

**Productivity Commission Inquiry
Rural Research and Development Corporations
30 June 2010**

AUSTRALIAN PORK LIMITED



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I. Abbreviations

AAWS	Australian Animal Welfare Strategy
ABS	Australian Bureau of Statistics
AD	Anaerobic digestion
AECL/AEC	Australian Egg Corporation Limited
AFGC	Australian Food and Grocery Council
AGM	Annual General Meeting
AHA	Animal Health Australia
ALFA	Australian Lot Feeders Association
ALOP	Appropriate level of protection
AMIC	Australian Meat Industry Council
AMPC	Australian Meat Processor Corporation
APC	Australian Pork Corporation
APL	Australian Pork Limited
AQIS	Australian Quarantine and Inspection Service
ASEAN	Association of South East Asian Nations
ATO	Australian Tax Office
AUSPIG	AusPig is an advanced decision support system for the Australian pork industry
BA	Biosecurity Australia
BCA	Benefit Cost Analysis
BSE	Bovine Spongiform Encephalopathy
CAPE	Confederation of Australian Pork Exporters
CCRSPI	Climate Change Research Strategy for Primary Industries
CEO	Chief Executive Officer
CO ₂	Carbon dioxide
CoOL	Country of Origin Labelling
CPI	Consumer price index
CRC	Cooperative Research Centre
CRRDC	Council of Rural Research & Development Corporations
CSIRO	Commonwealth Scientific and Industrial Research Organisation
CWE	Carcase weight equivalent
DA	Dairy Australia
DAFF	Department of Agriculture, Fisheries and Forestry
DOFA	Department of Finance and Administration
EADRA	Emergency Animal Disease Response Agreement
EI	Equine Influenza
EMIAC	Export Meat Industry Advisory Committee
EPA	Environmental Protection Authority
GHG	Greenhouse gas
GRDC	Grains Research Development Corporation
GVP	Gross Value of Production
GWP	Global warming potential
HAL	Horticulture Australia Limited
H1N1	Influenza A subtype H1N1
HR	Human Resources

HSCW	Hot Standard Carcase Weight
IOC	Industry Owned Company
IP	Intellectual Property
IRA	Import Risk Assessment
IRAAP	Import Risk Assessment Appeals Panel
IRB	Industry Representative Body
ISB	Industry Service Bodies
IWG	Implementation Working Group
LCA	Life cycle assessment
M2MA	Methane to Markets in Agriculture
MAT	Moving annual total
MLA	Meat and Livestock Australia
NEGP	National Environmental Guidelines for Piggeries
NRS	National Residue Survey
NSW	New South Wales
OH&S	Occupational Health and Safety
PC	Productivity Commission
PCA	Pork Council of Australia
PCV2	Porcine circovirus type 2
PISC	Primary Industries Standing Committee
PMWS	Post weaning multi-systemic wasting syndrome
PPPE	Pan Pacific Pork Expo
PR	Public relations
PRDC	Pork Research and Development Corporation
PRRS	Porcine Reproductive and Respiratory Syndrome
QLD	Queensland
R,D&E	Research, Development & Extension
R&D	Research and Development
R&I	Research and Innovation
RDAC	Research & Development Advisory Committee
RDC	Research Development Corporation
RIRDC	Rural Industries Research and Development Corporation
SAI	Sustainable Agriculture Initiative platform
SARDI	South Australian Research and Development Institute
SFA	Statutory Funding Agreement
TOR	Terms of reference
UK	United Kingdom
US	United States
WTO	World Trade Organisation

2. Executive Summary

Australian Pork Limited (APL) is providing this submission to the Productivity Commission's (PC) inquiry into the Rural Research and Development Corporations (RDC's).

This submission does not address all of the questions raised in the PC's Issues Paper but it does deal with many of them, in particular from the perspective of APL and the pork industry. APL also supports the content of the submission being provided by the Council of Rural Research and Development Corporations (CRRDC) which addresses many more of the questions in the issues paper from the perspective of agriculture generally and the total group of RDC's.

The core aims of this submission are to support three positions; those being:

- That taxpayers gain a competitive net value from investing in rural R&D;
- That the present RDC model is well placed to deliver this value but improvements are possible: and
- That the unique structure of APL enables a level of performance across a range of interlinked industry services and representation that would be difficult to achieve through other structures.

The core arguments supporting these positions are summarised below and elaborated in chapters three to five. The remaining chapters and appendices contain supplementary information for referencing where required.

2.1. Taxpayers get excellent returns on their investment in rural R&D through public good spillovers

Investment in rural R&D in areas of interest to the pork industry will result in significant public benefits through automatic spillovers in the areas of (for example):

- Lower cost and more secure pork supply;
- Safer pork supply;
- Pork products produced in a system with lower environmental footprints and reduced emissions;
- Pork products produced with better management of the welfare of the pigs;
- A stronger rural pork production industry supporting regional development.

The CRRDC administers an annual system of ex-poste project evaluations on behalf of all of the RDC's. Due to the more direct financial consequences of the benefits to industry and pig producers, measurement of the industry benefits of APL projects has been much more clearly defined than the measurement of the public benefits. This phenomenon is not surprising and similar observations have been commonly observed with all of the other RDC's and in fact amongst the network of agricultural economists world-wide.

Nevertheless, the result of the industry benefit assessments has shown the returns from R&D investments to the pork industry have been very favourable. The natural extension of these results, considering the unbreakable link between private and public benefits from pork industry R&D, would

indicate significant benefits flowing to the community in line with the expectations for taxpayer returns generally. Difficulties in quantitative measurement mean that the expression of these public benefits in the CRRDC analysis is made in a more qualitative form.

This “unbreakable link” referred to between the private and public good of rural R&D investment is an outcome of the common end objective shared between pig producers and the community – that being the generation of consumer value with flow on effects to community value. The vision of a “competitive, responsible and sustainable Australian pork industry” as expressed in the APL Strategic Plan 2010-2015, can only be met with community and consumer acceptance and support for the products and the methods of the industry.

Of course, none of this public benefit depends on investment coming from any particular source – it just depends on the investment actually being made. One could assume that given the strong proven whole of industry benefits achievable through rural R&D investment, that industry would be very keen to maintain the investment and even increase it if government was to withdraw their contribution through the matching funds process.

In practice, we do not believe that this would happen. Levy payers are presently able to accept the reality of their compulsory contributions to industry R&D projects for two reasons:

- The industry benefit that accrues generally would not be realised without the levy due to market failure, which in itself is the result of:
 - The lack of incentive for individual R&D investors arising from the difficulty in developing unique innovations that would be excluded from the rest of the industry;
 - The scale of R&D investment required to realise the large gains and efficiencies necessary for competitive outcomes.
- The linked government matching funds contribution that significantly enhances the returns on R&D investment to individual producers on their R&D levy.

So without the taxpayer contribution to pork industry R&D investment, the absolute amount of the investment through APL would not only be halved, but there would be pressure from individual large producers to reduce or withdraw the levy completely. They would be looking to invest individually for competitive advantage over other pork producers, which would result in duplication, inefficiency and exclusion of small/ medium sized players from access to research outcomes.

Thus the leverage provided by the taxpayer contribution to pork industry R&D is the backbone of the totality of the APL R&D investment on behalf of levy payers. Without the taxpayer contribution, the net result for both industry and the community would be much less attractive than the returns that are presently being generated for both stakeholders.

2.2. The RDC model provides the best structure to optimize the public and private returns from investment in rural R&D

The RDC model presently in place is delivering strong public and private benefits flowing from rural R&D investment.

The strength of the present RDC model is twofold:

1. The sectoral or industry basis for the rural RDC's means that the R&D conducted is relevant to particular industry needs (with strong accountability back to levy payers), has ownership from industry and is able to be successfully transferred and adopted by industry. Levy payers from industry can and do play a direct role in allocating R&D funds for best outcomes;
2. The separation of the funding of R&D from the supply of R&D means that R&D effort is directed in areas of commercial relevance (which provides the public good spillovers) rather than in areas of scientific interest which may or may not be generating value for industry and the community. This independence also ensures competitive processes for R&D supply which delivers increased efficiency and returns from the R&D investment.

That said, the industry basis for the rural RDC's does create some natural challenges that need to be addressed.

Firstly, the strong industry R&D focus does not automatically mean that the generic domains of interest across industry sectors (the so-called "cross sectoral" issues – soils, water, climate change, bioenergy, biosecurity, animal welfare and others) will be adequately addressed. This has come to the collective attention of the RDC's and efforts are now being made to set up collaborative structures that, for each of these cross sectoral domains, create an entity which:

- Will provide leadership and be seen as the centre for R&D efforts in the particular domain;
- Will administer co-investments from individual RDC's in generic research relevant to the domain;
- Will not preclude but will register individual RDC efforts relevant to this scientific domain for their own industry;
- Will take a managing overview of the infrastructure and human needs for the continued appropriate resourcing of the R&D efforts for the scientific domain.

Secondly, the industry focus of RDC's means that there are enough of them to match the number of individual rural industries with significant levy collection arrangements. This results in an appropriate number of RDC's but it does mean that the potential exists for duplication of efforts in non-core generic business processes. Efforts are underway for RDC's to work better together in the area of optimising back office resources for greater efficiency – specifically in the area of synergies through co-location, financial administrative services, information and communication technology, communications and legal services.

2.3. The unique structure of APL and its advantages

APL differs to the other rural RDC's due to its unique status as not only the industry RDC, but also the industry representative body (IRB) as recognised by the Australian government. Due to this status, APL has an additional industry function recognised within its Statutory Funding Agreement (SFA) – that of "strategic policy development".

Government has recently expressed some concern over this particular arrangement for two specific reasons:

- That bodies responsible for lobbying government on behalf of their industries should not be receiving funding from government;

- That whilst compulsory levies for industry R&D and marketing roles can be justified through market failure, industry representation is more difficult to justify.

Whilst recognising the concerns of government, APL strongly believes that the broad industry services role that it has is in the best interests of the pork industry. The reasoning behind this is as follows:

- APL was founded less than ten years ago with the support of the industry and the government after a comprehensive consultation process that clearly supported a single industry body for the greater streamlining of decision making, elimination of duplication and potential tensions between separate bodies. Pork producers themselves demanded this structure as their preference;
- APL's ability to lobby government is governed by the "agri-political clause" included in our Statutory Funding Agreement (SFA). These same restrictions apply to all other RDC's (including those industry owned);
- The majority of other RDC's also engage in "strategic policy development" despite it not being specifically recognised in their Acts or SFA's. In essence, strategic policy development is any work carried out which can contribute to good policy at an industry or government level. The work is done to predominately develop appropriate industry policies and positions that will underpin the strategic direction of R&D and marketing activities;
- The pork IRB being housed within the secure funding frame of APL means that effort can be focused on good industry (and public benefit) outcomes without the distraction faced by so many rural peak bodies – that of whether their financial model is secure into the next month or year;
- The complex nature of 21st century industry issues means that a strategy aligned across all relevant functions of APL – Research & Innovation, Marketing and Policy – is critical for successful outcomes. We believe that our effectiveness as an industry services body in delivering the industry's strategic priorities is significantly enhanced by our ability to deliver co-ordinated plans and united positions in a more efficient and effective manner. Examples of this are (1) the development of the Model Code for Pigs in 2007, (2) management of the H1N1 influenza outbreak in 2009 and (3) the "Shaping Our Future" initiative undertaking industry consultation about future farming practices and community perceptions;
- Having all relevant industry service functions under one roof means our efficiencies are enhanced leading to a better return on investment for pork industry levy payers;
- The strong governance framework under which APL successfully operates incorporates comprehensive industry consultation and levy payer contact mechanisms (amongst others, through the Delegate system) which avoids any significant industry concerns as to our ability to adequately represent levy payer interests to government;
- Pork producers in belonging to one of the smaller to medium sized rural industries question the need to belong to and pay for a plethora of different representative organisations. APL's structure keeps membership simple, transparent and accountable whilst covering all industry service needs;
- APL's ability to keep arguments rational and logical, in times of significant public debate regarding controversial subjects, works very well for the industry, and in particular for constructive and open government relations. Unlike other industries with separate policy groups, the strong governance framework of APL and the links to other competencies in-

house results in responsible contribution to public debate that is supported by robust information and data.

3. Taxpayer Funded Rural R&D – Why it’s a good public investment

3.1. The links between agriculture and public good – what makes it different?

There are a number of attributes that makes agricultural industries different from other industries. The single most important one is that more than any other industry, agriculture is carried out through the managed exploitation of the biological and physical resources of the planet.

This doesn’t happen by removing the resources and exploiting them “off site”. Agriculture is carried out in the same environment that Australians live in. It’s the same environment that Australians seek to protect for their future generations and there is thus a special responsibility on the shoulders of agricultural industries to be productive whilst maintaining and sustaining the environment that is valued so highly.

Another aspect that makes agriculture quite unique is its basic role in human existence. It provides the sustenance mandatory for survival, and a large proportion of the fibre necessary for protection and warmth. More and more it is also contributing to the fuel for meeting energy needs.

On no account could agriculture be considered as a luxury goods industry, or selling products that could be considered discretionary purchases. Public officials around the world recognise that the health of their agricultural industries is a national asset, worthy of government intervention where necessary to protect their food supply in particular.

There is thus a very high public interest in the success of agricultural industries. Rural R&D serves to enhance this success and its impact on rural industries outcomes means that it too has a special status in generating public benefits.

The basic public benefits flowing from a healthy rural R&D industry relate to the security and safety of the food supply alongside the appropriate stewardship of the environment. On top of these, the public in developed countries such as Australia are more and more demanding that their food and fibre is produced in ways that they find sustainable and acceptable – livestock industries focused on animal welfare and low emissions farming are two examples.

In short, the public have a large stake in everything that farmers do – whether it’s due to the fact that farmers provide their basic sustenance needs or that farmers use their jointly owned natural resource base as raw material.

3.2. Market failure & pork industry R&D

Individual investments into R&D by pork producers in the main make little financial sense due to the limited returns on investment possible on their own farms.

This is the case due to the typical pork farm being a small part of the overall industry (thus having only a small potential to realise the benefits of R&D innovations) and the expensive nature of the most effective types of pork industry R&D. Additional to this, the general inability of individual producers to protect inventions they may have discovered means that they stand little chance of gaining returns on their R&D investment through uptake by other producers.

The public good generated through pig industry R&D is thus only possible through the compulsory R&D levy which enables a whole of industry R&D process motivated by total industry benefit with significant public spillover benefits. For reasons detailed below, it also depends heavily on the taxpayer contribution to ensure critical mass and the public benefits of an overall strong pork industry R&D effort.

We should note that farmers have great difficulty in benefitting from the R&D tax concessions provided by government to all industries due to the scale of research that makes sense in an agricultural context. The taxpayer investment in matched RDC funding could be seen as a government response to this to ensure that rural R&D continues and the public spillovers thus continue to flow.

3.3. How the public good “spills over” from pork industry R&D investment

Industry motivated R&D and public good spillovers cannot be unhitched from each other in the case of the pork industry. Due to the common objective between the private and public interests in this case driven by the pursuit of community (for sustainability) and consumer (for profitability) satisfaction, both stakeholders stand to benefit from robust selection, execution and uptake of R&D project outcomes.

Box 1 - Public benefits in the area of animal disease management

A key area of research for APL is pig disease management. The Australian government and the public in general, have an interest in ensuring the welfare of animals is maintained. APL has invested in research to improve the health and welfare of pigs. Some examples of these projects are “Porcine circovirus infections in Australian pig herds”, “Quantifying Respiratory Disease Impact for AUSPIG”, “Alternative group-housed deep-litter housing systems for breeding pigs”, “A strategic approach to improve the methods for the diagnosis, control and prevention of Glasser’s disease in Australia”, “Improving performance, decreasing pen variation and improving welfare by animal activated cooling zones”, “Epidemiology of antibiotic resistant bacteria and genes in piggeries”, “A quantitative comparison of litter systems for gestating sow ecosystems” and “Monitoring environments within pig buildings”.

These reports have contributed to improving the understanding of pig producers about the diagnosis and control of disease, identifying the welfare advantages of alternatives housing and cooling systems for pigs, and improving the air quality in pig buildings. With this information the industry is able to better care for animals as well as improve environmental and OH&S conditions.

Australian consumers enjoy the benefits of one of the highest health status pig herds in the world.

With respect to the activities of APL, we have often used the following statement as a test of the appropriateness or not of our strategies and activities:

“Every worthwhile use of any resource within APL must have a direct or indirect benefit to our pork consumers”

It could be argued that direct benefits to consumers are a private industry benefit but many indirect benefits are the same as those that would apply to a member of the community who for any particular reason chose not to pay for and consume pork.

Box 2 - Public benefits in the area of animal welfare

In relation to pigs the most contentious animal welfare issue is housing of dry or non-lactating sows. Industry experience indicates that the opportunity for group housing to improve sow welfare is presently limited by the high levels of aggression that is commonly observed in newly-formed groups of sows after mixing. Also few rigorous recommendations in the scientific literature exist as regards sow group housing with respect to reducing sow aggression. APL is presently funding a large research project examining the effects of space, group size, feeding stalls and time of mixing on group-housed sows. This project is divided into two experiments:

Experiment 1: Determining the effects of space allowance and group size on the welfare of group-housed sows by examining the level of stress, immunology, aggressive behaviour, injuries and reproductive success of the sows. 3120 gestating sows, in four time replicates (780 sows per replicate) have been studied.

Experiment 2: Determining the effects of time of mixing on the welfare and reproductive performance of sows. 720 mated sows in 3 time replicates have been studied in 3 treatments.

Improvements in our knowledge of sow aggression and the principles of mixing sows to reduce aggression and stress are required. These will allow producers to develop practical strategies to reduce sow aggression and stress in a commercial environment. This project ensures that the APL R&D programs provide alternative housing strategies for adoption by the Australian pork industry to address consumer and community concerns relating to the housing of gestating sows in stalls.

As examples of this according to different types of R&D:

- Production sustainability leads to greater pork supply security (food security in general being of high value to the community);
- Better standards of hygiene in production leads to greater safety of pork (not only of interest to pork consumers but also users of the public health systems, dependents of pork consumers, etc);
- Pork production with a minimal natural footprint means less impact on our environment;
- Lower emissions leads to greater climate sustainability;
- Better welfare of animals leads to more ethical production and consumer assurance (and those with an interest in animal welfare who do not consume meat);
- Low value products and by products often from food manufacturing can be beneficially reused by pigs which avoids waste to landfill;
- Pork produced with robust quality assurance systems means greater consumer confidence (relating to verification of the above mentioned characteristics of the product).

The basic pork industry incentive for R&D project selection being driven by generating community and consumer value means that attempts to separate R&D investment to target purely private or public benefit would not be possible. Private benefit as a motivation for R&D investment leads automatically to public good spillovers through outcomes in line with the governments rural

research priorities. Any attempt at investing purely in public good R&D without there being an industry incentive to take up the results of such research would not result in a change of practices on farm unless they were used as a blunt regulatory instrument which could compromise production cost (also to the cost of the community in the end).

Box 3 – Public benefits in the area of environment and climate change

A key area of APL research addresses strategies and technologies that aim to minimise the pork industries environmental impacts whilst providing multiple benefits to the surrounding catchment and wider community. This includes issues such as mitigating greenhouse gases and optimising renewable energy, catchment and nutrient management, alternative waste systems, odour management and soil health.

APL recently released the National Environmental Guidelines for Piggeries (NEGP) 2nd edition 2010. These guidelines were updated with the latest research, technologies and management practices to reflect changes in science, community expectations and piggery management. The guidelines provide a general framework for managing environmental issues that reflect on the overarching environmental principles such as waste hierarchy, cleaner production and minimising impacts on land, water, atmosphere and public amenity. They provide the latest advice on planning design and management of piggeries in relation to the environment and maybe used to complement, develop or update State or Territory guidelines and regulations.

APL has undertaken a number of climate change related research projects. The research has focused on measuring and reducing greenhouse gas emissions from the pork industry. APL has contributed to the “Environmental Assessment of Two Pork Supply Chains Using Life Cycle Assessment” to assess the industries’ environmental credentials. The study focused on greenhouse gas emissions, water and energy use associated with pork production. The study identified the drivers of energy use and that the industry has become more water efficient than other livestock industries. The research identified greenhouse gas mitigation strategies that could significantly reduce the Australian pork industries’ greenhouse gas emissions by more than 50%.

Current research is focusing on the mitigation and utilisation of greenhouse gases from effluent. Effluent ponds account for approx 70% of piggery emissions and have the potential to cause odour issues. Covering and flaring of ponds allows for a reduction of up to 90% of greenhouse gases and odour. APL is exploring the use of low cost technologies that capture biogas for use on farm. This will provide the same benefits as the covered pond, plus reduce the reliance on other energy sources and provide an improved source of nutrients from the pond for the producer or farming community to enhance the utilisation and sustainable reuse of the effluent. APL has also been a significant partner in the Methane to Markets in Agriculture program.

APL has recently completed a nutrient management project that aims to improve the reuse of piggery effluent. A nutrient management plan assists farmers in evaluating and documenting existing management practises to develop whole farm and paddock nutrient budgets. The program incorporates a site focus to allow appropriate application rates of effluent on cropping areas. An environmental risk assessment was also carried out to develop the application rates and reuse areas to avoid nutrient leaching from the cropping area, run-off to waterways or soil nutrient overload. The outcomes from this program will provide productivity benefits and will contribute to the long term sustainability of the community catchment that piggeries operate within.

APL projects “Effects of loading rate and spatial variability on pond odour emissions” and “Low cost alternatives for reducing odour generation” investigated the factors that influence odour emission rates and ways to reduce odour. They identified a number of factors that determine odour emission rates such as the surface area of the effluent pond, the season and pond covers. The projects also made a number of recommendations to reduce emission rates. Implementing these recommendations will help piggery operators reduce the impact they have on the surrounding areas and neighbours, including the offensive odours that can occur and may increase the value of land surrounding piggeries.

Boxes are included within this chapter three to illustrate examples of APL R&D activity and the public good in addition to industry benefit that is generated from it.

3.4. Measuring pork industry R&D effectiveness – return on investment

The core argument we make relating to the justification of taxpayer funding of pork industry R&D is that public spillovers flow automatically from such R&D. This is a direct consequence of the pork industry's R&D investments being completely consistent with the government's rural research priorities. The public benefit however assumes that the industry returns from the R&D projects carried out by APL (and the other RDC's) are strong and economically attractive.

Box 4 – Public benefits in the area of biosecurity

"A biosecurity code for the pig industry" is a research report funded by APL which makes recommendations for dealing with biosecurity threats on farm and through the supply chain. If followed by pig producers, the code will minimise biosecurity risks and ensure that any threats that arise can be dealt with to minimise the impacts. Biosecurity is a key policy area for government as they seek to protect the animal and plant health status and the natural environment in Australia. It underpins Australia's ability to continue to produce quality food and fibre at affordable prices for consumers and is one of the government's rural research priorities.

In an effort to ascertain in a more formal and quantitative manner what the impact of the R&D investments made by the RDC's actually is, an evaluation methodology has been developed by the CRRDC in cooperation with various government departments and the individual RDC's. The CRRDC submission will be more specific about the results gained through the application of this methodology. In summary, the two analyses that have now been done using this methodology show very strong results for private industry benefits flowing from RDC R&D investments (CRRDC Chairs, 2010; CRRDC Chairs Secretariat, 2008).

Due to the subjective nature of the assumptions required to define public benefits in the methodology, it is difficult in the main to show quantitative assessments of benefits in the social and environmental areas but these have been expressed qualitatively. Many projects delivered benefits such as improvements in food safety, reduced water use, reduction in chemical residues, etc.

In the specific case of the pork industry, results of the ex-poste evaluations which feed into the CRRDC reports are broadly in line with the general results of the RDC's (Martin, 2009). Four randomly selected projects were found to have benefit: cost ratios of between 1.1 and 43 with the weighted average being 10.7. A number of case studies are contained within the appendices outlining project details and examples of private and public benefits flowing from them.

