers.

Step 2: Decide if You Should Respond

- 1.15 Tenderers should read all the information contained within the ITT carefully. This will help Tenderers decide if they wish to submit a Tender Response. Tenderers are advised to acquaint themselves fully with the instructions and nature of the services in Specification of Requirements (Section 3).
- 1.16 If Tenderers do not wish to submit a Tender Response, simply log onto the Authority's e-Tendering System and reject the ITT.

Step 3: Read the ITT Carefully

- 1.17 Tenderers should read the ITT carefully before submitting a Tender Response. Failure to comply with the instructions will result in rejection from the procurement exercise.

Step 4: Prepare your Tender Response

Format of electronic supplementary documents

- 1.18 Supplementary documents **(if specifically requested)** should be submitted in the form of electronic files.
- 1.19 If Tenderers have any doubts about the format or software they intend to use for their documents, they should contact the Authority using the secure messaging facility on the e-Tendering System.
- 1.20 It is strongly recommended that Tenderers upload documents in MS Office™ Word for non financial responses and MS Office™ Excel for financial data if required although other document formats are supported. Tenderers should note that files uploaded by the Tenderer will be maintained in an un-altered state on the system.

Portable Document Format (PDF)

- 1.21 Adobe's PDF format has historically been used by Tenderers because it gives full control of formatting and has the advantage of being 'lockable'. The e-Tendering System prevents the Authority from changing files submitted by Tenderers. This should allay Tenderer's fears about document security.

Other file formats

- 1.22 Tenderers are advised to check with the e-Tendering System helpline before submitting a Tender Response in uncommon formats.

File naming

- 1.23 All files submitted by Tenderers will be displayed in alphabetical order, with no folder structure. The file name required will be notified in each question of the Online Technical Questionnaire. Tenderers must name each file based on the question reference for example:

EO1 Your Company Name

- 1.24 File extensions should be maintained as per the relevant applications default i.e. Microsoft Word documents should have a file extension of .doc.

Important notes

- 1.25 Tenderers should regard 2Mb as the practical working limit for any individual file. Files less than 1Mb will be displayed reasonably quickly – bigger file sizes will create a delay.
- 1.26 File names should be restricted to 100 characters as a maximum. A file name of less than 60 characters will be visible for its entire length when displayed on most computer monitors.

Step 5: Ensure your Tender Response is Complete

- 1.27 Tenderers should ensure all questions have been answered and all supplementary document(s) **(if specifically requested)** have been uploaded prior to submitting their Tender Response. Failure to complete questions or provide evidence will result in elimination from the procurement exercise.

Step 6: Upload Your Tender Response

- 1.28 Tender Responses, including any supplementary documents **(if specifically requested)** should be submitted via the Authority's e-Tendering System by the deadline for receipt of Tender Response. Tender Responses submitted after the deadline will not be considered.
- 1.29 Unless otherwise stated, the Authority will not consider Tender Responses uploaded or submitted by any other means other than via the Authority's e-Tendering System.
- 1.30 After uploading a Tender Response (including any saved uploads), Tenderers **must publish their Tender Response.**
- 1.31 After Tenderers have published their Tender Response, Tenderers will receive a confirmation email. If Tenderers do not receive a confirmation email within an hour of publishing their Tender Response, it is possible that the Tender Response has not been published. Tenderers are strongly advised to contact the Authority's e-Tendering System helpdesk immediately.
- 1.32 The Authority's e-Tendering System will always send a confirmation email when Tenderers have successfully **published their Tender Response.**

Amendments to Tender Response

- 1.33 Tenderers can modify a published Tender Response prior to the deadline for receipt of Tender Response. Tenderers will not be able to amend and/or upload documents after the deadline. Tenderers can amend their Tender Response by selecting the “Edit Response” button. The Authority’s e-Tendering System will automatically direct Tenderers to re-publish their Tender Response.
- 1.34 Tenderers may withdraw a published Tender Response prior to the deadline for receipt of Tender Responses. Tenderers should click on their Tender Response on the e-Tendering System and select the “Delete Response” button.
- 1.35 Tenderers will be notified if the Authority publishes any information relating to the procurement exercise prior to the deadline for receipt of Tender Response. If Tenderers have already published their Tender Response, the Authority’s e-Tendering System **will automatically** unpublish their Tender Response. Tenderers must review and amend their Tender Response, if appropriate, and re-publish their Tender Response.
- 1.36 Tenderers will be notified if the Authority responds to a request for clarification from a Tenderer (prior to the deadline for receipt of Tender Response) after Tenderers publish their Tender Response. If this happens, the Authority’s e-Tendering System **will not automatically** unpublish the Tender Response. It is Tenderers responsibility to ensure that the clarification and any response from the Authority do not have an impact on the Tender Response. If Tenderers need to, they should modify their Tender Response, in accordance with the instructions in paragraph 1.33 above.

Contact point

- 1.37 The Authority reserves the right to seek clarification of Tender Responses. Tenderers must provide up to two nominated points of contact in their organisation for this purpose. The Authority is not responsible for contacting the Tenderer through any route other than via the nominated contacts. Tenderers must notify the Authority promptly of any change to the point of contact.

Further Assistance

- 1.38 For further assistance in using the Authority’s e-Tendering System email:

help@bravosolution.co.uk or alternatively call the helpline on 0800 368 4850. Please note that enquiries relating to this ITT should be routed through the messaging portal on the Authority’s e-Tendering System.

SECTION 3

**SPECIFICATION OF REQUIREMENT
(SoR)**

SECTION 3: SPECIFICATION OF REQUIREMENTS

Sustainable Intensification Platform Research Specification

Please read before developing proposals:

This document contains specifications for three research projects that will establish the Sustainable Intensification Research Platform (SI Platform). Sections 1-3 outline the overall vision and objectives for the Platform. Section 4 sets out governance arrangements and section 5 contains detailed specifications for the three interlinked projects. Each project will be delivered by a multi-disciplinary, multi-organisation consortium of researchers and relevant stakeholders. Except for the scoping study for project 3, tenders from single organisations will not be considered. **Please note separate proposals are required for each project.**

Proposals for Projects 1 and 2 should set out a three-year prioritised programme of work towards the goals set out in the specifications. They will commence with a 3 month scoping phase to clarify knowledge gaps, refine the research questions that will be addressed, and identify study sites.

Proposals for Project 3 should set out plans for a six month scoping-study, which will set the ground for further work towards the objectives described below.

In addition to setting out their proposed work, bidders are asked to provide day-rate costs for additional work which may be commissioned at a later date to build on the three projects. This may take place either in parallel to the projects or to extend their duration.

Proposals should be set within the context of the wide range of completed, ongoing and emerging research on topics related to the sustainable intensification of agriculture. This should include UK, EU and International work.

The research will focus on **3-6** 10-20 km² study areas (see Section 3), each consisting of a network of observed and experimentally manipulated farms. Although bidders are asked to suggest candidate areas in proposals, study sites will be finalised and agreed following post-tender discussions between Defra and the three successful consortia. It is intended that these three projects will establish a platform to host future work in the area of integrated land management. Successful consortia for all three projects will be expected to work flexibly with Defra to ensure that the appropriate connections are made between projects and to capitalise on knowledge exchange activities. Consortia will also be expected to work with additional research groups that join the Platform through subsequent additional projects funded by Defra or other funders.

Further background information is given in Annexes 1 and 2.

1. Policy background

The global food supply system faces an unprecedented challenge to feed a growing global population whilst protecting the environment and enhancing the ecosystem services that society needs from agricultural land. This is the overarching objective of 'sustainable

intensification'. The Royal Society Report, "Reaping the Benefits"¹, defines sustainability in terms of (i) persistence – maintaining yields into the future, (ii) resilience – to external shocks and perturbations, (iii) autarchy – not reliant on external, non-renewable resources, and (iv) benevolence – providing outcomes for the benefit of wider society.

Two of Defra's ministerial priorities are to grow the rural economy and to improve the environment. The challenge of achieving these objectives simultaneously is set out in Annex 1. The development of the Sustainable Intensification Platform (SI Platform) takes forward one of the recommendations of the Green Food Project, which brought together Government, environmental organisations and the agri-food industries to consider the challenges of working towards sustainable intensification². Particular policy drivers for the SI Platform include the following challenges set out in the documents referenced in square brackets.

1. Meeting the challenge of feeding a growing world population sustainably with greater competition for resources in an era of climate change [Foresight: The Future of Food and Farming]
2. Better integrating policies relating to land management [Natural Environment White Paper]
3. Delivering more coherent messages to farmers [Defra Review of Advice and Incentives]
4. Better targeting of advice and incentive schemes to farmers [Natural Environment White Paper]
5. Developing approaches to regulation that place responsibility on farmers to deliver environmental outcomes without being over prescriptive [Farming Regulation Task Force]
6. Developing and stimulating the uptake of new technologies to improve farm competitiveness [UK Strategy for Agricultural Technologies]
7. Establishing landscape-scale ecological networks [Making Space for Nature]
8. Maintaining the provision of ecosystem services [National Ecosystem Assessment]

2. Overview

A wealth of information exists on the economic, environmental and social performance of farming. Most of this is derived from research on specific aspects of land management, agricultural production or environmental pressures (e.g. livestock and plant breeding, air pollution, farmland ecology and cultivation techniques). Integration of this knowledge to inform land management decisions, however, is often left to decision-makers themselves. The SI Platform will explore ways of translating and integrating current knowledge on agricultural land management into systems-based approaches to help land managers, the agri-food industry and policy-makers to balance economic, environmental and social, outcomes from farming (Figure 1). It has three primary aims:

1. To establish a collaborative research platform that builds links between researchers, policy, industry and other stakeholders to (i) facilitate the translation of existing and emerging research and (ii) catalyse new interdisciplinary research on the environmental and productive aspects of agricultural land management.
2. To undertake research towards the goal of improving understanding of the interaction between economic, environmental and social outcomes of English and Welsh agriculture within a geographical and socio-economic context.

¹ Royal Society (2009) Reaping the Benefits: Science and the Sustainable Intensification of Global Agriculture (page ix)

² <http://www.defra.gov.uk/publications/files/pb13794-greenfoodproject-report.pdf>

3. To develop, test and demonstrate approaches to translate systems-based agricultural research to help farmers, policy makers and other land management stakeholders to increase agricultural productivity and profitability while reducing environmental impacts, enhancing biodiversity and delivering wider ecosystem services.

Economic	Environmental	Social
• Production/ yield • Productivity/ efficiency • Profitability • Inputs and management costs • Nutritional quality of produce • Waste • Yield lost from pests and diseases • Alternative income streams (e.g. payments for ecosystem services)	• Biodiversity and ecosystems • Air quality • Water quality and quantity • Greenhouse gas emissions • Carbon sequestration • Flooding • Pollination services • Soil quality • Other ecosystem services defined in the National Ecosystem Assessment	• Providing direct employment • Providing indirect employment e.g. tourism • Recreational access • Public health: production of healthy food • Meeting ethical standards expected by the public • Cultural value including landscape character

Figure 1: The economic, environmental and social outcomes from agricultural land management that will be considered in the three projects that will establish the SI Platform.

The vision for the SI Platform is that it will:

- Stimulate more collaborative ways of working between different academic disciplines, institutions and funders.
- Bring academics and stakeholders together to drive knowledge exchange and set the agenda for long-term research across the three SI Platform project themes.
- Establish a network of research sites, and a collaborating group of researchers and stakeholders from multiple institutions and disciplines. It is intended that this network will form a platform to attract future projects on elements of sustainable land management.
- Identify and address knowledge gaps that support the development of systems and landscape-based approaches to sustainable intensification.

The three projects will work at farm, landscape and national scales to:

- Investigate the extent to which it is possible to increase overall food production across the principal agricultural systems in England and Wales, whilst achieving environmental objectives.
- Explore where tradeoffs between different production and environmental objectives are tolerable within the overall goal of sustainable intensification.
- Define short and long-term goals for the sustainable intensification of English and Welsh agriculture, and establish reliable performance metrics.
- Translate research outputs to inform farm management and policy development.
- Contribute to other activities that are demonstrating emerging technologies and methodologies so that they can be taken up by industry and government.

