

# Natural Environment Research Council (NERC) CASE Studentship Review



## Review Summary

In 2014, NERC undertook a review of its collaborative postgraduate training investments to provide quality assurance and to inform future strategic decision making for this scheme. Students, academic supervisors, non-academic supervisors and research managers input into a national survey regarding collaborative training and their experiences with this scheme.

The outputs of this survey were presented to the NERC Training Advisory Group for comment in December 2014 and they confirmed the key conclusions summarised below:

1. The CASE scheme supports quality student training and should continue.
2. The placement is an important and defining requirement of CASE studentships and the requirement to undertake a placement must be enforced and monitored.
3. The requirement for non-academic CASE partners to make a £1000 per annum financial contribution to studentships should be maintained but the payment should be made to the Research Organisation rather than directly to the student.
4. NERC should provide further clarity on the differences between its two CASE mechanisms (industrial CASE competition versus CASE studentships funded via doctoral programmes CDTs/DTPs).
5. Current international eligibility rules are suitable.

## Review Background

NERC support around 1000 PhD students at any one time and currently invest £22m in PhD training (this amount will rise to £26m by 2018/19). In 2011, NERC undertook a review of the mechanisms used to allocate and deliver postgraduate training. Outside of the scope of that review were the mechanisms used by NERC to allocate and deliver collaborative training.

Collaborative training provides doctoral students with a first-rate, challenging research training experience, within the context of mutually beneficial research

collaboration between academic and partner organisations in the private, public and civil society sectors. NERC refer to collaborative PhD studentships of this nature as CASE studentships.

CASE studentships allow the student to enhance their training by spending between 3 and 18 months with the CASE partner (industry or other relevant stakeholder). It aims to benefit both the end-user and the student by providing students with access to training, facilities and expertise not available in an academic setting alone. CASE partners benefit from a motivated, high-quality PhD student undertaking cutting-edge research relevant to their organisation's priorities.

NERC supports CASE studentships in two ways:

1. a 30% CASE requirement for the Doctoral Training Partnerships – this mirrors the previous requirement for studentships awarded under the old Algorithm method.
2. via the annual Industrial CASE Studentships competition which is aligned to the similar MRC, BBSRC and STFC schemes; the NERC competition supports 35 students per annum. It is open to company-led or academic-led proposals.

NERC Strategy<sup>1</sup> states that as postgraduate training sustains the flow of top talent and skills for UK science, business and government, a proportion of NERC's investment in postgraduate training will be directed to deliver skills priorities identified by business and government. A review of CASE studentships was needed to enable NERC to understand the contribution they make to achieving this goal.

In addition, despite CASE being a significant part of NERC's portfolio (£9m out of £26m, or 35%), and an aspect of training that the Department for Business Innovation and Skills take a keen interest in, in recent history NERC has not reviewed its approach to CASE studentships.

Therefore, to provide quality assurance regarding NERC collaborative training and inform the future strategic direction of this scheme, NERC completed a survey of current and former NERC students, NERC supervisors, non-academic supervisors and research managers inviting responses regarding these groups' engagement with NERC collaborative training.

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<sup>1</sup>The business of the environment (NERC Strategy):  
<http://www.nerc.ac.uk/latest/publications/strategycorporate/strategy/the-business-of-the-environment.pdf>

## Survey Summary

NERC received 615 survey responses. Of these, 335 were from students, 162 from academic supervisors, 58 from non-academic supervisors and 60 from research managers. Of the 335 student questionnaires returned, 210 were from students, 90 from CASE students, 28 were unknown and 7 skipped the question.

The survey invited responses regarding the NERC allocation mechanisms for CASE awards, the quality of the training provided, the impacts and outcomes of collaborative training on the student training experience as well as more broadly, the nature of collaborative training relationships, barriers within the schemes, and suggested improvements.

## CASE Review Outcomes

The information collected through the 2014 survey was presented to the NERC Training Advisory Group (TAG) for approval at the December 2014 TAG meeting. NERC had prepared suggested outcomes from the survey information and invited the TAG to comment on these and to make additional recommendations regarding collaborative training. The recommendations from this process are:

### **I. The CASE scheme supports quality student training and should continue.**

The quality of training supported through the CASE scheme was good where between 58% and 82% (depending on the aspect of training) of CASE students rated the training provided by their academic institution as good or very good. In addition, students were receiving an appropriate level of multidisciplinary training and were satisfied that the training provided equipped them with the skills they believe are required to pursue their chosen career. However, some aspects of broader training skills, such as entrepreneurial awareness, were rated less highly. More non-CASE than CASE students have taken part in other NERC training activities.

