University of Cambridge

Interim Review

of the

University of Cambridge

Regulatory/Operational Framework Governing Animal Research

Contents

1. Executive Summary
2. Introduction
3. Animal Welfare and Ethical Review Body (AWERB)
4. Project Licences and Study Plans
5. Operations and Working Practices
6. Staffing and Management Structures
7. Concluding Remarks
8. Recommendations

February 2017
1. EXECUTIVE SUMMARY

The Review Team commends the significant progress made to date by the University to implement the recommendations of the 2014 Review Report.

There are areas where the revised structures and practices can be adjusted or adapted to operate more efficiently and effectively; some of the earlier underlying problems have still to be fully addressed; and whilst an active communications strategy was devised and implemented more needs to be done.

In the view of the Review Team the necessary changes, and the next round of priorities need not be resource intensive, but they will require vision and direction from the top and pro-active management.

The major residual compliance risk and cause of inefficient use of resources remains the processes for the preparation and construction of project licences and study plans. It is essential to streamline both processes and, if possible, simplify the resulting licence documents to address what seem to be unnecessary frustrations and delays, not to delay important research, and remedy what currently seem to be ambiguous licence authorities.

2. INTRODUCTION

The University of Cambridge’s animal research governance and support systems must demonstrably provide a supportive environment for high-quality research; with an efficient and effective Animal Welfare and Ethical Review Body (AWERB); well-equipped, well-maintained, well-run facilities; and well-trained, competent research and support staff. The University must work with the Home Office to ensure, in particular, that licence applications and amendments are handled efficiently and in a timely manner; and that it is clear from the resulting licence documents what is and is not permitted, and what constitutes compliance.

The University has already made significant progress in implementing the recommendations of the 2014 Review. Although this 2017 Review Report offers recommendations on what might now be done, the Review Team was impressed both by what has already been done, and how it has been done. The Review Team was pleased to note that the recommendations set out in the 2014 Review Report were endorsed and supported by senior management, that a process was promptly established to identify priorities and implement the recommendations. The Review Team agrees it
was essential to prioritise the structural changes in order to set the scene for the desired cultural changes, outputs and outcomes. Marked improvements can already be seen with respect to some behaviours, outputs, and outcomes.

It is now timely to reflect on progress to date, review the efficiency and effectiveness of the new processes, identify and exploit other opportunities and benefits the revised systems can deliver, consider what has yet to be done, and offer advice on the next round of priorities.

In the course of this follow-up review the Review Team was impressed by the way the change programme was planned and managed:

- A formal risk register is now incorporated into the governance systems. The information required to maintain this register will provide insights into both the effectiveness of the risk management systems and the appropriateness of the University’s risk appetite.
- The change programme included a comprehensive communications strategy intended to inform and engage with all staff affected by the changes. The Review Team has considered whether the provision of information has resulted in users being better informed.
- The HR changes, affecting over 150 members of staff, were planned and implemented without problem. This was a major achievement.
- The UBS structure brings together, and better co-ordinates and manages, the key staff involved in providing and supporting training, infrastructure, and research activities. The Review Team saw evidence that the services and support offered by the University’s Biomedical Services (UBS) staff, and local technical staff, are much appreciated by researchers: and found no evidence of there being an “us and them” mentality between management, support staff, and researchers.
- The resources available to support the animal-based research taking place at the University have been strengthened significantly by making new appointments to the posts of Animal Welfare Director, Named Information Officer (NIO), and AWERB Chair. In all cases, able people have been appointed, and are already making a difference.
- Recent initiatives such as PPL teams and the provision of surgery technicians are to be welcomed.
- The improved University web-site, animal welfare policy, and a number of other initiatives, confirm and demonstrate the University’s determination to work to high ethical, scientific and animal-welfare standards, and its commitment to openess and transparency.
- The whistle-blowing policy provides the opportunity for issues of concern to be brought promptly to management’s attention by any member of staff.
That said, there are areas where more efficient and effective use might be made of available resources; evidence that some remnants of the previous attitudes, systems and outcomes persist; indications that changes to current priorities are required; and a number of the opportunities offered by the revised structures have not been fully exploited.