Some of APL's projects at a glance:

- **Gestating sow housing and aggression** – this project aims to establish individual sow behaviours associated with the type of sow housing being used (in particular groups versus individual housing or "sow stalls"). What is the net welfare position as a function of the sow's housing situation over the total period of gestation? Sow housing is a controversial area in pig production with public concern about the confinement of sows during pregnancy

and this project seeks a greater understanding of how to manage sows during gestation for better welfare outcomes;

- **Food traceability or “Physi-Trace”** – this project applies leading edge forensic chemistry technology to the task of identifying the source of targeted pork samples. As a part of the pork industry National Livestock Identification System, Physi-Trace is a highly innovative validation tool for pig meat traceability. Once fully implemented, it will have significant value to the industry for improving the management of potential exotic disease outbreaks, validating the origin of pork where labelling fraud is suspected and maintaining market access in times of possible future safety concerns;

Box 5 – Public benefits in the area of human health

APL has invested in a number of research projects related to human health aspects of pork consumption. This research follows two slightly different approaches: firstly research has investigated the human health benefits of pork consumption; and secondly, there have been a number of research reports into improving food safety in pork.

APL, along with the Pork CRC, has funded four world-first studies to investigate the role of Australian pork consumption in improving human health. These studies demonstrated that diets high in pork can result in weight loss in overweight adults, improved thiamine status, reduced heart disease risk and improved glucose control of overweight type 2 diabetics, when combined with other lifestyle changes and improved the iron and vitamin B status of young women as well as enhancing their feeling of wellbeing. It was also shown that pork is equal to chicken and beef in its effect on satiety and the release of appetite-related intestinal hormones and insulin. The information generated by this research has been provided to dietitians and nutritionists to help the wider community improve their awareness of the benefits of including pork in a balanced diet and to manage their weight and diabetes. Improving the health status of the community by providing them with this information will not only directly benefit individuals, but also presents flow on benefits through lower health costs overall to the Australian taxpayer.

Research funded by APL has examined occurrences of salmonella infections in pigs and how to minimise the occurrences and therefore reduced the risk of salmonella contamination of pork for human consumption. Three of these research reports are “Food Safety Risk Management to Maximise Market Safety”, “Ecology of salmonella infection across Australian pig rearing production herds” and “Evaluate molecular techniques for assessing Salmonella ‘flow through’ from farm to carcass”. This research has improved the understanding of salmonella occurrences in Australian pigs and methods to reduce contamination.

APL is also investing in a product traceability program to ensure that if any food safety concerns do arise, the origin of the pork can be traced. This technology can serve a number of purposes, but will ensure that Australian pork is safe. In the event of any food safety concern, the source of contamination or risk can be found quickly and any adverse impacts can be limited. There is potential for this technology to be adopted in other industries.

- **PorkScan** – is a unique ultrasound based pig carcass grading tool developed by APL in conjunction with five pork processors with funding through AusIndustry. PorkScan is now being commercialised through a separate company (PorkScan Pty. Ltd.) owned by the consortium partners (including APL). Pork Scan’s business objectives include a continual investment model into ongoing development of the technology and adding supplementary functionalities through add-on components;

- **Environmental stewardship projects** – this suite of projects concerns in particular the issues around the management of piggery effluent (in some cases for energy replacement or generation and fertilizer supply) and measuring and reducing emissions from pork production;
- **Consumer health and nutrition project** – this study is looking into the role of pork in human health with respect to thiamine status, heart disease risk factors and glucose management in diabetes sufferers. A number of positive benefits from higher consumption of pork have been identified, paving the way for further research and communication to doctors and dieticians;
- **Australian PorkMark program** – is a market driven response to Australian labelling regulations which do not work for pork products. The claim “Made in Australia” can be used on smallgoods made from imported pork where they can meet the 50% value add criteria. This is confusing for consumers who consider when seeing this claim that the pigs were raised in Australia. APL is now licensing the Australian PorkMark to pork processors to use with their 100% Australian pork products as an aid for consumers to differentiate local product from subsidised imports. This program is underpinned by consumer research showing that consumers are confused by smallgoods labelling and that with the correct information, they will preferentially purchase Australian pork products.

3.5. Pork industry R&D and the role of taxpayer contributions

The concept of matching government funding of rural R&D was originally intended as an incentive to capture industry investment in this area, thus creating the spillover benefits for the broader public. Government funding of research and development can be justified if the funding leads to the generation of public goods and that those public goods would not be created without government funds.

It is APL’s position that not only does the public get a strong outcome from their investment in rural R&D through the RDC’s, but that this outcome is better than that which would result by diverting the funds into other areas. The logic of this argument is simplistically demonstrated in the following diagrams.

The first diagram represents broadly what is happening today. Government and levy payers contribute equal amounts for investment in rural R&D. Strong industry benefits result (as measured through the CRRDC evaluation process and figures used here are conservatively chosen from the five year returns – CRRDC (2010)), and the proposition is that the public benefits are of a similar dimension to the private ones (as supported through the sample of anecdotes already supplied).

The net result in terms of the public is that they get a good deal – robust and substantial positive public outcomes.

The second diagram simplistically represents what we believe would happen if the government’s matching contribution to rural R&D through the RDC’s was fully withdrawn. (The results would be proportionally similar if withdrawal was partial).

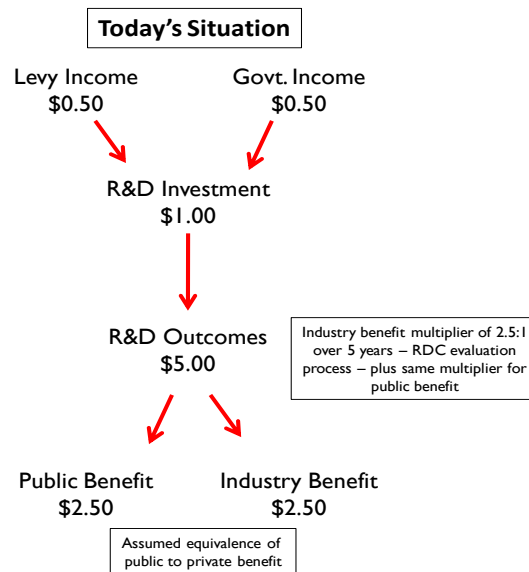


Figure 1 – Simplistic diagram of today's matching claims funding process and benefit flow

The total investment amount would be halved, resulting in half of the public and private outcomes. This alone would result in a theoretical net negative position for the public based on our arguments of the returns they get from the investment of their taxpayer funds which is represented by the difference between the opportunity cost to the taxpayer of \$1.25 less the taxpayer savings of \$0.50. On a net impact basis, on these assumptions, taxpayers would lose net \$0.75 for every \$0.50 that they saved by not investing in rural R&D. Whilst the assumption of equivalent public and private benefits from rural R&D investment is not proven, it would have to be completely inaccurate before the public actually started to save money on a net basis by not investing.

Additionally, the withdrawal of matched funding would put pressure on the pork industry R&D levy as the leverage from government funding supporting it would be lost. Despite all of the arguments around strong private returns from rural R&D investment, we believe the case of retaining the funds on-farm for producers to use to improve their own competitive position would be too great to refuse. Farmers where they can afford to do so will invest in R&D either individually or in partnerships. They will then seek to commercialise this R&D or retain it for their own use to improve their competitive advantage. They will not act altruistically to “share” this R&D with other farmers, and supply chain participants. There is already some pressure for example on the pig industry marketing levy (which is not matched) from larger producers due to their belief that their own benefit can be maximised by retaining the levy for themselves and creating competitive advantage against other pork producers.

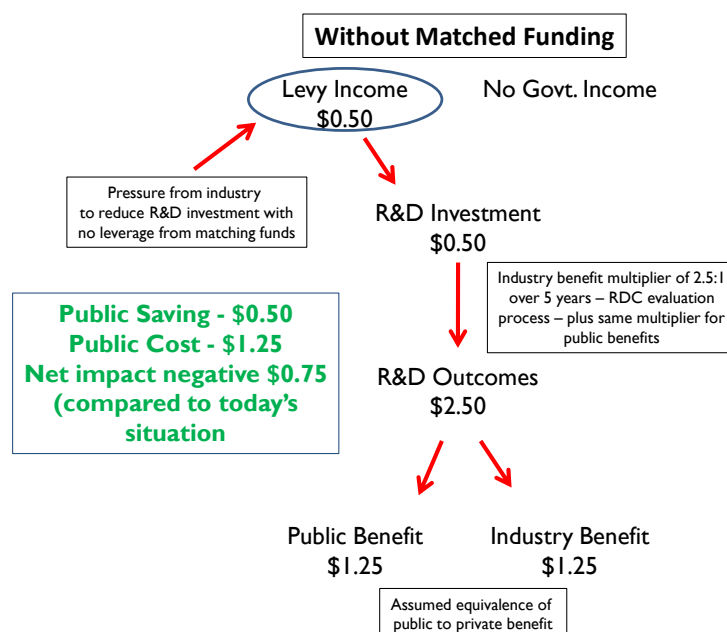


Figure 2 – Simplistic diagram reflecting the consequences of removal of matching funding

The Pork Industry R,D&E Strategy has significant private pork producers involved as suppliers of research infrastructure, skills and other resources. Their offer of supply of these resources for industry funded R&D includes significant and valuable in-kind contributions because their ability to take up the outcomes of their R&D efforts is enhanced by doing the original R&D work on their own sites. Without the leverage of the taxpayer funding supporting the compulsory levy structures, these private operators will likely do a lot less R&D and what they do will be “in-house” for their own use and not for the benefit of the whole industry.

Private producers would be likely doing their own R&D on the same issues (in effect, duplicating R&D) and implementing the outcomes on their own farms only (fewer public good spillovers). We estimate that three large pork producers would have the capacity to do their own R&D and they jointly account for around one third of the industry. If the loss of government matched funding meant that support for the levy was also to disappear and these producers spent the equivalent amounts on their own R&D programs, the worst case result would be:

- Complete R&D duplication – the same R&D outcomes for three times the cost;
- No extension of outcomes across the industry – these highly expensive outcomes would only have a positive impact on one third of the industry;
- Also one third of the potential public good spillovers;
- Thus meaning that the benefit: cost ratio would be one ninth of what it would be compared to today’s situation.

If this scenario is taken into account, the potential negative impact of taxpayers saving the \$0.50 is almost double the previously mentioned \$0.75 net. Even if the argument of equivalence between the flows of public and private benefit from rural R&D are incorrect, there would need to be a huge

difference between the two before it would start to make sense for the government to save the investment.

Box 6 – Impact on public benefit of disease outbreaks – the equine influenza example

The Equine Influenza (EI) outbreak in 2007 demonstrated how the public can be made to pay when rural industries are threatened by exotic disease. Prevention of and preparedness for exotic disease outbreaks is a significant target area for rural livestock industries' R&D efforts. When one considers the damage done to the horse industries collectively and the cost on the Australian taxpayer due to the EI outbreak, it is clear that there should be a huge incentive for the prevention of this type of event and much investment is going into exactly that.

The other notable characteristic of this outbreak was that the horse industries had no levy funding mechanism in place in preparation for the possibility of exotic disease. Nearly all of the rural livestock industries are signatories to a joint governments/ industry agreement known as the Emergency Animal Disease Response Agreement (EADRA).

EADRA is a world leading agreement coordinating the activities and resources of all Australian governments and livestock industries in the event of an emergency animal disease outbreak. This coordination is strategic, efficient and effective. In the event of an emergency animal disease, an eradication program can commence, with a cost sharing agreement between governments and livestock industries. The response to the EI outbreak in 2007 demonstrated the strategic significance of the EADRA (Bond, 2010); the horse industry representation remains fragmented with multiple separate industry associations and no horse association was ever a signatory to the EADRA.

The EI outbreak was financially devastating to the industry, costing an estimated one billion dollars. This figure does not include the approximately two hundred million dollars in government assistance to manage the impact of EI on the horse industry (Equestrian Australia, 2007). The Government has acknowledged the role the EADRA emergency levy plays in maintaining the public good. It has been acknowledged that without a levy mechanism in place to manage future disease outbreaks that the horse industries (as well as other livestock industries and for diseases that are zoonotic - i.e. that can be passed on to humans – humans also) remain at risk. The Minister for Agriculture, Fisheries and Forestry, Tony Burke had even introduced legislation seeking to include the horse industry as part of the EADRA which was ultimately not passed.

APL is a signatory to EADRA on behalf of the pork industry.

It goes without saying that we see no potential for industry levies to be increased to compensate for any future potential reduction in government matching funds. As explained above, the opposite is more likely the case.

The net result is that the public would be significantly worse off if the taxpayer contributions to pork industry R&D were to be withdrawn.

4. The Rural RDC Model – The right way to deliver private & public benefits

4.1. The power of an industry specific approach

The greatest asset of the present industry sector based RDC model is the closeness of the RDC's to their respective industries. This is not just a relationship in most cases but the RDC is actually seen as an integral part of their relevant industry.

Other potential RDC models would simply not be able to engage with agricultural industries in the same way. These other models could include:

- Regional RDC's where bodies were focussed on the local rural R&D needs across all rural industries within a responsible territory (comparable to the state based Departments of Primary Industry or similar conducting rural R&D). The world being a “smaller place” in the 21st century means that past physical presence limitations are no longer a hindrance on high performance R&D management;
- RDC's based on scientific or technical domain – plants, animals, soils, climate, water, agri-engineering, agricultural economics and others. Such an approach has merit in terms of the right skills for actually carrying out rural R&D, but not in the sense of industry R&D prioritisation, project selection, research provider selection and extension/ adoption;
- Fewer, larger RDC's amalgamating seemingly similar research portfolios. This may result in some efficiencies in terms of cost management (for which there are other solutions proposed below), but effectiveness would be compromised. Multiple industries being addressed by one RDC, where the individual industry players did not overlap in the same way as the RDC responsibilities, would result in a lack of focus, ownership and industry engagement in the R&D processes. Intra-industry competition and associated tensions would be a distraction nullifying any benefit of efficiencies.

The industry based RDC model presently in place ensures that the R&D being conducted:

1. Is supported at a strategic level by the industry due to direct involvement of industry in developing strategy and associated big picture resource allocations;
2. Is focused and relevant to the industry due to industry being involved in the project selection process with access to feasibility analysis;
3. Is appropriate financially in terms of it being linked directly to the levies raised from the relevant industry (producer confidence that they are “getting their money's worth”);
4. Can be more effectively transferred and adopted through the strong industry links; and
5. Can have its impact better measured as part of a continuous improvement feedback loop through the industry network.

The present RDC system has also been flexible enough historically to structure individual RDC entities in a way which matched the industry needs and structure. This has seen many bodies remain as statutory corporations and some become industry service bodies (ISB's). In APL's case, it has seen us choose (through our producers and the government) to become both the industry services body and representative body. This is further discussed in the next chapter.

There are significant benefits available from R&D within the pork industry (as demonstrated, for example, by R&D evaluations previously mentioned). These benefits accrue to both pork producers and consumers as well as to the wider community.

Box 7 – How APL adds value for pork industry R&D through project selection

APL's research and development process was designed to reflect the strategic direction of the industry (elaborated through the strategic planning process) whilst resulting in strong R&D outcomes. These outcomes flow from projects chosen with the involvement and support of industry through representatives embedded in the process.

Six "specialist groups", each responsible for proposing R&D plans for specific pork relevant scientific domains are appointed by a Board committee: the Research and Development Advisory Committee (RDAC). The subjects for the six groups are:

- Group 1 - Marketing, supply chain and product development;
- Group 2 - Genetics, genetic modification and genetic transfer;
- Group 3 - Production and product quality;
- Group 4 - Industry capability and technology transfer;
- Group 5 - Environment and welfare;
- Group 6 - Quality assurance, biosecurity and food safety.

The groups are made up of expert participants from industry, federal and state government representatives and research providers. These specialist groups put together R&D plans for submission to the RDAC for their specific areas of interest with proposed projects subject to an ex-ante analysis of future value to the industry.

These R&D plans are compiled:

- Utilising expertise within the Specialist Group to match R&D opportunities to APL strategic objectives;
- Prioritising projects and the most appropriate mode of commissioning (e.g. tender, general call);
- Alerting the RDAC to potential shortages in capability, infrastructure or resources that are impeding the pork industry's capacity to meet research and development objectives;
- Placing appropriate emphasis on technology transfer through recognition of the need for investment in the development of skills and infrastructure within the industry as a key element;
- Providing advice on opportunities for co-funding research projects;
- Aligned with the government's rural research priorities; and
- Where appropriate, providing advice on the selection of research projects.

The RDAC (consisting of APL directors, management and the Chairs of the specialist groups) then meets to consider which projects should be the highest priorities for undertaking according to their likelihood of success, value to industry, strategic alignment and cost effectiveness. This process results in the R&D activity plan and budget being recommended to the APL Board.

The process ensures the best value for money from R&D investments for the industry and the community.

While there is a substantial opportunity from pork industry R&D, there is also a substantial challenge in finding an institutional structure for funding and commissioning research that accounts for the realities of agricultural production. These include:

- the small and fragmented nature of most production, with a large number of small and medium sized enterprises accounting for most production and with relatively few large enterprises;

- the fact that for R&D to have any impact, it must be implemented on-farm or within the broader supply chain. Ultimately, if producers do not have incentive to adopt the R&D, then it is not possible for any benefits to be realised; and
- the challenge in coordinating researchers and producers, particularly finding research that meets individual producers' needs whilst at the same time delivering wider industry and community benefits.

The RDC structure, based around a levy, matched funding and industry based coordination of research is a very effective means of addressing these challenges.

4.2. Separation of R&D funding and R&D supply

The present RDC model is based on a concept of separation of R&D funding and R&D supply. This is a sound concept that is supported by APL.

The R&D “funding” part is probably not an adequate description, as the real RDC role includes strategic leadership in the development of industry innovation objectives, consequent choice of the appropriate R&D programs and projects within an agreed financial frame, choice and briefing of an R&D provider, transfer and adoption of R&D outcomes and measurement of the impact of R&D adoption. Alongside this, the actual execution of the R&D projects needs to be carried out by the right provider chosen on technical expertise, delivery history and cost effectiveness.

An alternative whereby an R&D supplier was funded directly from producer levies or government grants would risk that the actual R&D projects carried out were not aligned to industry need (but potentially more aligned to scientific curiosity or specific institutional competence areas). Some basic research working at the higher risk “blue sky” level is of course necessary and Australian institutions have an excellent reputation of success in this area. As a principle however, industry levies should be used more in the applied R&D area and this is consistent with the investment guidelines put into place by APL.

4.3. History of success of the RDC model

It is APL's position that the RDC model as it stands has proven to be an effective one for the pig industry and for other rural industries.

Australia is internationally recognised as a nation with a strong agricultural tradition with many examples of world leading R&D. The Australian Farm Institute report on productivity growth in Australian agriculture (Mullen and Crean, 2007) states *“Productivity growth in Australian agriculture has been strong, relative both to other sectors of the Australian economy (up to four times higher than in most other sectors of the economy) and to the agricultural sectors in other countries.”* We believe that it is impossible to separate this sort of success from the effectiveness of the RDC's over the past twenty years.

Likewise, the results of the CRRDC initiated annual evaluation of the impacts of RDC projects has shown very strong positive outcomes of rural R&D conducted by the RDC's (CRRDC Chairs, 2010; CRRDC Chairs Secretariat, 2008). APL's own evaluation which contributed to the CRRDC studies

shows that pork industry randomly selected projects had a benefit: cost ratio above 10:1 (Martin, 2009).

4.4. Potential improvements to the RDC model

Having an RDC model that works closely with industry and has a strong history of success does not mean that there is no room for improvement. The very nature of an industry sector basis for RDC structuring means that there are going to be innate weakness areas that will require an active effort to overcome.

APL believes that over the last twenty years, the RDC model has served agricultural industries well and has been the major source of generating industry and public benefits. However despite this, with the advance of information technology and the emergence of new challenges in agriculture there are potential areas for further improvement. Two such areas are:

1. Being industry focused does not automatically draw RDC attention towards the so-called “cross sectoral” R&D issues (those areas that are potentially impacting on many or all rural industries – e.g. climate change, water, soils, bioenergy, pastures, animal welfare, biosecurity, environment). This may be resulting in an underinvestment in these areas if judged on a “returns to agriculture” basis or a duplication of effort in the “generic” research;
2. If RDC’s are “industry based”, then you need as many of them as you have “industries”. To ensure that research and other core activities are aligned to industry strategies and priorities, it is critical that RDC’s and boards are focused on delivering the agreed outcomes. However, each of the RDC’s (presently around 15) undertakes back office functions to manage their front line activities and to underpin their corporate governance responsibilities. With today’s IT technology, there is an opportunity to undertake some of these tasks collectively, or in a “shared services” model. This could result in some worthwhile efficiencies and would allow any savings to be reinvested into research activities thus generating greater returns for levy payers and the community.

Various attempts have been made through the RDC’s to adequately address the first weakness area – some of them having good effect. The Climate Change Research Strategy for Primary Industries (CCRSPI) is an example where there has been progress, despite problems at the hosting entity level for the initiative. The RDC’s continue to discuss the best approach to better manage these cross sectoral issues through the CRRDC.

Another example is APL’s involvement in the Feed Grain Partnership Forum which was founded in 2006-07. This Forum includes the Grains Research and Development Corporation (GRDC), Australian Pork Limited (APL), Meat and Livestock Australia (MLA), Dairy Australia (DA) and the Australian Egg Corporation Limited (AECL). The Forum meets regularly and coordinates and co-funds common feed grain related R&D. The Feed Grain Partnership R&D Strategy was the first of its kind with RDC’s agreeing to a common strategy to develop the feed grain industry. The significance of this progress should not be underestimated.

Even in 2007, APL, as well as the other RDC’s acknowledged the strategic importance of cooperation and cross agency project funding within an agreed industry strategy. In APL’s Annual Report 2006-07 (APL, 2007, page 35), APL noted that the Feed Grain Partnership supported the

Australian Government's advocacy of integrated and collaborative R&D funding across R&D agencies.

It is APL's belief that RDC's need to work together further to develop entities with particular responsibilities within these cross sectoral areas. These entities could be hosted within existing RDC's where relevant resources around commissioning and managing of projects are already in place. The responsibilities of these cross sectoral entities would include:

- Acting as a leadership, coordination and representation centre for the cross sectoral R&D domain;
- Selecting, funding (collaborative) and commissioning "generic" R&D projects relevant to the domain (generic referring to the applicability of outcomes to several rural industries);
- Registering details around specific RDC projects within the domain (where the R&D outcomes are relevant to only one RDC or rural industry and are not under the specific management of the entity);
- Overseeing and recommending actions to maintain infrastructure, human resources and skills relevant to continuing the appropriate level of R&D investment within the domain.

There has also been a lot of progress in the second weakness area. Specific so-called "harmonisation" initiatives have been progressed by APL as follows:

- Acting as the hosting entity for the CRRDC in our Canberra offices;
- Negotiations (some continuing, some finalised) with other RDC's about providing office space for APL State Managers, with:
 - Sugar RDC (Brisbane)
 - HAL (Sydney and Perth)
 - A consortium of other RDC's (Melbourne)
 - Grape & Wine RDC (Adelaide)
- Ongoing discussions with the other Canberra based RDC's (GRDC, Fisheries RDC, RIRDC) looking into opportunities for synergies in the areas of:
 - Co-location;
 - Information and communication technology services;
 - Public relations and communications services;
 - Legal services;
 - Finance, human resources & administration services.

These initiatives – some completed and some ongoing – should in the end make some efficiency improvements for the RDC's resulting in better returns to producers and the community. There could be an argument that a more formalised structure for the provision of support services to all RDC's would be a better outcome (such as a specific "shared services" company jointly owned by all RDC's providing generic services to them). This would however be a big step, likely requiring some direction and support from outside the RDC group to succeed.