The SI Platform will be developed through three coordinated projects on:

- 1) **Integrated farm management for improved economic, environmental and social performance:** Developing and testing approaches to integrate practices to increase productivity, reduce costs, improve resource use efficiency, control pests and diseases, mitigate environmental pollution, reduce greenhouse gasses, and provide habitats for biodiversity. This includes developing methodologies for assessing the economic, environmental and social performance of farms, identifying practices that improve such performance and developing approaches to improve farmers' access to information.
- 2) **Opportunities and risks for farming and the environment at landscape scales:** Understanding (1) the geographical context for on-farm land management decisions and (2) the need for coordinated action between multiple farms to deliver ecosystem services, productive and profitable farming businesses and biodiversity. This will include developing methodologies for spatially assessing risks and opportunities, understanding the need for collaborative land management over large geographic areas, and developing potential mechanisms to deliver it.
- 3) **The influence of external drivers and actors on the sustainability and productivity of English and Welsh farming:** Understanding the wider drivers and opportunities for decision-making on English and Welsh farms. This includes (1) understanding the behavioural responses of land managers and farmers to external drivers, (2) understanding the influence of the food supply-chain on farm management and (3) developing market and non-market mechanisms to drive the sustainable intensification of farming.

Full requirements for these projects are set out in section 5 below.

3. Establishing the Sustainable Intensification Research Platform

The three projects specified below will initiate the development of a network of study sites, a shared data resource and a community of researchers and stakeholders with expertise in a range of agricultural, environmental and social science disciplines (Figure 2). Together these will form a platform to catalyse and host future research on integrated farm management, land management at large spatial scales and the interactions between farming and external market drivers including the food chain. These additional future research projects may exploit one or more of these layers of activity (Figure 2) and should bring in additional research groups and funders. The rationale for the SI Platform is further explained in Annex 2.

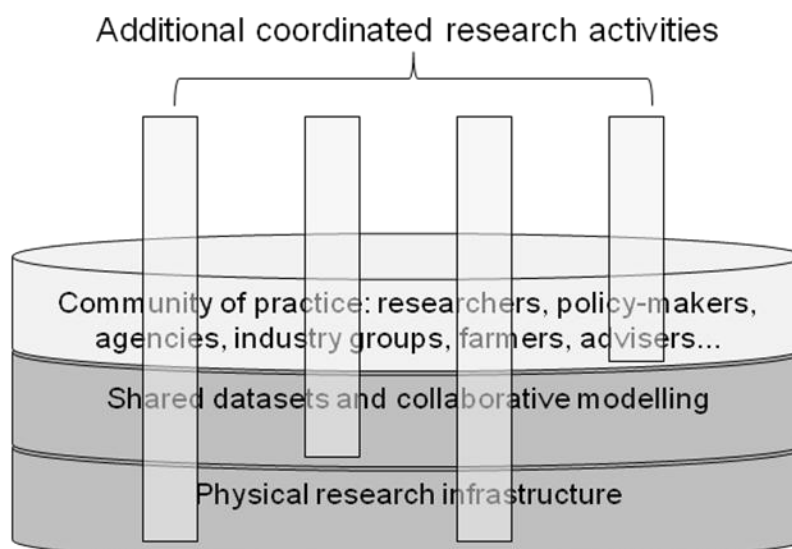


Figure 2: Proposed components of the Sustainable Intensification Research Platform.

The physical platform – SI study areas

The three linked research projects specified here will be centred on **three to six 10-20 km²** study areas. Each area should include around 20 farms (farm size and therefore numbers may vary between different regions). A range of farm types and systems should be represented, including those more traditional and less engaged with innovation as well as those that are more progressive and technologically advanced. Conventional, organic and Integrated Farm Management systems are in scope. Study areas will include a range of upland and lowland areas that are broadly representative of the diversity of farmed landscapes and mainstream farming systems in England and Wales. The selection of these areas will be finalised in agreement between Defra and the three successful consortia after the projects have been let to ensure coverage of an appropriate range of agri-climatic zones and agricultural systems. Bidding consortia should, however, suggest preferred sites in their proposals.

The study areas will be centred either on existing privately or publicly owned research farms or on existing landscape-scale study areas (e.g. the Demonstration Test Catchments). It is not intended that new instrumented study areas will be established through these projects, rather the platform will capitalise, where possible, on existing infrastructure and instrumentation. The goal is to develop a ‘federation’ of research sites on which the principles and metrics of sustainable intensification can be developed and honed in the English and Welsh context. Additional study areas may be added through future projects to broaden the range of farmed landscape and systems covered.

The data platform

Data generated by the projects on the SI Platform will be made freely available for use by external research groups, knowledge exchange practitioners, industry and non-governmental organisations (NGOs) subject to data protection rules. Bids must clearly indicate where background Intellectual Property is likely to restrict the ability to openly publish data generated by the proposed work.

The ‘community of practice’

Researchers and stakeholders working on projects linked to the Platform will form an expert community to coordinate translational research on farming systems and to engage in knowledge exchange activities. Members of the successful consortia will be expected to act

as a technical sounding-board for Defra, Welsh Government, Natural England or the Environment Agency, as required for the duration of the project (see roles and responsibilities below).

4. Coordination, governance and ways of working

Coordination across the three projects will be facilitated and overseen by Defra project officers working closely with the three consortium leaders. Together they will be responsible for communicating the policy and scientific objectives of the Platform effectively with the academic community, government policy officials and the wider agricultural industry. Consortium leaders will be expected to lead knowledge exchange activities and facilitate communication between their research consortia and external stakeholders.

Roles and responsibilities

Defra project officers will:

1) Establish a Platform Management Group:

The three core SI Platform projects are closely related with interdependencies between several of the work objectives. A Platform Management Group, which will include lead consortium representatives from Projects 1-3 and Defra Project Officers, will meet regularly via teleconference (initially weekly) and face to face every six months at different sites. This group will coordinate research and knowledge exchange activities, discourage silo working, provide regular progress updates to Defra and the industry, and oversee all reporting requirements. In the scoping phase of the three projects it will oversee the development of an agreed Data Management and Archival Plan.

2) Encourage stakeholder participation:

Key stakeholders and interested parties will be encouraged via existing stakeholder committees and councils to assist in “sense-checking” that the development of the work packages in Projects 1-3 are relevant to the UK agriculture, food and ecosystem service sectors. Financial and “in-kind” participation by industry partners will be encouraged.

3) Monitor progress:

Project officers will monitor progress according to key performance indicators identified by the consortia.

4) Establish a Research Advisory Group and act as Secretariat to:

- a) Oversee quality control of the SI Platform and peer review research outcomes.** An independent advisory group of academics will be established to oversee scientific quality of research conducted within the Platform. This will provide independent oversight of the programme and will work to standardise approaches and, where appropriate, peer review emerging findings.
- b) Evaluate the impact of the SI Platform.** A process for evaluating impact on government policy and the wider agricultural industry will be established at an early stage in the life of the Platform to allow “before and after” analysis. This will assess the value for money of Defra’s investment in the platform.

5) Provide linkage with wider Government and International activities:

Defra project officers will lead engagement with the UK research councils, EU initiatives such as the Joint Programming Initiative on Food Security, Agriculture and Climate Change (JPI-FACCE) and relevant global research networks. Where there are synergies with existing programmes such as the Demonstration Test Catchments programme, the follow-on phase of the National Ecosystem Assessment, the UK GHG Research Platform, and the BBSRC/NERC Sustainable Agriculture Research and Innovation Club, a collaborative framework may be established. They will also seek out areas of common interest with research programmes on sustainable intensification in Scottish Government, DARDNI and the Republic of Ireland to add value and avoid duplication of resources.

6) Coordinate data management and archival arrangements:

All data generated by the SI Platform projects will be made publicly available. Each consortium will be responsible for agreeing data standards and storage protocols with Defra and the other consortia. A data management plan will be developed in the early stages of the project under the oversight of the Platform Management Group. This will consider synergies with the data archive that is being established to store data from the Demonstration Test Catchments and the UK GHG Research Platform³, and research council data centres. It will also take account of the development of a Centre for Agricultural Informatics and Metrics of Sustainability funded under the UK Strategy for Agricultural Technologies. Defra and the Platform Management Group will agree the final arrangements for data archival. Individual consortia should reserve funding in their bids archival requirements.

Consortium leaders will:

1) Lead scoping and programme planning activities at the outset of the projects:

The **Project 2 consortium** will be responsible, in consultation with Defra Project Officers and the two other consortia, for organising a workshop three months from the establishment of the Platform to:

- a) Finalise the selection of SI Platform Study Areas in agreement with Defra.
- b) Refine and coordinate research plans for Projects 1 and 2.
- c) Set up a framework for collaborative working across the projects.
- d) Agree a Data Management and Archival Plan for all three projects.
- e) Agree and establish cross consortium working groups where necessary to coordinate project planning. Agree which project will lead them through teleconferences and workshops and who will be involved from each project. These thematic groups may include: data-management, SI metrics/indicators, social science, economic and environmental performance, monitoring/ data collection, and other emerging areas.

2) Inter-consortium coordination and Joint Annual Science Meeting:

Consortium leads will work together to ensure efficient collaboration between projects. An annual SI Platform scientific meeting will be held to share emerging findings between consortia and key stakeholders. The annual meeting will be hosted and resourced by **Project 1** at the end of year 1 and **Project 2** at the end of year 2. An international Conference, subject to available Defra funding will be co-organised by Defra and the Project leads through the Platform Management Group at the end of Year 3.

3) Knowledge exchange:

Consortia will be expected to organise and host bespoke knowledge exchange activities to address evidence needs identified by Defra, the Platform Management Group and

³ <http://www.dtcarchive.org/>

through project scoping. These activities should seek to bring interested parties together and promote the resources and outputs of the Platform. This element of the work is likely to include face to face meetings with interested policy, industry and academic parties, themed workshops, developing evidence synthesis documents, developing web-based resources, newsletters, social media activities, and arranging or participating in relevant conferences. Responsibility for these activities will rotate between consortia as follows:

- a) **Each consortium** will produce one SI Platform newsletter per year.
- b) **Project 1 and 2 consortia** should budget for two thematic workshops per project year (in addition to the initial three month workshop organised by project 2). It is anticipated that these will be used for project planning and coordination purposes in year 1 and knowledge exchange in later years.

4) Encourage external collaboration:

Consortia will be expected to encourage external collaboration through promotion and networking activities and promoting the resources of the project for external research and vice versa.

5) Act as ‘gatekeeper’ to the platform:

The **Project 2 consortium** will be responsible for developing and maintaining working relationships with farmers in the study areas. They will lead on developing access agreements and managing access to study sites by researchers.

5. Research requirements

The following three sections set out the broad scope for the three projects which will establish the platform. For each project, bidders are invited to develop prioritised proposals for an initial three year programme of work towards the objectives described below. As a guide, bids should be priced as follows:

- Project 1: £1.5m to £2m over 3 years
- Project 2: £1.5m to £2m over 3 years
- Project 3: priced as a six month scoping study only

Proposals should be set within the context of the wide range of prior, ongoing and emerging research on topics related to the sustainable intensification of agriculture, including UK, EU and International research.

The first phase of each project will consist of a scoping study to review previous work, undertake gap analyses and further refine research plans. This initial design phase will bring together the three consortia to agree the final selection of study sites and finalise the design of the programmes through a series of workshops.

Consortia should have expertise in the range of topics shown in Figure 1. Where appropriate, they should also involve industry and NGO groups to facilitate knowledge exchange activities. They should capitalise, where possible, on existing networks of farmers (e.g. linking with farming organisations and NGOs), knowledge exchange activities, facilities and datasets.

It is intended that the SI Platform will stimulate interest nationally in the concepts, metrics and scientific principles of sustainable intensification in relation to UK agriculture and inform the development of industry-led proposals supported under the UK Strategy for Agricultural Technologies. The development of Centres for Agricultural Innovation, notably the Centre for Agricultural Informatics and Metrics of Sustainability, will present new opportunities for the translation of applied science developed on the SI Platform into specific technologies

that will assist the sustainable intensification of UK agriculture on a broader national scale. The Centres will also provide further opportunities for industry-led capital investment in research infrastructure.