3. AWERB

The University’s Animal Welfare and Ethical Review Body (AWERB) plays a central role in supporting high-quality animal-based research, reinforcing the required culture of care, and stamping the University’s standards and values on the animal-based research undertaken at the University. It was never intended that any AWERB should duplicate the work undertaken, or deliver the guidance on the preferred structure and content of applications that should be provided, by the Home Office: and the AWERB must always be operated and seen by the researchers as a resource that supports a shared desire to undertake high quality research to high welfare standards, and never as an adversarial process intended to frustrate or delay the research.

The University’s AWERB Terms of Reference, based on the Home Office Guidance on the Animals (Scientific Procedures) Act 1986, are set out in the “UBS Committees – Terms of Reference”. The main AWERB component parts are the AWERB Standing Committee, AWERB 3Rs Committee, and AWERB Named Persons Committee. The appointment of an independent Chairman has resolved the previous conflict of interest that existed whilst the AWERB was chaired by the Establishment Licence Holder.

The Review Team was impressed by the structure and content of the AWERB Handbook and Annual Report, both of which should be seen as resources for current and future AWERB members, and for all of those involved in animal-based research at the University; and as a means of communicating the nature, outcomes and impact of the change programme, particularly if future Annual Reports are structured around the AWERB’s full Terms of Reference.

To date the AWERB Standing Committee has focused largely on project licence applications and amendments, and interim and retrospective reviews of licensed work: convening separate meetings to consider applications and amendments/reviews. The Secretariat offers good support to the AWERB, and timely and detailed feedback to applicants and licensees. The Review Team was surprised to learn that the Chair of the AWERB 3Rs Committee is not a member of the AWERB Standing Committee.
RECOMMENDATION 1: The Chairman of the AWERB 3Rs Committee should be a full member of the AWERB Standing Committee.

The Review Team believes that the AWERB Standing Committee should now take a broader, higher-level view of the AWERB roles and responsibilities as outlined in the Guidance on the Operation of ASPA, allowing the Chair and the full committee to focus on key issues, and providing guidance and support to sub-committees to do the background work on a range of subordinate issues.

RECOMMENDATION 2: The AWERB Standing Committee should consider whether the handling of project licence applications and amendments might be done more efficiently by establishing a single sub-committee for this purpose with a Chairman’s brief prepared by the Secretariat indicating whether appropriate inputs from NVSs and NACWOs had been requested and implemented, identifying the main unresolved points for discussion, and, in the case of amendments, limiting discussion to the changes being requested. One possible revision to the existing committee structure is shown at Table 1.

TABLE 1

<table>
<thead>
<tr>
<th>Biomedical Services Governance and Strategy Committee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilities Operations &amp; Management Committee</td>
</tr>
<tr>
<td>AWERB Standing Committee</td>
</tr>
<tr>
<td>User Committees One per facility</td>
</tr>
</tbody>
</table>

BIOMEDICAL SERVICES COMMITTEE STRUCTURE: PROPOSED REVISION

PPL Application & PPL Amendment

3Rs Committee

Named Persons Committee
The Review Team also believes that it is now timely for the AWERB Standing Committee to ensure that it develops and implements a plan to ensure that the AWERB’s activities and outputs reflect all of the work items listed under its terms of reference.

More specifically the Review Team believes the AWERB Standing Committee is well placed to look at whether AWERB advice is actually implemented when formal applications are submitted to the Home Office, test the claims and policies set out at the UBS website, interrogate the Project Licence Tracker looking for classes of delay and other inefficiencies which the University might be able to remedy, benchmark the University’s systems and performance against the recommendations in the Brown Report (the 2013 Independent Investigation into Animal Research at Imperial College, London), and take an active interest in the Training School curriculum and assessment frameworks.

**RECOMMENDATION 3:** The AWERB Standing Committee should consider whether and how it could determine whether AWERB advice is actually implemented when formal applications are submitted to the Home Office, to test the claims and policies set out at the UBS website, interrogate the Project Licence Tracker looking for classes of delay and other inefficiencies which the University might be able to remedy, benchmark the University’s systems and performance against the recommendations in the Brown Report, and take an active interest in the Training School Curriculum and assessment frameworks.