5. APL's Structure – Pro's & Cons

5.1. APL's unique mandate

In 1999, a Working Party was established by the Pork Council of Australia with the responsibility to design the structural options for a new single industry body. A comprehensive consultation period followed with all industry stakeholders including producers, supply chain and government.

APL was established in 2001 after this comprehensive period of planning and consultation. The result of the consultation saw a commitment to set up a combined industry services and representation body because:

- There was no interest from industry in continuing with the then existing structural arrangement involving three national industry bodies separately responsible for R&D, marketing and policy functions;
- There was overwhelming support for the option recommended by the Working Party. In this option the three organisations existing at the time were to be amalgamated into one body and incorporated as a non-profit company controlled by producers.

The Working Party consisted of pork producers, officials from the three predecessor bodies (Pork Research and Development Corporation - PRDC, Australian Pork Corporation - APC and Pork Council of Australia - PCA) and a government representative.

The Working Party's recommended option was for the structure that APL now has. The APL model was to provide all policy and service delivery functions. It offered immediate benefits over the other models proposed by the Working Party including:

- much improved operating efficiencies including the reduction of three industry body Boards to one;
- greater streamlining of decision making; and
- elimination of tensions between the separate bodies.

The subsequent constitution and Statutory Funding Agreement (SFA) developed for APL recognised the RDC status of the organisation, the compulsory levies for R&D and marketing that the organisation was responsible to invest on behalf of the industry as well as the industry representative body (IRB) status.

There was much focus on the appropriate governance processes when drafting the constitution of APL which included amongst others:

- a skills based Board drawn from producer elected individuals and independent specialists. The selection committee is to ensure that a predetermined range of skills are incorporated into the final Board make up;
- formal procedures around Board meetings and General Meetings;
- the Delegate structure including voting rules which provided for a formalised consultation link from the APL Board through to pig producer members relative to their position within the industry; and
- formal membership of APL and voting rights for levy paying pig producers.

More details on the origins of APL can be found in the appendices.

Particularly in respect of one of APL's mandates as the IRB recognised by government, APL is unique amongst the 15 rural RDC's today.

5.2. Governance concerns around APL's structure

We believe the APL industry services and representation model, which is less than ten years old, has served the Australian pork industry well. The model harnesses the strength of coordinated effort from different areas of competence that in other models are restricted by the separation of individual bodies with different responsibilities. In parallel, governance structures within APL provide the right checks and balances to ensure transparency and accountability in services and representation.

Despite strong government support for the formation of APL through the Working Party in 1999 and 2000, in more recent times, some concerns have been expressed about the roles and responsibilities of APL.

As expressed to APL (and in our words subject to their correction), government's concerns relate to:

- It is unusual that APL should be receiving money from government as levies and matching funds as the industry RDC and then "lobbying" government as the IRB – this would seem to reflect an inherent conflict of interest;
- The use of compulsory industry levies for R&D and marketing being justified through market failure but this not applying to the industry representation function of APL;
- APL's role as an industry representative body potentially being compromised by the limitation on agri-political activity included within APL's SFA.

A simple difference of opinion about the source of the levy leads to the differences in position about the government funding being used for government lobbying. It should be noted that the terms of APL's SFA do not allow R&D levies nor matching funds to be used for lobbying. This activity must be funded through the use of the marketing levy which is allowed for under the SFA as "...engaging in other activities providing a benefit to the Industry where those activities may not otherwise be carried out..." (*Contract between the Commonwealth of Australia and Australian Pork Limited, 2001, Schedule 4*).

The differences within APL's SFA due to our special role as an IRB are reflected through references to "strategic policy development". Despite this role being recognised in the SFA, it is our proposition that most if not all RDC's contribute to strategic policy development in the same way as APL through the work that they are conducting. Good policy generally emanates from sound research which is a core competency of any research funding body. As an example, many RDC's are active in R&D for climate change mitigation and adaptation. The results flowing from this work would be expected to be strongly contributing to industry policies and positions and ultimately to discussions with government policy makers.

The core of the difference between APL and the other industry service bodies (ISB's) is thus the status of industry representative body and not strategic policy development. Like all other ISB's we are subject to the agri-political clause of the SFA which puts some boundaries around how we undertake "lobbying". In reality, APL sees its role with government is to ensure that as many facts are shared with government as possible enabling good policy development and our SFA in no way limits our ability to do this. Nor has there been any concerns expressed by our levy payer constituents that our ability to "lobby" is compromised.

APL's strong principles of governance entrenched within the constitution also ensure that our mandate to continue to represent the pork production industry is continually put to the test. The open and contested Board selection process, the Delegate structure and many other avenues for direct member/ levy payer contact ensure that APL is fully equipped and supported to represent industry issues.

This mandate was a key feature of the establishment of APL through the Working Party with government and industry representation. The consultation process clearly pointed towards a preference for a single industry body with a wide mandate of the provision of services and representation.

We believe that the comprehensive and transparent process leading to the formation of APL, the solid governance principles built into the constitution and the company's approach to government relations all provide strong justification of the present structure and responsibilities of APL as being optimal for the pork industry and the community.

5.3. The unique benefits of APL's structure

We also believe that APL's structure presents some significant opportunities for greater performance for the Australian pork industry that are not present for other rural industries.

Industry challenges unfortunately do not limit themselves to being satisfactorily addressed through either R&D agencies, marketing corporations or peak bodies. As the world gets more and more complex, these challenges increasingly require a holistic approach for successful outcomes. APL's broad mandate puts us in an excellent position to coordinate a response to issues as they arise on behalf of the pork industry. This is done with an aligned overall plan built up from the variety of competences contained within the company.

The boxes within this chapter outline some examples of these industry challenges requiring a coordinated response. They describe within a successful response for all activities to be completely consistent and aligned whether they be technical, consumer oriented or dealing with regulators. APL's structure allows this type of response to be executed to the benefit of the industry and the community.

Compared to the situation with the predecessor companies of APL, we now have one company with one Board dealing in a broader sense with one industry. The efficiencies in optimally utilising support functions, co-locating previously dispersed personnel, enhancing contact opportunities between different centres of competence and improving our buying power through increased scale

should not be under estimated. Government rightly puts some pressure on the RDC's generally to realise such synergies.

Box 8 – The Influenza A/ H1N1 outbreak in 2009

Influenza A/ H1N1 was a flu disease discovered in Mexico in 2009 and ill-advisedly named “Swine Flu”. The very weekend that this came to the attention of the media, APL commenced action under the industry’s crisis management process – “PorkSAFE” – to achieve three things:

- Educate consumers about the disease to avoid a drop in consumption of pork;
- Protect the Australian pig herd from the disease;
- Protect Australian pig industry workers from the disease.

An Incident Control Team was established with representation from APL’s marketing, research and innovation, communications and policy divisions as well as the CEO. This team worked quickly to put together media strategies, retail and trade communication strategies, make contact with animal health and human health regulators, develop pig farm enhanced biosecurity advice and develop bulletins, talking points and Q&A’s for broader industry distribution.

Despite the disease taking a strong hold on the Australian population, only around four piggeries were notified as having pigs which contracted the disease. Reduction in consumption of pork was limited to two periods of around three weeks during the discovery of the disease in Mexico and the discovery of the disease in Australia. APL was recognised by the industry and other bodies we had to work with as having done a very good job at managing the issue and severely limiting the damage to the industry. A significant source of this success was our ability to coordinate and align our activities across the divisional skills base – the marketing, research and innovation, communications and policy divisions.

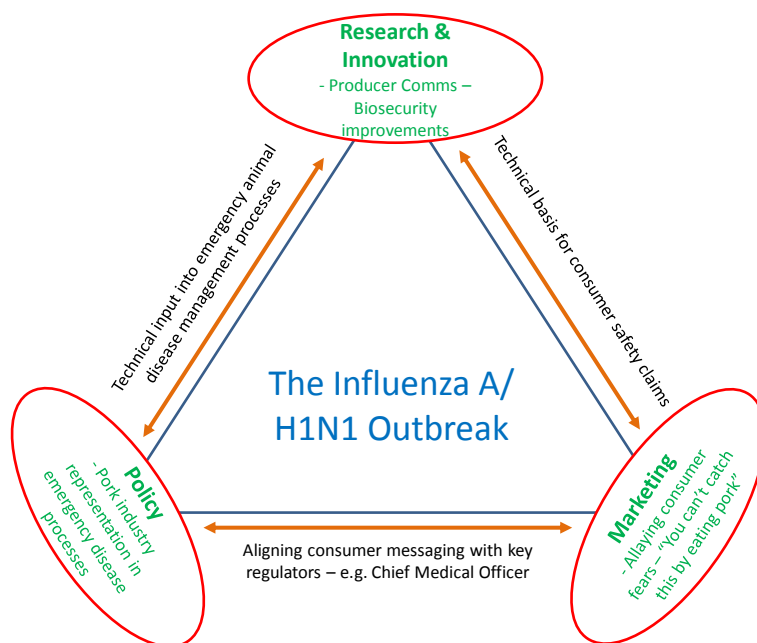


Figure 3 – Divisional interactions for the Influenza A/ H1N1 outbreak

The rural industries already suffer an enormous burden of over-representation. Each commodity group, state farming group, special niche production group all expect their own representative body. The result has been a plethora of such bodies formed over many years – each all too often

underfunded and thereby under delivering to their constituents. APL's ability to concentrate on the real issues of representation without the distractions of their existence continually put at threat by financial pressures is a considerable asset to the pork industry in Australia. The simplicity, transparency and accountability of APL's systems for membership services is appreciated through the industry.

Box 9 – The “Shaping Our Future” Initiative

APL recently announced an initiative being undertaken by the Australian pork industry to look into the future production practices for optimal pig welfare and consumer and community satisfaction.

This five month consultation process with industry is asking the question as to whether the use of sow gestation stalls is sustainable considering the attitude of the community to them. It also asks whether the industry can maintain the high standard of animal care if their use was to be discontinued. Thirdly, it asks whether by taking a pro-active stance on change, the industry can gain advantage with retailers in particular to differentiate Australian pork from imported products on the basis of improved welfare perceptions.

This is a major initiative involving considerable change in some traditional farming practices as well as significant new capital investment. It is also a classic initiative involving a total strategy built from the individual skill centres of marketing (how to get the support of retailers and marketers for our position), research and innovation (what the latest research is telling us about optimising sow welfare through optimal housing) and policy (how we can ensure with government that any changes to individual piggeries resulting from such a change would be supported in terms of permits and planning approvals). It is highly doubtful that the previous pork industry service bodies' structure would even reach agreement on the asking of these questions, let alone see the process through to a possible industry public statement later in the year.

The figure below shows the interactions necessary between the APL operating divisions in managing this industry initiative.

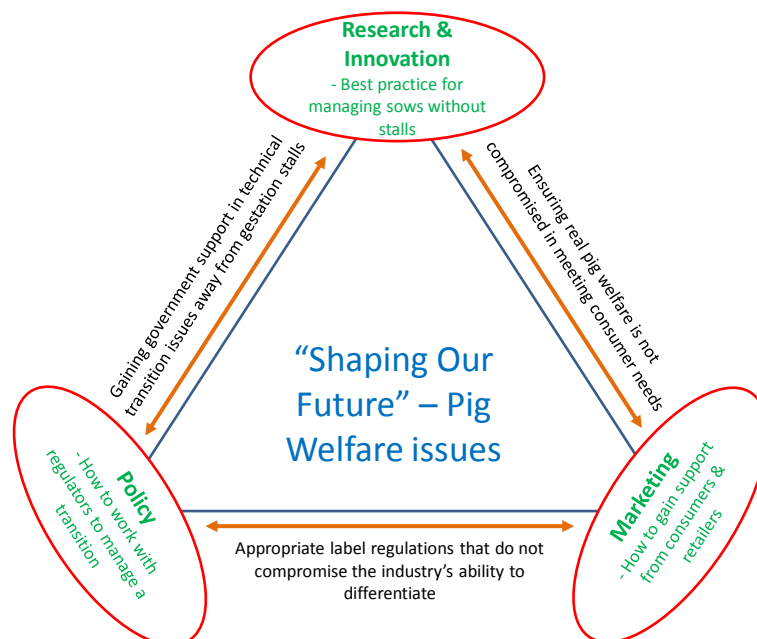


Figure 4 – Divisional interactions for “Shaping Our Future” initiative

The continued rationalisation of agriculture means that farm businesses are getting bigger and more business oriented. They are unlikely to want to continue to pay for multi tier representative organisations within a commodity group and will be demanding higher standards of professionalism, effectiveness and efficiency from fewer industry bodies.

Box 10 – Physi-Trace and the Australian PorkMark Program

Food labelling law in Australia doesn't work effectively for the consumer of pork products to make informed choices based on country of origin.

The claim "Made in Australia" shows up on many ham and bacon products made from imported pork. Consumers purchase such products believing that the pork used in the manufacture of them came from Australian pigs. The higher standard – "Product of Australia" – which does require pork from Australian pigs is not used on many products due only to very small quantities of imported brine used for curing (not available in Australia). This claim has also been shown to be subject to misuse. In the past month a major processor had to pay more than \$400,000 for misusing "Product of Australia" on product made from imported pork.

In light of this, APL has developed the Australian PorkMark program where the APL "Australian Pork" pink logo is licensed out to processors for use on their Australian sourced products. In parallel, consumers are being educated to look for the logo to purchase real Australian smallgoods. This program now has licensees numbering in the hundreds and feedback is that the use of the PorkMark is affecting sales in a positive way.

Alongside this marketing initiative, the R&I division using government funding have developed the Physi-Trace system as a part of the pig traceability project and broader National Livestock Identification System. Physi-Trace is world leading traceability technology, based on CSIRO research, used to trace the origin of pork. In effect, a random sample of pork can be traced back to an original source farm within a period of two to three days by comparing its trace element and isotope profile against a reference library. The Physi-Trace system will be a key validation tool for the pork industry traceability systems and a compliance tool for country of origin claims on pork. This ensures that when consumers think they're getting Australian, they are getting it.

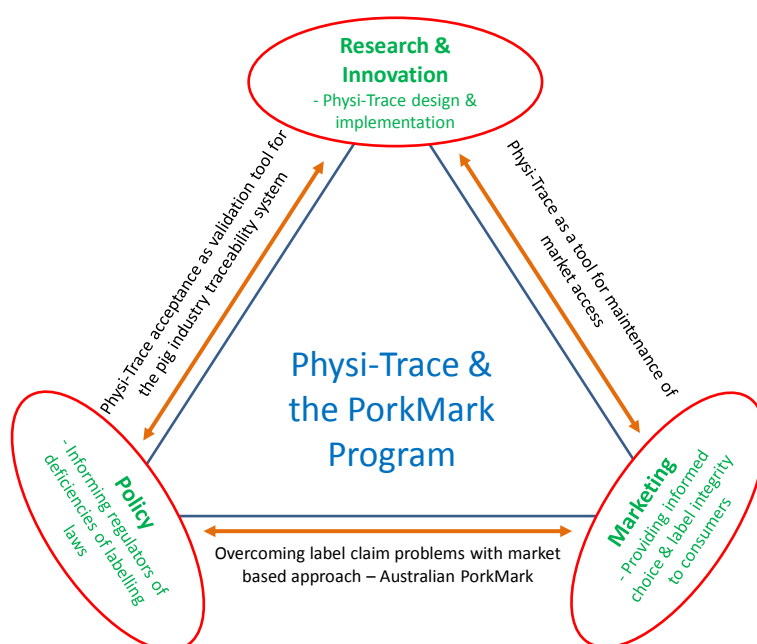


Figure 5 – Divisional interactions for Physi-Trace and the Australian PorkMark program

APL's view of effective government relations is to have an open and constructive dialogue with government whilst at the same time recognising that the government is a major funder and stakeholder to the industry. We do not see ourselves as a classical "lobbying" body and we also believe that whatever works for the pork industry has to work for the Australian community as well. We are able to keep our arguments rational and logical in times of significant public and industry debate regarding controversial subjects. The relationship that our SFA gives us with government helps to facilitate this approach.

We believe that, with the strong governance and communication processes within APL, neither the producers nor the government are disadvantaged by not having a separate IRB. Rather it simplifies the dialogue and it also results in responsible contributions to government policy that are supported by robust information and data.

This means in the end, more effective R&D outcomes with better public good spillovers and better government policies for the pig industry and taxpayers.

Industries with multi tier representation are more vulnerable to emotional and knee-jerk responses to controversial issues which can lead to a lack of clear direction. In addition, there is continual pressure on how they are to be funded as well as to the extent of their representation.

APL took the unusual step in 2005 of taking the government to court. The issue was the Pig Meat Import Risk Assessment and the whole process is described in full in the appendices.

6. APL Background Information

6.1. Origins of APL

The industry's challenges are today navigated by a single industry body, Australian Pork Limited (APL). More than ever before and in view of the industry's exposure to the global food market, APL's services to industry remain paramount. APL invests in research, development and extension services to producers which in turn foster global competitiveness and a continuous commitment to product development and product improvement.

This commitment, through strong governance principles has served levy payers well consistently for almost ten years, and is testament to the strength of APL's unique RDC model. This is the model that can best deliver to industry and to the public at large.

APL was founded in 2001. It was the will of the industry to achieve synergy and dynamism with a single industry association and the compelling commercial logic in creating a seamless relationship between policy, research and development and marketing functions for an industry body.

Levy payers had strong ownership of the process which led to the founding of APL. Levy payers wanted a structure that:

1. allowed greater influence and increased accountability for the use of levy funds;
2. better value for money; and
3. assurances that levies directed toward specific functions such as research and development (R & D) and promotion continued to be spent in those areas.

There was also a need to achieve structural change to enable the industry to respond more effectively to changes in global trade arrangements, escalating import competition and the imperative to accelerate profitable and sustainable export growth. This was despite recognition that the Australian Pork Corporation and the Pork Research and Development Corporation had met the industry's needs adequately in the ten years to 1999.

A Working Party was established and tasked with the responsibility for designing the structural options for the industry organisation. The Working Party worked closely with the Federal Government at the time, with Greg Read the Federal Government's representative.

In response to changes in the industry environment, in 1999, the Working Party acknowledged that the organisational arrangements should provide a nimble, market-facing organisation that could use its resources (people, funds, technology and information) to advance in a rapidly changing environment. The industry organisation needed:

- a focus on a single strategic direction that linked all industry sectors;
- effective industry R & D and marketing and promotion programs;
- a seamless relationship between policy, R & D and marketing services;
- high levy payer ownership and low involvement of government;
- high accountability to levy payers;
- flexibility in the use of levy funds;
- adaptability; and

- responsiveness to changing industry service needs.

The Working Party's final recommended option was for the current structure of APL as it offered the immediate benefits over other models proposed of:

- greater streamlining of decision making;
- removal of duplication;
- elimination of tensions between separate industry bodies.

The Working Party also noted that "An integrated structure will enhance responsiveness and provide a balance between accountability and flexibility to perform" (Working Party, 1999, page 12).

With this position, the Working Party invited written submission on the Options Paper and also developed a comprehensive communications program of media, letters and regional workshops to generate industry awareness and a high level of consultation with levy payers. There was strong engagement and consultation with government. Parliamentarians and DAFF were regularly updated on the industry consultation process.

Overall the feedback from industry suggested that there was no interest in continuing the separate institutional structure and there was overwhelming support for the APL model. The industry also showed strong preference for a CEO as independent from APL Board and for the APL Board to be skills-based. The Delegate system of representing producers as it existed under PCA was to be maintained.

The then Minister for Agriculture, Fisheries and Forestry, Warren Truss, formally announced on August 29th, 2000, the approval of the current structure for the industry under APL. The government and the Department of Agriculture, Fisheries and Forestry recognised the benefits of this unique structure over other RDC's. APL has been operating successfully under its present structure for almost ten years.

How APL came to be established and its unique mandate, combining marketing, research and development (R&D) and strategic policy development is explored in greater detail in the appendices.

6.2. Pork industry levy structure

APL levy income has steadily reduced over the past few years due to the downturn in slaughter numbers. Additionally, the pig industry slaughter levy has not increased since 1994 and has been severely eroded since then by inflation.

APL had submitted two proposals to the Government regarding amendments to the current levy structure. The first proposal submitted in April 2008 requested the removal of the split between the marketing and R&D levy. A supplementary proposal was submitted in May 2009 requesting amendment to the Primary Industries (Excise) Levies Regulations 1999 to adjust the levy rates within the limits set in the Primary Industries (Excise) Levies Act 1999. This second submission was successful with the R&D levy increased from \$0.70 per slaughter to \$1.00 per slaughter from 1 January 2010 with an associated decrease in the Marketing levy from \$1.65 per slaughter to \$1.35 per slaughter. APL sees this as a stopgap measure, pending consideration of the original April 2008

submission. Until the year 2005/06, APL had been operating under the Gross Value of Production cap (0.5%) limiting the total amount of claimable funding. During that year, APL reached the Accumulated R & D Levies cap (\$0.70/carcase at that time). This had the effect of reducing the Government R&D contribution to claimable R&D activities.

The Government provides Levy Principles and Guidelines to assist industry bodies prepare a sound case for a levy or charge to a levy to be considered by industry. Twelve Levy Principles were introduced by Government in January 1997. These Principles must be met when an industry or group of levy payers proposes a new levy or an amendment to an existing statutory levy. The Levy Guidelines complement the Principles and help industries to assess their members' level of support for a levy proposal.

The Government assesses all proposals to increase a levy against the same principles applicable to a new levy. Before submitting a proposal to Government, APL would be required to estimate the extra amount that will be raised and tell levy payers and other interested parties how it will be spent to their benefit.

Further to the submission still before Government it is planned to put to industry a proposal to increase the pig slaughter levy to \$3.275 per carcass. This will be a \$0.75 increase to APL, taking the current \$2.35 component received to \$3.10 leaving the National Residue Survey (NRS) levy at \$0.175, although this levy is also under some pressure to maintain essential NRS services.

6.3. Structure of APL

Today, the policy function of the Pork Council of Australia (PCA), the marketing function of the Australian Pork Corporation (APC), and research and development function of the Pig Research and Development Corporation (PRDC) have been integrated into Australian Pork Limited (APL). It is common sense that as an integrated company APL has delivered more to industry than if it were maintained by three organisations.

APL is responsible for delivering integrated services through the pork industry. APL was formed in 2001 as a result of industry delegates at the time voting to amalgamate the three institutions to achieve transparent financial, operational and strategic efficiency.

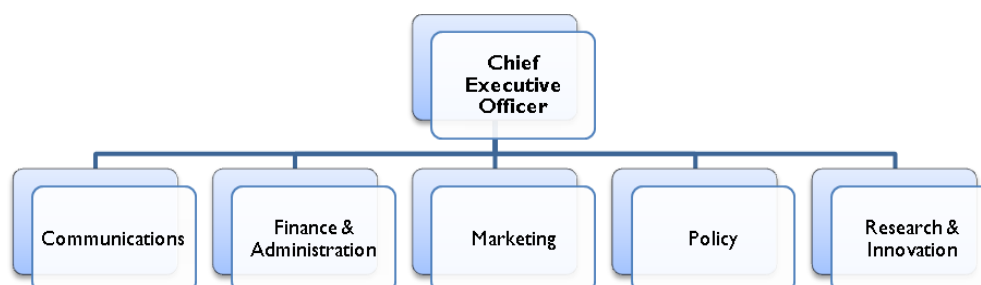


Figure 6 – Divisional structure of APL

APL has five divisions headed by a CEO and five divisional General Managers: Policy; Marketing; Research and Innovation; Finance and Administration; and Communication. The operational

divisions (Marketing, Research & Innovation and Policy) conduct activities designed to result in direct benefits to producers whilst the service divisions (Finance & Administration and Communication) provide support services to the operational divisions.

