

**Australian Animal Welfare
Strategy**

**AAWS Research & Development
Advisory Group Report**



ANIMAL WELFARE R&D FOR AUSTRALIA – THE PATH FORWARD

This report covers the activities of the AAWS R&D Advisory Group and its recommendations for establishing an Australian animal welfare research agenda and centre.

DEVELOPMENT OF AN AUSTRALIAN ANIMAL WELFARE RESEARCH CENTRE

EXECUTIVE SUMMARY

The *Australian Animal Welfare Strategy* (AAWS) is explicit in recognising that research and development is central to developing sound animal welfare policy and practice, thereby delivering measurable, sustainable improvements in animal welfare. The AAWS Advisory Committee established an **R&D Advisory Group** to consider existing animal welfare R&D in Australia and, in the context of the AAWS, advise how to best deliver its high priority objectives.

The R&D Advisory Group visited a number of research facilities and consulted widely with universities and the CSIRO. It considered a variety of options for delivering future R&D activities.

The Group found that Australia is **well-served by researchers with expertise in disciplines of animal biology, production and behavior**, all of which can contribute to animal welfare science. Interaction between researchers sharing animal welfare interest is common - there is a high degree of openness and collaboration.

There is however a **paucity of national linking arrangements**. There is, for example, no professional 'animal welfare research society' and, crucially, there are **no existing mechanisms to focus Australian animal welfare research on priorities** identified by sectoral groups in the AAWS implementation process.

The AAWS is recognised by current researchers as offering a unique stimulus to improve collegiate linkages and provide impetus for strategic cooperative activity that can address national priority animal welfare R&D issues in a way that hitherto has not been done.

The R&D Advisory Group **recommends** establishment of an 'Australian Animal Welfare Research Centre'. This Centre should:

1. have a separate, national, R&D identity, and should be a 'virtual centre' building on Australia's existing skills and infrastructure, rather than investing in bricks and mortar;
2. focus on a long-term, strategic national research agenda and coordinate delivery of that agenda;
3. be collaborative and inclusive, with a core, but non-exclusive, group of research providers - the Animal Welfare Science Centre, CSIRO Livestock Industries and Queensland University's Centre for Animal Welfare and Ethics;
4. focus on improving the scientific basis of animal welfare;
5. cover all six AAWS sectors; and
6. have a balanced portfolio of research projects, postgraduate education and professional development activities.

The Centre should be managed by a representative group, but **governed** by the AAWS Advisory Committee and its successor.

It should be **funded** according to a co-investment model with Australian governments, research providers and animal production R&D corporations each contributing. Animal welfare sectors are diverse, ranging from companion animals through fish and wild animals to the production sector. All sectors, despite their different issues and needs, must be represented to achieve sustained evidence-based improvements in national animal welfare approaches. Not all sectors have established means of funding R&D and consequently government's role as initiator and social investor is crucial.

Important as the need to fill gaps in domestic arrangements is, an authoritative voice is also crucial in the **international** arena. Evidence-based assessment of animal welfare is a cornerstone of 'quality' in trade. It is in the nation's long-term interest to maintain Australia's reputation as a socially responsible exporter of high-quality product. The Centre should establish a position to promote Australia's actions and principles at international meetings. To achieve this, recognition as a 'collaborating centre' for animal welfare science by the World Organisation for Animal Health (the OIE) would be a significant advantage. The group **recommends** strongly that the Australian government pursue this outcome.

DEVELOPMENT OF AN AUSTRALIAN ANIMAL WELFARE RESEARCH CENTRE

BACKGROUND

The Australian Animal Welfare Strategy (AAWS), launched in 2004, has three goals:

1. An enhanced national approach and commitment to ensure high standards of animal welfare based on a concise outline of current processes;
2. Sustainable improvements in animal welfare based on national and international benchmarks, scientific evaluation and research, taking into account changes in whole of community standards; and
3. Effective communication, education and training across the whole community to promote an improved understanding of animal welfare.

Mapping and implementing a research agenda that helps to achieve nationally improved animal welfare outcomes consistent with those goals is recognised as central to the success of AAWS.

As the animal welfare stakeholder analysis¹ found:

“Achieving sound animal welfare practices is a key challenge for Australian governments, because different social sectors, organisations, the stakeholders affiliated with these sectors or organisations, and the wider community, have differing values, attitudes and belief systems. So ‘animal welfare’ is subject to varying interpretations, and what constitutes good animal welfare practices may be both controversial and contested. These varying values, interpretations and priorities may affect support for the AAWS and its implementation.”

From a community perspective animal welfare decision-making draws on a number of sources – science, ethics, economics and socio-cultural values. Animal welfare science research offers evidence-based information to assist decision makers facing the need to manage community practices with confidence that they will deliver objectively improved animal welfare outcomes.

Objective demonstration of the strengths and weaknesses of animal welfare practices is important in this setting. It also provides a logical and transparent basis for discussion and establishment of approaches for application across all six of the animal sectors. It also provides discipline-based platforms within which to discuss Australian practices with interest groups in other countries in light of Australia’s particular characteristics and needs.

This report covers:

1. The AAWS R&D Advisory Group’s mandate and activities.
2. The consultative process and assessment of current R&D in Australia.
3. Essential features of an animal welfare research Centre – the drivers and constraints.
4. Policy drivers, risks and international issues for governments and industry.
5. The options considered and their various merits.
6. The recommended path to establishing the Centre.

¹ Nicole A. Mazur, Cecily J. Maller, Heather J. Aslin & Robert Kancans, Bureau of Rural Sciences, 2006. *Australian Animal Welfare Strategy Stakeholder Analysis Phases 1- 4*

1. THE AAWS R&D ADVISORY GROUP'S MANDATE AND ACTIVITIES

The AAWS R&D Advisory Group comprised:

- Chairman: Mr Keith Adams, AAWS Advisory Committee
- Bernie Bindon, previous CEO Beef Co-operative Research Centre (CRC)
- Chris Buller, Invasive Animals CRC and member, AAWS Animals in the Wild Working Group
- John Drinan, Chair of the AAWS Advisory Committee
- Mike Rickard, Chairman of the Board of the Animal Welfare Science Centre; Deputy-Chair AAWS Animals in Research and Teaching Working Group
- Andrew Fisher, Animal Welfare Stream Leader, CSIRO Livestock Industries; member of the AAWS Livestock and Production Animals Working Group
- Clive Phillips, Founding Chair, University of Queensland Centre for Animal Welfare and Ethics, member of the AAWS Livestock and Production Animals Working Group
- John Stewart, Animal Health and Welfare Officer, Cattle Council of Australia, member of the AAWS Livestock and Production Animals Working Group
- Tony Peacock, Chief Executive Officer, Invasive Animals CRC
- Allan Sheridan, DAFF secretariat; convenor AAWS Animals in Research and Teaching Working Group.

When establishing the Group, the AAWS Advisory Committee charged it with investigating models for funding and coordination of animal welfare research and development within Australia.

The Terms of Reference for the group were:

- 1 To develop, with support from the AAWS secretariat, a contact list of significant animal welfare R&D institutions, facilities, managers and researchers in Australia and overseas for AAWS stakeholders.
- 2 To define and report to the Advisory Committee on available mechanisms and structures that facilitate co-ordination of existing animal welfare R&D projects and that can be utilised to maximise efficiency of the outcomes from existing and planned R&D programmes within all AAWS sectors in current facilities and organisations.
- 3 To define and report to the Advisory Committee on potential mechanisms and structures in the research area that could be readily developed to facilitate co-ordination of existing animal welfare R&D projects and that could be utilised to maximise efficiency of the outcomes from existing and planned R&D programmes within all AAWS sectors in identified facilities and organisations. This should include consideration of sectors where funding for animal welfare has not been readily available.
- 4 To investigate and categorise available sources (nationally and internationally) of funding for research into animal welfare that are harmonious with the identified mechanisms and structures in order to help working groups and other AAWS stakeholders better map projects for future animal welfare research, particularly those that are consistent with identified R&D priorities from the AAWS scientific workshop that investigated these matters in July 2006, and more readily seek funding from appropriate sources.