The AWERB 3Rs Committee has been pro-active, and the Review Team was impressed both by the personal effectiveness of the Chairman and by what the Committee has already done in seeking to address practical and operational issues, whilst also taking a more strategic view of what might be done to improve both the quality of animal based science and animal welfare. The Review Team understands that a proposal to make additional resource available to advise project licence applicants on experimental design is currently being considered.

Perhaps inevitably, the focus of the AWERB 3Rs Committee to date has been on reduction and refinement, with replacement trailing in third place. The AWERB 3Rs Committee has, however, also played a part in out-reach and public engagement; and should take the lead in developing University 3Rs strategies for the re-homing of animals and tissue sharing.

**RECOMMENDATION 4:** The AWERB 3Rs Committee should be entrusted with planning University strategies for re-homing animals and tissue sharing.
The AWERB Named Persons Committee seems to provide a suitable forum for identifying operational issues needing attention, and as a means of ensuring details of the change programme (and its impact on outcomes) are communicated to those who need to know. It was not clear to the Review Team how effective these lines of communication are at present.

4. PROJECT LICENCES AND STUDY PLANS

In an attempt to resolve the problems with the project licence application processes highlighted in the 2014 Review Report, UBS now provides considerable support to project licence applicants and project licence holders seeking to amend licence authorities.

A documented process for preparing applications and amendments is in place, backed up by a UBS project writing guide, and a Project Licence Tracker to record the time taken for each phase of the process. Establishing PPL groups has been generally welcomed by researchers, and the AWERB strives to deal with applications and amendments in a timely manner. The only negative comments received by the Review team about the AWERB project licence application and amendment processes related to the time the AWERB process can take in some cases, the perception by some that it was an adversarial process, and a feeling in some quarters that it was tempting to accept all of the points made by AWERB members rather than trying to explain or justify what had originally been drafted. Regardless of whether or not these comments were justified, even the perception that these are problems needs to be investigated and laid to rest.

A planned, Home Office supported, project writing course has not been taken forward.

Study Plans are still in use, though the Review Team sensed support for these may by waning in some quarters where the processing times are high. The Review Team was disappointed to note that what was previously commended as best practice, weekly drop-in surgeries with the NVS and NACWO where study plan wording can be agreed on the day, is not current practice in any of the University’s facilities. This is something the University should revisit.

However, the core problems have not been resolved. There are still serious problems with the project licence application and amendment system that need to be further investigated and resolved as a matter of urgency – some of the problems are within the control of the University, and others will need to be resolved in partnership with the Home Office.
Not only is there an expectation in some quarters of the University that it takes 15 months to draft and negotiate a project licence, but there is also evidence that this is not an over-estimate of the time it currently takes. It is difficult to see how the University can expect to recruit and retain research staff and host cutting-edge research unless these times are significantly reduced. In order to tackle this, making use of the “add comments” facility on the Project Licence Tracker to explain the reasons for delays, and clarifying the accounting rules, would allow insights to be gained of where the delays may be due to causes which the University and applicants can themselves remedy: in the meantime identifying and implementing current best practice (such as early involvement of the Home Office Inspector, NVS and NACWO; the development and use of minimum severity protocols for common procedures; use of HO templates for Project protocols; and making some adjustments to the AWERB processes (see above)) would help.

With respect to residual compliance risks and use of resources, the Review Team would like to record its concerns, based on examination of a small sample of recent project licences and meetings with project licence holders, that the complexity of the current generation of licence documents, the level of detail they contain, the wide range of eventualities for which they make provision, and the complexity (and in some cases subjective nature) of some of the highly detailed endpoints create three problems. It is difficult, if not impossible, to conduct a reasoned cost/benefit assessment of the programmes of work; it is difficult to know precisely what the technical authorities are; and, as a result, it is difficult to determine with certainty what constitutes compliance.

Having spoken to applicants and licence holders, and examined various drafts of recent licence applications, the Review Team also feels that a number of researchers have genuine reasons to feel frustrated that the advice they were given varied, and the amount of detail they were asked to provide increased steadily, from draft-to-draft.