Project 1: Integrated Farm Management for improved economic, environmental and social performance

Background

The 2011 report from the Farming Regulation Taskforce challenged government to ‘change the focus from process to outcomes’ in the way it regulates the farming industry⁴. One of the main challenges in balancing economic, environmental, and social outcomes from land management is in measuring environmental impacts. This is often complicated by time-lags in ecological responses to perturbations and the movement of pollutants through the environment. A subsequent challenge lies in understanding how these outcomes interact and can be balanced for a given farming system at a given location, taking account of local and national priorities. As highlighted in the recently published UK Strategy for Agricultural Technologies, the development of quantitative and qualitative metrics and performance indicators of the costs and benefits of actions is a key step in helping farmers, policy makers and other decision makers to decide what to do and where.

A wide range of management techniques and interventions have been developed in response to specific pressures. Farmers rely on clear guidance to integrate these techniques into practical, profitable and environmentally sustainable farming systems.

They need to consider *inter alia*:

- Crop selection and rotations (e.g. inclusion of legumes, maize etc)
- Soil management and cultivation
- Management of pests and diseases
- Nutrient management
- Grassland management
- Livestock husbandry (including genetics, nutrition, fertility, health and welfare)
- Emerging technology including precision farming
- Fallow management for biodiversity/production benefits.
- Habitat management
- Agro-ecological approaches

The term ‘integrated farm management’ (IFM) has been used to describe farming systems that take a holistic approach, combining modern, traditional and natural approaches to maximise productivity and reduce environmental impacts. Improving farm environmental performance requires a combination of generic measures (such as improving nutrient or water use efficiency) and measures that are specific to the particular geographic location of the farm (Annex 1, Figure 5). Guidance for IFM needs to take both of these into account.

Scope

The project will cover the major farm types prevalent in the study areas described in section 3, above. The research will consider the range of typical farming systems within each study area.

Objectives

This project will address the overarching question:

How can farmers make sense of the wide range of interacting factors shown in Figure 1 to select, implement and combine management practices that improve their economic, environmental and social performance within the context of the

⁴ Macdonald, R. (2011) Striking a balance: reducing burdens; increasing responsibility; earning recognition. A report on better regulation in farming and food businesses. The report of the independent Farming Regulation Task Force.

environmental constraints and opportunities presented within their geographic location?

The three objectives set out below will respectively help to (1) understand the system, (2) develop management interventions and (3) understand the socio-economic context of integrated farm management.

Objective 1.1: Develop improved indicators and standardised methodologies for land managers and their advisers to measure the economic, environmental and social performance of farms

A: Developing farm performance assessment methodologies

A set of methodologies to assess the economic, environmental and social performance of farming will be identified and evaluated on farms within the study areas. This should take account of existing approaches developed in the UK and overseas. Where necessary novel approaches will be proposed.

The performance indicators and methodologies developed here should primarily be designed for use by farmers, advisors and regulators to (1) evaluate farm performance against key economic, environmental and social outcomes (Figure 1) and (2) help prioritise and target appropriate farm management interventions. Ease of use and minimal cost should be paramount. Consideration should be given to approaches that harness farm management information already collected by farmers for planning purposes, precision farming, regulation or reporting for industry schemes.

The indicators/ methodologies will be tested on well-studied farms, developed and refined on an iterative basis throughout the project. Guidance should be developed on their use. The project will aim to combine the smallest number of performance assessment methodologies that can provide an adequate assessment of farm performance. A multi-tiered approach will be used to develop indicators for the outcomes in Figure 1. This will ensure that indicators are available for areas that are poorly monitored, moderately monitored or data-rich.

This work will underpin the research undertaken in Projects 1, 2 and 3 and contribute particularly to the proposed work of the Centre for Agricultural Informatics and Metrics of Sustainability to be set up under the UK Strategy for agricultural technologies. It will be expected that Project 1 leaders will keep abreast of developments in the new centre and identify possible ways in which the SI Platform might assist in its development.

B: Developing integrated sustainable intensification metrics

The project will also scope potential for the development of combined sustainable intensification metrics that integrate environmental and production indicators. Bidders should consider how these metrics can be clearly and succinctly communicated. They should be tested and agreed with industry as part of the project. These should be designed to help (1) farmers, (2) policy-makers, and (3) the food industry to assess and communicate performance.

Objective 1.2: Identify and develop farm management interventions for sustainably intensive agriculture

A: Observe and assess the performance of commercial farms to identify the factors that contribute to high economic, environmental and social performance

The indicators and metrics developed in 1.1 will be used to assess and compare the performance of commercial farms within SI Platform study areas. For the most prevalent farm types within each of the study areas, the project will compare the relative performance of different systems (for example, comparing the economic and environmental performance

of fully housed and extensively grazed dairy systems). This work will aim to identify and measure the factors that constitute sustainable intensification within a given farming system in a given part of the country.

This work should build on previous research in this area e.g. the recent Land Use Policy Group report on sustainable intensification⁵.

B: Experimentally test innovative practices and technologies on study farms for sustainably intensive farming

Combinations of practices that contribute to sustainable intensification will be identified from (1) an initial literature review, (2) evaluating high-performance study farms in 1.2(A), and (3) ongoing horizon scanning for innovative farm practices. These will be experimentally tested by applying them on research farms and/or participating commercial farms within the study areas. The project will develop approaches (e.g. decision trees) to help guide farmers to adapt their farming systems to make them more environmentally sustainable and productive, within the context of the geographical opportunities and constraints in their locality. This work will take account of local priorities and opportunities for production and the environment identified in project 2.

A key part of this objective will be to develop and test hypotheses on the interactions between land management interventions and their outcomes (see Annex 1, Figure 4). This will help identify where conflicts arise and how can they be prioritised to inform farmers' decisions.

Objective 1.3: Investigate ways of better communicating complex messages to farmers and propose approaches for more innovative decision support

A: Identify the characteristics of effective decision support systems

The project will review existing decision support and guidance systems for farmers and assess the factors that determine their effectiveness in influencing farm management decisions. This should include paper-based guidance, computerised decision support systems and more novel approaches for providing bespoke guidance to farmers such as mobile phone apps. Bidders may also consider effective approaches used in other sectors of the economy. Work here should particularly focus on technology or approaches that could be used to better convey complex messages to farmers.

Consideration will need to be made of the social, technical and practical barriers that currently limit the implementation of integrated farm management principles by farmers. Proposals should indicate how the consortium will build on previous work in this area (e.g. the Defra Integrated Advice Pilot⁶, the recent Defra Review of Advice and Incentives⁷ and Defra farmer behaviour research⁸).

B: Propose a framework for guidance or decision support for integrated farm management

The successful consortium will build on the knowledge generated in part 'A' and work closely with farmers and stakeholder organisations (e.g. AHDB, AIC, LEAF, NFU, CLA, Soil Association, RSPB, National Trust, Wildlife Trusts etc) to scope and design potential

⁵ Elliott, J., Firbank, L.G., Drake, B., Cao, Y., Gooday, R. (2012) Exploring the Concept of Sustainable Intensification. LUPG: <http://www.snh.gov.uk/docs/A931058.pdf>

⁶ Defra project FF0204

⁷ Defra review of advice, incentives and partnership approaches

⁸ e.g. Understanding behaviours in a farming context:

[http://archive.defra.gov.uk/evidence/statistics/foodfarm/enviro/observatory/research/documents/ACEO%20Behaviours%20Discussion%20Paper%20\(new%20links\).pdf](http://archive.defra.gov.uk/evidence/statistics/foodfarm/enviro/observatory/research/documents/ACEO%20Behaviours%20Discussion%20Paper%20(new%20links).pdf)

approaches to guide farmers in the development of IFM systems. These approaches should take account of interactions between multiple interventions to achieve multiple outcomes. The work should aim to build, where possible, on existing tools/ approaches to deliver systems-level guidance to deliver sustainable intensification at the farm-scale. It will consider how they could be improved, better deployed, adapted and/or integrated. The work will focus on providing proof of concept of how such systems-level guidance could be achieved.

Deliverables

The key deliverables from Project 1 are:

- 1) An initial scoping study to set the proposed research in the context of previous work in this area. This will take account of previous research, existing literature and methodological constraints. It will report in the first three months and will provide further focus for the project.
- 2) A set of study areas will be agreed (with Defra and the other SI platform consortia) in the first three months of the project. The project will contribute to building up a network of collaborating farmers and stakeholders within the case-study areas.
- 3) The development of usable methodologies for farmers to self-assess their economic, environmental and social performance. This will consist of tiered indicators that can be used in data-poor or data-rich environments.
- 4) The development of one or more integrated sustainable intensification metrics that that can be used on-farm to assess how well a particular farming system is delivering economic, environmental and social outcomes, and where there is opportunity to improve.
- 5) Identification of potential sustainable intensification interventions for different farming systems.
- 6) An assessment of the potential for sustainable intensification for a range of farm types in the study areas.
- 7) An assessment of farmer attitudes and decision-making in relation to IFM, and a set of principles for developing effective guidance for farmers.
- 8) Proof of concept for a framework for guidance or decision support for integrated farm management.

Bidders are invited to specify and cost additional deliverables in proposals where appropriate. Robust methodologies that are practically applied with an element of innovation will be favoured.

Additional ad-hoc work may be required during the course of the project to address emerging evidence gaps or policy questions. Where this work relates directly to this specification, the successful consortium may be invited to undertake it. In this case, the consortium will be required to use the day rate costs provided in the Project Resource Allocation spreadsheet as the method to price the additional work.

Coordination and knowledge exchange

The following activities should be priced into bids (see Section 4 above for further details):

- Two themed workshops per project year for planning purposes (in year 1) and knowledge exchange (in later years).
- Knowledge exchange (including website, newsletter, and other relevant activities).
- A joint SI Platform scientific meeting at the end of year 1 (as described in Section 4)
- Data management and archiving requirements in line with protocols agreed by the Platform Management Group.

Project 2: Opportunities and risks for farming and the environment at landscape scales

Background

Farm management decisions need to take account of land capability and environmental risk, which both vary geographically. In order to deliver sustainable intensification, protect natural resources and enhance biodiversity, farmers need to be able to make decisions that account for the specific economic, environmental and social opportunities and risks within their locality.

The recent Defra Review of Environmental Advice, Incentives and Partnership Approaches for the Farming Sector⁹ advocated a more targeted approach to the delivery of farm advice. Targeting mechanisms would be likely to improve the cost effectiveness of new environmental land management schemes by focusing management interventions to where they are most needed. Recent developments in the establishment of schemes to pay land managers for the provision of ecosystem services put a value on localised environmental priorities (e.g. Southwest Water's Upstream Thinking project¹⁰). Mechanisms to target advice, guidance and incentives across a broad range of economic, environmental and social objectives, however, are not currently well developed.

Some environmental outcomes can only be achieved through interventions that span large geographical areas. These require cooperation or coordinated action between land managers¹¹. Such outcomes may include reducing the impact of diffuse agricultural pollution on water quality within a particular river catchment, or improving ecological networks (as defined in *Making Space for Nature*¹²) to maintain viable populations of protected species for example.

Over recent years, farms in England and Wales have become more specialised. This has made it increasingly hard to 'close the circle' in terms of nutrient use. Livestock farms rely on arable farms for straw and feed whilst livestock manure is a valuable asset for arable production. Biodiversity is also adversely affected by increased specialisation: species richness increases with the heterogeneity of land-use within a given area. It is possible however, that sustainable intensification could be delivered through coordination between farms of different types at a landscape scale rather than a return to mixed farming.

From an economic point of view, collaboration between farmers can be beneficial. Machinery rings and abstractor groups already exist to help share resources between farms. In some cases, large investments, for example in anaerobic digestion, may only be economically feasible when the initial costs are shared amongst a group of farms.

As well as physical coordination of farming activities, farmers can collaborate to their mutual advantage through information-sharing. Benchmarking approaches such as those developed through Defra project WU0120¹³ offer opportunities for farmers to identify areas where they are economically and/or environmentally underperforming in relation to their neighbours.