2. THE CONSULTATIVE PROCESS

2.1 EXTENSIVE CONSULTATION AND DISCUSSION

A 'stocktake' report of priorities for each of the six sectors was finalized in August 2006². The report's summary comment on R&D requirements emphasized the need " - - to support the continuous improvement in animal welfare standards and the development of objective measures and performance indicators. It is also important to ensure there is effective communication between sectors on research and coordination to avoid duplication."

A science-focused AAWS workshop to scope interest in and implications of a potential bid for an Australian Cooperative Research Centre for animal welfare was held in Sydney on 18 July, 2006. Attendees at that workshop developed a draft set of nine overarching R&D priorities for animal welfare research in Australia. These priority areas were further refined through discussion by each of the six Sectoral Working Groups and sectoral priorities were broadly confirmed at the second AAWS national workshop, held in Melbourne on 23-25 Oct 2006.

That information has been used to develop a set of cross-sectoral animal welfare priorities that has informed the work of the AAWS R&D Advisory Group. These are being further refined by sectoral groups including at the December 2007 AAWS workshop and will be considered as the basis of the AAWS' animal welfare R&D agenda.

2.2 COMMON RESEARCH THEMES

The 2nd National Workshop affirmed the nine broad cross-sectoral areas for animal welfare research. These are:

- Human/ animal interaction
- The definition of animal welfare
- Pain management
- Housing/ husbandry
- Assessing the welfare of animals
- Transport issues
- Alternatives/better practice
- Pharmaceuticals
- Social science issues

2.3 IDENTIFIED RESEARCH CAPACITY

At the 2nd National Workshop a template was published allowing groups involved in animal welfare research to list their interests and capacities. This template was further used during the work of the R&D Advisory Group to identify those areas in which researchers from Australian institutions are currently publishing.

Statements advising current activities were received from:

- Animal Welfare Science Centre, Melbourne
- Centre for Animal Welfare and Ethics, University of Queensland
- CSIRO
- Invasive Animals CRC

² Shiell, Kevin, *Priorities for Actions from Inventories of Animal Welfare Arrangements*, August 2006

- SARDI
- University of Sydney
- UWA and Murdoch University.

A consolidated document is attached.

2.4 R&D ADVISORY GROUP – SITE VISITS

The R&D Advisory Group met on a number of occasions, both by conference calls and face-to-face during its site visits. The group visited three centres of animal research, viewed facilities and received presentations from researchers. It visited:

- University of Queensland – the Centre for Animal Welfare and Ethics at the Gatton campus and the Veterinary School’s Pinjarra Hills facility;
- The Animal Welfare Science Centre (a collaborative centre between Monash University, the University of Melbourne, and the Victorian Government Department of Primary Industries) at Werribee and the Victorian DPI Offices at Attwood.
- A number of institutions in and around Armidale NSW – three CRCs (Poultry, Beef, and Sheep), research programmes at the University of New England, and the CSIRO Livestock Industries facilities at Chiswick NSW.

3. ESSENTIAL FEATURES OF FUTURE R&D – DRIVERS AND CONSTRAINTS

3.1 AAWS OBJECTIVES

The R&D Advisory Group noted that two of the AAWS Objectives (in Goal 2) support an active, strategic, R&D programme in animal welfare. These are:

1. To maintain and improve the scientific basis for animal welfare standards.

Activities under this Objective are to:

- *Identify possible research and development needs and to encourage greater investment in research areas by industry and government through existing funding mechanisms.*
- *Explore options for funding and establish national animal welfare research priorities.*

and

2. To ensure that new knowledge gained through research on animal welfare is broadly communicated and adopted into national animal welfare standards.

Activities under this Objective are to:

- *Establish a process whereby welfare research is continually monitored and, where applicable, sustainable standards can be updated.*

Implementation priorities under Goal 2 of the endorsed AAWS National Implementation Plan (NIP) include “- - achieve consistency of Australian animal welfare requirements, based on national and international benchmarks, and scientific evaluation and research.”

It is critically important that technical support, through research and development, is available to inform development of improved, sustainable, national animal welfare assessment methodology, practices, codes and standards. Additional to the significance of these evidence-based practices domestically, the R&D Advisory Group noted the importance of the international arena. Australia’s continued involvement in the World Organisation for Animal Health (OIE), which is developing international animal welfare guidelines, is crucial.

This is reflected in activity 10 of the NIP - for Australia “- - to contribute to the benchmarking of international animal welfare outcomes by assisting in the development of international standards through the World Organisation for Animal Health (Office International des Epizooties — OIE)”. The AAWS is consistent with the international view, expressed by OIE, that good animal welfare correlates with good animal health outcomes. AAWS’ contribution to international debate and agenda-setting is expected to lead to improved quality and availability of locally relevant science - for national application as well as for consideration by OIE, the Quads group of countries³ and other international committees when developing sustainable international guidelines.

There is capacity to develop such an approach in an agreed and strategic manner through the AAWS. Activity 14 of the NIP states that Australia will ‘identify possible research and development needs and encourage greater investment in research areas by industry and government through existing funding mechanisms’. Additionally it lists ‘enhanced collaboration between RDCs and research institutions, within Australia and internationally will be achieved’ as an outcome from this activity.

³ Quads group of countries comprise Australia, Canada, the US, and NZ. They meet annually on a formal basis to discuss common approaches to Animal Health issues of international significance. An Animal Welfare Working Group sits under the main committee; that group meets via teleconference and in person twice yearly.

3.2 THE AAWS STOCKTAKE

The AAWS Stocktake process identified a series of broad priorities derived from individual sectoral needs (see ‘Priorities for Action from Inventories of Animal Welfare Arrangements’ by Kevin Shiell, August 2006).

The Research Priorities meeting in Sydney in July 2006 reviewed the breadth of current commitments and discussed in broad terms the concept of an Australian animal welfare ‘centre’. It was apparent that:

- a) the Rural Industry R&D Corporations have their own, industry-specific, objectives;
- b) a number of research providers have capacity and skills in the animal welfare area;
- c) there was currently no over-arching national animal welfare R&D agenda to improve the scientific basis for animal welfare standards;
- d) the meeting revealed no unanimous view on an R&D agenda, but it did identify a common set of priorities.
- e) there was incomplete support, at this and the 2nd National Workshop, for an Animal Welfare CRC bid, and
- f) moves to address animal welfare R&D priorities in a strategic way would necessitate clear funding pathways dedicated to this area of science.

The R&D Advisory Group recognizes that the AAWS R&D discussion does not take place in an empty landscape – there are existing funders with strategic plans, institutional research agendas, investments and skill-sets. To avoid unproductive duplication, the role of an AAWS-sponsored R&D agenda and establishment of a ‘centre’ needs to recognize and ‘leverage’ existing stakeholders, skills and capacities.

3.3 DIVERSE NATURE OF THE SECTORS

The Strategy’s six ‘Sectors’ categorise a variety of different ways humans interact with animals. Establishment of Sectors facilitates effective implementation of the AAWS. Notwithstanding this approach to categorizing different approaches and issues, each Sector covers diverse interests and they are not entirely discrete, with frequently-reported overlap of interests between groups.