The Review Team saw evidence that tends to confirm that a number of the drafting issues mentioned above have been implemented at the request of Home Office Inspectors.

Local Study Plans provide one means to address the residual compliance risks, but to do this effectively a single study plan would cover only a single experiment. In order for study plans to operate in this way, they need to be drafted and agreed within a matter of days. Based on what the Review Team was told, and examination of a small sample of recent study plans, concerns about delays mean that researchers are tempted and tend to include more than one experiment on each study plan. Currently no information is collected centrally on the time taken to draft and agree study plans.
The more difficult issues centre on the role of the Home Office Inspectorate in the project licence process. It is clear that many applicants are unable to secure any input from inspectors at an early stage of the application drafting process, and that what are presented by inspectors as Home Office policies and practices may in fact be the personal preferences of individual inspectors. It is difficult to see how compliance can best be assured, University resources used efficiently, or regulation delivered efficiently or effectively unless it is clear exactly what Home Office management expects and requires both of applicants and inspectors. The local Home Office inspectors declined an offer to meet with the Review Team.

**RECOMMENDATION 5:** The Establishment Licence Holder should establish a constructive dialogue with the Home Office Chief Inspector to review current concerns in order to determine what the national licensing requirements are (in terms of content and structure of applications for licence authorities), and the timing and level of support applicants are entitled to as requests for licence authorities are drafted.

Also, in connection with project licences and reputational risk, the University policy requiring notification of significant animal-based collaborations taking place at other institutions seems not to be known to, or implemented by, all relevant research groups.

**RECOMMENDATION 6:** The University policy with respect to notification of animal-based work at other institutions needs again to be brought to the attention of all who need to know.

5. OPERATIONS AND WORKING PRACTICES

The 2014 Review Report highlighted key differences between the standards and practices of what were then three distinct, established, operational regions (Management Groups A, B, and C) within the University’s complement of animal facilities.

Whilst the Review Team can see the efforts that have been made to remedy this problem by merging these into a single University resource, more must be done. This will require strong, active leadership by the Establishment Licence Holder (ELH); the support and commitment of the UBS Directors (particularly the Facilities Director); and buy-in and action from the Deputy Directors.

**RECOMMENDATION 7:** The Review Team believes that there are three actions essential to complete the move from the persisting three region structure to a single, corporate structure.
The operational responsibilities of the Deputy Directors should not be based on the previous regional groupings; the tasks and objectives of the Facilities Director and the Deputy Directors should include cross-cutting, strategic objectives to assist with the change programme in addition to their local management responsibilities; and this group should be based, and work together, at the UBS office.

Although all animal facility animal care and support staff are now part of UBS, the Review Team could find few examples to date of this having resulted in a strategic approach to their mobility, continued professional development, career development, or succession planning. In addition, a means should be found of ensuring feedback from “bank staff”, who may work in various facilities, is sought with respect to consistency of standard and practices within the facilities.

A unified system of pricing and charging now reflects the actual costs of providing the levels of support required to enable research to be conducted in well-maintained and properly equipped facilities, staffed by trained and competent staff, supported by appropriate sources of expert advice, and with governance systems that promote high standards and compliance. However, the Review Team believes there needs to be more transparency for all those affected as to how the original level of pricing was determined, and that user concerns that the same pricing system is delivering different levels of service in different facilities should be investigated and, if necessary, addressed.

**RECOMMENDATION 8:** There needs to be more transparency as to how the level of pricing was determined, and user concerns that the same pricing system is delivering different levels of service in different facilities investigated and, if necessary, remedied.

In addition, the time is right for the University to pursue some of the cashable cost-savings that the new unified structures can enable: for example, centralising purchasing; and the production and use of a complete, centralised asset register and equipment sharing, would produce early, recurring savings. All Directors and Deputy Directors can play a part in this.

**RECOMMENDATION 9:** The Operations Director should lead in taking forward opportunities for the revised structures and processes to produce cashable savings.

