



## **NERC management response to the independent report on the 2016/17 mid-term evaluation of NERC Doctoral Training Partnerships (DTPs) – July 2017**

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This document provides NERC's response to the recommendations within the independent report.

### **Responses to the DTP evaluation recommendations**

**Recommendation 1:** As the DTP model appears to be working, it should continue to be supported by NERC as a PhD training mechanism beyond the lifetime of the current scheme (and the current DTP awards should continue for their planned duration).

**Response:** NERC notes that this recommendation refers specifically to the DTP scheme as a PhD funding and training mechanism, and not one particular model of management or training delivery adopted by individual DTPs.

- Current DTPs utilise a wide range of training models, including various combinations of: periods of pre-project specialist training; student-led project development; integrated training throughout the course of a PhD; training tailored to individuals; and whole-cohort training courses. NERC's DTPs also comprise a wide range of sizes of consortia with different levels of geographical distribution.
- As noted in the evaluation report, the quantitative data do not highlight any one particular DTP training model or structure as being more effective or preferred by students. This fits with experiences reported by DTPs and students during the evaluation that different models work for different partnerships and different individuals.
- The variety of training models and structures available through the current DTPs is seen as positive in terms of students' choice of training programme.

**Recommendation 2:** The key elements of the DTP model including embedded transferrable skills training and interactions with a range of partners should be continued.

**Response:** NERC welcomes this recommendation and is in agreement that DTPs should continue to deliver transferrable skills training as part of their PhD programmes and continue to ensure quality engagement and collaboration with DTP partners.

**Recommendation 3:** DTPs should ensure that all students have a TNA [Training Needs Analysis] and are aware that they have had it, or at the very least have adequate opportunities to discuss their training needs and the opportunities available to them, from the outset of their PhD.

**Response:** This recommendation is welcomed by NERC and has been identified as an example of good practice. It is particularly important from NERC's perspective that all students have the opportunity to discuss training needs before training is undertaken or, at least early in their PhD training. NERC is clear that DTP training programmes should offer the flexibility to address individual needs as necessary.



Discussion of training needs should also involve input from end-user partners, where appropriate, and take place within the context of potential future careers, as noted in Recommendation 4.

**Recommendation 4:** More overt career training should be provided early in the programme (and offered to any student cohorts that have not yet had such an opportunity).

**Response:** NERC strongly supports this recommendation. As noted in the evaluation report, many of the students that engaged with the evaluation process indicated the desire for more explicit careers advice earlier in their PhD, especially with regards to the various options available to them outside academia.

**Recommendation 5:** DTPs should maximise, within reason, opportunities for students to develop networks of peer support and gain multi-disciplinary perspectives from other students during inter-cohort activities across the range of DTPs.

**Response:** NERC welcomes this recommendation and continues to encourage DTPs and CDTs, funded by NERC and other research councils, to work together to deliver collaborative events across cohorts and disciplines as appropriate. Feedback during the DTP evaluation was that students would value more cross-DTP events, potentially at the national level.

**Recommendation 6:** The development of brief handbooks for both students and supervisors is recommended to specify and clarify NERC's expectations of each party and improve consistency.

**Response:** NERC welcomes and supports this recommendation and has identified this as an example of good practice. Clarification for both students and supervisors regarding provision of resources, access to training opportunities, shape of the DTP partnership, and expectations of all parties up front in a readily accessible document is of benefit to all. This should ideally be made available to students prior to their arrival to inform training needs.

**Recommendation 7:** DTPs and supervisors should make sure that CASE studentships are meeting the minimum requirements and that students are fully aware of what a CASE studentship involves.

**Response:** NERC supports the recommendation that supervisors within DTPs should ensure that both partners and students are aware of what CASE studentships involve and that these minimum requirements are met. There is some evidence through ongoing monitoring processes that not all DTP studentships labelled as CASE are meeting the minimum CASE requirements in terms of financial contribution and placement duration. Furthermore:

- Feedback received during the evaluation indicates that developing formal CASE partnerships can be challenging for DTPs, especially when trying to engage with smaller businesses that may not be able to commit financially but can provide substantial in-kind support. NERC acknowledges this and actively encourages all types of non-CASE collaboration within DTPs (and CDTs), which are also highly valued. These are recorded through ongoing monitoring processes.
- It should also be acknowledged, however, that CASE studentships present a recognised (and successful) mechanism for supporting collaborative training. NERC will therefore continue to encourage conversion to CASE studentships in line with the current DTP terms and conditions.
- It is acknowledged that there is confusion regarding the differences between NERC's two mechanisms for delivering CASE studentships (DTPs/CDTs and the Industrial CASE competition). NERC will endeavour to further clarify the objective of the CASE scheme as a whole, and the requirements and expectations for its delivery mechanisms.