The six Sectors are:

- Companion Animals – this sector covers animals kept by humans as pets.
- Animals in work, sport and recreation - includes racing animals, rodeos, recreational horses and zoos and is a diverse sector with many disparate stakeholders.
- Livestock/Production Animals – this sector covers all livestock industries.
- Research and Teaching – this sector covers all aspects of animals used for either research or teaching purposes. It is well-structured and there is effective, consistent, state legislation
- Aquatic Animals – this sector covered aquaculture, ornamental, recreational and wild capture.
- Animals in the wild – this sector spans all air breathing vertebrates that are not dependent on humans for their survival. It includes all terrestrial mammals, reptiles, birds, whales and amphibians. It covers pest as well as native Australian species.

Despite the great diversity of interests in animals, a common set of research themes have been identified. The Advisory Group noted the sectoral views of R&D priority areas expressed at the 2006 National Workshop.

These are summarized in Table 1. (below)

Table 1: R&D importance Matrix topic and sector – from 2006 national workshop

R&D Categories Sector	Livestock /Production	Research & Teaching	Wild Animals	Aquatic Animals	Companion Animals	Work, Sport Recreation & Display
Human/ animal interaction:	Yes	Yes	Yes	Low	Yes	Yes
The definition of animal welfare	Yes	Yes	Yes	Medium	Yes	No
Pain management	Yes	Yes	Yes	High	Yes	Yes
Housing/husbandry	Yes	Yes	Yes	Low	Yes	Yes
Assessing the welfare of animals	Yes	Yes	Yes	Medium	Yes	Yes
Transport issues	Yes	Yes	Yes	Low	Yes	Yes
Alternatives/better practice	Yes	Yes	Yes	Low	Yes	Low
Pharmaceutics	Yes	Yes	Yes	Low	Yes	Low
Social science issues	Yes	Yes	Yes	Medium	Yes	Yes

The R&D Advisory Group recognizes that sectoral groups were not using a common, explicit, weighting system to assess and prioritise these. While this information thus gives no compelling priority area for animal welfare R&D, it suggests that the aquatic and recreational sectors see less overall need for R&D. The Advisory Group considers it worthwhile to ask each sector to clearly define the relative importance of each of these categories by use of a clear, consistent ranking process. This will be done during sectoral group meetings in the period up to and during the 3rd AAWS National Conference, December 3-5, 2007.

The Advisory Group considered this information coming out of the 2006 Workshop and other discussions and posed itself three questions to steer its discussions:

- Was R&D more important to one AAWS sector than another?
- Were there clear drivers for investment in animal welfare R&D? If so, in which sector/s?
- Did the answers to these first two questions indicate a major R&D focus?

3.4 CURRENT INVESTMENTS – GENERAL ISSUES

As noted above, the rural industry R&D Corporations presently invest in animal welfare in their own industries, with government co-funding. Australian Wool Innovation Ltd for example has a significant program into development of non-surgical alternatives to mulesing.

FINAL REPORT FROM THE AAWS R&D ADVISORY GROUP TO THE AAWS ADVISORY COMMITTEE

An issue which emerged from the 2nd national workshop was the need to ensure a strong linkage between R&D outcomes and uptake/application, particularly by industry, through QA and other support and extension services. It was seen as equally important that governments recognise research outcomes and current science during development of government codes and standards, as well as practices and requirements adopted to implement regulatory responsibilities. These processes were seen as deficient by some industries.

A related issue was a concern that implementation of some 'best practice' measures identified by research may reduce Australian producers' competitiveness, because of the cost or additional requirements. This potentially favoured suppliers who operate from other countries at a lesser standard, and therefore may work against the welfare interest of animals at a global level.

The Australian Government's policy in this respect is very clear and consistent with the current view of the WTO. Animal welfare is not an issue that an importing country can raise to limit market access. Accordingly, the need is for implementation of any animal welfare arrangements to be consistent and delivered cost-effectively to reduce the potential for commercial impact in a global trading environment. As noted however, there may be commercial opportunities for 'niche' marketing of animal products that can be verified as produced in an 'ethical' manner. This also points to the importance of Australia playing a substantial role in helping improve animal welfare internationally.

Public sector Veterinary Training institutions and animal biology research groups play a major, complementary, role in delivering information on animal welfare. These include:

- University of Melbourne
- University of Queensland
- University of Sydney
- Murdoch University
- James Cook University
- Charles Sturt University
- University of New England.
- CRCs (Beef, Sheep, Poultry, Pork, Invasive Animals, Desert Knowledge, Aquaculture)
- CSIRO.
- Rural Industry R&D Corporations.

3.5 RURAL R&D CORPORATION (RDC) PRIORITIES

The Rural R&D Corporations (RDCs) are important in any discussion of rural research. They are both significant funders of research and authoritative commentators on the research needs of their industries. Commonly, levies on producers are matched by Australian government funds. In May 2007, the Commonwealth Government announced revised rural industry research priorities, which address the challenges of the next 5 - 10 years. These include, in relation to supply chain and markets, the " - - achievement of animal welfare objectives in livestock production, transport and slaughter, the management of working animals and the control of pest animals.⁴" These priorities were developed in consultation with interest groups including industry.

This priority may result in research funds being channeled to the field of animal welfare. However, it is most likely that each of the industry-based RDCs will internally prioritise work to address the specific needs of its industry stakeholders. While such work may make significant contribution to the body of sectoral knowledge on animal welfare, it will not necessarily contribute to a national agenda, be coordinated with other research in the general area or be freely available (because of contractual undertakings).

⁴ *Rural Research and Development Priorities*, DAFF, 2007, available online at: <http://www.daff.gov.au/agriculture-food/innovation/priorities> .

3.6 PRIORITIES FOR RESEARCH PROVIDERS

As a coarse generalization, the focus of Australian university research is driven by the professional capacity of academic staff. While an element of concentration is provided by structural arrangements, such as topic-focused Australian Research Council (ARC) research centres, ARC Linkage grants, CRCs etc, the majority of research funding is allocated through a competitive process to *Discovery* grants. There are at present no ARC Special Research Centres (or similar) in the area of animal welfare. ARC does not presently plan to create more collaborative centres. Thus, although ARC funds significant biological science research (141 Biological Science and Biotechnology *Discovery* grants were announced in 2006 with \$274m funding allocation⁵) there is no active focus on animal welfare.

The CSIRO has a different model, where researchers apply professional skills within programs (or Flagships) which have a balance of curiosity and outcome-driven objectives. Service to industry is a significant function for CSIRO. In the animal production area there is a considerable inventory of applicable research expertise and established collaborative links between researchers, both nationally and internationally. This inventory can be applied to animal welfare research when it is prioritised.

As the AAWS R&D Stocktake process indicated, Australia is well-served by researchers with expertise in animal biology, production and behavior, all of which link with animal welfare. There are individual laboratories at a number of institutions and a smaller number of agencies with groups of researchers and labs servicing programs with animal biology focus.

Interaction between researchers sharing animal welfare interest is common in Australia and the Research Advisory Group observed a high degree of openness and collaboration. Researchers meet at conferences and other meetings in a collegiate atmosphere where links and projects are discussed informally. There are however few formal, national linking arrangements. There is, for example, no professional 'animal welfare research society'. With the exception of the Animal Welfare Science Centre in Victoria and the University of Queensland's Centre for Animal Welfare and Ethics, no agency focuses primarily on welfare. The Research Advisory Group heard that the AAWS was recognised by researchers as a new model that has potential to both improve collegiate linkages and generate impetus for development of formal institutional linkages. This was particularly so to address overarching themes where cross-sectoral work is needed.