*NERC should ensure that CASE students are fully aware of the additional training options available to them.*

Overall, training provided by the non-academic CASE partner scored less highly than that provided by the academic institution, though 79% of CASE students rated the technical and practical training they received as good or very good. The outcomes of CASE studentships (e.g. the translation of science into commercial tools, experience of collaborative working, research outputs, the opportunity for non-academic partners to recruit high performing students) indicate that these studentships are contributing to sustaining the flow of top talent and skills for UK science, business and government.

*NERC should continue to invest in CASE studentships.*

**2. The placement is an important and defining requirement of CASE studentships and the requirement to undertake a placement must be enforced and monitored.**

The proportion of students who participated in a placement was low. The majority of placements consisted of multiple, periodic placements as opposed to a single continuous placement. It was concerning that nearly a quarter of placements did not meet the 3-month minimum requirement. The majority of students and supervisors were satisfied with the timing of their placement as they had the flexibility to decide the most appropriate point during the studentship to take up the placement. The placement is an important mechanism for delivering additional benefits from CASE studentships providing skills that would not have been acquired through an academic setting alone. These benefits have a significant impact on training, skills development, the research project, and on the participating organisations.

*The opportunity for students to participate in a placement is a major strength of the scheme and the requirement to undertake a placement must be clarified, enforced and monitored.*

*NERC should provide additional guidance about the purpose of the placement.*

**3. The requirement for non-academic CASE partners to make a £1000 per annum financial contribution to studentships should be maintained but the payment should be made to the Research Organisation rather than directly to the student.**

The provision of a financial contribution from the non-academic partner is a complex issue as these partners range from SMEs and charities, to large companies and government departments. However, the financial contribution from the non-academic CASE partner was beneficial to both the quality of the student recruited (29% of academic supervisors rated this as extremely beneficial) and the quality of the student's research project (48% of academic supervisors rated this as extremely beneficial) and the level of financial contribution was deemed appropriate, focusing the interactions between academic and non-academic CASE partners so that they develop the partnerships that are most likely to succeed. The community considered that a higher contribution would hinder collaboration but an appropriate contribution works to ensure commitment and 'buy-in' from the non-academic CASE partner.

It must also be noted that in-kind contributions from non-academic CASE partners also had an extremely beneficial effect on the quality of the research project.

*To ensure maximum benefit, the financial contribution should be paid to the Research Organisation to increase funding for the research project, rather than be paid directly to the student to enhance the stipend.*

**4. NERC should provide further clarity on the differences between its two CASE mechanisms (industrial CASE competition versus CASE studentships funded via doctoral programmes CDTs/DTPs).**

The majority of academic supervisors considered the overall assessment and application process to be good. However, the community was not clear on the differences between the two CASE mechanisms, particularly around eligibility of the non-academic CASE partner. NERC Research Centres are currently eligible to be the non-academic CASE partner on CASE studentships funded via doctoral programmes CDTs/DTPs, contributing towards the 30% requirement. There was some concern that NERC Research Centres do not represent 'true' non-academic partners, however their participation in these studentships helps to stimulate maximum collaboration.

*NERC Research Centres should remain eligible to be the non-academic CASE partner on CASE studentships funded via doctoral programmes CDTs/DTPs but NERC should review this once the DTPs and CDTs are embedded.*

The industrial CASE competition aims to stimulate new partnerships and opportunities for students. This is maximised through the completion of a placement outside the academic environment. To ensure engagement with the wider end-user community, and to continue to maximise new opportunities for students, it should remain that NERC Research Centres are not eligible to be the non-academic CASE partner in the industrial CASE competition.

*Clarity regarding these differences needs to be provided, particularly around the eligibility rules applied to Research Centres and Independent Research Organisations.*

The most successful studentships will be those involving a genuine partnership between the student, academic and non-academic supervisor built through the development of a joint project at the outset. The success of a studentship will also be influenced by the level of engagement of the non-academic CASE partner and the strength of the collaboration. Providing academia and industry with additional guidance on the aims of the CASE scheme (and the purpose of the placement; see Recommendation 2) would be beneficial to ensure that all parties have a clear understanding of their role in the studentship at the outset.

## **5. Current international eligibility rules are suitable**

Current international eligibility rules state that international organisations can act as CASE partners as long as they have an established base in the UK. Applicants are also advised that international organisations must be able to provide the student with an opportunity to gain skills that could not be provided by a UK-based partner.

*Prioritising UK-based non-academic CASE partners is beneficial to the UK economy and therefore the current international eligibility rules should remain.*