Box 11 – An overview of APL's divisions

Policy Division

The division is responsible for strategic policy development across a wide variety of policy issues that impact on the industry and producers viability. As a key point of contact with the industry's various stakeholders, including the Australian Government and state governments, the division seeks to manage and balance the impact of regulatory shifts as well as changes to government policy and the compliance requirements in our markets while ensuring the industry remains competitive and sustainable. The division addresses issues relating to animal health and welfare, climate change and environmental sustainability, food safety and product integrity, quality assurance, biotechnology, feed security, emergency and issues management, trade and market access, labour, and biosecurity and quarantine.

Research and Innovation Division

The division is responsible for investing and managing producer levy and matching government research and development funds in projects across a wide range of disciplines and for promoting and facilitating adoption of research outcomes or products by the industry. In addition, training initiatives for the industry as well as scholarship programs for undergraduate and postgraduate students are also managed by the division.

Marketing Division

The division has responsibility for domestic and international marketing initiatives as well as the ongoing development of a strong and commercially sustainable future for Australian fresh pork. The division provides the strategic interface with Australian producers, processors, retailers and most importantly, consumers, for the effective implementation of the marketing strategy in domestic and overseas markets.

Finance and Administration Division

The division's purpose is to provide a strong organisational capability that supports APL's operational areas. It provides services in the areas of financial, human resources, internal policies and procedures, administrative management and information and communication technology. Company secretarial, risk management and corporate governance services are also provided by this division.

Communication Division

The division's purpose is to provide a strong link to members and the pig producing industry as well as media and public affairs, publications, website management, events and conference coordination.

APL's organisational structure provides for an open, transparent operation with strong corporate governance systems in place to clearly define the respective roles and responsibilities of the Board and APL management and to ensure that APL acts within the law at all times, avoids conflict of interest and acts honestly and ethically in all business activities. APL's structure requires that the CEO reports regularly to a nine-member Board, five of which are producers, and four that are specialist Directors. More information on the functioning of APL's Delegate System and the APL Board are available in the appendices.

6.4. The delegate system

APL's Delegate System ensures an ongoing, strong representative voice and a sense of ownership of industry over APL.

Delegates are elected by APL members (levy paying pig producers) through a production weighted voting system each year. These delegates (around 30 in total) meet at least twice per year to discuss industry issues and take decisions, giving direction to the APL Board and management. This in effect is direction from the producer/ membership base (membership of APL is free to levy paying pork producers) and provides an important interface to the producer base, supply chain and broader industry.

For more background into APL's Delegate System and the APL Board refer to the appendices.

6.5. Collaborations/ co-operations

APL is represented on a number of inter-organisational committees at the national level that inform the R&D investments made by APL. APL is the only agency through which pig specific information and data can be conveyed to these committees while at the same time being the primary conduit to communicate committee outcomes to levy payers where R&D outcomes may apply.

Further information on the other major collaborations and cooperation with other agencies can be found in the appendices.

7. Conclusion

Like all agricultural R&D, investment in R&D in the pork industry generates a range of public and private benefits. These two are closely related — the public benefits can only emerge if private producers have incentives to adopt research outcomes. The strength of the RDC model, particularly in the context of the pork industry, is that it recognises these realities of undertaking research and creates a mechanism to both lever private funds to generate private and public benefits and to coordinate research in a way to ensure its adoption.

Pork industry research leads to public benefits in the areas of (amongst others):

- environment and climate change;
- animal welfare;
- animal disease management;
- biosecurity; and
- human health.

Without the RDC structure, and in particular without the matching government funding of industry funds, it is very unlikely that the same amount of research would be undertaken and so the overall benefits to the community would decline. Even if some research were to continue to be undertaken, there is likely to be more duplication (and therefore higher cost) and fewer public benefits.

The RDC structure is not, of course, perfect. Potential improvements with the RDC model include creating further mechanisms for:

- addressing cross sectoral R&D issues;
- increasing the efficiency with which non-core support services are utilised, particularly by allowing common service provision to a number of RDC's.

APL has a unique structure in that it operates both as a research agency and an industry representative body. In APL's view, this has significantly enhanced our ability to undertake and deliver research that is relevant to the industry and that contributes to effective policy development as it relates to the pork industry. While we recognise that there are some concerns with this structure, we note that it was developed after considerable consultation with both industry and government. Further, our agreement with government ensures that in reality, conflicts of interest within our structure do not arise.

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9. Appendices

9.1. APL R&D project case studies

Project Domain	Project Detail	Public and Private Benefits
Animal Welfare: Effects of aggressive characteristics of individual sows and mixing strategies on the productivity and welfare of group-housed gestating sows.	<p>Group housing of gestating sows often leads to high levels of aggression following mixing which indicates that anticipated improvements in sow welfare are not being realised. Aggression has production and welfare implications. It follows that an understanding of the effects of the composition of the group may have important implications for both the welfare productivity of the group as a whole.</p> <p>The primary objective of this project is to establish the effects of individual sow behaviour (aggression at feeding, feeding behaviour and lying behaviour) on the welfare and reproductive performance of the group as a whole and to develop useful practical mixing strategies in a commercial environment to minimise the financial impact of group housed sows compared to stall housed sows.</p>	<p>This project ensures that the APL R&D programs provide alternative housing strategies for adoption by the Australian pork industry to address consumer concerns relating to the housing of gestating sows in stalls.</p> <p>Regarding animal welfare, consumers in general have a tendency to believe that restriction of animal space is unnatural and perceived to be a poor animal welfare practice. In some circumstances, consumers may also make an association between farming practices that they perceive to cause animal suffering and a consequent implied negative affect on the quality and safety of food derived from those animals.</p> <p>APL ensures that Australian consumers can have every confidence in the animal welfare standards applied by Australian pork producers.</p> <p>APL also aims to be:</p> <ul style="list-style-type: none"> • the initial point of reference and conduit for the management of a coordinated industry to animal welfare issues affecting consumer and market confidence; • regarded by stakeholders and the general public as a trusted authority in matters related to pig care in Australia; and • foster strategic partnerships to ensure APL is seen as the industry's key animal care management body

Project Domain	Project Detail	Public and Private Benefits
Food Traceability: Development of the Physi-Trace technology as a validation tool to underpin the traceability of Australian pork and pork products	<p>The Physi-Trace research project aims to improve product integrity programs and systems to underpin Australian pork by developing a low cost, rapid and robust validation tool for the traceability of pork.</p> <p>Fingerprinting Australian pork will enable the industry to analyse unidentified pork samples to determine not only the pig's country of origin, its state and growing region but the source farm. This has come about from collaborative research involving Australian Pork Limited (APL), the Federal Department of Agriculture Forestry and Fisheries (DAFF) and Perth corporate TSW Analytical along with Management for Technology. Physi-Trace uses chemical profiling technologies to determine links between unknown pork samples and batches of slaughtered pigs. The scientific protocol, which determines these links, has been developed by investigating the variation in the chemical profiles exhibited in pork meat samples collected from across Australia.</p> <p>Since 2006, APL has been working with all sectors of the Australian pork industry and government to develop the Pork Supply Chain Integrity Program. This is a joint APL/ DAFF initiative. The catalyst was a number of residue detections in Singapore in 2005-06, and more generally integrity issues in other countries.</p> <p>This technology may also be considered as a means for detection of substitution of Australian pork, to identify if a sample is Australian or not Australian pork and to assist in re-entry to a market in the event of market failure.</p>	<p>The Physi-Trace project can be expected to benefit the Australian pork industry and the public good through:</p> <p><i>Pork industry</i></p> <ul style="list-style-type: none"> • A more rapid market re-entry, than would otherwise be the case in the event of a market collapse. An example of this market collapse could be a residue incident or an exotic disease outbreak. The technology can identify the supplier, production region and the kill lot; • Potential gains in traceability for the pork industry • Pork product integrity <p><i>Public good</i></p> <ul style="list-style-type: none"> • Continued public confidence in the safety of Australian pork • The technology can be applied to other primary industries such as the meat, egg, grain, wine and the horticulture industry. This home-grown research highlights the benefits of collaboration between private and public organisations resulting in both private and public good. The scope of this research and its application is considered cutting edge and is a world first. • Product integrity is one of the most important aspects of Australian pork production and is an increasingly global issue driven by consumers. APL's role is to ensure Australian pork producers are committed to providing a consistently high quality and safe product for their customers.

Project Domain	Project Detail	Public and Private Benefits
PorkScan	<p>This project was co-funded by AusIndustry, APL and five Australian pig processing companies (Big River Pork, Rivalea Australia, Swickers Bacon Cooperative, Primo Smallgoods and Linley Valley Pork) who collectively account for about 60% of Australia's pig slaughter) to develop a new manual carcase grading system based on real time ultrasound. A commercial company PorkScan Pty Ltd was been formed with the five pig processing companies and APL to commercialise this new technology to assess carcase quality to the rest of the pork industry.</p> <p>Consortium members and the wider production and processing sectors of the pork industry identified the need to improve carcase grading in the industry. Following investigation of systems used overseas and trialling of the preferred ultrasound-based system with a number of processors, the consortium concluded that the development of our own system was the preferred way forward. This reflected a failure of overseas suppliers of grading systems to address the needs of the Australian pork industry.</p> <p>The APL Board indicated that as product development and supply is not the core business of APL, and as processors do not contribute R&D levies to APL, the financial and commercial risks associated with any venture into commercial development, production, distribution and maintenance must be shared with the processors. Similarly, product development and supply was not the core business of the processors in the consortium. The strength and success of the joint project was that the system would have national application.</p>	<p>As part of APL's regular updates to AusIndustry, in 2008, APL commissioned research into the benefits of the PorkScan project. IDA Economics deemed that there were benefits from this research to others outside of the Australian pig industry, including other animal breeding industries in Australia as well as pig producers and others overseas. An independent evaluation by IDA Economics shows a benefit-cost ratio of 25:1 and an internal rate of return of 65 per cent. These benefits are broadly of a public nature and potentially genuine spillover benefits resulting from APL investment.</p> <p>The areas of private benefit were:</p> <ul style="list-style-type: none"> • Superior productivity through better assessment of carcass quality and lean meat yield; • More economically efficient pig and pork production since future production is targeted toward higher performing carcasses; • Spillover benefits to other industries within Australia (such as lamb). Some of these potential benefits to these industries were captured by the consortium as technology licence fees; • Smaller processors will therefore also benefit from this project, as the grading system will be licensed to them and all pig producers will have a more transparent and accurate grading and payment system.

Project Domain	Project Detail	Public and Private Benefits
Environmental Stewardship: Environmental Management and Climate Change Projects:	<p>Pork has the potential to be the most emissions friendly animal protein source of the future. This project demonstrates the importance of strategic policy development and research and innovation working together to produce a five-year strategy known as APL's National Environmental Sustainability Strategy for the Australian pork industry 2010-2015.</p> <p>The Strategy has already been applied by Specialist Group 5 on Environment and Welfare and acted as a guide for prioritising research projects in this area.</p> <p>The pork industry is seeking to reduce its current carbon footprint from 3CO₂-e/kg HSCW to 1CO₂-e/kg HSCW. In addition to undertaking a number of projects such as biogas technologies and the adoption of best management practices for the pig industry, APL has also commissioned a number of projects to validate its environmental credentials.</p>	<p>Some of the public and private benefits:</p> <ul style="list-style-type: none"> • Water usage - Water efficiency reduces both production costs and the environmental footprint of businesses; • Energy usage - Improving energy efficiency reduces the environmental footprint; • Transport - An incentive for the pork industry to seek opportunities to improve supply chain efficiency; • Feed grain - Optimising dietary yield, reducing wastage, improving efficiency and using low-protein diets may reduce emissions from piggeries; • Amenity Impacts - Odour emissions can be reduced through improved design and management which may also improve the environmental footprint; • Community Perception of Industry - Impact positively through local employment prospects; sell grain; and purchase by-products; • Optimising Reuse of Nutrients - There are community amenity impacts gained from appropriate by-product reuse from the industry; • Healthy Soils - A valuable nutrient and carbon source for crop production. This can significantly improve farming system productivity and soil health; • Enhancing Catchment Health - By-products can enhance soil fertility and structure, contributing to more productive farming systems; • Effectively Managing Emissions - Identify ways the industry can limit its exposure to risks associated with a carbon constrained economy; • Renewable Energy - Cost-effective ways to convert gaseous emissions to energy. Also opportunities for by-products as a nutrient source for biofuel production.

Project Domain	Project Detail	Public and Private Benefits
Environmental Stewardship: Life cycle assessment (LCA) for two different pork production systems	<p>Whilst pork is indeed the GHG-friendly animal protein compared to beef and lamb, APL had commissioned a research project to undertake a comprehensive Life Cycle Assessment (LCA) to quantifying the environmental impacts and resource usage throughout the whole pork supply chain. This study was undertaken at two representative pork supply chains in eastern Australia, located in northern (southern QLD) and southern (southern NSW) regions.</p> <p>The project aimed to assess the environmental impacts and resource usage from pork production with respect to energy usage, water usage and greenhouse gas emissions (global warming potential – GWP). The assessment compared alternate management systems and geographical regions to provide an indication of performance for the industry.</p> <p>This project showed that pork produced in Australia ranks very favourably in comparison with other low global warming potential or low carbon footprint pork production systems. The use of pond covers and flaring of the methane can further lower the global warming potential of pork produced in Australia.</p> <p>The project also demonstrated that if the effluent treatment ponds were covered and methane burned by flaring, the result would be a 90% reduction in methane emissions. This resulted in lower emissions from the northern piggery (to 2.3 kg CO₂-e/kg HSCW) and southern supply chain (to 2.7 kg CO₂-e/kg HSCW).</p>	<p>The community sometimes without adequate consultation with the industry demands:</p> <ul style="list-style-type: none"> increasingly stringent environmental regulation; and authorities continue to increase regulatory requirements for piggeries. <p>The requirements are often based on misconceptions and technical errors. As a result, producers face increasing barriers to piggery developments, even in isolated and environmentally insensitive sites. The project quantified the environmental profile of Australian pork production and could form the basis of a wider information campaign to the public on Australian pork production environmental sustainability.</p>

Project Domain	Project Detail	Public and Private Benefits
<p>Environmental Stewardship: Suite of Emission Measurement techniques and validation of emission factors.</p>	<p>APL recently funded a literature review of measurement techniques applicable to pig industry greenhouse gas emissions sources. A critical requirement of techniques selected, is that they must be able to withstand technical scrutiny and challenge by the scientists and regulators. This current project will;</p> <ul style="list-style-type: none"> • Establish the methodologies and develop new techniques to measure nitrous oxide, methane, and ammonia emission from piggery effluent ponds, conventional flushed sheds, deep litter sheds, effluent application areas; and • Collect initial emissions measurements from these sources (at sites selected in consultation with the industry). <p>The methodology and technologies developed from this project will be used by the pork industry to enable future industry investment decisions. This information will also help to validate the pork industry's environment and climate change credentials and provide the pork industry with sound data that will be needed if Australia adopts a Carbon Pollution Reduction Scheme.</p>	<p>Whilst the information from these projects will be directly used by the pork industry, this information will also provide the basis for the pork industry to further reduce its GHG emissions (as assessed by the life cycle analysis).</p> <p>By developing accurate measurement techniques, the pork industry can set environmental benchmarks to improve environmental performance in terms of nitrous oxide, methane and ammonia emissions.</p>

Project Domain	Project Detail	Public and Private Benefits
Environmental Stewardship: Methane to Markets in Agriculture program (M2MA)	In 2008–09 APL was involved in the Methane to Markets in Agriculture program (M2MA). The collaborative program included Australian Lot Feeders Association (ALFA), Australian Pork Limited (APL), Dairy Australia (DA), Meat and Livestock Australia (MLA), and Rural Industries Research Development Corporation (RIRDC) and seeks to assist the commercialisation of on-farm anaerobic digestion (AD). APL has been the largest co-contributor to this program and well over half of the M2MA funds allocated to-date have been either to pig specific projects or to projects that benefit all industries seeking to implement on farm bioenergy.	<p>Methane is a potent greenhouse gas when released to the atmosphere. Reducing methane emissions can yield substantial economic, environmental and energy benefits. The improvement and implementation of anaerobic digestion technology can lead to:</p> <ul style="list-style-type: none"> • improved air and water quality; • odour control; • improved nutrient management; • a reduction in greenhouse gas emissions; and • the capture and use of biogas—a source of clean, renewable energy. <p>By building public and private sector alliances within the Methane to Markets Partnership Australian livestock industries can advance the recovery and use of methane at livestock manure management operations.</p>

Project Domain	Project Detail	Public and Private Benefits
Consumer Health and Nutrition Project: The role of Australian pork in improving thiamine status, heart disease risk factors and glucose control in people with type 2 diabetes.	<p>A recent report “Obesity in Australia: A need for urgent action”, prepared for the National Preventative Health Taskforce by the Obesity Working Group states “one of the greatest public health challenges confronting Australia and many other industrialised countries is the obesity epidemic. Australia is one of the most overweight developed nations, with over 60% of adults and one in four children overweight or obese”.</p> <p>APL and the Pork CRC funded a study (conducted by CSIRO, Human Nutrition) to investigate the role of Australian pork in improving thiamine status, heart disease risk factors and glucose control in people with type 2 diabetes. This study showed that a 16 week weight loss intervention with a higher protein, high pork diet and resistance exercise training was more effective for weight loss and improving body composition by enhancing fat loss compared to lifestyle interventions incorporating, either a higher protein, high pork diet or a high carbohydrate, low protein diet without resistance exercise. There was also evidence the higher protein, high pork diet and resistance exercise lifestyle plan tended to be more effective for improving weight loss and body composition compared to a high carbohydrate, low protein and resistance exercise lifestyle plan. Weight loss following the lifestyle programs incorporating a higher protein, high pork diet or a high carbohydrate, low protein diet either with or without resistance exercise had similar benefits and substantially improved blood glucose control and biomarkers of heart health. There was also evidence that a higher protein, high pork and resistance exercise program had the greatest improvement in improving fasting insulin levels (a marker of insulin sensitivity).</p>	<p>This research provides the pork industry with comprehensive data to demonstrate that pork is a healthy and nutritious meat. In addition, this information is being provided to dieticians and nutritionists to expand on the range of foods that can be used effectively for weight and diabetes management in the community.</p> <p>This promotes a public good of lower fat diets, contributing to reducing Australia’s obesity problem, a major cause of premature deaths in our country.</p> <p>Marketing division have leveraged international learnings from Canada, Denmark, UK and USA for specific learning objectives, including shopper research, new product development and currently one that is targeting improved co-funding from the food industry.</p> <p>This work has important potential implications for improving metabolic health in patients with type 2 diabetes.</p>

Project Domain	Project Detail	Public and Private Benefits
Consumer Choice: Australian PorkMark	<p>Australian Pork Limited has launched the Australian PorkMark program to address confusing CoOL laws and help consumers differentiate Australian pork products from subsidised imports at retail level.</p> <p>Australia's current CoOL laws make it very difficult for consumers and producers to differentiate Australian ham and bacon from subsidised, imported ham and bacon at retail.</p> <p>Most ham and bacon labelled "Made in Australia" contains imported pig meat. The "Made in Australia" claim is valid for goods that have 50 per cent or more of the cost of production incurred in Australia.</p> <p>Additionally, many processed products made from 100 % Australian pig meat are unable to use the "Product of Australia" label because some ingredients in the brine, a functional ingredient in curing pork, include imports that are unavailable locally. This is despite them constituting less than 0.5% of the finished product.</p> <p>There is no question that consumers find the current CoOL regime confusing. Consumer research undertaken by Newspoll in 2008 on behalf of APL found that:</p> <ul style="list-style-type: none"> • 33% of Australians mistakenly believe that some fresh pork is imported; • Only 40% of Australians think that some ham or bacon is imported; • 87 per cent of Australians prefer to buy Australian; • 85 per cent are probably prepared to pay a 20 per cent premium; and • 35 per cent are probably prepared to pay a 60 % premium for Australian pork. 	<p>There is a strong consumer desire for clearer CoOL information. The Australian PorkMark program aims to help Australians identify Australian pork by looking for the distinctive pink Australian PorkMark on Australian fresh and processed pork products.</p> <p>Research released in 2006 (attributed to R. Morgan) clearly indicates that two-thirds of consumers will consciously choose Australian whenever possible.</p> <p>Since the launch of the PorkMark in July 2009, the campaign has been gaining momentum and some 137 local butchers and smallgoods manufacturers have already been licensed to use the "Australian Pork" logo on their packaging and advertising.</p> <p>APL will endeavour to assist these companies to build consumer awareness of the PorkMark through a tactical media PR program.</p> <p>In APL's view, that rationale for a statutory levy for marketing purposes has been upheld because of the success of the Australian PorkMark Licensing program. There is a strong need for producers to distinguish their product in the market as Australian and similarly to assist consumers who want to buy Australian pork.</p> <p>By using the distinctive pink Australian PorkMark, Australian butchers and smallgoods manufacturers can also be a champion for their customers and suppliers by clearly differentiating between Australian grown pork products and cheaper subsidised imports.</p>

9.2. How APL was formed

As early as 1996, the idea of streamlining the Australian pork industry's national industry organisational structures was introduced. At this time, there were three industry bodies – the Pork Council of Australia (PCA), representing strategic policy development and advocacy; the Pork Research and Development Corporation (PRDC), representing R & D; and the Australian Pork Corporation (APC), representing marketing. In September 1996 at the PCA Conference a proposal to amalgamate the existing industry organisations into a single non-profit company as well as the voluntarily funded PCA was debated. In 1999, the pork industry recognised the case for merging the two remaining statutory bodies of the APC and the PRDC.

9.2.1. A framework for defining structural options

In May 1999, industry delegates agreed unanimously that the PCA establish a joint industry-government task force to prepare a report defining the options available for the industry to have a single industry body including R&D and marketing functions. A Working Party was subsequently established and tasked with the responsibility for designing the structural options for the industry organisation. This Working Party included:

- Ron Pollard (Chair), President of the Pork Council of Australia (PCA) and owner of a mixed farming operation in NSW;
- Rob Berlin, a pork producer with a mixed farming enterprise in SA and a graduate of the Australian Rural Leadership Program;
- Brain Streets, a pork producer with piggeries in NSW and SA with experience in financial management;
- Trevor Herd, Chairman of Australian Pork Corporation (APC) and Chairman of the National Pork Industry Development Group, with expertise in retailing;
- Nigel Smith, Bunge Meat Industries, with expertise in pig production, slaughter and exporting;
- Rob Wilson, Chairman of Pork Research and Development Corporation (PRDC) and manager of Wandalup Farms;
- Robin Ferris, Chief Executive Officer of Darling Downs Bacon, with expertise in corporate business operation and structures;
- Greg Read, Government member, with experience in statutory authorities and restructuring of the red meat and horticultural industries.

The Pork Council of Australia, through the then CEO Brian Ramsay, provided secretariat services.

In response to changes in the industry environment, in 1999, it was acknowledged that the organisational arrangements should provide a nimble, market-facing organisation that could use its resources (people, funding, technology and information) to advance in a rapidly changing environment. The industry organisation needed:

- a focus on a single strategic direction that linked all industry sectors;
- effective industry R & D and marketing and promotion programs;
- a seamless relationship between policy, R & D and marketing services;
- high levy payer ownership and low involvement of government;
- high accountability to levy payers;

- flexibility in the use of levy funds;
- adaptability; and
- responsiveness to changing industry service needs.

The Working Party determined the essential characteristics of the new entity must:

- have high stakeholder confidence and support;
- be eligible for statutory funds;
- be eligible for matching research and development funds;
- be eligible for voluntary donations, including for R & D;
- have the capacity for voluntary contributions to be eligible for matching Commonwealth funding;
- provide strategic direction;
- create a positive future for the industry, be efficient and have effective strategy implementation, including:
 - managing effective marketing programs
 - managing effective research and development programs
 - encouraging strong linkages from producer to customer; and
- deliver value for money to levy payers.