The Research Advisory Group had to limit its coverage of existing research activities to those that have relevance for animal welfare. For practical reasons, not all animal biology research could be embraced. The boundaries of animal welfare research are permeable and ill-defined, so the Group found it necessary to create a boundary and limit itself to that research which is conducted *primarily* to understand or advance the welfare of an individual animal or species. Research where the outcome is increased productivity may have a welfare component, but is not, in this context, captured as 'animal welfare research'.

A feature sought by research providers, the Research Advisory Group noted, was greater project funding continuity, to allow graduate student and junior researcher progression and development. Three-year funding, the norm for ARC grants, is seen as suboptimal. Five-year funding was preferred as it facilitates the development and transition of doctoral researchers into post-doctoral programmes that build the research capacity within the particular institution.

⁵ http://www.arc.gov.au/pdf/ARC07_summaryoutcomes.pdf

3.7 DOMESTIC AND INTERNATIONAL DRIVERS OF CHANGE

The Research Advisory Group has noted the calls for animal welfare reform. As the AAWS Stakeholder Analysis⁶ found:

“The research review also detected high interest by Australians in wildlife and a concomitant concern about protecting habitats. Public concerns about the welfare of livestock animals are often focused on living conditions and animals’ ability to express natural (social) behaviours. Conversely, farmers’ animal welfare concerns tended to focus on the physical condition of livestock animals. Public concerns about livestock animals in Australia are growing.”

Currently, transnational Non Government Organisations (NGOs) are lobbying to constrain long distance animal transport on grounds of alleged inherent and unavoidable poor welfare experiences due to the transport and the animal handling practices the animals may be exposed to.

Some of Australia’s trading partners have also argued in favour of mandating practices which are difficult and unprofitable for many exporting countries, including Australia, and introduce penalising systems for non-compliance. Alternative approaches have also been mooted, including mandatory welfare labeling of retail products to a national standard. In many instances these proposals include little or no capacity for recognition of ‘equivalence’ of animal welfare outcomes through the systems that apply in other countries.

There are also significant moves in the commercial sector to incorporate systems for assurance of ‘ethical production’ in end products derived from animals for consumers. In some other countries these commercial requirements have become de facto trading standards for the industry that producers need to meet in order to access any significant retail outlets. There are perceived advantages to Australia adopting, promoting and displaying a coordinated process where research supports evidence-based codes of practice. Being proactive in agenda-setting is preferable to being reactive.

⁶ Mazur, N. et al, *Australian Animal Welfare Strategy Stakeholder Analysis Phases 1- 4*, Bureau of Rural Sciences, 2006

4. PRIORITIES FOR GOVERNMENT POLICY MAKING

There are a variety of drivers of policy, summarised here as **domestic** or **international** issues and consequences.

4.1 DOMESTIC ISSUES

- The study⁷ on community attitudes, commissioned by AAWS, revealed widespread societal interest in animal welfare and emotional engagement, but shallow appreciation of the complexity of issues. Initial interpretation of ‘animal welfare’ was typically narrow and negative. Particular issues, by Sector, were:
 - Livestock – comparatively strong awareness of issues in this sector. Key concerns related to the live export trade and battery hens.
 - Companion animals – strong affinity with this sector, low level of concern in this sector based on assumptions.
 - Animals in research and teaching – regarded as an ‘unfortunate necessity’ and believed to be well-regulated.
 - Animals used for work, sport, recreation – mixed concerns including doping, exploitation, animals being used for profit and retirement/euthanasia. There was an assumption that animal used for work were more valued by their owners and consequently well-treated.
 - Animals in the wild – high awareness of issues surrounding pest animals, particularly environmental aspects such as destruction of habitat and extinction of species.
 - Aquatic animals – low salience to the community and welfare of fish rarely considered.
- The study found, despite a keen interest in the topic, a shallow understanding of the issues. It reported *“The general public is easily emotionally engaged with the topic of animal welfare, however when challenged for factual information, responses are often narrow or superficial.”* Awareness stems largely from media reports (often sensationalist) on distressing stories of animal cruelty. Worryingly, from the Strategy’s perspective, was the level of misinformation held by interviewees.
- The study also reported a low appreciation of government presence in the animal welfare arena and of the Strategy. There was, however, openness to authoritative information. That authoritative information should be available to reassure public concern that animal ‘use’ is not causing **unnecessary** harm
- It follows that scientific discussion should be part of strategic agenda-setting. Also, animal welfare requirements should be informed by science. Further, ability to deliver improved animal welfare outcomes should be verifiable, and any regulatory impact should be kept to a reasonable level – no more than that required to achieve and demonstrate an agreed level of compliance.

4.2 INTERNATIONAL ISSUES

Animal welfare issues seen at the domestic level can also be played-out on a larger stage. The Government’s concern is both to support effective international trade regulatory systems and to ensure that misinformation impacting on the international community’s views of Australia’s animal welfare credentials is effectively redressed. Issues include:

⁷ ‘Community Attitudes Towards Animal Welfare’ TNS Social Research, August 2006.

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- Supporting the current WTO rules which focus on 'animal health' rather than welfare is important. Providing a science foundation for this continuing argument is highly desirable.
- Concern about potential introduction of compulsory animal welfare 'labeling' obligations on producers/processors to match an arbitrary 'standard'. The 'labeling' approach can be seen in other sectors, for example vehicle sales, where concordance with tough EU standards (in this case for emissions) is used as a marketing tool.
- Concern over payments to producers for the costs of animal welfare requirements and efforts to have such payments isolated from consideration as 'subsidies' through recognition of them as 'blue' or 'green' box payments.
- Concern, generally, about international campaigns against Australian production systems - this represents a serious ongoing risk which can be mitigated in part by government and industry being on the front-foot. Australia's ability to project authoritative, coherent, evidence-based, positions on animal welfare will assist in this area.
- Trade and food safety – Australian production systems are very cost-competitive and underpinned by strong animal health and food safety requirements. It is well established that good animal welfare outcomes in agricultural industries are closely linked to good animal health outcomes but Australia does not accept that animal welfare should be an element for official regulation of international trade by Governments. Nevertheless, commercial groups are increasingly recognizing this link in sourcing requirements.
- While Australian livestock systems are cost-competitive, competition from other agriculture exporting nations is increasing. Within the OECD, Australia is the country most at risk from fluctuations in price and accessibility to export markets for animals and animal products (a very high proportion, perhaps as high as 75% , of animal production in Australia is directed to supplying export markets). This is because Australia's domestic market is already supplied from local sources therefore disruption to exports could not be compensated for by increase in domestic sales. Given the size of the domestic market and the energy of primary production enterprises, the high proportion of product entering the international trading system is not surprising. This trade is nationally valuable but industries involved have vocal critics both domestically and internationally.
- There is also increasing competition to Australia's animal fibre-producing industries from synthetics and other natural-fibre producing (and trading) countries.
- In this difficult trading environment, a commercial 'edge' that can be provided by a 'clean, green' image, underpinned by verified systems, is valuable. Likewise, effective demonstration that Australia has sound animal welfare through argument and science is important in light of contrary allegations.
- Australia's social history has generated primary production industries which are adjusted to this unique geophysical and regulatory landscape. There is an opportunity for a structured domestic, science-based, discussion to assess whether animal welfare outcomes are different from those found in intensive agricultural countries.
- Culling of pest species and overabundant native species, such as kangaroos, has attracted international attention and criticism. There is little understanding, internationally, of the grounds for culling. Campaigns (which may be ill-informed and mischievous) and boycotts, such as the current focus on Adidas' kangaroo-skin soccer boots in the USA, can tarnish Australia's image.

Recent events have heightened the Government's concern about the risks to the integrity of national systems and Australia's commercial position. The uncertain and evolving environment suggests that Government leadership in establishing an authoritative, collaborative, centre of scientific expertise is justified.

