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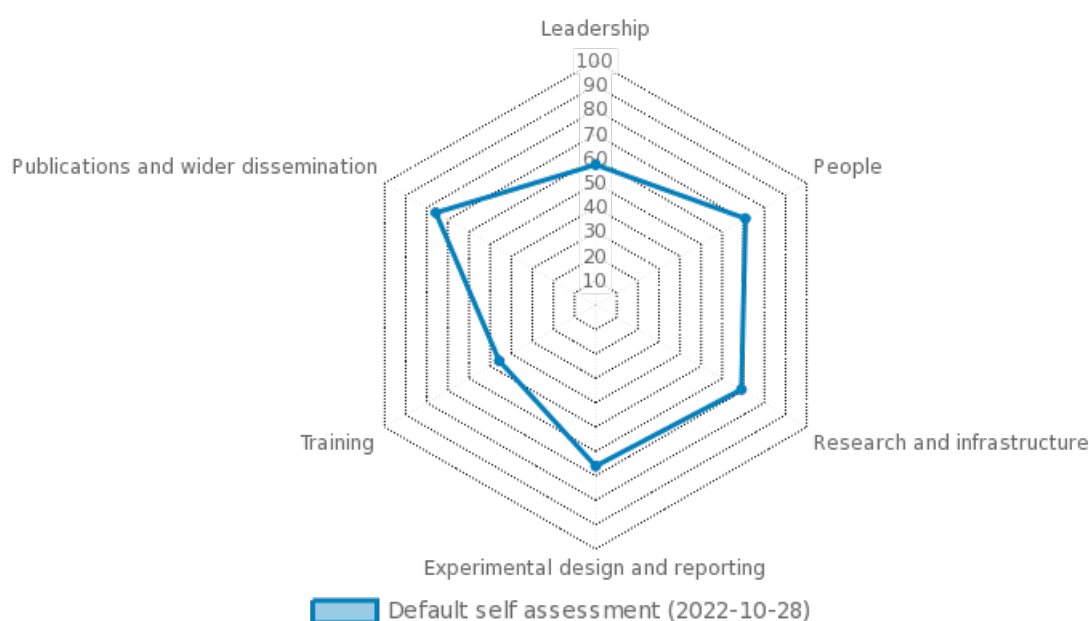
Default self assessment

Executive Summary

Thank you for completing the 3Rs-self-assessment for your research institution. Your score for each section is presented in the spider diagram below along with detailed feedback, including links to further resources and examples of initiatives from other institutions.

Scores are calculated based on your responses to the question set and the predetermined weightings for each question and statement.

It is recommended that you save a PDF copy of this report for future use. To get the most out of the self-assessment process it is important that you discuss the results with your AWERB or equivalent local ethics committee so that feedback can be actioned. The 3Rs self-assessment can be repeated over time, allowing you to track progress and identify areas for further improvement.



Fair Leadership: taking a strategic approach

Fair People: ensuring the right culture

Fair Research and infrastructure: supporting the best science

Fair Experimental design and reporting: robust and reproducible studies

Fair Training: building capability

Good Publications and wider dissemination: sharing impacts

Fair

(57.52%) Leadership: taking a strategic approach



Your institution's commitment to the 3Rs should be made clear to all members of staff, driven by senior members of staff and supported by existing infrastructure.

Your responses in the Leadership section indicate your institution has made some progress in committing to the 3Rs but needs to make further improvements in fully realising and communicating this commitment. Read the following detailed analysis of your responses for feedback and guidance on how to improve.

- **The institution's policy on animal use:** Including a commitment to the 3Rs in your institution's policy on animal use makes their importance clear. It demonstrates that all members of staff should be aware of the 3Rs and apply them to their own activities. If you have not done so already, you could also provide examples of how your institution has [replaced, reduced and refined](#) the use of animals in research, as demonstrated by Queen Mary University of London.
- **Driving and coordinating activities effectively:** Having a dedicated member of staff driving and coordinating your institution's 3Rs activities is key to ensuring that these activities are successful. The AWERB (or equivalent local ethics committee such as the IACUC) may play a vital role in identifying 3Rs priorities, but an academic 3Rs lead, preferably a senior member of staff, can encourage support from others within the institution but outside the committee. This would also make it clear that the institution is striving to apply the 3Rs beyond that required under the legislation.