**Recommendation 8:** Development of student-focused case studies and other measures to demonstrate the impact of non-academic partner interactions on success in PhD projects, as well as on career learning for either an academic research or other trajectory, is recommended.

**Response:** NERC recognises and supports this recommendation but notes that it will take time for such student outputs to provide a significant contribution to impact analyses:

- At this point in the DTPs' lifetime, only a small number of students surveyed and interviewed had taken part in an internship or non-academic placement, although a number of other students surveyed did report having a non-academic supervisor contributing to their project.
- Feedback from those that had spent dedicated time with a non-academic partner was very positive with regards to the transferrable skills acquired, impact on the potential quality of their project, and experience of alternative career trajectories.
- Discussions during on-site visits suggested that DTPs and students could be further encouraged to produce case studies and testimonials to boost uptake of such opportunities across the network of DTP cohorts.
- Such case studies, and other outputs of student interactions with end-user partners, would be valuable to both NERC and the DTPs in demonstrating the impact of interactions between students and non-academic partners.

**Recommendation 9:** Improvements are needed to DTPs' approaches to the interaction with end-user organisations in delivering wider training and improving visibility to end-users.

**Response:** NERC commends the relationships already built by DTPs with end-user partners and encourages them to address this recommendation by continuing to build engagement opportunities into students' training as early as possible. Involvement of end-users and visibility/consideration of their needs in delivery of cohort-level training (as well as in individual student projects) is noted as an example of good practice arising from the DTP evaluation. This is based on feedback received during the DTP evaluation:

- End-user partners interviewed during the DTP evaluation said they value their interactions with DTPs highly and particularly welcome the opportunity to feed into/advise on development of projects and delivery of training at an early stage to ensure DTP PhD students' outputs have maximum impact potential both within and beyond academia.
- There was also a feeling among some end-user partners that there is potential for greater collaboration through DTPs than through the previous algorithm scheme, given the ability to engage at the cohort training level as well as through individual PhD projects.

**Recommendation 10:** DTPs should have a formal mechanism through which to seek external input from end-users (for example an advisory board) into training- and management-related decisions.

**Response:** NERC supports and recognises this recommendation in full. As noted in the previous response, consideration of end-users' needs at an early stage when developing PhD training programmes, and involvement of end-users in the delivery of training are seen as examples of good practice for DTPs. Likewise, taking advice from end-user partners when making strategic management and training decisions is seen as an effective way of ensuring this input and engagement is achieved at the appropriate stage.

**Recommendation 11:** Development of an agreed range of outcome measures for students and alumni, and an appropriate control group of other PhD students, would be valuable in any future assessments of impact (and host institutions should identify in their HESA student record data that a PhD student has been trained in a DTP).

**Response:** NERC accepts this recommendation and encourages all its training grant award holders to continue to ensure accurate data records are maintained for all their students through NERC's main



reporting mechanisms (annual reports, Je-S records, ResearchFish), and other national reporting mechanisms. In particular, destination data for DTP and CDT students will be extremely valuable in demonstrating the long-term impacts of these awards. This recommendation provides helpful guidance for NERC to inform future evaluations of its PhD training investments, an important aspect of which will be ensuring suitable data on student outcomes are available for future analysis by NERC and other research councils.

## **Additional comments**

In addition to the recommendations provided in the independent evaluation report, NERC would like to take this opportunity to capture and note several points that emerged in the process of the evaluation and engagement with DTPs. This section should therefore be considered as providing additional context to the evaluation findings.

### ***Administrative resource***

- There is consistent feedback from DTPs that the ‘management costs’ element of NERC studentship funding (£1500 per notional studentship) is insufficient to cover the full management/administrative costs of running an effective DTP programme that meets all of NERC’s requirements. There is a wide variety of approaches taken by DTPs to this challenge – all have at least some part-time administrative resource (often paid for by DTP partners) dedicated to the DTP, and some have a dedicated full-time administrator.
- The DTP evaluation highlighted the value that such dedicated administrative resource adds to delivery of a DTP. NERC recognises the challenge of balancing studentship numbers, training provision, and necessary associated administrative requirements and this will be taken into consideration when discussing DTP2 investment.

