

Engineering and Physical Sciences Research Council

# Tips and considerations for university ICASE management staff

EPSRC held a workshop with representatives from ICASE-hosting universities where we discussed recruitment and placements. Many suggestions arose from this which you may find useful to consider.

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# **ICASE** Recruitment

- We encourage academics/departments to communicate with their university's ICASE management staff early in the process of developing ICASE projects with industrial partners. ICASE projects are usually initiated by the industrial partner, but we recommend you work with them when developing/refining the projects and writing the advertisements. We encourage you to consider a <u>responsible innovation</u> process.
- Advertising enhanced stipends may encourage applications. We recommend discussing this with industrial partners when developing projects so it may be factored into their cash contribution to each project. It may also be helpful to consider tax thresholds, so students don't lose out.
- Adverts could highlight the unique benefits of ICASE, e.g., working closely with a business on an industry-relevant challenge, building networks, an enhanced stipend (where appropriate), and at least 3 months' worth of placements. It may be useful to briefly outline what form the placements may take and, where there is flexibility, that it doesn't need to be taken in one block with a suspension. It is a condition of the scheme that placements are offered, but students shouldn't be forced to undertake a placement if they really don't want it. EPSRC has a small library of ICASE blogs with students and alumni describing their work and experience as an ICASE student.
- A rigorous, co-ordinated recruitment drive, with advertisements which are clear about minimum requirements, may encourage a good set of applications while



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reducing "spam" and making it easier to co-ordinate the 30% cap on international students.

- Very narrowly focused projects may struggle to attract applicants, so try to make projects and advertisements as open and interesting as possible. There may also be scope for the incoming student to shape the work. If so, this might also be noted in advertising.
- Besides *jobs.ac.uk* and *findaphd.com* it may be worth considering alternative avenues for recruitment, such as LinkedIn or New Scientist. Some industrial partners might advertise on their own website. An advertising budget could be discussed with industrial partners and form part of their contribution. Career Days may also help promote opportunities.
- EPSRC encourages you to support a diverse and inclusive research environment where there is equal access to opportunities. A text-checking platform such as <u>Textio</u> may be considered when writing advertisements. <u>Guidance and resources</u> can be found on our website. Consider providing staff with training on Equality Diversity & Inclusion, effective interviewing, and good recruitment practice.
- If academics are struggling to advertise because they are lacking previous successful examples, then the university ICASE management staff or industrial partner may be able to help.
- Contract negotiations can take time, particularly when new partnerships are being established. This may delay recruitment, so try to begin as soon as possible. Avoid "email tennis" by getting all relevant parties into a meeting to negotiate and expedite the process. Template contracts may make a useful starting point. The <u>Lambert Toolkit</u> may be useful when creating a collaboration agreement. IP agreement challenges formed part of the discussion at the 2023 EPSRC Prosperity Partnerships showcase, and while there were no big solutions provided, there was general agreement that it's wise to start early, discuss early, decide early, and only bring lawyers in at the end to formalise the agreement.
- Part-time study should be offered as an option, as noted in UKRI Training Grant Terms & Conditions TGC 5.3.
- ICASE has a specific condition whereby smaller grants have more flexibility those comprising three or fewer studentships may still recruit up to one international student.
- It is a condition of the scheme that the university shares the ICASE terms & conditions with the other parties involved in the project. These are included in the Offer Document. Ensuring everyone has access to these may minimise misunderstandings.



## ICASE Student retention and withdrawal

- It is important for the academic supervisor to maintain good communication with the student and deal with issues before they become a problem. The quality of supervision can make a difference to the student's progression with their project. It might be helpful to also provide someone independent that the student can turn to.
- It is important that the industry supervisor is in the communication loop as well. This may also mean it is easier for a replacement to step in if the industry supervisor moves.
- Consider bringing students together into a cohort for training and support. Reading groups and cohort meetings can supplement the student's experience. ICASE students further along their course might act as a mentor or buddy to newer students.
- When a student withdraws it may be possible to recruit a replacement if sufficient time and money remain on the grant. The replacement must be entitled to the full benefits of ICASE outlined in the conditions. We suggest the cut-off is at about 10-12 months, at which point a significant amount of funds will have been spent meaning it is likely no longer possible to meet UKRI Training Grant Condition (TGC) 4.5, whereby at least 50% of the total studentship cost must come from a single Council. Additionally, too much work will have been done on the project to make it suitable for a new 4-year studentship. Where there is a shortfall in funding, this may be covered by the industrial partner and/or university, making sure TGC 4.5 is met. Alternative routes may be explored where it is not possible to continue funding the project through ICASE.
- Where multiple awards make up an ICASE grant there is some flexibility permitted in allocating the funds, providing no student/project is disadvantaged.
- If there is insufficient time remaining on the grant for a student to complete, then a no-cost extension may be possible. These are generally up to 12 months in duration and are judged on a case-by-case basis. Please contact EPSRC.