Your institution should address all three of the 'Rs' through dedicated activities. If any were not represented, this would indicate that another party, such as an academic 3Rs lead, should be responsible for coordinating activities. Your answers indicate that the Named Persons (or equivalent) have successfully driven and coordinated replacement-focused 3Rs activities over the past 12 months. This is particularly impressive as Named Persons (or equivalent) often focus on refinement and reduction, rather than replacement.

The Named Persons (or equivalent) have not driven and coordinated reduction-focused 3Rs activities over the last 12 months, which should be addressed urgently.

Over the past 12 months the Named Persons (or equivalent) have not driven or coordinated any refinement-focused 3Rs activities. This should be addressed urgently, ensuring all three of the 'Rs' are represented in your institution's activities.

- **The role of the NC3Rs Regional Programme Manager:** Additionally, some institutions have an NC3Rs Regional Programme Manager to help coordinate 3Rs activities.
- **Taking a strategic approach:** Your institution's general policy on animal work should include a commitment to the 3Rs, but a more detailed, standalone 3Rs strategy document should also exist. This should outline the status of the 3Rs at your institution and priorities for improvement. For help with developing and implementing a 3Rs strategy, see this [guidance document produced by the NC3Rs](#).

By allocating staff time to support 3Rs activities, your institution is ensuring staff are able to execute them fully and demonstrating a clear commitment to the 3Rs.

- **Allocating resources:** Your institution has made a small financial commitment to support some 3Rs activities, which will help those activities succeed. However, wider support of all 3Rs activities would send a strong message about their value and encourage greater advances.

Because your institution's policy is visible to the public, your commitment to the 3Rs is clear to these key stakeholders, which helps to address any concerns about your use of animals in research.

If your institution's Named Persons (or equivalent) are leading on 3Rs activities, they should meet regularly to discuss them specifically rather than including them within other meetings. Doing this will help ensure these activities progress faster.

Departmental 3Rs champions can act as local representatives within your institution, helping to widen engagement with 3Rs activities. You should identify individuals from across your institution that could fulfil this role.

Everyone involved in the care and use of animals in research at your institution should engage with the 3Rs.

Your responses in the PEOPLE section indicate that there is some engagement with the 3Rs at your institution, but improvements could be made either to your overall approach or that of specific groups. Read the following detailed analysis of your responses for feedback and guidance on how to improve.

- **Accessing the latest information:** Circulating the monthly NC3Rs newsletter is a good way to share up-to-date 3Rs information with members of staff at your institution.

In highlighting the 3Rs in departmental and/or facility newsletters you are emphasising their importance within your institution and helping to reach a wider audience.

By involving staff in the production of your newsletters, you not only ensure it contains the most relevant information, but also increase engagement with the newsletter and the 3Rs more broadly.

- **Supporting ideas and initiatives:** Undertaking pilot studies of new 3Rs ideas before implementing them more widely helps confirm whether they lead to the expected improvements. Staff involved in a pilot study become more engaged with the 3Rs and can support dissemination of the idea through providing training.

Your animal care staff are benefiting from expert advice on designing pilot studies, which means they will produce results that can be easily and reliably interpreted. Relevant to this will be the [Evaluating environmental enrichment resource](#) on the NC3Rs website which contains [example enrichment study protocols](#) to empower technical staff to undertake robust evaluations of environmental enrichment items and assess their impact on animal welfare.

Your researchers are benefiting from expert advice on designing pilot studies, which means they will produce results that can be easily and reliably interpreted. Providing this support to researchers highlights that experimental design should be a key consideration regardless of who is performing the pilot study. If not doing so already, you may also wish to consider using the [NC3Rs Experimental Design Assistant](#) to provide further guidance to researchers on designing more rigorous experiments, including pilot studies.

Allowing staff to dedicate time to undertaking pilot studies demonstrates your institution's commitment to new 3Rs ideas and increases their chance of success.

Piloting 3Rs advances not only requires time but also financial commitment. Providing some support communicates that your institution values this work, but a greater commitment would enable more work to be done.