### ***Part-time students and widening participation***

- The independent report noted that a very small proportion of NERC DTP students studied part-time compared with both the wider NERC remit student population and the PhD population as a whole.
- While no specific recommendation was made in the report with regards to future DTP investments as a result of this finding, it was still of interest to NERC in the context of the widening participation agenda. The ability to offer flexibility in PhD training, and thus widen participation, is something that is facilitated by the format of the NERC DTP scheme, which has enabled award holders the freedom to develop a wide variety of training models. NERC will continue to enable organisations to utilise training grant funds flexibly in order to support part-time students. Such flexibility should also be facilitated within individual DTPs as part of their training delivery mechanisms and recruitment practices.

### ***NERC added value innovation training funding***

- The majority of feedback regarding the benefits of the added value innovation training funding has come from the DTPs and CDTs themselves (rather than the students).
- The innovation training funding was positively received and many DTPs have spoken of their appreciation of the additional opportunities provided by this funding to widen their training offering to students.
- It is difficult to gauge the impact of dedicated innovation training funding based specifically on student feedback. This is because students interviewed during the DTP evaluation were often unaware of the label that was given to a particular type of training activity and therefore did not always know that they were taking part in innovation training funded by NERC. Also, at this early stage in students’ careers, many of the impacts of such training may not yet be apparent. If it is possible, by working together with the DTPs, to track the longer-term outcomes of those students who have attended innovation training courses provided by DTPs, such evidence of impact may emerge over time.



- NERC recognises the feedback from DTPs regarding the timing and unpredictability of the two rounds of added value innovation funding, which has not allowed for effective forward planning and may have limited DTPs' ability to maximise the benefits of the investments. NERC is appreciative of this and will include consideration of dedicated innovation training in its decision-making regarding DTP2 commissioning.

### **Excellent students**

- As noted in the independent report, all DTPs demonstrated excellence in both quality of research and quality of students.
- There is, however, some evidence of difficulty in balancing recruitment of the best students with meeting either NERC's or an individual DTP's research and collaboration objectives. Academic excellence is consistently prioritised as a means of selecting applicants to DTPs, which is appropriate, but has the potential to increase the risk of creating remit gaps in the longer term if competitive applicants are not identified for less well subscribed projects.
- NERC's 'Excellent Students' success criterion requires that "NERC funding goes to the right or 'best-fit' student – the individual whose previous training, experience and skills best suit the type of training being undertaken". The qualities of such a student will differ between research areas and individual projects. Consideration should therefore be given to the potential for excellence in studentship outcomes – that is, what a particular individual can bring to a project and what sort of graduate they would be as a result of the DTP's PhD training.

## **Examples of good practice**

NERC has identified a number of examples of good practice as a result of the DTP evaluation. These are summarised below and will inform decision-making with regards to commissioning DTP2, as well as providing guidance for existing NERC DTPs and CDTs as part of the ongoing performance monitoring process.

Examples of good practice identified through the independent analysis of survey data and TAB's interviews with DTPs are:

- Dedicated administrative resource: There are clear benefits from having dedicated administrative resource within a DTP's management structure to provide a reliable point of contact for students and partners and coordinate effective delivery of the agreed training programme.
- Engagement with end-users (industry, policy, third sector) early in students' PhD programmes and in all aspects of training delivery.
- Appointment of external advisory board(s) to guide progress of the DTP.
- Student representation within DTP management structures.
- Seeking input from end-users in development of training programmes and in strategic management of the DTP.
- Provision of student/supervisor handbooks outlining terms and conditions, training opportunities and expectations.
- Training needs analysis (TNA) early in students' PhD programme to identify individual needs and sufficient flexibility of training to enable those needs to be met.
- Opportunities to discuss career trajectories (including those outside academia) and career-relevant skills from an early stage in students' PhD programmes to inform their decisions regarding collaboration and relevant training opportunities in a timely manner.
- Cross-DTP training events and networking opportunities to encourage peer-to-peer learning and support and multidisciplinary thinking.