### Placements

#### Expectations and minimum requirements

- It is a condition of the scheme that industrial partners must offer a placement to each of their ICASE students, who may accept or refuse it. If an in-person placement at the industrial partner is not appropriate (e.g., due to insurmountable security issues) then an alternative placement should be sought. Please notify the EPSRC ICASE team if a student wished to undertake a placement but was not provided one.
- The academic and industrial supervisors, along with the student and with some support from the university's ICASE management staff, should be dedicated to ensuring that the student gets the best possible experience during their placement.



Setting up a dedicated placements team might be an excellent idea if this is feasible.

### Benefits of placements

- A report on ICASE benefits commissioned by EPSRC in 2018 found that, "Transferable skills, enhanced by the experience of working closely with the company, were frequently cited as the single most valuable benefit by students. The placement played an important role in facilitating this, exposing students to the company context, additional training, wider networks of technical, R&D and leaders within the company."
- Placements can provide many benefits for students, including increasing their understanding of the problem area/research context, grounding their research, helping with exam and interview preparation, broadening of horizons, strengthening their relationship with their industrial supervisor, building networks, providing a work reference, seeing various employment/career options and opportunities, and gaining knowledge, awareness, training and skills that might otherwise be unavailable to them (e.g. in commercialisation, strategy, and management). Sometimes a student may hit a block where the academic side of things is not progressing, and the placement can help as they can bounce ideas off a different group of researchers.

#### **Planning placements**

- The placement should be integral to the studentship, not an afterthought. It is good to discuss basic plans for the placement with the industrial partner during the planning stages. Provision for the placement(s) should be written into the collaboration agreement, bearing in mind that things may change as the project progresses. It is important to balance doctoral objectives with industry objectives. Planning should include catchups between the student and their academic and industry supervisors (perhaps with involvement from the university ICASE management staff, if appropriate) to ensure the placement is optimal. Once arrangements are clearer, a formal placement plan will ensure all parties have the same expectations, and help things run smoothly.
- When planning a student's placement, it is essential to consider its purpose. This may include any or all of the following: an opportunity for integral project work; providing real experience of working for industry; building confidence; networking with industry leaders and experts; brainstorming and testing ideas; connecting to new opportunities and linking with other projects and people. Students should be involved in the planning of their own placement, so they understand the expectations on them, and are able to get the most out of the experience.
- Think about logistics, transportation and accommodation requirements at an early stage, especially where a student has particular needs, or where the placement is overseas. Where there are challenges such as geographical location, IP concerns, or caring commitments, etc., consider possible ways to make placements work. Where it is impractical to surmount challenges then an alternative placement may be sought as described elsewhere in this document.



- All parties need energy, enthusiasm, and motivation to make placements work. The following will all help make a successful placement: preparation, pre-work, planning, making the incoming student feel welcome, and providing a good induction and safety training. There are other important experiences that don't have to be related to the project. For example, getting the emplaced student involved in team/strategy meetings can help them feel they are working with the company.
- Students may have an uneven experience if each placement is arranged separately, so it may be a good idea for the university's ICASE management staff to help co-ordinate placements with the academic and industry supervisors (or at least be looped into conversations). The ICASE management staff can then develop a holistic view of placements at their university, learn what really works well, and thus provide advice on getting the most out of them.
- It is vital to create a clear set of expectations for all parties involved in each project. For placements, this may include the timing and structure (whether it happens in one block or in multiple parts), and what activities are expected. It might be useful to create a template for placements to standardise and simplify the process (or as a first point of reference), bearing in mind that flexibility is important and there will not be a one-size-fits-all solution.
- The student should essentially be treated as a temporary employee while on placements, being provided with a desk, IT equipment, an induction, and a mentor. Consider the pace of work needed a productive work environment is good, but it is important that the student doesn't feel like they are working a full-time job and doing their doctorate at the same time. A lack of technical equipment at the company is not a good reason for not offering a placement, as there are various approaches and a multitude of benefits to be gained. Discussing plans at an early stage, and evolving them over time with the student's input, will help ensure that an appropriate and valuable experience is provided.
- Where a placement with the industrial partner cannot take place, consider a placement with an alternative, relevant company. Perhaps a combination might work a virtual placement with the main industrial partner alongside an in-person placement with a different company. All parties will need to agree to this and ensure there are no conflicts of interest.
- Fully- or partially virtual placements can work if an in-person placement is not appropriate, or impractical. The nature of the project may determine how effective a virtual placement might be, e.g., consider if the industrial partner can send samples/data to the student. The student may not get the same interactions with colleagues and won't get to experience the facilities, but it may be possible for the student to shadow an employee. A remote placement is better than no placement, but the aim should still be to provide a good representation of working with the industrial partner. A virtual placement should not be used as a convenience.
- This flowchart may be useful when setting up different types of placements: <u>https://www.ukri.org/wp-content/uploads/2021/10/EPSRC-14102021-</u> <u>PlacementsInternships-Flowchart.pdf</u>