The local User Committees now have common, defined terms of reference, and seem to be better attended. However, the Review Team noted that some users still seemed unaware that the User Groups are one means of raising issues of concern, and noted some instances where issues raised at User Groups should have been, but were not, brought to the attention of the Facility Operations and Management Committee (FOM).
**FOM** seems to be well structured and well attended. It is ideally placed to tackle local issues raised by User Groups and, more importantly, to tackle cross-cutting strategic issues such as staff development and succession planning. It should act as a conduit for the transmission of information to/from the Governance and Strategy Committee and the User Groups. As with elements of the AWERB, there is the potential for more background and support work by the secretariat to help the Chairman and Committee identify strategic priorities and enable more efficient and effective use to be made of the resource devoted to the FOM meetings. Furthermore, it is timely (mindful of the comments made above about User Groups) for FOM to consider whether it has yet found the optimum balance of considering immediate, local and the more longer-term strategic issues. FOM might also consider raising awareness of its activities and outputs through a regular summary in CamTechCare and/or an annual report.

The **Governance and Strategy Committee** seems to be working well.

**Veterinary Services**: There have been marked changes and improvements to the management and delivery of veterinary services. The team of veterinary surgeons is now managed by the Director of Animal Welfare who is herself a (non-practising) veterinary surgeon. There have been a number of changes in veterinary staff since the 2014 Review, with periods of short-staffing impacting on the workload of the established staff. With the two very recent appointments the scene is now set, as they gain more experience, for ensuring the service develops and operates as a team to offer consistent professional advice and support to licensees and others. As with the Deputy Directors it is essential, as the service matures, that areas of Named Veterinary Surgeon (NVS) responsibility are not based on the old regional structures, and that the veterinary team plays a more active role in Biomedical Services strategic planning, particularly with respect to new biofacilities. It was noted by the Review Team that the demands placed on the veterinary surgeons by the current inefficiencies in the project licence application and amendment processes significantly reduce the time available for clinical work.

New **software systems** have been introduced for training records (A-Tunes) and the management of colonies of transgenic animals (based on the Sanger Database): both of these are still works in progress and the University will not see the full benefits of these systems until they are used by all support and research staff (with respect to the former) and in all facilities (with respect to the latter).

The Review Team welcomes the appointment of a specialist **Named Information Officer (NIO)**. The NIO is enthusiastic, conscientious, pro-active, and has an established and growing network of
contacts. The NIO is well placed, and highly motivated, to promote, publicise and implement good practices and high standards. A 3Rs database of resources, which might later be supplemented by advice on 3Rs searching strategies, is already being developed: and the NIO is also taking ownership of developing Standard Operating Procedures for common techniques. Supported by others within the University, the NIO edits and publishes CamTechCare, a professional-looking and informative regular bulletin for technical and research staff keeping them up to date with the change programme, local activities and achievements, and progress with the 3Rs being made by others.

**RECOMMENDATION 10:** The NIO should determine what the actual CamTechCare current readership is, and consider how to engage with those who have not as yet realised the important role this publication can play in ensuring they are well informed.

Although the NIO is consulted during the preparation of the majority of project licence applications, she has not as yet played an active part in the preparation of study plans even though, in reality, this is where the greatest gains in the refinement of animal use can be made. Resolving the inefficiencies in the project licence drafting process would enable the NIO to make better use of the time she has available for this purpose.

There are currently four Named Training and Competency Officers (NTCOs). The Review Team could not find any documentation defining their individual roles and responsibilities, and was surprised than some NTCOs were not clear about precisely what the NTCO responsibilities involved.

**RECOMMENDATIONS 11:** The roles and responsibilities of the individual NTCOs should be clearly defined.

The 2014 Review commended the practice of “tea-talks”, where researchers present information about their programmes of work to support staff: whilst these still take place, they are not yet common practice, and the opportunity for others (for example Directors, Deputy Directors, veterinary surgeons, and animal care staff) to tell scientists about how they support the animal research programmes has yet to be exploited.