By making it clear that there is high-level support for the uptake of validated 3Rs initiatives, you are maximising their impact across your institution. If not already, ensure that this support is outlined within the 3Rs strategy (where in place).

Animal care staff and researchers at your institution have proposed 3Rs initiatives and conducted pilot studies, which means they are engaged with the 3Rs and can contribute to wider implementation. Encouraging this involvement demonstrates your institution's commitment to the 3Rs.

- **Implementing a working group:** A formal 3Rs working group or sub-committee meets regularly. This will help to bring together 3Rs ideas from across your institution, and encourage a sustained focus on the 3Rs with a coordinated, consistent approach.

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Having made a demonstrable contribution to 3Rs activities, your institution's 3Rs working group is clearly functional. It may be appropriate to review at this stage whether there are any additional 3Rs activities the group could undertake, and include these in the 3Rs strategy (where there is one in place).

As with all areas of science, knowledge of the 3Rs needs to be kept current as advancements are constantly being made. Your institution's AWERB members (or equivalent) should regularly attend 3Rs-relevant events so they can keep up-to-date.

Providing financial support for your institution's AWERB members (or equivalent) to attend 3Rs-relevant events represents a demonstrable commitment to their training and to 3Rs engagement overall.

- **Supporting members of the local ethics committee:** By making the 3Rs a standing item on your institution's AWERB agenda (or the agenda of an equivalent local ethics committee such as the IACUC), you are demonstrating the institution's commitment to the 3Rs, providing a regular opportunity to discuss ongoing initiatives and exchange knowledge.

Time is allocated for your institution's AWERB members (or equivalent) to attend 3Rs-relevant events, helping them keep up-to-date on the latest 3Rs advances. Ensure that they bring this knowledge to the review process, as well as identify initiatives that could be applied at your own institution.

- **Engaging across departments:** By integrating 3Rs talks and agenda items into wider departmental seminars and meetings this exposes a wider range of researchers to the 3Rs and their application. Ensure that this includes highlighting the latest 3Rs advances and their relevance within each department.

- **Organising events:** Topic-specific 3Rs workshops enable you to focus on the areas most relevant to researchers at your institution. Consider whether these should be repeated in future or whether you could explore new topics and formats – options include a series of talks, a round-table discussion or a hands-on training session.

An annual 3Rs symposium would provide an opportunity to highlight how the 3Rs are being applied within your institution, helping to increase knowledge transfer between departments. It would also provide an opportunity to bring in external speakers to further increase awareness and uptake of new 3Rs approaches. To maximise the impact of such an event, as many of your PIL and PPL holders (or equivalent individuals who formally oversee and/or undertake research on animals) as possible should attend – the event should therefore be advertised widely, and attendance also encouraged in other ways. The GW4 consortium organises an [annual 3Rs symposium](#), with a [follow-up news item](#) to highlight the success of the event.

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An annual 3Rs award scheme is an opportunity to celebrate 3Rs advances made at your institution, share them with a wider audience and incentivise involvement with the 3Rs. Consider running such a scheme at your institution, including separate awards for members of staff in different roles to emphasise the importance of everyone's contributions. Imperial College London includes two such awards as part of its annual [Provost's Awards for Excellence in Animal Research](#) event.

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- **Engaging with research groups:** The 3Rs self-assessment tool for research groups enables group leaders to identify their current 3Rs activities and receive feedback on how their group can get further involved. Wide involvement will help you get a more detailed picture of how the 3Rs are being implemented across your institution, including advances you may not be aware of. Consider if there are any more ways you could encourage its use.

Mentioning the 3Rs self-assessment tool for research groups during face-to-face discussions encourages engagement, particularly if this is part of the PPL review process (or when reviewing equivalent formal documentation for animal research proposals) at your institution. Consider if there are any other opportunities to emphasise its value.

Having your own 3Rs-focused newsletter is a great way to ensure that the most relevant information is provided to members of staff. It also helps share knowledge between departments and provides an outlet for celebrating advances made within your institution. If not doing so already, you may also consider having a 3Rs-focused social media platform similar to Oxford University's twitter account, [Oxford3Rs](#).