⁹ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/221046/pb13900-review-incentives-partnership-approaches.pdf

¹⁰ <http://www.upstreamthinking.org/>

¹¹ Economics of coordination in Environmental Stewardship:

<http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=0&ProjectID=18151#RelatedDocuments>

¹² <http://archive.defra.gov.uk/environment/biodiversity/documents/201009space-for-nature.pdf>

¹³ e.g. <http://79.170.40.182/iukdirectory.com/benchmarking/>

Scope

The project will focus on the study areas described in Section 3, above.

For the purpose of this project, the term “landscape-scale” refers to an area that shares common characteristics and which encompasses more than one farm. In areas that are relatively homogenous, this could be a large area. In areas with a more varied landscape, it may only be a few square kilometres. Bidders are invited to refine this definition through Objective 2.1, below.

Objectives

This project will address the overarching questions:

How does land capability and risk vary geographically in terms of environmental and food production outcomes?

When are coordinated landscape-scale interventions necessary to achieve environmental goals and how can they be instigated?

Objective 2.1: Develop a landscape typology based on land-use opportunities for business planning and environmental risk for agricultural land in England and Wales

A: Develop a landscape typology

The project will combine existing land characterisations, environment risk maps, model outputs and datasets to develop an integrated land typology. A GIS environment will be used to combine layers potentially including agricultural land classification, CEH Land Cover maps, Defra farm census data, Environment Agency Water Framework Directive maps, air and water quality modelling outputs, habitat maps, species data (e.g. BTO survey data, wildlife record centre data etc), soil classification, Countryside Survey Data etc. The resulting map will be used to develop a typology that identifies homologous areas from the point of view of environmental risk, production capability, areas of importance for biodiversity or areas of natural beauty. In creating the typology this work should review appropriate data sources and assess the quality and suitability of the datasets included.

Bidders are invited to refer to Natural England's *National Character Areas* and *Farmland Bird Package* maps, the Environment Agency's *100 Water Framework Directive Catchments*, and Defra's *Agricultural Land Classification* for examples of existing classifications that this project could build upon.

B: Identify land-use opportunities, risks and conflicts to develop targeting approaches

Within each SI Platform study area, a set of economic, environmental and social priorities for land management will be identified using the data layers compiled above and in consultation with local stakeholders. An assessment will be made of the conflicts and synergies between priorities.

The typology developed above will identify the many demands on individual areas of the landscape and identify land-use conflicts. Where conflicts exist, the work will identify possible win-win solutions and explore approaches to prioritise particular outcomes where trade-offs are unavoidable.

Bidders should set out approaches to use the typology to inform land management guidance (linking with Project 1). The typology should be usable to target advice to land managers, agri-environment options and paid ecosystem services schemes.

Objective 2.2: Identify objectives that require coordinated action over large spatial scales, develop and test landscape-scale interventions

A: Identify environmental and economic objectives that require coordination at landscape scales and design landscape-scale interventions

The project will identify for each land type the economic, environmental and social outcomes that can only be achieved through coordinated action between farmers over large spatial scales.

The project will investigate for each landscape type established in 2.1, ways in which collaborative action between farms could contribute to sustainable intensification at a landscape scale. For each of the land types represented by study areas, it will identify limiting factors for production and environmental objectives that require collaboration between farmers to overcome. It will develop design criteria for collaborative, landscape-scale interventions to achieve sustainable intensification goals. These may include sharing machinery and infrastructure, sharing resources, transferring material between farms or developing coordinated landscape-scale habitat management.

The project will review existing examples of coordinated landscape-scale management and published research in this area (such as from the cross research council Rural Economy and Land-Use programme) to inform this work.

B: Test landscape-scale interventions in study areas

Within each study area, the project will identify opportunities for collaboration between farmers to achieve economic, environmental and social outcomes. The design criteria for selected collaborative interventions developed in 2.2(A) will be tested with a group of participating farmers. Where possible, these interventions should be implemented and monitored.

In addition, the project will explore interactions between farming sectors within the study areas. This may include exploring whether the benefits of mixed farms can be achieved through collaboration between neighbouring specialised arable and livestock enterprises. The project may also explore whether economies of scale can be achieved through collaboration between neighbouring small farms.

Objective 2.3: Encouraging and influencing landscape-level collaboration

A: Understanding the social and economic constraints to collaboration

Building on existing literature, the project will aim to elucidate how collaboration can be encouraged at the landscape scale, highlighting barriers and how they can be overcome. This work should consider potential approaches to encourage: (a) collaboration to achieve environmental objectives, (b) collaboration in sharing equipment infrastructure, and (c) benchmarking and information-sharing. This work will link closely with Objective 2 of this project and work under Project 3 on market drivers. The work should consider:

1. The benefits of different approaches to foster collaboration.
2. Conflict between collaboration and competition.
3. Practical methods to encourage farmers to collaborate in the development of landscape-scale land management activities to achieve environmental and business objectives.
4. Which approaches are best suited for particular land types.
5. Socio-economic barriers to landscape-level management of agricultural land.

B: Design and develop a sustainable intensification benchmarking system to stimulate information-sharing between groups of farmers

The project will develop a benchmarking system based on the sustainable intensification indicators developed in Project 1. This will allow farmers to anonymously submit information on their farm's performance to a central system. The system will allow them to compare their performance with other farms and act as a sign-posting tool to highlight areas for improvement. It will also generate data to inform future research on sustainable intensification.

The tool should build on existing systems where possible. It will be developed and tested with groups of farmers in the study areas in collaboration with relevant industry and stakeholder groups. If appropriate, existing national farmer networks should be used to populate it with data.

Deliverables

1. Undertake an initial scoping study to set the proposed research in the context of previous work in this area. This will take account of previous research, existing literature and methodological constraints. It will report in the first three months and will provide further focus for the project.
2. A set of study areas will be agreed (with Defra and the other SI platform consortia) in the first three months of the project. The project will contribute to building up a network of collaborating farmers and stakeholders within the case-study areas.
3. A land typology for England and Wales that identifies opportunities and risks for production and the environment, and which can be used to target advice and incentive schemes.
4. An assessment of conflicts and synergies in the study areas and how they relate to the typology.
5. An assessment of where landscape-scale collaborative approaches have the potential to benefit businesses and the environment.
6. Guidance on the application of landscape scale interventions to improve economic and environmental performance.
7. A report on socio-economic barriers to collaboration between farmers and mechanisms to encourage collaborative approaches.
8. A benchmarking tool for sustainable intensification.

Bidders are invited to specify and cost additional deliverables in proposals where appropriate. Robust methodologies that are practically applied with an element of innovation will be favoured.

Additional ad-hoc work may be required during the course of the project to address emerging evidence gaps or policy questions. Where this work relates directly to this specification, the successful consortium may be invited to undertake it. In this case, the consortium will be required to use the day rate costs provided in the Project Resource Allocation spreadsheet as the method to price the additional work.

Coordination and knowledge exchange

The following activities should be priced into bids (see Section 4 above for further details):

- Two themed workshops per project year for planning purposes (in year 1) and knowledge exchange (in later years).
- A workshop after three months with Defra, the other consortia and relevant stakeholders to (1) agree the selection of study areas and (2) finalise research plans for Projects 1 and 2.

- Knowledge exchange (including website, newsletter, and other relevant activities).
- A joint SI Platform scientific meeting at the end of year 2 (as described in Section 4)
- Data management and archiving requirements in line with protocols agreed by the Platform Management Group
- Building and maintaining access agreements with farmers in the study areas and providing a gatekeeper role to manage access by researchers (see section 3).

Project 3: A scoping study on the influence of external drivers and actors on the sustainability and productivity of English and Welsh farming

Background

Farming in England and Wales is influenced by a wide range of external factors. These include commodity prices, input prices, government incentive schemes, subsidies, paid ecosystem service schemes, access to finance, consumer demand from a growing and more affluent population, weather conditions, and a changing climate (see Annex 1). The risks and opportunities caused by fluctuations in these factors vary considerably between different farm types and in different parts of the country. This influences which sectors have the greatest scope for sustainable intensification.

A wide range of actors in the food production and supply chain also influence on-farm decision making. This occurs both bottom-up (by the suppliers and regulators of agricultural inputs) and top down (by markets, retailers and consumers of agricultural products), Figure 3. Understanding these influences is vital in designing resilient land management systems and policy approaches.

Although improved on-farm resource use efficiency can have environmental benefits, economic pressures on farmers to reduce production costs can also negatively affect environmental sustainability. A variety of approaches have been developed and tested to counteract these pressures and to actively reward farmers for the public goods or ecosystem services they provide. These approaches include accreditation schemes, payments for ecosystem services funded by other sectors (e.g. the water industry), and reverse auctions for the provision of ecosystem services. Central to the success of these schemes, is the measurement and communication of environmental outcomes delivered by farming.

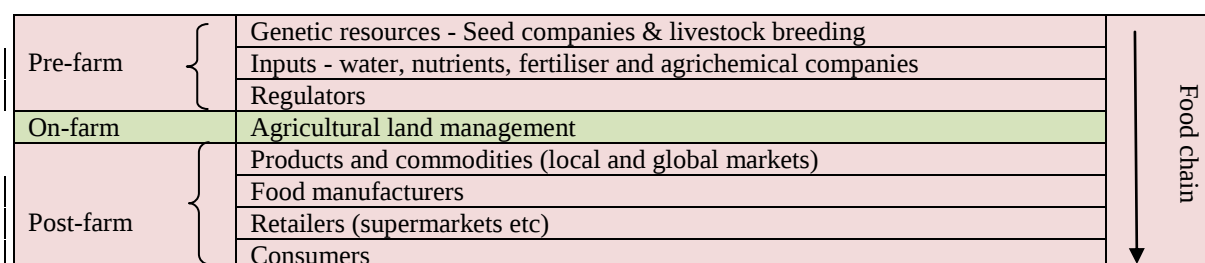


Figure 3: The food production and supply chain

Objectives and scope

This project will be a six month scoping study in advance of a fuller project to review background literature, refine research questions and develop methodologies to address the following overarching questions:

- *What influence have external factors (e.g. commodity markets, input prices, subsidy, regulation, consumer acceptability, climate etc) had on the economic, environmental and social performance of agriculture within the study areas over recent years and how is this likely to change in the future?*
- *How will the sustainable intensification interventions developed in Projects 1 and 2 affect or be affected by the supply chain and food industry?*
- *Which interventions currently in practice within the supply chain have the potential to increase English and Welsh farmers' uptake of practices that contribute to sustainable intensification?*

Subject to the outcomes of the scoping study, a full (£400-500k) project will be commissioned in 2014 once study areas have been selected and research plans for projects 1 and 2 have been finalised. This will allow the socio-economic research in project 3 to be designed around the platform and fully integrated with the other projects.

The scoping study will have the following objectives:

Objective 3.1: Explore how farmers respond to opportunities and risks from combinations of external factors within the SI platform study areas in the short, medium and long term

The successful consortium will scope approaches to work with farmers in the study areas to identify key external factors that have influenced farm management decisions, helping or hindering sustainable intensification over recent years. The impacts of these factors on the range of economic, environmental and social outcomes shown in Figure 1 should be considered.

The approaches developed should use published evidence and initial soundings with farmers/ stakeholders to identify key external factors that influence on-farm decision making. The scoping study will identify an initial list of key factors that will be further tested in the full project. These are likely to include fluctuations in the following:

- Supply and demand for UK agricultural products (including changing production, consumption patterns and consumer preferences)
- Commodity prices (food, oil etc) and price of other inputs (e.g. fertilisers, seed and agrochemicals) as experienced by UK farmers
- Global economic trends
- Weather (extreme events in the UK and elsewhere in the world)
- National and EU regulatory frameworks
- Competition for land (e.g. with biofuels)

Subject to the findings from the scoping study, the full project will undertake an assessment of future risk and resilience over a 20-30 year timeframe for each of the study areas. The aim will not be to forecast future conditions but to identify combinations of factors that are likely to provide opportunities for farmers, or affect economic, environmental or social risk or resilience for farms in the study areas. This analysis is likely to have both quantitative and qualitative elements, and appropriate frameworks will be needed to combine such information. The more detailed analysis in the full project should make use of economic and environmental projections derived from models, scenario building and expert elicitation alongside data collected from interviews with farmers and local stakeholders where appropriate.