4.3 OIE CENTRES

The World Organisation for Animal Health (OIE) is the intergovernmental organisation responsible for improving animal health worldwide. It is recognised as a reference organisation by the World Trade Organization (WTO) and as of May 2007, had a total of 169 Member Countries and Territories.

At its time of establishment, the main aims of the OIE were:

- a. To promote and co-ordinate all experimental and other research work concerning the pathology or prophylaxis of contagious diseases of livestock for which international collaboration is deemed desirable.
- b. To collect and bring to the attention of the Governments or their sanitary services, all facts and documents of general interest concerning the spread of epizootic diseases and the means used to control them.
- c. To examine international draft agreements regarding animal sanitary measures and to provide signatory Governments with the means of supervising their enforcement.

More recently the OIE has recognized that it has a broader mandate, including to provide leadership on the development of guidelines for its members to help them improve animal welfare.

As part of its work the OIE may recognise 'Collaborating Centres'. These are centres of expertise in a specific designated sphere of competence relating to the management of general questions on animal health issues (for example epidemiology, risk analysis, etc.). In its designated field of competence, they must provide their expertise internationally.

There are presently twenty-two Collaborating Centres, including a centre for 'Animal Welfare Science and Bioethical Analysis (Asia/Pacific)' based at Massey University. The material and process required for an application to be recognised as an OIE Centre is not overly demanding.

The benefits of a Collaborating Centre are their status and recognition by OIE and its members of the substantial skills and expertise embraced by the Centre and their consequent ability to influence the international agenda.. They are mandated to :

- operate as centres of research, expertise, standardisation and dissemination of techniques within their sphere of competence;
- to propose or develop any procedure which will facilitate harmonisation of international regulations applicable to the surveillance and control of animal diseases;
- to place expert consultants at the disposal of the Office International des Epizooties.

In addition they may:

- within their sphere of competence, provide scientific and technical training to personnel from Member Countries of the OIE;
- organise scientific meetings on behalf of the OIE;
- coordinate scientific and technical studies in collaboration with other laboratories or organisations;
- publish and disseminate any information in their sphere of competence which may be useful to Member Countries of the Office.

It is proposed that the Australian Animal Welfare Research Centre expeditiously apply for recognition by the OIE as a Collaborating Centre for animal welfare.

5. OPTIONS CONSIDERED AND THEIR VARIOUS MERITS

5.1 KEY CHARACTERISTICS

The Research Advisory Group considered various models for future collaboration between the existing animal welfare R&D providers. It believes that an Australian collaborative centre for animal welfare R&D should have the following characteristics:

1. It should have a separate, national, R&D identity.
2. It should be created with the vision of a long-term entity, coordinating a strategic national research agenda.
3. It should be collaborative and inclusive.
4. The focus should be on improving the scientific basis of animal welfare.
5. All six sectors must be able to be represented.
6. Where a sector has the capacity to invest, it should be engaged for co-contribution.

Existing funding arrangements offer a number of alternatives. Models considered were:

- Cooperative Research Centre
- Australian Research Council Special Research Centre / Centre of Excellence
- Network centre modeled on Animal Health Australia
- Network centre modeled on existing ad hoc centres.

5.2 ALTERNATIVE MODELS

5.2.1 Cooperative Research Centre

The CRC Programme is an Australian Government funded initiative, which commenced in 1990. It supports world-class research with the aim of turning Australia's scientific innovations into successful new products, services and technologies, making industries more efficient, productive and competitive. There are presently over 50 CRCs spread across all sectors of science and technology.

The Programme emphasises collaboration between business and researchers to maximise the benefits of research through an enhanced process of utilisation, commercialisation and technology transfer. It also has a strong education component with a focus on producing graduates with skills relevant to industry needs. The Programme encourages international collaboration.

The Australian Government grants between \$20-40 million in funding to CRCs over a seven year period. This funding must be at least matched by cash and/or in-kind contributions from CRC participants. In practice, the level of partner inputs has been 2-3 times that of the Australian Government's grant. The quantum of a CRC is thus in the region of \$100m – a very significant enterprise. With this size comes profile, authority and a 'lightning rod' effect which sees CRCs attract attention and resources in their field, shading-out others.

The seven-year duration of funding is an attractive feature of the programme, allowing collaborating groups enough time to invest in sustained R&D programs. A second positive feature has been the ability of CRCs to embrace a wide spectrum of interests – small and large companies and interest groups and a broad span of research providers. CRCs commonly now have 20-40 partners. Each CRC is managed by an independent board, with partners mimicking the role of shareholders in a public company. They normally support dispersed research projects, conducted at nodes where the greatest expertise is found, managed from a central HQ. Coordination / management costs may be 20-25% of the Government grant and 7-10% of the total centre budget.

Investment by end-users normally carries with it commercialization rights. These arrangements may be uncomfortable for, or hard to negotiate with, research providers. Collaborative ventures now find Intellectual

property rights a significant discussion point with universities and CSIRO, prior to and during cooperative centre establishment.

Competition for new CRCs has occurred every two years; one is due to be announced in late 2007. The number of applications (between 30 and 50 serious bids) for a small number of grants (10-14) results in a 30% success rate, illustrating the fierce competition. In the last two rounds of competition, the Programme has emphasised excellence and generation of products and services, with industry partners both helping direct the work and commercialising the output. 'Public good' bids have not been successful and some high-profile CRCs have not been re-funded. In 2006 the Productivity Commission advised that the selection criteria should be widened to accommodate 'national benefit'. While this may open the door for public-good bids it will also increase the total number of bids and, in the absence of significantly increased Australian government funds, make the competition even harder to win.

The structure of CRCs makes this a good model for the Animal Welfare Centre.

5.2.2 Australian Research Council Research Centre

The Australian Research Council (ARC) is one of the country's largest research-funding bodies. It is the preferred research funding source by universities because its grants positively affect their formula-based block funding. It is preferred by academic researchers because of its peer-review system and (at least for Discovery grants) its support of fundamental research. There are well-established protocols for ownership of intellectual property.

The ARC's 'National Competitive Grants Program' currently supports three types of Centres. These are:

- Centres of Excellence - prestigious hubs of expertise through which high-quality researchers maintain and develop Australia's international standing in research areas of national priority. They promote a high level of collaboration occurs between universities and other organisations in Australia and overseas. However, the ARC is not planning new Centres in this format before 2009.
- Special Research Centres - funded on the basis of research excellence and potential to contribute to the economic, social and cultural development of Australia. Subject to satisfactory performance, the Special Research Centres have been funded for nine years. Despite their success, the ARC does not now fund new Centres under this program.
- Co-funded Centres of Excellence – these are the only research centres supported by the ARC at this time.

The ARC at present supports three *Co-funded Centres of Excellence*:

- the Australian Centre for Plant Functional Genomics, with the Grains Research and Development Corporation;
-
- the Australian Stem Cell Centre, with the Department of Industry, Tourism and Resources; and
-
- National ICT Australia (NICTA) with the Department of Communications, Information Technology and the Arts.

Applications for co-funded *Centres of Excellence* are invited periodically, to fill national strategic gaps, but not frequently.

Notwithstanding the *prima facie* attractiveness of the ARC centre model, the absence of planned investment in this 'national centre' format makes it a low-likelihood option.

The ARC's main ongoing programs are *Discovery* and *Linkage*. *Discovery* has a number of components, supporting individuals or teams undertaking excellent, fundamental, research. It is competitive and has a low success rate (≈20%). *Linkage* supports long-term strategic research alliances between higher education institutions and industry to apply advanced knowledge to problems, or to provide opportunities to obtain national economic or social benefits. It requires co-investment by participants – particularly industry. The grant

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size is uncapped and may be up to \$500,000 p.a. The success rate for *Linkage* applications is higher, at 35-40% and there are two application rounds per year. *Linkage* grants can focus on international collaboration as well as domestic partnerships.