- **Recruitment of staff and students:** The importance of the 3Rs to the research conducted at your institution should be communicated and considered during the recruitment process for roles involving the use of animals. This immediately demonstrates that the 3Rs are vital to the research done in your institution, and that everyone conducting research that involves animals is expected to apply them in their work. Consider mentioning understanding of the 3Rs in the job descriptions for all roles involving the use of animals in research.

When recruiting for roles involving the use of animals, ensuring an understanding of the 3Rs during the interview process would further demonstrate the institution's commitment to the 3Rs and help you identify the best candidates. Consider ensuring that all relevant candidates are asked questions relating to the 3Rs during their interview.

Highlighting the 3Rs during the induction process for your institution's animal facilities is ensuring that new recruits are familiar with them both in principle and application. If you haven't done so already, you could include examples of successful 3Rs initiatives at your facility. If not doing so already, you may wish to include the '[Introductory Training on the 3Rs](#)' video resource provided by the NC3Rs. This resource includes contemporary case studies that highlight the scientific benefits of the 3Rs.

It is important to have a critical mass of Principal Investigators at your institution engaged with the 3Rs self-assessment tool for research groups. This encourages a focus on the 3Rs across all research streams, and through the feedback supplied, will encourage research groups to disseminate new 3Rs advances or opportunities that otherwise may have been missed. Uptake is currently very low and so encourage more group leaders to engage with the tool, perhaps by restating its importance or trying new ways to disseminate it.

- **Recognising and rewarding success:** Including the 3Rs during staff appraisals acts as a reminder of their importance and provides an opportunity to reward those involved in 3Rs advances. Consider making this part of the appraisal process.

By offering travel bursaries for staff and students from your institution to attend relevant conferences, you are showing a commitment to support 3Rs initiatives. You are also helping to disseminate these advances, which will maximise their impact.

The dissemination of 3Rs advances and opportunities is the responsibility of staff at all levels and may involve collaboration between departments to increase innovation.

Your responses in the RESEARCH AND INFRASTRUCTURE section indicate that your institution has taken some steps to maximise the impact of your 3Rs activities through wide dissemination and implementation, and there is some awareness of how a multidisciplinary approach can be beneficial. Read the following detailed analysis of your responses for feedback and guidance on how to improve.

Use of guidance document: "[Responsibility in the use of animals in bioscience research](#)" outlines the expectations of the major UK funders for the use of animals in research. By disseminating this document to all those undertaking research involving animals within your institution, you are raising awareness of their responsibilities and what funders expect.

- **Purchasing reagents:** Your institution should consider having a policy on the purchase of reagents that includes consideration of the 3Rs. This would demonstrate that your institution values the 3Rs enough to have an impact beyond its own internal processes. The document '[Animal welfare standards expected of suppliers of antibodies to research council establishments](#)' may help you prepare your own policy.
- **Work outside of the legal framework:** 3Rs activities tend to focus on the use of animals in regulated procedures, but your institution is also ensuring it is aware of non-regulated animal work where the 3Rs are also relevant. In the UK this includes Schedule 1 work, and that performed under the Veterinary Surgeons Act, whilst elsewhere it would encompass any research requiring animals that is outside of equivalent local or national legislation.

Your institution has not only captured data on non-regulated animal work, but also has formal oversight of this work, including a written policy outlining the approval process. This will help you apply the 3Rs to this work.

Your institution has an effective method of capturing data on work performed overseas that would otherwise have been regulated under the ASPA (or equivalent local or national legislation).

By also having formal oversight of this type of work (including a written policy), you are ensuring that the 3Rs are being applied appropriately in this work, as well as safeguarding your institution's reputation.

A scheduled benchmarking process will help your institution ensure it is meeting the requirements outlined in "Responsibility in the use of animals in bioscience research", as well as ensuring that funding recipients meet their responsibilities. Consider putting this into place.

Disseminating research funding calls: Your institution's Research Office (or equivalent) disseminates 3Rs-focused calls across all relevant departments. This helps to raise awareness of these opportunities among all researchers including those not currently known by the Research Office.

It is important to disseminate 3Rs research funding calls across all relevant departments within your institution, but by also sending targeted emails, you are encouraging uptake of these opportunities.