9.2.2. Structural options

The Working Party's recommended option was the current structure of APL. APL was to provide all policy and service delivery functions. The APL model offered immediate benefits over the other models proposed by the Working Party including:

- greater streamlining of decision making; and
- elimination of tensions between separate bodies.

The strengths identified by the Working Party of the APL model were:

- removal of duplication. Producers do not need to be members of both the service delivery body and a peak industry council;
- efficiency and effectiveness in the provision of marketing and research and development services (that is, strategically aligning both these services to maximise benefits for the pork industry as a whole);
- a board structured with a majority of directors elected by members and a remainder selected on the basis of their commercial and other skills. This structure would be commercially focused and deliver strategic outcomes;
- all levy payers would automatically be eligible for membership, but there would be provision for other supply chain members to also apply for membership. This approach would provide scope for the membership base to encompass the supply chain from producer to retailer or exporter; and
- one body responsible for strategic direction, industry policy and service delivery to streamline decision-making and eliminate the tensions that can develop in structures involving a peak body separate from the service delivery body. An integrated structure will enhance responsiveness and provide a balance between accountability and flexibility to perform (Pork Council of Australia, 1999, page 12).

9.2.3. Consultation process and the resulting organisation of APL

Written submissions on an Options Paper were invited from industry and stakeholders by 31 December 1999. The Working Party implemented a comprehensive communications program, generating a high level of industry awareness and consultation on the proposed restructure.

Communications activities included direct mail, national fax stream broadcasts to producers, reporting by pork industry and rural media and meetings with producers, researchers and organisation representatives throughout Australia.

All pork producers in Australia (some 3000 businesses at the time) contacted were documented and media reports were catalogued. Pork retailers, abattoirs and processors also received a copy of the Options Paper, and information on the restructure and a copy of the paper were posted on the PCA internet website.

Industry feedback was received through meetings in 14 regional centres with more than 200 producers and through 14 written submissions. Briefings on the restructure process and recommended structure were also provided regularly to Parliamentarians, the Department of Agriculture, Fisheries and Forestry and research groups.

Several distinct implementation issues emerged in the feedback from regional meetings and written submissions:

The desire for one industry organisation:

- There was no interest from industry in continuing with the current structural arrangement involving three national industry bodies;
- There was overwhelming support for the option recommended by the Working Party (i.e. the APL model). In this option the three current organisations were to be amalgamated into one body and incorporated as a non-profit company controlled by producers.

Most producers (and researchers) consulted at the regional meetings were in favour of a Chief Executive Officer who was not a Director of the Board (Managing Director), because:

- a Managing Director is a member of the Board, whereas a CEO's role is simply to implement the Board's decisions;
- a Managing Director would have too much influence;
- there was a perception that it may be easier to remove a CEO who is not a Director; and
- appointing a CEO who is not on the Board would allow an additional Director to be appointed to the Board.

9.2.4. Discussion of Board structure and skills

Regional producer meetings debated filling the vacant Director's position if a Managing Director were not appointed. In general, producers were attracted to the idea of a fourth specialist Director taking up this position. Some argued that it should be another producer-elected Director, but all

agreed that specialist Directors should be elected on the basis of robust commercial skills and experience.

Some producers raised questions about the implications of reducing the three existing Boards to one and the subsequent impact on workload, responsibility and skills necessary for the Board to function effectively. In response, the Working Party considered that the Board would readily manage its tasks, and would have the capacity to establish specialist committees to provide additional advice as required.

There was general acceptance of the three-year term of tenure for Directors. Producers also raised the issue that Directors should have an opportunity to return to the Board once they have served the maximum two terms; for example there were suggestions that there could be a prescribed period before a former Director could become eligible again for appointment. The Working Party endorsed this idea and referred it to the PCA AGM in March 2000 for industry delegates to form a policy position.

9.2.5. The processing sector

Three written submissions supporting the new structure proposed that the abattoir and meat processing sector be involved in APL. Some producers also supported the involvement of the processing sector in the new organisation.

There were submissions supporting the proposal that one Director of APL be from the processing side of the industry. In a similar vein, further information was requested on the future role of the existing Confederation of Australian Pork Exporters in the new organisation.

The Working Party accepted the importance of the Board having access to advice from a breadth of industry partners in the supply chain, and recommended the formation of a Supply Chain Advisory Committee. The group would be chaired by the Managing Director or CEO and its members (which could include pork producers, grain suppliers, transporters, processors, exporters, retailers and so on) would be chosen by the Board.

Today, APL has regular meetings with processors via the APL Processor Referral Group and Market Development Advisory Committee.

9.2.6. Delegate system/ rights of members

Producers raised questions of clarification about how the PCA delegate system would work. A few producers considered it would be more democratic to have equal voting rights for all producers rather than rights proportional to investment in the industry (that is, sow numbers).

PRDC suggested that an alternative system could be investigated, but there were no suggestions from producers about how to improve on the existing delegate system.

Producers also asked for clarification about the rights of levy payers who chose not to contribute a voluntary membership fee to become part of the Industry Delegate Forum system. There were also questions about the relationship between State producer organisations and APL.

In the end, it was agreed that the APL model retain the Delegate System, based on rights proportional to investment in the industry and that APL be funded solely from the combined marketing and R & D levy.

9.2.7. Implementation

The then Minister for Agriculture, Fisheries and Forestry, Warren Truss formally announced on August 29, 2000 the approval of the current structure for the industry body as APL. It was determined by the Government that the structure would mean APL would be directly accountable to its levy payers. The Government also recognised that the move to a single organisation would remove inefficient duplication (Australian Pork Newspaper, 2000).

However there was a widespread view in the industry that the proposed timeframe for implementation (1 July 2001) was too long. Meetings with Parliamentarians and submissions by staff in industry organisations also identified concerns about delays in policy decisions resulting in uncertainty.

As a result of the consultations, the deadline for implementation was brought forward by six months to 1 January 2001. To achieve the new start up date, the Working Party recommended delegates at the PCA Annual General Meeting on 28-29 March 2000 vote for the producer elected Directors (as Directors designate) for the first board of APL, who were ratified at the first APL AGM in 2001.

The first five producer elected 'directors designate' for APL were:

- Mr Ron Pollard
- Mr Nigel Smith
- Dr Paul Higgins
- Mr Brian Streets
- Mr Bruce Lockwood

APL was established as a company limited by guarantee under Corporations Law on 23 May 2000, with the year ending 30 June 2001 the establishment stage for APL. The Constitution was adopted on 28 May 2001 and the Statutory Funding Agreement with Government signed on 4 June 2001. APL became operational as the single national body for the Australian Pork Industry on 1 July 2001.

9.3. APL's Pork Industry Strategic Plan 2010-2015

APL's strategic planning processes are an integral part of managing, reporting and measuring the industry's progress and appropriate use of both levy and Government co-contributions. It is APL's responsibility to levy payers, the Government and the wider community in ensuring that APL can drive positive change in the industry.

APL's activities, projects and programs are outlined in the 2010-2015 Strategic Plan. It is built around five Core Objectives which are in turn, underpinned by strategies, programs and projects designed to deliver the key outcomes for each objective.

Prior to the expiry of the 2005-2010 Strategic Plan, over 2008-2009 APL began the task of developing the 2010–2015 Strategic Plan. The consultation process for this Strategic Plan included eight, formal, open-invitation, producer meetings nationally, covering all states of Australia. Also conducted were workshops with various government departments, authorities and a multitude of individual meetings with supply chain players and other industry bodies.

In addition, an “open door” policy was taken on submissions or contributions – in particular from APL pig producer members, resulting in the further collection of information and industry opinions. The careful collation of all of the ideas and proposals resulted in a list of themes which characterised how this Strategic Plan differs from its predecessor.

Core Objective	Build Consumer Demand	Viable Productive Farms	Efficient Value Chains	Leadership, Preparedness, Stewardship	Industry Cohesion & Responsiveness
Objective Champion	General Manager Marketing	General Manager Research & Innovation	General Manager Research & Innovation	General Manager Policy	General Manager Communication
Key Stakeholder	Consumers	Producers	Supply Chain	Community, Producers, External Stakeholders	Industry People
Scope	Domestic & International meat, fresh & processed	Farm efficiency	Links between layers of the supply chain	Managing risks & capturing opportunities	Information knowledge, communication, internal operations
Strategy 1	Assuring eating quality	Reduce input costs	Create & capture value improvements	Address changing expectations & standards for food production	Engage & connect the industry
Strategy 2	Increasing frequency of use	Improve process efficiency	Enhance linkages between the value chain partners	Manage the impact of regulatory shifts	Facilitate rapid uptake of information & technology
Strategy 3	Improving the image of fresh pork	Build skills & capability	Optimise value chain efficiency & quality	Government policy & compliance requirements	Enhance the reputation & effectiveness of APL
Strategy 4	Promoting “Australian”				

Figure 7 - APL's Core Objectives at a Glance

The process of development of the Strategic Plan led to the emergence of five Core Objectives for APL and the pork industry with specific strategies contained under each.

APL's final 2010-2015 Strategic Plan includes five core objectives, which are:

- Build Consumer Demand
- Viable Productive Farms
- Efficient Value Chains
- Leadership, Preparedness, Stewardship
- Industry Cohesion and Responsiveness

The annual planning process identifies the programs, projects and activities required under each strategy to meet the Core Objectives. "Core Objective Champions" are designated to each General Manager to ensure that the process of strategy implementation is carried out effectively under each Core Objective. General Managers are individually responsible for their divisional Program and Project outcomes.

The 2010-2015 Strategic Plan recognises that we are participants in the food industry and as such are subject to the changing demands and expectations of consumers and the community. Much of what APL does contributes to public good in a number of ways and this has also been expressed in the 2010-2015 Strategic Plan through the industry vision of "a competitive, responsible and sustainable Australian pork industry".

9.4. APL's R&D process

APL's Research & Innovation (R&I) division undertakes the activities previously managed by the Pig Research and Development Corporation (PRDC) prior to the formation of APL. APL's R&D process facilitates the efficient use of R&D resources and maximises research outcomes for industry. Importantly APL's R&D process is guided by The Australian Pork Industry: National Research, Development & Extension (R,D & E) Strategy, published in December 2009. Comment on R,D&E Strategy can be found in the appendices.

APL's R&D process consists of two key components:

- R&D Specialist Groups; and
- R&D Advisory Committee (RDAC).

The Specialist Groups are comprised of 'expert' participants from industry, government, research providers and APL R&I division program managers. This process is used to advise the R&D Advisory Committee on relevant research and development in the specialist area and assist the attainment of APL strategic objectives by:

- Utilising expertise within the Specialist Group to match R&D opportunities to APL strategic objectives;
- Prioritising projects and the most appropriate mode of commissioning (e.g. tender, general call);
- Alerting the RDAC to potential shortages in capability, infrastructure or resources that are impeding the pork industry's capacity to meet research and development objectives;

- Placing appropriate emphasis on technology transfer through recognition of the need for investment in the development of skills and infrastructure within the industry as a key element;
- Providing advice on opportunities for co-funding research projects; and
- Where appropriate, providing advice on the selection of research projects.

There are six Specialist Groups and these are:

Specialist Group 1	Marketing, supply chain and product development
Specialist Group 2	Genetics, genetic modification and genetic transfer
Specialist Group 3	Production and product quality
Specialist Group 4	Industry capability and technology transfer
Specialist Group 5	Environment and welfare
Specialist Group 6	Quality assurance, bio-security and food safety

The Chairpersons of the six Specialist Groups and the R&D Advisory Committee members together with the CEO of APL and the GM, Research & Innovation form the R&D Advisory Committee (RDAC). The primary function of the RDAC, on behalf of the APL Board, is to give direction to activities around the development, management, performance and outcomes of APL's research and associated activities through the:

1. Identification of research needs and opportunities as advised through the Specialist Groups;
2. Allocation of resources to specific areas of research and research projects through the Specialist Groups; and
3. Assessment of performance of the project portfolio and APL's research management.

The specific Terms of Reference for the RDAC are to ensure APL's research and development project portfolio:

1. Reflects the Commonwealth Government's research priorities as appropriate to the pork industry;
2. Is developed and operates with transparency and accountability through all parts of its processes from application for research funds through to reporting of outcomes and deliverables, with appropriate safeguards for commercially sensitive information;
3. Comprises an appropriate balance of projects in terms of scope, duration and commerciality (public/private good) through appropriate apportioning of funds between early stage scientific studies and downstream pre-market launch product development;
4. Provides an accurate and comprehensive overview of the performance of the portfolio regarding alignment with the APL Strategic Plan and progress towards milestones, budget adherence, key deliverables and investment value to the APL Board; and
5. Is responsive to specific Board directives and provides feedback for use in strategy development.

In addition:

1. The RDAC will ratify membership of all Specialist Groups; and
2. Membership of the RDAC will be reviewed annually by the APL Board.

In a typical twelve month period, the key steps in the APL R,D&E process are as follows:

Time period	Activity
January/February	Research priorities developed by Specialist Groups
February	Business plan developed by Specialist Groups
early March	Submit Specialist Group business plan and ex ante Benefit Cost Analysis (BCA)*
March	RDAC review Specialist Group business plans and recommends draft budgets to Board and APL research priorities communicated to industry
May/June	Board approves full budget and call for new R,D&E programs/projects
July-January	New R,D&E projects commissioned
December	R,D&E Process Review by RDAC
June/July	APL /RDC project ex post BCA submitted*

* RDC methodology for the BCA analyses adopted to review all APL R,D&E programs/projects.

APL Specialist Group Participants

Specialist Group	Participants
Specialist Group 1 Marketing, supply chain & product development	Ms Kay Carey, University of NSW Mr Ron Penn, Craig Mostyn Group Mr Ted Campbell, BE Campbell Pty Ltd Prof. Frank Dunshea, University of Melbourne Mr Peter Hardy, Auspork Mr David Barnes , AJ Bush & Sons Mr Mark McKenzie, Rivalea (Australia) Pty Ltd Mr Peter Haydon, APL Ms Heather Channon, APL Dr Darryl D'Souza, APL
Specialist Group 2 Genetics, genetic modification & genetic transfer	Dr Brian Luxford, Rivalea (Australia) Pty Ltd Dr Susanne Hermes, University of New England Prof. Hans Graser, University of New England Mr Brenden McClelland, Eastern Genetic Resources Mr Paul O'Leary, PIC Australia Mr Bruce Trout, Pork Producer Dr Ranald Cameron, University of Queensland Mr Jeff Braun, Myora Farms Dr Darryl D'Souza, APL
Specialist Group 3 Production & product quality	Dr Roger Campbell, Pork CRC Dr Neil Gannon, University of Queensland Dr John Black, Consultant Mr Rob Smits, Rivalea (Australia) Pty Ltd Mr Anthony Edwards, Consultant Prof John Pluske, Murdoch University Dr Darryl D'Souza, APL

Specialist Group	Participants
Specialist Group 4 Industry capability & technology transfer	Dr Ross Cutler, Consultant Mr Greg Mills, Industry & Investment, NSW Mr Wayne Bradshaw, Jefo Australia Mr Jeremy Skuse, Animal Welfare Science Centre Mr Andrew Johnson, Mt Boothby Pastoral Company Mr Ross Brown, CHM Alliance Dr Bruce Mullan, Dept of Agric & Food, WA Mr David Henman, Rivalea (Australia) Pty Ltd Ms Emalyn Loudon, APL Ms Emily Mackintosh, APL
Specialist Group 5 Environment & welfare	Dr Rob Wilson, Consultant Dr Sasha Jenkins, University of WA Ms Robyn Tucker, FSA Consulting Mr Ian Connaughton, Don KRC Piggery Mr Hugh Payne, Dept of Agric & Food, WA Mr Ian Kruger, Industry and Investment NSW Ms Amber Rodd, Rivalea (Australia) Pty Ltd Prof. Paul Hemsworth, University of Melbourne Mr John Riley, Consultant Mr Angus Davidson, Consultant Ms Kathleen Plowman, APL Ms Janine Price, APL Dr Pat Mitchell, APL Dr Darryl D'Souza, APL
Specialist Group 6 Quality assurance, biosecurity & food safety	Dr Andrew Pointon, SARDI Dr Trish Holyoake, Industry and Investment NSW Dr David Hamilton, SARDI Dr Duncan Rowland, Animal Health Australia Dr Chris Richards, Chris Richards & Associates Mr Bill Salter, APL Ms Kathleen Plowman, APL Dr Pat Mitchell, APL Dr Darryl D'Souza, APL

9.5. The Australian Pork Industry

9.5.1. General attributes

The Australian pork industry is relatively small in the world market, accounting for only 0.4 per cent of the world's pork production and around 1 per cent of world pork exports.

The industry is technically proficient and has advantages over its international competitors largely in terms of health and disease. This is important for continued trade access and market share growth in Australia's key pork export markets such as Singapore.

For example whilst Australia has the more common pig diseases such as *Mycoplasma pneumonia*, swine dysentery, pleuro pneumonia and ileitis, it is free of the more devastating diseases such as Post-weaning Multi-systemic Wasting Syndrome (PMWS), Porcine Reproductive and Respiratory Syndrome (PRRS) and Swine Influenza Virus, which have had marked adverse effects on animal mortality and the efficiency of production in virtually all other countries over the last 5-10 years. Australia is also free of exotic diseases such as Foot and Mouth and Swine Fever. Australia's strong quarantine systems are key strategic international marketing and production advantage and are vital to the competitiveness and growth of the industry.

The pork industry's future in Australia is well placed, being an industry with excellent herd health status (as outlined above), having an attractive emissions profile, being close to Asia (where pork consumption is high and wealth is increasing) and having a world leading R&D system.

However an affordable and readily available supply of grain is pivotal to the efficient survival and expansion of the Australian pork industry. Feed constitutes around 60 per cent of on-farm production costs, with grain being the major component of pig feed and accounting for approximately 80 per cent of total feed cost.

9.5.2. Slaughter numbers

Up until 2008, the Australian pork industry had had relatively stable annual slaughters for some years at around 5.3 to 5.4 million. Record grain prices and record levels of pork imports in 2007 & 2008 forced the exit of many Australian pork producers from the industry causing a decline in domestic pork production. This decline forced numbers down to around 4.5 million in mid 2009 – a reduction of some 15% from the traditional production level.

It is estimated that associated with this production decline was the exiting of hundreds of smaller pig producers from the industry – a repeat of similar waves of producer rationalisation that have occurred several times over the past four decades in Australia. Despite this, volume production trends over the longer term have been positive, leading to the clear conclusion that average pork producer size has increased markedly and continues to do so.

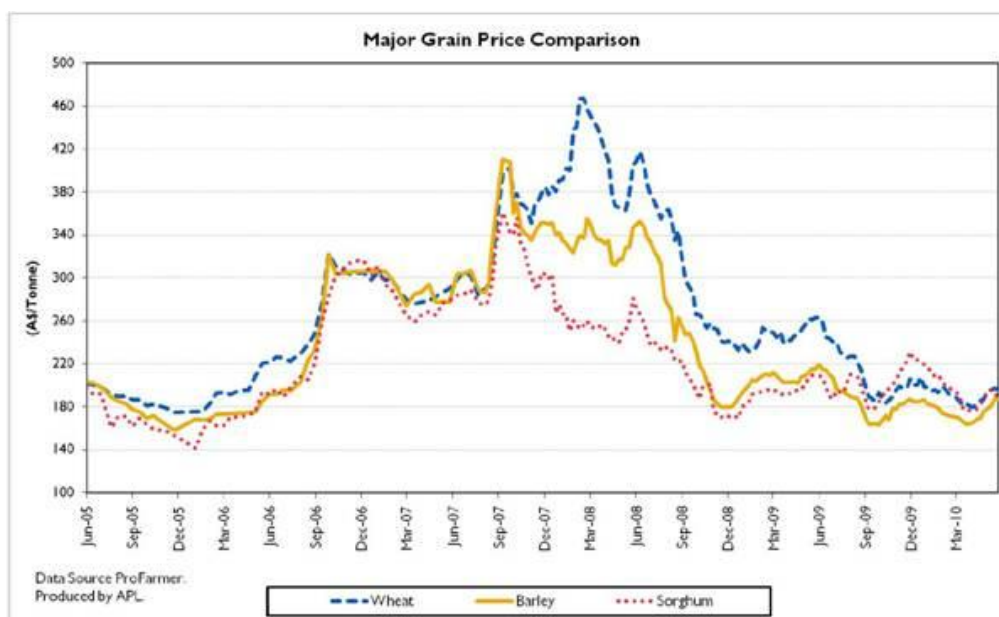


Figure 8 – Grain price developments since mid 2005

This profitability driven reduction predictably led to an undersupply of pork and numbers since the middle of last year have been starting to slowly rise again, accelerating in more recent months. Price is of course the major driver in pork production volumes – as a reflection of demand – but there is a significant lag (around one year) between the market signals being observed and farmers' ability to change supply to the market.

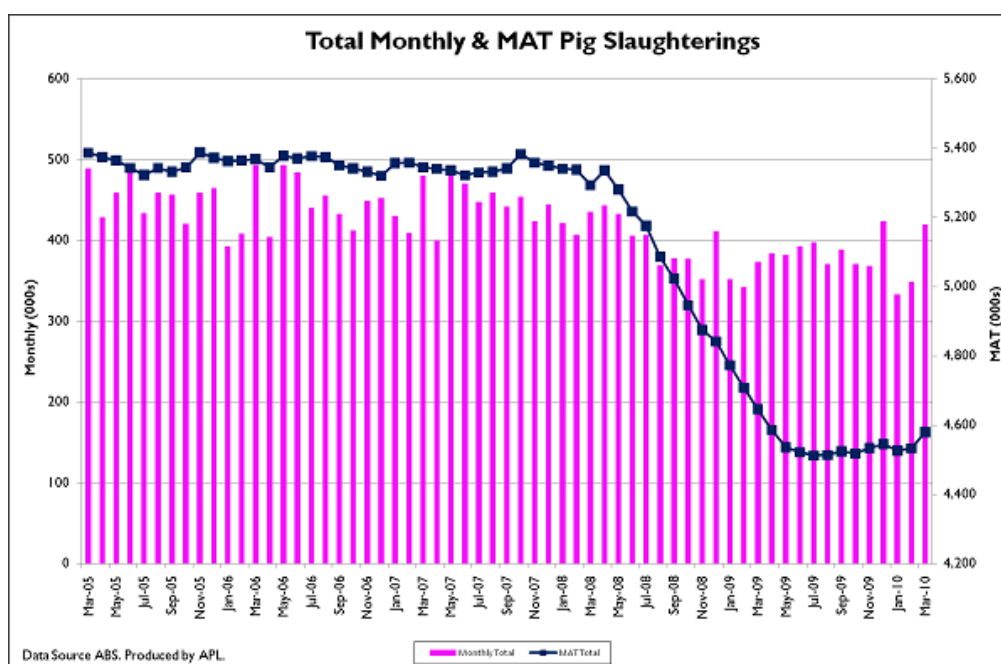


Figure 9 – Australian pig slaughters since 2005 – by month & moving annual total

9.5.3. Price developments

Prices for pork typically have a seasonal pattern. Prices start to fall in the early part of the year as demand reduces after Christmas and the Chinese New Year and supply increases (due to a phenomenon known as “seasonal infertility” which is difficulty in hot weather – over summer – to get sows pregnant, ultimately resulting in a flush of supply hitting the market in the Autumn). Towards the middle of the year, prices begin to rise as demand rises (as storage of frozen pork legs commences for the Christmas ham market) and supply tightens in the run-up to Christmas. This is seen for National Baconer prices in the last six calendar years below.

In line with the reduction in farm gate prices, trade wholesale prices have also reduced significantly since December 2009. According to the National Livestock Reporting Service, large volumes of imported product plus extra domestic product availability have meant frozen product is building up sooner than normal. This is likely to continue to impact on prices.