**Compliance Assurance Meetings** (CAM) have been instigated to examine known instances of non-compliance with the intention of better understanding what has gone wrong, and what measures are required to prevent future similar cases. The Review Team believes this is a useful addition to the governance systems, providing it is clearly communicated to, and understood by, users that this is not part of a disciplinary process.
6. STAFFING AND MANAGEMENT STRUCTURES

There have been significant changes in the management and staffing structures since the 2014 Review, and it is timely to review the revised structures, what they have achieved and can achieve, and whether the necessary vision is being provided and communicated effectively by management.

The Establishment Licence Holder (ELH) remains committed to ensuring the governance systems support compliance and high standards of animal welfare and science. The Review Team was pleased to note that he tries to plays an active, leadership role in this capacity; and considers that his immediate priorities centre on making the best use of the UBS current staff, and identifying and attempting to resolve some of the challenges that have to date seemed to be beyond the control of the University. However, the Review Team feels that he should take the opportunity to observe, support and direct the work of the key UBS staff he manages, and observe the different component parts of the AWERB at work.

Three UBS Directors are now responsible for planning, managing, and delivering both operational outputs and taking forward the Biomedical Services change programme and strategic objectives. Although their areas of responsibility seem at first sight to be self-contained, there are inevitably a number of cross-cutting issues and it is important that areas of responsibility and decision-making are clear to those that they manage and support, and equally, that they themselves are guided firmly and proactively by the ELH, to ensure that the change programme remains on course, and that Biomedical Services delivers its strategic aims.

**RECOMMENDATION 12:** To ensure that nothing is neglected, nor duplicated, and that timely decisions can be made, a management matrix better defining areas of responsibility of each of the three UBS Directors, and how cross-cutting issues are to be handled, should be developed and made available to others. Regular meetings between the Directors and the ELH should take place to ensure effective communication and action within the Directorate.

Those the Review Team met spoke of the importance of the UBS Operations Director both with respect to delivering current services, and planning future developments. However, it is the view of the Review Team that the direction given to, and the personal effectiveness of, the UBS Facilities Director (and the Deputy Directors he manages) will also play a major role in building a supportive, caring culture, promoting best practice, achieving consistency, providing technical services, and assisting with planning and delivering an HR Strategy by taking ownership of succession planning and other strategic HR issues such as talent management, skills development and training.
The change of Principal Named Animal Care and Welfare Officers (pNACWOs) to **Deputy Director** status created the opportunity and need for their playing a more strategic role, offset by a significant reduction in their regional, day-to-day, operational duties. The Review Team believes these benefits have not as yet been delivered. Their areas of local management responsibility, and the majority of the meetings they attend, still reflect the previous regional structures; not all Deputy Directors have yet made these regional interests subservient to the University’s strategic objectives; and they and the Facilities Director are still based at several locations. They need to work more as a team to determine and implement common, high standards and practices – and to ensure that the facility-based NACWOs are comfortable taking on more day-to-day responsibilities.

**RECOMMENDATION 13:** The University should consider whether the move from pNACWOs to Deputy Directors requires additional support to facility-based NACWOs to improve their management skills.

The **Training School** is now overseen by the Animal Welfare Director, but adding vision and drive has not been a priority work item to date. Waiting lists for training are no longer in evidence, some adjustments have been made to course content, in the near future it will be necessary to overhaul the assessment systems, and the development of online training resources remains an aspiration. The Training School is still a resource that has not yet achieved its full potential.

**RECOMMENDATION 14:** There is a need to benchmark training provision against both what the Home Office requires and what other training providers deliver, to establish a Curriculum Review Committee to provide leadership, direction, resource and support to further develop training content and the assessment frameworks.

### 7. CONCLUDING REMARKS

The Review Team commends what has been done to date, the way is has been done, and is aware that a number of the recommendations contained in this Report relate to what are already works in progress.

The restructuring to form UBS has consolidated the key personnel, services and resources required to set the scene for sound and proportionate governance systems, whilst supporting high standards of science and animal welfare. The appointments of the Animal Welfare Director and the Named Information Officer have improved both the governance of animal research, and the support
available to research and animal care staff. These views were shared by almost all of those the Review Team met with.

