

Excerpt from *“The impact of innovation on the dairy industry over the last 30 years Evaluating the contribution of industry and government investment in pre farm gate RD&E “* A report prepared by The CIE for Dairy Australia and the Department of Primary Industries Victoria

“Based on these expectations, as shown in table 5.1, TheCIE estimates that on-farm investment increased substantially between the late 1980s and early 1990s. An evaluation produced by Harley Juffs and Associates in 1995 on RD&E investment in 1993–94 provides sound basis for estimates for the early 1990s. If we have under-estimated the potential contribution of the industry body as a share of total investment in the late 1980s then this gap in funding would be even more prominent. Our expectations around the *total contribution* to RD&E in the 1980s relative to the 1990s is also founded by a number of contributing factors.

- In 1993 DRDC investment was approximately \$19.3 million in 2010 dollars, more than 300 per cent of the Dairy Research Council expenditure in the late 1980s. This can partially be explained by the movement in 1989 to progressively double the rate of research levy in recognition of the need for joint action and the increase in the levy collection resulting simply from significant increase in milk production through the 1990s.
  - It may also be explained by a potential increase in Commonwealth government contributions, which are broadly reflective of industry contribution (due to matching funding provisions).
- Anecdotal evidence also suggests that investment from a number of other contributors may have increased from the 1980s to the 1990s:
  - Dairy industry experts suggest that the dairy companies recruited more field staff from around 1988, possibly in the order of 25 per cent additional staff.
  - They also suggest that company providers of goods and services to the dairy industry were more heavily utilised in the 1990s than the 1980s.

**Error! No text of specified style in document..1 Estimated annual investment in Australian dairy industry by period (2010 dollars)**

	<i>Investment by DRC/DRDC/DA</i>	<i>Total investment</i>	<i>Total on farm investment</i>	<i>DRC/DRDC/DA as a share of total exp</i>	<i>On farm as share</i>
	\$000	\$000	\$000	%	%
Early 1980s <sup>c</sup>	3 400	43 200	24 300	8 <sup>a</sup>	52 <sup>a</sup>
Late 1980s <sup>d</sup>	5 400	68 000	27 300	8 <sup>b</sup>	50 <sup>b</sup>
Early 1990s <sup>e</sup>	19 400	106 800	57 200	18	54
Late 1990s <sup>f</sup>	31 600	164 600	92 000	19	56
Late 00s <sup>g</sup>	39 500	169 300	103 700	23	61

<sup>a</sup> Simple average (1980-81 to 1984-85) of investment by Dairy Research Committee investment. <sup>b</sup> Simple average (1985-6-1989-90) of Dairy Research Council funding. <sup>c</sup>1983-84 <sup>d</sup>1988-89 <sup>e</sup>1993-94 <sup>f</sup>1998-99 <sup>g</sup>2006-07

Note Estimates of DRC/DRDC/DA expenditure incorporate qualifying expenditure on RD&E and capital expenditure, less depreciation. Expenditure on industry services is not included.

Source: Annual reports Dairy Research Council (late 1980s) and Dairy Research Committee (early 1980s). Harley Juffs and Associates (1995) (for early 1990s), CIE (2000) and Harley Juffs and Associates (2000) (late 90s) and Juffs and Oates (2008) (late 2000s). TheCIE.

Because of the lack of robust funding data, the Commission prepared its own estimates of rural R&D funding (table 2.1).<sup>1</sup> In doing so, it liaised directly with State and Territory Governments and various Australian Government Departments. These estimates suggest that in 2008-09:

- total funding was in the order of \$1.5 billion (equivalent to about 3.3 per cent of the gross value of production (GVP) for the agriculture, fisheries and forestry sector in that year)
- the government share of this total funding was approximately 75 per cent
- the Australian Government contributed around two thirds of total government funding.

The Commission emphasises that these estimates do not constitute the last word on the total amount of funding available for rural R&D.

- Funding for extension from private parties is unlikely to be picked up in the tax concession data — though given that much of the private funding for rural R&D outside of the RDC model comes from large corporations conducting research in-house, the amount of ‘missing’ funding involved is likely to be modest.

- Funding from State and Territory Government environment departments and their equivalents is not included in the Commission’s estimates. Extrapolating from data supplied to the Commission by the Queensland Department of Employment, Economic Development and Innovation, inclusion of such funding could add around \$50 million to the total funding estimate in table 2.1.

- While the Commission considers that its definition of rural research is appropriate in the context of the RDC model (see box 2.2), it recognises that this definition may not necessarily be suitable for some other purposes — such as making international comparisons.

Table 2.1 **Rural R&D funding, 2008-09**<sup>a</sup>

<i>Organisation type</i>	<i>Funding</i>	<i>Share</i>
million		
%		
<b>Australian Governmentb</b>		
Cooperative Research Centres	63	
Core funding for the CSIRO	193	
Core funding for the universitiesc	118	
Research and Development Corporations (RDCs)	218	
Other departmental programsd	114	
Foregone tax receipts arising from R&D tax concessions	9	
<i>Total Australian Government</i>	<i>715</i>	<i>48</i>
<b>State and Territory Governments</b>		
Project-related budget allocationse	348	
Capital investment in R&D facilities	47	
Payments to other funders and suppliers	21	
<i>Total State and Territory Governments</i>	<i>416</i>	<i>28</i>
<b>Private/Industry</b>		
Levy payments provided to RDCs	248	
Other (for which a tax concession is claimed)f	116	
<i>Total Private/Industry</i>	<i>364</i>	<i>24</i>
<b>Total</b>	<b>1495</b>	<b>100</b>