- **Providing an information portal:** Your institution has a dedicated intranet providing 3Rs information, which can be accessed by all those working with research animals. If you have not already done so, you may wish to make this searchable to encourage engagement, in a similar manner to the [University of Cambridge's 3Rs Search Tool](#) or the [University of Leeds' ETRIS system](#)

Reviewing the 3Rs information within your institution's intranet at least every six months is essential to keep it contemporary and reflective of good practice. Consider if your current review schedule is sufficient or it should be more regular.

By highlighting your institution's 3Rs intranet on licensee and other training courses, you are not only encouraging attendees to access this information, but also demonstrating how your institution values the 3Rs.

- **Mechanisms for wider uptake:** There are processes in place to ensure that 3Rs advances of wide relevance are implemented across your institution. This maximises their impact and demonstrates their importance by setting the same standards across different research groups, rooms and facilities.

You should be commended for your success in implementing 3Rs advances of wide relevance across your institution. This is not always easy, so it is important to take note of any learning points that can inform future initiatives.

- **Raising awareness locally:** 3Rs advances developed at your institution are being captured and disseminated locally. There are many dissemination methods, so it is important you choose the most appropriate method for your intended audience. If not already doing so, consider using a combination of methods – for example, dissemination via the AWERB (or equivalent local ethics committee that reviews proposals involving animal research such as the IACUC) can add gravitas, a newsletter can easily reach a wide audience, and targeted dissemination via the academic 3Rs lead or 3Rs champions can increase engagement.

Having disseminated local 3Rs advances within your institution, their uptake has increased. This demonstrates that your routes of dissemination are effective. Consider whether you could further increase uptake of these advances and continue to identify new advances and opportunities to disseminate them.

- **Commercialising advances:** Your institution has a mechanism in place to identify, exploit and commercialise technologies that may have a 3Rs impact, meaning that where the full 3Rs potential hasn't been appreciated by the

institution, it can still be realised by the commercial partner.

In the past 12 months, no 3Rs-relevant technologies developed at your institution have been commercialised or taken into industry. Whilst this may be because no such advances have arisen in this time frame, you should check that any mechanisms for capturing these opportunities are functioning effectively.

- **Sharing resources:** Your institution has successfully implemented a formal mechanism for tissue-sharing, meaning you can source the maximum amount of tissue from the minimum number of animals.

Where breeding colonies are maintained on-site at an institution, a common source of wastage is multiple research groups holding breeding colonies of the same strain. Your institution has addressed this via a formal mechanism for sharing commonly used lines that relies on only one core breeding colony. Consider whether you have made all relevant departments aware of this.

You may wish to consider creating a mechanism for funding recipients at your institution to confirm they have read "Responsibility in the use of animals in bioscience research" and understand their responsibilities. For example, this could be included in your ethical review process.

- **Management of breeding colonies:** In the past two years, all those with day-to-day responsibility for breeding colonies at your institution have received training in colony management and the maintenance of genetically altered lines. This helps to prevent over-breeding breeding and ensure that stock of the correct genotype and genetic background are generated, thus reducing wastage.
- **Management of breeding colonies:** All those with day-to-day responsibility for breeding colonies at your institution should receive training in colony management and the maintenance of genetically altered lines. This will help prevent over-breeding and ensure that stock of the correct genotype and genetic background are generated, thus reducing wastage. This training should be refreshed every two years to ensure it is contemporary.

Your institution should consider sending senior staff to external training events on colony management and the maintenance of genetically altered lines. This will place them in a strong position to deliver contemporary training to those with day-to-day responsibilities for breeding colonies. In turn, this will help to ensure breeding wastage is kept to a minimum. This training should be refreshed at least every two years. The [MRC Harwell Institute provides a range of training courses](#) that may be of interest.

Your institution does not currently have a policy on the cryopreservation of genetically altered animals that is enforced. Consider putting one in place to discourage the maintenance of tick-over colonies and insure against the loss of unique strains that would require large numbers of animals to regenerate – thus reducing wastage overall.

By sharing and archiving genetically altered strains via external channels (for example, the [MRC Harwell Archive](#)), your institution is reducing wastage of animals internally and externally. As well as removing tick-over colonies within your institution, you are preventing other institutions from using animals unnecessarily to re-create them elsewhere.