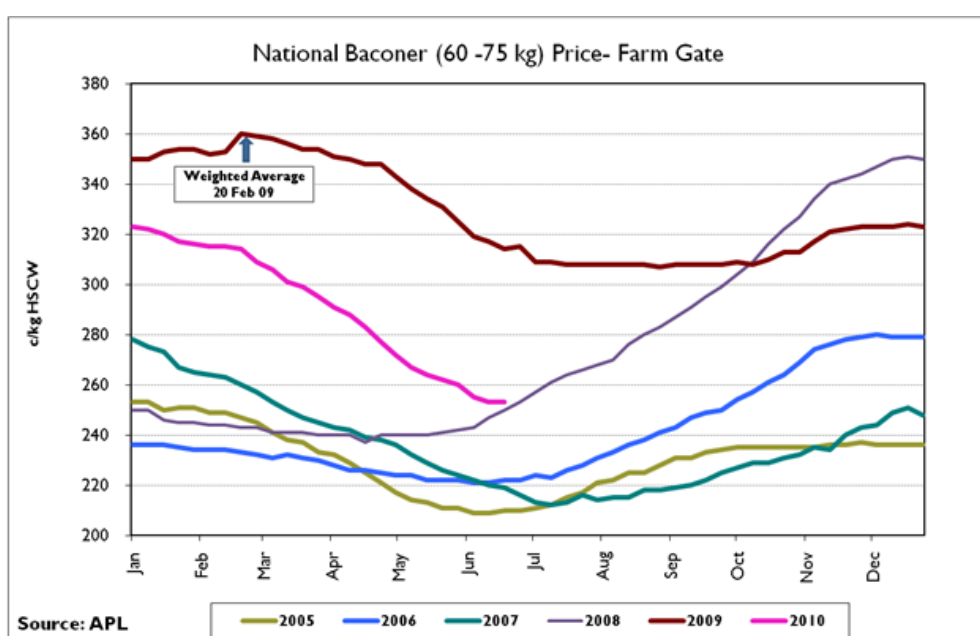


Figure 10 – Pig price developments (cents/ kg Hot Standard Carcase Weight) to producers since 2005

9.5.4. Export business

Currently Australia’s pork exports are primarily built around the markets of Singapore, New Zealand and Hong Kong as seen in the figure below.

The types of pork exported from Australia fall into two broad categories, being (1) fresh pork cuts or carcasses often sold as chilled product and (2) offal which is a lower value product but has almost no value in the Australian domestic market.

Pork export volumes increased quickly in the late 90’s when a Nipah Virus outbreak decimated Malaysian pig production. Malaysia had been the traditional supplier to Singapore and this disease outbreak led to Australia becoming a major supplier to Singapore – a status we have held ever since.

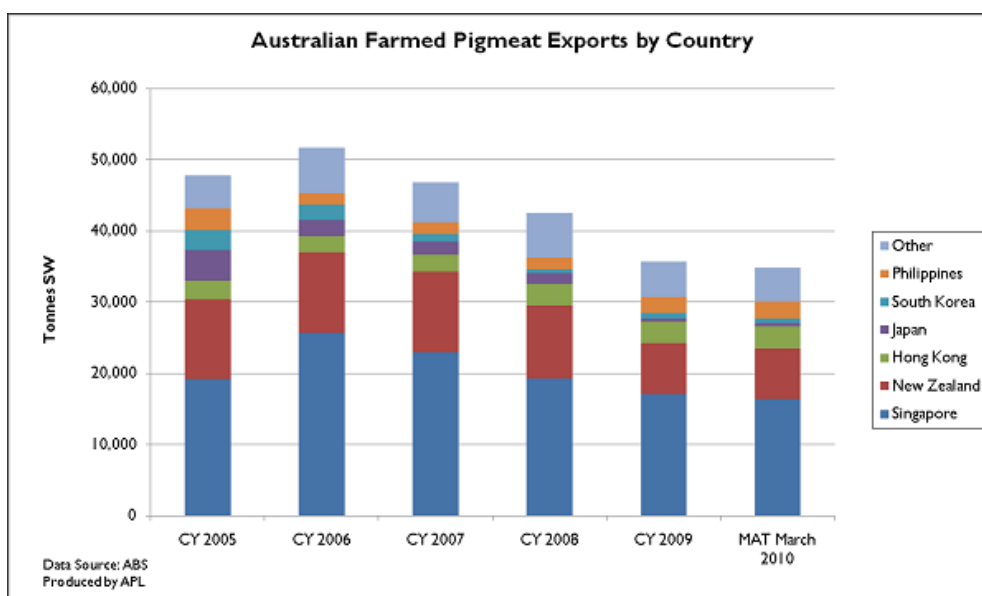


Figure 11 – Pork export destinations since 2005 by volume (shipped weight)

The volume of Australian pig meat exports has declined from its peak in mid 2003. Declines since mid 2008 were partly caused by a shortage of pork in Australia after the 2007/8 industry profitability crisis. The strong A\$ has also played a role in recent years making it more difficult to compete with Indonesian, Chinese and Brazilian pork into Singapore.

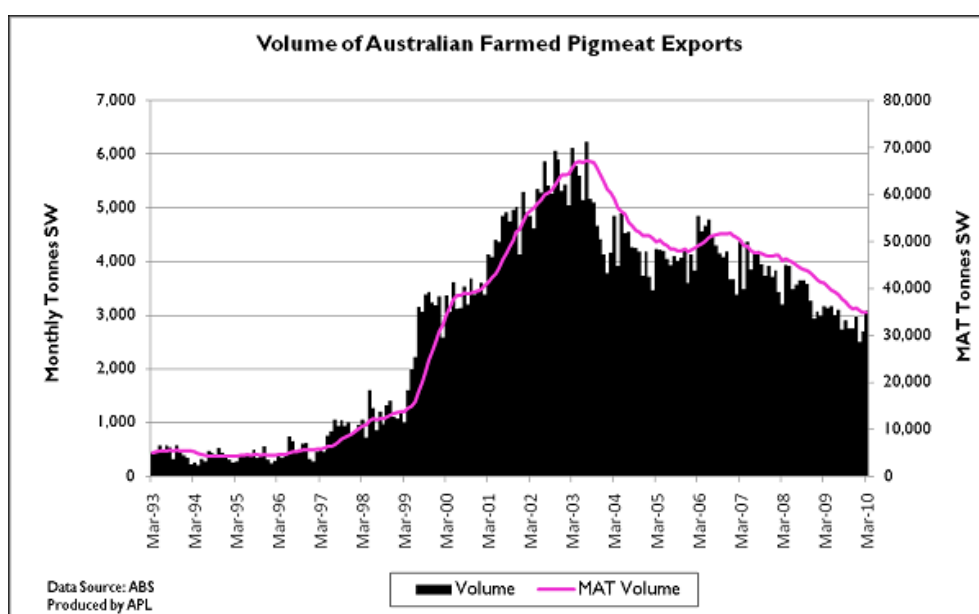


Figure 12 – Development of total Australian pork exports since 1993 – monthly and moving annual total (shipped weight)

Today, Singapore remains APL's key market in Asia, comprising more than 50 per cent of Australian pork exports. Australia is the dominant supplier of chilled (as opposed to frozen) pork exports to Singapore which is mostly air freighted in daily. The ability to supply chilled pork into Singapore is limited to very few countries and is an asset the Australian market has leveraged very well.

Australia began exporting pork to Singapore with an unsophisticated 'Aussie Pork' sticker, however, it was determined by the Confederation of Australian Pork Exporters (CAPE) under the leadership of APL, that a longer term strategy should be implemented. The resulting investment shaped a superior benefit proposition for Singaporean consumers in light of consumer concerns from Malaysian pork. The product strategy development addressed perceptions of freshness, taste, quality and food safety. CAPE oversaw the development of a brand for Australian pork called, 'AirPork'. The brand was a massive success in Singapore, displacing all Malaysian exports, and turning the brand into a household name. In 1999, sales rose from one tonne to 2000 tonnes a month by the end of the year.

Creating and sustaining relationships and trading alliances between commercial entities in both Australia and Singapore are crucial to maintain Australian pork consumption in Singapore. These relationships and activities have contributed to sales in Singapore remaining relatively stable despite continued high prices driven by the exchange rate and domestic supply issues. The entrenched "Australian" branding and quality perceptions of Australian product will continue to be a valuable asset of the Australian pork industry in years to come.

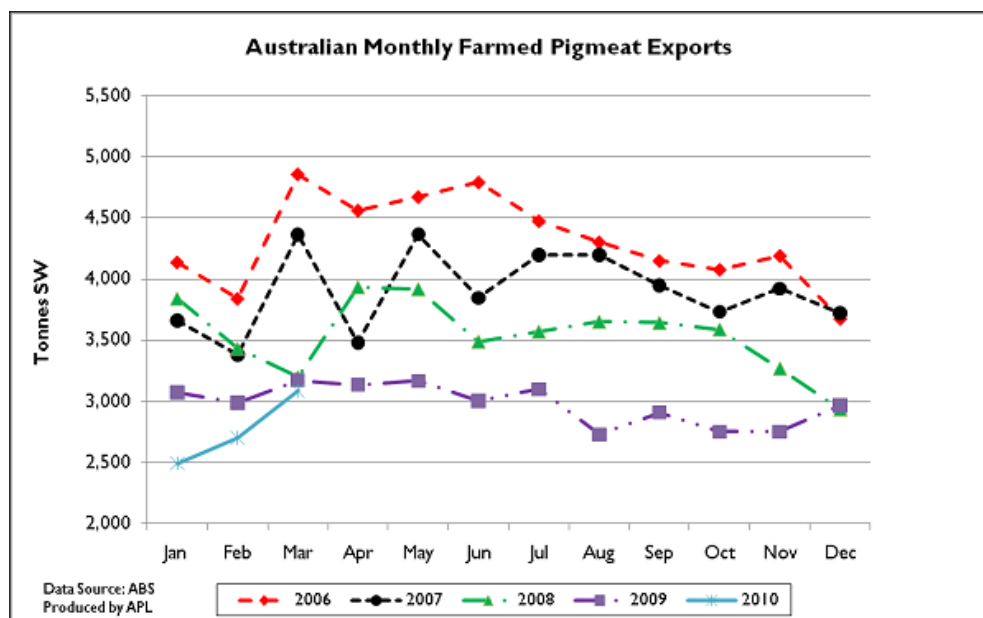


Figure 13 – Year on year monthly comparisons of Australian pork exports (shipped weight)

There are new opportunities to supply growing world demand for foodstuffs given our geographic proximity to China, Japan and the ASEAN and growing tourism to the Asian region and other export markets. APL is seeking to increase the number of markets into which Australia sells pork. Yet to successfully achieve this, we need to focus on those markets which can be sustained over the cycle of exchange rate fluctuations, and that can support a high quality/high price chilled pork positioning.

9.5.5. Competition from subsidised imports

Current quarantine requirements prohibit the import of fresh pork for sale into Australia. Pork imported into Australia must meet strict quarantine conditions and processing requirements, amongst which are specific cooking time and temperature protocols to eliminate disease incursion

risk. This must take place before processed pork products made from imported pork such as ham or bacon can be sold in Australia. Most imported pig meat arrives onshore frozen ready to be cooked and processed on arrival under the supervision of the Australian Quarantine and Inspection Service (AQIS).

Pig meat imported into Australia comes primarily from Canada, Denmark and the US. In 2008/09 the proportion of pig meat imported from each of these three countries was roughly equivalent with only 1% coming from other countries. This ratio seems to be continuing into the 2009/10 financial year.

The Australian pig industry competes with increasing volumes of imports. In 2008-09, 228,382 Carcase Weight Equivalent (CWE) tonnes were imported from Canada, Denmark and the US.

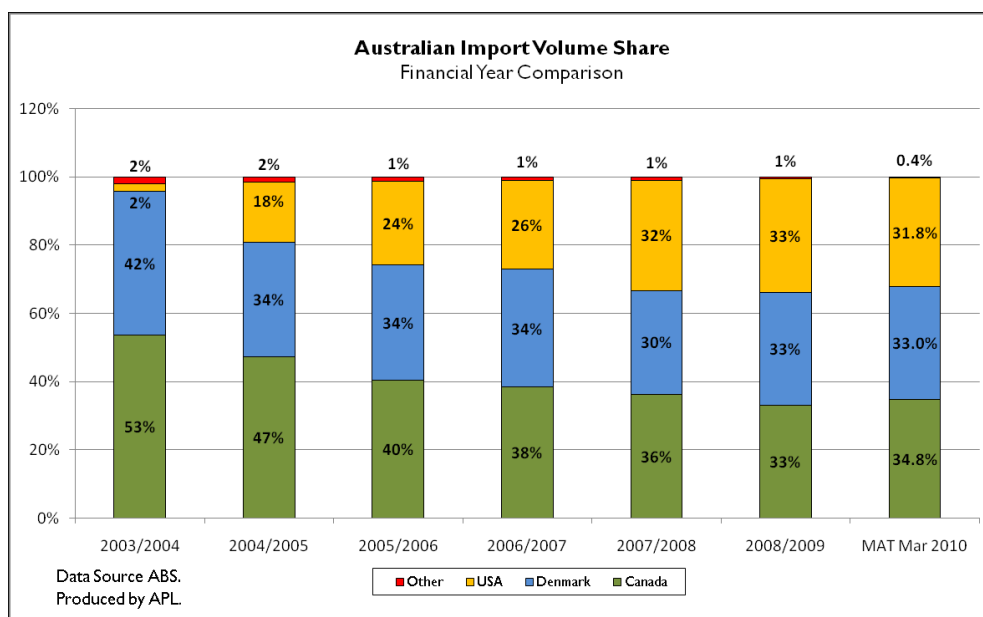


Figure 14 – Australian pork imports by source since 2003/4 (%)

Compared to Australia, Denmark, the United States and Canada have high levels of government support that shield producers from market risk and secure their income. On top of this, tariffs and import barriers existing in North America and Europe prevent these two continents effectively from trading with each other in pig meat (their preferences for different parts of the carcase being quite well established) which means that they look for “freer” markets to send their surplus product to. Additionally, the sheer scale of Danish, U.S. and Canadian production means that they are better able to contain financial risk and reduce costs involved in producing and exporting pork products. Australian producers operate on a much smaller scale in the world market, comparatively have very low government support, in effect no trade barriers and as a consequence are vulnerable to import competition.

APL estimates that up to 70 per cent of the ham and bacon sold in Australia contains imported pig meat. With a persistently high Australian dollar, this encourages many processors, to import and store vast quantities of Australian pork, flooding the market and thus depressing domestic pork prices. This has steadily eroded the Australian pork share of the smallgoods markets.

Despite the unfavourable trading environment, globally, pork is the most highly consumed meat with one and a half times more pork consumed than beef. Australia stands to benefit from this popularity, particularly in Asia where the majority of the Australian pork industry's products are exported. The Australian Farm Institute predicted in a study of twelve Asian nations that by 2020 pork consumption would increase by 17.7 million metric tonnes, of which 1.2 million metric tonnes will be imported and 16.5 million metric tonnes will be produced domestically (Keogh, M., 2007). The forecasted additional import requirements of these nations would be equivalent to 260 per cent of Australia's current total pork production. However, this is contingent on significantly lower barriers to trade that include import tariffs and competitor subsidies.

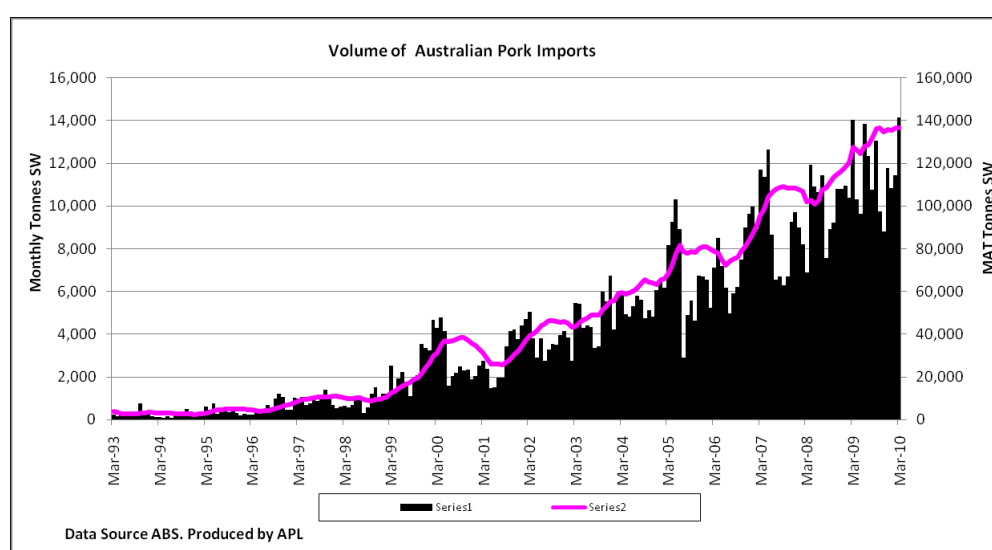


Figure 15 – Development of total Australian pork imports since 1993 – monthly and moving annual total (shipped weight)

Country	Pork imports (000 tonnes)	Population (millions)	GDP per capita (\$)	GDP Growth (6 year average) %
China	814	1,314	7,198	9.6
India	3	1,095	3,320	6.7
Indonesia		246	4,459	4.8
Pakistan		166	2,653	5.3
Bangladesh		147	2,011	5.7
Japan	66	128	32,647	1.7
Philippines	250	90	4,923	4.6
Vietnam		84	3,025	7.6
Thailand		65	8,368	5.0
South Korea	111	49	20,590	4.6
Malaysia	68	24	11,201	4.7
Sri Lanka		20	4,384	4.8
TOTAL	1180	3,428		Average - 5.425

Table 1 – Projected import demand characteristics for specified Asian countries in 2020
(Keogh, M., 2007)

9.5.6. Industry structure & producer profile

The Australian Pork industry consists of roughly 1500 pig producers producing around 5 million pigs annually. There are approximately 2.2 million pigs in Australia (2008-09) with the largest numbers in QLD and NSW. The gross value of Australian pig meat at the farm gate for 2008-09 was \$1,160 million with pork representing approximately 2.13% (in 2008-09) of total Australian farm production, a figure that has remained relatively constant since 2005.

About twenty-five of Australia's largest producers account for 50% of Australia's national pork production. The other 50% is produced by large numbers of on average much smaller producers. This polarisation of "where the pigs are" versus "where the pig farmers are" – being at different ends of the spectrum has led to some difficulty with consistent communication with all aspects of the industry in a form that they are receptive to. There is an element of "the big guys versus the little guys" in the dynamics of the industry and demands on APL's resources.

The Australian pig meat industry is vertically integrated. Of the total four to five million pigs slaughtered some three million are linked into an integrated enterprise including production and primary processing, and the remaining pigs sold for slaughter are sourced either through saleyards (5%), spot market or forward and general contracts.

There are around seven major pig abattoirs in Australia (those having an export license) present in all mainland states. Pig carcasses leave these abattoirs bound for direct sale or into boning rooms (in many cases on the same sites) where they will be cut into primal muscles for on-selling. Around a third of domestically produced pig meat ends up being sold as processed product (smallgoods), the rest being sold as fresh or frozen meat, often into the retail trade through meat wholesalers.

9.5.7. The pork markets – fresh & processed

Pork produced in Australia is destined for one of two major product formats – sale as fresh pork (roasts, chops, steaks, mince, etc.) or sale as processed pork (ham, bacon, salami, etc.). Pork imports, due to import protocols designed to maintain our disease free status, cannot be sold as fresh pork and must be cooked to a certain temperature for a certain time. This limits their use to smallgoods production – the majority being sold as bacon and ham.

As can be seen in the graph below, processed pork makes up around 2/3 of the total pork consumption, but only around 1/3 of the domestic pork consumption. It is estimated that around 70% of bacon and ham consumed in Australia is made from imported pork.

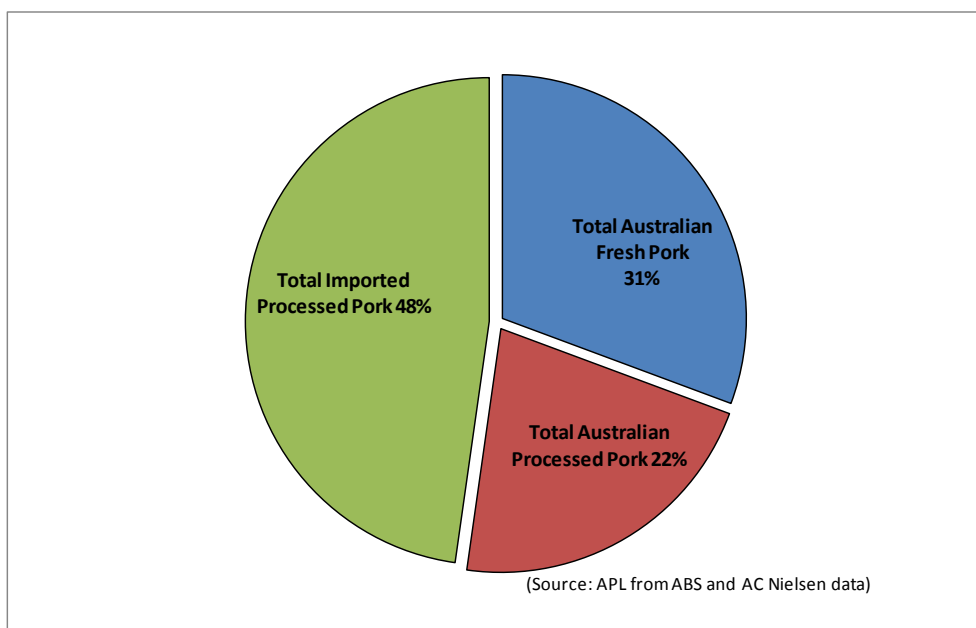


Figure 16 – Share of domestically produced pork versus imported pork in the fresh and processed markets (volume basis - 2009/ 2010)

Of the total processed pork market, around 2/3 is bacon and ham. Other products include continental sausages and salamis which are often made with a fermentation process which would not normally satisfy the import protocols. Thus much of this “other” product is made from Australian produced pork.

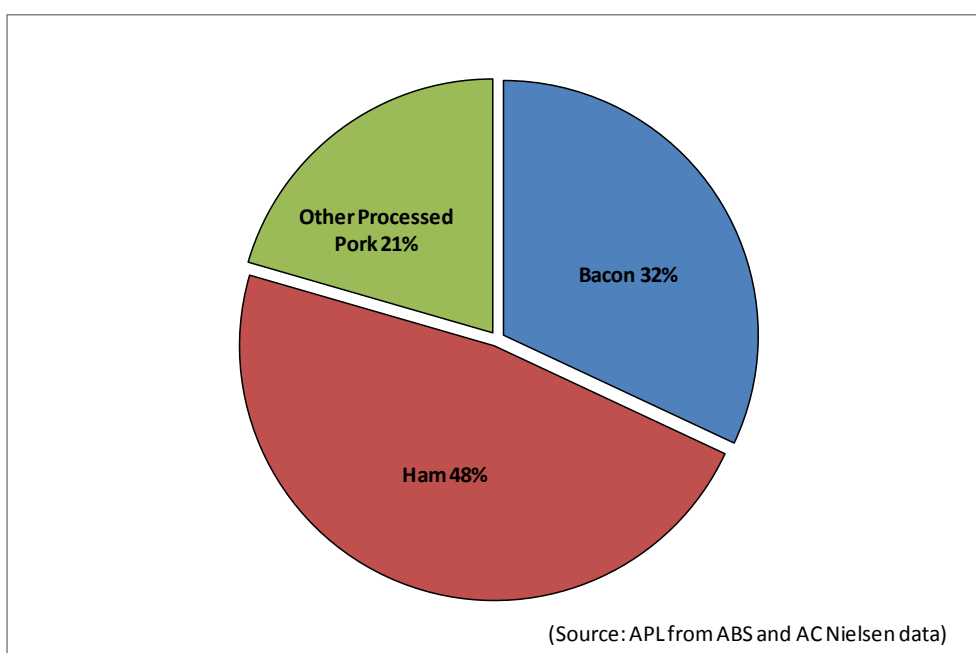


Figure 17 – Share of processed pork market (volume basis - 2009/ 2010)

Due to the exclusive position of Australian pork in supplying the fresh pork market, a lot of promotional effort has been directed towards increasing the consumption of fresh pork by APL. Separate marketing campaigns for the export, food service and retail segments continue with this objective.