## Support and development

- Continual Professional Development is important for all involved in placements, including the student, supporting staff and academic supervisors. All should keep up to date with the latest policies and processes relating to supervision and placements as these can change. It is helpful to share experiences, tips and considerations with other supervisors and the university's ICASE management staff, so others can learn, and improve the placement experience for other students.
- We recommend maintaining regular communication with students during their placements, so issues can be identified quickly, and positive experiences recorded and hopefully replicated.
- We appreciate there may be an administrative burden involved in running placements. Gathering experience and advice from academic supervisors, students and other colleagues (including those from other universities) may improve efficiency, make management easier, and lead to better outcomes.
- Inexperienced supervisors might be able to approach their university's ICASE management staff for advice when planning placements, and the industrial partner may also have experience of running placements. It doesn't make sense to have to "reinvent the wheel" each time.

#### Structure and timing of the placement

- Think about the structure of the placement and how it will fit into the student's academic timeline to enable them to gain the greatest benefits from it. Some individuals benefit more from taking the whole placement in a single block, while others find frequent/regular engagement is preferable (e.g., a day, or a week at a time). Having multiple shorter placements over time can help the student become more involved in the research with the partner and become embedded in the company beyond just their project area. Placements at a significant distance from the student's base may be better taken in a large block to minimise travel. While an overseas placement can be the right option, and may seem attractive, consider if it is the best option for the student. A local placement may permit more flexibility and enable multiple visits to occur over a longer period.
- In terms of timing, an early placement can be a training opportunity and may really help develop relationships and deepen understanding for the project ahead. Some report that the optimum time is around 18-24 months into the project, and that placements are particularly useful when the outputs can be used as part of the final thesis. A placement towards the end of the studentship may help with commercialisation of work, and/or be beneficial towards recruitment of the student by the industrial partner but leaving it too late may disrupt the student's ability to focus on their thesis and future plans.

#### Awareness of placements and preparation

• Helping students to understand the benefits of placements may improve the success rates and lead to more students achieving more positive outcomes.



- To avoid surprises down the line, it is wise to mention the essential parts of the project when recruiting. For ICASE this includes making applicants aware that ICASE offers the student at least 3-months' worth of placements, normally to be taken with the named industrial partner (perhaps mentioning the location).
- The industrial partner's safety procedures and other relevant processes might be shared with the student well ahead of their placement to prepare them for what might be a significantly different working environment.

# **ICASE** Industrial partner withdrawal

- If the industrial partner withdraws before a project starts, and there are still at least 4 years remaining on the grant, then you can try to find a new industrial partner. Recruitment of a student should not progress until a partner is found. The same terms and conditions apply to the replacement partner as the original. A different project can be developed but must be approved by EPSRC before commencement. Please send us a summary of the new project so that we can check remit and update our records, clearly noting the following:
  - Academic Supervisor
  - Industry Supervisor
  - Project title
  - Summary (up to 150 words)
  - Key research questions (up to 150 words)
  - Outline of work and training the student would undertake (up to 150 words)
  - State how project fits within at least 50% EPSRC remit, and at least 50% TRL 1-3 (Basic principles observed; Technology concept formulated; Experimental proof of concept) (up to 50 words)
  - A letter of support should also be provided by the new industrial partner, and must:
    - Have the company letterhead.
    - Be addressed to EPSRC, Polaris House, Swindon SN2 1ET.
    - $\circ~$  Be dated no earlier than six months prior to receipt.
    - Include the project title, the cash contribution value (at least one third the value of the EPSRC ICASE award), and confirmation that the company intend to support the studentship at the partnering university.
    - Be signed (digitally applied signatures are acceptable).
- If the original industrial partner withdraws part-way through the project, then the student should continue to be supported from the EPSRC ICASE grant. We encourage you to continue providing the best possible experience for the student, keeping in mind the objectives of the ICASE scheme. An alternative industrial partner may be sought, but if one is not quickly found then consider other ways to expose the student to businesses and relevant experiences.



# **Useful links**

- General information about ICASE / ICASE student's experience blogs
- <u>UKRI Training Grant Terms and Conditions</u>
- <u>ICASE Grant Additional Conditions</u>. For reference. Minor changes may be introduced before the new ICASE grants are generated
- <u>Konfer</u>. The Konfer platform helps you discover and engage with experts beyond your typical reach and discuss new ideas and opportunities for projects.
- <u>Guidance, policies and standards</u> on research ethics and integrity, open research and responsible innovation.