Your institution has maintained a relatively low number of actively breeding colonies for which there has been no scientific requirement in the last three months (i.e. tick-over colonies). If possible, the researcher(s) responsible for the tick-over colonies should work with the animal facility staff to establish a timeline for removing them, particularly if the strain is available elsewhere. If not, cryopreservation should be used.

By being aware of routes to commercialisation for 3Rs relevant technologies (such as the [NC3Rs' CRACK IT programme](#)), your institution's technology transfer office will be better able to advise researchers who have identified the 3Rs potential of their own work. Ensure they have access to this information.

Members of your institution's technology transfer office have not been trained to identify 3Rs-relevant technologies with commercial potential. Researchers are not always aware of the 3Rs potential of their work, particularly replacement methods – offering training to your technology transfer office can help ensure all opportunities are realised.

Good experimental design and reporting are essential for producing animal studies with reproducible and reliable results. This responsibility lies not only with individual research groups, but also the institution as a whole.

Your responses in the EXPERIMENTAL DESIGN AND REPORTING section indicate that your institution has taken some steps to ensure animal studies are designed to yield robust results and publications are reported with sufficient detail to aid reproducibility, but you could do more. Read the following detailed analysis of your responses for feedback and guidance on how to improve and ensure animals and resources are not wasted.

- **Providing statistical support:** By providing all in vivo researchers at your institution with access to a biostatistician, you are fully supporting them to design experiments that will generate high quality, robust data. You are also demonstrating your commitment to producing reproducible and reliable research.

By providing technical support at your institution to assist with blinding during procedures and analysis of research involving animals, you are supporting good experimental practice. You may wish to consider advertising this support to encourage further use of blinding as a way of avoiding the introduction of bias into experiments.

- **Using the Experimental Design Assistant:** Information about the [Experimental Design Assistant](#) (EDA) is being circulated within your institution via emails and newsletters. Raising awareness of this resource will emphasise the importance of good experimental design to generate robust and reproducible data and avoid wasting animals. If you haven't done so already, you may wish to consider whether this message could be circulated by the Establishment Licence Holder, academic 3Rs lead, or AWERB Chair (or Chair of an equivalent local ethics committee that reviews proposals involving animal research such as the IACUC) to further encourage uptake.

Dedicated EDA training is not currently provided at your institution. Use of the EDA can help researchers design more robust animal experiments that generate reliable data. The information provided by the EDA can also help inform project licence (or equivalent) and funding applications, improving the quality and making them more competitive. Consider providing dedicated EDA training to project licence and funding applicants in the first instance, gradually rolling out to all those involved in research using animals.

By recommending use of the EDA in your institution's project licence applicant guidance documents (or equivalent), you are reinforcing how much it values good experimental design, as well as ensuring research using animals generates high-quality data.

Your institution's AWERB (or equivalent local ethics committee that reviews proposals involving animal research such as the IACUC) is asking specific questions regarding use of the EDA during the project licence approval process (or approval of equivalent formal documentation for animal research proposals), which further emphasises the importance of good experimental design in research using animals. You should continue to encourage this.

Whilst project licence applicants are asked to explain their experimental design, the application process does not provide advice and guidance on best practice. The EDA is designed to provide bespoke advice to applicants, guiding them through a rigorous experimental design process that is summarised in an EDA report. Your institution's AWERB (or equivalent) may wish to encourage the submission of EDA reports alongside project licence applications (or equivalent documentation) as evidence that the applicant has received experimental design advice and to highlight any missing information or inconsistencies for further discussion.

- **Supporting the local ethics committee:** Currently, some members of your institution's AWERB (or equivalent) are trained in the basic principles of good experimental design. This empowers them to ask relevant questions so animals are not wasted and high-quality data is generated. However, you may wish to extend this training to the whole committee so all members understand the relevance of the discussions and can have an informed opinion.

The statistical design of experiments can be complex and varied, requiring expertise to fully evaluate it. Having a biostatistician present at your AWERB (or equivalent) meetings would help ensure proposed experiments are well-designed and likely to generate robust data. The Roslin Institute at the University of Edinburgh is one institution where a [biostatistician is a member of the AWERB](#).