Analysis undertaken in the full project will be used to make initial assessments of the following:

1. Whether sustainable intensification interventions, such as those identified and developed in projects 1 or 2 would increase, decrease, or have no impact on the effects of external factors on the study farms.
2. Whether external factors are likely to encourage or dissuade farmers from adopting sustainable intensification practices.

Objective 3.2: Investigate the influence of the food supply-chain and other actors on farm and landscape management decisions within the SI Platform study areas

Work under this objective will provide evidence on how the demands of food-chain and other stakeholders (e.g. supermarkets, food manufacturers etc) influence land management decisions within the study areas and how this supports or hinders the adoption of sustainable practices at the farm and landscape scale.

This will inform subsequent work in the full project that will assess the influence of external players from across the food supply chain (Figure 3) within each of the study areas (1) from a farmer's perspective and (2) from a food industry perspective. This includes pressures from food manufacturers and retailers to improve environmental sustainability as well as pressures that have adverse effects on the economic, environmental and social performance of farms.

The scoping project will, at a top level, identify the factors that determine how farmers' decisions are affected by other actors in the food chain. It will identify whether some farming systems are more responsive to market pull than others and try to understand why this is so. It will also explore how farming systems within the study areas could adapt to become more responsive or resilient to market drivers to the benefit of their economic, environmental and social performance.

Following the scoping study, the full project should assess in more detail the positive and negative effects of sustainable intensification interventions identified in Projects 1 and 2 on the food supply chain. This may include demand for and trade-offs between:

- Product quality (e.g. shelf life, taste, freshness, food safety, dietary health)
- Price (including in the context of global markets)
- Price stability (vs. fluctuating costs of production)
- Security of supply
- Environmental sustainability (e.g. through corporate social responsibility schemes)
- Product differentiation and premium markets

It may also consider public acceptability of emerging farming systems and new technologies and how these priorities relate to those of food processors, distributors and retailers.

In addition, the full project should look more widely at the demands the food chain places on land managers to deliver against sustainability or other goals and the success and unintended consequences of such initiatives.

Objective 3.3: Identify market opportunities and non market mechanisms to drive sustainable intensification

The scoping project will investigate potential for the food supply chain and farmers to develop mechanisms (e.g. market mechanisms, assurance or incentive schemes) that drive the sustainable intensification of English and Welsh farming, improving economic, environmental and social outcomes. This will, again, inform the full project which will seek to address the following two objectives.

A: Explore emerging and novel ways in which the food-chain and other stakeholders can drive sustainable intensification on-farm

Building on objective 3.2, the full project will explore combinations of post farm gate mechanisms/ levers that the food industry or other stakeholders could develop to incentivise farmers to take up actions that improve their environmental and social performance. It will

identify areas where markets and non-government actors can deliver and those where government intervention is needed.

A key aspect to this work will be to explore ways in which benefits to society and the environment can be communicated up the food supply chain to support the development of market mechanisms to drive sustainable intensification.

The successful consortium will work with supply-chain actors to appraise the suitability of these approaches, which may link to farm assurance schemes or corporate social responsibility schemes. It will explore the potential benefits and risks to the food industry from developing mechanisms to drive sustainable intensification. This should build on previous research assessing farm assurance and labelling schemes (e.g. Defra project IF0131).

B: Identify opportunities within the study areas for farmers to capitalise on the environmental and societal benefits they provide

Within each study area, the full project will explore the potential to apply the approaches scoped in 3.3(A) to enable farmers to earn recognition (i.e. demonstrate good practice and be rewarded through less onerous inspections and regulatory burdens) and capitalise on the environmental and social benefits that they deliver. The project will explore the barriers to the wider implementation of these approaches. It will look at how farmers may be able to capitalise on the environmental and social goods that they deliver by identifying potential customers for the ecosystem services delivered by farming in each of the study areas.

Scoping-study deliverables

1. A review and gap analysis of existing literature to address the overarching questions and objectives above. This will take account of previous research, economic analyses, publications and reports. It will inform the design of a full (c.3 year) project.
2. Identify clearer parameters and focus for a full project, identifying the key research questions that need addressing, and potential deliverables. These will be developed and agreed with Defra and other stakeholders.
3. Develop a robust methodology for a full project that links to Projects 1 and 2 and uses the SI Platform study areas.

Deliverables for the full project are likely to include the following:

1. *Improved understanding of how external factors affect opportunities, risk and resilience to farms in the SI Platform study areas.*
2. *Assessment of whether sustainable intensification interventions, such as those identified and developed in projects 1 or 2 would increase, decrease, or have no impact on the effects of external factors on the study farms.*
3. *Assessment of whether external factors are likely to encourage or dissuade farmers from adopting sustainable intensification practices.*
4. *Identify the key demands that the food chain has on English and Welsh farming, the actors within the food-chain that have the most influence on farm management and how this varies geographically and between sectors.*
5. *Identify opportunities for food-chain organisations and other sectors of society to reward farmers for providing environmental and societal goods/services. This will account for variation in these opportunities between different parts of the country and different sectors.*
6. *Identify opportunities within the study areas for farmers to capitalise on the environmental and societal benefits they provide.*

Follow-on work to this study (possibly including the full project) may be let as a single tender to the successful consortium. In such a case, the consortium will be required to use the day rate costs provided in the Project Resource Allocation spreadsheet as the method to price the extra work.

Coordination and knowledge exchange

The scoping project team will need to contribute to design workshops initiated by Defra or by Projects 1 and 2. See section 4 above for further details. It is envisaged that the successful team will need to host one or more workshops to seek input from the consortia delivering Projects 1 and 2, Defra and other stakeholders.

Annex 1: Background – framing the problem

Agriculture accounts for around 70% of the UK land area. It plays an essential role in the rural economy not only through the production of food and other agricultural outputs, but in the delivery of a wide range of additional ecosystem services and environmental outcomes. These include the provision of clean water, the regulation of air quality, flooding, climate and nutrient cycles, cultural aesthetic and recreational value¹⁴. The sustainable management of farmed land is essential to meet government commitments on biodiversity, forestry, water quality, soils, greenhouse gasses, air quality and flooding¹⁵.

Over the past 60 years, agricultural intensification has increased yields but resulted in increased water and air pollution, habitat degradation and loss of biodiversity. The total external environmental damage costs (to air, water and soil) from agriculture in the UK have been estimated to range from £1 billion to £3 billion per year^{16,17}. By the 1990s, global food prices had fallen, allowing a shift in policy focus in the UK from production to environmental protection through the development of agri-environment incentive schemes, regulatory and voluntary approaches. Today, food security is now firmly on the political agenda with three global wheat price spikes in the last five years. Projections of population growth indicate that the global food supply system will have to feed between 8 and 10 billion people by 2050¹⁸. The Foresight report on the Future of Food and Farming predicted that global food demand is likely to increase by 70% by 2050 due to population growth and changes in consumption patterns. This will take place in the context of increasing pressure on water, land and energy resources, and changing climatic conditions¹⁹. It has been estimated, for example, that satisfying this increased food demand will increase global water requirements by 70% to 90% without improvements in agricultural methods²⁰. There are few substantial unexploited areas of land suitable for food production and that further land use change to satisfy global food requirements would have unacceptable environmental consequences.

The challenge for the UK agricultural sector is therefore one of *sustainable intensification*. This means increasing food production while simultaneously reducing environmental impacts and enhancing the wide range of interlinked ecosystem services that society needs from land. The Royal Society Report, “Reaping the Benefits”²¹, defines sustainability in terms of (i) persistence – maintaining yields into the future, (ii) resilience – to external shocks and perturbations, (iii) autarchy – not reliant on external, non-renewable resources, and (iv) benevolence – providing outcomes for the benefit of wider society. Sustainable intensification needs to account for the inevitable trade-offs between the multiple outcomes illustrated in Figure 1 whilst balancing local, national and global priorities. Farmers, land managers and policy makers are faced with a significant technical challenge to measure and value the environmental and social performance of agriculture, as well as to develop markets that reward the provision of these services alongside traditional income streams for food production.

¹⁴ Hassan, R., Scholes, R., Ash, N. (2005) Ecosystems and Human Well-being: Current State and Trends, Vol. 1 Findings of the Condition and Trends Working Group of the Millennium Ecosystem Assessment. Island Press, Washington, Covelo, London

¹⁵ <http://www.defra.gov.uk/environment/natural/whitepaper/>

¹⁶ O'Neill, D. (2007) The Total External Environmental Costs and Benefits of Agriculture in the UK. Environment Agency, Bristol, UK http://www.environment-agency.gov.uk/static/documents/Research/costs_benefitapr07_1749472.pdf

¹⁷ Jacobs (2008) Environmental Accounts for Agriculture. Final Report For project SFS0601: Defra; Welsh Assembly Government; Scottish Government; DARD (N. Ireland).

¹⁸ <http://www.un.org/esa/population/publications/wpp2008/pressrelease.pdf>

¹⁹ Foresight (2011) The Future of Food and Farming: Final Project Report. Government Office for Science, London.

²⁰ http://portal.unesco.org/en/ev.php-URL_ID=44779&URL_DO=DO_TOPIC&URL_SECTION=201.html

²¹ Royal Society (2009) Reaping the Benefits: Science and the Sustainable Intensification of Global Agriculture (page ix)

In designing profitable, sustainable and resilient farming businesses, land managers need to consider:

1. Local opportunities and risks that present or restrict business opportunities.
2. Which combination of management practices to employ in light of these opportunities and risks.
3. Interactions, synergies and tradeoffs between the economic, environmental and social, outcomes of these practices. This includes consideration of complexities in cause and effect over larger spatial scales and longer timeframes.
4. The implications at the farm business level between different income streams and the balance between economic, social and environmental outcomes

These are illustrated in Figure 4.

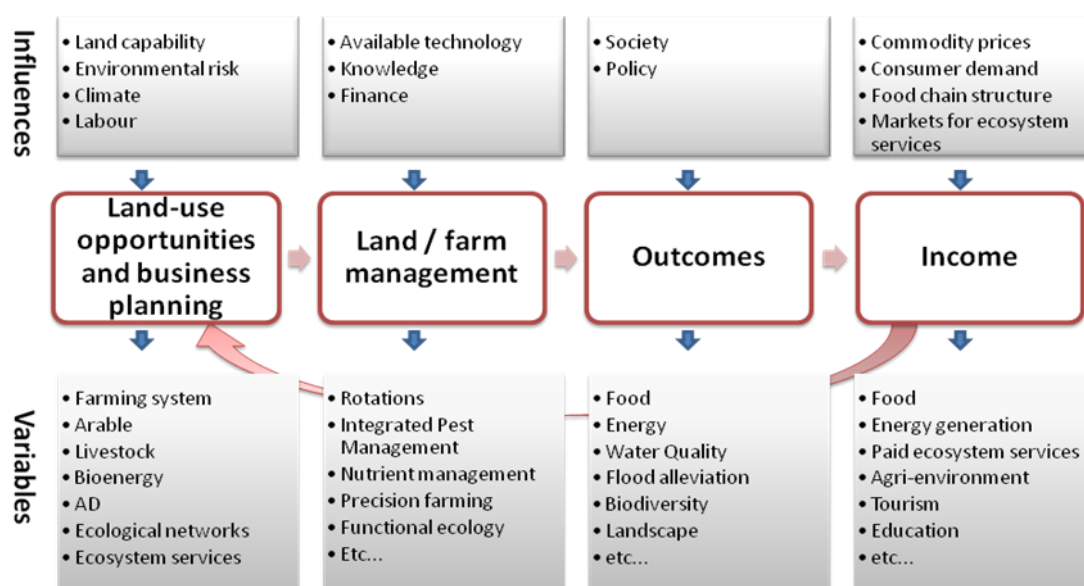


Figure 4: Considerations in integrated farm and land management.