Linkage grants represent an existing funding source the Australian Animal Welfare Centre should explore for support.

ARC projects are administered by a host university and commonly have undemanding administrative and reporting protocols. ARC Centres / projects may have advisory committees but there is still significant academic latitude.

5.2.3 Networked centre after Animal Health Australia as a model

Animal Health Australia is a not-for-profit public company established by the Australian Government, state and territory governments and major national livestock industry organisations. Its primary focus is production animal disease, detection, prevention and cure.

The partnership initiates and manages collaborative programs (currently eight) that improve animal and human health, food safety and quality, market access, animal welfare, livestock productivity and national biosecurity.

Animal Health Australia has 25 members spread across four categories; the Australian government, all state and territory governments, livestock industry organisations and service delivery organisations.

Members are involved in the management of all activities and have formal input to the development of company annual and strategic plans via AHA's National Animal Health Consultative Group. Through such mechanisms, members have the opportunity to ensure that issues of importance to their jurisdiction or industry are addressed.

Members fund the company's activities via annual subscriptions that are calculated by a formula based on the Gross Value of Production of the industry or jurisdiction, using a three-year rolling average.

Programs range from vaccine production and management, national code development and certification, through surveillance protocols to training and emergency response.

Despite governance arrangements which suggest a corporation with an independent board etc, it works in a highly regulated environment with significant compliance / reporting obligations according to Australian and state laws. While it is not envisaged that an incorporated structure of this complexity is necessary for an R&D centre the model would allow for animal welfare R&D work to be advanced in a strategic manner with oversight from a representative board.

AHA has some R&D interests; it is a member of the Australian Biosecurity CRC.

Given that AHA's core work program is funded equitably by its members it is an attractive model for any proposed centre as Commonwealth funding for the AAWS ends in June 2009. The working group reviewed this model and a number of points follow from those considerations:

- AHA's operations are restricted to livestock and production industries. AHA does not cover any of the other AAWS animal use sectors.
- This is not necessarily a negative for the proposed AAWS R&D portfolio in that livestock industries are generally well organized, having peak industry bodies and fund-raising mechanisms from their members.
- The current workplan for AHA includes animal welfare issues, in the context of production animal health. AHA's company objects do not explicitly include a mandate to cover welfare matters.

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- A network animal welfare research centre, to be operated under a similar arrangement, would be able to advance cross-sectoral work assuming other animal use sectors could input separately and equitably.
- The fact that livestock industries also already have industry-based work programs which include aspects of animal welfare R&D (e.g. research supported by AWI, MLA and APL) must be acknowledged. To be accepted as of value for the R&D bodies in the production sector, any 'new' player would probably need to focus on work of common interest across the livestock industries and to be of strategic nature.
- From the investigations to date, there are areas of R&D interest that would fall into this category and that are of similar importance for the other AAWS sectors. If those sectors could develop a funding mechanism then such work could expand readily to encompass them. However, if no funds were forthcoming from those sectors it would be difficult, on governance and equitable grounds, to argue that livestock producers, in effect, providing funds for other sectors.
- Those other mechanisms, for funding work prioritised by other sectors must be defined if this model is to work (refer point 6.3 below).

Following the group's discussion of these points, two alternative options for developing a collaborative centre working within an 'AHA' type of arrangement were considered:

- a) as a new centre governed and funded in the same way as AHA.
 - A drawback for this is that livestock industry animal health and some animal welfare issues are already undertaken within AHA. The funding and governance arrangements of AHA have been tested and work. A new structure would have to develop those arrangements *ab initio*, and be attractive enough for industries to be prepared to, in effect, pay for AHA, their own R&D bodies, and a strategic nationally endorsed portfolio of animal welfare R&D.
- b) As a centre with its own sub-board to sit within AHA and be subject to the AHA rules and regulations.
 - This has implications for the funding from livestock industries – in effect AHA's operations, mandate and company objects would expand. A side-effect could be that additional governance costs might be reduced, compared with a stand-alone centre.
 - In addition, advice from the R&D Centre's Board would have to be progressed to the full AHA Board for ratification to make certain that work in other AHA programs did not clash.
 - If not set up as an inclusive operation, such a model may significantly constrain the broad AAWS research agenda.

Further investigation of the feasibility of each of these options needs to explore with the AHA board whether it could consider development or inclusion of a separate 'arm' of its corporation to cover animal welfare, including animal welfare R&D, to be performed in a collaborative manner for necessary and strategic cross-sectoral purposes.

5.3 THE RESEARCH FOCUS?

Information elicited at the National Workshops and during site visits allowed the Research Advisory Group to form views that:

- a) There is a significant intellectual base for animal production / environmental research in Australia, supported by adequate, though not excess, infrastructure capacity.
- b) Animal welfare research is an accepted component of the animal biology mix – and it is generally recognised that animal 'health' and 'welfare', though linked, are not synonymous.
- c) There is noticeable openness and collaborative willingness among the individual, somewhat scattered, professional researchers.

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- d) There is a paucity of national focusing mechanisms and most researchers, naturally, encouraged to promote and focus on their individual areas of expertise.
- e) The animal production Rural R&D corporations (AWI, MLA, Dairy Australia, Australian Egg Corporation, Australian Pork and Livecorp) invest in work to improve the competitiveness of their industry sectors. There are some overlapping interests and joint projects (e.g. AWI and MLA's *Integrated Framework for Welfare Measures* project in 2005). As noted in 3.3 (above) there is a need for a national agenda addressing fundamental, supra-industry, issues.

The Research Advisory Group does not recommend a particular research portfolio, at this stage, but does consider it is vital that research support and have a channel to deliver, sound **strategic** advice which can be used in public policy formulation. The following issues warrant further systematic exploration in a collaborative R&D environment:

- Unifying animal welfare assessment methodologies. This is a fundamental issue; the Research Advisory Group was presented with compelling advice that it is the existence of a number of alternative concepts which prevents science from having a stronger voice and validating different animal welfare practices. In turn, this prevents the scientific community from informing the broader society of benefits and drawbacks in an objective manner. This point is reflected further in other issues below.
- Develop objective measures of animal welfare to underpin ethical livestock production. Humane and non-lethal controls for pest animals.
- Issues of human-animal interaction.
- Control of pain to reduce 'distress' in animals during necessary procedures
- Physical and social requirements of animals – preferred resource choice being used to assess optimal 'fit'.
- Assessing the impact of alternative husbandry practices.
- Investigation of factors involved in managing animal welfare risks during transport of animals in order to provide animal industries with verified ways to underpin improved outcomes.
- The integration into animal welfare of biomedical science review processes and risk assessments used in food safety.
- Identification of ethical and practical environments to maximize animal physical health, psychological health and reproductive capability, acknowledging animals are kept for many purposes including production, conservation, companionship and research.
- Genetic tools for analysing animal welfare and selection for positive traits, including consideration of the genetics of 'suitability' for different production systems.
- Varying societal pressures as stimulants of innovation.

The topics chosen as the initial R&D agenda will be 'enabling' research, which fills gaps in existing knowledge and can be drawn-on by industry-oriented researchers.

Additionally, the research environment of the AAWRC should enable international collaboration and national events, conferences, topic-specific workshops etc.

The Centre's capacity to contribute rapidly to emerging issues was discussed. While this has attractions – the Centre will likely include scientifically objective, credible, experts – the Centre's prime role would be to undertake programmed work of strategic importance to a number of Sectors. Once established, the Centre could consider its capacity for a 'reference' role. By way of example, the European Food Safety Authority (EFSA) provides formal scientific opinions on various matters of regulatory importance. The AW R&D Centre could provide formal responses to stakeholder requests about particular animal welfare matters. Given the projected stature of this centre, such assessments would be valuable documents.