- **The ARRIVE guidelines:** By signing up to the ARRIVE guidelines, your institution has indicated how much it values high-quality reporting of animal studies and thus reproducibility.

A public statement on your institution's website that endorses use of the guidelines further emphasises how much it values rigorous and transparent research.

Providing copies of the ARRIVE guidelines during inductions and/or relevant training at your institution increases awareness of how they can support better reporting.

You are providing copies of the ARRIVE guidelines during licensee training courses at your institution. This is the most effective way of raising awareness of how researchers should report their experimental design, methodology and results. In addition to disseminating the guidelines, you should highlight the key points so researchers appreciate their importance and are more likely to put them into practice.

Your institution may wish to perform a dipstick assessment of compliance with the ARRIVE guidelines. This would show your commitment to improving reporting. Whilst compliance may be low initially, measurement is essential for benchmarking and informing your improvement strategy. [Nam et al. \(2018\)](#) published a paper describing an approach that could be used to assess ARRIVE compliance across your institution.

Providing easy access to online resources, events and training courses is essential for equipping all staff involved in animal research at your institution with contemporary and comprehensive information on the 3Rs.

Your responses in the TRAINING section indicate your institution is performing moderately well in this area and is aware that training requirements will vary depending on seniority and role. You should tailor training to each audience and make all staff and students aware of the 3Rs-related training opportunities available to them.

By providing 3Rs training sessions to all bioscience postgraduate students at your institution, you are widening awareness of the 3Rs to those who will encounter animal research more indirectly during their careers – for example, when reading papers, collaborating with others or choosing career paths that directly involve animal research. Having an awareness of the 3Rs will help them make informed decisions in the future. If not included already, you could use the NC3Rs video resource for [introductory training on the 3Rs](#) to deliver contemporary information on the 3Rs that emphasises their scientific benefits.

The institution may consider making it mandatory for all bioscience students to attend a training session on the 3Rs, thereby ensuring that all relevant students have an awareness of them.

- **Training research staff:** Your institution is giving all research staff the opportunity to attend relevant internal and external 3Rs events, which widens awareness, engagement and expertise. A [calendar of 3Rs-relevant events](#) hosted by different organisations can be found on the NC3Rs website.

Your institution does not currently record attendance at internal 3Rs events. This information would help you determine whether your events are successfully targeting the intended audience and how well different stakeholders are engaging with the 3Rs. Attendance can easily be recorded, along with other relevant information, via an online registration process or an attendance sheet at the event itself.

Your institution does not currently record attendance at external 3Rs events. This information would help you determine how well different stakeholders are engaging with the 3Rs and gain feedback on which events were particularly beneficial. Attendance at external 3Rs events should be included in staff members' Continued Professional Development, Personal Development Programme or training record as appropriate. You may wish to develop a mechanism to collate this information centrally.

- **Training animal care staff:** All animal care staff at your institution have the opportunity to attend relevant 3Rs conferences and workshops. This means all those who have a role in the daily husbandry, care and welfare of research animals can remain up-to-date with best 3Rs practice and network with other animal care staff outside of their facilities. A [calendar of 3Rs-relevant events](#) hosted by different organisations can be found on the NC3Rs website.

A minority of the animal care staff at your institution have attended relevant 3Rs conferences and workshops in the last two years. You need to establish the reasons for this low level of engagement. They may include issues with staffing schedules, a lack of awareness of upcoming events, financial constraints, personal commitments, and/or a lack of interest. Once you have established these reasons, you can address them and increase engagement.

- **Training veterinary staff:** All veterinary staff at your institution have the opportunity to attend relevant 3Rs conferences and workshops. This will help them remain up-to-date with best 3Rs practice, which is particularly important because they are often the most senior person advising on how procedures should be performed and other animal care issues. A [calendar of 3Rs-relevant events](#) hosted by different organisations can be found on the NC3Rs website.

Veterinary staff at your institution have attended relevant 3Rs conferences and workshops in the last 12 months. This will help them remain up-to-date with the latest 3Rs information. You should ensure these opportunities are available to all relevant members of staff, addressing any barriers to attendance such as scheduling or financial constraints.