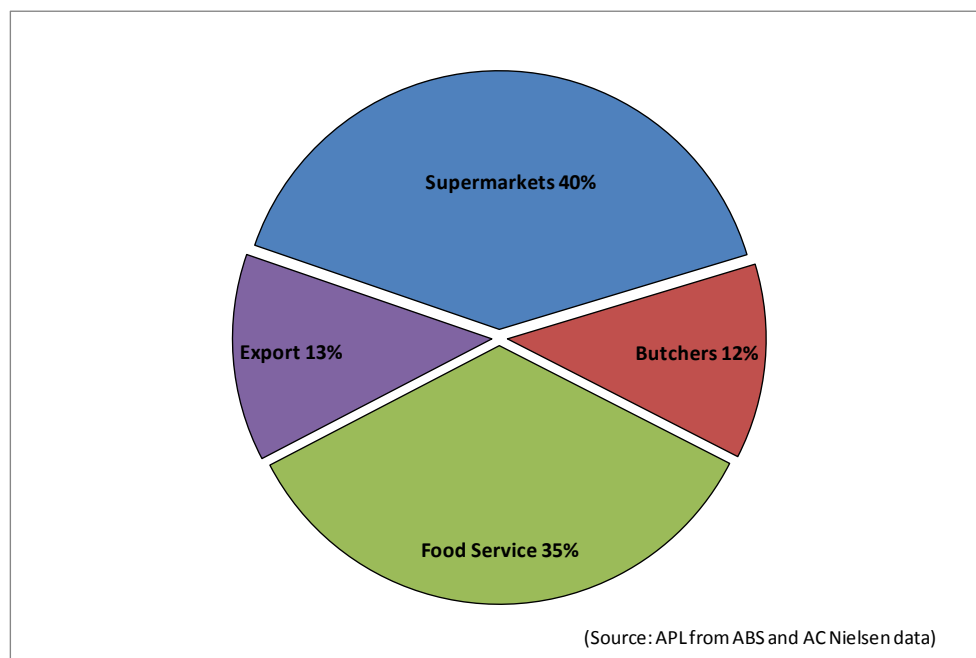


Figure 18 – Share of fresh pork by destination market (volume basis - 2009/ 2010)

9.6. Intellectual property management

An important aspect of APL's corporate governance principles is its successful management of intellectual property (IP). APL is guided by the following principles:

- APL will undertake IP management to generate maximum benefit to the Australian pork industry through commercialisation or dissemination of the IP. Each opportunity will be considered on a case-by-case basis;
- APL believes that the most appropriate and sustainable way to deliver new products or services to industry is usually via a commercial partner. APL will ensure project IP that may lead to licensing opportunities is identified as early as possible in the life of a project and appropriately managed so that such IP can be properly commercialised;
- APL's investment focus is on pre-commercial or non-commercial R&D, that is, investments that will benefit the industry but which are not attractive for the commercial sector, either because of the risks involved or because of difficulties in capturing benefits. Where these investments lead to potentially attractive commercial "products", APL will cease further investment as soon as it is confident that a commercial partner can carry the risk. In these cases, APL will seek to obtain a reasonable return, on behalf of the industry, for its investment in R&D. Where APL is unable to attract a commercial partner, the outcomes of the R&D will generally be made available to the industry free of charge with the aim of increasing efficiency and productivity;

- APL recognises that most of its investments are made jointly with other investors (i.e. in a co-investment situation) and these co-investors may also require commercialisation for delivery and a reasonable return on investment;
- From time to time APL may independently develop a product or service that contributes to the reputation and/ or competitive position of APL. APL will protect such IP to ensure commercial exploitation to the benefit of APL and the industry;
- In appropriate cases APL may seek trademark protection for particular products and associate APL's name with those products to enhance the reputation of those products and APL in the industry.

An example to demonstrate the effectiveness of APL's IP management system is PorkScan Pty Ltd.

APL has successfully completed the PorkScan carcase measurement project. This project was co-funded by AusIndustry and five Australian pig processing companies to develop a new manual carcase grading system based on real time ultrasound. A commercial company PorkScan Pty Ltd has been formed with the five pig processing companies and APL to commercialise this new technology to assess carcase quality to the rest of the pork industry and to encourage further investment in related carcase quality innovations.

9.7. APL's governance arrangements

9.7.1. Appointment of Board Directors

APL has an open and contested Board selection process based around elected and specialist appointed Directors with a nominated set of necessary skills.

APL Delegates elect five producer directors to the APL Board; in turn, the Board recruits four specialist directors to ensure a balance of skills and expertise is represented in accordance with the constitutional criteria (through a Selection Committee). Directors retire in rotation and retiring directors are eligible for re-election.

In appointing Specialist Directors, the Board must ensure that the directors collectively have skills and experience in the following areas:

- pig production;
- production or processing of pig meat;
- product promotion and retail marketing;
- business and financial management;
- research and development, technology transfer, commercialisation of R&D and innovation;
- conservation and management of natural resources;
- international market development, international trade and the World Trade Organisation;
- corporate governance.

9.7.2. Legal framework of the APL Board

The operations and management of the company and Board are subject to provisions within the:

- *Corporations Act 2001*

- *Pig Industry Act 2001*
- Constitution of Australian Pork Limited
- SFA between the Commonwealth and Australian Pork Limited.

9.7.3. Role and functions of the APL Board

The APL Board is responsible for ensuring that company funds are used to best advantage for the long-term benefit of Australian levy-paying pig producers and the industry more broadly. It strives to create member value by constructively engaging with APL management to ensure the appropriate development, execution and monitoring of the company's agreed strategies. The Board also has strong regard to public good outcomes, such as those outlined in the 2010-2015 Strategic Plan.

The APL Board designates responsibility to the Chief Executive Officer of APL for the effective management of the company. There are five divisional units within APL to develop, coordinate and implement programs to meet strategic objectives.

The APL Board sets strategic direction within the requirements of APL's Constitution and Australian Corporations law.

Its functions include:

- setting company policies;
- appointment of the CEO and providing direction on the appointment, remuneration and evaluation of senior management;
- approving major strategies, plans and budgets;
- assessing and reviewing company performance;
- responding to management recommendations on major initiatives;
- approving significant capital expenditure; and
- ensuring the company acts legally and responsibly on all matters and that the highest ethical standards are maintained.

The Board carries out its functions in line with the Australian Institute of Company Directors Code of Conduct.

9.7.4. The pig industry levy

The unique rural RDC model and co-funding arrangement under which APL operates allows for the timely delivery of integrated marketing, innovation and policy services through the pork industry supply chain whilst working in close association with key industry and government stakeholders. APL's primary funding is derived from statutory pig slaughter levies collected under the Primary Industry (Excise) Levies Act 1999. The levy amounts to \$2.525 per carcase at slaughter, of which APL receives \$2.35, consisting of \$1.35 for marketing and \$1.00 for research and development. The remaining 17.5 cents is for the Pig Monitoring Residue Program, which is received and managed by the National Residue Survey (NRS).

Additional research-specific funds are also received from the Australian Government under the portfolio of the Federal Minister for Agriculture, Fisheries and Forestry. These include Commonwealth matching payments which are limited by three caps, with the applicable cap the lesser of:

1. 0.5% of the amount determined by the Minister to be the gross value of pig meat production in Australia in that financial year;
2. 50% of the amount spent by APL in that financial year on activities that qualify, under the funding contract; and
3. the cumulative R&D levy income received by the Commonwealth since APL began in July 2001.

9.7.5. Industry representation

Australian pork producers who pay pig slaughter levies are entitled to membership of APL.

Membership entitles pork producers to:

- attend, speak and vote at Annual General Meetings;
- vote on changes to APL's Constitution and Pig Slaughter Levy; and
- present concerns directly to the APL Board and APL management through a well structured Delegate Communication Program.

However, levy payers are not automatically members of APL. It is a requirement of APL membership that producer levy payers complete and sign a statutory declaration which, under APL's constitution, is renewable every three years.

9.7.6. Communication with producers

In continuing to assist APL to meet members' needs and grow its membership base, consultation with members and Delegates continues through the Delegates' forum, surveys as well as a monthly newsletter and media campaigns when necessary. Feedback from producers and supply chain participants is used to measure performance.

9.7.7. APL's Delegate system

Delegates have a strong voice within APL. The Delegate system is the method APL uses to disseminate information to members, receive feedback on activities, and provide an industry mandate on pressing issues.

Producers who pay pig slaughter levies are entitled to register as members and their voting entitlements are proportional to the amount of levies paid. Groups of members may also nominate, on an annual basis, a Delegate to voice their opinions on industry matters to APL.

A certain dollar amount of levy support is required to become a Delegate, and the amount of levy required is calculated by this constitutional formula:

$$(\text{Delegate Levy Amount} = [\text{Pig Slaughter Levy} \times 7,000] / \text{Total Sows})$$

Where:

Pig Slaughter Levy means the total amount of Pig Slaughter Levy paid to the Company in the previous financial year; and

Total Sows means the total number of breeding sows in Australia in the previous financial year as determined or estimated by the Board (having regard to, amongst other things, any relevant statistics published by the Australian Bureau of Agricultural and Resources Economics).

The amount of levy required is generally around \$300,000. Delegates are elected to serve the company for a one year term. Delegates need not be producers or members of APL.

The APL constitution establishes conventions for Delegate voting. In the 2009 Delegate election, 83% of the levy paid was allocated to votes (although APL members represent close to 90% of levy collected). All members have a right to vote although they may choose not to.

Delegates receive notices of general meetings and can attend and speak at them. A Delegate receives all materials sent to members and can vote at general meetings on matters as set out in the constitution.

This system has operated successfully for the Australian pork industry and existed prior to the creation of APL in 2001. This was acknowledged by the Working Party on the pork industry restructure in consultations to form APL. “The existing system of representative Delegates used by PCA provided a powerful democratic forum for debating strategic issues for producers. The Delegate system is equitable, allowing producers to have a voice proportional to their level of investment in the industry. The Delegate system is familiar to producers, and it works.” (Working Party, 1999, page 15).

9.7.8. APL’s current Chairman – Enzo Allara

APL’s Board benefits from a strong, stable, and commercially skilled Board. This kind of experience is highly valued and an integral component of APL’s model board process. As a Specialist Director, Enzo Allara has been involved in the food and grocery industry both in Australia and internationally for over 40 years with most of that time being with the Unilever Group of companies. His previous roles have included Chairman CPC/AJL Asia in Hong Kong and Chairman of Unilever Australasia. He is currently Chairman of Foodbank Australia. He has served on numerous industry and Government bodies including the Prime Minister's Supermarket to Asia Council, as well as Chairman of the Australian Food and Grocery Council. Mr Allara is on the Board HR & Remuneration and Market Development Committees.

9.7.9. Board meetings and committees

As the need arises, the Board can establish specific committees, each of which will have its own charter and agreed membership. The following committees have been established and their terms of reference approved by the Board:

- **Audit, Risk and Corporate Governance Committee** - The committee is chaired by a Director and includes two other directors. The committee’s role is to advise the Board on corporate governance, internal and external financial audit issues and adequacy of accounting procedures, systems, controls and financial reporting. It also reviews risk management and

fraud control management, intellectual property management, qualification of research and development and matching expenditure in compliance with major contracts;

- Human Resources and Remuneration Committee – The committee is chaired by a Director and includes two other directors. The committee provides advice and recommendations to the Board on remuneration policies and practices and performance reviews for senior management;
- Pan Pacific Pork Expo (PPPE) Management Committee – The PPPE Management Committee is chaired by a Director and meets as required. The committee is responsible for the overall planning, implementation and evaluation for the industry's biannual Expo;
- Animal Welfare Committee – The Animal Welfare Committee is chaired by a Director and provides input and guidance to the APL Board into the development of policy and strategic communications on emerging or specific animal welfare issues that have potential to significantly impact on producers' future sustainability;
- Market Development Committee – Directors with marketing experience are part of the Market Development Committee which also includes industry stakeholders from the supply chain. The committee reviews possible marketing developments for the domestic and export markets and advises the Board, through management, on appropriate strategies;
- Research and Development Advisory Committee – The committee is chaired by a Director and gives direction to activities around the development, management, performance and outcomes of APL's research and associated activities;
- Quality Assurance Committee – The committee is chaired by a Director and provides input and guidance to APL management and Board into the development of policy, issues management and strategic communications on Quality Assurance and the APIQ program.

9.7.10. Board remuneration

Total Board remuneration was set in the company's constitution at a maximum of \$300,000 per annum. This amount was set on advice from an independent consultant and through Board consideration of similar industry organisation benchmarks. The aggregate Board remuneration cap can only be increased with the consent of the Delegates at a general meeting. The company's constitution also provides for individual Directors to be paid additional remuneration where they perform services outside the scope of the ordinary duties of a Director. An increase in the Directors' Remuneration cap to \$360,000 per annum was approved at the 2007 Annual General Meeting. At the 2009 Annual General Meeting it was proposed and approved that the cap on the total amount or value of the remuneration to be paid or provided to the Company's Directors in aggregate be increased by \$20,000 to \$380,000 for the 2009/10 financial year and that in each successive financial year that cap be adjusted by an amount equal to the change in the Consumer Price Index (CPI) during the immediately preceding year, so that Director's remuneration may be increased up to CPI without requiring further approval of Delegates.

When determining remuneration levels for the Company's Directors, any relevant advice of the remuneration paid or provided to the directors of other Research and Development Corporations is taken into account.

9.7.11. Board development and performance

Assessment of Board and committee effectiveness and the contribution of Directors is undertaken on a regular basis. The Chairperson is responsible for ensuring that performance monitoring is completed. The purpose of monitoring Board performance is to identify any areas of weakness or scope for improvement and to focus on specific performance objectives. Performance monitoring may be undertaken by the Chairperson throughout the year and is supported by a questionnaire that is completed by Directors.

Following the completion of the Board member questionnaire, the Chairperson will meet with individual Board members to discuss the results. Board assessment was carried out by an independent consultant in early 2007 and followed up with an internal assessment in early 2008 with very positive results around the Board and the Board processes. Particular mention was made of the support received from APL management, the quality of discussion, range of views and the value of having an independent Chairman.

An orientation program is provided for new members of the Board to meet the company's senior managers and to gain an understanding of the company's operations and the industry more broadly. Resources are provided where appropriate and approved by the Board to enable Directors to update their professional skills and knowledge as company directors.

9.7.12. Conflict of interest

The Board has in place a process whereby relevant interests of all Directors are disclosed on appointment, reviewed on an annual basis and notified, as and when they arise, in relation to a particular issue. The Board and individual Directors, by request through the Chairman, may obtain independent advice on matters of importance.

The Directors also have a comprehensive Conflict of Interest Policy which can be provided upon request to the Commission.

9.8. APL's legal action against the Director of Quarantine

9.8.1. The Pig Meat Import Risk Assessment (IRA) 2004

Published in 2004, the *Pig Meat Import Risk Assessment (IRA)* recommended quarantine measures that would maintain Australia's appropriate level of protection (*ALOP*) against exotic disease. The IRA described the procedures followed to identify and assess the quarantine risks with imported pig meat. APL believed that the import protocols did not address key concerns about the proposed risk management measures for Post Weaning Multi-systemic Wasting Syndrome (PWMS).

9.8.2. Appeals process - role of Import Risk Analysis Appeals Panel

Following the initial determination by the Director of Quarantine, APL sought recourse via the Import Risk Analysis Appeals Panel (IRAAP).

Whilst the IRAAP supposedly provides an 'independent' process of review for matters, APL seriously questioned the IRAAP's independence. Specifically, APL was concerned by the fact that at least one of the appointed members of the Panel was employed by DAFF - a senior officer from the Department directly appointed by the Secretary of DAFF. In the case of the IRAAP for Pig Meat, there were five panel members, two of which were employees of the Department. This brought into question the panel's 'independence'. Also noteworthy was the fact that the Secretary of the Department of Agriculture, Fisheries and Forestry was also the Director of Animal and Plant Quarantine. As a starting point, APL contented it was essential that an IRA Appeal Panel must be made up of truly independent representatives. DAFF could still provide secretariat services for the IRAAP, but the make-up of the Panel would be best served by non-DAFF or BA employees.

Under the appeals process the decision as to whether to consider an appeal rests solely with the IRAAP Chairman, who followed the Guidelines under the Import Risk Analysis Handbook 2007. It is the Chair who determines if the statement of reasons given by the Appellant provides evidence warranting consideration by an IRAAP. IRA claims of appeal are strictly confined to "*there having been a significant deviation from the regulated IRA process that adversely affected the interests of a stakeholder.*" The IRAAP does not consider matters relating to:

- The scientific merits of the IRA;
- The merits of the recommendations made or the conclusions reached by BA or the Eminent Scientists Group.

The IRAAP's findings in relation to a claim are also confined to one or more of the following categories:

- Outside the ground for appeal;
- Allowed;
- Disallowed.

APL believed this process was seriously deficient and the Terms of Reference (TOR) of the Panel overly narrow. Appeals can only be heard if stakeholders considered that the IRA process was not conducted according to the IRA Handbook or that a significant body of scientific information relevant to the outcome of the IRA was not considered. APL's experience of the Appeal is that it appeared to be a simple rubber stamping of BA's previously inadequately argued positions. There was no adequate explanation provided as to why the Panel reached its findings other than to state that a claim was disallowed or outside the ground for appeal. The TOR constrained the Panel's examination of all of the factors impacting on the levels of risk associated with an exotic disease outbreak, which APL, later a Senate Inquiry and in the end the Federal Court consistently highlighted.

APL believed that the poor analysis undertaken and response of the IRAAP, even to those issues relevant to the terms of reference of the IRAAP process, also diminished the credibility of their findings. For example, in response to the APL assertion that the 'very low risk' status had not been met, it appeared that the IRAAP took on face value the IRA's assertion that for PMWS the required 'very low risk' necessary to meet Australia's ALOP had been fulfilled, simply because the IRA claimed that to be the case. This was hardly investigative. IRAAP stated that:

“The Panel noted that the Final IRA Report states, on page 747, that the risk management measures proposed for PMWS reduce the risk to ‘very low’, which satisfies Australia’s ALOP. The Panel agreed unanimously to disallow this aspect of the appeal on the ground that APL had not established that there had been a significant deviation from the IRA process.” (Banks, 2004, page 1)

Yet page 747 of the Report did not provide a sufficient explanation to the concerns raised by APL (nor later for a Senate Inquiry or the Federal Court). Hence the Panel was unable to in any way review the ‘basis’ for which BA reached its ‘very low’ risk assessment and merely concurred that the answer provided by BA was sufficient.

Similarly, the TOR lessened the transparency of the IRA process in relation to APL seeking further substantiation from BA regarding their decision not to consider risk beyond one year. Whilst BA might have simply demonstrated to the IRAAP that they had ‘considered’ the document that APL provided and hence claim that the ‘significant body of scientific information relevant to the outcome of the IRA in question had been considered’, the IRAAP Panel TOR did not enable them to request that BA provide a robust reasoning as to why BA chose to restrict the analysis to only a one year time frame.

Not any time during or post the IRA and the IRAAP were the questions and significant concerns of the industry addressed adequately. Indeed industry’s right to appeal or at the very least some recourse to ensure that its claims are effectively answered was severely reduced and for all intent and purposes non-existent when compared to the rights of our trading partners.

9.8.3. Outcome of the IRAAP appeal

APL expressed great concern that BA had not undertaken the necessary scientific research to allow the IRA Panel to legitimately form a judgment that the assessed level of unrestricted risk would become ‘very low’, despite repeated requests from APL. This was inconsistent with how BA had addressed earlier concerns relating to the PRRS virus where, like PMWS, it was unknown as to what sort of cooking of pig meat would have the effect of reducing the risk of transmission of the virus through pigs eating infected pig meat. These concerns resulted in the commissioning of research into PRRS by BA. No such research was commissioned or apparently considered relevant by BA for PMWS despite repeated requests from the industry and offers to Government to co-fund such research. Nor was an adequate explanation provided as to the reason on which this decision was based.

The IRA for Pig meat did not adequately address the substantial risk of a PMWS incursion in the context of the limited knowledge available about PMWS and its rapid and uncontrolled spread in Europe, North America, Asia and New Zealand. PMWS is without a cure and would have a significant impact on the Australian pork industry. The paucity of knowledge regarding PMWS makes eradication unfeasible and without a clear understanding of the factors involved with this disease, control measures are difficult to implement. A vaccine for PCV2 was not at the time permitted to be imported into Australia.

APL advocates that the precautionary approach should always be applied to managing risk in relation to any disease about which there is a great deal of unknown science. New diseases by their nature should require a cautious approach. Risk estimates, based on a qualitative assessment, should err on the side of caution.

9.8.4. Senate Inquiry into the Pig Meat IRA

APL also presented its case to the Rural and Regional Affairs and Transport Legislation Committee on Biosecurity Australia's Import Risk Analysis for Pig Meat. The Australian pork industry's concerns in relation to the new quarantine regime for imported pig meat were vindicated in a report from the Senate Standing Committee on Rural and Regional Affairs and Transport. The Report recommended that:

- *“the Director of Animal and Plant Quarantine withdraw the new quarantine regime for imported pig meat on the basis of inadequate methodology, as well as inadequate risk assessment and risk management strategies”*; and
- *“Biosecurity Australia (BA) invokes the precautionary principle contained in article 5.7 of the SPS Agreement in relation to PMWS.”* (The Senate: Rural and Regional Affairs and Transport Legislation Committee, 2004)

However, although the Senate Committee vindicated APL's concerns about the serious failings in the IRA the Government rejected the recommendations.

9.8.5. Australian Pork's legal challenge to the pig meat quarantine decision

In 2005, APL brought on behalf of the industry a legal case against the Director of Quarantine (being the Secretary of the Department of Agriculture, Fisheries and Forestry - DAFF) to the Federal Court claiming that the process and outcomes of the recently completed Pig Meat IRA for pork were flawed, and that exotic disease outbreaks would result. This decision was not taken lightly; APL was reluctant to go down such a track but our exhaustive efforts at finding other avenues to agreement had come to an end. Not only could agreement not be reached but rational questions were completely ignored.

APL had raised its concerns regarding the IRA for Pig Meat and faithfully followed all procedural processes allowed to it including:

- Active involvement during the drafting of the IRA, including submissions after the methodology paper and draft IRA;
- The Senate Rural Regional Affairs and Transport Committee conducted an Inquiry into the IRA. APL made a submission and gave oral statements, as did Biosecurity Australia (BA) and the CSIRO;
- Appeal to the IRA Appeals Tribunal.

APL contributed to the drafting of the IRA process. It expressed its concerns about methodology at an early stage; however this was neither reflected in the final IRA nor in fact ever sufficiently addressed. APL's concerns included the 'quantitative' approach applied to consequence assessment

and risk estimation and also the apparent underestimation of the total impact of diseases due to the annualised calculation used to assess the likelihood of entry and exposure.

Indeed BA in its Generic IRA for Pig Meat Final Report (DAFF, 2004) did provide a response to the concerns raised by APL. This position was supported by the Import Risk Assessment Appeals Panel (IRAAP) stating that *“in particular, mathematical modelling conducted by CSIRO and emerging scientific information from New Zealand scientists had been considered by the IRA team.”* (Banks, 2004, page 1). However, APL contended that BA (and the IRAAP as raised in the previous sections) failed to provide sufficient documentation or justification explaining how these decisions and conclusions were reached.