6. STRUCTURE OF AN AUSTRALIAN ANIMAL WELFARE RESEARCH CENTRE

The Research Advisory Group considers that the objectives of the proposed AAWC will be best served by building on, strengthening and focusing Australia's existing expertise. It does not support creation of a new, potentially

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competing, physical entity to address the additional strategic programme of animal welfare R&D under the AAWS.

It is proposed that a 'virtual centre' be established, with a clear charter and structure (illustrated in chart 1. below). This structure recognises that multi-partner, collaborative arrangements inherently carry higher transaction costs than a single administrative unit. However, a 'greenfield' centre is neither demanded (by a need for urgent increase in national capacity and/or expertise) nor by market-attractiveness, as unique set-up (including infrastructure) costs would be prohibitive.

The 'collaborative research' approach is widely regarded as an appropriate model, where there are variable global pressures, rapid technological change and the need for sharing heavy technology investments. Corporate entities accept the need for R&D interaction to coordinate and integrate systems from different parties. Further, the ability to control the speed of innovation and thus be timely, is an even stronger focusing factor.

In line with this logic, reducing the uncertainty of delivery from separate, roughly parallel research-oriented groups, is one common approach, strengthening the need for efficient and effective integration of a coherent whole.⁸ This may be more readily delivered where there is an external priority framework driving the agenda of a virtual centre that runs on a collaborative basis by incorporating the strengths from each of a number of different institutions.

6.1 CORE PROVIDERS

It is anticipated that there will be a core group of research providers, who have already significant strength in the field, comprising the **Animal Welfare Science Centre**, **CSIRO** Livestock Industries and the Centre for Animal Welfare and Ethics, and the Centre for Animal Welfare and Ethics, **University of Queensland**. This core group can be supplemented by other universities with specialist expertise and limited-life agents such as CRCs. The objective is to create a comprehensive network of expertise.

A list of R&D providers invited to become members of the Centre is attached, though it is not intended that this list be exclusive.

The Centre would best operate separately as the R&D arm of a structure that addresses the national need for a representative agency to continue to advance animal welfare in accordance with the goals and arrangements currently held in the AAWS. This will enable the Centre's R&D agenda and operational arrangements to be maintained during transition to an overarching administrative body that would succeed the AAWS after June 2009.

Arrangements would however require the Centre to address strategic priority areas set by the overarching administrative body and provide feedback to that body in order to service the needs of a broad base of stakeholders and stakeholder groups in the sectors. It is anticipated that would facilitate access to a range of funding sources. It follows that the overarching body would be active in securing funding for the required R&D.

6.2 DEFINING THE R&D AGENDA

The research agenda should be user-driven. 'Users' in this context, are represented by the Sectors. An appropriate mechanism for refining research projects would be through a series of iterations, involving the Sectors, research providers and the AAWS Advisory Committee.

It is proposed that the knowledge gaps / priorities identified by the 2nd National Workshop (referred to in Table 1 above) be refined by the Sectoral Working Groups prior to the 3rd National Workshop in December 2007.

This prioritised target list would be considered by the AAWS Advisory Committee and, once endorsed, R&D providers would be invited to develop projects to address them. It is proposed that, to encourage collaboration and enhance knowledge transfer, all projects would have at least two participants, one of them an industry or other end-user.

⁸ Wang, J and Kleiner, B. 'The evolution of R&D Management' Management Research and News, Vol 28, No 11/12, 2005

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The AAWS Advisory Committee would consider project proposals, agree to support particular projects and allocate funding. The AAWS Advisory Committee might wish to maintain a standing Research Advisory Committee to monitor projects' progress, but would itself periodically discuss progress, refine the priority list.

6.3 FUNDING THE R&D

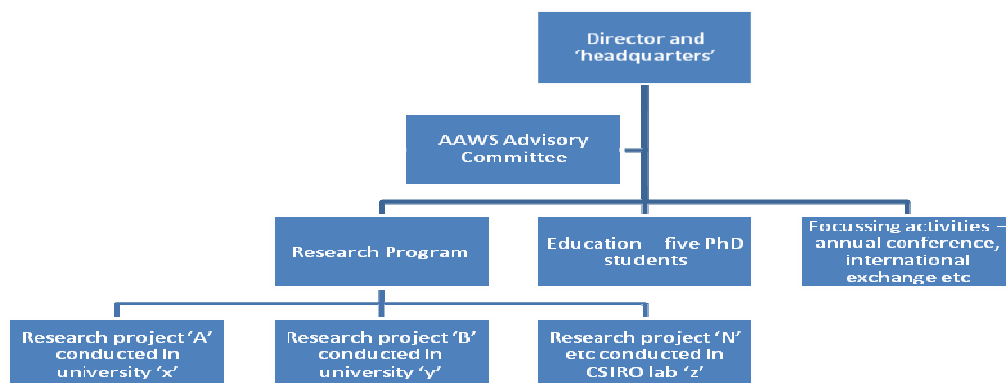
A co-investment model is proposed, similar to funding of a CRC, with the various animal use sectors' industries, the research providers, state and Australian governments making contributions. In this model three groups of providers would each contribute one-third of the total resources needed for effective function of the Centre and delivery of the R&D outcomes:

- The research provider contribution would be (principally) in-kind – the time of senior research scientists, use of university/CSIRO infrastructure, facilities and equipment etc,
- grant funding would be sought from the animal production R&D corporations, to address precursor issues relevant to their stakeholders in that sector. Other AAWS sectors will be required to identify and engage funding streams within their ambit for equitable contributions to the work of the Centre, and
- grant funding from the state and territory and Australian governments. Government contributions are important from a number of reasons, but principally because while all six sectors of AAWS need to be represented in the R&D plan, not all have rural R&D corporation-style backing⁹ and there is likely to be a need for 'top up' funding for work to address the R&D needs of these sectors.

6.4 SCALE AND BUDGET

Notwithstanding that the research prioritisation process needs to be re-visited and is presently incomplete, it is still possible to consider the quantum of a virtual research centre, given the breath of topics suggested above.

A structure is illustrated in the following scheme:



It is proposed that the Centre be established for six years, with the first year (commencing October 2007) being a development / set-up year. A budget of \$12m, over six years, is proposed.

The operational framework is similar to that of a CRC. A **portfolio of research projects** to address the issues outlined in section 5 (above) might be undertaken by eight professional research staff. The all-up cost for a postdoctoral researcher is around \$120,000 p.a.¹⁰. So a 'new research staff' budget of approximately \$1m p.a. is

⁹ It is unclear which industry groups would support the Companion Animal, Animals in Sport and Recreation, Animals in Research and Teaching, Animals in the Wild and Fish sectors.

¹⁰ See Appendix for details

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envisaged. These staff would be appointed by the institution conducting the projects; the institutions would be funded to undertake approved projects through a contract with the AAWS.