While some environmental objectives can be achieved in a way that is synergistic with increasing production, others cannot. The debate on improving the environmental performance of farming has focused on *land sharing* (whereby environmental and production objectives are achieved in the same place e.g. in-field environmental management) and *land sparing* (focusing on environmental objectives at the expense of agriculture or vice versa e.g. edge of field environmental management). In practice, the susceptibility of land to environmental damage and its capability for the provision of food and other ecosystem services varies considerably. A geographically targeted, risk-based approach that maximises the net value of production, environmental and social outcomes is needed, capitalising on opportunities for profitable agriculture, protecting sensitive areas and enhancing areas of natural value.

Figure 5 illustrates the potential steps towards a goal of sustainable intensification. The adoption of good practices, for example to improve nutrient and water use efficiency, derive environmental benefits that are synergistic with improvements in productivity, e.g. reducing water and air pollution, and greenhouse gas emissions. Many of these “win-win” practices are universally applicable. However, depending on land capability and environmental risk at a specific geographic location the combined ecosystem service value may be maximised by managing land for intensive food production (position 3b) or for another ecosystem service

(position 3a). Position 4 on the diagram may only be achievable as a net result over a large area.

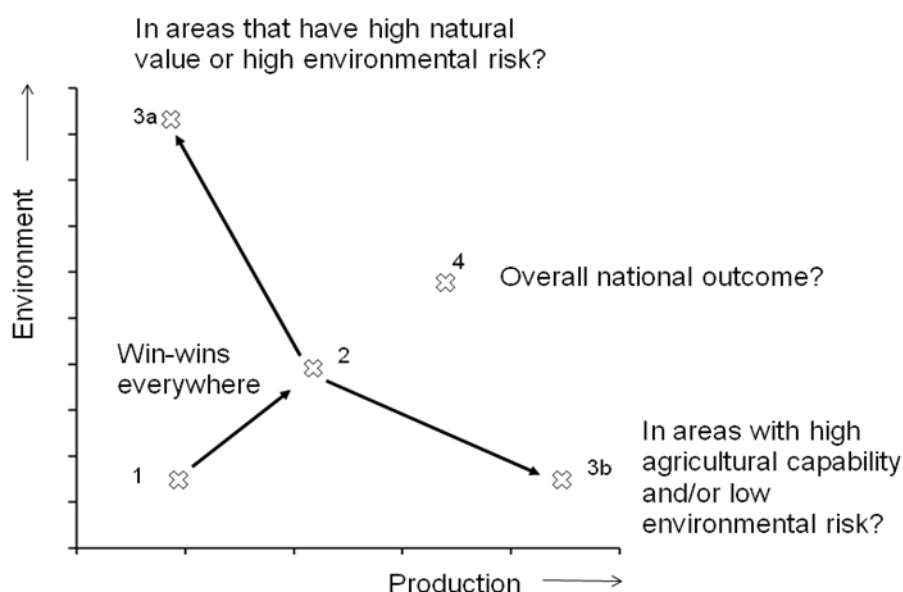


Figure 5: Illustration of trade-offs between agricultural production and environment.

1. Current environmental and agricultural performance.
2. Environmental and production performance can be improved simultaneously through practices that improve the efficiency of nutrient, water and soil management (e.g. precision application of fertilisers, using better performing crop varieties or livestock) or that capitalise on 'functional biodiversity' (e.g. to fix nitrogen or manage pests through the use of natural enemies). Policy levers to encourage uptake of such techniques include regulation, advice and guidance.
3. Localised prioritisation of:
 - a. Environmental outcomes (targeted extensification of food production to protect vulnerable areas or enhance habitats. e.g. buffer strips, set aside or arable reversion). These can be incentivised through agri-environment schemes and developing markets for ecosystem services.
 - b. Food production (targeted intensification in areas of low environmental risk/value).
4. Desired outcome. Whilst this may not be achievable in any single location, it may be achievable as a net result at national scale.

Decisions to prioritise environmental or production objectives can be made at a range of spatial scales. Within fields, for example, sacrificing cropped area to establish skylark plots, beetle banks or un-cropped margins can be used to provide habitats or reduce soil erosion. At the field scale, un-cropped land such as that left fallow or arable reversion to grassland can be used to increase biodiversity or reduce nitrate leaching. At farm scale, the choice of farming system (e.g. organic vs conventional, extensive vs intensive etc) has implications for the environment, production and profitability. At a landscape-scale it may be necessary to coordinate the activities of a number of land managers e.g. to protect a water catchment or improve the connectivity of wildlife habitats. At national or global scales, reducing farming intensity in one location may simply displace damaging activities to another region or country. Much of the research on sustainable agriculture has focused on smaller spatial scales. A key priority of the Sustainable Intensification Platform, is to look across these scales in developing improved integrated land management approaches.

The complexity of the interactions between the numerous environmental, economic and social factors provides a major barrier to achieving the goal of sustainable intensification. Although a number of government and industry-led initiatives have been established to identify and address agri-food research requirements, the majority address individual

pressures or aspects of land management rather than taking a holistic systems approach. Relatively few projects focus on developing tools and guidance to inform whole farm management and decision-making at landscape-scales. This integration of knowledge is currently often left to decision-makers themselves, partly due to the fragmented nature of the research-base. There is a relative lack of interaction between groups involved in research on the productive and environmental aspects of agriculture. Environmental and agri-food research also tend to have different funding streams. Further divisions exist between basic and applied science.

The delivery of advice and guidance to farmers has been equally fragmented. Farm consultants often focus on the commercial and productive elements of farming systems whereas government and third sector advice providers often focus on regulatory compliance issues such as environmental or animal welfare aspects. There is a current policy focus on developing a more holistic approach to advice at both farm and landscape scale and these must be underpinned by an understanding of integrated and sustainable farming systems.

Sustainably intensifying UK agriculture needs to be supported by more strategic and joined up activities on innovation, research and development and work to incorporate research outputs into productive and sustainable farming systems in a way that can be more easily adopted by industry²². This requires research undertaken over appropriate spatial and temporal scales that brings together agricultural, environmental and social scientists.

²² <http://www.defra.gov.uk/publications/2012/07/10/pb13794-green-food-project/>

Annex 2: Rationale for the research platform

By developing and maintaining dialogue and partnership, the platform will develop a shared research agenda between researchers from multiple disciplines and the end-users of research (e.g. policy-makers, economists, farmers, industry groups and advisers). This will provide a focal point for research activities to:

- a. *Address complex questions:* A goal of the platform is to foster collaboration between research groups and across disciplines to tackle complex research questions that cannot be addressed through single projects.
- b. *Pool funding:* The platform will provide a focal point to pool resources between funders to fund larger projects to address the bigger questions.
- c. *Share data and resources:* Researchers will be encouraged to share resources, equipment and data to facilitate interdisciplinary working. Data and models generated by the project will be archived using open data standards and made freely available. This will support secondary research and industry decision support activities.
- d. *Catalyse long-term research:* The problems set out above are complex and will not be fully addressed through the projects specified here. It is intended that the linkages between researchers and study sites established through this project will help catalyse future ongoing research, funded from multiple sources, towards the overall objectives of the platform.
- e. *Develop a shared agenda between researchers and stakeholders:* An adaptive approach in addressing the long-term research goals set out here will allow the questions to evolve as new challenges emerge. Ongoing dialogue between researchers and the end-users of research will encourage an iterative approach to knowledge exchange.
- f. *Be policy focused:* working with researchers and the industry to find practical solutions to achieve business and societal objectives.

The platform will set in place strategic research focused on long-term needs whilst building capacity to address more immediate, policy-focused questions. Bringing researchers working on more fundamental, strategic questions together with those undertaking secondary analysis for policy benefits both. Fundamental researchers gain a better understanding of the policy context of their work so that they are better able to improve their impact. Scientists undertaking analysis for policy benefit through the interaction by challenging entrenched ways of thinking. The overall aim is to develop a community that has the academic freedom to innovate and explore the broader theme of the platform whilst having the understanding of policy to maximise the impact of research.

Knowledge exchange (KE)

Whereas researchers often focus their attention on questions that can be answered over a period of 3-5 years, policymakers and industry end users often focus on much shorter timeframes (from days to months). This difference in time horizon creates a barrier to knowledge exchange. To address this, a number of mechanisms will be used to establish short-term knowledge exchange activities whilst undertaking long term research to address strategic questions (see table 1 for examples).

Table 1: Knowledge exchange activities.

Timeframe	Activities
~5 days	1. Using researchers working on the platform as a sounding board on sustainable intensification for policy and industry decision-makers. Informal email communication will be used to seek input from a wide range of researchers on policy briefings, requiring minimal input from any individual. This will help decision makers to access information rapidly and give researchers insight into policy direction to inform their future work.
~5 weeks	2. Short knowledge exchange activities including focused workshops and the production of short briefing notes on topics of immediate relevance.
~5 months	3. Establishing small cross-disciplinary working groups consisting of researchers and stakeholders to explore specific questions raised by the stakeholders. 4. Mini projects to synthesise project outputs or review existing literature.
~5 years	5. Identifying long-term policy and industry evidence needs to inform research priorities. Involving end-users in the design of research projects to address them.

SECTION 4

**ONLINE TECHNICAL QUESTIONNAIRE
EVALUATION CRITERIA**

SECTION 4: ONLINE TECHNICAL QUESTIONNAIRE EVALUATION CRITERIA

PLEASE REFER TO THE ONLINE TECHNICAL QUESTIONNAIRE FOR FULL DETAILS.

Section A – ORGANISATION

The information in Section A of the e-tender portal is not scored but must be completed in full.

Section B – CONFLICT OF INTEREST

Pass/Fail scoring criteria as follows:

The Authority's opening panel will meet with the Authority's legal department and representatives from the technical evaluation panel to discuss any actual or potential conflict of interest issues that have been disclosed by a Tenderer. The attendees at this meeting will decide whether the Tenderer's internal management processes and controls are satisfactory to safeguard against the actual or potential conflict of interest.

If the team agree that a Tenderer's internal management processes and controls are insufficient to safeguard against any conflict of interest issues. The team will make a recommendation to the Head of Procurement to exclude that Tenderer from the procurement exercise.

Section C:

TECHNICAL AND PROFESSIONAL ABILITY

It is important that all questions are answered fully, as possible lack of attention to detail will lead to a need to seek clarification which may impact adversely on the start date of the project.

C01 Brief Project Description

Please provide a brief project description. This should be a non-technical summary of your proposal, its potential relevance to policy and possible use of results. It should be easily understood by non-specialists. If your proposal is successful, this summary will be published on the Defra website. Responses to this question are restricted to 500 words, Arial font size 10. Please upload a document with the filename "*C01_Your Company Name*"

Evaluation Criteria

This is a mandatory question but will not be scored.

C02 – Approach and methodology (Weighting 30%)

Please describe your research approach to the specification for the project that you are bidding for, outlined in the appropriate part of section 3 (above). Your answer should demonstrate understanding of the scientific and policy questions surrounding the drive towards sustainable intensification. Particular emphasis should be placed on how work will be delivered.

Your response must be a maximum of 12 sides of A4, font size 10. Please upload a document with the filename: "*C02_Your Company Name*"

Evaluation criteria:

Your response should:

- Demonstrate an excellent understanding of the political, economic and scientific challenges pertinent to the project.
- Set out robust and achievable approaches to address the objectives in the specification. Where appropriate, these should be:
 - Innovative (evidence should be supplied to support novel approaches).
 - Multidisciplinary (utilising a range of specialists in an integrated fashion)
- Describe a robust set of methods for primary and secondary data collection, literature sources and statistical analysis.
- Indicate the individuals/organisations that will lead and contribute to each objective.
- Set out an achievable programme of work that acknowledges the limitations of what is achievable within the resource and time constraints of the project. A clear rationale for any prioritisation of work should be given. The proposal should strike a balance between breadth of scope and scientific robustness.
- Adequately describe how the deliverables will be met.

Scoring:

- For a score of 5: Comprehensive and robust approach covering all aspects of the evaluation criteria.
- For a score of 4: Covered all aspects of the evaluation criteria with only minor deficiencies in one criterion.
- For a score of 3: Covered all aspects of the evaluation criteria with only a minor deficiencies in two or more criteria
- For a score of 2: Covered the majority of the evaluation criteria with at least one significant deficiency or gap in the response.
- For a score of 1: Partially covered the areas specified in the evaluation criteria but lacking information or detail on a number of areas.
- For a score of 0: No coverage of the evaluation criteria, or, with significant gaps in the response and/or serious concerns.