- **Training postgraduate students:** Postgraduate students that will be undertaking research involving animals at your institution should attend 3Rs training that includes experimental design and reporting. Making this training mandatory will ensure students are aware of the 3Rs and how to correctly apply them as early as possible in their careers.

Very few of the attendees at 3Rs-relevant events held at your institution are local postgraduate students. This is a missed opportunity to provide your students with the most current 3Rs information. It could be that the events are not being advertised well enough, in which case you should consider different dissemination strategies. It may also be that your postgraduate students are not engaged enough with the 3Rs; if so, you should assess how they are introduced to postgraduate students to ensure the importance of the 3Rs is emphasised as early as possible.

Very few of the attendees at 3Rs-relevant events held at your institution are local postgraduate students. This is a missed opportunity to provide your students with the most current 3Rs information. It could be that the events are not being advertised well enough, in which case you should consider different dissemination strategies. It may also be that your postgraduate students are not engaged enough with the 3Rs; if so, you should assess how they are introduced to postgraduate students to ensure the importance of the 3Rs is emphasised as early as possible.

Your institution does not require students undertaking research degrees to state in their thesis whether they have applied the 3Rs in their research and/or whether their research has 3Rs impacts. Doing this would further embed the 3Rs in their training, so you should consider including it in your institutional guidelines. You could recommend that students use the [ARRIVE guidelines](#) to help them include the most relevant 3Rs information in their thesis.

You should encourage viva examiners at your institution to ask questions relating to the 3Rs. This would not only reinforce the importance of the 3Rs to students, but also make your institution's commitment clear to external examiners.

3Rs advances must be disseminated effectively to achieve wide implementation.

Your responses in the PUBLICATIONS AND WIDER DISSEMINATION section indicate your institution is successfully disseminating its 3Rs activities and should continue to identify routes for dissemination beyond publishing in scientific journals.

- **Publishing advances:** Disseminating 3Rs advances is one of the [expectations of the major UK research council and charitable funding bodies](#). However, understandably, researchers often focus on their key scientific questions and may overlook opportunities to publish 3Rs-relevant information. By addressing this during the retrospective review of PPLs (or equivalent formal reviews of animal research already undertaken), your institution is helping identify 3Rs advances that are appropriate for publication.

By proactively supporting researchers to identify 3Rs advances that are appropriate for publication, the individuals that take the main responsibility for driving and coordinating 3Rs activities at your institution are helping researchers to disseminate this information and receive recognition for both themselves and the institution.

You should be commended that 3Rs advances from within your institution have been published in the scientific literature in the last 12 months. Going forward, you should continue capturing this information, as well incorporating regular reviews to establish whether there are any missed opportunities.

- **Disseminating negative data:** Encouraging researchers to disseminate negative and null data relating to the use of animals helps to prevent these experiments being repeated unnecessarily. Your institution has identified that the retrospective review and/or PPL renewal stages (or equivalent formal reviews of animal research that has either previously been undertaken or is planned) are ideal opportunities to have these discussions with researchers. If not already doing so, you may wish to include this information in the standard paperwork to ensure it is captured for all projects that involve the use of animals.

Researchers at your institution have published negative and null data relating to the use of animals in the last 12 months. You may wish to examine how this came to fruition to identify whether there are any learning points for the future.

- **Making the information public:** Your institution's public-facing website includes examples of how the 3Rs are implemented. This means you are not just making your commitment to the 3Rs clear to the public, but also providing evidence of this commitment. This will have a positive impact on the reputation of your institution, and is a simple way to disseminate local 3Rs advances to the external research community.

Your institution's public-facing website does not currently contain examples of how the 3Rs are embedded in its work, or how local activities are having a significant impact on the quality of the science and contributing to future 3Rs advances. Consider how you could collect this information from a variety of sources.

Your institution did not submit a 3Rs-relevant impact case study under the previous REF (or other institutional review process for those outside of the REF). You may wish to develop a mechanism for identifying case studies that could be included in the next submission. For example, the [University of Manchester submitted a 4* 3Rs-relevant impact case study](#) in the REF 2014 submission.