The remaining challenges, in part, relate to UBS management adjusting some of the structures and processes to ensure they are operating efficiently (for example, the AWERB streamlining the handling of project licence applications, amendments and reviews; and demonstrably addressing the other elements of its Terms of Reference), and clarifying some of the roles and responsibilities (for example, the less operational and more strategic role of the Deputy Directors); and continuing to develop and implement a communications strategy.

With respect to residual risk, whilst the support provided by UBS is appreciated by applicants, the process for project licence applications is let down by a lack of clarity and changes in expectations by the Home Office and/or local inspectors as to what detail should now be included in applications, and what is perceived by some to be an adversarial AWERB review process.

Every effort has been made to ensure that the recommendations set out in this report are effectively cost-neutral; in addition the review team would hope that in addition to considering the recommendations readers will also take account of the other information and opinion contained in the Report.

8. Recommendations

RECOMMENDATION 1: The Chairman of the AWERB 3Rs Committee should be a full member of the AWERB Standing Committee.

RECOMMENDATION 2: The AWERB Standing Committee should consider whether the handing of project licence applications and amendments might be done more efficiently by establishing a single sub-committee for this purpose with a Chairman’s brief prepared by the Secretariat indicating whether appropriate inputs from NVSs and NACWOs had been requested and implemented, identifying the main unresolved points for discussion, and, in the case of amendments, limiting discussion to the changes being requested. One possible revision to the existing committee structure is shown at Table 1.

RECOMMENDATION 3: The AWERB Standing Committee should consider whether and how it could determine whether AWERB advice is actually implemented when formal applications are submitted to the Home Office, to test the claims and policies set out at the UBS website, interrogate the Project
Licence Tracker looking for classes of delay and other inefficiencies which the University might be able to remedy, benchmark the University’s systems and performance against the recommendations in the Brown Report, and take an active interest in the Training School Curriculum and assessment frameworks.

**RECOMMENDATION 4:** The AWERB 3Rs Committee should be entrusted with planning University strategies for re-homing animals and tissue sharing.

**RECOMMENDATION 5:** The Establishment Licence Holder should establish a constructive dialogue with the Home Office Chief Inspector to review current concerns in order to determine what the national licensing requirements are (in terms of content and structure of applications for licence authorities), and the timing and level of support applicants are entitled to as requests for licence authorities are drafted.

**RECOMMENDATION 6:** The University policy with respect to notification of animal based-work at other institutions needs again to be brought to the attention of all who need to know.

**RECOMMENDATION 7:** The Review Team believes that there are three actions essential to complete the move from the persisting three region structure to a single, corporate structure. The operational responsibilities of the Deputy Directors should not be based on the previous regional groupings; the tasks and objectives of the Facilities Director and the Deputy Directors should include cross-cutting, strategic objectives to assist with the change programme in addition to their local management responsibilities; and this group should be based, and work together, at the UBS office.

**RECOMMENDATION 8:** There needs to be more transparency as to how the level of pricing was determined, and user concerns that the same pricing system is delivering different levels of service in different facilities investigated and, if necessary, remedied.

**RECOMMENDATION 9:** The Operations Director should lead in taking forward opportunities for the revised structures and processes to produce cashable savings.

**RECOMMENDATION 10:** The NIO should determine what the actual CamTechCare current readership is, and consider how to engage with those who have not as yet realised the important role this publication can play in ensuring they are well informed.

**RECOMMENDATIONS 11:** The roles and responsibilities of the individual NTCOs should be clearly defined.
RECOMMENDATION 12: To ensure that nothing is neglected, nor duplicated, and that timely decisions can be made, a management matrix better defining areas of responsibility of each of the three UBS Directors, and how cross-cutting issues are to be handled, should be developed and made available to others. Regular meetings between the Directors and the ELH should take place to ensure effective communication and action within the Directorate.

RECOMMENDATION 13: The University should consider whether the move from pNACWOs to Deputy Directors requires additional support to facility-based NACWOs to improve their management skills.

RECOMMENDATION 14: There is a need to benchmark training provision against both what the Home Office requires and what other training providers deliver, to establish a Curriculum Review Committee to provide leadership, direction, resource and support to further develop training content and the assessment frameworks.