It appeared that the only remaining course of action available to APL following the IRAAP decision was litigation. APL’s representatives, Corrs Chambers Westgarth’s legal observations were as follows:

As a preliminary matter, we (Corrs Chambers Westgarth) have given consideration to whether any proposed action by APL would contravene the Funding Agreement and/or APL’s constitution:

1. under clause 16.4 of the Funding Agreement APL acknowledges that the Commonwealth may revoke the declaration of APL as the industry services body under the Act having regard to considerations such as a failure by APL to comply with its constitution; and
2. the misapplication of “funds” in terms of clause 5 of the Funding Agreement enlivens certain rights of the Commonwealth, including a right to terminate the Funding Agreement (refer clause 16.2 of the Funding Agreement).

In relation to whether taking legal action to review the Determination would contravene APL’s constitution, we make the following observations:

1. clause 2 of the constitution prescribes the objects of APL as including “to engage in any other activities in the interests of the Australian Pig Industry.” (Clause 2 (a)(xi)) That object is independent of each other object specified in the constitution. (Clause 2(b)) Arguably, bringing an action for review of the Determination would fall within that object provided the board concluded that such proceedings would be for the benefit of the Australian Pig Industry (as defined).
2. clause 2(d) of the constitution requires that APL not engage in “Agri-Political Activity” which is defined as:

“...any activity intended by the Company to exert political influence on Government to advantage one political party or political candidate over another, and includes but is not limited to the following activities:

- 1. funding or making donations to a political party, member of parliament or candidate for parliament;*
- 2. advertising, or funding advertising, that supports or opposes a political party, member of parliament or candidate for parliament;*
- 3. developing, designing, participating in or funding a parliamentary election campaign or other party political campaign; or*
- 4. recommending or advising, through whatever media, how persons should vote at a parliamentary election.”*

An application for review of the Determination, while having potential consequences in the political domain, would constitute an application for a legal remedy to enforce the legal obligations for the Director of Quarantine, who is obviously not a politician. In our view such an application would not fall within the definition of “Agri-Political Activity”.

In relation to whether taking legal action to review the Determination would contravene the Funding Agreement, we make the following observations:

- a) the Funding Agreement controls the use of Funds by APL. For these purposes:
 - i. “Funds” means “money which has been paid to [APL] as marketing payments, R&D payments, matching payments, Adjusting Payments or Transferred Funds”;
 - ii. “Adjustment Payment” means “a payment to [APL] under s17(1) of the Act”, which relates to adjustment payments made by the Commonwealth;
 - iii. “Transferred Funds” means:
 - a) “an asset in the form of money or an immediate right to receive money transferred to the Company under section 15 of the Act; or
 - b) money received by the Company from the use or disposal of Transferred Assets and Liabilities”.

In summary, the Funding Agreement controls use of any levy or matching payment or other amounts received from the Commonwealth, the Pig Research and Development Corporation or the Australian Pork Corporation.

- b) The Funding Agreement, among other things, requires that Funds only be spent:
 - i. on “Approved Activities”; and
 - ii. in a manner consistent with the strategic plan, operating plan of APL and the Guidelines.
- c) “Approved Activities” are those listed in Schedule 4 to the Funding Agreement. They include, for marketing payments:

“Engaging in other activities providing a benefit for the Industry where those activities may not otherwise be carried out (including, but not limited to, activities in relation to animal health and welfare, market access initiatives, product and industrial marketing, pork quality assurance, chemical and pharmaceutical residues standards compliance, economic and non-technical research and the bringing of legal proceedings to protect the interests of the Industry).”

- d) Subject to the taking and funding of any application for judicial review being consistent with APL’s strategic and operational plans and the Guidelines, it appears to us that the Funding Agreement will not prevent such a course of action.

APL followed a thorough and rigorous process before taking as a final step legal action. APL took the following actions in sequence before any legal action was launched and believes that the integrity of its SFA was not compromised:

1. The Biosecurity Australia Import Risk Assessment Appeals Process – after the initial determination, APL sought appeal on purely scientific grounds;
2. Presentation to the Rural and Regional Affairs and Transport Legislation Committee: Biosecurity Australia’s Import Risk Analysis for Pig Meat;
3. Independent commissioned scientific research and advice - APL commissioned scientific research and consultant advice in relation to the IRAAP’s determination to allow imports and as part of APL’s presentation to the Senate Inquiry. When APL’s

appeal against the IRAAP determination failed, as mentioned above, independent legal advice sought by APL determined that action against the Director of Quarantine was within APL's SFA and Constitution;

4. Independent legal counsel from Corrs Chambers Westgarth on court actions permitted within APL's SFA – deemed legal action would be not be limited by APL's SFA;
5. Consultation and meetings with the then Minister for Agriculture, Fisheries and Forestry, Warren Truss MP, and the then Secretary of the Department Michael Taylor to avoid legal action. The Secretary of DAFF and the then Minister for Agriculture, Fisheries and Forestry concurred that APL were within its rights to pursue this action. This determination was also based on their own legal advice sought. APL is satisfied that its actions were undoubtedly within its SFA;
6. APL Board overview - This decision was not taken lightly by the APL Board but was seen as a last (but necessary) resort to protect the health status of the Australian pig herd; to ensure that the quarantine risk measures proposed by BA were indeed sufficient to reduce the risk to an appropriate level of protection i.e. very low as required by our Quarantine Act.

APL's independent legal advice showed that court action would not contravene APL's SFA or its constitution. Firstly, Corrs Chambers Westgarth determined that this court action was not 'agri-political activity', and would not cause undue political influence to advantage one party or candidate over another. The Director of Quarantine was not deemed to be a politician. Second and most importantly, in Corrs Chambers Westgarth's view, APL's "Approved Activities" clause would not prevent legal action against the Director of Quarantine.

In late July 2004 APL filed a legal challenge in the Federal Court to have the IRA set aside on administrative law grounds i.e. the Quarantine Proclamation Act. APL's primary concern centred on the rules proposed to be applied for Post Weaning Multi-systemic Wasting Syndrome (PMWS). PMWS is a syndrome which causes death and failure to thrive among weaner piglets. The issues around PMWS are complex – because scientists still do not know what causes PMWS. A virus, PCV2 is associated with the expression of the syndrome but scientists agree there may be some other, unknown infective agent involved as well. PCV2 is present in Australia, but PMWS is not. The challenge in a quarantine setting is how to design rules to control for the risk of that unknown infective agent – when it is not known what it is. APL has argued consistently from 1999 that the best way to do that was to undertake research (as was done in the case of PRRS virus).

APL argued that the process used was not in accordance with the science-based process required.

On May 27 2005, Justice Wilcox delivered his judgment, agreeing with APL and holding the IRA invalid on the ground of unreasonableness. That is, it was an illegal exercise of power because the decision was so unreasonable that no reasonable person would have made it.

In reaching this conclusion Justice Wilcox accepted evidence that there was a 96-99 percent chance of a PMWS outbreak in the next 10 years. This figure was based on modelling done by the CSIRO. Justice Wilcox said it was not reasonable for a body who sought to minimise disease risk to say that a 96-99 percent chance was 'low risk'. He found that *'the Panel's reasoning was unsupported by any fact, scientific evidence or scientific expertise.'*

Such an outcome totally validated APL's position and long struggle to achieve a scientific import risk assessment. However, the Government appealed the decision. The Full Court of the Federal Court overturned that decision on 16 September 2005 finding in a 2-1 majority that the decision to permit the import permit was legal because there was no legal invalidity in any part of the process:

"The majority said that even though the IRA involved "weighing imponderables", making value judgements, and engaging in speculation that did not make it unlawful. They said: "One can legitimately argue that this was not an ideal process as a matter of scientific method. Perhaps, as was suggested in argument, some experiments might have been conducted."

Nevertheless the majority found that the law permitted this approach – because, in their opinion, all that the law required was that the level of quarantine risk be "acceptably low" – and that was an "imponderable standard."

While APL failed on a technicality of law, many of the issues we raised remain relevant.

9.9. Pork Industry Research, Development & Extension (R,D&E) Strategy

The Australian pork industry, like a number of other agricultural industries, is facing a potentially acute and unprecedented decline in research and development human and physical infrastructure support services.

To ensure the increased alignment and coordination of the various pork R,D&E programs, APL and the Pork CRC, in conjunction with the various government, university & industry R,D&E stakeholders, have developed a comprehensive Pork R,D&E Strategy.

The Pork R,D&E Strategy (as part of the Primary Industries Standing Committee (PISC) National R,D&E Framework) was finalised in the second half of 2009 as one of the first rural R,D&E strategies. It is a long term strategy looking to optimise the industry R,D&E resources (people, facilities, skills, funds) by the co-operation of all of the major stakeholders, including APL, the Pork CRC, universities, state governments, federal government and private pork producers. Implementation of this strategy has improved resource planning around R,D&E and led to significantly improved efficiency and with it, return on investment on R,D&E activities for the pork industry.

The Pork R,D&E Strategy was the first of its kind among rural industries. Bruce Kefford, the Chair of the Primary Industries Standing Committee (PISC), R,D&E Subcommittee acknowledged that the Strategy as endorsed by the Minister for Agriculture, Fisheries and Forestry, Tony Burke:

- represented the product of a considerable amount of collective thinking and effort from a number of industry and agency people;
- showed strong industry contribution and leadership;
- was a bold strategy, provided a good example to other sectors; and
- was driven by the leadership of APL's Board and management.

The Chief of Staff to the WA Minister for Agriculture and Food and Forestry, Scott Mitchell also recognised that the R,D&E Strategy was a considerable undertaking by APL and the Pork CRC.

The objective of the National Pork R,D&E Strategy is to develop a sustainable R,D&E model for the pork industry that is explained below in the figure below:

Pork R,D&E Facilities impacts:

- Focus resources into fewer but better funded facilities ('experimental ready') that are critical to meeting the current and future needs of the industry;
- Provide certainty for these facilities by base funding them on a rolling two year basis.

Pork R,D&E Programs impacts:

- Move from a project by project basis to a coordinated 'National Program' approach;
- Enhance the development and retention of appropriate human resources and skills.

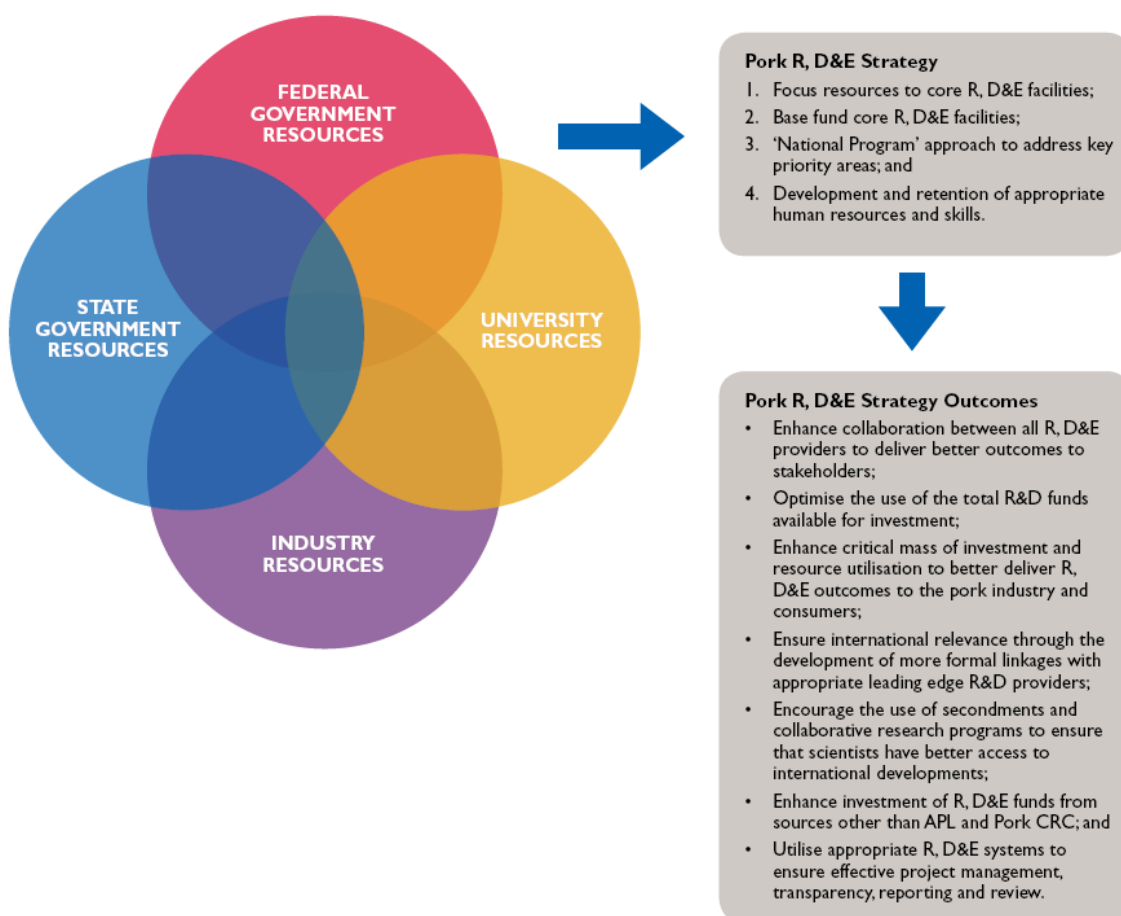


Figure 19 - The Australian Pork Industry Research, Development & Extension Strategy

The National Pork R,D&E Strategy will enhance the range of collaboration and resources across the pork R,D&E portfolio including the development and delivery of core research programs and outcomes to meet both sectoral and cross – sectoral strategic objectives in an efficient and timely manner. The National Pork R,D&E Strategy will:

- Allow the pork industry to develop and maintain appropriate infrastructure and facilities for both pork and cross-sectoral R,D&E programs;

- Strengthen the pork industry R,D&E capability and sustainability through the development of a coordinated program approach alongside these dedicated facilities;
- Enable the pork industry to demonstrate the effectiveness of delivering core research programs that meet the industry and government strategic priorities;
- Enhance the identification, attraction and championing of students and post-doctoral fellows to allow the pork industry's human capacity to build sustainably;
- Ensure international relevance through the development of more formal linkages with appropriate leading edge R&D providers;
- Encourage the use of secondments and collaborative research programs to ensure that scientists have better access to international developments; and
- Further enhance the rapid uptake of R,D&E outcomes through increased involvement of industry, state governments and university R,D&E stakeholders.

9.10. Description of APL collaborations

9.10.1. APL and the Pork CRC

Australian Pork Limited and the Pork CRC work in collaboration to ensure that the pork R,D&E is focussed, efficient and delivers outcomes in a timely manner so that the Australian pork industry is productive and sustainable. This collaboration between APL and the Pork CRC has ensured that there is no duplication within the R,D&E programs and activities. The recently held third year review of the Pork CRC held in 2009 determined that “the linkage between the Pork CRC and Australian Pork Limited has led to major benefits for the programs of both organizations without leading to duplication in programs”.

9.10.2. APL, the Government, the RDC's and others

APL is represented on a number of inter-organisational committees at the national level that inform the R&D investments made by APL. APL is the only agency through which pig specific information and data can be conveyed to these committees while at the same time being the primary conduit to communicate committee outcomes to levy payers where R&D outcomes may apply.

With specific reference to the rural RDC model, as it is industry focussed this means that R&D issues on a “total agriculture” or cross sectoral nature must be addressed through collaborative mechanisms. Collaboration between state government, university and industry R,D&E providers has always been a strong point for APL and the pork industry, and more recently, this has also resulted in increased collaborations with other RDC's on a range of cross-sectoral R,D& priorities.

Inter-organisational committee	How they inform R&D investments made by APL
Animal Health Australia (AHA) Joint Industry Forum for livestock industry members	<p>Animal Health Australia (AHA) is a not-for-profit public company established by the Australian Government, state and territory governments and major national livestock industry organisations.</p> <p>AHA manages more than 50 national programs on behalf of its members that improve animal and human health, biosecurity, market access, livestock welfare, productivity, and food safety and quality.</p>
Feed Grain Partnership Forum	<p>The Feed Grain Partnership was established in the financial year 2006-2007. Its purpose is to integrate and identify collaborative Research and Development (R&D) initiatives across participating R&D funding agencies involved with the feed grain and livestock supply chain.</p> <p>With funding assistance from the Australian Government's Partnership Program Grant, the Feed Grain Partnership consolidated (consisting of GRDC, MLA, RIRDC, APL, DA, Australian Egg Corporation (AEC)) progress of the previous year and brought about substantial efficiencies and improved communication by adopting a whole of supply chain approach to R&D. It has also played an important role as a focal mechanism for the major organisations and companies in the feed grain industry to provide whole of supply chain guidance to the Partnership agencies. An R&D strategy has been prepared as the foundation for feed grain related R&D investment. The strategy takes account of industry guidance through the Forums, Australian government research priorities and the existing body of feed grain related work available through the R&D agencies.</p>
Australian Meat Industry Language and Standards Committee (AUS-MEAT)	<p>AUS-MEAT Limited is an industry owned body operating as a joint venture under the control of a Board of Directors appointed by Meat and Livestock Australia (MLA) and Australian Meat Processor Corporation (AMPC). The Committee, made up of industry representatives, provides advice to the Board on matters relating to the AUS-MEAT National Accreditation Standards.</p> <p>The Committee comprises of representatives from:</p> <ul style="list-style-type: none"> Australian Meat Industry Council Cattle Council of Australia Australian Lot Feeders Association Sheepmeat Council of Australia Australia Supermarkets Institute Australian Pork Limited AQIS <p>The Committee provides the forum for converting Industry Policy into practical, workable industry-owned National Standards.</p>

Inter-organisational committee	How they inform R&D investments made by APL
Australian Animal Welfare Strategy Livestock Working Group and Research & Development Working Group	<p>The Australian Animal Welfare Strategy (the strategy) set broad national goals for animal welfare and has provided a framework for sustainable, scientifically based improvements in animal welfare. The strategy facilitates a cooperative approach to welfare issues with industry, community organisations, state and territory governments and the Commonwealth.</p> <p>Under Australia's constitutional arrangements, state and territory governments are responsible for animal production and welfare arrangements within their jurisdictions.</p>
Implementation Working Group (IWG) for the Model Code for Pigs (2007)	<p>The Pig Code Implementation Working Group included representatives from all levels of Government, Animal Health Australia, each of the States and Territories, industry, local government, and environment. A nationally consistent approach to the implementation and enforcement of the revised Pig Code is crucial. Both the APL Policy and R&I divisions were needed to ensure that the final Model Code reflected the best available veterinary science.</p>
Australian Animal Welfare Standards and Guidelines for the Land Transport of Livestock – Standards Reference Group	<p>The Australian Animal Welfare Standards and Guidelines—Land Transport of Livestock are an important component of the Australian Animal Welfare Strategy (AAWS)—an Australian Government initiative that guides the development of new, nationally consistent policies to enhance animal welfare arrangements in all Australian states and territories.</p> <p>The standards were drafted by a small writing group comprising researchers and government and industry representatives (including APL), supported by a widely representative reference group and managed by Animal Health Australia.</p> <p>A separate Pig Industry Transport Review Group was established to provide APL advice on the pig specific chapter and general chapters of the Transport Code where any change in policy would require eventual:</p> <ul style="list-style-type: none"> • investment by industry to implement the changes; and • education of industry members in understanding welfare requirements such as the development of the industry's Fit to Load Guide for Producers published in 2010.
NSW Pork Industry Reference Group	<p>The group:</p> <ul style="list-style-type: none"> • Influences the direction of research, development, extension and education for NSW pork producers; • Acts as an independent body, engages with the broad range of stakeholders involved in the NSW pork industry; • Identifies, considers and provides a whole of industry position on emerging issues that have the potential to impact on the NSW pork industry; • Obtains benefit from the consultative process created by the Reference Group through the identification and discussion of issues; • Acts as a representative body and liaises on behalf of industry with a range of bodies at varying levels in the public and private sector that have the potential to add value to the NSW pork industry.

Inter-organisational committee	How they inform R&D investments made by APL
South Australian Pork Industry Development Board	<p>This Board is answerable to the Minister for Agriculture and advises him on issues which affect the industry in South Australia. Some specific areas the Board have advised on include:</p> <ul style="list-style-type: none"> • Implementation of the Model Code of Practice for the Welfare of Animals - Pigs; • Environmental Protection Authority (EPA) issues; and • Health policies and other policies which are proposed by government which could have a detrimental effect on the SA pig industry. The Board also consults with APL on these matters, seeking support where necessary for submissions to government.
Export Meat Industry Advisory Committee (EMIAC)	<p>EMIAC's role is to:</p> <ul style="list-style-type: none"> • consider technical issues affecting the export meat sector; • provide policy advice on many major issues such as residues, pathogens; and • consider international requirements including market access and food safety issues affecting meat.
Australian Meat Industry Council	<p>The Australian Meat Industry Council (AMIC) is the peak council that represents retailers, processors and smallgoods manufacturers and is the only industry association representing the post-farm-gate Australian meat industry.</p> <p>As the peak council, the Australian Meat Industry Council confers with members, governments and industry groups to influence policy and provide technical and other advice to the industry.</p> <p>The Australian Meat Industry Council represents its members on many committees - ranging from technical, food standards, food safety, communications and export - to ensure the best trading environment for members and the industry.</p>
Sustainable Agriculture Initiative Platform	<p>This unique independent association operates across the agriculture, food and fibre chain with the aim of changing practices within industries to improve sustainability outcomes.</p> <p>SAI Platform is an organisation created by the food industry to communicate worldwide and to actively support the development of sustainable agriculture involving the different stakeholders of the food chain.</p> <p>SAI Platform supports agricultural practices and agricultural production systems that preserve the future availability of current resources and enhance their efficiency. This increases agriculture's contribution to the optimal satisfaction of society's environmental, economic and social requirements.</p>

Inter-organisational committee	How they inform R&D investments made by APL
Tax Office Primary Production Industry Partnership	<p>The ATO in conjunction with DAFF and other primary production industry groups have developed the Tax Office Primary Production Industry Partnership as a forum to assist primary producers and small businesses in rural and regional Australia to deal with a broad range of taxation issues.</p> <p>Through this forum, the ATO aims to:</p> <ul style="list-style-type: none"> • identify ways to minimise the costs of complying with tax obligations; • advise of emerging issues that may be relevant or significant to the industry; • develop better strategies to address compliance risks in the industry; • better understand and meet the communication needs of the industry; and • seek feedback on its service delivery and performance.
Associate member of the Australian Food and Grocery Council (AFGC)	<p>AFGC are the leading national organisation representing Australia's packaged food, drink and grocery products manufacturers.</p> <p>AFGC's role is to help shape a business environment that encourages the food and grocery products industry to grow and remain profitable.</p> <p>Their mandate is to ensure there is a cohesive and credible voice for the industry, advance policies and manage issues to help member companies to grow their businesses in a socially responsible manner.</p>
Observer status on the Executive of SafeMeat and the Food Chain Group	<p>SAFEMEAT is a partnership between the Australian meat and livestock industry and state and federal governments.</p> <p>SAFEMEAT covers issues relating to meat safety, traceability and animal welfare in the Australian red meat and livestock industry.</p>

APL directors and managers also actively participate on the Boards and committees of the Australian Biosecurity CRC and the Pork CRC. The Australian Biosecurity CRC was set up as a national organisation developing new capabilities to detect, assess and respond to emerging infectious disease threats of animals and humans that impact on national and regional biosecurity. The Pork CRC enhances the international competitiveness of the Australian pork industry by providing and overseeing adoption of new and novel technologies that reduce feed costs, improve herd feed conversion efficiency and increase the range and functionality of pork products for consumers. It is APL's prerogative to be involved in these boards and committees to advise and collaborate on pig specific issues.

Wherever possible, this collaboration needs to be fostered and new collaborations with R,D&E providers outside of the pork industry need to be established i.e. other industries and overseas R,D&E research providers especially in the disciplines ensuring that the pork industry is globally competitive, sustainable and responsible.

The majority of R&D projects are developed with, and co-funded by, the research organisations or end-user companies involved to varying extents.