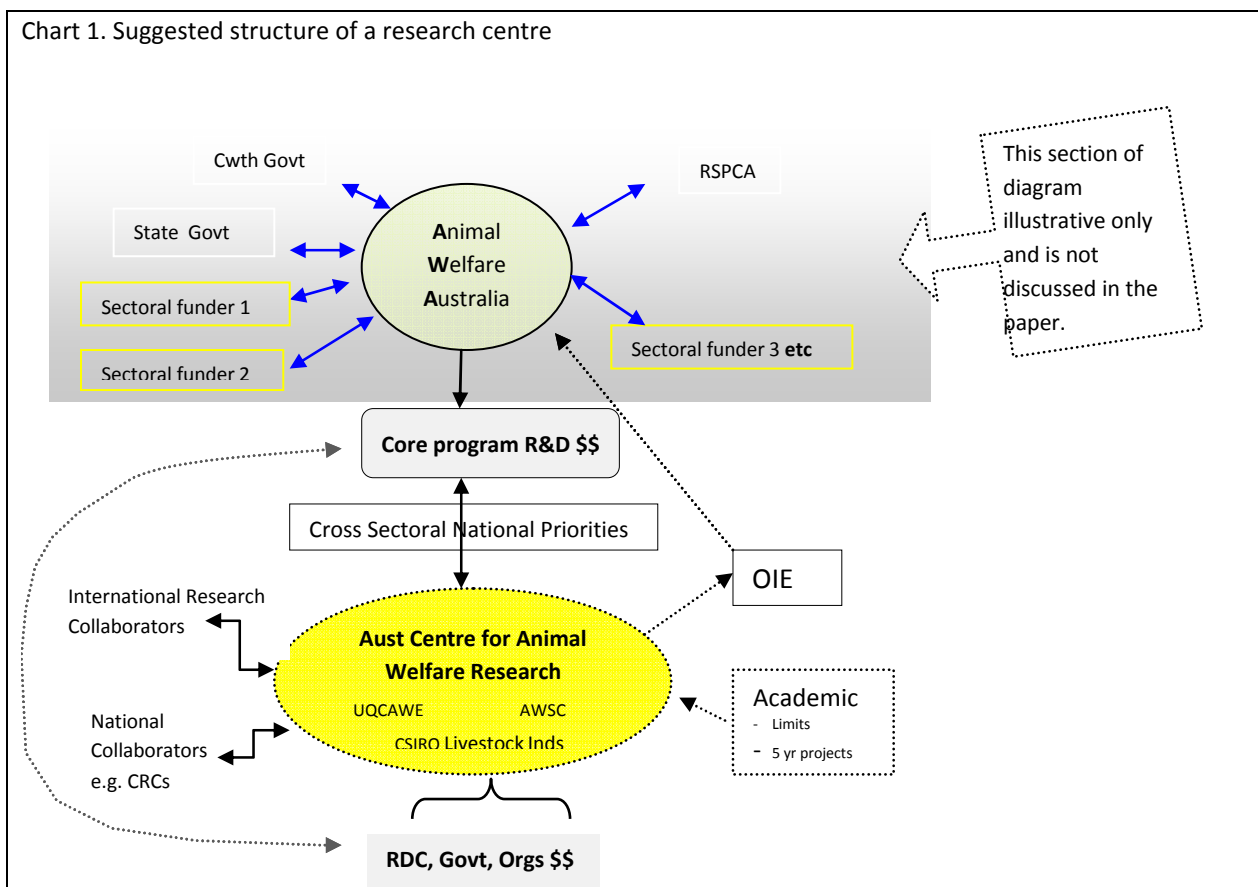
Training the next generation of animal welfare professionals might suggest five **PhD students**. While such students may well attract APA Scholarships, it would be prudent to budget for two full scholarships (say \$30,000 p.a.) and three ‘top-ups’ (\$10,000), giving a budget of \$90,000 p.a.

An annual conference and international exchange program would provide periodic cross-centre collaboration and **information exchange** opportunities. It might be run for around \$75,000.

The Centre would require a **director and small ‘headquarters’ operation**. The director might be appointed by the AAWS Advisory Committee, from one of the core research providers, for two-years. To enhance the collaborative ethos, the position could circulate between the three core research providers. If the director was a full-time appointment, a professorial salary would be appropriate (around \$170k including on-costs)¹¹. Particularly during establishment phase, it would be important that the director was committed to the enterprise virtually full-time, so an honorary or part-time appointment would not be favoured. The director would be responsible for overseeing the research project portfolio – so liaising closely with all research providers – and promoting the centre’s mandate nationally and internationally.

Options to minimise the costs of the ‘headquarters’ should be explored. This might include a cost-sharing arrangement with the research institution hosting the director at that time, so that office support and finance/accounting support is provided free-of-charge.

Chart 1. Suggested structure of a research centre



¹¹ Academic Level ‘E1’ at ANU – total cost \$162,420 (made up of \$126,891 salary plus 28% oncost of \$35,529). See http://info.anu.edu.au/hr/Salaries_and_Conditions/Enterprise_Agreement/2005-2008_HEWRR/_S2/_S2_1.asp

6.4 INITIAL STEPS TO ESTABLISH CENTRE

The following timetable and steps are proposed to enlist support and establish the Centre.

Development phase

1. September – October 2007
 - a. Consideration of report recommendations by AAWS Advisory Committee;
 - b. Subject to endorsement:
 - i. Confirmation of core membership by CSIRO, AAWC and UQ's CAWE
 - ii. Preparation of draft operating arrangements
2. Engagement of funding sources (DAFF, RDCs, state govts etc)
3. November – December 2007
 - a. Establish steering/participants committee to oversee development
 - b. In principle agreement of operating arrangements
 - c. Confirm membership and establish internal scientific reference panel – draft science plan to revise research focus.
 - d. Draft and submit OIE Collaborating Centre application
 - e. Development of funding arrangements
 - f. Endorsement of progress by AAWS Advisory Committee
 - g. Presentation at, and feedback from, AAWS meeting.



Stop/go point dependent on adequate progress on funding, science and management arrangements.

Establishment phase

4. January-March 2008
 - a. Confirm funding arrangements
 - b. Circulate science plan for comment
 - c. Steering/participants committee meet and review management, science, funding arrangements.
 - d. AAWS Advisory Committee review progress and if satisfied, announce centre.



Stop/go point dependent on confirming funding, science and management arrangements.

5. April-June 2008
 - a. AAWS Advisory Committee appoint Director
 - b. AAWS Advisory Committee endorses management arrangements and research plan.

Operational phase

6. July 2008
 - a. Centre established
 - b. New research staff recruited.
 - c. Annual conference announced.

APPENDIX

Costing details of proposed budget

The proposed research position budget is based on a formula used by a number of Cooperative Research Centres. It includes direct salary costs, salary on-costs, an allowance for experimental / operational costs and an 'overhead' payment to the hosting institution to cover indirect costs.

Postdoctoral Researcher

Costs are estimated as follows:

- 1) Australian Research Council salary rates¹² which for a Postdoctoral Fellowship in 2008 is \$78,591 p.a. (including 28% direct on-costs). Given likely increments, this should be budgeted to rise to \$85,000 over the next 3 years.
- 2) Experimental costs - \$20,000 p.a.
- 3) 'Overhead' payment - \$20,000 p.a.

PhD Student

- 1) Based on ARC industry scholarships the full annual tax-free stipend is \$26,140.
- 2) A student in receipt of a university scholarship may receive a smaller stipend, around \$19,600¹³ and a 'top-up' to the ARC industry scholarship rate.
- 3) A small support allocation might be made, but universities are expected to meet the other costs associated with students from their general grant funding.

Information Exchange – prospective activities:

- Annual conference a two-day event - venue hire (\$10,000), proceedings (\$5,000), two international guest speakers (\$5,000 each) – total \$25,000;
- Presentations at international conferences – 2 p.a. each receiving \$5,000 support - \$10,000;
- Establish professional society - \$10,000 p.a. secretarial support.
- Create web site (\$10,000), annual maintenance by professional society (\$5,000) and annual hosting cost (\$5,000) - \$20,000.

¹² See <http://www.arc.gov.au/applicants/salaries.htm>

¹³ See University of Queensland research scholarship at <http://www.uq.edu.au/grad-school/index.html?page=12762>