C03 – Project Team (Weighting 15%)

Please outline the project team, setting out details of previous experience that members of your team have had on related projects. CV's for key individuals should be submitted to support your response (max 2 A4 sides per CV).

A key aim of the SI Platform is to build collaborative links between researchers from different disciplines and institutions who work on aspects of farming, environmental land management and the food chain. For this reason, consortium bids are required for all three projects. Proposals from single organisations will therefore not be considered, except for the scoping study for project 3.

Your response must be a maximum of 2 sides of A4 (not including CVs), font size 10. Please upload a document with the filename: "C03_Your Company Name"

Evaluation criteria:

- A robust project team structure is clearly set out, indicating roles and responsibilities of individuals. The consortium members are clearly presented with sufficient detail on individual and organisation expertise.
- For projects 1 and 2, the consortium consists of a number of relevant organisations that are involved in collaboratively delivering the work.
- The project team includes individuals with proven expertise and experience in:
 - Relevant fields in the natural and social sciences.
 - The practical and political aspects of land management, farming and the food industry as appropriate to the project. (Bidders to Project 1 should consider working with established agronomists, livestock specialists and/or farm advisers).
 - Facilitation skills, particularly arbitrating between different interests (projects 1 and 2).
 - Statistics, experimental and/or survey design (appropriate to the proposed approaches).
 - Stakeholder engagement (especially in relation to farming, the environment and the food industry as appropriate to the project).
 - Knowledge exchange between researchers and policy/ industry stakeholders.
 - Project management (particularly in relation to running large and complex projects and consortia).
- Expertise and staff time is well-matched to the research approach and work packages set put in the approaches and methodology.
- Genuine effort has been made to develop a multidisciplinary and collaborative approach that makes the best use of available expertise.

Scoring:

- For a score of 5: Team meets all aspects of the evaluation criteria.
- For a score of 4: Team meets all of aspects of the evaluation criteria with only minor deficiencies in one criterion.
- For a score of 3: All aspects of the evaluation criteria met with minor deficiencies in two or more criteria
- For a score of 2: The majority of aspects of the evaluation criteria met with at least one significant deficiency or gap in the response.
- For a score of 1: Partially meets the evaluation criteria but with a number of gaps or deficiencies.
- For a score of 0: No coverage of the evaluation criteria, or, with significant gaps in the response and/or serious concerns.

C04 – Project Management (Weighting 10%)

Please detail the proposed project management arrangements including the identification of potential risks and how these can be managed and mitigated.

Please identify the individual(s) who will have overall management responsibility for the research and nominate a representative for day-to-day contact with the Authority's Project Officer.

Your response must be a maximum of 3 sides of A4, font size 10. Links to other documents will not be considered as part of your response e.g. links to published documents online, etc. Please upload a document with the filename: "C04_Your Company Name"

Evaluation Criteria:

Your response should demonstrate:

- A robust approach to project management with a description of how it will be implemented.
- Appropriate consideration of how working relationships will be established and maintained:
 - Within the consortium,
 - Between the consortium and consortia from other SI Platform projects, and
 - With external stakeholders (including Defra).
- How you plan to keep Defra informed of progress made and any difficulties encountered, as well as the level of input and guidance that the successful bidder will require from Defra's Project Officer.
- Clear and achievable milestones for the proposed work
- A GANTT chart presenting timelines and inter-dependencies between workstreams.
- How key performance indicators will be developed and monitored.
- A Risk Register identifying known factors that could impact on delivery: the table should state the impact that the risk will have on the project and any countermeasures you could put in place to mitigate that risk.

Scoring:

- For a score of 5: Comprehensive approach that robustly covers all aspects of the evaluation criteria.
- For a score of 4: Robustly covered all aspects of the evaluation criteria with only minor deficiencies in one criterion.
- For a score of 3: Covered all aspects of the evaluation criteria with only minor deficiencies in two or more criteria
- For a score of 2: Covered the majority of aspects of the evaluation criteria with at least one significant deficiency or gap in the response.
- For a score of 1: Partially covered the areas specified in the evaluation criteria but lacking information or detail on a number of areas. Response may contain inconsistencies.
- For a score of 0: No coverage of the evaluation criteria, or, with significant gaps in the response and/or serious concerns.

C05 – Added value from existing projects and resources (Weighting 10%)

Please outline any existing project funding, research infrastructure, knowledge exchange initiatives, networks, datasets or other resources that the consortium will draw on to deliver the proposed work.

Please also describe how your proposed project fits into wider UK and international research activities on the sustainable intensification of agriculture.

Responses to Projects 1 and 2 should set out your consortium's preferred study areas for the SI Platform (in 3-6 distinct agro-climatic regions and reflecting the main agricultural systems of England and Wales). Please note that the selection of SI platform study areas will not be finalised until the scoping phase of projects 1 and 2 are complete. Where possible, suggested areas should:

1. Have existing instrumentation
2. Be well characterised
3. Have existing datasets that can be used to provide baseline data
4. Represent a range of English and Welsh farm and land-types

5. Have existing engagement of farmers

Your response must be a maximum of 3 sides of A4, font size 10. Please upload a document with the filename: "C05_Your Company Name"

Evaluation criteria:

PROJECTS 1 AND 2 ONLY:

- Preferred research sites are clearly described. The consortium has access to suitable study sites and a broad network of relevant contacts within them.
- The proposed work makes good use of existing instrumentation and other equipment.

ALL PROJECTS:

- The consortium brings significant resources to the platform (including for example: additional funding, research equipment, existing knowledge exchange initiatives, farmer networks, datasets or other resources)
- The proposal makes good use of existing datasets within the proposed methodology to answer the technical, practical and policy questions.
- The proposed work clearly complements and draws on previous/ ongoing UK and international research on farming, land management and the food chain.

Scoring:

- **For a score of 5:** The response displays a good awareness of existing research and resources, which the bid builds on. The consortium clearly brings significant additional resources to the SI Platform.
- **For a score of 4:** The response displays a good awareness of existing research and resources and the bid builds moderately on this. The consortium brings additional resources to the Platform.
- **For a score of 3:** The response displays a moderate awareness of existing research and resources and the bid builds on some of this. The consortium brings some additional resources to the Platform.
- **For a score of 2:** The response displays some awareness of existing research and resource but this is not built on significantly by the bid.
- **For a score of 1:** The response shows that few existing resources will be offered by the consortium or the proposal risks duplicating effort.
- **For a score of 0:** No coverage of the evaluation criteria, or, with significant gaps in the response and/or serious concerns.

C06 – Knowledge exchange and data (Weighting 10%)

Please outline knowledge exchange (KE) activities envisaged as part of the project. Please address the KE requirements described in the specification in your responses.

Please also briefly describe how data management, archival and sharing arrangements will be developed.

Your response must be a maximum of 3 sides of A4, font size 10. Please upload a document with the filename: "C06_Your Company Name"

Evaluation criteria:

Your response should:

- Demonstrate an understanding of the broad needs of policy and industry stakeholders.
- Clearly show how links with industry groups, NGOs, government and other stakeholders will be established and maintained throughout the project.
- Indicate the challenges in arbitrating between the range of interests represented and how these challenges will be overcome.
- Include consideration of the legacy of the project.
- Describe a process through which project outputs/deliverables will be co-designed with relevant stakeholders to ensure that they are relevant and useable.
- Describe how project outputs will be disseminated with relevant audiences.
- Build on existing stakeholder networks in developing dissemination activities and as a resource to assist in the delivery of work described in the approaches and methodology.
- Describe the process for agreeing data management, sharing and archival arrangements.
- Show openness to sharing data and outputs of the project with stakeholders and the research community.

Scoring:

- For a score of 5: Comprehensive and robust approach covering all aspects of the evaluation criteria.
- For a score of 4: Covered all aspects of the evaluation criteria with only minor deficiencies in one criterion.
- For a score of 3: Covered all aspects of the evaluation criteria with only a minor deficiencies in two or more criteria
- For a score of 2: Covered the majority of the evaluation criteria with at least one significant deficiency or gap in the response.
- For a score of 1: Partially covered the areas specified in the evaluation criteria but lacking information or detail on a number of areas.
- For a score of 0: No coverage of the evaluation criteria, or, with significant gaps in the response and/or serious concerns.

ONLINE COMMERCIAL QUESTIONNAIRE

1. Tenderers must insert their pricing proposal in the Online Commercial Questionnaire on the Authority's e-Tendering System.
2. Tenderers must provide a financial proposal, including rates and hours for each participating team member and costing analysed by work streams.
3. The following notes are to help you provide all the details necessary for the project costs.

Pay costs

You should include the fixed costs of personnel working directly on the project.

Inflation

All tenders should include a percentage to cover inflation built into the price, but please bear in mind that overall cost is a factor in the selection process.

Travel expenses

Visits to conferences and similar functions in the UK or elsewhere will not normally be regarded as an eligible cost. Exceptionally, however, such costs may be funded where the contractor can demonstrate to the Authority's satisfaction that the visits are essential to the project. Where travel and subsistence costs are necessary please give brief details. Travel and subsistence will be paid at the rates set out in Section 6 of this ITT.

VAT

These notes apply only to Research and Development. Please follow these notes carefully because, in certain circumstances, VAT can be reclaimed from HM Revenue and Customs, thereby lowering the cost of the research.

- 1) The Authority is an eligible body under the VAT (Education Regulations 1994). If your organisation is also an eligible body, you should not charge VAT on the total price of the research services you provide to the Authority. You may, however, include in your price, any VAT in respect of services/items purchased in order to carry out the research, provided you are ineligible to reclaim this VAT from HM Revenue and Customs. This also applies if you are not a registered trader.
- 2) If your organisation is not an eligible body, and is registered for VAT, you must charge VAT at the standard rate on the total price of the research undertaken for the Authority. The Authority can only recover VAT under S41 of the VAT Act 1994.

- **Organisations in category 1) above**

Include the VAT that your organisation cannot recover from HM Revenue and Customs within the price for the service/item under the appropriate section. For example, the price under 'Sub-Contractor' should include any VAT charged by the sub-contractor (do not separately identify the VAT element). You should enter nothing in the VAT line at the foot of the cost table as this would result in double counting.

- **Organisations in category 2) above**

Insert the VAT to be charged in the VAT line at the foot of the cost table. Include no VAT charges elsewhere in the cost table as this would result in double-counting.

4. **Project Costs**

Tenderers must insert their pricing proposal in the Online Commercial Questionnaire for the project that they are bidding for, on the Authority's e-Tendering System. Please use the appropriate table below:

Project 1 – Integrated Farm Management for improved economic, environmental and social outcomes

Deliverables	Cost
1. An initial scoping study to set the proposed research in the context of previous work in this area. This will take account of previous research, existing literature and methodological constraints. It will report in the first three months and will provide further focus for the project.	£
2. A set of study areas will be agreed (with Defra and the other SI platform consortia) in the first three months of the project. The project will contribute to building up a network of collaborating farmers and stakeholders within the case-study areas.	£
3. The development of usable methodologies for farmers to self-assess their economic, environmental and social performance. This will consist of tiered indicators that can be used in data-poor or data-rich environments.	£
4. The development of one or more integrated sustainable intensification metrics that can be used on-farm to assess how well a particular farming system is delivering economic, environmental and social outcomes, and where there is opportunity to improve.	£
5. Identification of potential sustainable intensification interventions for different farming systems.	£
6. An assessment of the potential for sustainable intensification for a range of farm types in the study areas.	£
7. An assessment of farmer attitudes and decision-making in relation to IFM, and a set of principles for developing effective guidance for farmers.	£
8. Proof of concept for a framework for guidance or decision support for integrated farm management.	£

9. Two themed workshops per project year for planning purposes (in year 1) and knowledge exchange (in later years).	£
10. Knowledge exchange (including website, newsletter, and other relevant activities).	£
11. A joint SI Platform scientific meeting at the end of year 1 (as described in Section 4)	£
12. Data management and archiving requirements in line with protocols agreed by the Platform Management Group	£
Total Fixed Cost	£

The Contractor must deliver all the required services within the **Total Fixed Price**.

Project 2 - Opportunities and risks for farming and the environment at landscape scales

Deliverables	Cost
1. An initial scoping study to set the proposed research in the context of previous work in this area. This will take account of previous research, existing literature and methodological constraints. It will report in the first three months and will provide further focus for the project.	£
2. A set of study areas will be agreed (with Defra and the other SI platform consortia) in the first three months of the project. The project will contribute to building up a network of collaborating farmers and stakeholders within the case-study areas.	£
3. A land typology for England and Wales that identifies opportunities and risks for production and the environment, and which can be used to target advice and incentive schemes.	£
4. An assessment of conflicts and synergies in the study areas and how they relate to the typology.	£
5. An assessment of where landscape-scale collaborative approaches have the potential to benefit businesses and the environment.	£
6. Guidance on the application of landscape scale interventions to improve economic and environmental performance.	£
7. A report on socio-economic barriers to collaboration between farmers and mechanisms to encourage collaborative approaches.	£
8. A benchmarking tool for sustainable intensification.	£
9. Two themed workshops per project year for planning purposes (in year 1) and knowledge exchange (in later years).	£

10. A workshop after three months with Defra, the other consortia and relevant stakeholders to (1) agree the selection of study areas and (2) finalise research plans for Projects 1 and 2.	£
11. Knowledge exchange (including website, newsletter, and other relevant activities).	£
12. A joint SI Platform scientific meeting at the end of year 2 (as described in Section 4)	£
13. Data management and archiving requirements in line with protocols agreed by the Platform Management Group	£
14. Building and maintaining access agreements with farmers in the study areas and providing a gatekeeper role to manage access by researchers (see section 3).	£
Total Fixed Cost	£

Project 3: A scoping study on the influence of external drivers and actors on the sustainability and productivity of English and Welsh farming

Deliverables	Cost
1. A review and gap analysis of existing literature to address the overarching questions and objectives listed in the Project 3 specification. This will take account of previous research, economic analyses, publications and reports. It will inform the design of a full (c.3 year) project.	£
2. Identify clearer parameters and focus for a full project, identifying the key research questions that need addressing, and potential deliverables. These will be developed and agreed with Defra and other stakeholders.	£
3. Develop a robust methodology for a full project that links to Projects 1 and 2 and uses the SI Platform study areas.	£
Total Fixed Cost	£

5. Please provide day rates as set out in the table below. Tenderers must insert their day rates in the Online Commercial Questionnaire on the Authority's e-Tendering System.

Your response must be A4 font size 10. Please upload a document with the filename **Appendix A** – 'Your Company Name'. This table will not be evaluated, but may be used for clarification purposes.

Please provide day rates as set out in the table below. Tenderers must insert their day rates in the Online Commercial Questionnaire on the Authority's e-Tendering System.

Appendix E

Name of Staff	Grade of Staff	Work Package	Number of Days	Day Rate

This table will not be evaluated, but may be used for clarification question purposes.

Appendix F – Please provide a breakdown of your costs below and upload to the e-tender portal

	Financial years (April – March) (e.g. 13/14)					Total
	Year /	Year /	Year /	Year /	Year /	
Cost	£	£	£	£	£	£
Pay costs						0
Consumables						0
Equipment						0
Travel expenses						0
Sub Contractors						0
Other (please detail)						0
Total Costs (FINANCIAL year)	0	0	0	0	0	0
VAT (FINANCIAL year)						0

6. The price evaluation will be scored as follows:

The maximum marks available for this part of the Tender will be 25% and will be awarded to the cheapest price submitted by the Tenderer. The remaining Tenderers will receive marks on a pro rata basis from the cheapest to the most expensive price.

The total price submitted by the Tenderer as part of the online Commercial Questionnaire will be used for the purpose of this evaluation.

The calculation used is the following:

$$\text{Score} = \frac{\text{Lowest Tender Price}}{\text{Tender Price}} \times 25\% \text{ (Maximum available marks)}$$

For example, if three Tender Responses are received and Tenderer A has quoted £3,000 as their total price, Tenderer B has quoted £5,000 and Tenderer C has quoted £6,000 then the calculation will be as follows:

Tenderer A Score = $\frac{£3000}{£3000} \times 20\%$ (Maximum available marks) = 20

Tenderer B Score = $\frac{£3000}{£5000} \times 20\%$ (Maximum available marks) = 12

Tenderer C Score = $\frac{£3000}{£6000} \times 20\%$ (Maximum available marks) = 10

Payment

7. Research contracts are let on a firm price basis (excluding VAT). This is an all-inclusive price for the contract and, so long as the scope of the contract remains the same, it is not subject to any review, amendment or alteration.
8. A decision on the scope and frequency of payments to Contractors will be discussed with the Preferred Suppliers at the Inception Meeting, following the award of the three contracts.

SECTION 5

TRAVEL AND SUBSISTENCE POLICY

SECTION 5: DEFRA'S TRAVEL AND SUBSISTENCE POLICY

Travel and Subsistence must be agreed by the Authority, in advance of travel and claims should always be supported by valid receipts for audit purposes and must not exceed any of the stated rates below. The stated rates below will form part of the contract for the successful Tenderer.

Rail Travel

All Journeys – Standard class rail unless a clear business case demonstrating value for money can be presented. This includes international rail journeys by Eurostar and other international and overseas rail operators.

Mileage Allowance

Mileage Allowance	First 10,000 business miles in the tax year	Each business mile over 10,000 in the tax year
Private cars and vans – no public transport rate*	45p	25p
Private cars and vans – public transport rate	25p	25p
Private motor cycles	24p	24p
Passenger supplement	5p	5p
Equipment supplement	3p	3p
Bicycle	20p	20p

*NB the “no public transport rate” for car and van travel can only be claimed where the use of a private vehicle for the journey is essential e.g. on grounds of disability or where there is no practical public transport alternative. If the use of the vehicle is not essential the „public transport rate” should be claimed.

** Under HMRC rules this expense is taxable.

UK Subsistence

Location	Rate
London (Bed and Breakfast)	£115
UK Other (Bed and Breakfast)	£75

APPENDIX A

FORM OF TENDER

APPENDIX A: FORM OF TENDER

FORM OF TENDER

To be returned by 16:00 on the 19th November 2013.

TENDER FOR: Sustainable Intensification Platform Research Project

Tender Ref: LM0201, LM0302, LM0303 *(Please delete the projects you are not tendering for)*

To The Department for Environment, Food & Rural Affairs (the Authority)

Offer of Goods and/or Services

1. We have examined the documents listed below. In accordance with the terms and conditions contained in the document listed below we offer to provide the goods and/or services required during the contract period and for the sums, rates and percentages given in the clauses below.
 - Tender Particulars (Section 1)
 - Instructions to Tenderers (Section 2)
 - Specification of Requirements (Section 3)
 - Online Technical & Commercial Questionnaire Evaluation Criteria (Section 4)
 - Form of Tender (Appendix A)
 - Non Collusive Tendering Certificate (Appendix B)
 - Online Technical Questionnaire
 - Online Commercial Questionnaire
 - Terms & Conditions of Contract (Appendix C)

Contract Fee

2. We agree to be bound by our pricing proposal (Contract Fee) for the provision of the goods and/or services as incorporated in our Tender Response in the Online Commercial Questionnaire on the Authority's e-Tendering System.
3. The Contract Fee does not include any element of Value Added Tax and is for the full contract period.
4. The Contract Fee is made up as per the pricing schedules for individual sections of the goods and/or services as applicable.
5. We understand the Authority will pay Value Added Tax in accordance with the Conditions of Contract.
6. We understand that we will invoice the Authority against the agreed activity schedule for work done and Authority will pay in accordance with the Conditions of Contract.

Adjustment of Price on extension of initial contract period

7. The Contract Fee will remain fixed for the initial contract period. If the Authority extends the contract period, the price for any extension of the initial contract period will be discussed and agreed by the parties.

Confidentiality

8. We have not told and will not tell anyone else, even approximately, what our Contract Fee is, or will be, before the deadline for receipt of Tender Response. We understand that the only exception is if we need an insurance quotation to calculate our Contract Fee. We may give our insurance company or brokers any essential information they ask for, so long as they understand we do so in strict confidence. We have not tried and will not try to obtain any information about anyone else's Tender Response. We have not made and will not make any arrangement with anyone else about whether or not they should tender, or about their or our Contract Fee.

Other Contract Terms or Conditions

9. We agree that any other terms or conditions or any general reservation which may be provided on any correspondence emanating from us in connection with this procurement exercise or with any contract resulting from this procurement exercise shall not form part of this offer of goods and/or services unless specifically agreed by the Authority in writing.

Validity of Offer

10. Unless stated otherwise by the Tenderer, Tender Response shall remain valid for 90 days from the closing date for receipt of Tender Response. A Tender Response a shorter period will be rejected.

Acceptance of Offer

11. The Authority is not bound to accept this Tender Response (or any Tender Response) that it may receive, whether it is lower, the same, or higher than any other Tender Response.

General

12. We confirm and undertake that if any information contained in the Tender Response becomes untrue or misleading, we shall notify the Authority immediately and update such information as required.
13. We understand that the Authority has no liability as respects any cost or expense that we may incur in preparing and submitting our Tender Response.
14. We confirm that the undersigned are authorised to commit the Tenderer to the contractual obligations contained herein the ITT and the Contract.

Form of Tender

Signed: _____ **Date:** _____

In the capacity of: _____

Authorised to sign Tender for and on behalf of: _____

Postal Address: _____

Post Code: _____

Tel. No: _____ **Fax No:** _____

E-mail address: _____

APPENDIX B

NON COLLUSIVE TENDERING CERTIFICATE

APPENDIX B: NON COLLUSIVE TENDERING CERTIFICATE

The Tenderer warrants that this is a bona fide Tender Response and:

1. We certify that this proposal is submitted in good faith and that we have not fixed or adjusted the proposal by or under or in accordance with any agreement or arrangement with any other person or party. We also certify that we have not, and we undertake that we will not, before the award of any contract to do the work:
 - a) communicate to any person other than the Department for Environment, Food and Rural Affairs ("the Authority") or a person duly authorised on their behalf the Tender Response amount or approximate amount of the Tender Response or proposed Tender Response, except where the disclosure, in confidence, of the approximate amount of the Tender Response was necessary to obtain insurance premium quotations required for the preparation of the Tender Response;
 - b) pay, give or offer or agree to pay or give any sum of money or other valuable consideration directly or indirectly to any person(s) for doing or having done or causing or having caused to be done in relation to any other Tender Response or proposed Tender Response for the work, any act or thing of the sort described at 1 or a) above;
 - c) tried to obtain information about anyone else's bid or proposed bid; and
 - d) made arrangements with anyone else about whether or not they must bid except for the purposes of forming a joint venture to bid for this work.
2. We certify that the prices in this Tender Response have been arrived at independently without communication, consultation, agreement or understanding for the purpose of restricting competition with any other potential Tenderer or competitor.
3. We certify no attempt has been made or will be made by the Tenderer to induce any other person or firm to submit or not submit a Tender Response for the purpose of restricting competition.
4. We agree that the Authority may, in consideration of the offer and in any subsequent actions, rely upon the statements made in this Certificate.

Definitions in this Certificate:

"Person(s)" includes any person(s) and any body or association corporate or unincorporate;

"any agreement or arrangement" includes any transaction, formal or informal and whether legally binding or not; and

"the work" means the work in relation to which this proposal is made.

Dated this Day of 2013

Signature:

APPENDIX C

COMMERCIALLY SENSITIVE INFORMATION

APPENDIX C:

COMMERCIALLY SENSITIVE INFORMATION

TENDERER'S COMMERCIALLY SENSITIVE INFORMATION	POTENTIAL IMPLICATION OF DISCLOSURE	DURATION OF COMMERCIALLY SENSITIVE INFORMATION

APPENDIX D

TERMS & CONDITIONS OF CONTRACT

APPENDIX E

RESOURCE SUMMARY & DAY RATES

(To be provided as part of e-tender response)

APPENDIX F

PRICING BREAKDOWN

(To be provided as part of e-tender response)